

**CODEBOOK**  
**Robin Hood 2016-2017 9m-Follow up Survey**  
Updated May 18, 2023

[VAR: q3a1]

**Do you currently live with a spouse or domestic partner (a live-in romantic partner)?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Spouse
2	Domestic partner
3	Neither
97	No answer
98	Don't know
99	Refused to answer

**\*\*\*NOTE: J and F Module questions only asked of individuals who did not complete this survey late (q3late)\*\*\***

[VAR: q3a2]

**Do you have at least one biological or adopted child under the age of 18 who lives with you?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused

[VAR: q3j1\_1]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**You moved?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR q3j1\_2]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**You had a child?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j1\_3]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**Someone moved into your household?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j1\_4]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**Someone moved out of your household?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j1\_5]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**You started a romantic relationship?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j1\_6]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**You ended a romantic relationship?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know

99 Refused to answer

[VAR: q3j1\_7]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**There was a change in your childcare arrangement?**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know  
99 Refused

[VAR: q3j1\_8]

**In this section, I'm going to list things that sometimes happen to people. Please tell me which of the following, if any, have happened to You in the past 3 months?**

**You had to take time off work to talk to your child's teacher or guidance counselor?**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't Know  
99 Refused to answer

[VAR: q3j2\_1]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone started a new job?**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know  
99 Refused

[VAR: q3j2\_2]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone lost a job?**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know  
99 Refused to answer

[VAR: q3j2\_3]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone started to receive public benefits?**

PUNCH

RESPONSE

1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j2\_4]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone's public benefits were cut off?**

PUNCH

RESPONSE

1	Yes
2	No
97	No answer
98	Don't know
99	Refused

[VAR: q3j2\_5]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone had an unanticipated major expense?**

PUNCH

RESPONSE

1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j2\_6]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone had a major increase in income?**

PUNCH

RESPONSE

1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j2\_7]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone had a major decrease in income?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j2\_8]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone had an accident, injury or illness that interfered with work or life?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3j2\_9]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone was the victim of a crime?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused

[VAR: q3j2\_11]

**Please tell me which of the following, if any, have happened to you or ANYONE in your household in the past 3 months.**

**Someone lost or broke expensive belongings?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused

[VAR: q3f1]

**In order to buy enough food to meet your household's needs, would you need to spend more,**

		<b>less, or about the same as you spend now?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	More
	2	Less
	3	About the same
	97	No answer
	98	Don't know
	99	Refused
<b>[VAR: q3f2]</b>		<b>About how much MORE would you need to spend each week to buy enough food to meet the needs of your household?</b>
		<u>RESPONSE</u>
	<u>PUNCH</u>	Entered dollar amount
	1	No answer
	97	Don't know
	98	Refused
	99	
<b>[VAR: q3f2x_tc]</b>		<b>About how much MORE would you need to spend each week to buy enough food to meet the needs of your household? Entered response (top-coded at 90%)</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	Open ended	Entered response
<b>[VAR: q3f3]</b>		<b>Now I'm going to read you a statement. Please tell me whether this was often true, sometimes true, or never true for you in the past 3 months. "I worried whether my food would run out before I got money to buy more." Would you say...</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Often
	2	Sometimes
	3	Never
	97	No answer
	98	Don't know
	99	Refused to answer
<b>[VAR: q3f6]</b>		<b>In the past 3 months...</b>
		<b>Did you stay at a shelter, in an abandoned building, an automobile, or any other place not meant for regular housing, even for one night?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No

[VAR: q3f8]

**In the past 3 months...**

**Was your phone, gas or electricity ever cut off because there wasn't enough money to pay the bills?**

PUNCH

RESPONSE

1

Yes

2

No

[VAR: q3f9]

**In the past 3 months...**

**Was there a time when you or anyone else in your household needed to see a doctor or go to the hospital but couldn't go because of the cost?**

PUNCH

RESPONSE

1

Yes

2

No

[VAR: q3f10]

**In the past 3 months...**

**How often did you run out of money between paychecks or before the end of the month? Would you say that happened...**

PUNCH

RESPONSE

1

Often

2

Sometimes

3

Never

[VAR: q3b0]

**Is your current house or apartment...**

PUNCH

RESPONSE

1

Rented

2

Owned by you/spouse

3

Occupied without payment of rent

4

Other

97

No answer

98

Don't know

99

Refused

[VAR: q3b7]

**Is there a mortgage, home equity loan, or similar debt on this home or apartment?**

PUNCH

RESPONSE

1

Yes

2

No

97

No answer

98

Don't know

99

Refused

[VAR: q3b8]

**How much is still owed on this loan?**

PUNCH

RESPONSE

1

Entered response

97

No answer



	98	Don't know
	99	Refused
[VAR: q3b8x_tc]		<b>How much is still owed on this loan? (top-coded at 90%)</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	Open ended	Entered response
[VAR: q3b9]		<b>How much is still owed on this loan? Your best estimate...</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Less than \$50,000
	2	\$50,000 to \$100,000
	3	\$100,000 to \$200,000
	4	\$200,000 to \$300,000
	5	\$300,000 to \$500,000
	6	\$500,000 to \$750,000
	7	\$750,000 to \$1,000,000
	8	Over \$1,000,000
	97	No answer
	98	Don't know
	99	Refused
[VAR: q3b10]		<b>Do you own anything for transportation, like cars, trucks, vans, etc. ?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused
[VAR: q3c1]		<b>Do you have any credit cards, charge cards, or store cards?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused to answer
[VAR: q3c15]		<b>Are you currently a cosigner on any debt owed by a friend or family member?</b>

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3c16]

**Do you currently have a cosigner on any debt owed by yourself?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: q3newyork]

**Did respondent still live in NYC at time of 9m survey?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: imp\_q3bankacct\_tc]

**Value of all checking/savings accounts? (top coded at 90%) – Imputed B18**

[VAR: imp\_q3bond\_tc]

**Value of all treasury bills, government bonds, and bond funds? (top-coded at 90%) – Imputed B27**

[VAR: imp\_q3dmoneymrkt\_tc]

**Value of all CDs and/or money market funds? (top-coded at 90%) – Imputed B21**

[VAR: imp\_q3farmbus\_tc]

**If you sold this farm/business and assets, how much would you realize? (top-coded at 90%) – Imputed B36**

[VAR: imp\_q3homevalue\_tc]

**How much did the house cost when you acquired? (top-coded at 90%) – Imputed B3**

[VAR: imp\_q3lifeins\_tc]

**Current cash value of life insurance policy? (top-coded at 90%) – Imputed B33**

[VAR: imp\_q3otherassets\_tc]

**Value of all additional savings/assets? (top-coded at 90%) – Imputed B35**

**90%) – Imputed B40**

[VAR: **imp\_q3retirement\_tc**]

How much would you receive if you cashed in these retirement accounts, annuities, and/or pension/retirement plans? (top-coded at 90%) – Imputed B30

[VAR: **imp\_q3stock\_tc**]

Value of all stocks and stock mutual funds? (top-coded at 90%) – Imputed B24

[VAR: **imp\_q3creditcarddebt\_tc**]

How much credit card debt did you carry over from last month to this one? (top-coded at 90%) – Imputed C3

[VAR: **imp\_q3educdebt\_tc**]

How much is owed on all of your education loans combined? (top-coded at 90%)- Imputed C6

[VAR: **imp\_q3medicaldebt\_tc**]

How much do you currently owe on all medical debts combined? (top-coded at 90%) - Imputed C9

[VAR: **imp\_q3otherdebt\_tc**]

Imputed q3c13x\_tc - How much is still owed on these debts?

[VAR: **imp\_q3carvalue\_tc**]

Respondents were asked to list all of the vehicles owned. Using the make, model, and year of the vehicle owned, coders used average Kelley Blue Book values to determine the value of these vehicles. Where we didn't know if they had a car we imputed whether they had a car. For cases who didn't list the make, model, or year, or who we imputed a dummy indicating they owned a vehicle, we imputed a value of 8,000 for their vehicles.

[VAR: **assets\_tc**]

Imputed assets summed (imp\_bankacct imp\_bond imp\_cdmoneymrkt imp\_farmbus imp\_homevalue imp\_lifeins imp\_otherassets imp\_retirement imp\_stock imp\_q3carvalue - (top-coded at 90%)

[VAR: **debts\_tc**]

Imputed debts summed (imp\_creditcarddebt imp\_educdebt imp\_medicaldebt imp\_otherdebt imp\_homemortgage)

[VAR: **q3surveyyear**]

Survey Year

[VAR: **q3surveymonth**]

Survey Month

[VAR: **q3weight\_p**]  
[See Appendix A]

Person level weight

[VAR: q3weight\_pu]  
[See Appendix A]

**Family level weight**

[VAR: q3late]

**Flag indicating whether subject took the 9m survey late.**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No

[VAR: q3d5]

**During the past 12 months, in how many months did you work?**

<u>PUNCH</u>	<u>RESPONSE</u>
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
97	No answer
98	Don't know
99	Refused

[VAR: q3d6]

**During the past 12 months, about how many days did you miss work at a job or business because you or someone you care for was ill or injured?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	None
2	Entered number
3	Self-employed / not applicable
97	No answer
98	Don't know
99	Refused

[VAR: q3d6x]

**During the past 12 months, about how many days did you miss work at a job or business because you or someone you care for was ill or injured?**

PUNCH

RESPONSE

Open  
ended

Entered response

[VAR: q3d8]

**Were you paid for the days you missed because of illness or injury?**

PUNCH

RESPONSE

1 Yes, paid for all of them  
2 Yes, paid for some of them  
3 No  
4 Self-employed / Not applicable  
97 No answer  
98 Don't know  
99 Refused

[VAR: q3d9]

**During the past 12 months, about how many days did you go to work feeling sick because you could not afford to lose pay?**

PUNCH

RESPONSE

1 None  
2 Entered number of days  
97 No answer  
98 Don't know  
99 Refused

[VAR: q3d9x]

**During the past 12 months, about how many days did you go to work feeling sick because you could not afford to lose pay?**

PUNCH

RESPONSE

Open  
ended

Entered response

[VAR: imp\_q3bankacct\_d]

**Do you have a checking or savings account? Imputed version of B17.**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know

99 Refused to answer

[VAR: imp\_q3cdmoneymrkt\_d]

**Do you have money in CDS or money market funds?  
Imputed version of B20.**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know  
99 Refused to answer

[VAR: imp\_q3stock\_d]

**Do you have any shares of stock or stock mutual  
funds? Imputed version of B23.**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know  
99 Refused

[VAR: imp\_q3bond\_d]

**Do you have any treasury bills, gov't bond, or bond  
funds? Imputed version of B26.**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know  
99 Refused

[VAR: imp\_q3retirement\_d]

**Do you have any retirement accounts, assets in  
annuity, or are you included in any pension or  
retirement plans connected with a job? Imputed  
version of B29.**

PUNCH

RESPONSE

1 Yes  
2 No  
97 No answer  
98 Don't know  
99 Refused

[VAR: imp\_q3farmbus\_d]

**Do you own part or all of a farm or business?  
Imputed version of B35.**

PUNCH

RESPONSE

1 Yes  
2 No

97	No answer
98	Don't know
99	Refused

[VAR: imp\_q3lifeins\_d]

**Do you have any life insurance? Imputed version of B32.**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused

[VAR: imp\_q3otherassets\_d]

**Do you have any other savings or assets that you haven't told me about already? Ie tools, equipment, jewelry, artwork, antiques, etc. Imputed version of B38.**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused

[VAR: imp\_q3creditcarddebt\_d]

**Did you carry over any credit card debt from last month to this month? Imputed version of C2.**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: imp\_q3educdebt\_d]

**Do you have education related debt? Imputed version of C5.**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: imp\_q3medicaldebt\_d]

**Do you owe any money for medical expenses? Imputed version of C8.**

<u>PUNCH</u>	<u>RESPONSE</u>
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1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

[VAR: imp\_q3otherdebt\_d]

**Do you have any other debt? Imputed version of C11.**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer

VAR: imp\_q3carowner\_d]

**Do you own anything for transportation, like cars, trucks, vans, SUV's, or motorcycles? Imputed version of B9**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
97	No answer
98	Don't know
99	Refused to answer



## Appendix A

### Overview

This memo details our approach to survey weighting, by which we ensure that the Robin Hood Poverty Tracker sample is representative of New Yorkers age 18 and over. The primary Poverty Tracker is selected from an option survey at the conclusion of the Community Healthy Survey. The CHS is a Random Digit Dial (RDD) phone sample conducted by the survey research organization SRBI. The first panel generated a sample of approximately 3,403 RDD sample members. We included both landline and cell phone numbers in our sample frame. In addition, a second pool of 505 participants were recruited from agencies that provide assistance to low-income individuals. The purpose of this second pool was to oversample those using social service agencies in New York City. Oversample specific populations characteristics (social service agencies in this case) is a statistically and efficient way to increase the sample sizes of populations of interest in surveys.

Survey weights are then used to adjust statistical parameters (estimates) so that inferences made from the data apply to the overall population from which the sample was drawn (in this case, NYC). Data are weighted to a three-year American Community Survey (ACS) dataset provided by the United States Census Bureau.

The weighting approach that we employ, which adjusts for oversampling and for random over- or under-representation, for non-response, and for attrition, is used in all nationally and locally representative studies.

In the remainder of this memo, we provide more technical details on the construction of Poverty Tracker survey weights. The target population is adults (18+) who are New York City residents.

### Structure of baseline sample

#### SRBI

The SRBI phone sample consists of 3,403 New York City residents contacted by random digit dialing (RDD). Of the 3,403 respondents, 1,774 were contacted by cellphone and 1,629 by landline.

#### Agency

The face-to-face sample includes 505 respondents from 26 agencies.

**SRBI cell phone 1,774**

**SRBI landline 1,629**

**Agency 505**

**Total 3,908**

**Subsequent waves**

For subsequent survey waves, we adjust for panel attrition using the stratification response propensity score method. Non-coverage is addressed by post-stratification. For each survey wave we compute individual weights for each respondent as well as family (poverty unit) weights.

### Poverty units

The definition of the poverty unit differs from the traditional family in that unmarried partners are included as family members. Poverty unit weights are obtained from the personal weights by dividing by the number of adults in the poverty unit.

### Post-stratification

The data used for post-stratification comes from 2014-2016 American Community Survey (ACS) NYC sample. We approximate the population distributions of the post-stratification variables using weighted ACS numbers.<sup>1</sup>

For agency sample, one variable, social service use, is not collected by the ACS. While, it is important to post-stratify on this variable because the agency sample oversamples individuals who use these services. We use the SRBI sample to estimate social service use in the population, which we used to post-stratify to.

### Baseline weights

Constructing the baseline weights consists of three steps:

1. Weight the SRBI phone sample to match the NYC adult population (see the SRBI weights section).
2. Use the weighted SRBI sample to estimate the population distribution of social service use (see the Agency weights section).
3. Combine the SRBI and agency samples and weight to match social service use and demographics (see the Combined weights section).

### SRBI weights

Using the SRBI phone sample only, we adjust for selection bias and nonresponse to match the ACS data:

1. ***Adjustment for the number of adults in the household and family.*** The larger household, the smaller the selection probability is for each individual. However, the larger the family, the larger the response probability from the family. We therefore need to weight up larger households while weighting down larger families. Gelman and Little (1988) recommend square roots for this weighting adjustment because inverse probability weights for household sizes tend to overcorrect in telephone surveys. For each respondent we use the square root of the ratio of the number of adults in the household to the number of adults in the family.

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<sup>1</sup> That is, we use the weights provided with the ACS and obtain a weighted frequency for each post-stratification variable.

2. **Adjustment for phone availability.** Respondents with multiple phones in the household are more likely to be selected into the sample, while those who experience interrupted phone service are less likely to be selected. In this stage of the weighting process, we assign respondents in these two categories weights of  $\frac{1}{2}$  and 2, respectively.

Because the landline and cellular RDD frames overlap there are cases of dual-service, that is, respondents from the landline sample who also have a cell phone in the household or respondents from the cell phone sample who also have landline service. We use frame integration weights (Lohr, 2009) to combine the landline and cellular components of the sample, with the dual-service respondents from the two frames integrated in proportion to their effective sample sizes. We can make this adjustment by assuming that the dual-service households from each of the two groups are random samples from the population of dual-service households.

To compute the effective sample sizes, we first calculate a design effects for both landline and cellular groups. For the cellular sample we take the weights for the respondents who also have landline and compute the coefficient of variation  $cv_C$ . For the landline sample the calculation of  $cv_L$  is analogous. We take the design effects to be  $1 + cv_C^2$  and  $1 + cv_L^2$ , respectively. The effective sample sizes (ESS) for the dual-service cases are then computed as the raw sample sizes divided by the design effects.

Finally, the frame integration weights for the dual-service cell phone cases (cell phone respondents who have a landline) are  $fiw_C = \frac{ESS_C}{ESS_C + ESS_L}$ , which is the ratio of the effective number of dual-service cases among the cell phone respondents to the total effective number of dual-service cases in the landline and cell phone respondents combined. For the dual-service landline respondents, the frame integration weights are computed analogous as  $fiw_L = \frac{ESS_L}{ESS_C + ESS_L}$ . Single-service cases (in this case landline-only or cellphone-only) are given a frame integration weight of 1.

3. **Adjustment for deviation on SES information from corresponding ACS-NYC 2014-2016 weighted totals.** Before making this adjustment, we obtain individual weights by multiplying the household weights obtained in the previous step by the number of adults in the household.<sup>2</sup> We then match the marginal distributions of post-stratification factors via raking procedure. Although the joint distribution by cross tabulation is available, we use raking under an independence assumption to control the variability due to small post-stratification cell sizes. The information used for post-stratification includes gender, age, education, immigration status, tenure (own or rent home), race, the number of children in the household, the number of seniors in the household, the number of working aged adults in the household, a poverty gap measure for the household<sup>3</sup>, and interactions between many of the demographics and the

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<sup>2</sup> For this calculation, the number of adults in the household is capped at 4 due to sparseness at larger values.

<sup>3</sup> From the World Bank: Poverty gap is the mean shortfall from the poverty line (counting the non-poor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

poverty measure to account for dependencies between these factors. After the raking procedure, we trim the resulting weights at the 97.5% percentile.

Because the weights adjust for the unequal selection, under-coverage and nonresponse, there is no simple formula for estimating the variance. We use the bootstrapping method implemented in the R **survey** package to obtain 50 sets of replicate weights for each set of sampling weights, from which we can obtain variance estimates.

### **Agency weights**

For the Agency sample, we adjust weights by the (self-reported) frequency of agency services usage. To avoid over-representation, the more frequently an individual uses a service, the smaller the assigned weight.

### **Combined weights**

The SRBI and Agency samples are then combined.<sup>4</sup> Again we correct for differences due to over-sampling from poor households by post-stratifying the household weights to the ACS household information. This is essentially the same adjustment that is made in the SRBI weights (see Step 3 in the SRBI weights section) but here we perform the adjustment on the combined SRBI and Agency samples. We then multiply the household weights by the number of adults in the household to obtain the person (individual) weights. Similarly, to Step 4 in the SRBI weights section, using these person weights we then post-stratify to adjust for deviations of the two samples from the corresponding ACS-NYC 2014 weighted totals. We also again adjust for frequency of social service use by including it as a post-stratification variable.<sup>5</sup>

### **Subsequent wave weights**

Subsequent waves in the Poverty Tracker study have longitudinal weights calculated. These weights use the baseline weights as a basis but make two adjustments. The first adjustment corrects for nonresponse between the baseline and the wave of interest. The second adjustment is a raking adjustment back to the baseline population demographics.

The method for the first adjustment is inverse propensity scoring. This method uses a logistic regression to predict nonresponse given baseline characteristics, including race, education, immigration status, source – how many respondents were originally contacted, use of service frequency, the number of working adults in the household, the number of seniors in the household, spouse or partner in the

household, material hardship, severe health disadvantage, OPM income to needs ratio, OPM poverty status, receipt of government housing, and mental health status. From this model, the probability of

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<sup>4</sup> The weights for each sample are also separately normalized to each have a mean of 1.

<sup>5</sup> There will be unbalanced coverage of agency service visitors because frequent service users will be over-represented in the Agency sample. For the purpose of representing the general population of NYC adults, it is necessary to down-weight individuals in the sample who frequently use social service agencies. In order to post-stratify on frequency of service use, we need a measure of the distribution of social service use in the population. Unfortunately, we do not have any gold standard for the distribution

responding was predicted for each respondent, which we then broken into 20 quantiles to reduce noise. For each quantile, the inverse of the probability of responding is calculated, which we then use to adjust the baseline weights for nonresponse. After that, we do the second adjustment, raking procedure. We then trimmed and created replicate weights with the same technique as described for the baseline.

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