# Nutrition Assistance Program Report Series 

The Office of Analysis, Nutrition and Evaluation

Special Nutrition Programs

Report No. CN-01-WICVM

## WI C Vendor Management Study, 1998

## Appendices

United States Food and
Department of Nutrition
Agriculture Service

## Appendix A: Tables Related to Demographics of the Study Population

| Table A-1. National Estimate of the Proportion of WIC Vendors <br> by Locale |  |  |  |
| :--- | :---: | :---: | :---: |
| Statistics | LOCALE | Total |  |
|  | Metropolitan |  | 1565 |
|  | 1135 |  | 36908 |
| WEIGHTED SIZE | 25868 |  | 553 |
| SE WEIGHTED | 1378 |  | 100 |
| COLUMN PERCENT | 70.09 |  | 0 |
| SE PERCENT | 3.70 |  |  |


| Table A-2. National Estimates of the Proportion of WIC Vendors |  |  |  |
| :--- | :---: | :---: | :---: |
| by Type of Food Delivery System |  |  |  |


| Table A-3. National Estimate of WIC Vendors by Store <br> Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Statistics | STORE TYPE |  | Total |
|  | Grocery | Pharmacy |  |
| SAMPLE SIZE | 34605 | 30 | 1565 |
| WEIGHTED SIZE | 36092 | 816 | 36908 |
| SE WEIGHTED | 586 | 195 | 553 |
| COLUMN | 97.79 | 2.21 | 100 |
| PERCENT |  |  |  |
| SE PERCENT | 0.53 | 0.53 | 0 |


| Table A-4. Distribution of WIC Vendors by Average Vendor-to-Participant Ratio Category |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| VENDOR-TO-PARTICIPANT RATIO |  |  |  |  |  |
| Statistics | $\mathbf{1 :}: \mathbf{1 1 2}$ | $\mathbf{1 : 1 1 2 - 1 5 7}$ | $\mathbf{1 : 1 5 8 - 1 9 2}$ | $\mathbf{1 : > 1 9 2}$ | Total |
| SAMPLE SIZE | 3399 | 353 | 415 | 458 | 1565 |
| WEIGHED SIZE | 9073 | 9967 | 8981 | 8886 | 36908 |
| SE WEIGHTED | 1177 | 1529 | 1513 | 1073 | 553 |
| COLUMN PERCENT | 24.58 | 27.01 | 24.33 | 24.08 | 100 |
| SE PERCENT | 3.1 | 4.17 | 4.09 | 2.89 | 0 |


| Table A-5. National Estimate of WIC Vendors by Vendor Size |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Statistics | VENDOR SIZE |  |  | Total |
|  | Small | Medium | Large |  |
|  | 453 | 556 | 556 | 36908 |
| WEIGHTED SIZE | 11520 | 13043 | 12344 | 184 |
| SE WEIGHTED | 249 | 260 | 309 | 100 |
| COLUMN PERCENT | 31.21 | 35.34 | 33.45 | 0 |
| SE PERCENT | 2.08 | 1.97 | 2.42 |  |


| Table A-6. Number and Percentage of WIC Vendors by Use of Scanning Equipment Across All Buys ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | USE OF SCANNING EQUIPMENT |  |  |  |
| Statistics | No Scanning Equipment | Scanned Purchased WIC Items | Did Not Scan WIC Purchased Items | Average Totals |
| SAMPLE SIZE | 388 | 1102 | 54 | 1543 |
| WEIGHTED SIZE | 9964 | 25145 | 1307 | 36417 |
| SE WEIGHTED | 713 | 942 | 272 | 570 |
| COLUMN PERCENT | 27.36 | 69.05 | 3.59 | 100 |
| SE PERCENT | 2.04 | 2.05 | 0.75 | 0 |

[^0]| Table A-7. Distrilbution of WIC Vendors By Cashier's Indication of Unfamiliarity with WIC Transaction Procedures Across All Buys ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: |
|  | UNFAMILIARITY WITH WIC TRANSACTION |  | Average Totals |
| Statistics | Indication Cashier was Unfamiliar with WIC Transaction | NO Indication Cashier was Unfamiliar with WIC Transaction |  |
| SAMPLE SIZE | 123 | 1432 | 1555 |
| WEIGHTED SIZE | 2942 | 33746 | 36688 |
| SE WEIGHTED | 290 | 575 | 563 |
| COLUMN PERCENT | 8.02 | 91.98 | 100 |
| SE PERCENT | 0.77 | 0.77 | 0 |

${ }^{1}$ This data is based on a weighted estimate of 36,668 vendors who were each visited three times (for a safe, partial and substitution buy).

| Table A-8. Distribution of WIC Vendors by Cashier's Type of Indication of Unfamiliarity with Proper WIC Transaction Procedures Across All Buys ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | CASHIER'S INDICATION OF UNFAMILIARITY |  |  |  |  |
| Statistics | Indicated $\mathrm{He} /$ She was a New Employee | Indicated $\mathrm{He} /$ She had Never Completed a WIC Transaction | Received Assistance from Co-worker or Supervisor | Other <br> Indication | Average Totals |
| SAMPLE SIZE | 10 | 19 | 94 | 31 | 1555 |
| WEIGHTED SIZE | 209 | 427 | 2271 | 704 | 36688 |
| SE WEIGHTED | 49 | 99 | 255 | 128 | 563 |
| COLUMN PERCENT | 0.57 | 1.16 | 6.15 | 1.91 | 100 |
| SE PERCENT | 0.13 | 0.27 | 0.68 | 0.35 | 0 |

${ }^{1}$ This data is based on a weighted average estimate of 36,688 vendors who were each visited three times (for a safe, partial and substitution buy).

Appendix B: Tables Related to Administrative Errors

| Table B-1. Number and Percentage of WIC Vendors Committing Administrative Errors by <br> Type of Error Across All Buys ${ }^{1}$ |  |  |
| :--- | :--- | :---: |
| Administrative Errors | Statistics | Average Totals |
| Insufficient Stock | SAMPLE SIZE | 82 |
|  | WEIGHTED SIZE | 2032 |
|  | SE WEIGHTED | 225 |
|  | PERCENT | 5.51 |
|  | SE PERCENT | 0.60 |
| Failed to Countersign <br> Before Price was Entered | SAMPLE SIZE | 588 |
|  | WEIGHTED SIZE | 12916 |
|  | SE WEIGHTED | 913 |
|  | PERCENT | 35.39 |
|  | SE PERCENT | 2.60 |
| Raincheck | SAMPLE SIZE | 8 |
|  | WEIGHTED SIZE | 185 |
|  | SE WEIGHTED | 40 |
|  | PERCENT | 0.50 |
|  | SE PERCENT | 0.11 |
| Asked to Pay Cash in <br> Addition to Food Instrument | SAMPLE SIZE | 1 |
|  | WEIGHTED SIZE | 29 |
|  | SE WEIGHTED | 16 |
|  | PERCENT | 0.08 |
|  | SE PERCENT | 0.00 |

[^1]| Administrative Errors and Receipt Provision | Statistics | NUMBER OF OCCURRENCES OF ADMINISTRATIVE ERRORS |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | None | One | Two | Three |  |
| Insufficient Stock | SAMPLE SIZE | 1382 | 133 | 37 | 13 | 1565 |
|  | WEIGHTED SIZE | 32414 | 3250 | 884 | 359 | 36908 |
|  | SE WEIGHTED | 647 | 353 | 157 | 103 | 553 |
|  | COLUMN PERCENT | 87.82 | 8.81 | 2.39 | 0.97 | 100 |
|  | SE PERCENT | 1.21 | 0.95 | 0.42 | 0.28 | 0.00 |
| Failed to Countersign Before Price was Entered | SAMPLE SIZE | 700 | 351 | 304 | 166 | 1521 |
|  | WEIGHTED SIZE | 17060 | 8798 | 6713 | 3290 | 35861 |
|  | SE WEIGHTED | 1157 | 575 | 591 | 449 | 588 |
|  | COLUMN PERCENT | 47.57 | 24.53 | 18.72 | 9.17 | 100 |
|  | SE PERCENT | 2.95 | 1.54 | 1.71 | 1.28 | 0.00 |
| No Receipt Provided | SAMPLE SIZE | 761 | 179 | 96 | 471 | 1507 |
|  | WEIGHTED SIZE | 17384 | 4093 | 2360 | 11739 | 35576 |
|  | SE WEIGHTED | 1235 | 385 | 319 | 1138 | 613 |
|  | COLUMN PERCENT | 48.86 | 11.5 | 6.63 | 33 | 100 |
|  | SE PERCENT | 3.21 | 1.04 | 0.87 | 3.30 | 0.00 |

[^2]| Administrative Errors | Statistics | LOCALE |  | Average Totals |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Metro | Non-metro |  |
| Insufficient Stock | SAMPLE SIZE | 56 | 26 | 82 |
|  | WEIGHTED SIZE | 1322 | 710 | 2032 |
|  | SE WEIGHTED | 191 | 157 | 225 |
|  | PERCENT OF ALL VENDORS | 3.58 | 1.92 | 5.51 |
|  | SE PERCENT | 0.51 | 0.42 | 0.60 |
| Failed to Countersign Before Price was Entered | SAMPLE SIZE | 498 | 90 | 588 |
|  | WEIGHTED SIZE | 10596 | 2321 | 12916 |
|  | SE WEIGHTED | 946 | 393 | 913 |
|  | PERCENT OF ALL VENDORS | 29.03 | 6.36 | 35.39 |
|  | SE PERCENT | 2.67 | 1.08 | 2.60 |
| Raincheck | SAMPLE SIZE | 5 | 3 | 8 |
|  | WEIGHTED SIZE | 118 | 67 | 185 |
|  | SE WEIGHTED | 31 | 28 | 40 |
|  | PERCENT OF ALL VENDORS | 0.32 | 0.18 | 0.50 |
|  | SE PERCENT | 0.08 | 0.07 | 0.11 |

${ }^{1}$ This data is based on an averaged weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

|  | Statistics | Type of Food Delivery System |  | Average Totals |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Errors |  | Open | Vendor Specific |  |
| Insufficient Stock | SAMPLE SIZE | 60 | 22 | 82 |
|  | WEIGHTED SIZE | 1727 | 305 | 2032 |
|  | SE WEIGHTED | 222 | 39 | 225 |
|  | PERCENT OF ALL VENDORS | 1.56 | 0.83 | 5.51 |
|  | SE PERCENT | 0.59 | 0.10 | 0.60 |
| Failed to Countersign Before Price was Entered | SAMPLE SIZE | 321 | 267 | 588 |
|  | WEIGHTED SIZE | 9209 | 3707 | 12916 |
|  | SE WEIGHTED | 812 | 418 | 913 |
|  | PERCENT OF ALL VENDORS | 25.23 | 10.16 | 35.39 |
|  | SE PERCENT | 2.30 | 1.15 | 2.60 |
| Raincheck | SAMPLE SIZE | 5 | 3 | 8 |
|  | WEIGHTED SIZE | 144 | 42 | 185 |
|  | SE WEIGHTED | 38 | 12 | 40 |
|  | PERCENT OF ALL VENDORS | 0.39 | 0.11 | 0.5 |
|  | SE PERCENT | 0.10 | 0.40 | 0.11 |

[^3]|  | Statistics | Type of Food Package |  |  | Average Totals |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Administrative Errors |  | Woman | Child | Infant |  |
| Insufficient Stock | SAMPLE SIZE | 15 | 13 | 54 | 82 |
|  | WEIGHTED SIZE | 379 | 305 | 1349 | 2032 |
|  | SE WEIGHTED | 98 | 58 | 179 | 225 |
|  | PERCENT OF ALL VENDORS | 1.03 | 0.83 | 3.65 | 5.51 |
|  | SE PERCENT | 0.26 | 0.16 | 0.48 | 0.60 |
| Failed to Countersign <br> Before Price was Entered | SAMPLE SIZE | 201 | 200 | 187 | 588 |
|  | WEIGHTED SIZE | 4382 | 4343 | 4191 | 12916 |
|  | SE WEIGHTED | 349 | 352 | 336 | 913 |
|  | PERCENT OF ALL VENDORS | 12.01 | 11.9 | 11.48 | 35.39 |
|  | SE PERCENT | 0.99 | 1.01 | 0.93 | 2.60 |
| Raincheck | SAMPLE SIZE | 2 | 0 | 6 | 8 |
|  | WEIGHTED SIZE | 43 | 5 | 138 | 185 |
|  | SE WEIGHTED | 19 | 5 | 34 | 40 |
|  | PERCENT OF ALL VENDORS | 0.12 | 0.01 | 0.37 | 0.50 |
|  | SE PERCENT | 0.05 | 0.01 | 0.09 | 0.11 |

[^4]|  | Statistics | Safe | Partial | Substitution |  | Average Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Administrative Errors |  |  |  | Minor Substitution | Major Substitution |  |
| Insufficient Stock | SAMPLE SIZE | 74 | 84 | 44 | 44 | 246 |
|  | WEIGHTED SIZE | 1888 | 1943 | 1150 | 1116 | 6096 |
|  | SE WEIGHTED | 272 | 246 | 207 | 210 | 675 |
|  | PERCENT OF ALL VENDORS | 1.70 | 1.75 | 1.04 | 1.01 | 5.51 |
|  | SE PERCENT | 0.24 | 0.22 | 0.19 | 0.19 | 0.60 |
| Failed to Countersign Before Price was Entered | SAMPLE SIZE | 604 | 568 | 308 | 284 | 1764 |
|  | WEIGHTED SIZE | 13303 | 12584 | 6728 | 6134 | 38749 |
|  | SE WEIGHTED | 945 | 1004 | 589 | 487 | 2740 |
|  | PERCENT OF ALL VENDORS | 12.15 | 11.49 | 6.14 | 5.6 | 35.39 |
|  | SE PERCENT | 0.95 | 0.94 | 0.74 | 0.67 | 2.60 |
| Raincheck | SAMPLE SIZE | 8 | 9 | 2 | 5 | 24 |
|  | WEIGHTED SIZE | 229 | 169 | 42 | 115 | 556 |
|  | SE WEIGHTED | 73 | 59 | 32 | 53 | 119 |
|  | PERCENT OF ALL VENDORS | 0.21 | 0.15 | 0.04 | 0.10 | 0.50 |
|  | SE PERCENT | 0.07 | 0.05 | 0.03 | 0.05 | 0.11 |

[^5]| Table B-7. Number and Percentage of WIC Vendors Who Committed Administrative Errors, but Did Not <br> Substitute, Overcharge or Undercharge by Type of Error Across All Buys |  |  |  |  |  |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Administrative Errors |  |  |  |  | Statistics | Total Average |
| Insufficient Stock | SAMPLE SIZE | 18 |  |  |  |  |
|  | WEIGHTED SIZE | 489 |  |  |  |  |
|  | SE WEIGHTED | 75 |  |  |  |  |
|  | PERCENT | 6.05 |  |  |  |  |
|  | SE PERCENT | 0.91 |  |  |  |  |
| Failed to Countersign <br> Before Price was Entered | SAMPLE SIZE | 115 |  |  |  |  |
|  | WEIGHTED SIZE | 2418 |  |  |  |  |
|  | SE WEIGHTED | 206 |  |  |  |  |
|  | PERCENT | 30.47 |  |  |  |  |
|  | SE PERCENT | 2.64 |  |  |  |  |
| Raincheck | SAMPLE SIZE | 2 |  |  |  |  |
|  | WEIGHTED SIZE | 53 |  |  |  |  |
|  | SE WEIGHTED | 21 |  |  |  |  |
|  | PERCENT | 0.65 |  |  |  |  |
|  | SE PERCENT | 0.25 |  |  |  |  |

${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

| Vendor and State Demographic or Characteristic | Comparison | t-Test That Contrast Percent Difference |
| :---: | :---: | :---: |
| Vendor-to-Participant Ratio | <112 versus 112-158 | 2.14* |
|  | <112 versus 159-192 | 3.46** |
|  | <112 versus > 192 | 2.85* |
|  | 112-158 versus 159-192 | 0.97 |
|  | 112-158 versus > 192 | 0.25 |
|  | 159-192 versus > 192 | -1.08 |
| Vendor Size | Small-Sized Vendors versus Medium-Sized Vendors | 5.00** |
|  | Small-Sized Vendors versus Large-Sized Vendors | 6.49** |
|  | Medium-Sized Vendors versus Large-Sized Vendors | 1.69 |
| Use Scanning | No equipment versus Scanned WIC purchased items | 3.86** |
|  | No equipment versus Chose NOT to scan | -2.37 |
|  | Scanned WIC purchased items versus chose NOT to scan | 3.67** |
| Type of Food Package | Woman versus Child | 0.75 |
|  | Woman versus Infant | -4.75** |
|  | Child versus Infant | -6.09** |
| Locale | Metro versus Non-metro | -1.01 |
| Type of Food Delivery System | Open versus Vendor-Specific | 2.09* |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Vendor and State Demographic or Characteristic | Comparison | t-Test That Contrast Percent Difference |
| :---: | :---: | :---: |
| Vendor-to-Participant Ratio | <112 versus 159-192 | -2.08* |
|  | <112 versus > 192 | 6.45** |
|  | 112-158 versus 159-192 | 0.43 |
|  | 112-158 versus > 192 | -4.14** |
|  | $159-192$ versus > 192 | -5.69** |
| Vendor Size | Small-Sized Vendors versus Medium-Sized Vendors | 1.49 |
|  | Small-Sized Vendors versus Large-Sized Vendors | 0.47 |
|  | Medium-Sized Vendors versus Large-Sized Vendors | -1.13 |
| Use Scanning | No equipment versus Scanned WIC purchased items | 1.34 |
|  | No equipment versus Chose NOT to scan | -1.90 |
|  | Scanned WIC purchased items versus chose NOT to scan | -2.89** |
| Type of Food Package | Woman versus Child | 0.93 |
|  | Woman versus Infant | 1.37 |
|  | Child versus infant | 1.08 |
| Locale | Metro versus Non-metro | 5.14** |
| Type of Food Delivery System | Open versus Vendor-Specific | -2.86* |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Vendor and State Demographic or Characteristic | Comparison | t-Test That Contrast Percent Difference |
| :---: | :---: | :---: |
| Vendor-to-Participant Ratio | <112 versus 159-192 | 0.75 |
|  | <112 versus > 192 | 0.87 |
|  | 112-158 versus 159-192 | 0.64 |
|  | $112-158$ versus > 192 | 0.25 |
|  | 159-192 versus > 192 | 0.59 |
| Vendor Size | Small-Sized Vendors versus Medium-Sized Vendors | 3.53** |
|  | Small-Sized Vendors versus Large-Sized Vendors | 3.24** |
|  | Medium-Sized Vendors versus Large-Sized Vendors | -0.62 |
| Use Scanning | No equipment versus Scanned WIC purchased items | 2.53* |
|  | No equipment versus Chose NOT to scan | -0.97 |
|  | Scanned WIC purchased items versus chose NOT to scan | -1.68 |
| Type of Food Package | Women versus Child | 1.95* |
|  | Women versus Infant | -2.35* |
|  | Child versus Infant | -3.92** |
| Locale | Metro versus Non-metro | -0.58 |
| Type of Food Delivery System | Open versus vendor specific | -0.29 |

[^6]| Table B-11. t-Statistics Describing WIC Vendors with Administrative Errors by Type of Buy |  |  |
| :---: | :--- | :---: |
| Administrative Error | Comparison | t-Test That Contrast Percent Difference |
| Type of Buy | Safe versus Partial | 0.51 |
|  | Safe versus Minor | 1.85 |
|  | Safe versus Major | -0.13 |
|  | Partial versus Minor | 1.06 |
|  | Partial versus Major | -0.59 |
|  | Minor versus Major | -1.31 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

Appendix C: Tables Related to Vendor Overcharges and Undercharges

| Table C-1. National Estimate of Undercharge and Overcharge Rates of Occurrence |  |  |
| :--- | :--- | :---: |
| Across All Buys ${ }^{1}$ |  |  |

${ }^{1}$ This data is based on an average weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

| Table C-2. National Estimate of Undercharge and Overcharge Rates of Occurrence |  |  |
| :---: | :--- | :---: |
| for the Safe Buy ${ }^{\mathbf{1}}$ |  |  |

${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

| Table C-3. National Estimate of Undercharge and Overcharge Rates of Occurrence for the Partial Buy ${ }^{1}$ |  |  |
| :---: | :---: | :---: |
| Type of Purchase Price Deviation | Statistics | Total |
| Undercharge | SAMPLE SIZE | 1550 |
|  | WEIGHTED SIZE | 35884 |
|  | ESTIMATED NUMBER OF VENDORS UNDERCHARGING | 1962 |
|  | SE OF ESTIMATED NUMBER OF VENDORS UNDERCHARGING | 283 |
|  | PERCENT OF VENDORS UNDERCHARGING | 5.47 |
|  | SE OF PERCENT OF UNDERCHARGE | 0.80 |
| Overcharge | SAMPLE SIZE | 1550 |
|  | WEIGHTED SIZE | 35884 |
|  | ESTIMATED NUMBER OF VENDORS OVERCHARGING | 3395 |
|  | SE OF ESTIMATED NUMBER OF VENDORS OVERCHARGING | 390 |
|  | PERCENT OF VENDORS OVERCHARGING | 9.46 |
|  | SE OF PERCENT OF OVERCHARGE | 1.14 |

${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were visited for a partial buy.

| Table C-4. National Estimate of Undercharge and Overcharge Rates of Occurrence |  |  |
| :---: | :--- | :---: |
| for the Minor Substitution Buy ${ }^{1}$ |  |  |$|$| Total |  |
| :---: | :---: |
| Type of Purchase <br> Price Deviation | Statistics |

[^7]
${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were visited for a Major substitution buy.

| Table C-6. Number and Percentage of WIC Vendors by Frequency of Occurrence of |  |  |  |  |  |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Undercharging or Overcharging |  |  |  |  |  |  |


| Table C-7. National Estimates of Undercharge and Overcharge Rates of Occurrence for Each Type of Buy |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Purchase Price Deviation | Statistics |  |  | pe of Buy |  | Total |
|  |  | Safe Buy | Partial | Minor <br> Substitution | Major Substitution |  |
| Undercharge | SAMPLE SIZE | 102 | 78 | 58 | 54 | 292 |
|  | WEIGHTED SIZE | 2481 | 1982 | 1476 | 1324 | 7264 |
|  | SE WEIGHTED | 307 | 285 | 253 | 243 | 809 |
|  | PERCENT OF ALL BUYS | 2.32 | 1.86 | 1.38 | 1.24 | 6.80 |
|  | SE PERCENT | 0.28 | 0.27 | 0.24 | 0.23 | 0.78 |
| Overcharge | SAMPLE SIZE | 106 | 143 | 77 | 70 | 396 |
|  | WEIGHTED SIZE | 2494 | 3332 | 1769 | 1691 | 9287 |
|  | SE WEIGHTED | 353 | 371 | 238 | 226 | 890 |
|  | PERCENT OF ALL BUYS | 2.34 | 3.12 | 1.66 | 1.58 | 8.70 |
|  | SE PERCENT | 0.32 | 0.34 | 0.37 | 0.23 | 0.89 |

[^8]| Table C-8. Average Amount of Undercharge and Overcharge for Each Type of Buy |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Absolute Difference | Statistics | Type of Buy |  |  |  | Total |
|  |  | Safe | Partial | Minor | Major |  |
|  | SAMPLE SIZE | 1513 | 1523 | 803 | 698 | 4537 |
|  | WEIGHTED SIZE | 35576 | 35928 | 18897 | 16364 | 106766 |
|  | TOTAL AMOUNT | \$3,744.15 | \$12,935.25 | \$837.12 | \$4,640.24 | \$22,156.75 |
|  | MEAN <br> UNDER/OVERCHARGE | \$0.11 | \$0.36 | \$0.04 | \$0.28 | \$0.21 |
|  | SE of MEAN | \$0.05 | \$0.09 | \$0.11 | \$0.17 | \$0.05 |
| Undercharge Difference | SAMPLE SIZE | 1513 | 1523 | 803 | 698 | 4537 |
|  | WEIGHTED SIZE | 35576 | 35928 | 18897 | 16364 | 106766 |
|  | TOTAL AMOUNT | -\$2,849.02 | -\$3,830.67 | -\$5,894.99 | -\$2,099.91 | -\$14,674.59 |
|  | MEAN UNDERCHARGE | -\$0.08 | -\$0.11 | -\$0.31 | -\$0.13 | -\$0.14 |
|  | SE of MEAN | \$0.02 | \$0.03 | \$0.11 | \$0.04 | \$0.03 |
| Overcharge Difference | SAMPLE SIZE | 1513 | 1523 | 803 | 698 | 4537 |
|  | WEIGHTED SIZE | 35576 | 35928 | 18897 | 16364 | 106766 |
|  | TOTAL AMOUNT | \$6,593.17 | \$16,765.92 | \$6,732.11 | \$6,740.15 | \$36,831.35 |
|  | MEAN OVERCHARGE | \$0.19 | \$0.47 | \$0.36 | \$0.41 | \$0.35 |
|  | SE of MEAN | \$0.05 | \$0.09 | \$0.08 | \$0.16 | \$0.05 |
| Redeemed Check Amount | SAMPLE SIZE | 1513 | 1523 | 803 | 698 | 4537 |
|  | WEIGHTED SIZE | 35576 | 35928 | 18897 | 16364 | 6766 |
|  | TOTAL AMOUNT | \$785,073.35 | \$627,186.57 | \$478,136.04 | \$95,995.64 | \$86,391.61 |
|  | MEAN OVERCHARGE | \$22.07 | \$17.46 | \$25.30 | \$24.20 | \$21.41 |
|  | SE of MEAN | \$1.03 | \$0.96 | \$1.22 | \$1.23 | \$0.94 |
| Best Estimate of CBF Expenditure | SAMPLE SIZE | 1513 | 1523 | 803 | 698 | 4537 |
|  | WEIGHTED SIZE | 35576 | 35928 | 18897 | 16364 | 6766 |
|  | TOTAL AMOUNT | \$781,329.20 | \$614,251.32 | \$478,109.58 | \$91,355.41 | \$65,045.50 |
|  | MEAN OVERCHARGE | \$21.96 | \$17.10 | \$25.30 | \$23.92 | \$21.22 |


| Type of Purchase | Statistics | Type of Food Package |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Price Deviation |  | Woman | Child | Infant |  |
| Undercharge | SAMPLE SIZE | 31 | 38 | 29 | 97 |
|  | WEIGHTED SIZE | 725 | 958 | 739 | 2421 |
|  | SE WEIGHTED | 93 | 159 | 127 | 270 |
|  | PERCENT OF ALL BUYS | 2.04 | 2.69 | 2.08 | 6.80 |
|  | SE PERCENT | 0.27 | 0.45 | 0.36 | 0.78 |
| Overcharge | SAMPLE SIZE | 49 | 48 | 35 | 132 |
|  | WEIGHTED SIZE | 1141 | 1121 | 833 | 3096 |
|  | SE WEIGHTED | 139 | 143 | 127 | 297 |
|  | PERCENT OF ALL BUYS | 3.21 | 3.15 | 2.34 | 8.70 |
|  | SE PERCENT | 0.41 | 0.42 | 0.36 | 0.89 |

${ }^{1}$ This data is based on an average weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

| Table C-10. Number and Percentage of WIC Vendors that Undercharged or Overcharged |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| for Each Use of Scanning Equipment ${ }^{1}$ |  |  |  |  |  |  |

[^9]| Type of Purchase Price | Statistics | Vendor Size |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Deviation |  | Small | Medium | Large |  |
| Undercharge | SAMPLE SIZE | 48 | 30 | 19 | 97 |
|  | WEIGHTED SIZE | 1236 | 746 | 439 | 2421 |
|  | SE WEIGHTED | 195 | 136 | 79 | 270 |
|  | PERCENT OF ALL BUYS | 3.47 | 2.10 | 1.23 | 6.80 |
|  | SE PERCENT | 0.56 | 0.38 | 0.22 | 0.78 |
| Overcharge | SAMPLE SIZE | 132 | 26 | 18 | 130 |
|  | WEIGHTED SIZE | 3096 | 604 | 416 | 3058 |
|  | SE WEIGHTED | 890 | 117 | 87 | 292 |
|  | PERCENT OF ALL BUYS | 8.70 | 1.70 | 1.17 | 8.64 |
|  | SE PERCENT | 0.89 | 0.78 | 0.34 | 0.25 |

[^10]| Type of Purchase <br> Price Deviation | Statistics | Vendors Did Not Ask for Countersignature After Purchase <br> Price was Entered on Food Instrument | Vendors Asked for Countersign <br> After Purchase Price was Entered on Food Instrument | Total |
| :---: | :---: | :---: | :---: | :---: |
| Undercharge | SAMPLE SIZE | 56 | 41 | 97 |
|  | WEIGHTED SIZE | 1322 | 1099 | 2421 |
|  | SE WEIGHTED | 210 | 143 | 270 |
|  | PERCENT OF ALL VENDORS | 3.72 | 3.10 | 6.82 |
|  | SE PERCENT | 0.61 | 0.40 | 0.78 |
| Overcharge | SAMPLE SIZE | 95 | 37 | 132 |
|  | WEIGHTED SIZE | 2128 | 958 | 3086 |
|  | SE WEIGHTED | 292 | 130 | 296 |
|  | PERCENT OF ALL VENDORS | 6.00 | 2.70 | 8.69 |
|  | SE PERCENT | 0.87 | 0.37 | 0.89 |

[^11]| Type of Purchase Price Deviation | Statistics | Receipt Provision |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Vendor Did Not Provide Receipt | Vendor Did Provide Receipt |  |
| Undercharge | SAMPLE SIZE | 77 | 21 | 97 |
|  | WEIGHTED SIZE | 1953 | 469 | 2421 |
|  | SE WEIGHTED | 235 | 112 | 270 |
|  | PERCENT OF ALL VENDORS | 5.51 | 1.32 | 6.84 |
|  | SE PERCENT | 0.69 | 0.32 | 0.78 |
| Overcharge | SAMPLE SIZE | 112 | 19 | 131 |
|  | WEIGHTED SIZE | 2638 | 443 | 9244 |
|  | SE WEIGHTED | 275 | 83 | 297 |
|  | PERCENT OF ALL VENDORS | 7.45 | 1.25 | 8.70 |
|  | SE PERCENT | 0.83 | 0.23 | 0.89 |

[^12]| Type of Purchase | Statistics | Locale |  | Total |
| :---: | :---: | :---: | :---: | :---: |
| Price Deviation |  | Metropolitan | Non-metropolitan |  |
| Undercharge | SAMPLE SIZE | 67 | 30 | 97 |
|  | WEIGHTED SIZE | 1602 | 819 | 2421 |
|  | SE WEIGHTED | 225 | 163 | 270 |
|  | PERCENT OF ALL VENDORS | 4.50 | 2.30 | 6.80 |
|  | SE PERCENT | 0.65 | 0.46 | 0.78 |
| Overcharge | SAMPLE SIZE | 105 | 27 | 132 |
|  | WEIGHTED SIZE | 2366 | 730 | 3096 |
|  | SE WEIGHTED | 309 | 134 | 297 |
|  | PERCENT OF ALL VENDORS | 6.65 | 2.05 | 8.70 |
|  | SE PERCENT | 0.91 | 0.38 | 0.89 |

[^13]| Type of Purchase Price | Statistics | Type of Food Delivery System |  | Total |
| :---: | :---: | :---: | :---: | :---: |
| Deviation |  | Open | Vendor-Specific |  |
| Undercharge | SAMPLE SIZE | 72 | 26 | 97 |
|  | WEIGHTED SIZE | 2065 | 356 | 2421 |
|  | SE WEIGHTED | 261 | 69 | 270 |
|  | PERCENT OF ALL VENDORS | 5.80 | 1.00 | 6.8 |
|  | SE PERCENT | 0.75 | 0.19 | 0.78 |
| Overcharge | SAMPLE SIZE | 85 | 47 | 132 |
|  | WEIGHTED SIZE | 2439 | 657 | 3096 |
|  | SE WEIGHTED | 271 | 122 | 297 |
|  | PERCENT OF ALL VENDORS | 6.85 | 1.85 | 8.7 |
|  | SE PERCENT | 0.81 | 0.34 | 0.89 |

[^14]| Table C-16. Over All Buys: Single Variable Models of Overcharge |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | $\mathbf{R}^{2}$ | Variable Value | Odds <br> Ratio | Overall Model Wald <br> Chi Square <br> Saiterwaite F <br> Saiterwaite Adjusted Chi Square | Overall Model <br> Wald P <br> Saiterwaite $\mathbf{P}$ <br> Adjusted <br> Saiterwaite $\mathbf{P}$ | Parameter <br> Beta | $\underset{T}{\text { Parameter }}$ | $\underset{\mathbf{P}}{\text { Parameter }}$ | Design Effect |
| $\begin{array}{\|l} \hline \text { Receipt NOT } \\ \text { Provided } \end{array}$ | 0.079 | Receipt NOT <br> Provided | 10.47 | 498.44 <br> 271.51 <br> 508.13 | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \\ & \hline \end{aligned}$ | 2.35 (0.21) | 11.41 | 0.00 | 1.95 |
| Scanning | 0.056 | Choose NOT to scan (compared to scanned purchased WIC items | 4.65 | $\begin{aligned} & \hline 565.19 \\ & 217.65 \\ & 582.12 \end{aligned}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | $\begin{array}{\|c\|} \hline 1.54(0.32) \\ \hline \\ \\ 1.79(0.18) \\ \hline \end{array}$ | 4.76 | 0.00 | 1.77 |
|  |  | NO scanning equipment (compared to scanned purchased WIC items) | 6.01 |  |  |  | 9.74 | 0.00 | 2.49 |
| Size | 0.052 | Medium-Sized Vendor Compared to Small-Sized Vendors | 4.63 | $\begin{aligned} & 507.68 \\ & 204.65 \\ & 570.48 \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | $\begin{array}{r} -1.53 \\ (0.22) \\ \hline \end{array}$ | -7.13 | 0.00 | 2.53 |
|  |  | Large-Sized Vendors Compared to SmallSized Vendors | 6.49 |  |  | $\begin{array}{r} -1.87 \\ (0.22) \\ \hline \end{array}$ | -8.38 | 0.00 | 2.06 |
| Improper Countersignature | 0.046 | Improper countersignature (compared to proper) | 4.87 | $\begin{aligned} & \hline 650.71 \\ & 282.79 \\ & 525.60 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \\ & \hline \end{aligned}$ | 1.58 (0.19) | 8.50 | 0.00 | 2.67 |


| Table C-17. Safe Buy: Single Variable Models of Overcharge |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | $\mathbf{R}^{2}$ | Variable Value | Odds <br> Ratio | Overall Model Wald Chi Square Saiterwaite F <br> Saiterwaite Adjusted Chi Square | Overall Model Wald P Saiterwaite $\mathbf{P}$ Adjusted Saiterwaite $\mathbf{P}$ | Parameter Beta | $\left\lvert\, \begin{gathered} \text { Parameter } \\ T \end{gathered}\right.$ | $\begin{array}{\|c} \text { Parameter } \\ \mathbf{P} \end{array}$ | Design Effect |
| Receipt NOT <br> Provided | 0.057 | Receipt NOT Provided | 8.29 | $\begin{aligned} & 210.59 \\ & 248.95 \\ & 136.52 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \\ & \hline \end{aligned}$ | 2.12 (0.32) | 6.52 | 0.00 | 1.55 |
| Scanning | 0.043 | Choose NOT to scan (compared to scanned purchased WIC items) | 4.27 | $\begin{aligned} & 311.50 \\ & 114.80 \\ & 308.80 \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | . 45 (0.47) | 3.08 | 0.00 | 1.18 |
|  |  | NO scanning equipment (compared to scanned purchased WIC items) | 5.51 |  |  | 1.71 (0.28) | 6.17 | 0.00 | 1.58 |
| Size | 0.041 | Medium-Sized <br> Vendors <br> Compared to <br> Small-Sized <br> Vendors | 4.69 | $\begin{aligned} & 272.93 \\ & 118.44 \\ & 321.83 \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | -1.55 (0.31) | -5.07 | 0.00 | 1.4 |
|  |  | Large-Sized Vendors Compared to Small-Sized Vendors | 5.71 |  |  | -1.74 (0.32) | -5.51 | 0.00 | 1.22 |
| Improper <br> Countersignature | 0.021 | Improper countersignature (compared to proper) | 3.14 | $\begin{aligned} & 373.58 \\ & 163.60 \\ & 293.48 \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \\ & \hline \end{aligned}$ | 1.14 (0.26) | 4.36 | 0.00 | 1.64 |


| Table C-18. Partial Buy: Single Variable Models of Overcharge |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | $\mathbf{R}^{2}$ | Variable Value | Odds <br> Ratio | Overall Model Wald Chi <br> Square Saiterwaite F <br> Saiterwaite Adjusted Chi Square | Overall Model Wald P Saiterwaite $\mathbf{P}$ Adjusted Saiterwaite $\mathbf{P}$ | Parameter Beta | $\begin{gathered} \text { Parameter } \\ \mathbf{T} \end{gathered}$ | $\begin{gathered} \text { Parameter } \\ \mathbf{P} \\ \hline \end{gathered}$ | Design Effect |
| Receipt NOT Provided | 0.084 | Receipt NOT <br> Provided (Versus <br> Receipt provided) | 10.57 | $\begin{aligned} & 346.59 \\ & 161.30 \\ & 295.18 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \\ & \hline \end{aligned}$ | 2.36 (0.26) | 8.98 | 0.00 | 1.13 |
| Scanning | 0.071 | Choose NOT to scan (compared to scanned purchased WIC items) | 4.86 | $\begin{aligned} & 311.31 \\ & 102.08 \\ & 298.55 \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | 1.58 (0.56) | 2.81 | 0.00 | 2.00 |
|  |  | NO scanning equipment (compared to scanned purchased WIC items) | 7.36 |  |  | 2.00 (0.23) | 8.50 | 0.00 | 1.39 |
| Size | 0.063 | Medium-Sized Vendors Compared to Small-Sized Vendors | 5.10 | 302.29 | 0.00 | -1.63 (0.26) | -6.20 | 0.00 | 1.35 |
|  |  | Large-Sized Vendors Compared to SmallSized Vendors | 7.46 | $\begin{aligned} & 115.41 \\ & 329.38 \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.00 \end{aligned}$ | -2.01 (0.32) | -6.20 | 0.00 | 1.50 |
| Improper Countersignature | 0.063 | Improper countersignature (compared to proper) | 6.15 | $\begin{aligned} & \hline 364.77 \\ & 165.23 \\ & 305.09 \end{aligned}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | 1.82 (0.22) | 8.09 | 0.00 | 1.35 |


| Variable | $\mathbf{R}^{2}$ | Variable Value | Odds <br> Ratio | Overall Model Wald Chi Square Saiterwaite F Saiterwaite Adjusted Chi Square | Overall Model <br> Wald $\mathbf{P}$ <br> Saiterwaite $\mathbf{P}$ Adjusted <br> Saiterwaite $\mathbf{P}$ | Parameter Beta | $\begin{array}{\|c\|} \text { Parameter } \\ \mathbf{T} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Parameter } \\ \mathbf{P} \\ \hline \end{array}$ | Design Effect |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receipt NOT <br> Provided | 0.101 | Receipt NOT Provided (Versus Receipt provided) | 14.46 | $\begin{gathered} 210.76 \\ 85.41 \\ 157.27 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \\ & \hline \end{aligned}$ | 2.67 (0.40) | 6.65 | 0.00 | 1.16 |
| Scanning | 0.059 | Choose NOT to scan (compared to scanned purchased WIC items) | 6.77 | $\begin{gathered} 237.53 \\ 81.21 \\ 221.16 \end{gathered}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | 1.91 (0.52) | 3.69 | 0.00 | 0.97 |
|  |  | NO scanning equipment (compared to scanned purchased WIC items) | 5.47 |  |  | 1.70 (0.29) | 5.80 | 0.00 | 1.27 |
| Size | 0.047 | Medium-Sized Vendors Compared to Small-Sized Vendors | 3.92 | $\begin{gathered} 233.86 \\ 78.42 \end{gathered}$ | $\begin{aligned} & 0.00 \\ & 0.00 \end{aligned}$ | -1.37 (0.37) | -3.65 | 0.00 | 1.55 |
|  |  | Large-Sized Vendors Compared to SmallSized Vendors | 5.40 | 222.96 | 0.00 | -1.69 (0.33) | -5.10 | 0.00 | 0.95 |
| Improper <br> Countersignature | 0.055 | Improper countersignature (compared to proper) | 5.30 | $\begin{aligned} & 183.68 \\ & 100.38 \\ & 197.15 \end{aligned}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | 1.67 (0.31) | 5.29 | 0.00 | 1.48 |


| Table C-20. Major Substitution Buy: Single Variable Models of Overcharge |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | $\mathbf{R}^{2}$ | Variable Value | Odds <br> Ratio | Overall Model Wald Chi Square Saiterwaite F Saiterwaite Adjusted Chi Square | Overall Model Wald $\mathbf{P}$ Saiterwaite P Adjusted Saiterwaite $\mathbf{P}$ | Parameter Beta | $\begin{gathered} \text { Parameter } \\ \mathbf{T} \\ \hline \end{gathered}$ | $\begin{array}{\|c} \text { Parameter } \\ \mathbf{P} \end{array}$ | Design Effect |
| Receipt NOT Provided | 0.101 | Receipt NOT Provided (Versus Receipt provided) | 12.00 | $\begin{gathered} \hline 176.77 \\ 89.65 \\ 178.78 \end{gathered}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | 2.48 (0.37) | 6.67 | 0.00 | 1.11 |
| Scanning | 0.045 | Choose NOT to scan (compared to scanned purchased WIC items) | 4.37 | $\begin{gathered} 157.42 \\ 64.78 \\ 176.51 \end{gathered}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | 1.48 (0.66) | 2.23 | 0.03 | 1.00 |
|  |  | NO scanning equipment (compared to scanned purchased WIC items) | 4.51 |  |  | 1.51 (0.33) | 4.50 | 0.00 | 1.64 |
| Size | 0.057 | Medium-Sized Vendors Compared to Small-Sized Vendors | 4.59 | $\begin{gathered} 155.44 \\ 52.90 \\ 145.18 \end{gathered}$ | $\begin{aligned} & 0.00 \\ & 0.00 \\ & 0.00 \end{aligned}$ | -1.52 (0.43) | -3.51 | 0.00 | 1.89 |
|  |  | Large-Sized Vendors Compared to SmallSized Vendors | 5.78 |  |  | -1.76 (0.41) | -4.3 | 0.00 | 1.41 |
| Improper <br> Countersignature | 0.066 | Improper countersignature (compared to proper) | 6.05 | $\begin{gathered} \hline 175.30 \\ 81.35 \\ 151.37 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 0.00 \\ & 0.00 \\ & 0.00 \\ & \hline \end{aligned}$ | 1.80 (0.38) | 4.74 | 0.00 | 1.85 |


| C-21. Logit Models for Overcharge |  |  |
| :---: | :---: | :---: |
| Model Type | Independent Variable | $\mathbf{R}^{2}$ |
| Single Variable Models | Failure to Properly Countersign | $0.065{ }^{*}$ |
|  | Failure to Provide a Receipt ${ }^{1}$ | 0.144 |
|  | Small-Sized Vendor | 0.091* |
|  | Scanned | 0.104** |
| Two Variable Models | No scanning \& improper countersignature ${ }^{1}$ | 0.162 |
|  | No scanning \& no receipt ${ }^{1}$ | 0.172 |
|  | No scanning \& small vendor | 0.108 |
|  | No receipt \& small vendor | 0.165* |
|  | Improper countersignature \& small vendor ${ }^{1}$ | 0.154 |
|  | Improper countersignature \& no receipt ${ }^{1}$ | 0.188 |
| Three Variable Models | Improper countersignature, no receipt, no scanning ${ }^{1}$ | 0.212 |
|  | Improper countersignature, no receipt, small vendor ${ }^{1}$ | 0.209 |
|  | No receipt, no scanning \& small-sized vendor | 0.172 |
|  | Improper countersignature, no scanning, and small-sized vendor ${ }^{1}$ | 0.167 |
| Four Variable Models | Improper countersignature, no receipt, no scanning, \& small-sized vendor ${ }^{\text {I }}$ | 0.213 |

[^15]

| Type of Food Package | Comparison | t-TEST |
| :---: | :---: | :---: |
|  | Woman versus Child | 0.10 |
|  | Woman versus Infant | 2.27* |
|  | Child versus Infant | 1.81 |
| Type of Buy | Safe Buy versus Partial | -2.04* |
|  | Safe Buy versus Minor Substitution | -1.86 |
|  | Safe Buy versus Major Substitution | -2.46* |
|  | Partial Buy versus Minor Substitution | -0.08 |
|  | Partial Buy versus Major Substitution | -0.84 |
|  | Minor Substitution Buy versus Major Substitution | -0.57 |

[^16]| Table C-24. t-Statistics from Contrast Analyses Describing Overcharge DuringSafe Buys as a Function of Type of Food Package |  |  |
| :---: | :---: | :---: |
| Type of Food Package | Comparison | t-TEST |
|  | Woman versus Child | 0.49 |
|  | Woman versus Infant | 1.25 |
|  | Child versus Infant | 0.56 |
|  |  |  |
|  |  |  |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-25. t-Statistics from Contrast Analyses Describing Overcharge During <br> Partial Buys as a Function of Type of Food Package <br> Type of Food Package <br>   <br>   Woman versus Child |  |  |
| :--- | :--- | :---: |
|  | Woman versus Infant | t-TEST |
|  | Child versus Infant | 0.13 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-26. t-Statistics from Contrast Analyses Describing Overcharge During <br> Minor Substitution Buys as a Function of Type of Food Package |  |  |
| :--- | :--- | :--- |
| Type of Food Package | Comparison | t-TEST |
|  | Woman versus Child | 0.73 |
|  | Woman versus Infant | $2.45^{*}$ |
|  | Child versus Infant | 1.62 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-27. t-Statistics from Contrast Analyses Describing Overcharge During <br> Major Subsstitution Buys as a Function of Type of Food Package |  |  |
| :--- | :--- | :--- |
| Type of Food Package | Comparison | t-TEST |
|  | Woman versus Child | 0.17 |
|  | Woman versus Infant | 0.59 |
|  | Child versus Infant | 0.69 |

[^17]** Statistically significant at the 0.01 level.

| Table C-28. t-Statistics from Contrast Analyses Describing Overcharge Across All Buys as a Function of Potential Administrative Error and Vendor Size |  |  |
| :---: | :---: | :---: |
| Purchased WIC Items <br> Were Scanned | Comparison | t-TEST |
|  | Scanning equipment was not available versus Purchased WIC Items were Scanned | 7.61** |
|  | Scanning equipment was not available versus Purchased WIC Items were NOT Scanned for some other unknown reason | 0.79 |
|  | Purchased WIC Items were Scanned versus Purchased WIC Items were NOT Scanned for some unknown reason | -3.19** |
| Countersign the Instrument | NOT Asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument versus asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument | 6.81** |
| No Receipt Provided | No Receipt Provided versus Receipt Provided | 10.18** |
|  | Small-Sized Vendor versus Medium-Sized Vendor | 7.07** |
|  | Small-Sized Vendor versus Large-Sized Vendor | 7.88** |
| Vendor Size | Medium-Sized Vendor versus Large-Sized Vendor | 1.28 |

[^18]| Table C-29. t-Statistics from Contrast Analyses Describing Overcharge During Safe Buy as a Function of Potential Administrative Error and Vendor Size |  |  |
| :---: | :---: | :---: |
| Purchased WIC Items Were Scanned | Comparison | t-TEST |
|  | Scanning equipment was not available versus Purchased WIC Items were Scanned | 4.65** |
|  | Scanning equipment was not available versus Purchased WIC Items were NOT Scanned for some other unknown reason | 0.56 |
|  | Purchased WIC Items were Scanned versus Purchased WIC Items were NOT Scanned for some unknown reason | -2.05 ** |
| Countersign the Instrument | NOT Asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument versus asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument | 3.50 ** |
| No Receipt Provided | No Receipt Provided versus Receipt Provided | 7.03** |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | 5.24** |
|  | Small-Sized Vendor versus Large-Sized Vendor | 5.32** |
|  | Medium-Sized Vendor versus Large-Sized Vendor | 0.53 |

[^19]| Table C-30. t-Statistics from Contrast Analyses Describing Overcharge During <br> Partial Buys as a Function of Potential Administrative Error and Vendor Size |  |  |
| :--- | :--- | :---: |
| Comparison | t-TEST |  |
|  | Scanning equipment was not available versus Purchased WIC <br> Items were Scanned | $6.97^{* *}$ |
|  | Scanning equipment was not available versus Purchased WIC <br> Items were NOT Scanned for some other unknown reason | 0.83 |
|  | -1.76 |  |
| Countersign the <br> Instrument | NOT Asked to countersign the Instrument after the purchase <br> price was entered on the WIC Food Instrument versus asked to <br> countersign the Instrument after the purchase price was entered <br> on the WIC Food Instrument | $6.31^{* *}$ |
| No Receipt Provided | No Receipt Provided versus Receipt Provided | $7.81^{* *}$ |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | $6.06^{* *}$ |
|  | Small-Sized Vendor versus Large-Sized Vendor | 1.10 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-31. t-Statistics from Contrast Analyses Describing Overcharge During Minor Substitution Buys as a Function of Potential Administrative Error and Vendor Size |  |  |
| :---: | :---: | :---: |
| Purchased WIC <br> Items Were Scanned | Comparison | t-TEST |
|  | Scanning equipment was not available versus Purchased WIC Items were Scanned | 4.68** |
|  | Scanning equipment was not available versus Purchased WIC Items were NOT Scanned for some other unknown reason | -0.65 |
|  | Purchased WIC Items were Scanned versus Purchased WIC Items were NOT Scanned for some unknown reason | $-2.58 * *$ |
| Countersign the Instrument | NOT Asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument versus asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument | 5.29** |
| No Receipt Provided | No Receipt Provided versus Receipt Provided | 6.24** |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | 3.91** |
|  | Small-Sized Vendor versus Large-Sized Vendor | 4.90** |
|  | Medium-Sized Vendor versus Large-Sized Vendor | 0.73 |

[^20]| Table C-32. t-Statistics from Contrast Analyses Describing Overcharge During Major <br> Substitution Buys as a Function of Potential Administrative Error and Vendor Size |  |  |  |
| :--- | :--- | :---: | :---: |
| Comparison <br> Purchased WIC Items <br> Were Scanned | Scanning equipment was not available versus Purchased WIC <br> Items were Scanned | $4.30^{* *}$ |  |
|  | Scanning equipment was not available versus Purchased WIC <br> Items were NOT Scanned for some other unknown reason | 0.07 |  |
|  | Purchased WIC Items were Scanned versus Purchased WIC <br> Items were NOT Scanned for some unknown reason | -1.51 |  |
|  | NOT Asked to countersign the Instrument after the purchase <br> price was entered on the WIC Food Instrument versus asked to <br> countersign the Instrument after the purchase price was entered <br> on the WIC Food Instrument |  |  |
| No Receipt Provided | No Receipt Provided versus Receipt Provided | $5.28^{* *}$ |  |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | $7.01^{* *}$ |  |
|  | Small-Sized Vendor versus Large-Sized Vendor | $4.50^{* *}$ |  |
|  | Medium-Sized Vendor versus Large-Sized Vendor | $5.11^{* *}$ |  |

[^21]| Table C-33. t-Statistics from Contrast Analyses Describing Undercharge Across <br> All Buys as a Function of Type of Food Package and Type of Buy |  |  |
| :---: | :---: | :---: |
| Type of Food Package | Comparison | t-TEST |
|  | Woman versus Child | -1.52 |
|  | Woman versus Infant | 0.01 |
|  | Child versus Infant | 1.40 |
| Type of Buy | Safe Buy versus Partial | 1.62 |
|  | Safe Buy versus Minor Substitution | -0.69 |
|  | Safe Buy versus Major Substitution | -0.77 |
|  | Partial Buy versus Minor Substitution | -2.05* |
|  | Partial Buy versus Major Substitution | -1.88 |
|  | Minor Substitution Buy versus Major Substitution | -0.18 |

[^22]| Type of Food Package | Comparison | t-TEST |
| :---: | :---: | :---: |
|  | Woman versus Child | -1.48 |
|  | Woman versus Infant | 0.78 |
|  | Child versus Infant | 2.06* |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-35. t-Statistics from Contrast Analyses Describing Undercharge During <br> Partial Buys as a Function of Type of Food Package |  |  |
| :--- | :--- | :---: |
| Type of Food Package | Comparison | t-TEST |
|  | Woman versus Child | -1.99 |
|  | Woman versus Infant | 1.38 |
|  | Child versus Infant | 0.52 |

[^23]| Table C-36. t-Statistics from Contrast Analyses Describing Undercharge During <br> Minor Substitution Buys as a Function of Type of Food Package |  |  |
| :--- | :--- | :--- |
| Type of Food Package | Comparison | t-TEST |
|  | Woman versus Child | 0.27 |
|  | Woman versus Infant | -0.38 |
|  | Child versus Infant | -0.53 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-37. t-Statistics from Contrast Analyses Describing Undercharge During <br> Major Substitution Buys as a Function of Type of Food Package |  |  |
| :--- | :--- | :---: |
| Type of Food Package | Comparison | t-TEST |
|  | Woman versus Child | -0.31 |
|  | Woman versus Infant | 0.88 |
|  | Child versus Infant | 1.46 |

[^24]| Table C-38. t-Statistics from Contrast Analyses Describing Undercharge Across <br> All Buys as a Function of Potential Administrative Error and Vendor Size |  |  |
| :--- | :--- | :---: |
| Comparison | t-TEST |  |
|  | No Scanning equipment versus Purchased WIC Items were <br> Scanned | $5.31^{* *}$ |
|  | No Scanning equipment versus Purchased WIC items were not <br> scanned although equipment was available. | 0.84 |
|  | Purchased WIC items were Scanned versus Purchased WIC <br> items were NOT Scanned although equipment was available. | $-2.27^{*}$ |
|  | NOT Asked to countersign the Instrument after the purchase <br> price was entered on the WIC Food Instrument versus asked to <br> countersign the Instrument after the purchase price was <br> entered on the WIC Food Instrument |  |
| Provision of Receipt | No Receipt Provided versus Receipt Provided | $5.01^{* *}$ |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | $9.05^{* *}$ |
|  | Small-Sized Vendor versus Large-Sized Vendor | 3.57 |
|  | Medium-Sized Vendor versus Large-Sized Vendor | 5.12 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-39. t-Statistics from Contrast Analyses Describing Undercharge During Safe Buys as a Function of Potential Administrative Error and Vendor Size |  |  |
| :---: | :---: | :---: |
| Use of Scanning Equipment | Comparison | t-TEST |
|  | No Scanning equipment versus Purchased WIC Items were Scanned | 4.54** |
|  | No Scanning equipment versus Purchased WIC items were not scanned although equipment was available. | -0.72 |
|  | Purchased WIC items were Scanned versus Purchased WIC items were NOT Scanned although equipment was available. | -2.81* |
| Countersignature Timing | NOT Asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument versus asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument | 3.36** |
| Provision of Receipt | No Receipt Provided versus Receipt Provided | 9.91** |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | 3.41** |
|  | Small-Sized Vendor versus Large-Sized Vendor | 5.33** |
|  | Medium-Sized Vendor versus Large-Sized Vendor | 1.62 |

[^25]| Table C-40. t-Statistics from Contrast Analyses Describing Undercharge <br> During Partial Buys as a Function of Potential Administrative Error and Vendor Size |  |  |
| :--- | :--- | :---: |
| Use of Scanning Equipment | Comparison | t-TEST |
|  | No Scanning equipment versus Purchased WIC Items were Scanned | $3.51^{* *}$ |
|  | No Scanning equipment versus Purchased WIC items were not <br> scanned although equipment was available. | $3.00^{* *}$ |
|  | Purchased WIC items were Scanned versus Purchased WIC items <br> were NOT Scanned although equipment was available. | 0.05 |
| Countersignature Timing | NOT Asked to countersign the Instrument after the purchase price <br> was entered on the WIC Food Instrument versus asked to <br> countersign the Instrument after the purchase price was entered on <br> the WIC Food Instrument |  |
|  | No Receipt Provided versus Receipt Provided | $3.73^{* *}$ |
|  | Small-Sized Vendor versus Medium-Sized Vendor | $5.46^{* *}$ |
|  | Small-Sized Vendor versus Large-Sized Vendor | $2.3^{*}$ |
|  | Medium-Sized Vendor versus Large-Sized Vendor | $3.19^{* *}$ |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-41. t-Statistics from Contrast Analyses Describing Undercharge During Minor Substitution Buys as a Function of Potential Administrative Error and Vendor Size |  |  |
| :---: | :---: | :---: |
| Use of Scanning Equipment | Comparison | t-TEST |
|  | No Scanning equipment versus Purchased WIC Items were Scanned | 3.21** |
|  | No Scanning equipment versus Purchased WIC items were not scanned although equipment was available. | 0.41 |
|  | Purchased WIC items were Scanned versus Purchased WIC items were NOT Scanned although equipment was available. | -1.47 |
| Countersignature Timing | NOT Asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument versus asked to countersign the Instrument after the purchase price was entered on the WIC Food Instrument | 2.66** |
| Provision of Receipt | No Receipt Provided versus Receipt Provided | 5.11** |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | 2.41* |
|  | Small-Sized Vendor versus Large-Sized Vendor | 2.81** |
|  | Medium-Sized Vendor versus Large-Sized Vendor | 1.02 |

[^26]| Table C-42. t-Statistics from Contrast Analyses Describing Undercharge During Major Substitution <br> Buys as a Function of Potential Administrative Error and Vendor Size |  |  |  |
| :--- | :--- | :---: | :---: |
| Use of Scanning Equipment | Comparison | t-TEST |  |
|  | No Scanning equipment versus Purchased WIC Items were <br> Scanned | $2.36^{* *}$ |  |
|  | No Scanning equipment versus Purchased WIC items were not <br> scanned although equipment was available. | 0.62 |  |
|  | Purchased WIC items were Scanned versus Purchased WIC <br> items were NOT Scanned although equipment was available. | -0.22 |  |
| Countersignature Timing | NOT Asked to countersign the Instrument after the purchase <br> price was entered on the WIC Food Instrument versus asked to <br> (countersign the Instrument after the purchase price was <br> entered on the WIC Food Instrument |  |  |
|  | No Receipt Provided versus Receipt Provided | $2.79^{* *}$ |  |
|  | Small-Sized Vendor versus Medium-Sized Vendor | $3.16^{* *}$ |  |
|  | Small-Sized Vendor versus Large-Sized Vendor | 0.56 |  |
|  | Medium-Sized Vendor versus Large-Sized Vendor | 1.78 |  |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-43. t-Statistics from Contrast Analyses Describing Undercharge <br> Amount Differences Across All Buys |  |  |
| :---: | :--- | :---: |
| Type of Buy | Comparison | t-TEST |
|  | Safe Buy versus Partial | 1.01 |
|  | Safe Buy versus Minor Substitution | $2.14^{*}$ |
|  | Safe Buy versus Major Substitution | 1.09 |
|  | Partial Buy versus Minor Substitution | 1.87 |
|  | Partial Buy versus Major Substitution | 0.39 |
|  | Minor Substitution Buy versus Major Substitution | -1.68 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

| Table C-44. t-Statistics from Contrast Analyses Describing Overcharge Amount |  |  |
| :--- | :--- | :---: |
| Differences Across All Buys |  |  |$|$| Comparison | $-2.94^{* *}$ |
| :---: | :---: |
| Type of Buy | Com |
|  | Safe Buy versus Partial |
|  | Safe Buy versus Minor Substitution |
|  | Safe Buy versus Major Substitution |
|  | Partial Buy versus Minor Substitution |
|  | Partial Buy versus Major Substitution |
|  | Minor Substitution Buy versus Major Substitution |
|  | -1.38 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.


## Appendix D: Tables Related to Vendor Acceptance of Substitutions

| Table D-1. National Rate of WIC Vendors Accepting Buyer-Initiated Substitutions |  |  |
| :--- | :--- | :---: |
| Type of Substitution | Statistics | Substitution Violations Totals |
| Minor Substitution | 1 | SAMPLE SIZE |
|  | WEIGHTED SIZE | 294 |
|  | SE WEIGHTED | 12819 |
|  | PERCENT | 1090 |
|  | SE OF PERCENT | 34.7 |
| Major Substitution ${ }^{2}$ | SAMPLE SIZE | 2.65 |
|  | WEIGHTED SIZE | 30 |
|  | SE WEIGHTED | 1370 |
|  | PERCENT | 276 |
|  | SE OF PERCENT | 3.71 |

[^27]| Table D-2. Number and Percentage of WIC Vendors Accepting Buyer-Initiated Minor Substitutions ${ }^{1}$ for Use of Scanning Equipment |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Statistics | No Scanning Equipment | Scanned WIC Items | Chose Not to Scan WIC Items | Total |
| SAMPLE SIZE | 59 | 225 | 9 | 293 |
| WEIGHTED SIZE | 2808 | 9555 | 406 | 12769 |
| SE WEIGHTED | 497 | 978 | 239 | 1091 |
| PERCENT OF ALL VENDORS WHERE MINOR SUBSTITUTION WAS ATTEMPTED | 7.72 | 26.27 | 1.12 | 35.11 |
| SE PERCENT | 1.35 | 1.35 | 0.66 | 2.67 |

[^28]| Use of Scanning Equipment |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Statistics | No Scanning Equipment | Scanned WIC Items | Chose Not to Scan WIC Items | Total |
| SAMPLE SIZE | 15 | 13 | 2 | 30 |
| WEIGHTED SIZE | 702 | 570 | 99 | 927 |
| SE WEIGHTED | 225 | 166 | 74 | 296 |
| PERCENT OF ALL VENDORS WHERE MAJOR SUBSTITUTION WAS ATTEMPTED | 1.92 | 1.56 | 0.27 | 3.74 |
| SE PERCENT | 0.61 | 0.46 | 0.20 | 0.75 |

[^29]| Statistics | Vendor Size |  |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | Small | Medium | Large |  |
| SAMPLE SIZE | 16 | 7 | 7 | 30 |
| WEIGHTED SIZE | 770 | 337 | 264 | 1370 |
| SE WEIGHTED | 225 | 132 | 113 | 276 |
| PERCENT OF ALL VENDORS WHERE MAJOR SUBSTITUTION WAS ATTEMPTED | 2.09 | 0.91 | 0.71 | 3.71 |
| SE PERCENT | 0.61 | 0.36 | 0.31 | 0.75 |

${ }^{1}$ Major substitutions were initiated by compliance buyers at approximately half of the vendors.

| Table D-5. Number and Percentage of WIC Vendors Accepting Buyer-Initiated Major Substitutions ${ }^{\mathbf{1}}$ for <br> Cashier's Indication of Unfamiliarity with WIC Transactions |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Statistics | Indication Cashier <br> was Unfamiliar with <br> WIC Transaction | NO Indication Cashier <br> was Unfamiliar with <br> WIC Transaction | Total |  |
| SAMPLE SIZE | 7 | 23 | 30 |  |
| WEIGHTED SIZE | 268 | 1102 | 1370 |  |
| SE WEIGHTED | 95 | 263 | 276 |  |
| PERCENT OF ALL VENDORS WHERE MAJOR | 0.73 | 3.06 | 3.79 |  |
| SUBSTITUTION WAS ATTEMPTED | 0.26 | 0.73 | 0.77 |  |
| SE PERCENT |  |  |  |  |

${ }^{1}$ Major substitutions were initiated by compliance buyers at approximately half of the vendors.

| Vendor Demographics | Comparison | t-TEST |
| :---: | :---: | :---: |
| Vendor Size | Small-Sized Vendor versus Medium-Sized Vendor | -1.05 |
|  | Small-Sized Vendor versus Large-Sized Vendor | -1.32 |
|  | Medium-Sized Vendor versus Large-Sized Vendor | -0.33 |
| Use of Scanning Equipment | No Scanning equipment versus Purchased WIC Items were Scanned | -2.46* |
|  | No Scanning equipment versus Purchased WIC Items were NOT Scanned | -0.26 |
|  | Purchased WIC Items were Scanned versus Purchased WIC Items were NOT Scanned | 0.53 |
| Cashier's Indication of Unfamiliarity with WIC Transaction | Cashier Indicated Unfamiliarity with the Conduct of WIC Transaction versus Cashier Did NOT Indicate Unfamiliarity with the Conduct of WIC Transaction | 0.59 |

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.

* Statistically significant at the 0.05 level.
** Statistically significant at the 0.01 level.


## Appendix E: Tables Related to Administrative Errors for the Safe Buy

| Administrative Error | Statistics | Total Number of Vendors In Violation |
| :---: | :---: | :---: |
| Insufficient Stock | SAMPLE SIZE | 75 |
|  | WEIGHTED SIZE | 1866 |
|  | SE WEIGHTED | 268 |
|  | PERCENT | 5.05 |
|  | SE PERCENT | 0.72 |
| Failed to Countersign Before Price Was Entered | SAMPLE SIZE | 615 |
|  | WEIGHTED SIZE | 13306 |
|  | SE WEIGHTED | 937 |
|  | PERCENT | 36.52 |
|  | SE PERCENT | 2.62 |
| Raincheck | SAMPLE SIZE | 8 |
|  | WEIGHTED SIZE | 222 |
|  | SE WEIGHTED | 71 |
|  | COLUMN PERCENT | 0.60 |
|  | SE PERCENT | 0.19 |
| Asked to Pay Cash in Addition to Food Instrument | SAMPLE SIZE | 0 |
|  | WEIGHTED SIZE | 0 |
|  | SE WEIGHTED | 0 |
|  | PERCENT | 0.00 |
|  | SE PERCENT | 0.00 |

[^30]|  | Statistics | Locale |  | Total |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Error |  | Metro | Non-metro |  |
| Insufficient Stock | SAMPLE SIZE | 53 | 22 | 75 |
|  | WEIGHTED SIZE | 1313 | 552 | 1866 |
|  | SE WEIGHTED | 237 | 132 | 268 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 3.56 | 1.50 | 5.05 |
|  | SE PERCENT | 0.64 | 0.35 | 0.72 |
| Failed to Countersign Before Price was Entered | SAMPLE SIZE | 503 | 112 | 615 |
|  | WEIGHTED SIZE | 10525 | 2780 | 13306 |
|  | SE WEIGHTED | 962 | 450 | 937 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 28.89 | 7.63 | 36.52 |
|  | SE PERCENT | 2.67 | 1.24 | 2.62 |
| Raincheck | SAMPLE SIZE | 5 | 3 | 8 |
|  | WEIGHTED SIZE | 140 | 83 | 222 |
|  | SE WEIGHTED | 58 | 47 | 71 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 0.38 | 0.22 | 0.6 |
|  | SE PERCENT | 0.16 | 0.13 | 0.19 |

${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were visited for a safe buy.

| Table E-3. Frequency of Administrative Errors for Type of Food Delivery System and Type of Error During the Safe Buy ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Error | Statistics |  |  | Total |
|  |  | Open | Vendor Specific |  |
| Insufficient Stock | SAMPLE SIZE | 59 | 16 | 75 |
|  | WEIGHTED SIZE | 1646 | 220 | 1866 |
|  | SE WEIGHTED | 261 | 57 | 268 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 4.46 | 0.60 | 5.05 |
|  | SE PERCENT | 0.7 | 0.15 | 0.72 |
| Failed to Countersign Before Price Was Entered | SAMPLE SIZE | 341 | 274 | 615 |
|  | WEIGHTED SIZE | 9544 | 3761 | 13306 |
|  | SE WEIGHTED | 836 | 424 | 937 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 26.2 | 10.32 | 36.52 |
|  | SE PERCENT | 2.33 | 1.16 | 2.62 |
| Raincheck | SAMPLE SIZE | 8 | 0 | 8 |
|  | WEIGHTED SIZE | 222 | 0 | 222 |
|  | SE WEIGHTED | 71 | 0 | 71 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 0.60 | 0 | 0.60 |
|  | SE PERCENT | 0.19 | 0.00 | 0.19 |

[^31]|  | Statistics | Type of Food Package |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Administrative Error |  | Woman | Child | Infant |  |
| Insufficient Stock | SAMPLE SIZE | 14 | 11 | 50 | 75 |
|  | WEIGHTED SIZE | 347 | 264 | 1254 | 1866 |
|  | SE WEIGHTED | 97 | 78 | 198 | 268 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 0.94 | 0.72 | 3.4 | 5.05 |
|  | SE PERCENT | 0.26 | 0.21 | 0.53 | 0.72 |
| Failed to Countersign Before Price was Entered | SAMPLE SIZE | 208 | 215 | 192 | 615 |
|  | WEIGHTED SIZE | 4494 | 4592 | 4219 | 13306 |
|  | SE WEIGHTED | 373 | 369 | 374 | 937 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 12.33 | 12.61 | 11.58 | 36.52 |
|  | SE PERCENT | 1.05 | 1.03 | 1.02 | 2.62 |
| Raincheck | SAMPLE SIZE | 2 | 0 | 6 | 8 |
|  | WEIGHTED SIZE | 56 | 0 | 166 | 222 |
|  | SE WEIGHTED | 40 | 0 | 63 | 71 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 0.15 | 0 | 0.45 | 0.19 |
|  | SE PERCENT | 0.11 | 0 | 0.17 | 0.19 |

[^32]| Administrative Error | Statistics | In Violation |
| :---: | :---: | :---: |
| Insufficient Stock | SAMPLE SIZE | 56 |
|  | WEIGHTED SIZE | 1490 |
|  | SE WEIGHTED | 247 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 4.66 |
|  | SE PERCENT | 0.76 |
| Failed to Countersign Before Price was Entered | SAMPLE SIZE | 479 |
|  | WEIGHTED SIZE | 10531 |
|  | SE WEIGHTED | 787 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 33.5 |
|  | SE PERCENT | 2.57 |
| Raincheck | SAMPLE SIZE | 0 |
|  | WEIGHTED SIZE | 0 |
|  | SE WEIGHTED | 0 |
|  | PERCENT OF ALL VENDORS WHERE SAFE BUY WAS CONDUCTED | 0.00 |
|  | SE PERCENT | 0.00 |

[^33]Appendix F: Tables Related to Overcharges for the Safe Buy

| Type of Deviation from Purchase Price | Statistics | Type of Food Package |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Woman | Child | Infant |  |
| UNDERCHARGE | SAMPLE SIZE | 34 | 44 | 27 | 105 |
|  | WEIGHTED SIZE | 764 | 1101 | 633 | 2498 |
|  | SE WEIGHTED | 129 | 214 | 138 | 305 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 2.15 | 3.1 | 1.78 | 7.03 |
|  | SE PERCENT | 0.36 | 0.6 | 0.39 | 0.85 |
| OVERCHARGE | SAMPLE SIZE | 39 | 37 | 32 | 108 |
|  | WEIGHTED SIZE | 935.24 | 821.3 | 738.9 | 350.95 |
|  | SE WEIGHTED | 151.67 | 182.07 | 147.52 | 100 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 7.9 | 7.03 | 6.14 | 7.02 |
|  | SE PERCENT | 0.44 | 0.52 | 0.42 | 1.01 |

[^34]| Type of Deviation from Purchase Price | Statistics | Use of Scanning Equipment |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No Scanning Equipment | $\begin{array}{\|c} \hline \text { Items Were } \\ \text { Scanned } \\ \hline \end{array}$ | Items Were Not Scanned |  |
| UNDERCHARGE | SAMPLE SIZE | 51 | 45 | 9 | 105 |
|  | WEIGHTED SIZE | 1246.39 | 1042.61 | 209.25 | 2498.24 |
|  | SE WEIGHTED | 216.94 | 190.04 | 67.94 | 304.91 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 3.53 | 2.95 | 0.59 | 7.07 |
|  | SE PERCENT | 0.62 | 0.53 | 0.19 | 0.86 |
| OVERCHARGE | SAMPLE SIZE | 65 | 35 | 7 | 107 |
|  | WEIGHTED SIZE | 1520.95 | 778.93 | 167.68 | 2467.56 |
|  | SE WEIGHTED | 303.22 | 166.58 | 62.63 | 350.12 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 4.30 | 2.20 | 0.47 | 6.98 |
|  | SE PERCENT | 0.87 | 0.48 | 0.18 | 1.01 |

[^35]| Type of Deviation from Purchase Price | Statistics | Vendor Size |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Small | Medium | Large |  |
| UNDERCHARGE | SAMPLE SIZE | 53 | 32 | 20 | 105 |
|  | WEIGHTED SIZE | 1287 | 766 | 445 | 2498 |
|  | SE WEIGHTED | 194 | 173 | 100 | 305 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 3.62 | 2.16 | 1.25 | 7.03 |
|  | SE PERCENT | 0.55 | 0.49 | 0.28 | 0.85 |
| OVERCHARGE | SAMPLE SIZE | 71 | 20 | 17 | 108 |
|  | WEIGHTED SIZE | 1660 | 474 | 361 | 2495 |
|  | SE WEIGHTED | 273 | 142 | 101 | 351 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 4.67 | 1.34 | 1.02 | 7.02 |
|  | SE PERCENT | 0.78 | 0.40 | 0.29 | 1.01 |

[^36]|  | Statistics | Timing of Countersignature |  | Total |
| :---: | :---: | :---: | :---: | :---: |
| Type of Deviation from Purchase Price |  | Asked to countersign after purchase price was entered on food instrument | Not Asked to countersign <br> after purchase price was <br> entered on food instrument |  |
| UNDERCHARGE | SAMPLE SIZE | 57 | 48 | 105 |
|  | WEIGHTED SIZE | 1268 | 1230 | 2498 |
|  | SE WEIGHTED | 203 | 199 | 305 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 3.57 | 3.47 | 7.04 |
|  | SE PERCENT | 0.57 | 0.55 | 0.85 |
| OVERCHARGE | SAMPLE SIZE | 71 | 37 | 108 |
|  | WEIGHTED SIZE | 1530 | 965 | 2495 |
|  | SE WEIGHTED | 316 | 167 | 351 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 4.31 | 2.72 | 7.04 |
|  | SE PERCENT | 0.90 | 0.47 | 1.01 |

[^37]| Type of Deviation from Purchase Price | Statistics | Provision of Receipt |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Vendor Did Not Provide Receipt | Vendor Did <br> Provide Receipt |  |
| UNDERCHARGE | SAMPLE SIZE | 88 | 17 | 105 |
|  | WEIGHTED SIZE | 2137 | 361 | 2498 |
|  | SE WEIGHTED | 243 | 134 | 305 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 6.04 | 1.02 | 7.06 |
|  | SE PERCENT | 0.69 | 0.38 | 0.86 |
| OVERCHARGE | SAMPLE SIZE | 88 | 19 | 107 |
|  | WEIGHTED SIZE | 2052.36 | 429.35 | 2481.71 |
|  | SE WEIGHTED | 280.71 | 139.22 | 350.84 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 5.80 | 1.21 | 7.02 |
|  | SE PERCENT | 0.81 | 0.39 | 1.01 |

[^38]| Type of Deviation from Purchase Price | Statistics | Locale |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Metro | Non Metro |  |
| UNDERCHARGE | SAMPLE SIZE | 68 | 37 | 105 |
|  | WEIGHTED SIZE | 1519 | 979 | 2498 |
|  | SE WEIGHTED | 225 | 209 | 305 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 4.27 | 2.75 | 7.03 |
|  | SE PERCENT | 0.64 | 0.58 | 0.85 |
| OVERCHARGE | SAMPLE SIZE | 85 | 23 | 108 |
|  | WEIGHTED SIZE | 1934 | 562 | 2495 |
|  | SE WEIGHTED | 347 | 146 | 351 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 5.44 | 1.58 | 7.02 |
|  | SE PERCENT | 0.99 | 0.41 | 1.01 |

[^39]| Type of Deviation from Purchase Price | Statistics | Type of Food Package |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Open | Vendor-Specific |  |
| UNDERCHARGE | SAMPLE SIZE | 74 | 31 | 105 |
|  | WEIGHTED SIZE | 2072 | 426 | 2498 |
|  | SE WEIGHTED | 289 | 97 | 305 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 5.83 | 1.2 | 7.03 |
|  | SE PERCENT | 0.81 | 0.27 | 0.85 |
| OVERCHARGE | SAMPLE SIZE | 71 | 37 | 108 |
|  | WEIGHTED SIZE | 1987 | 508 | 2495 |
|  | SE WEIGHTED | 332 | 114 | 351 |
|  | PERCENT OF VENDORS WHERE SAFE BUY WAS CONDUCTED | 5.59 | 1.43 | 7.02 |
|  | SE PERCENT | 0.95 | 0.32 | 1.01 |

[^40]Appendix G: Sample Design, Selection, and Weighting

# WIC Vendor Management Study Sample Design, Selection, and Weighting by R. Paul Moore 8/27/99 

The 1998 WIC Vendor Management Study involved compliance buys made in a nationally representative, probability sample of WIC retail vendors. The sampling frame was constructed from complete lists of vendors provided by the State WIC programs. A cluster sample of 1,800 vendors in 100 primary sampling units (PSUs) was selected. A response goal was to obtain complete study data from three compliance buys with at least 1,500 vendors. After sample loss for vendors that were closed or no longer in the program, 1,625 remaining sample vendors were eligible. Complete study data for three compliance buys was obtained from 1,565 of them.

## A. Population and Sample Size

The population of interest for the study was defined as all WIC retail vendors in the 48 contiguous States and the District of Columbia. This definition excludes state-run WIC stores (all Mississippi WIC vendors), home delivery vendors (all of Vermont and part of Ohio), military commissaries, and pharmacies that only provided WIC participants with special order infant formula. The vendors operating in Alaska, Hawaii, Puerto Rico, the U.S. territories, and the vendors managed by Native American agencies were also excluded from the study population. It would be very costly if the study had covered these special types of WIC vendor operations, which are different from the other retail vendors, and represent a small fraction of all WIC food deliveries.

The study sample was designed to meet the precision constraints of estimating national proportions within 3 percentage points and estimating subgroup proportions within 5 percentage points, with 95 percent confidence. A total sample of 1,500 vendors was expected to meet the study's precision requirements at the most reasonable data collection cost. The sample of vendors was clustered within 100 primary sampling units (PSUs), counties or groups of counties, to limit the number of compliance buyers and to reduce their travel costs.

## B. Predicted Sample Attrition

It was necessary to field more than 1,500 sample vendors, to allow for attrition. The two components of the reduction were sample loss and non-response. Sample loss involved retail stores identified by States as WIC vendors when the sample frame was constructed, but which were no longer authorized for WIC or had closed by the date of the compliance buys. The sample loss component also included allowance for a small number of the 1,800 sampled vendors which State WIC personnel identified as being under serious State investigation and which, for that reason, were dropped from the study sample. Non-response included blown compliance buyer cover and other cases in which the vendors were WIC-eligible but the planned buys was not made.

We expected a drop-off of about 14 percent of sample vendors from the time the sampling frame was constructed until the first compliance buys were made, for the reasons described above. The actual drop-off was 11.1 percent (buy 1 was completed for 1,600 of the 1,800 sample vendors). An additional three percent drop-off between compliance buys 1 and 3 was predicted for newly closed stores, vendors that had just left the program, and non-response. The actual drop-off experienced was 2.2 percent (all 3 buys were completed for 1,565 vendors).

The total sample of 1,800 vendors $(1,500 / 0.86 / 0.97)$ was expected to be large enough to yield 1,500 sample cases with complete information for all three planned compliance buys. Due to the lower than expected sample loss, the sample of 1,800 yielded 1,565 cases with complete data for all three buys. A reserve sample of 200 vendors was also selected, to supplement the 1,800 vendor sample, in case the actual sample loss and non-response exceeded advance estimates.

## C. Sampling Frame Development

## 1. Lists of WIC Vendors

In January 1998, current lists of retail vendors were requested from the 46 States and the District of Columbia. In addition to vendor name and address, information about WIC redemption amounts was also obtained for use in stratification. States were asked to identify any home delivery vendors, State-run stores, military commissaries, and pharmacies providing WIC participants with special infant formula only. The vendor lists were received from the States during the period from February through April, 1998. Virtually all of the lists obtained were in machine readable formats.

The vendor lists were standardized to adjust for formatting differences across States. Edit checks at the frame construction stage included comparing the number of vendors per State, and the reported average monthly redemption dollars for each State, with comparable past information for reasonableness. Questions and problems noted in editing the frame information were raised with the States on a flow basis, and the clarifications obtained were used to update the frame file.

It was necessary to determine the county location for each vendor, to complete the sampling frame. Since most of the States did not identify the counties on the vendor lists provided, county location was imputed based upon the zip codes in the vendor mailing addresses. A small number of vendors with addresses outside the State reporting them were attached to nearby in-State counties. Vendors identified as home delivery vendors, State-run stores, military commissaries, and pharmacies providing only special infant formula were not included in the vendor frame. Reported redemption dollars covering more than one month were converted to one-month equivalent amounts. The final vendor list for the 46 covered States and the District of Columbia contained a total of 41,007 vendors.

## 2. Constructing PSUs

Primary sampling units (PSUs) were defined as either individual counties or groups of geographically contiguous counties. Since comparisons were planned for differing State vendor management practices, PSUs were to be defined so that each one included area from a single State. The number of WIC retail vendors was determined for each county, and used to assure that each PSU in the sampling frame contained at least the target number of 70 vendors. The District of Columbia and each county within the 46 study States was included in one, and only one, WIC PSU. Counties with fewer than 70 WIC retail vendors were combined with geographically adjacent counties, forming PSUs that met or exceed this minimum requirement.

A computer program using GIS (geographic information system) information was used to form PSUs. The program allowed the user to group adjacent counties into PSUs within a State until each PSU contained at least the minimum number of vendors. The program displayed the number of WIC vendors in each county on a State-level county outline map. In order to form practical PSUs for field visits, major highway routes were also shown on the computer screen, and a highway atlas was used to identify major mountain ranges, lakes, and other map features. There were only a few cases where all
of the PSU construction objectives could not be met. The District of Columbia list contained only 21 WIC vendors; it was combined with two adjacent Maryland counties to form a PSU with 89 total vendors. This PSU was included in the stratum for vendor-specific states with high participant/vendor ratio. The State of Delaware had only 67 vendors; in this case, the entire State was defined as a single PSU. In total, only seven of the 366 PSUs in the sampling frame contained fewer than 70 vendors each. Thus, the final WIC PSU sampling frame contained 366 PSUs which were contiguous geographic areas; which in most cases contained at lease 70 WIC retail vendors; which do not cross FNS region boundaries; and which (with one exception) do not cross State boundaries. Each WIC retail vendor was associated with one, and only one, PSU in the WIC sampling frame. For example, Exhibit 1 shows the six PSUs in the sampling frame for the State of Washington, and the number of vendors in each PSU.

## 3. Stratifying the PSUs

PSUs in the sampling frame were stratified to reduce sampling variability and to assure adequate sample sizes for key analysis comparisons. FNS was interested in comparing groups of States by their vendor management practices, such as contrasting States with large and small numbers of WIC vendors. State-level vendor and participant counts from the FY1996 VAMP report were used to divide the population of WIC vendors into three approximately equal sized strata, based on the average number of participants per vendor for each State.

There was also interest in comparing States using vendor-specific food instruments with open food instrument States. Crossing these two State-level stratification variables defined six primary strata. Table 1 lists the States that were assigned to each of the six primary strata, the number of vendors in the sampling frame, and the average state-level participant/vendor ratio from the VAMP report. Table 2 shows the distribution of the 41,007 vendors in the sampling frame by the same six strata.

Table 1 - Stratification by State FI Distribution System and Participants per Vendor
$\left.\begin{array}{lccc} & \text { Primary Stratum } & \text { State } & \begin{array}{c}\text { Number } \\ \text { of } \\ \text { Vendors }\end{array}\end{array} \begin{array}{c}\text { Average } \\ \text { Participants } \\ \text { per Vendor }\end{array}\right]$

Table 2 - Distribution of WIC Retail Vendors by Primary Strata

| Retail Distribution System |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Open Vendors |  | Vendor-Specific Vendors |  | All Vendors |  |
|  | Number | Pct. | Number | Pct. | Number | Pct. |
| Participant to Vendor Ratio |  |  |  |  |  |  |
| Low | 14,230.00 | 34.70 | 685.00 | 1.67 | 14,915.00 | 36.37 |
| Medium | 10,366.00 | 25.28 | 1,652.00 | 4.03 | 12,018.00 | 29.31 |
| High | 8,153.00 | 19.88 | 5,921.00 | 14.44 | 14,074.00 | 34.32 |
| ALL | 32,749.00 | 79.86 | 8,258.00 | 20.14 | 41,007.00 | 100.00 |

It was also important to control the sample of PSUs by whether or not they were located in a metropolitan area. PSUs in the sampling frame were classified as metropolitan if the largest population county of the PSU was part of a metropolitan statistical area (MSA). PSUs which were entirely composed of non-MSA counties were classified as non-metropolitan. Implicit stratification was used to control the sample draw for metropolitan location (see the section on selecting sample PSUs).

In summary, the PSUs in the sampling frame were stratified based on the following three variables:

- Vendor-specific States vs. Open food instrument States

■ Participants per vendor ratio- States with High, Medium and Low ratios based on FY1996 VAMP data

- Metropolitan location - within a metropolitan statistical area (MSA), or not (based on the largest population county within the PSU).

Specific PSU-level strata were defined based on the first two variables, and implicit stratification was used to control the sample draw for metropolitan location.

## D. Sample Selection

## 1. Selecting the Sample PSUs

A nationally representative sample of 1,800 WIC retail vendors was selected. First, 100 sample PSUs were selected and then 18 sample vendors per PSU were selected. A backup sample of 2 vendors per PSU was also identified, in case the sample loss and survey non-response exceeded
projections (it was never necessary to field any of the backup sample vendors).
Table 2 showed that the vendor-specific States included only about 20 percent of the vendors in the sampling frame. Equal overall selection probabilities would have led to selecting about 20 PSUs in these States and obtaining complete study data for only about 300 vendors from vendor-specific States. To meet the precision constraint for this analysis domain, sample PSUs in the vendor-specific States were sampled at twice the rate used in the open food instrument States. This over-sampling was implemented by adjusting the PSU size measures (number of WIC retail vendors) prior to selecting the sample PSUs. Table 3 shows the adjusted size measures for the six primary strata defined earlier.

Table 3 - Distribution of Total Size Measure by Primary Strata

| Retail Distribution System |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Open Vendors |  | Vendor-Specific Vendors |  | All Vendors |  |
|  | Number | Pct. | Number | Pct. | Number | Pct. |
| Participant to Vendor Ratio |  |  |  |  |  |  |
| Low | 14,230.00 | 28.88 | 1,370.00 | 2.78 | 15,600.00 | 31.67 |
| Medium | 10,366.00 | 21.04 | 3,304.00 | 6.71 | 13,670.00 | 27.75 |
| High | 8,153.00 | 16.55 | 11,842.00 | 24.04 | 19,995.00 | 40.59 |
| ALL | 32,749.00 | 66.48 | 16,516.00 | 33.52 | 49,265.00 | 100.00 |

The sample of $\mathrm{n}=100$ PSUs was selected using probability non-replacement sampling and with probabilities proportional to size. The PSU size measures were proportional to the number of WIC vendors in the PSUs, except for the 2:1 over-sampling in those States using vendor-specific WIC food instruments.

Let $N_{h i}=$ the number of vendors in PSU-i of stratum-h and let $N_{h}=\sum_{i} N_{h i}=$ the total number of vendors in stratum-h.

The PSU size measures were defined to implement the over-sampling as:

$$
S_{h i}=N_{h i} \text { for } \mathrm{h}=1,2 \text {, and } 3 \text { (open States), and as }
$$

$$
S_{h i}=2 N_{h i} \text { for } \mathrm{h}=4,5 \text {, and } 6 \text { (vendor-specific States). }
$$

Letting $S_{h}=\sum_{i} S_{h i}$ and $S_{+}=\sum_{h} \sum_{i} S_{h i}=\sum_{h} S_{h}$, the expected sample size for each PSU-i
in each stratum-h was calculated as $E\left(n_{h i}\right)=\frac{100 S_{h i}}{S_{+}}$.

The PSUs within each stratum were sorted by their metropolitan status prior to selecting the sample PSUs with probabilities proportional to the $S_{h i}$ values, effecting an implicit stratification by metropolitan status. A probability minimum replacement selection procedure developed by Chromy ${ }^{1}$ (1979) was used to select 100 sample PSUs. The method allows multiple hits for those units whose expected sample size exceeds unity, and restricts the realized number of hits for each unit to be within one of it's expected sample size. For example, if the expected sample size for a PSU is 3.75 , then the method allows the PSU to be selected either three times (with 0.25 probability), or four times (with 0.75 probability). For those units whose expected sample size does not exceed one, the expected sample size is equal to the probability of selecting the unit in the sample. Exhibit 2 shows the location of the 100 sample PSUs.

## 2. Selecting the Sample Vendors

Following the selection of 100 sample PSUs, a probability sample of 1,800 vendors and a 200 vendor reserve sample was selected. First, a total sample of 20 vendors was selected from the vendor list within each of the 100 sample selections. Note in the following sample hits, or psuedo-PSUs, are referred to as PSUs. Prior to the selection, vendors within each PSU were sorted by their monthly WIC redemption dollar amounts.

The 20 vendors were selected within each PSU using systematic sampling with equal probabilities and without replacement, effecting an implicit size stratification of the vendors. Then 18 of

[^41]the 20 selected vendors within each PSU were randomly selected for the study sample, yielding a main study sample of 1,800 vendors and a 200 vendor reserve sample (the reserve sample was never fielded). The 1,800 sample vendors, except those identified by States as closed, no longer in WIC, or under serious State investigation, were sent to the field for compliance buys.

The conditional probability of selecting vendor-j, given the selection of PSU-i , may be written as

$$
P(j \mid h i)=\frac{18}{N_{h i}}
$$

and the overall probability of selection for vendor-j in PSU-i of stratum-h is therefore equal to

$$
P(h i j)=E\left(n_{h i}\right) P(j \mid h i)=\frac{18 E\left(n_{h i}\right)}{N_{h i}} .
$$

## E. Survey Weights

The initial sampling weights for the 1,800 selected vendors were calculated based on the expected PSU sample sizes and the conditional vendor selection probabilities. The initial sampling weight (unadjusted for non-response) for vendor-j, selected from PSU-i of stratum-h was computed as:

$$
W(h i j)=\frac{1}{P(h i j)}=\frac{N_{h i}}{18 E\left(n_{h i}\right)} .
$$

The unadjusted survey weights and PSU selection probabilities are shown in Appendix A.

If complete study data were obtained for all of the sampled vendors, then these unadjusted weights would be appropriate for analyzing the survey results. This was not the case, however, as some vendors were ineligible for the survey and it was not possible to complete all of the proposed data collection activities for all of the eligibles.

A weighting-class method was used to compute another set of survey weights, adjusted for

WIC ineligibility and survey non-response, with the goal of reducing non-response biases. First, all of the selected vendors were coded into one of the following categories:

|  | Vendors |  | Percent |
| :--- | ---: | :---: | :---: |
| 1. Out of business at first buy attempt | 20 |  | $1.1 \%$ |
| 2. Not in WIC at first buy attempt | 27 |  | 1.5 |
| 3. Dropped - under State Investigation | 127 | 7.1 |  |
| 4. Other non-eligible | 1 | 0.1 |  |
| 5. Eligible | $\underline{1,625}$ | $\underline{90.2}$ |  |
| 6. Total Sample Vendors | 1,800 | $100.0 \%$ |  |

The weight sums for the eligible and ineligible vendors were as follows:

|  | Number | Weight Sum | Percent |
| :---: | :---: | :---: | :---: |
| 1. Eligible Vendors | 1,625 | 36,907.70 | 89.7\% |
| 2. Ineligible Vendors | 175 | 4,228.57 | 10.3 |
| 3. Total Sample Vendors | 1,800 | 41,136.27 | 100.0 |

Next, the response status, or response rate, for the 1,625 eligible vendors was determined, for each of the three buys, as follows:

|  | Vendors | $\underline{\text { Percent }}$ |
| :--- | :--- | :--- | :--- |
| 1. Completed buy 1 (safe buy) | 1,600 | $98.5 \%$ |
| 2. Completed buy 2 (partial buy) | 1,594 | 98.1 |
| 3. Completed buy 3 or 4 (substitution) | 1,580 | 97.2 |
| 4. Completed all 3 buys | 1,565 | 96.3 |

The adjusted sampling weights for the ineligible vendors, as identified at the time of the first buy attempt, were set to zero. The eligible in-sample vendors were partitioned into eight weighting classes, so that those within each weighting class were as similar as possible. The weighting classes were defined using the State-level stratification variables:
A. Metropolitan classification
B. Retail distribution system
C. Ratio of WIC participants to WIC vendors.

The eight weighting classes were defined as follows:

| $\underline{\text { Class }}$ | Metro | $\underline{\text { Distribution }}$ | $\underline{\text { Participant/Vendor }}$ |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Metro | Open | Low ratio |
| 2 | Non-metro | Open | Low ratio |
| 3 | Metro | Open | Medium ratio |
| 4 | Non-metro | Open | Medium ration |
| 5 | All | Open | High ratio |
| 6 | All | Vendor-specific | Low ratio |
| 7 | All | Vendor-specific | Medium ratio |
| 8 | All | Vendor-specific | High ratio |

The metropolitan classification variable was not used to subdivide classes 5-8 into separate weighting classes because the number of non-metropolitan vendors responding would have been too small, which could possibly lead to unstable adjustments for non-response.

The weights for the eligible in-sample vendors were adjusted by multiplying the initial weights for each vendor in weighting class-k (where $\mathrm{k}=1,2, \ldots, 8$ ) by the ratio $\mathrm{R}(\mathrm{k})$ where
$R(k)=$ [sum of initial weights for eligible vendors in weighting class $k] /[s u m$ of initial weights for all completed eligible vendors in weighting class $k$ ].

This weighting class procedure adjusts the sum of the survey weights, to compensate for those eligible vendors for which complete survey data was not obtained, i.e., those in which the compliance buys were not completed. To the extent that the responses of respondents and non-respondents within the same weighting class tend to be similar, the adjustment procedure reduces missing data biases.

It was decided to compute several weights, to facilitate the planned analysis. The weighting class methodology was applied separately to compute each of the following adjusted survey weights:

| Weight | Used for analysis of: | Sum of Adjusted Weights |
| :--- | :--- | :---: |
| WTBUY1 | data from buy 1 (safe) | $36,907.70$ |
| WTBUY2 | data from buy 2 (partial) | $36,907.70$ |
| WTBUY3 | data from buy 3 (minor substitution) | $36,907.70$ |
| WTBUY4 | data from buy 4 (major substitution) | $36,907.70$ |
| WTBUYS | data from all 3 buys | $36,907.70$ |

## Appendix A - Unadjusted Survey Weights

| Selection | (h) | $N_{h i}$ | $S_{h i}$ | $E\left(n_{h}\right)$ | $E\left(n_{h i}\right)$ | $n_{h i}$ | $P(h i j)$ | $W(h i j)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 95 | 95 | 28.8846 | 0.19283 | 1 | 0.036537 | 27.3694 |
| 2 | 1 | 91 | 91 | 28.8846 | 0.18472 | 1 | 0.036537 | 27.3694 |
| 3 | 1 | 81 | 81 | 28.8846 | 0.16442 | 1 | 0.036537 | 27.3694 |
| 4 | 1 | 94 | 94 | 28.8846 | 0.19080 | 1 | 0.036537 | 27.3694 |
| 5 | 1 | 90 | 90 | 28.8846 | 0.18269 | 1 | 0.036537 | 27.3694 |
| 6 | 1 | 1148 | 1148 | 28.8846 | 2.33025 | 2 | 0.036537 | 27.3694 |
| 7 | 1 | 1148 | 1148 | 28.8846 | 2.33025 | 2 | 0.036537 | 27.3694 |
| 8 | 1 | 431 | 431 | 28.8846 | 0.87486 | 1 | 0.036537 | 27.3694 |
| 9 | 1 | 413 | 413 | 28.8846 | 0.83832 | 1 | 0.036537 | 27.3694 |
| 10 | 1 | 661 | 661 | 28.8846 | 1.34172 | 1 | 0.036537 | 27.3694 |
| 11 | 1 | 74 | 74 | 28.8846 | 0.15021 | 1 | 0.036537 | 27.3694 |
| 12 | 1 | 81 | 81 | 28.8846 | 0.16442 | 1 | 0.036537 | 27.3694 |
| 13 | 1 | 79 | 79 | 28.8846 | 0.16036 | 1 | 0.036537 | 27.3694 |
| 14 | 1 | 90 | 90 | 28.8846 | 0.18269 | 1 | 0.036537 | 27.3694 |
| 15 | 1 | 81 | 81 | 28.8846 | 0.16442 | 1 | 0.036537 | 27.3694 |
| 16 | 1 | 75 | 75 | 28.8846 | 0.15224 | 1 | 0.036537 | 27.3694 |
| 17 | 1 | 88 | 88 | 28.8846 | 0.17863 | 1 | 0.036537 | 27.3694 |
| 18 | 1 | 84 | 84 | 28.8846 | 0.17051 | 1 | 0.036537 | 27.3694 |
| 19 | 1 | 181 | 181 | 28.8846 | 0.36740 | 1 | 0.036537 | 27.3694 |
| 20 | 1 | 83 | 83 | 28.8846 | 0.16848 | 1 | 0.036537 | 27.3694 |
| 21 | 1 | 489 | 489 | 28.8846 | 0.99259 | 1 | 0.036537 | 27.3694 |
| 22 | 1 | 96 | 96 | 28.8846 | 0.19486 | 1 | 0.036537 | 27.3694 |
| 23 | 1 | 98 | 98 | 28.8846 | 0.19892 | 1 | 0.036537 | 27.3694 |
| 24 | 1 | 81 | 81 | 28.8846 | 0.16442 | 1 | 0.036537 | 27.3694 |
| 25 | 1 | 132 | 132 | 28.8846 | 0.26794 | 1 | 0.036537 | 27.3694 |
| 26 | 1 | 113 | 113 | 28.8846 | 0.22937 | 1 | 0.036537 | 27.3694 |
| 27 | 1 | 74 | 74 | 28.8846 | 0.15021 | 1 | 0.036537 | 27.3694 |
| 28 | 1 | 95 | 95 | 28.8846 | 0.19283 | 1 | 0.036537 | 27.3694 |
| 29 | 1 | 82 | 82 | 28.8846 | 0.16645 | 1 | 0.036537 | 27.3694 |
| 30 | 2 | 247 | 247 | 21.0413 | 0.50137 | 1 | 0.036537 | 27.3694 |
| 31 | 2 | 88 | 88 | 21.0413 | 0.17863 | 1 | 0.036537 | 27.3694 |
| 32 | 2 | 101 | 101 | 21.0413 | 0.20501 | 1 | 0.036537 | 27.3694 |
| 33 | 2 | 88 | 88 | 21.0413 | 0.17863 | 1 | 0.036537 | 27.3694 |
| 34 | 2 | 92 | 92 | 21.0413 | 0.18675 | 1 | 0.036537 | 27.3694 |
| 35 | 2 | 123 | 123 | 21.0413 | 0.25576 | 1 | 0.036537 | 27.3694 |
| 36 | 2 | 94 | 94 | 21.0413 | 0.19080 | 1 | 0.036537 | 27.3694 |
| 37 | 2 | 168 | 168 | 21.0413 | 0.34101 | 1 | 0.036537 | 27.3694 |
| 38 | 2 | 96 | 96 | 21.0413 | 0.19486 | 1 | 0.036537 | 27.3694 |
| 39 | 2 | 111 | 111 | 21.0413 | 0.22531 | 1 | 0.036537 | 27.3694 |
| 40 | 2 | 111 | 111 | 21.0413 | 0.22531 | 1 | 0.03657 | 27.3694 |


| 41 | 2 | 74 | 74 | 21.0413 | 0.15021 | 1 | 0.036537 | 27.3694 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 42 | 2 | 382 | 382 | 21.0413 | 0.77540 | 1 | 0.036537 | 27.3694 |
| 43 | 2 | 141 | 141 | 21.0413 | 0.28621 | 1 | 0.036537 | 27.3694 |
| 44 | 2 | 124 | 124 | 21.0413 | 0.25170 | 1 | 0.036537 | 27.3694 |
| 45 | 2 | 97 | 97 | 21.0413 | 0.19689 | 1 | 0.036537 | 27.3694 |
| 46 | 2 | 113 | 113 | 21.0413 | 0.22937 | 2 | 0.036537 | 27.3694 |
| 47 | 2 | 86 | 86 | 21.0413 | 0.17457 | 2 | 0.036537 | 27.3694 |
| 48 | 2 | 76 | 76 | 21.0413 | 0.15427 | 1 | 0.036537 | 27.3694 |
| 49 | 2 | 93 | 93 | 21.0413 | 0.18877 | 1 | 0.036537 | 27.3694 |
| 50 | 2 | 90 | 90 | 21.0413 | 0.18269 | 1 | 0.036537 | 27.3694 |
| 51 | 3 | 195 | 195 | 16.5493 | 0.39582 | 1 | 0.036537 | 27.3694 |
| 52 | 3 | 248 | 248 | 16.5493 | 0.50340 | 1 | 0.036537 | 27.3694 |
| 53 | 3 | 82 | 82 | 16.5493 | 0.16645 | 1 | 0.036537 | 27.3694 |
| 54 | 3 | 637 | 637 | 16.5493 | 1.29301 | 1 | 0.036537 | 27.3694 |
| 55 | 3 | 78 | 78 | 16.5493 | 0.15833 | 1 | 0.036537 | 27.3694 |
| 56 | 3 | 93 | 93 | 16.5493 | 0.18877 | 1 | 0.036537 | 27.3694 |
| 57 | 3 | 82 | 82 | 16.5493 | 0.16645 | 1 | 0.036537 | 27.3694 |
| 58 | 3 | 96 | 96 | 16.5493 | 0.19483 | 1 | 0.036537 | 27.3694 |
| 59 | 3 | 238 | 238 | 16.5493 | 0.48310 | 1 | 0.036537 | 27.3694 |
| 60 | 3 | 72 | 72 | 16.5493 | 0.14615 | 1 | 0.036537 | 27.3694 |
| 61 | 3 | 91 | 91 | 16.5493 | 0.18472 | 1 | 0.036537 | 27.3694 |
| 62 | 3 | 129 | 129 | 16.5493 | 0.26185 | 1 | 0.036537 | 27.3694 |
| 63 | 3 | 387 | 387 | 16.5493 | 0.78555 | 1 | 0.036537 | 27.3694 |
| 64 | 3 | 75 | 75 | 16.5493 | 0.15224 | 1 | 0.036537 | 27.3694 |
| 65 | 3 | 142 | 142 | 16.5493 | 0.28824 | 1 | 0.036537 | 27.3694 |
| 66 | 3 | 120 | 120 | 16.5493 | 0.24358 | 1 | 0.036537 | 27.3694 |
| 67 | 3 | 95 | 95 | 16.5493 | 0.19283 | 1 | 0.036537 | 27.3694 |
| 68 | 4 | 99 | 198 | 2.7809 | 0.40191 | 1 | 0.073074 | 13.6847 |
| 69 | 4 | 81 | 162 | 2.7809 | 0.32883 | 1 | 0.073074 | 13.6847 |
| 70 | 4 | 76 | 152 | 2.7809 | 0.30854 | 1 | 0.073074 | 13.6847 |
| 71 | 5 | 79 | 158 | 6.7066 | 0.32071 | 1 | 0.073074 | 13.6847 |
| 72 | 5 | 196 | 392 | 6.7066 | 0.79570 | 1 | 0.073074 | 13.6847 |
| 73 | 5 | 83 | 166 | 6.7066 | 0.33695 | 1 | 0.073074 | 13.6847 |
| 74 | 5 | 94 | 188 | 6.7066 | 0.38161 | 1 | 0.073074 | 13.6847 |
| 75 | 5 | 256 | 512 | 6.7066 | 1.03928 | 1 | 0.073074 | 13.6847 |
| 76 | 5 | 146 | 292 | 6.7066 | 0.59271 | 1 | 0.073074 | 13.6847 |
| 77 | 6 | 76 | 152 | 24.0373 | 0.30854 | 1 | 0.073074 | 13.6847 |
| 78 | 6 | 85 | 170 | 24.0373 | 0.34507 | 1 | 0.073074 | 13.6847 |
| 79 | 6 | 110 | 220 | 24.0373 | 0.44656 | 1 | 0.073074 | 13.6847 |
| 80 | 6 | 203 | 406 | 24.0373 | 0.82411 | 1 | 0.073074 | 13.6847 |


| 81 | 6 | 78 | 156 | 24.0373 | 0.31665 | 1 | 0.073074 | 13.6847 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 82 | 6 | 114 | 228 | 24.0373 | 0.46280 | 1 | 0.073074 | 13.6847 |
| 83 | 6 | 86 | 172 | 24.0373 | 0.34913 | 1 | 0.073074 | 13.6847 |
| 84 | 6 | 77 | 154 | 24.0373 | 0.31260 | 1 | 0.073074 | 13.6847 |
| 85 | 6 | 81 | 162 | 24.0373 | 0.32883 | 1 | 0.073074 | 13.6847 |
| 86 | 6 | 78 | 156 | 24.0373 | 0.31665 | 2 | 0.073074 | 13.6847 |
| 87 | 6 | 112 | 224 | 24.0373 | 0.45468 | 2 | 0.073074 | 13.6847 |
| 88 | 6 | 108 | 216 | 24.0373 | 0.43845 | 1 | 0.073074 | 13.6847 |
| 89 | 6 | 191 | 382 | 24.0373 | 0.77540 | 1 | 0.073074 | 13.6847 |
| 90 | 6 | 135 | 270 | 24.0373 | 0.54806 | 1 | 0.073074 | 13.6847 |
| 91 | 6 | 864 | 1728 | 24.0373 | 3.50756 | 4 | 0.073074 | 13.6847 |
| 92 | 6 | 864 | 1728 | 24.0373 | 3.50756 | 4 | 0.073074 | 13.6847 |
| 93 | 6 | 864 | 1728 | 24.0373 | 3.50756 | 4 | 0.073074 | 13.6847 |
| 94 | 6 | 864 | 1728 | 24.0373 | 3.50756 | 4 | 0.073074 | 13.6847 |
| 95 | 6 | 241 | 482 | 24.0373 | 0.97838 | 1 | 0.073074 | 13.6847 |
| 96 | 6 | 281 | 562 | 24.0373 | 1.14077 | 2 | 0.073074 | 13.6847 |
| 97 | 6 | 281 | 562 | 24.0373 | 1.14077 | 2 | 0.073074 | 13.6847 |
| 98 | 6 | 138 | 276 | 24.0373 | 0.56024 | 1 | 0.073074 | 13.6847 |
| 99 | 6 | 95 | 190 | 24.0373 | 0.385687 | 1 | 0.073074 | 13.6847 |
| 100 | 6 | 82 | 164 | 24.0373 | 0.33289 | 1 | 0.073074 | 13.6847 |

## Appendix H: Compliance Buy Form

## WIC VENDOR MANAGEMENT STUDY COMPLIANCE BUY FORM

## PART I: IDENTIFYING INFORMATION

1. Compliance Buyer's Name $\qquad$
2. Compliance Buyer's ID \# $\qquad$
3. Date of Buy $\frac{1}{\text { Month }}{ }^{\text {Day }} \frac{1998}{\text { Year }}$
4. Day of Week of Buy

Sunday..................................... 01 ..... 01

Thursday..................................... 05
Monday ..... 02
Tuesday ..... 03
Friday06
Saturday ..... 07
Wednesday ..... 04
5. Time of Buy _ _ : _ _ AM PM (Record the time you entered the store)
6. Vendor Name $\qquad$
7. Vendor Address $\qquad$
$\qquad$
8. Food Instrument Serial Numbers $\qquad$

COMPLIANCE BUY RESULT

1. Completed $\qquad$ $.01 \rightarrow$ Go to PART II
Not completed.
$02 \rightarrow$ Go to \#2
2. Reason not completed

Vendor out of business...................................................... 01
Vendor no longer WIC-authorized....................................... 02
Other (specify) ................................................................. 03

## PART II: DESCRIPTION OF COMPLIANCE BUY <br> (Complete This Section Immediately After Leaving the Store.)

## (Circle one number for each question)

1. Were all WIC foods available in the required quantities and sizes listed on the food instrument(s)?
Yes 01
No. 02
2. Were you inappropriately asked to accept another item in substitution for the WIC foods you attempted to purchase?

Yes
01

No . ...................................................................... 02
3. Did the cashier verify that you had your WIC identification card?

$$
\text { Yes ....................................................................... } 01
$$

No.
02
Not Applicable. ..... 03
4. Did you observe the total amount rung up on the cash register?
Yes
$.01 \rightarrow$ Enter amount $\$$ $\qquad$
No.
02
5. Were you provided with a register receipt for the WIC purchase?

$\qquad$
6. Did the cashier enter the purchase price on the WIC food instrument?

7. When were you asked to countersign the WIC food instrument?

After the purchase price was entered on the food instrument ......................... 01
After the cashier rang up the WIC food items, but before the price was
entered on the food instrument .............................................................................
Before the cashier rang up the WIC food items................................................ 03
I was not asked to countersign the WIC food instrument.................................. 04
8. Were you charged sales tax on WIC foods?
Yes 01
No. 02
Could not observe..................................................... 03
9. Were you asked to pay cash in addition to the food instrument purchase price for WIC food?
Yes .......................................................................................................................................................
10. Were you offered cash for the food instrument or asked if you had any more WIC food instruments and offered credit or cash for them?


No .02
11. Were you asked to take your purchase to a register specifically for WIC participants?

Yes ................................................................................
No02
12. Were you given incorrect information from a store employee regarding the brands of food you could buy with your WIC food instrument?


No. $\qquad$ 02
13. How many registers did this store have? $\square \square$
14. How many registers were open at the time of your purchase?

## 15. Were your purchased items scanned?

The store did not have scanning equipment............... 01
My items were scanned ......................................... 02
My items were not scanned.................................... 03
16. Did the cashier indicate that he/she was unfamiliar with how to conduct a WIC transaction?

```
Yes ......................................................... 01 }->\mathrm{ Go to 16a
No.
02 }->\mathrm{ Skip to Question 17
```

16a. How was this communicated? (Circle all that apply.)
Cashier indicated that he/she was a new employee.01

Cashier indicated that he/she had never completed a WIC transaction02

Cashier received assistance from a co-worker or supervisor in completing the WIC transaction
$\qquad$
17. Please describe any other WIC program violations you observed.

## PART III-A: WIC PURCHASE INFORMATION

1. Were you able to complete this buy as intended?

Yes $\qquad$ $\rightarrow$ Complete columns D-G for each item purchased.
No.
Complete columns D-G for all items purchased.
Complete column C for all omitted or substituted items.
If applicable, record additional items in Section 2, and complete columns C-G.
SECTION 1:

| A | ITEMS ON WIC FOOD INSTRUMENT |  |  | C | D | E | F | $\begin{array}{\|c\|} \hline \text { GHELF } \\ \text { PRICE } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food Instrument Serial Number | Item Type | Quantity | Size | $\begin{aligned} & \text { Item } \\ & \text { Code } \end{aligned}$ | Brand/Flavor | Price Code | Receipt Price | Per Item Price |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |

SECTION 2: Record information about additional items purchased with FI

|  |  |  |  |  |  |  | $\$$ | $\$$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

ITEM CODES: (* In column C, enter all codes that apply to omitted, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Purchased ineligible alternate item at vendor suggestion
06 - Accepted rain check at vendor suggestion
07 - Purchased additional items at vendor suggestion

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

## NOTES:

## PART III-B. WIC PURCHASE INFORMATION

## (Complete Immediately After Leaving Store.)

1. Were you able to complete this buy as intended?

Yes $\qquad$ $01 \rightarrow$ Complete columns D-G for each item purchased.

No.
Complete columns D-G for all items purchased.
Complete column C for all omitted or substituted items.
If applicable, record additional items in Section 2, and complete columns $C-G$.

## SECTION 1:

| A | B <br> ITEMS ON WIC FOOD <br> INSTRUMENT |  | C | D | E | F | GHELF <br> PRICE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food Instrument <br> Serial Number | Item <br> Type | Quantity | Size | Item <br> Code* | Brand/Flavor | Price <br> Code | Receipt <br> Price | Per <br> Item <br> Price |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

SECTION 2: Record information about additional items purchased with FI

|  |  |  |  |  |  |  | $\$$ | $\$$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

ITEM CODES: (*In column C, enter all codes that apply to omitted, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Purchased ineligible alternate item at vendor suggestion
06 - Accepted rain check at vendor suggestion
07 - Purchased additional items at vendor suggestion

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

## NOTES:

## PART IV: CASH PURCHASE INFORMATION FOR NON-FOOD ITEMS

1. Record information for all non-food items purchased with cash. Attach cash purchase receipt below.

ITEMS PURCHASED WITH CASH DURING COMPLIANCE BUY

| Quantity | Size | Brand | Item Description | Receipt <br> Price |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | $\$$ |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Sales Tax |  |
|  |  |  | Total | $\$$ |
|  |  |  | $\$$ |  |

## PART V: CERTIFICATION AND APPROVAL

A. I certify that I have reviewed this form and the information contained in this report is accurate.

Compliance Buyer's Signature.
Date

| For Office Use Only: |  | Date <br> Received | Date <br> Reviewed | Result <br> Code |
| :--- | :--- | :--- | :--- | :--- |
| 1. Field Supervisor: | Initials |  |  |  |
| 2. RTI: |  |  |  |  |
|  |  |  |  |  |

Result Codes:
01 - Approved for processing
02 - Not approved for processing (explain in notes)
03 - Other (explain in notes)

NOTES:

## ATTACH WIC PURCHASE RECEIPT HERE

ATTACH NON-WIC CASH PURCHASE RECEIPT HERE

## PART VI: ITEMS DONATED

This will certify that I, $\qquad$ , donated the following items to:

## (Field Staff)

Organization $\qquad$
Address $\qquad$

## Zip

Organization Representative $\qquad$
Telephone Number ( $\qquad$ )

These items were obtained in connection with a research study for the USDA.

## ITEMS DONATED

| Quantity |  |
| :---: | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

$\qquad$
Field Staff
Organization Representative

## Date

Date

## WIC VENDOR MANAGEMENT STUDY COMPLIANCE BUY FORM

## PART I: IDENTIFYING INFORMATION

1. Compliance Buyer's Name $\qquad$
2. Compliance Buyer's ID \# $\qquad$
3. Date of Buy $\frac{1}{\text { Month }}{ }^{\text {Day }} / \frac{1998}{\text { Year }}$
4. Day of Week of Buy
Sunday..................................... 01
Monday.................................... 02
Tuesday ................................... 03

Thursday..................................... 05
Friday ......................................... 06
Saturday...................................... 07

Wednesday ............................... 04
5. Time of Buy _ _ : _ _ AM PM (Record the time you entered the store)
6. Vendor Name $\qquad$
7. Vendor Address $\qquad$
8. Food Instrument Serial Numbers $\qquad$

## COMPLIANCE BUY RESULT

1. Completed
$.01 \rightarrow$ Go to PART II
Not completed.
$02 \rightarrow$ Go to \#2
2. Reason not completed
Vendor out of business...................................................... 01
Vendor no longer WIC-authorized...................................... 02
Other (specify) ................................................................ 03

## PART II: DESCRIPTION OF COMPLIANCE BUY <br> (Complete This Section Immediately After Leaving the Store.)

## (Circle one number for each question)

1. Were all WIC foods available in the required quantities and sizes listed on the food instrument(s)?

$$
\begin{aligned}
& \text { Yes } 01 \\
& \text { No. .................................................................... } 02
\end{aligned}
$$

2. Were you inappropriately asked to accept another item in substitution for the WIC foods you attempted to purchase?

$$
\begin{aligned}
& \text { Yes ......................................................................................................................... } 02 \\
& \text { No. ............... }
\end{aligned}
$$

3. Did the cashier verify that you had your WIC identification card?
Yes 01
No. ................................................................... 02
Not Applicable ..... 03
4. Did you observe the total amount rung up on the cash register?
Yes $01 \rightarrow$ Enter amount $\$$

$\qquad$

No. ..... 02
5. Were you provided with a register receipt for the WIC purchase?
$\qquad$Yes .................................................................... $01 \rightarrow$ Enter amount on register receipt
\$ (Attach receipt on page 7)
No. .02
6. Did the cashier enter the purchase price on the WIC food instrument?

7. When were you asked to countersign the WIC food instrument?

After the purchase price was entered on the food instrument ........................... 01
After the cashier rang up the WIC food items, but before the price was
entered on the food instrument ............................................................ 02
Before the cashier rang up the WIC food items.............................................. 03
I was not asked to countersign the WIC food instrument................................. 04

```
Partial Buy ................. }0
Vendor ID#.
Case Type
```

8. Were you charged sales tax on WIC foods?
9. Were you asked to pay cash in addition to the food instrument purchase price for WIC food?
$\qquad$
10. Were you offered cash for the food instrument or asked if you had any more WIC food instruments and offered credit or cash for them?

11. Were you asked to take your purchase to a register specifically for WIC participants?

$$
\begin{aligned}
& \text { Yes ....................................................................................................................................................... } \\
& \text { No ......... }
\end{aligned}
$$

11. Were you given incorrect information from a store employee regarding the brands of food you could buy with your WIC food instrument?
Yes $\qquad$
No
........................................
02
$01 \rightarrow$ Explain
12. How many registers did this store have?
13. How many registers were open at the time of your purchase? $\qquad$

## 15. Were your purchased items scanned?

The store did not have scanning equipment............... 01
My items were scanned ......................................... 02
My items were not scanned.................................... 03
16. Did the cashier indicate that he/she was unfamiliar with how to conduct a WIC transaction?

| Yes ....................................................... $01 \rightarrow$ Go to $16 a$ |  |
| :---: | :---: |
| 16a. | ..................................................... $02 \rightarrow$ Skip to Question 17 |
|  | How was this communicated? (Circle all that apply.) |
|  | Cashier indicated that he/she was a new employee............ 01 |
|  | Cashier indicated that he/she had never completed a <br> WIC transaction. $\qquad$ |
|  | Cashier received assistance from a co-worker or supervisor in completing the WIC transaction $\qquad$ 03 |
|  | Other ............................................................. $04 \rightarrow$ Explain |

17. Please describe any other WIC program violations you observed.

## PART III-A: WIC PURCHASE INFORMATION

(Complete Immediately After Leaving Store.)

1. Were you able to complete this buy as intended?

Yes .................. $01 \rightarrow$ Complete columns D-G for each item purchased. (Complete column C for any out of stock item.)
$\qquad$
Complete columns D-G for all items purchased.
Complete column C if partial buy not allowed for that item, or if item is a substitute.
If applicable, record additional items in Section 2, and complete columns C-G.

## SECTION 1:

| A | ITEMS ON WIC FOOD INSTRUMENT |  |  | C | D | E | F | GHELF <br> PRICE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food Instrument Serial Number | Item Type | Quantity | Size | Item Code* | Brand/Flavor | Price Code | Receipt Price | Per Item Price |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
| SECTION 2: Record information about additional items purchased with FI |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |

ITEM CODES: (*In column C, enter all codes that apply to out-of-stock, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Purchased ineligible alternate item at vendor suggestion
06 - Accepted rain check at vendor suggestion
07 - Vendor refused to allow partial buy
08 - Purchased additionalitems at vendor suggestion

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

## NOTES:

## PART III-B. WIC PURCHASE INFORMATI ON

(Complete Immediately After Leaving Store.)

1. Were you able to complete this buy as intended?
$\qquad$ $01 \rightarrow$ Complete columns D-G for each item purchased. (Complete column C for any out of stock item.)

No. 02

Complete columns D-G for all items purchased.
Complete column C if partial buy not allowed for that item, or if item is a substitute.
If applicable, record additional items in Section 2, and complete columns C-G.

## SECTION 1:

| A | ITEMS ON WIC FOOD <br> INSTRUMENT |  | C | D | E | F | G <br> SHELF <br> PRICE |  |
| :---: | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Food <br> Instrument <br> Serial Number | Item Type | Quantity | Size | Item <br> Code <br> $\star$ | Brand/Flavor | Price <br> Code | Receipt <br> Price | Per <br> Item <br> Price |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  | $\$$ | $\$$ |  |

## SECTION 2: Record information about additional items purchased with FI

|  |  |  |  |  |  |  | $\$$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  | $\$$ |  |  |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

ITEM CODES: (*In column C, enter all codes that apply to out-of-stock, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Purchased ineligible alternate item at vendor suggestion
06 - Accepted rain check at vendor suggestion
07 - Vendor refused to allow partial buy
08 - Purchased additional items at vendor suggestion

## NOTES:

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

## PART IV: CASH PURCHASE INFORMATION FOR NON-FOOD ITEMS

1. Record information for all non-food items purchased with cash. Attach cash purchase receipt below.

| ITEMS PURCHASED WITH CASH DURING COMPLIANCE BUY |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Quantity | Size | Brand | Item Description | Receipt <br> Price |
|  |  |  |  | $\$$ |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Sales Tax | $\$$ |
|  |  |  | Total | $\$$ |

## PART V: CERTIFICATION AND APPROVAL

A. I certify that I have reviewed this form and the information contained in this report is accurate.

Compliance Buyer's Signature. $\qquad$ Date

| B. For Office_Use Only: |  | Date <br> Received | Date <br> Reviewed | Result <br> Code |
| :--- | :--- | :--- | :--- | :--- |
| 1. Field Supervisor: | Initials |  |  |  |
| 2. RTI: |  |  |  |  |

## Result Codes:

NOTES:
01 - Approved for processing
02 - Not approved for processing (explain in notes)
03-Other (explain in notes)

ATTACH WIC PURCHASE RECEIPT HERE

ATTACH NON-WIC CASH PURCHASE RECEIPT HERE

## PART VI: ITEMS DONATED

This will certify that I, $\qquad$ , donated the following items to:

## (Field Staff)

Organization $\qquad$

Address $\qquad$

$$
\underline{\mathrm{Zip}}
$$

Organization Representative $\qquad$
Telephone Number ( $\qquad$ )

These items were obtained in connection with a research study for the USDA.

## ITEMS DONATED

| Quantity |  |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

$\qquad$
Field Staff
Organization Representative

## Date

Date

## WIC VENDOR MANAGEMENT STUDY

 COMPLIANCE BUY FORM
## PART I: IDENTIFYING INFORMATION

1. Compliance Buyer's Name $\qquad$
2. Compliance Buyer's ID \# $\qquad$
3. Date of Buy $\frac{/}{\text { Month }} \frac{/ 1998}{\text { Day }}$
4. Day of Week of Buy

Sunday........................................ 01
Monday...................................... 02
Tuesday ..................................... 03
Wednesday ................................. 04
5. Time of Buy _ _ : _ _ AM PM (Record the time you entered the store)
6. Vendor Name $\qquad$
7. Vendor Address $\qquad$
$\qquad$
8. Food Instrument Serial Numbers $\qquad$

COMPLIANCE BUY RESULT

1. Completed $\qquad$ $01 \rightarrow$ Go to PART II
Not completed.
$02 \rightarrow$ Go to \#2
2. Reason not completed

Vendor out of business ........................................................ 01
Vendor no longer WIC-authorized......................................... 02
Other (specify) ................................................................ 03

## PART II: DESCRIPTION OF COMPLIANCE BUY <br> (Complete This Section Immediately After Leaving the Store.)

## (Circle one number for each question)

1. Were all WIC foods available in the required quantities and sizes listed on the food instrument(s)?
Yes
01
No. 02
2. Were you inappropriately asked to accept another item in substitution for the WIC foods you attempted to purchase?

Yes ..... 01
No. ..... 02

3. Did the cashier verify that you had your WIC identification card?
Yes ..... 01
No. ..... 02
Not Applicable ..... 03
4. Did you observe the total amount rung up on the cash register?
Yes $.01 \rightarrow$ Enter amount $\$$

$\qquad$

No.

02
5. Were you provided with a register receipt for the WIC purchase?


No. 02
6. Did the cashier enter the purchase price on the WIC food instrument?
Yes ....................................................................... $01 \rightarrow$ _ $~$ ___ Amount clerk entered
7. When were you asked to countersign the WIC food instrument?

After the purchase price was entered on the food instrument .......................... 01
After the cashier rang up the WIC food items, but before the price was
entered on the food instrument ......................................................... 02
Before the cashier rang up the WIC food items.............................................. 03
I was not asked to countersign the WIC food instrument................................ 04
8. Were you charged sales tax on WIC foods?
8. Were you asked to pay cash in addition to the food instrument purchase price for WIC food?
$\qquad$
9. Were you offered cash for the food instrument or asked if you had any more WIC food instruments and offered credit or cash for them?

10. Were you asked to take your purchase to a register specifically for WIC participants?

$$
\begin{aligned}
& \text { Yes ...................................................................................................................................... } \\
& \text { No .......... }
\end{aligned}
$$

11. Were you given incorrect information from a store employee regarding the brands of food you could buy with your WIC food instrument?
$\qquad$
Yes
$01 \rightarrow$ Explain

No
12. How many registers did this store have?
14. How many registers were open at the time of your purchase? $\qquad$

## 15. Were your purchased items scanned?

The store did not have scanning equipment.............. 01
My items were scanned ........................................ 02
My items were not scanned .................................... 03
16. Did the cashier indicate that he/she was unfamiliar with how to conduct a WIC transaction?

| Yes ....................................................... $01 \rightarrow$ Go to $16 a$ |  |
| :---: | :---: |
| 16a. |  |
|  | How was this communicated? (Circle all that apply.) |
|  | Cashier indicated that he/she was a new employee............ 01 |
|  | Cashier indicated that he/she had never completed a <br> WIC transaction. $\qquad$ |
|  | Cashier received assistance from a co-worker or supervisor in completing the WIC transaction .03 |
|  | Other .............................................................. $04 \rightarrow$ Explain |

17. Please describe any other WIC program violations you observed.

## PART III-A: WIC PURCHASE INFORMATION

(Complete Immediately After Leaving Store.)

1. Were you able to complete this buy as intended?

Yes $\qquad$ Complete columns C-G for substituted item(s). Complete columns D-G for all other items purchased.

No. $\qquad$
Complete columns D-G for all items purchased.
Complete column C if substitution not allowed for item, or if the item was omitted. If applicable, record additional items in Section 2, and complete columns C-G.

## SECTION 1:

| A | ITEMS ON WIC FOOD INSTRUMENT |  |  | C | D | E | F | G SHELF PRICE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food Instrument Serial Number | Item Type | Quantity | Size | Item Code* | Brand/Flavor | Price Code | Receipt Price | Per Item Price |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |
|  |  |  |  |  |  |  | \$ | \$ |

## SECTION 2: Record information about additional items purchased with FI

|  |  |  |  |  |  |  | $\$$ | $\$$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

ITEM CODES: (*In column C, enter all codes that apply to omitted, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Substitution permitted
06 - Purchased ineligible alternate item at vendor suggestion
07 - Accepted rain check at vendor suggestion
08 - Vendor refused to allow attempted substitution
09 - Purchased additional items at vendor suggestion

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

## NOTES:

## PART III-B. WIC PURCHASE INFORMATION

(Complete Immediately After Leaving Store.)

1. Were you able to complete this buy as intended?

Yes $\qquad$ $01 \rightarrow$ Complete columns $C$ - $G$ for substituted item(s). Complete columns D-G for all other items purchased.

No. $\qquad$
Complete columns D-G for all items purchased.
Complete column C if substitution not allowed for item, or if the item was omitted. If applicable, record additional items in Section 2, and complete columns C-G.

## SECTION 1:

| A | ITEMS ON WIC FOOD <br> INSTRUMENT |  | C | D | E | F | G <br> SHELF <br> PRICE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food <br> Instrument <br> Serial Number | Item <br> Type | Quantity | Size | Item <br> Code* | Brand/Flavor | Price <br> Code | Receipt <br> Price | Per Item <br> Price |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

SECTION 2: Record information about additional items purchased with FI

|  |  |  |  |  |  |  | $\$$ | $\$$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

ITEM CODES: (*In column $C$, enter all codes that apply to omitted, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Substitution permitted
06 - Purchased ineligible alternate item at vendor suggestion
07 - Accepted rain check at vendor suggestion
08 - Vendor refused to allow attempted substitution
09 - Purchased additional items at vendor suggestion

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

## NOTES:

## PART IV: CASH PURCHASE INFORMATION FOR NON-FOOD ITEMS

1. Record information for all non-food items purchased with cash. Attach cash purchase receipt below.

| ITEMS PURCHASED WITH CASH DURING COMPLIANCE BUY |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Quantity | Size | Brand | Item Description | Receipt <br> Price |
|  |  |  |  | $\$$ |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  | $\$$ |
|  |  |  | Sales Tax | $\$$ |

## PART V: CERTIFICATION AND APPROVAL

A. I certify that I have reviewed this form and the information contained in this report is accurate.

Compliance Buyer's Signature. $\qquad$ Date

| B. $\quad$ For Office Use Only: |  | Date <br> Received | Date <br> Reviewed | Result <br> Code |
| :--- | :--- | :--- | :--- | :--- |
| 1. Field Supervisor: | Initials |  |  |  |
| 2. RTI: |  |  |  |  |

Result Codes:
01 - Approved for processing
02 - Not approved for processing (explain in notes)
03 - Other (explain in notes)

NOTES:

## ATTACH WIC PURCHASE RECEIPT HERE

ATTACH NON-WIC CASH PURCHASE RECEIPT HERE

## PART VI: ITEMS DONATED

This will certify that I, $\qquad$ , donated the following items to: (Field Staff)

Organization $\qquad$
Address $\qquad$

## Zip

Organization Representative $\qquad$
Telephone Number ( )

These items were obtained in connection with a research study for the USDA.

## ITEMS DONATED

| Quantity |  |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

$\qquad$
Field Staff
Organization Representative

Date
Date

## WIC VENDOR MANAGEMENT STUDY COMPLIANCE BUY FORM

## PART I: IDENTIFYING INFORMATION

1. Compliance Buyer's Name $\qquad$
2. Compliance Buyer's ID \# $\qquad$
3. Date of Buy $\frac{1}{\text { Month }}{ }^{\text {Day }} / \frac{1998}{\text { Year }}$
4. Day of Week of Buy
Sunday..................................... 01
Monday.................................... 02
Tuesday ................................... 03

Thursday..................................... 05
Friday ......................................... 06
Saturday...................................... 07

Wednesday ............................... 04
5. Time of Buy _ _ : _ _ AM PM (Record the time you entered the store)
6. Vendor Name $\qquad$
7. Vendor Address $\qquad$
8. Food Instrument Serial Numbers $\qquad$

## COMPLIANCE BUY RESULT

1. Completed
$01 \rightarrow$ Go to PART II
Not completed.
$02 \rightarrow$ Go to \#2
2. Reason not completed
Vendor out of business...................................................... 01
Vendor no longer WIC-authorized...................................... 02
Other (specify) ................................................................ 03

## PART II: DESCRIPTION OF COMPLIANCE BUY

(Complete This Section Immediately After Leaving the Store.)

## (Circle one number for each question)

1. Were all WIC foods available in the required quantities and sizes listed on the food instrument(s)?

$$
\begin{aligned}
& \text { Yes } 01 \\
& \text { No. .................................................................... } 02
\end{aligned}
$$

2. Were you inappropriately asked to accept another item in substitution for the WIC foods you attempted to purchase?

Yes 01

No. ..... 02
3. Did the cashier verify that you had your WIC identification card?
Yes 01
No. ................................................................... 02

Not Applicable..................................................... 03
4. Did you observe the total amount rung up on the cash register?

5. Were you provided with a register receipt for the WIC purchase?

Yes $01 \rightarrow$............................................................Enter amount on register receipt
\$ $\qquad$ (Attach receipt on page 7)
No. 02
6. Did the cashier enter the purchase price on the WIC food instrument?

7. When were you asked to countersign the WIC food instrument?

After the purchase price was entered on the food instrument ........................... 01
After the cashier rang up the WIC food items, but before the price was
entered on the food instrument ............................................................ 02
Before the cashier rang up the WIC food items.............................................. 03
I was not asked to countersign the WIC food instrument................................ 04
8. Were you charged sales tax on WIC foods?
Yes 01
No. 02
Could not observe.................................................. 03
9. Were you asked to pay cash in addition to the food instrument purchase price for WIC food?
Yes ..........................................................................................................................................
No
10. Were you offered cash for the food instrument or asked if you had any more WIC food instruments and offered credit or cash for them?


No 02
11. Were you asked to take your purchase to a register specifically for WIC participants?

Yes .................................................................... 01
No.02
12. Were you given incorrect information from a store employee regarding the brands of food you could buy with your WIC food instrument?

Yes ..................................................................... $01 \rightarrow$ Explain

No $\qquad$ 02
13. How many registers did this store have? $\square \square$
14. How many registers were open at the time of your purchase?
15. Were your purchased items scanned?

The store did not have scanning equipment.............. 01
My items were scanned ........................................ 02
My items were not scanned .................................... 03
16. Did the cashier indicate that he/she was unfamiliar with how to conduct a WIC transaction?

```
Yes .......................................................... }01->\mathrm{ Go to 16a
No.
02 }->\mathrm{ Skip to Question 17
```

16a. How was this communicated? (Circle all that apply.)

Cashier indicated that he/she was a new employee.01

Cashier indicated that he/she had never completed a WIC transaction02

Cashier received assistance from a co-worker or supervisor in completing the WIC transaction
$\qquad$04
17. Please describe any other WIC program violations you observed.

## PART III-A: WIC PURCHASE INFORMATION

(Complete Immediately After Leaving Store.)

1. Were you able to complete this buy as intended?

Yes $\qquad$ Complete columns C-G for substituted item(s). Complete columns D-G for all other items purchased.

No. $\qquad$
Complete columns D-G for all items purchased.
Complete column C if substitution not allowed for item, or if the item was omitted. If applicable, record additional items in Section 2, and complete columns C-G.

## SECTION 1:

| A | ITEMS ON WIC FOOD <br> INSTRUMENT |  | C | D | E | F | G <br> SHELF <br> PRICE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food <br> Serial Number | Item <br> Type | Quantity | Size | Item <br> Code* | Brand/Flavor | Price <br> Code | Receipt <br> Price | Per Item <br> Price |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  | $\$$ | $\$$ |  |
|  |  |  |  |  |  | $\$$ | $\$$ |  |
|  |  |  |  |  |  |  | $\$$ |  |

## SECTION 2: Record information about additional items purchased with FI

|  |  |  |  |  |  |  | $\$$ | $\$$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

ITEM CODES: (*In column C, enter all codes that apply to omitted, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Substitution permitted
06 - Purchased ineligible alternate item at vendor suggestion
07 - Accepted rain check at vendor suggestion
08 - Vendor refused to allow attempted substitution
09 - Purchased additional items at vendor suggestion

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

## NOTES:

## PART III-B. WIC PURCHASE INFORMATION

## (Complete Immediately After Leaving Store.)

1. Were you able to complete this buy as intended?

Yes $\qquad$ 01
$\rightarrow$ Complete columns $C$ - $G$ for substituted item( $s$ ). Complete columns D-G for all other items purchased.

No. $\qquad$
Complete columns D-G for all items purchased.
Complete column C if substitution not allowed for item, or if the item was omitted. If applicable, record additional items in Section 2, and complete columns C-G.

## SECTION 1:

| A | ITEMS ON WIC FOOD <br> INSTRUMENT |  | C | D | E | F | G <br> SHELF <br> PRICE |  |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Food <br> Serial Number | Item Type | Quantity | Size | Item <br> Code* | Brand/Flavor | Price <br> Code | Receipt <br> Price | Per Item <br> Price |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |
|  |  |  |  |  |  |  | $\$$ | $\$$ |

SECTION 2: Record information about additional items purchased with FI

|  |  |  |  |  |  |  | $\$$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | $\$$ |  |
|  |  |  |  |  |  |  | $\$$ |  |

ITEM CODES: (* In column C, enter all codes that apply to omitted, substituted, or additional items)
01 - Not in stock
02 - Total quantity needed not in stock
03 - Required size not in stock
04 - No alternate item purchased
05 - Substitution permitted
06 - Purchased ineligible alternate item at vendor suggestion
07 - Accepted rain check at vendor suggestion
08 - Vendor refused to allow attempted substitution
09 - Purchased additional items at vendor suggestion

PRICE CODES (In Column E, enter one code for each item purchased)
01 - Price marked on item
02 - Price observed in store
03 - Price obtained through cash purchase of same item
04 - Price obtained by second compliance buyer
05 - Price obtained through other method (explain in notes section)

NOTES:

## PART IV: CASH PURCHASE INFORMATION FOR NON-FOOD ITEMS

1. Record information for all non-food items purchased with cash. Attach cash purchase receipt below.

| ITEMS PURCHASED WITH CASH DURING COMPLIANCE BUY |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Quantity | Size | Brand | Item Description | Receipt <br> Price |
|  |  |  |  | $\$$ |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  | $\$$ |
|  |  |  | Sales Tax | $\$$ |

## PART V: CERTIFICATION AND APPROVAL

A. I certify that I have reviewed this form and the information contained in this report is accurate.

Compliance Buyer's Signature.
Date

| B. For Office Use Only: | Date <br> Received | Date <br> Reviewed | Result <br> Code |  |
| :--- | :--- | :--- | :--- | :---: |
| 1. Field Supervisor: | Initials |  |  |  |
| 2. RTI: | Initials |  |  |  |

## Result Codes:

01 - Approved for processing
02 - Not approved for processing (explain in notes)
03 - Other (explain in notes)

NOTES:

ATTACH WIC PURCHASE RECEIPT HERE

ATTACH NON-WIC CASH PURCHASE RECEIPT HERE

## PART VI: ITEMS DONATED

This will certify that I, $\qquad$ , donated the following items to: (Field Staff)

Organization $\qquad$

Address $\qquad$
Zip

Organization Representative $\qquad$

Telephone Number ( )

These items were obtained in connection with a research study for the USDA.

ITEMS DONATED

| Quantity |  |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Field Staff
Organization Representative

Date
Date


[^0]:    ${ }^{1}$ This data is based on a weighted estimate of 36,417 vendors who were each visited three times (for a safe, partial and substitution buy).

[^1]:    ${ }^{1}$ This data is based on an average weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^2]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy) yielding a total estimate of 110,723 .

[^3]:    ${ }^{1}$ This data is based on an averaged weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^4]:    ${ }^{1}$ This data is based on an averaged weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^5]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy) yielding a total estimate of 110,723 .

[^6]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^7]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were visited for a minor substitution buy.

[^8]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy) yielding a total estimate of 110,723 buys.

[^9]:    ${ }^{1}$ This data is based on an averaged weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^10]:    ${ }^{1}$ This data is based on an averaged weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^11]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^12]:    ${ }^{1}$ This data is based on an average weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^13]:    ${ }^{1}$ This data is based on an average weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^14]:    ${ }^{1}$ This data is based on an averaged weighted estimate of 36,908 vendors who were each visited three times (for a safe, partial, and substitution buy).

[^15]:    * Statistically significant at 0.05
    ${ }^{1}$ First level not significant for one time offender

[^16]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^17]:    * Statistically significant at the 0.05 level.

[^18]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^19]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^20]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^21]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^22]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^23]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^24]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^25]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^26]:    * Statistically significant at the 0.05 level.
    ** Statistically significant at the 0.01 level.

[^27]:    ${ }^{1}$ Minor Substitutions were initiated by the compliance buyers at approximately half of the vendors.
    ${ }^{2}$ Major substitutions were initiated by the compliance buyers at approximately half of the vendors.

[^28]:    ${ }^{1}$ Minor Substitutions were initiated by the compliance buyers at approximately half of the vendors.

[^29]:    ${ }^{1}$ Major substitutions were initiated by the compliance buyers at approximately half of the vendors.

[^30]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were visited for a safe buy.

[^31]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were visited for a safe buy.

[^32]:    ${ }^{1}$ This data is based on a weighted estimate of 36,908 vendors who were visited for a safe buy.

[^33]:    ${ }^{1}$ This data is based on a weighted estimate of 31,485 vendors who were visited for a safe buy.

[^34]:    ${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

[^35]:    ${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

[^36]:    ${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

[^37]:    ${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

[^38]:    ${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

[^39]:    ${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

[^40]:    ${ }^{1}$ This data was derived from the safe buy. Accordingly, an estimated total of 36,908 vendors participated.

[^41]:    ${ }^{1}$ Chromy, J.R. (1979). Sequential Sample Selection Methods, Proceedings of the Section on Survey Research Methods, American Statistical Association, p. 401-406.

