

**CODEBOOK**  
**Robin Hood 2016-2017 12m-Follow up Survey**  
Updated May 18, 2023

[VAR: q4a1]

**In this section, I'm going to ask you some questions about housing. What is your current housing situation? Please stop me when I read the statement that best describes your situation. Do you...**

PUNCH

RESPONSE

- |    |  |
|----|--|
| 1  | Rent your own apartment or house   |
| 2  | Own your own apartment or house  |
| 3  | Live with family or friends who rent and you contribute part of the rent         |
| 4  | Live with family or friends who rent but you do not pay rent                     |
| 5  | Rent a room, but not from family or friends                                      |
| 6  | Live in an apartment or house owned by another family member                     |
| 7  | Live in temporary housing or a group shelter                                     |
| 8  | Live on the street or in a park, abandoned building, automobile or similar place |
| 9  | Have some other housing arrangement? (Please Specify [see VAR: qa1x])            |
| 97 | No answer  |
| 98 | Don't know   |
| 99 | Refused to answer  |

[VAR: q4a3\_gender]

**I'd like to make a list of the people who you currently [live with/in your household] starting with yourself. Please tell me whether you are male or female, and your age.**

PUNCH

RESPONSE

- |    |                   |
|----|-------------------|
| 1  | Male              |
| 2  | Female            |
| 97 | No answer         |
| 98 | Don't know        |
| 99 | Refused to answer |

[VAR: q4a3\_age\_tc]

**I'd like to make a list of the people who you currently [live with/in your household] starting with yourself. Please tell me whether you are male or female, and your age. (top-coded at 85)**

PUNCH

RESPONSE

- |      |                   |
|------|-------------------|
| 1-85 | Age in years      |
| 988  | Don't know        |
| 999  | Refused to answer |

[VAR: q4a4]

**Presence of anyone else in the household?**

PUNCH

RESPONSE

- |   |     |
|---|-----|
| 1 | Yes |
| 2 | No  |

97	No answer
98	Don't know
99	Refused to answer

[VAR: q4a4\_rel1-9]

**How are they related to you?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Spouse
2	Domestic partner
3	Biological/adopted child
4	Stepchild/child of domestic partner
5	Grandchild
6	Brother/sister
7	Foster child
8	Parent
9	Other relative
10	Housemate/roommate
11	Roomer/boarder
12	Other nonrelative
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4a4\_gender1-9]

**Is this person male or female?**

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

[VAR: q4a4\_age1-9\_tc]

**How old is this person? (top-coded at 85)**

<u>PUNCH</u>	<u>RESPONSE</u>
1-85	Age in years
988	Don't know
999	Refused to answer

[VAR: q4j1\_1]

**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: q4j1\_2]

**Which of the following, if any, have happened to you in the past 3 months?**

**You has a child?**

PUNCH

RESPONSE

1

Yes

2

No

97

No answer

98

Don't know

99

Refused

[VAR: q4j1\_3]

**Which of the following, if any, have happened to you in the past 3 months?**

**Someone moved into the household?**

PUNCH

RESPONSE

1

Yes

2

No

97

No answer

98

Don't know

99

Refused to answer

[VAR: q4j1\_4]

**Which of the following, if any, have happened to you in the past 3 months?**

**Someone move out of the household?**

PUNCH

RESPONSE

1

Yes

2

No

97

No answer

98

Don't know

99

Refused to answer

[VAR: q4j1\_5]

**Which of the following, if any, have happened to you in the past 3 months?**

**You started a relationship?**

PUNCH

RESPONSE

1

Yes

2

No

97

No answer

98

Don't know

99

Refused to answer

[VAR: q4j1\_6]

**Which of the following, if any, have happened to you in the past 3 months?**

**You ended a relationship?**

PUNCH

RESPONSE

1

Yes

2

No

97

No answer

98

Don't know

	99	Refused to answer
[VAR: q4j1_7]		<p><b>Which of the following, if any, have happened to you in the past 3 months?</b></p> <p><b>You had a change in childcare?</b></p>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused to answer
[VAR: q4j1_8]		<p><b>Which of the following, if any, have happened to you in the past 3 months?</b></p> <p><b>You took time off work to talk to your child's teacher?</b></p>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused to answer
[VAR: q4j2_1]		<p><b>Which of the following, if any, have happened to you or anyone in your household in the past 3 months</b></p> <p><b>Someone started a new job?</b></p>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused to answer
[VAR: q4j2_2]		<p><b>Which of the following, if any, have happened to you or anyone in your household in the past 3 months</b></p> <p><b>Someone lost a job?</b></p>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused
[VAR: q4j2_3]		<p><b>Which of the following, if any, have happened to you or anyone in your household in the past 3 months</b></p>

**Someone started to receive public benefits?**

<u>PUNCH</u>	<u>RESPONSE</u>
--------------	-----------------

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

[VAR: q4j2\_4]

**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?**

<u>PUNCH</u>	<u>RESPONSE</u>
--------------	-----------------

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

[VAR: q4j2\_5]

**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**

<u>PUNCH</u>	<u>RESPONSE</u>
--------------	-----------------

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

[VAR: q4j2\_6]

**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?**

<u>PUNCH</u>	<u>RESPONSE</u>
--------------	-----------------

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

[VAR: q4j2\_7]

**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: q4j2\_8]

**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: q4j2\_9]

**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 to answer

[VAR: q4j2\_11]

**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 to answer

[VAR: q4a8]

**What is your total monthly rent?**

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

[VAR: q4a8x\_tc]

**What is your total monthly rent? (top-coded at 90%)**

<u>PUNCH</u>	<u>RESPONSE</u>
Open ended	Entered response

[VAR: q4a9]

**What was the monthly contribution to rent by the respondent and relatives in the household?**

<u>PUNCH</u>	<u>RESPONSE</u>
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1	Entered response:
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4a9x\_tc]

**What is the monthly contribution to rent by the respondent and relatives in the household? (top-coded at 90%)**

<u>PUNCH</u>	<u>RESPONSE</u>
Open ended	Entered response

60. [VAR: q4a9a]

**Is the place where you live under rent control or rent stabilization?**

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

[VAR: q4a10]

**How much is the regular monthly mortgage payment on your apartment or house?**

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

[VAR: q4a10x\_tc]

**How much is the regular monthly mortgage payment on your apartment or house?**

<u>PUNCH</u>	<u>RESPONSE</u>
Open ended	Entered response

[VAR: q4a11]

**How many bedrooms are in your apartment or house?**

<u>PUNCH</u>	<u>RESPONSE</u>
0	0-Studio
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9



97	No answer
98	Don't know
99	Refused to answer

[VAR: q4b1]

<u>PUNCH</u>	<u>RESPONSE</u>
1	Excellent
2	Very good
3	Good
4	Only fair
5	Poor
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4b2]

<u>PUNCH</u>	<u>RESPONSE</u>
1	Excellent
2	Very good
3	Good
4	Only fair
5	Poor
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4b3]

<u>PUNCH</u>	<u>RESPONSE</u>
1	Very safe
2	Somewhat safe
3	Not very safe
4	Not at all safe
97	No answer
98	Don't know
99	Refused

[VAR: q4b5\_1]

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

[VAR: q4b5\_1x]

<u>PUNCH</u>	<u>RESPONSE</u>
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	Open ended	Entered response
[VAR: q4b5_2]		<b>Do you use head start services?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused to answer
[VAR: q4b5_2x]		<b>How many hours does your child spend at head Start each week?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	Open ended	Entered response
[VAR: q4b5_3]		<b>Do you use preschool/nursery school/daycare center services?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused to answer
[VAR: q4b5_3x]		<b>How many hours does your child spend at Preschool each week?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	Open ended	Entered response
[VAR: q4b5_4]		<b>Do you use family daycare/ paid care provided in someone's home?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused to answer
[VAR: q4b5_4x]		<b>How many hours does your child spend at family daycare each week?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	Open ended	Entered response
[VAR: q4b5_5]		<b>Do you use a babysitter or nanny in your home?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer

98 Don't know  
99 Refused to answer

[VAR: q4b5\_5x]

**How many hours does your child spend with  
A babysitter each week?**

PUNCH RESPONSE  
Open ended Entered response

[VAR: q4b5\_6]

**Do you use free child care with a relative?**

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

[VAR: q4b5\_6x]

**How many hours does your child spend in  
free child care with a relative each week?**

PUNCH RESPONSE  
Open ended Entered response

[VAR: q4b5\_7]

**Do you use other child care?**

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

[VAR: q4b5\_7x]

**How many hours does your child spend in  
other child care each week?**

PUNCH RESPONSE  
Open ended Entered response

[VAR: q4b6]

**Do any of your children attend any after-school  
programs at school or at a community organization?**

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

[VAR: q4b7]

**Do any of your children participate in any activities  
outside of school, such as sports, music lessons, or  
arts classes?**

PUNCH RESPONSE  
1 Yes

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

[VAR: q4c1]

**In the past 12 months did you or anyone else get free food from a church, food pantry, or food bank?**

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

[VAR: q4c2]

**How often did you or any member of your household receive free food?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Weekly
2	Several times a month
3	About once a month
4	Several times a year
5	Once or twice in the past year
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4c3]

**In the past 12 have you [or has anyone else in your household] stayed at a homeless facility, such as a shelter, church, mission, or any other temporary housing provided by a community agency? [Asked of those who didn't currently live in temporary housing. In the data, all subjects who did currently live in temporary housing have been recoded as "1. Yes." So all subjects have a nonmissing value for q4c3.]**

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

[VAR: q4c4]

**In the past 12m, how many nights have you spent in temporary housing?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Entered number of nights
97	No answer

98	Don't know
99	Refused

[VAR: q4c4x]

**How many nights have you [or others in your household] spent at a homeless facility in the past 12 months?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Less than 10 days
2	10-30 days
3	30-100 days
4	100+ days

[VAR: q4d1]

**Would you say your health is excellent, very good, good, fair or poor?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Excellent
2	Very good
3	Good
4	Fair
5	Poor
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4d2]

**Do you have a health problem or disability which prevents you from working or which limits the kind or amount of work you can do?**

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

[VAR: q4d5]

**In a typical week, how often do you worry about money?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Often
2	Sometimes
3	Rarely
4	Never
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4d6]

**On a scale from 0 to 10, how would you rate your life in the past 12 months?**

<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
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4d7\_1]

**About how often during the past 30 days did you feel so depressed that nothing could cheer you up?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	All of the time
2	Most of the time
3	Some of the time
4	A little of the time
5	None of the time
97	No answer
98	Don't know
99	Refused

[VAR: q4d7\_2]

**About how often during the past 30 days did you feel nervous?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	All of the time
2	Most of the time
3	Some of the time
4	A little of the time
5	None of the time
97	No answer
98	Don't know
99	Refused

[VAR: q4d7\_3]

**About how often during the past 30 days did you feel restless or fidgety?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	All of the time
2	Most of the time

3	Some of the time
4	A little of the time
5	None of the time
97	No answer
98	Don't know
99	Refused

[VAR: q4d7\_4]

**About how often during the past 30 days did you feel hopeless?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	All of the time
2	Most of the time
3	Some of the time
4	A little of the time
5	None of the time
97	No answer
98	Don't know
99	Refused

[VAR: q4d7\_5]

**About how often during the past 30 days did you feel that everything was an effort?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	All of the time
2	Most of the time
3	Some of the time
4	A little of the time
5	None of the time
97	No answer
98	Don't know
99	Refused

[VAR: q4d7\_6]

**About how often during the past 30 days did you feel worthless?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	All of the time
2	Most of the time
3	Some of the time
4	A little of the time
5	None of the time
97	No answer
98	Don't know
99	Refused

[VAR: q4d1\_sp]

**How would you rate your spouse or partner's health?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Excellent
2	Very good

3	Good
4	Fair
5	Poor
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4d2\_sp]

**Does your spouse/partner have a health problem or disability which prevents them from working or which limits the kind or amount of work they can do?**

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

[VAR: q4f1]

**Which of these statements best describes the food eaten in your household?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Enough of the kinds of food we want to eat
2	Enough, but not always the kinds of foods we want
3	Sometimes not enough to eat
4	Often not enough to eat
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4f2]

**For each statement, please select whether this was often true, sometimes true, or never true for your household in the past 12 months.  
You worried whether food would run out before you got money to buy more?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Often
2	Sometimes
3	Never
97	No answer
98	Don't know
99	Refused

[VAR: q4f3]

**For each statement, please select whether this was often true, sometimes true, or never true for your household in the past 12 months.  
Your food ran out before you got money to buy more?**

<u>PUNCH</u>	<u>RESPONSE</u>
--------------	-----------------



1	Often
2	Sometimes
3	Never
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4f4]

**For each statement, please select whether this was true or not for your household in the past 12 months.**

**Did you not pay the full amount of rent or mortgage?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
3	Did not have rent/mortgage
97	No answer
98	Don't know
99	Refused

[VAR: q4f5]

**For each statement, please select whether this was true or not for your household in the past 12 months.**

**Did you move in with others for financial reasons?**

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

[VAR: q4f6]

**For each statement, please select whether this was true or not for your household in the past 12 months.**

**Did you stay in a shelter/car/or other place not meant for regular housing?**

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

[VAR: q4f7]

**For each statement, please select whether this was true or not for your household in the past 12 months.**

**Did you not pay the full amount of your phone, gas, oil or electricity bill because there wasn't enough money?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
3	Do not have phone/utility bill
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4f8]

**For each statement, please select whether this was true or not for your household in the past 12 months.**

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

<u>PUNCH</u>	<u>RESPONSE</u>
1	Yes
2	No
3	Do not have phone or utility bill
4	Cable cut off
97	No answer
98	Don't know
99	Refused

[VAR: q4f9]

**For each statement, please select whether this was true or not for your household in the past 12 months.**

**Did you need medical care but could not afford it?**

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

[VAR: q4f9a]

**In the past 12 months, was there a time when you didn't fill a prescription for medicine because of the cost?**

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

[VAR: q4f10]

**During that same time period how often did you run out of money between paychecks or before the end of the month?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Often
2	Sometimes
3	Never
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4f12]

**How many children under 18 does this family member have?**

<u>PUNCH</u>	<u>RESPONSE</u>
0	0
1	1
2	2
3	3
4	4
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4f13]

**How many other additional incarcerated family members do you have?**

<u>PUNCH</u>	<u>RESPONSE</u>
0	0
1	1
2	2
3	3
4	4
5	5
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4g1]

**What is your current employment status?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Working full-time
2	Working part-time
3	On leave from a job or temp. laid off
4	Looking for work
5	Unable to work
6	Keeping house
7	Going to school
8	Retired

9	Other
97	No answer
98	Don't know
99	Refused to answer

[VAR: q4g4]

**What is your spouse/partner's current employment status?**

<u>PUNCH</u>	<u>RESPONSE</u>
1	Working full-time
2	Working part-time
3	On leave from a job or temp. laid off
4	Looking for work
5	Unable to work
6	Keeping house
7	Going to school
8	Retired
9	Other
97	No answer
98	Don't know
99	Refused

[VAR: q4h5\_6]

**In the past 12 months did you/your spouse receive...  
...WIC?**

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

[VAR: q4h5\_7]

**In the past 12 months did you/your spouse receive...  
...housing assistance/section 8?**

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

[VAR: q4h5\_8]

**In the past 12 months did you/your spouse receive...  
...Medicaid/SCHIP/govt healthcare prog?**

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

97	No answer
98	Don't know
99	Refused to answer

[VAR: q4h20\_1]

**Suppose that you have an emergency expense that costs \$400. Based on your current financial situation, how would you pay for this expense? If you would use more than one method to cover this expense, please select all that apply.**

**Put it on my credit card and pay it off in full at the next statement**

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

[VAR: q4h20\_2]

**Put it on my credit card and pay it off over time**

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

[VAR: q4h20\_3]

**With the money currently in my checking/savings account or with cash**

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

[VAR: q4h20\_4]

**Using money from a bank loan or line of credit**

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

[VAR: q4h20\_5]

**By borrowing from a friend or family member**

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

98 Don't know  
99 Refused

[VAR: q4h20\_6]

**Using a payday loan, deposit advance, or overdraft**

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

[VAR: q4h20\_7]

**By selling something**

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

[VAR: q4h20\_8]

**I wouldn't be able to pay for the expense right now**

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

[VAR: q4h20\_9]

**OTHER (PLEASE SPECIFY)**

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

[VAR: q4h21a]

**Next, we want to ask you about help you could get during this next year if you needed it. If you needed help during the next year, could you count on someone to loan you \$400?**

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

[VAR: q4h21b]

**Next, we want to ask you about help you could get during this next year if you needed it. If you needed**

		<b>help during the next year, could you count on someone to loan you \$1000?</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused
<b>[VAR: q4opmres]</b>		<b>OPM Household Resources– Using top-coded income values</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
		Calculated by taking the summation of imp_pearhhd_tc, imp_pearhsp_tc, imp_pincnet_tc, imp_pincdis_tc, imp_pincwelf_tc, imp_pincui_tc, imp_pincreg_tc, imp_pincoth_tc, imp_pincothh_tc
<b>[VAR: q4spmres]</b>		<b>SPM Household Resources– Using top-coded income values</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
		Calculated by taking summation of imp_pearhhd_tc, imp_pearhsp_tc, imp_pincnet_tc, imp_pincdis_tc, imp_pincwelf_tc, imp_pincui_tc, imp_pincsnap_tc, imp_pincreg_tc, imp_pincoth_tc, imp_pincothhh_tc, subsidy, frsl, wicval, and subtracting imp_pmpoop_tc, imp_pchwoop_tc, federal taxes, state taxes, and payroll taxes (calculated using taxsim)
<b>[VAR: q4opmthresh]</b>		<b>OPM Threshold</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
		Calculated using U.S. Census Bureau guidelines.
<b>[VAR: q4spmthresh]</b>		<b>SPM Threshold</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
		Calculated using U.S. Census Bureau guidelines.
<b>[VAR: q4opmpov]</b>		<b>Is respondent below official poverty line? – Using top-coded income values</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No
<b>[VAR: q4smpmpov]</b>		<b>Is respondent below supplemental poverty line? – Using top-coded income values</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No

[VAR: q4sppart]	<u>PUNCH</u>	<b>Do you have a spouse or partner living with you?</b> <u>RESPONSE</u>
	1	Yes
	2	No

[VAR: q4adultx_tc]	<u>PUNCH</u>	<b>How many adults live in the family? - Capped at 9</b> <u>RESPONSE</u>
	1-8	1-8

[VAR: q4childx_tc]	<u>PUNCH</u>	<b>How many children under 18 live in the family? - Capped at 9</b> <u>RESPONSE</u>
	0-9	0-9

[VAR: q4personx_tc]	<u>PUNCH</u>	<b>Number of people in family? - Capped at 9</b> <u>RESPONSE</u>
	0-9	0-9

[VAR: imp_q4moswork]	<u>PUNCH</u>	<b>During the past 12 months, in how many months did you work? Imputed G2</b> <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

[VAR: imp_q4smoswork]	<u>PUNCH</u>	<b>During the past 12 months, in how many months did your spouse/partner work? Imputed G5</b> <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

[VAR: q4newyork]

PUNCH

1  
2  
97  
98  
99

**Is respondent still a resident of NYC?**

RESPONSE

Yes  
No  
No answer  
Don't know  
Refused

[VAR: imp\_q4disyes]

PUNCH

1  
2

**Disability income. Imputed version of H5\_2.**

RESPONSE

Yes  
No

[VAR: imp\_q4othyes]

PUNCH

1  
2

**Other income/benefits not mentioned. Imputed version of H5\_10.**

RESPONSE

Yes  
No

[VAR: imp\_q4regyes]

PUNCH

1  
2

**Regular financial assistance from someone outside the household. Imputed version of qh5\_9.**

RESPONSE

Yes  
No

[VAR: imp\_q4retyes]

PUNCH

1  
2

**Retirement income. Imputed version of H5\_1.**

RESPONSE

Yes  
No

[VAR: imp\_q4snapyes]

PUNCH

1  
2

**SNAP or food stamps. Imputed version of H5\_5.**

RESPONSE

Yes  
No

[VAR: imp\_q4uiyes]

PUNCH

1  
2

**Unemployment income. Imputed version of H5\_4.**

RESPONSE

Yes  
No

[VAR: <b>imp_q4welfyes</b> ]	<u>PUNCH</u>	<b>Public or cash assistance or welfare payments. Imputed version of H5_3</b>
	1	<u>RESPONSE</u>
	2	Yes
		No
[VAR: <b>imp_q4earnhd_tc</b> ]		<b>Imputed head of household (top-coded at 90%) - Imputed version of H1.</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4earnsp_tc</b> ]		<b>Imputed spouse earnings (top-coded at 90%)- Imputed version of H3.</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4incothhh_tc</b> ]		<b>Imputed income from other household members (top-coded at 90%)- Imputed version of H7.</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4incdis_tc</b> ]		<b>Imputed income from disability (top-coded at 90%)– Imputed version of H6_2</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4incoth_tc</b> ]		<b>Imputed income from other source not listed (top- coded at 90%)– Imputed version of H6_7</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4increg_tc</b> ]		<b>Imputed regular financial assistance from someone outside the household (top-coded at 90%)– Imputed version of H6_6</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4incret_tc</b> ]		<b>Imputed retirement income, including Social Security or survivor's benefits (top-coded at 90%)– Imputed version of H6_1</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response

[VAR: <b>imp_q4incsnap_tc</b> ]		<b>Imputed income from food stamps or SNAP benefits (Top-coded at 90%). - Imputed version of H6_5.</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4incui_tc</b> ]		<b>Imputed income from unemployment benefits (Top-coded at 90%). - Imputed version of H6_5.</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>imp_q4incwelf_tc</b> ]		<b>Imputed income from welfare benefits (Top-coded at 90%). - Imputed version of H6_3.</b>
[See Appendix A]	<u>PUNCH</u>	<u>RESPONSE</u>
		Entered Response
[VAR: <b>q4spm_incneeds_tc</b> ]		<b>SPM income to needs ratio. Using top-coded income values</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
		Calculated by dividing spmres by spmthresh.
[VAR: <b>q4frsl</b> ]		<b>Calculated by multiplying the average value of <a href="#">full and reduced school lunch values</a> by the number of school-aged children in the household by the number of school days in the year. The number of school days in the year is the same as is assumed by the U.S. Census Bureau (Short Personal Communication 2013).</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
[VAR: <b>q4fica_tc</b> ]		<b>FICA Tax Calculated using NBER TAXSIM – <a href="http://users.nber.org/~taxsim/">http://users.nber.org/~taxsim/</a> (Top-coded at 90%)</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
[VAR: <b>q4siitax_tc</b> ]		<b>State Income Tax Calculated using NBER TAXSIM – <a href="http://users.nber.org/~taxsim/">http://users.nber.org/~taxsim/</a> (Top-coded at 90%)</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
[VAR: <b>q4fiitax_tc</b> ]		<b>Federal Income Tax Calculated using NBER TAXSIM – <a href="http://users.nber.org/~taxsim/">http://users.nber.org/~taxsim/</a> (Top-coded at 90%)</b>
	<u>PUNCH</u>	<u>RESPONSE</u>

[VAR: q4subsidyvalue_tc]		Housing Subsidy (Top-coded at 90%)- Calculated by subtracting annual rent from subsidy cap for those receiving rent control, in government housing, or renters who pay no rent.
	<u>PUNCH</u>	<u>RESPONSE</u>
[VAR: q4wicval]		WIC Value (Top-coded at 90%)- Calculated by multiplying the number of children under 6 by the estimated <a href="#">average WIC value</a> . (for those who said they receive WIC)
[VAR: imp_q4chwoop_tc]		Imputed child care expenses and work expenses (Top-coded at 90%)- imputed from q4h10 and q4h19.
	<u>PUNCH</u>	<u>RESPONSE</u> Entered response
[VAR: imp_q4moop_tc]		Imputed medical out of pocket expenses (Top-coded at 90%)- imputed from q4h18.
	<u>PUNCH</u>	<u>RESPONSE</u> Entered response
[VAR: q4opm_incneeds_tc]		OPM income to needs ratio. – Using top-coded income values
	<u>PUNCH</u>	<u>RESPONSE</u> Calculated by dividing opmres by opmthresh.
[VAR: imp_q4hous1]		In the past 12 months, did you not pay the full amount of rent or mortgage because there wasn't enough money? – Imputed q4f4
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused
[VAR: imp_q4hous2]		[In the past 12 months,] did you move in with other people even for a little while because of financial problems? – Imputed q4f5
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
	97	No answer
	98	Don't know
	99	Refused
[VAR: imp_q4hous3]		[In the past 12 months 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? – Imputed q4f6**

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

[VAR: imp\_q4bill1]

**[In the past 12 months,] did you not pay the full amount of your phone, gas, oil or electricity bill because there wasn't enough money? – Imputed q4f7**

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

[VAR: imp\_q4bill2]

**[In the past 12 months,] was your phone, gas or electricity service ever cut off because there wasn't enough money to pay the bills? – Imputed q4f8**

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

[VAR: imp\_q4medic1]

**[In the past 12 months,] was there a time when you [or anyone else in your household] needed to see a doctor, a dentist or go to the hospital but couldn't go because of the cost? – Imputed q4f9**

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

[VAR: imp\_q4financ1]

**[In the past 12 months,] how often did you run out of money between paychecks or before the end of the month? Would you say that happened...? – Imputed q4f10**

<u>Punch</u>	<u>Response</u>
1	Often
2	Sometimes
3	Never
97	No answer
98	Don't know
99	Refused

[VAR: imp\_q4food1]

**Which of these statements best describes the food eaten in your household? – Imputed q4f1**

<u>Punch</u>	<u>Response</u>
1	Enough of the kinds of food we want to eat
2	Enough, but not always the kind of food we want to eat
3	Sometimes not enough to eat
4	Often not enough to eat
97	No answer
98	Don't know
99	Refused

[VAR: imp\_q4food2]

**“[I / We] worried whether [my / our] food Would run out before [I / we] got money to buy more.” Would you say... - Imputed q4f2**

<u>Punch</u>	<u>Response</u>
1	Often
2	Sometimes
3	Never
97	No answer
98	Don't know
99	Refused

[VAR: imp\_q4food3]

**“The food [I / we] bought just didn't last and [I/we] didn't have money to get more” Would you say... - Imputed q4f3**

<u>Punch</u>	<u>Response</u>
1	Often
2	Sometimes
3	Never
97	No answer
98	Don't know
99	Refused

[VAR: imp\_q4foodindmod]

**Moderate food hardship – (imp\_q4food1=3 or imp\_q4food2=2 or imp\_q4food3=2 ) and (imp\_q4food1 ≠ 4 & imp\_q4food2 ≠ 1 and imp\_q4food3 ≠ 1)**

<u>Punch</u>	<u>Response</u>
1	Yes

	2	No
[VAR: imp_q4foodindsev]		<b>Severe food hardship – (imp_q4food1=4 or imp_q4food2=1 or imp_q4food3=1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4houseindmod]		<b>Moderate housing hardship – (imp_q4hous1 =1) and (imp_q4hous2≠1 and imp_q4hous3≠1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4houseindsev]		<b>Severe housing hardship – (imp_q4hous2=1 or imp_q4hous3=1 or q4a1=7 or q4a1=8)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4billindmod]		<b>Moderate billing hardship – (imp_q4bill1=1 and imp_q4bill2≠1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4billindsev]		<b>Severe billing hardship – (imp_q4bill2=1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4financindmod]		<b>Moderate financial hardship – (imp_q4financ1=2)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4financindsev]		<b>Severe financial hardship – (imp_q4financ1=1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4medichard]		<b>Medical hardship (imp_q4medic1=1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: imp_q4health]		<b>Self-reported health – Imputed q4d1</b>

	<u>Punch</u>	<u>Response</u>
	1	Excellent
	2	Very Good
	3	Good
	4	Fair
	5	Poor
[VAR: <b>imp_q4healthlim</b> ]		<b>Work limiting health condition – Imputed q4d2</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: <b>q4sevhard</b> ]		<b>Severe material hardship – (imp_q4billindsev=1 or imp_q4financindsev=1 or imp_q4foodindsev=1 or imp_q4houseindsev=1 or imp_q4medichard=1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: <b>q4sevhealthd</b> ]		<b>Severe health problem – (imp_q4health=5 or imp_q4healthlim=1)</b>
	<u>Punch</u>	<u>Response</u>
	1	Yes
	2	No
[VAR: <b>q4surveyyear</b> ]		<b>Survey Year</b>
[VAR: <b>q4surveymonth</b> ]		<b>Survey Month</b>
[VAR: <b>q4weight_p</b> ] [See Appendix B]		<b>Longitudinal person level weight</b>
[VAR: <b>q4weight_pu</b> ] [See Appendix B]		<b>Longitudinal Family level weight</b>
[VAR: <b>q4late</b> ]		<b>Flag indicating whether subject took the 12m survey late.</b>
	<u>PUNCH</u>	<u>RESPONSE</u>
	1	Yes
	2	No



## Appendix A

### Overview of Imputations

Multiple imputation is carried out primarily using the expectation-maximization with bootstrapping algorithm provided by the Amelia R package. This entails making several standard assumptions about the underlying data generating process: the complete data (after appropriate transformations of constrained variables) can be described by a multivariate Gaussian distribution; and the data are *missing at random*, commonly abbreviated as MAR. In short, the MAR assumption says that missingness may depend on observed values, but is independent of the missing values themselves. For more details on these assumptions and the imputation methods see Honaker, King, and Blackwell (2011). In the imputation process for all of the variables described below, we condition on available demographic information (e.g., age, race, sex, education level, marriage status, immigration status, etc.). Since the imputations are performed jointly, we are also using the information from the observations of the other survey variables being imputed.

### Earnings of head of household and spouse/partner

#### Included variables:

- **imp\_q4earnhd\_tc** (top-coded head of household earnings)
- **imp\_q4earnsp\_tc** (top-coded spouse/partner earnings)

For survey questions related to the earnings of the head of household and their spouse or partner, respondents can provide a numerical value (a dollar amount) or a categorical value (an earnings bracket). For respondents with missing continuous values but observed categorical values, we impute a continuous value for them according to the distribution of the continuous values for respondents in the

same earnings bracket. If neither a dollar amount nor a bracket is provided then we directly impute a positive dollar amount.

Some respondents with missing values on the earnings questions also do not report the number of months that they and/or their spouse or partner worked during the previous year. For these cases we also impute number of months worked (between 0 and 12) and subsequently we only require the imputations for earnings if number of months worked is not zero.

## Income from other sources

### Included variables:

- **imp\_q4incdis\_tc** (top-coded income from paid disability)
- **imp\_q4incsnap\_tc** (top-coded income from SNAP food assistance program)
- **imp\_q4incwelf\_tc** (top-coded income from welfare payments)
- **imp\_q4incui\_tc** (top-coded income from unemployment payments)
- **imp\_q4incret\_tc** (top-coded income from retirement funds)
- **imp\_q4increg\_tc** (top-coded income from regular financial assistance from someone outside the household)
- **imp\_q4incoth\_tc** (top-coded income from other sources)

For each survey question related to other sources of income not covered by the earnings of the head of household, their spouse or partner, and income from other family members in the household (e.g. income from welfare payments, disability, retirement funds) we use a two-stage imputation process. First we impute a binary value indicating whether or not the respondent received this type of income. Conditional on receiving this type of income we then impute a positive dollar value for the amount received.

## Income from other family members in household

### Included variables:

- **imp\_q4incothhh\_tc** (top-coded income from other family members in the same household)

Like the questions about earnings for the head of household and their spouse or partner, the question about income from other family members in the household can be answered either by providing a numerical dollar value or a categorical value indicating an income bracket. If neither is provided then we directly impute a dollar amount. If the dollar value is missing but the respondent provides a categorical value then we impute a continuous value according to the distribution of the continuous values in the same income bracket.

## References

Honaker, J., King, G., and Blackwell, M. (2011). Amelia II: A Program for Missing Data. *Journal of Statistical Software*, 45(7), 1–47.

## Appendix B

### 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.

## References

Gelman, A. (2007). Struggles with survey weighting and regression modeling. *Statistical Science* 22(2), 153--164.

Gelman, A. and T. C. Little (1998). Improving on probability weighting for household size. *Public Opinion Quarterly*, 62(3), 398--404.

Lohr, S. (2009). Multiple-frame surveys. In D. Pfeffermann and C. R. Rao (Eds.), *Handbook of Statistics, Vol. 29A: Sample Surveys: Design, Methods and Applications*, Chapter 4. Elsevier/North Holland.

Lumley, T. (2014). Survey: analysis of complex survey samples. *R package*, version 3.30.