

TELEPHONE CARAVAN® Methodology

The following pages describe the methodology used for the ORC International Telephone CARAVAN® survey conducted September 13-16, 2018.

The study was conducted using two probability samples: randomly selected landline telephone numbers and randomly selected mobile (cell) telephone numbers. The combined sample consists of 1,004 adults (18 years old and older) living in the continental United States. Of the 1,004 interviews, 404 were from the landline sample and 600 from the cell phone sample. The margin of error for the sample of 1,004 is +/- 3.09% at the 95% confidence level. Smaller subgroups will have larger error margins.

Surveys are collected by trained and supervised US based interviewers using ORC International's computer assisted telephone interviewing (CATI) system. Final data is adjusted to consider the two sample frames and then weighted by age, gender, region, race/ethnicity and education to be proportionally representative of the US adult population.

As a founding member of the Code of Standards of the Council of American Survey Research Organizations (CASRO) and a member of the European Society for Opinion and Marketing Research (ESOMAR), we adhere to a rigorous Code of Standards and Ethics for Survey Research. As required by CASRO, we will maintain the anonymity of our respondents. No information will be released that in any way will reveal the identity of a respondent. Our authorization is required for any publication of the research findings or their implications.

Sampling

Telephone CARAVAN® uses a dual frame sampling design. This means that the sample is drawn from two independent sample frames—one for landlines and one for cell phones.

Landline Sample

ORC International's Random Digit Dial (RDD) telephone sample is generated using a list-assisted methodology. That is, the updated white page listings that are used to identify telephone number banks (the first 8 digits of the phone number) with a listed phone number in them. The standard that we use is 2+, meaning that a bank needs to have 2 or more listed households to be considered working. We use the Genesys Sampling in-house system to generate list-assisted Random Digit Dialing sample.



The standard GENESYS RDD methodology produces a strict single stage, EPSEM (Equal Opportunity of Selection Method) sample of residential telephone numbers. In other words, a GENESYS RDD sample ensures an equal and known probability of selection for every residential telephone number in the sample frame.

Cell Phone Sample

The cell phone sample, also RDD, has been supplied by Sample Solutions, BV. The cell phone sample is generated from cell phone 1,000 series blocks with all the 100 series banks within each block turned on. The sampling interval is then calculated by dividing the universe of all possible numbers by the number of records desired, thus specifying the size of the frame subdivisions. Within each of the subsets one number is selected at random, giving all numbers an equal probability of selection. The sample then is screened for assigned numbers based on sim card activation.

Weighting

In probability-based samples such as CARAVAN®, the basis of the weighting is the inverse of the selection probability. Then, weighting adjustments are frequently used to reduce the potential for biases that may be present due to incomplete frame coverage and survey nonresponse--both inherent in all telephone surveys. These adjustments may take advantage of geographic, demographic, and socioeconomic information that are known for the population and measured in the sample surveys. The adjustments reduce potential bias to the extent that the survey respondents and nonrespondents (noncontacts, refusals, etc.) with similar geographic, demographic, and socioeconomic characteristics are also similar with respect to the survey statistics of interest. In other words, post-survey weighting adjustments reduce bias if the weighting variables are related to (correlated with) the survey measures and the likelihood of survey participation.

The CARAVAN® <u>landline-cell</u> combined sample is a dual frame sampling design. This means that the sample is drawn from two independent sampling frames—one for landlines and one for cell phones. Adults with a landline but no cell phone (A) must be reached through a landline telephone sample. Adults with a cell phone and no landline (C) must be reached through the cell phone sample. Adults with both a landline and a cell phone (B) can be reached through either of the frames. Sampling from the two frames results in these four groups:

 a_1 : Landline respondents without a cell phone (landline only) b_1 : Landline respondents with a cell phone (dual user)

 b_2 : Cell phone respondents with a landline (dual user)

 c_2 : Cell phone respondents without a landline (cell only)



The dual user groups (b_1, b_2) are further classified into two subgroups:

Cell mostly: those who receive most calls on a cell phone

Landline mostly/Mixed use: those who receive most calls on a landline or who receive calls on both regularly

The National Health Interview Survey (NHIS) provides estimates of these user group populations. We weight-adjust the landline sample and the cell sample to their respective population proportions as reported from the NHIS. Once this design weight is calculated, the combined sample is weighted to represent the US population using data from the US Census Bureau's American Community Survey (CPS). This form of weighting is referred to as *calibration weighting*ⁱ in that survey respondents are assigned weights that are calibrated to reflect the population. The calibration weighting for CARAVAN® is based on a series of ratio adjustments called iterative proportional fitting, or "rakingⁱⁱ, which was first introduced by Deming and Stephan for use in the 1940 US census.



Definition of Classification Terms

The following definitions are provided for some of the standard demographics by which the results are tabulated. Other demographics are self-explanatory.

Income

The income groupings refer to the total household income for 2017 before taxes.

Geographic Region

The states are contained in four geographic regions as follows:

North East

- New England: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- Middle Atlantic: New York, New Jersey, Pennsylvania

Midwest

- East North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin
- West North Central: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

South

- <u>South Atlantic</u>: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
- East South Central: Kentucky, Tennessee, Alabama, Mississippi
- West South Central: Arkansas, Louisiana, Oklahoma, Texas

West

- Mountain: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada
- Pacific: Washington, Oregon, California, Hawaii, Alaska



About ORC International

ORC International is a collaborative and consultative research partner to hundreds of organizations around the globe. We possess a wide variety of resources, tools and technologies to collect and analyze information for our clients.

ORC International is ISO 20252 certified. To achieve certification, ORC International passed a comprehensive, on-site audit. The certification establishes globally recognized terms, definitions, and service requirements for project management in research organizations. Processes outlined in ISO 20252 are designed to produce transparent, consistent, well documented and error-free methods of conducting and managing research projects. Adherence and certification to such standards provides a basis of confidence for clients and other constituencies that the work produced is being executed with quality processes and controls in place. The internationally recognized standard also provides a basis for subcontractor evaluation.

ⁱ For a summary of calibration weighting, refer to Kalton, G. and I. Flores-Cervantes (2003) "Weighting Methods", *Journal of Official Statistics*.

ⁱⁱDeming, W. E. and F. F. Stephan (1940) "On a Least Squares Adjustment of a Sampled Frequency Table When the Expected Marginal Totals are Known," *Annals of Mathematical Statistics*.

ORC STUDY #727378 CARAVAN SEPTEMBER 13-16, 2018
JUSTICE SYSTEM STUDY

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Congress may consider a proposal to reduce penalties for trafficking in heroin, fentanyl and similar drugs, and allow drug traffickiers and other criminals to be released to home confinement fedure completing their prison sentences. If your Congressional representatives supported such a proposal, would you than know their play of term or less highly?

									Generation			Reg	ion	Race			Interview Method			
	Total		Sex Female	18-34	35-44	Age 45-54	55-64	65+	Millenials (20-37)	Gen X (38-53)	Baby Boomers (54-72)	Northeast	Mid West	South	West	Only (Non-Hisp)	Only (Non-Hisp)	Hispanic (Anv Race)	Land- line	Cell Phone
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(1)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)
Unweighted Total Weighted Total	1004 1004	502 485	502 519	195 298	98 160*	139 168	192 167	372 201	212 317	169 231	342 258	195 179	214 210	364 377	231 238	694 611	79 112*	83 151*	404 276	600 728
Makes a difference (Net)	852 85%	412 85%	439 85%	242 81%	128 80%	146 87%	154 92% DEH	171 85%	253 80%	200 87%	232 90%	152 85%	185 88%	329 87%	186 78%	527 86%	99 88%	119 79%	239 87%	612 84%
More highly	188 19%	98 20%	90 17%	74 25% GH	38 24%	27 16%	17 10%	30 15%	76 24% K	44 19%	31 12%	31 17%	50 24%	65 17%	42 18%	106 17%	25 23%	34 23%	40 14%	148 20%
Less highly	663 66%	314 65%	349 67%	168 57%	90 56%	119 71% DE	136 82% DEFH	141 70% DE	177 56%	156 68%	201 78% U	121 68%	134 64%	264 70%	143 60%	420 69% R	74 66%	85 56%	200 72% T	464 64%
Makes no difference	70 7%	42 9%	28 5%	25 8%	20 13% GH	10 6%	5 3%	10 5%	33 10% K	17 7%	9 4%	11 6%	10 5%	20 5%	29 12% MN	32 5%	8 8%	20 13% P	13 5%	57 8%
Don't knowiNo opinion	82 8%	31 6%	51 10%	31 10%	12 8%	12 7%	8 5%	20 10% G	32 10%	13 6%	17 6%	16 9%	15 7%	28 7%	24 10%	52 9%	5 4%	12 8%	23 8%	59 8%

Proportions/Means: Columns Tested (5% risk level) - B/C - D/E/F/G/H - I/J/K - L/M/N/O - P/Q/R - S/T Overlap formulae used. * small base

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When thinking about how the federal government deals with convicted defendants, would you support or oppose a proposal to reduce penalties for traffickers in heroin, fentanyl, and similar drugs?

																P	ace		Inter	rview
									Generation		Region				White Black			Method		
			Sex				Age		Millenials	Gen X	Baby Boomers		Mid			Only	Only	Hispanic	Land-	Cell
	Total (A)	Male (B)	Female (C)	18-34 (D)	35-44 (E)	45-54 (F)	55-64 (G)	65+ (H)	(20-37)	(38-53)	(54-72) (K)	Northeast (L)	West	South	West	(Non-Hisp)	(Non-Hisp)	(Any Race)	line (S)	Phone (T)
Unweighted Total Weighted Total	1004 1004	502 485	502 519	195 298	98 160*	139 168	192 167	372 201	212 317	169 231	342 258	195 179	214 210	364 377	231 238	694 611	79 112*	83 151*	404 276	600 728
Support	177 18%	91 19%	86 17%	85 28% FGH	32 20% G	22 13%	13 8%	25 12%	79 25% K	41 18% K	26 10%	33 18%	38 18%	69 18%	37 15%	98 16%	20 18%	36 24%	29 10%	148 20% S
Oppose	738 74%	356 73%	382 74%	187 63%	108 67%	137 82% DE	142 85% DE	156 77% DE	210 66%	171 74%	210 82%	126 71%	153 73%	276 73%	183 77%	472 77% R	80 71%	97 64%	222 80% T	517 71%
Don't know/No opinion	88 9%	38 8%	51 10%	26 9%	21 13% F	8 5%	12 7%	21 10%	28 9%	18 8%	21 8%	20 11%	18 9%	31 8%	19 8%	41 7%	12 11%	18 12%	26 9%	63 9%

Proportions/Means: Columns Tested (5% risk level) - B/C - D/E/F/G/H - I/J/K - L/M/N/O - P/Q/R - S/T
Overlap formulae used. * small base

CARAVAN SEPTEMBER 13-16, 2018 JUSTICE SYSTEM STUDY

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In general, do you think that the federal government is too tough, not tough enough, or about right in its handling of drug trafficking?

		Sex Age						Generation		Region				Race			Interview Method			
	Total (A)	Male (B)	Female	18-34 (D)	35-44 (E)	Age 45-54 (F)	55-64 (G)	65÷ (H)	Millenials (20-37)	Gen X (38-53)	Baby Boomers (54-72) (K)	Northeast (L)	Mid West (M)	South (N)	West (0)	White Only (Non-Hisp) (P)	Black Only (Non-Hisp) (Q)	Hispanic (Any Race) (R)	Land- line (S)	Cell Phone (T)
Unweighted Total Weighted Total	1004 1004	502 485	502 519	195 298	98 160*	139 168	192 167	372 201	212 317	169 231	342 258	195 179	214 210	364 377	231 238	694 611	79 112*	83 151*	404 276	600 728
Too tough	142 14%	75 15%	67 13%	77 26% FGH	25 16% FG	11 7%	12 7%	17 8%	74 23%	21 9%	21 8%	26 14%	36 17%	52 14%	28 12%	74 12%	16 15%	30 20%	28 10%	114 16% S
Not tough enough	514 51%	237 49%	277 53%	107 36%	66 41%	95 57% DE	112 67% DE	126 63% DE	121 38%	119 52%	167 65% IJ	84 47%	106 51%	208 55%	115 48%	333 55%	55 49%	64 43%	163 59% T	351 48%
About right	255 25%	128 26%	127 24%	88 30% GH	52 32% GH	43 26%	32 19%	37 18%	98 31% K	64 28%	52 20%	49 28%	53 25%	78 21%	75 31% N	153 25%	32 29%	42 28%	54 20%	201 28% S
Don't know/No opinion	93 9%	45 9%	48 9%	25 8%	17 11%	18 11%	11 6%	22 11%	24 8%	26 11%	19 7%	19 11%	15 7%	39 10%	20 8%	51 8%	9 8%	15 10%	31 11%	62 8%

Proportione/Means: Columns Tested (5% risk level) - B/C - D/E/F/G/H - I/J/K - L/M/N/O - P/Q/R - S/T Overlap formulae used. * small base

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Question T1

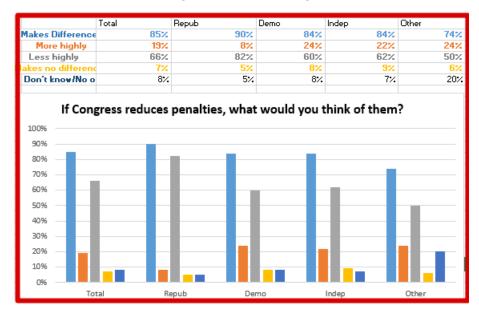
Some say that mandatory minimum sentencing has helped rein in lenient judges and reduced unwarranted disparity in sentencing. Others say it's too rigid, and that judges should have more discretion, or leeway, to consider the circumstances of a case. If you knew that more leeway would often result in lower sentences for defendants trafficking in heroin, methamphetamine, fentanyl and similar drugs, would you want to allow that leeway?

		Repub-	Demo-	Inde-	Other
	Total	lican	crat	pendent	Party
	(A)	(B)	(C)	(D)	(E)
Unweighted Total	1004	284	285	316	39
Weighted Total	1004	247	299	330	41**
Yes	283	41	99	109	11
	28%	17%	33%	33%	26%
			В	В	
No	616	189	171	188	24
	61%	77%	57%	57%	57%
		CD			
Not sure/Don't know	104	17	29	33	7
	10%	7%	10%	10%	17%

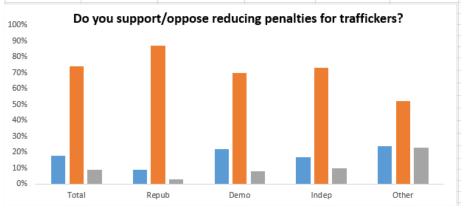
Proportions/Means: Columns Tested (5% risk level) - B/C/D/E

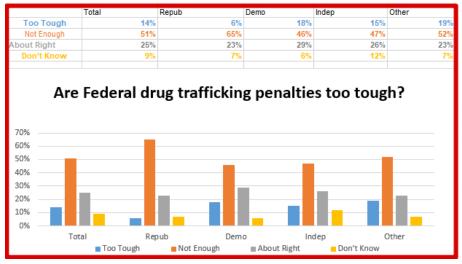
Overlap formulae used. ** very small base (under 30) ineligible for sig testing

By Political Affinity



	Total	Repub	Demo	Indep	Other
Support	18%	9%	22%	17%	24%
Oppose	74%	87%	70%	73%	52%
Don't Know	9%	3%	8%	10%	23%





Age Demographics

