



2015 – 2020 Community Health Survey

Participation Rates per AAPOR Standard Definitions 9th edition (2016)

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To describe CHS survey participation rates, NYC DOHMH typically reports AAPOR Response Rate #3 and Cooperation Rate #3. More information about AAPOR's Standard Definitions can be found here:

[http://www.aapor.org/Standards-Ethics/Standard-Definitions-\(1\).aspx](http://www.aapor.org/Standards-Ethics/Standard-Definitions-(1).aspx)

Sample Disposition Report

2015 CHS Landline sample – AAPOR 9th edition

			TOTAL
Interview (Category 1)			
Complete	1.1	I	5133
Partial	1.2	P	386
Partial (complete removed from analysis)	1.25	P	3
Eligible, non-interview (Category 2)			
Refusal and breakoff	2.1	R	15
Refusal	2.11	R	810
Break off	2.12	R	34
Non-contact	2.2	NC	754
Physically or mentally unable/incompetent	2.32	O	76
Language	2.33	O	54
Unknown eligibility, non-interview (Category 3)			
Always busy	3.12	UH	694
No answer	3.13	UH	6720
No Answer All Attempts	3.131	UH	15268
Answering machine-don't know if household	3.14	UH	7992
Call blocking	3.15	UH	40
No screener completed	3.21	UO	26801
Other	3.9	UO	517
Not eligible (Category 4)			
Screen-outs	4.1	SO	219
Fax/data line	4.2	NWC	5311
Non-working/disconnect	4.3	NWC	170163
No Answer All Attempts	4.31	NWC	0
Temporarily out of service	4.33	NWC	116
Cell phone	4.45	NWC	2344
Business, government office, other organizations	4.51	NWC	27892
No eligible Respondent (Child/teen phone)	4.7	NWC	137
Quota filled	4.8	NWC	1119
Other	4.9	NWC	5
Total phone numbers used			272603

Sample Disposition Report

2015 CHS Landline sample – AAPOR 9th edition

Completes (1.0)	I	5133
Partial Interviews (1.2)	P	389
Refusal and break off (2.11, 2.12)	R	859
Non Contact (2.20)	NC	754
Other (2.320)	O	130
Unknown household (3.12-3.15) - No Contact Made	UH	30714
Unknown other (3.21, 3.9) - Contact Made	UO	27318
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NWC	207087
Screen Out: Working and Residential but Not Eligible (4.1)	SO	219
e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)		0.971
e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)		0.144

AAPOR RR1 =I/(I+P+R+NC+O+UH+UO)	7.86%
AAPOR RR2 =(I+P)/(I+P+R+NC+O+UH+UO)	8.46%
AAPOR RR3 = I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])	13.48%
AAPOR RR4 = (I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])	14.50%
AAPOR COOP1 = I / (I+P+R+O+[e1*UO])	15.54%
AAPOR COOP2 = (I+P) / (I+P+R+O+[e1*UO])	16.72%
AAPOR COOP3 = I/((I+P)+R)	80.44%
AAPOR COOP4 = (I+P)/((I+P)+R)	86.54%
AAPOR CON1 = (I+P)+R+O / (I+P+R+O+NC+UH+UO)	9.97%
AAPOR CON2 = (I+P+R+O+[e1*UO]) / I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])	86.75%
AAPOR CON3 = (I+P)+R+O / (I+P)+R+O+NC	89.62%

Sample Disposition Report

2015 CHS Cell phone sample – AAPOR 9th edition

Interview (Category 1)			TOTAL
Complete	1.1	I	5039
Partial	1.2	P	351
Partial (complete removed from analysis)	1.25	P	4
Eligible, non-interview (Category 2)			
Refusal and breakoff	2.1	R	18
Refusal	2.11	R	274
Break off	2.12	R	31
Non-contact	2.2	NC	550
Physically or mentally unable/incompetent	2.32	O	22
Language	2.33	O	29
Unknown eligibility, non-interview (Category 3)			
Always busy	3.12	UH	1896
No answer	3.13	UH	1480
No Answer All Attempts	3.131	UH	660
Answering machine-don't know if household	3.14	UH	10226
Call blocking	3.15	UH	208
No screener completed	3.21	UO	21057
Not eligible (Category 4)			
Screen-outs	4.1	SO	4588
Fax/data line	4.2	NWC	69
Non-working/disconnect	4.3	NWC	18678
Temporarily out of service	4.33	NWC	662
Business, government office, other organizations	4.51	NWC	1973
No eligible Respondent (Child/teen phone)	4.7	NWC	1093
Other	4.9	NWC	13
Total phone numbers used			68921

Sample Disposition Report

2015 CHS Cell phone sample – AAPOR 9th edition

Completes (1.0)	I	5039
Partial Interviews (1.2)	P	355
Refusal and break off (2.11, 2.12)	R	323
Non Contact (2.20)	NC	550
Other (2.320)	O	51
Unknown household (3.12-3.15) - No Contact Made	UH	14470
Unknown other (3.21, 3.9) - Contact Made	UO	21057
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NWC	22488
Screen Out: Working and Residential but Not Eligible (4.1)	SO	4588
$e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)$		0.579
$e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)$		0.587
AAPOR RR1 = $I/(I+P+R+NC+O+UH+UO)$		12.0%
AAPOR RR2 = $(I+P)/(I+P+R+NC+O+UH+UO)$		12.9%
AAPOR RR3 = $I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$		21.5%
AAPOR RR4 = $(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$		23.0%
AAPOR COOP1 = $I / (I+P+R+O+[e1*UO])$		28.0%
AAPOR COOP2 = $(I+P) / (I+P+R+O+[e1*UO])$		30.0%
AAPOR COOP3 = $I/((I+P)+R)$		88.1%
AAPOR COOP4 = $(I+P)/((I+P)+R)$		94.4%
AAPOR CON1 = $(I+P)+R+O / (I+P+R+O+NC+UH+UO)$		13.8%
AAPOR CON2 = $(I+P+R+O+[e1*UO]) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$		76.7%
AAPOR CON3 = $(I+P)+R+O / (I+P)+R+O+NC$		91.3%

Sample Disposition Report

2015 CHS Combined frame participation rates - AAPOR's 9th edition (2016)

Full and partial completes by frame:

Landline interviews + partials	5,522
Cell interviews + partials	5,394
Total	10,916

Combining factor	50.6%	Landline
	49.4%	Cell

Version response rates:

		<u>Landline</u>	<u>Cell</u>
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	7.9%	12.0%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	8.5%	12.9%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	13.5%	21.5%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	14.5%	23.0%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	15.5%	28.0%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	16.7%	30.0%
Coop Rate 3	$I / ((I+P)+R)$	80.4%	88.1%
Coop Rate 4	$(I+P) / ((I+P)+R)$	86.5%	94.4%

Combined response rates:

	<u>Combined</u>
Response Rate 1	9.9%
Response Rate 2	10.6%
Response Rate 3	17.4%
Response Rate 4	18.7%
Coop Rate 1	21.7%
Coop Rate 2	23.3%
Coop Rate 3	84.2%
Coop Rate 4	90.4%

Calculations of Response Rates #1-#4 and Cooperation Rates #1-#2 follow AAPOR's Standard Definitions Report (9th edition, 2016) and its accompanying Outcome Rate Calculator for dual-frame RDD surveys ("DFRDD"). Calculation of Cooperation Rates #3 and #4 use the general Version 4.0 formula ("all").

Sample Disposition Report

2016 CHS Landline sample – AAPOR 9th edition

Interview (Category 1)			TOTAL
Complete	1.100	I	4987
Partial	1.200	P	375
Partial (complete removed from analysis)	1.250	P	0
Eligible, non-interview (Category 2)			
Refusal and breakoff	2.100	R	34
Refusal	2.110	R	690
Break off	2.120	R	43
Non-contact	2.200	NC	674
Physically or mentally unable/incompetent	2.320	O	114
Language	2.330	O	63
Unknown eligibility, non-interview (Category 3)			
Always busy	3.120	UH	734
No answer	3.130	UH	10342
No Answer All Attempts	3.131	UH	17672
Answering machine-don't know if household	3.140	UH	7182
Call blocking	3.150	UH	45
No screener completed	3.210	UO	28607
Not eligible (Category 4)			
Screen-outs	4.100	SO	247
Fax/data line	4.200	NWC	4924
Non-working/disconnect	4.300	NWC	147524
Temporarily out of service	4.330	NWC	175
Cell phone	4.450	NWC	2051
Business, government office, other organizations	4.510	NWC	24125
Quota filled	4.800	NWC	769
Other	4.900	NWC	98
Total phone numbers used			251475

Sample Disposition Report

2016 CHS Landline sample – AAPOR 9th edition

Completes (1.0)	I	4987
Partial Interviews (1.2)	P	375
Refusal and break off (2.1, 2.11, 2.12)	R	767
Non Contact (2.20)	NC	674
Other (2.320)	O	177
Unknown household (3.12-3.15) - No Contact Made	UH	35975
Unknown other (3.21, 3.9) - Contact Made	UO	28607
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NWC	179666
Screen Out: Working and Residential but Not Eligible (4.1)	SO	247
$e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)$		0.966
$e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)$		0.166

AAPOR RR1 = $I/(I+P+R+NC+O+UH+UO)$	7.0%
AAPOR RR2 = $(I+P)/(I+P+R+NC+O+UH+UO)$	7.5%
AAPOR RR3 = $I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	12.3%
AAPOR RR4 = $(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	13.3%
AAPOR COOP1 = $I / (I+P+R+O+[e1*UO])$	14.7%
AAPOR COOP2 = $(I+P) / (I+P+R+O+[e1*UO])$	15.8%
AAPOR COOP3 = $I/((I+P)+R)$	81.4%
AAPOR COOP4 = $(I+P)/((I+P)+R)$	87.5%
AAPOR CON1 = $(I+P)+R+O / (I+P+R+O+NC+UH+UO)$	8.8%
AAPOR CON2 = $(I+P+R+O+[e1*UO]) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	84.0%
AAPOR CON3 = $(I+P)+R+O / (I+P)+R+O+NC$	90.3%

Sample Disposition Report

2016 CHS Cell phone sample – AAPOR 9th edition

Interview (Category 1)			TOTAL
Complete	1.1	I	5013
Partial	1.2	P	348
Partial (complete removed from analysis)	1.25	P	1
Eligible, non-interview (Category 2)			
Refusal and breakoff	2.1	R	16
Refusal	2.11	R	193
Break off	2.12	R	43
Non-contact	2.2	NC	525
Physically or mentally unable/incompetent	2.32	O	22
Language	2.33	O	49
Unknown eligibility, non-interview (Category 3)			
Always busy	3.12	UH	1257
No answer	3.13	UH	1693
No Answer All Attempts	3.131	UH	808
Answering machine-don't know if household	3.14	UH	8912
Call blocking	3.15	UH	272
No screener completed	3.21	UO	19594
Not eligible (Category 4)			
Screen-outs	4.1	SO	4326
Fax/data line	4.2	NWC	60
Non-working/disconnect	4.3	NWC	13846
Temporarily out of service	4.33	NWC	657
Business, government office, other organizations	4.51	NWC	1592
No eligible Respondent (Child/teen phone)	4.7	NWC	927
Other	4.9	NWC	8
Total phone numbers used			60162

Sample Disposition Report

2016 CHS Cell phone sample – AAPOR 9th edition

Completes (1.0)	I	5013
Partial Interviews (1.2)	P	349
Refusal and break off (2.11, 2.12)	R	252
Non Contact (2.20)	NC	525
Other (2.320)	O	71
Unknown household (3.12-3.15) - No Contact Made	UH	12942
Unknown other (3.21, 3.9) - Contact Made	UO	19594
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NWC	17090
Screen Out: Working and Residential but Not Eligible (4.1)	SO	4326
e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)		58.9%
e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)		63.8%
AAPOR RR1 = I/(I+P+R+NC+O+UH+UO)		12.9%
AAPOR RR2 = (I+P)/(I+P+R+NC+O+UH+UO)		13.8%
AAPOR RR3 = I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		22.2%
AAPOR RR4 = (I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		23.7%
AAPOR COOP1 = I / (I+P+R+O+[e1*UO])		29.1%
AAPOR COOP2 = (I+P) / (I+P+R+O+[e1*UO])		31.1%
AAPOR COOP3 = I/((I+P)+R)		89.3%
AAPOR COOP4 = (I+P)/((I+P)+R)		95.5%
AAPOR CON1 = (I+P)+R+O / (I+P+R+O+NC+UH+UO)		14.7%
AAPOR CON2 = (I+P+R+O+[e1*UO]) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		76.2%
AAPOR CON3 = (I+P)+R+O / (I+P)+R+O+NC		91.5%

Sample Disposition Report

2016 CHS Combined frame participation rates - AAPOR's 9th edition

Full and partial completes by frame:

Landline interviews + partials	5,362
Cell interviews + partials	5,362
Total	10,724

Combining factor	50.0%	Landline
	50.0%	Cell

Version response rates:

		<u>Landline</u>	<u>Cell</u>
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	7.0%	12.9%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	7.5%	13.8%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	12.3%	22.2%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	13.3%	23.7%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	14.7%	29.1%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	15.8%	31.1%
Coop Rate 3	$I / ((I+P)+R)$	81.4%	89.3%
Coop Rate 4	$(I+P) / ((I+P)+R)$	87.5%	95.5%

Combined response rates:

	<u>Combined</u>
Response Rate 1	10.0%
Response Rate 2	10.7%
Response Rate 3	17.3%
Response Rate 4	18.5%
Coop Rate 1	21.9%
Coop Rate 2	23.5%
Coop Rate 3	85.3%
Coop Rate 4	91.5%

Calculations of Response Rates #1-#4 and Cooperation Rates #1-#2 follow AAPOR's Standard Definitions Report (9th edition, 2016) and its accompanying Outcome Rate Calculator for dual-frame RDD surveys ("DFRDD"). Calculation of Cooperation Rates #3 and #4 use the general Version 4.0 formula ("all").

Sample Disposition Report

2017 CHS Combined landline and cell phone sample – AAPOR 9th edition

			TOTAL	
			Landline	Cell
Interview (Category 1)				
Complete	1	I	4,042	5,963
Partial	1.2	P	438	505
Partial (complete removed from analysis)	1.25	P	2	4
Eligible, non-interview (Category 2)				
Refusal and breakoff	2.1	R	59	25
Refusal	2.11	R	390	169
Break off	2.12	R	39	70
Non-contact	2.2	NC	600	419
Physically or mentally unable/incompetent	2.32	O	111	18
Language	2.33	O	45	50
Unknown eligibility, non-interview (Category 3)				
Always busy	3.12	UH	663	3,675
No answer	3.13	UH	26,312	3,751
No Answer All Attempts	3.131	UH	9,218	2,364
Answering machine-don't know if household	3.14	UH	11,581	19,849
Call blocking	3.15	UH	80	578
No screener completed	3.21	UO	32,351	35,676
Not eligible (Category 4)				
Screen-outs	4.1	SO	290	6,836
Fax/data line	4.2	NWC	6,857	209
Non-working/disconnect	4.3	NWC	169,348	22,233
Temporarily out of service	4.33	NWC	2,363	1,808
Cell phone	4.45	NWC	2,263	-
Business, government office, other organizations	4.51	NWC	22,812	2,631
Quota filled	4.8	NWC	334	253
Other	4.9	NWC	114	-
Total phone numbers used			290312	107086

Sample Disposition Report

		TOTAL	
		Landline	Cell
Completes (1.0)	I	4042	5963
Partial Interviews (1.2)	P	440	509
Refusal and break off (2.11, 2.12)	R	488	264
Non Contact (2.20)	NC	600	419
Other (2.320)	O	156	68
Unknown household (3.12-3.15) - No Contact Made	UH	47854	30217
Unknown other (3.21, 3.9) - Contact Made	UO	32351	35676
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NWC	204091	27134
Screen Out: Working and Residential but Not Eligible (4.1)	SO	290	6836
e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)		0.952	0.514
e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)		0.158	0.647
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		4.7%	8.2%
AAPOR RR2 = (I+P) / (I+P+R+NC+O+UH+UO)		5.2%	8.9%
AAPOR RR3 = I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		9.2%	16.8%
AAPOR RR4 = (I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		10.3%	18.2%
AAPOR COOP1 = I / (I+P+R+O+[e1*UO])		11.3%	23.7%
AAPOR COOP2 = (I+P) / (I+P+R+O+[e1*UO])		12.5%	25.8%
AAPOR COOP3 = I / ((I+P)+R)		81.3%	88.5%
AAPOR COOP4 = (I+P) / ((I+P)+R)		90.2%	96.1%
AAPOR CON1 = (I+P)+R+O / (I+P+R+O+NC+UH+UO)		6.0%	9.3%
AAPOR CON2 = (I+P+R+O+[e1*UO]) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		82.1%	70.6%
AAPOR CON3 = (I+P)+R+O / (I+P)+R+O+NC		89.5%	94.2%

Sample Disposition Report

2017 CHS Combined frame participation rates - AAPOR's 9th edition

Completed interviews/partials by frame:		
Landline interviews + partials		4,482
Cell interviews + partials		6,472
Total		10,954

Combining factor	40.9%	Landline
	59.1%	Cell

<u>Version response rates:</u>		<u>Landline</u>	<u>Cell</u>
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	4.7%	8.2%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	5.2%	8.9%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	9.2%	16.8%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	10.3%	18.2%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	11.3%	23.7%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	12.5%	25.8%
Coop Rate 3	$I / ((I+P)+R)$	81.3%	88.5%
Coop Rate 4	$(I+P) / ((I+P)+R)$	90.2%	96.1%

<u>Combined response rates:</u>		<u>Combined</u>
Response Rate 1		6.7%
Response Rate 2		7.4%
Response Rate 3		13.7%
Response Rate 4		14.9%
Coop Rate 1		18.6%
Coop Rate 2		20.3%
Coop Rate 3		85.6%
Coop Rate 4		93.7%

Calculations of Response Rates #1-#4 and Cooperation Rates #1-#2 follow AAPOR's Standard Definitions Report (9th edition, 2016) and its accompanying Outcome Rate Calculator for dual-frame RDD surveys ("DFRDD"). Calculation of Cooperation Rates #3 and #4 use the general Version 4.0 formula ("all").

Sample Disposition Report

2018 CHS Combined landline and cell phone sample – AAPOR 9th edition

			TOTAL	
			Landline	Cell
Interview (Category 1)				
Complete	1	I	4,020	6,056
Partial	1.2	P	272	558
Partial (complete removed from analysis)	1.25	P	1	7
Eligible, non-interview (Category 2)				
Refusal and breakoff	2.1	R	45	45
Refusal	2.11	R	380	697
Break off	2.12	R	24	59
Non-contact	2.2	NC	410	1,281
Physically or mentally unable/incompetent	2.32	O	89	18
Language	2.33	O	17	25
Unknown eligibility, non-interview (Category 3)				
Always busy	3.12	UH	909	3,401
No answer	3.13	UH	28,841	5,457
No Answer All Attempts	3.131	UH	10,826	12,617
Answering machine-don't know if household	3.14	UH	20,795	31,760
Call blocking	3.15	UH	167	1,652
No screener completed	3.21	UO	39,058	58,347
Not eligible (Category 4)				
Screen-outs	4.1	SO	221	5,320
Fax/data line	4.2	NWC	6,297	53
Non-working/disconnect	4.3	NWC	179,439	27,646
Temporarily out of service	4.33	NWC	1,545	1,901
Cell phone	4.45	NWC	694	-
Business, government office, other organizations	4.51	NWC	21,696	3,465
Quota filled	4.8	NWC	410	178
Other	4.9	NWC	97	1,832
Total phone numbers used			316253	162375

Sample Disposition Report

		TOTAL	
		Landline	Cell
Completes (1.0)	I	4020	6056
Partial Interviews (1.2)	P	273	565
Refusal and break off (2.11, 2.12)	R	449	801
Non Contact (2.20)	NC	410	1281
Other (2.320)	O	106	43
Unknown household (3.12-3.15) - No Contact Made	UH	61538	54887
Unknown other (3.21, 3.9) - Contact Made	UO	39058	58347
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NWC	210178	35075
Screen Out: Working and Residential but Not Eligible (4.1)	SO	221	5320
e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)		0.960	0.622
e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)		0.175	0.674
AAPOR RR1 = I/(I+P+R+NC+O+UH+UO)		3.8%	5.0%
AAPOR RR2 = (I+P)/(I+P+R+NC+O+UH+UO)		4.1%	5.4%
AAPOR RR3 = I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		7.6%	8.9%
AAPOR RR4 = (I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		8.1%	9.7%
AAPOR COOP1 = I / (I+P+R+O+[e1*UO])		9.5%	13.8%
AAPOR COOP2 = (I+P) / (I+P+R+O+[e1*UO])		10.1%	15.1%
AAPOR COOP3 = I/((I+P)+R)		84.8%	81.6%
AAPOR COOP4 = (I+P)/((I+P)+R)		90.5%	89.2%
AAPOR CON1 = (I+P)+R+O / (I+P+R+O+NC+UH+UO)		4.6%	6.1%
AAPOR CON2 = (I+P+R+O+[e1*UO]) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		79.8%	64.3%
AAPOR CON3 = (I+P)+R+O / (I+P)+R+O+NC		92.2%	85.4%

Sample Disposition Report

2018 CHS Combined frame participation rates - AAPOR's 9th edition

Completed interviews/partials by frame:

Landline interviews/partials	4,293
Cell interviews/partials	6,621
Total	10,914

Combining factor	39.3%	Landline
	60.7%	Cell

Version response rates:

		<u>Landline</u>	<u>Cell</u>
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	3.8%	5.0%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	4.1%	5.4%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	7.6%	8.9%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	8.1%	9.7%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	9.5%	13.8%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	10.1%	15.1%
Coop Rate 3	$I / ((I+P)+R)$	84.8%	81.6%
Coop Rate 4	$(I+P) / ((I+P)+R)$	90.5%	89.2%

Combined response rates:

	<u>Combined</u>
Response Rate 1	4.5%
Response Rate 2	4.9%
Response Rate 3	8.4%
Response Rate 4	9.1%
Coop Rate 1	12.1%
Coop Rate 2	13.2%
Coop Rate 3	82.8%
Coop Rate 4	89.7%

Calculations of Response Rates #1-#4 and Cooperation Rates #1-#2 follow AAPOR's Standard Definitions Report (9th edition, 2016) and its accompanying Outcome Rate Calculator for dual-frame RDD surveys ("DFRDD"). Calculation of Cooperation Rates #3 and #4 use the general Version 4.0 formula ("all").

Sample Disposition Report

2019 CHS Combined landline and cell phone sample – AAPOR 9th edition

			Total			
Interview (Category 1)			Landline	RDD Cell	OOA Cell‡	Bengali‡
Complete	1.1	I	2,357	5,189	1,195	62
Partial	1.2	P	177	492	112	9
Partial (complete removed from analysis)	1.25	P	2	2	2	-
Eligible, non-interview (Category 2)						
Refusal and breakoff	2.1	R	16	38	2	1
Refusal	2.11	R	484	654	149	9
Break off	2.12	R	29	67	16	-
Non-contact	2.2	NC	91	353	82	7
Physically or mentally unable/incompetent	2.32	O	57	5	1	-
Language	2.33	O	8	24	4	-
Unknown eligibility, non-interview (Category 3)						
Always busy	3.12	UH	131	810	172	2
No answer	3.13	UH	3,840	9,046	2,225	7
No Answer All Attempts	3.131	UH	20,074	17,830	2,392	472
Answering machine-don't know if household	3.14	UH	9,642	27,498	6,938	380
Call blocking	3.15	UH	580	602	142	2
No screener completed	3.21	UO	32,375	55,871	13,294	413
Not eligible (Category 4)						
Screen-outs	4.1	SO	69	3,612	2,778	16
Fax/data line	4.2	NWC	1,151	93	33	-
Non-working/disconnect	4.3	NWC	19,671	20,539	4,236	87
Temporarily out of service	4.33	NWC	90	267	48	1
Incorrect Sample Frame	4.45	NWC	20	10	3	1
Business, government office, other organizations	4.51	NWC	1,552	1,530	535	11
Quota filled	4.8	NWC	-	6	-	-
Other	4.9	NWC	56	1,413	220	6
Total phone numbers used			92,472	145,951	34,579	1,486

Sample Disposition Report

**2019 CHS Combined landline and cell phone sample
– AAPOR 9th edition**

		Landline	RDD Cell	OOA Cell‡	Bengali‡
Completes (1.0)	I	2,357	5,189	1,195	62
Partial Interviews (1.2)	P	179	494	114	9
Refusal and break off (2.11, 2.12)	R	529	759	167	10
Non Contact (2.20)	NC	91	353	82	7
Other (2.320)	O	65	29	5	-
Unknown household (3.12-3.15) - No Contact Made	UH	34,267	55,786	11,869	863
Unknown other (3.21, 3.9) - Contact Made	UO	32,375	55,871	13,294	413
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NW C	22,540	23,858	5,075	106
Screen Out: Working and Residential but Not Eligible (4.1)	SO	69	3,612	2,778	16
e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)		0.979	0.654	0.360	0.846
e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)		0.613	0.735	0.777	0.830
AAPOR RR1 = I/(I+P+R+NC+O+UH+UO)		3.4%	4.4%	4.5%	4.5%
AAPOR RR2 = (I+P)/(I+P+R+NC+O+UH+UO)		3.6%	4.8%	4.9%	5.2%
AAPOR RR3 = I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		4.2%	7.4%	12.4%	5.9%
AAPOR RR4 = (I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		4.6%	8.1%	13.5%	6.8%
AAPOR COOP1 = I / (I+P+R+O+[e1*UO])		6.8%	12.1%	19.1%	14.4%
AAPOR COOP2 = (I+P) / (I+P+R+O+[e1*UO])		7.3%	13.2%	20.9%	16.5%
AAPOR COOP3 = I/((I+P)+R)		76.9%	80.5%	81.0%	76.5%
AAPOR COOP4 = (I+P)/((I+P)+R)		82.7%	88.2%	88.7%	87.7%
AAPOR CON1 = (I+P)+R+O / (I+P+R+O+NC+UH+UO)		4.5%	5.5%	5.5%	5.9%
AAPOR CON2 = (I+P+R+O+[e1*UO]) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		62.8%	61.3%	64.8%	41.3%
AAPOR CON3 = (I+P)+R+O / (I+P)+R+O+NC		97.2%	94.8%	94.8%	92.0%

Sample Disposition Report

2019 CHS Combined landline and cell phone sample – AAPOR 9th edition

Completed interviews/partials by frame:

Landline interviews/partials	2,536
RDD Cell interviews/partials	5,683
Out of Area Cell interviews/partials	1,309
Total	9,528
Targeted Bengali Cell	71

Combining factor	26.60%	Landline
	73.40%	Cell

Overall Response Rates:		Landline	Cell	Combined
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	3.40%	4.40%	4.10%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	3.60%	4.80%	4.50%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	4.20%	8.30%	7.20%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	4.60%	9.10%	7.90%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	6.80%	13.40%	11.60%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	7.30%	14.70%	12.70%
Coop Rate 3	$I / ((I+P)+R)$	76.90%	80.60%	79.60%
Coop Rate 4	$(I+P) / ((I+P)+R)$	82.70%	88.30%	86.80%
Cell Subsample Rates:		RDD Cell	OOA Cell‡	Bengali‡
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	4.40%	4.50%	4.50%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	4.80%	4.90%	5.20%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	7.40%	12.40%	5.90%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	8.10%	13.50%	6.80%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	12.10%	19.10%	14.40%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	13.20%	20.90%	16.50%
Coop Rate 3	$I / ((I+P)+R)$	80.50%	81.00%	76.50%
Coop Rate 4	$(I+P) / ((I+P)+R)$	88.20%	88.70%	87.70%

Calculations of Response Rates #1-#4 and Cooperation Rates #1-#2 follow AAPOR's Standard Definitions Report (9th edition, 2016) and its accompanying Outcome Rate Calculator for dual-frame RDD surveys ("DFRDD"). Calculation of Cooperation Rates #3 and #4 use the general Version 4.0 formula ("all").

‡ To increase sample coverage, the 2019 CHS cell phone sample included a subsample of 'Out of Area' cell numbers of NYC residents with non-NYC numbers. Response rates for this group are detailed above alongside the traditional RDD cell rates and are included in the overall rate calculations. A small targeted cell sample of Bengali-language speaking numbers were also dialed; the outcome rates for that group are included in these tables, but were not included as a part of the overall 2019 CHS response rates.

Sample Disposition Report

2020 CHS Combined landline and cell phone sample – AAPOR 9th edition

			Total			
Interview (Category 1)			Landline	RDD Cell	OOA Cell‡	Bengali‡
Complete	1.1	I	1,782	5,991	890	118
Partial	1.2	P	205	688	78	17
Partial (complete removed from analysis)	1.25	P	-	4	-	-
Eligible, non-interview (Category 2)						
Refusal and breakoff	2.1	R	17	31	4	-
Refusal	2.11	R	583	1,148	135	28
Break off	2.12	R	19	82	10	2
Non-contact	2.2	NC	116	617	84	14
Physically or mentally unable/incompetent	2.32	O	47	17	-	-
Language	2.33	O	17	36	3	-
Unknown eligibility, non-interview (Category 3)						
Always busy	3.12	UH	6	3,937	551	9
No answer	3.13	UH	379	11,543	2,252	54
No Answer All Attempts	3.131	UH	10,559	36,553	6,054	161
Answering machine-don't know if household	3.14	UH	4,180	33,655	5,937	174
Call blocking	3.15	UH	230	318	69	2
No screener completed	3.21	UO	18,637	65,881	7,411	639
Not eligible (Category 4)						
Screen-outs	4.1	SO	28	6,087	1,671	35
Fax/data line	4.2	NWC	493	19	2	-
Non-working/disconnect	4.3	NWC	16,572	37,876	3,166	175
Temporarily out of service	4.33	NWC	27	106	9	-
Incorrect Sample Frame	4.45	NWC	9	4	-	-
Business, government office, other organizations	4.51	NWC	716	2,101	276	2
Quota filled	4.8	NWC	12	238	26	1
Other	4.9	NWC	42	980	78	3
Total phone numbers used			54,716	207,912	29,706	1,434

Sample Disposition Report

**2020 CHS Combined landline and cell phone sample
– AAPOR 9th edition**

		Landline	RDD Cell	OOA Cell‡	Bengali‡
Completes (1.0)	I	1,782	5,991	890	118
Partial Interviews (1.2)	P	205	692	78	17
Refusal and break off (2.11, 2.12)	R	619	1,261	149	30
Non Contact (2.20)	NC	116	617	84	14
Other (2.320)	O	64	53	3	-
Unknown household (3.12-3.15) - No Contact Made	UH	15,394	86,006	14,863	400
Unknown other (3.21, 3.9) - Contact Made	UO	18,637	65,881	7,411	639
Not Eligible: Nonworking, Nonresidential, or Ported (4.2-4.51, 4.7)	NW C	17,871	41,324	3,557	181
Screen Out: Working and Residential but Not Eligible (4.1)	SO	28	6,087	1,671	35
e1=(I+P+R+NC+O)/(I+P+R+NC+O+SO)		0.990	0.586	0.419	0.836
e2=(I+P+R+NC+O+UO+SO)/(I+P+R+NC+O+UO+SO+NWC)		0.546	0.661	0.743	0.825
AAPOR RR1 = I/(I+P+R+NC+O+UH+UO)		4.8%	3.7%	3.8%	9.7%
AAPOR RR2 = (I+P)/(I+P+R+NC+O+UH+UO)		5.4%	4.2%	4.1%	11.1%
AAPOR RR3 = I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		6.0%	7.4%	10.0%	11.9%
AAPOR RR4 = (I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		6.7%	8.3%	10.8%	13.6%
AAPOR COOP1 = I / (I+P+R+O+[e1*UO])		8.4%	12.9%	21.1%	16.9%
AAPOR COOP2 = (I+P) / (I+P+R+O+[e1*UO])		9.4%	14.3%	22.9%	19.3%
AAPOR COOP3 = I/((I+P)+R)		68.4%	75.4%	79.7%	71.5%
AAPOR COOP4 = (I+P)/((I+P)+R)		76.2%	84.1%	86.7%	81.8%
AAPOR CON1 = (I+P)+R+O / (I+P+R+O+NC+UH+UO)		7.3%	5.0%	4.8%	13.5%
AAPOR CON2 = (I+P+R+O+[e1*UO]) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])		71.5%	57.9%	47.3%	70.7%
AAPOR CON3 = (I+P)+R+O / (I+P)+R+O+NC		95.8%	92.8%	93.0%	92.2%

Sample Disposition Report

2020 CHS Combined landline and cell phone sample – AAPOR 9th edition

Completed interviews/partials by frame:

Landline interviews/partials	1,987
RDD Cell interviews/partials	6,683
Out of Area Cell interviews/partials	968
Total	9,638
Targeted Bengali Cell	135

Combining factor	20.6%	Landline
	79.3%	Cell

Overall Response Rates:		Landline	Cell	Combined
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	4.8%	3.7%	4.0%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	5.4%	4.2%	4.4%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	6.0%	7.8%	7.4%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	6.7%	8.6%	8.2%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	8.4%	13.9%	12.8%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	9.4%	15.4%	14.2%
Coop Rate 3	$I / ((I+P)+R)$	68.4%	76.0%	74.4%
Coop Rate 4	$(I+P) / ((I+P)+R)$	76.2%	84.4%	82.8%
Cell Subsample Rates:		RDD Cell	OOA Cell‡	Bengali‡
Response Rate 1	$I / (I+P) + (R+NC+O) + (UH+UO)$	3.7%	3.8%	9.7%
Response Rate 2	$(I+P) / (I+P) + (R+NC+O) + (UH+UO)$	4.2%	4.1%	11.1%
Response Rate 3	$I / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	7.4%	10.0%	11.9%
Response Rate 4	$(I+P) / (I+P+R+NC+O+[e1*e2*UH]+[e1*(UO)])$	8.3%	10.8%	13.6%
Coop Rate 1	$I / (I+P+R+O+[e1*UO])$	12.9%	21.1%	16.9%
Coop Rate 2	$(I+P) / (I+P+R+O+[e1*UO])$	14.3%	22.9%	19.3%
Coop Rate 3	$I / ((I+P)+R)$	75.4%	79.7%	71.5%
Coop Rate 4	$(I+P) / ((I+P)+R)$	84.1%	86.7%	81.8%

Calculations of Response Rates #1-#4 and Cooperation Rates #1-#2 follow AAPOR's Standard Definitions Report (9th edition, 2016) and its accompanying Outcome Rate Calculator for dual-frame RDD surveys ("DFRDD"). Calculation of Cooperation Rates #3 and #4 use the general Version 4.0 formula ("all").

Sample Disposition Report

‡ To increase sample coverage, the 2020 CHS cell phone sample included a subsample of 'Out of Area' cell numbers of NYC residents with non-NYC numbers. Response rates for this group are detailed above alongside the traditional RDD cell rates and are included in the overall rate calculations. A small targeted cell sample of Bengali-language speaking numbers were also dialed; the outcome rates for that group are included in these tables, but were not included as a part of the overall 2020 CHS response rates.

Sample Disposition Report

Appendix A - Comparison of Combined Frame Calculations -Response and Cooperation Rates, 2015-2020.

2015 CHS (dual-frame w/ overlap)

	Landline proportion	%	Cell phone proportion	%	Combined
AAPOR Response Rate #3	50.6%	13.5%	49.4%	21.5%	17.4%
AAPOR Cooperation Rate #3	50.6%	80.4%	49.4%	88.1%	84.2%

2016 CHS (dual-frame w/ overlap)

	Landline proportion	%	Cell phone proportion	%	Combined
AAPOR Response Rate #3	50.0%	12.3%	50.0%	22.2%	17.3%
AAPOR Cooperation Rate #3	50.0%	81.4%	50.0%	89.3%	85.3%

2017 CHS (dual-frame w/ overlap)

	Landline proportion	%	Cell phone proportion	%	Combined
AAPOR Response Rate #3	40.9%	9.2%	59.1%	16.8%	13.7%
AAPOR Cooperation Rate #3	40.9%	81.3%	59.1%	88.5%	85.6%

2018 CHS (dual-frame w/ overlap)

	Landline proportion	%	Cell phone proportion	%	Combined
AAPOR Response Rate #3	39.3%	7.6%	60.7%	8.9%	8.4%
AAPOR Cooperation Rate #3	39.3%	84.8%	60.7%	81.6%	82.8%

2019 CHS (dual-frame w/ overlap)

	Landline proportion	%	Cell phone proportion	%	Combined
AAPOR Response Rate #3	26.6%	4.2%	73.4%	8.3%	7.2%
AAPOR Cooperation Rate #3	26.6%	76.9%	73.4%	80.6%	79.6%

2020 CHS (dual-frame w/ overlap)

	Landline proportion	%	Cell phone proportion	%	Combined
AAPOR Response Rate #3	20.6%	6.0%	79.3%	7.8%	7.4%
AAPOR Cooperation Rate #3	20.6%	68.4%	79.3%	76.0%	74.4%