NATIONAL SURVEY OF PUBLIC OPINION ON GLOBAL WARMING

STANFORD UNIVERSITY

RESOURCES FOR THE FUTURE

RECONMR

Interviewing conducted by ReconMR

Survey designed by

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with

Scholars from Resources for the Future

Interview dates: May 28- August 16, 2020

Interviews: 999 adults nationwide
Margin of error: +/- 4.0 percentage points at the 95% confidence level for full sample results

Notes:
All results show percentages among all respondents unless otherwise labeled.
All results shown are percentages unless otherwise labeled.
The sum might not add to exactly 100 due to rounding.
Some "0"s are numbers less than .5 rounded down
DK/RF is the sum of the percent of respondents who said "don't know" and the percent of respondents who declined to answer a question.
"(Vol.)" means that interviewers were instructed to record a particular answer if a respondent provided it, despite that answer not being offered explicitly as a response option by the question.

[2009, June 2010, 2013--2020] Q36B. Do you think that the United States doing things to reduce global warming in the future would hurt the U.S. economy, would help the economy, or would have no effect on the U.S. economy?

[2009, June 2010, 2013-2020] Q36B1. Do you think that the United States doing things to reduce global warming in the future would help the U.S. economy, would hurt the economy, or would have no effect on the U.S. economy?

[2020] Q36Bx. Would it [help/hurt] a lot or a little?

[Nov-2010] Q36B.   Do you think that the United States doing things to reduce global warming in the future would hurt the U.S. economy, would help the economy, or would have no effect on the U.S. economy?

Q36B1. Do you think that the United States doing things to reduce global warming in the future would help the U.S. economy, would hurt the economy, or would have no effect on the U.S. economy?

Q36B2. Do you believe that new environmental and energy laws designed to reduce global warming will … [Definitely hurt the economy, Probably hurt the economy, Have no effect either way on the economy, Probably help the economy, or Definitely help the economy]?

Q36B3. Do you believe that new environmental and energy laws designed to reduce global warming will … [Definitely help the economy, Probably help the economy, Have no effect either way on the economy, Probably hurt the economy, or Definitely hurt the economy]?

Q36B/B1	Hurt the U.S. economy	Help the U.S. economy	Would not affect	DK/RF	Total	N
Nov-2009	27	46	24	3	100	1005
Jun-2010	20	56	23	2	100	1000
Nov-2010	23	53	22	3	100	1001
Dec-2013	30	44	23	3	100	801
June-2014	27	46	23	4	100	1023
Jan-2015	30	42	24	3	100	1006
May-2018	30	46	22	3	100	1000
Aug-2020	29	47	21	3	100	999

Q36B/B1/Bx	Hurt the U.S. economy a lot	Hurt the U.S. economy a little	Help the U.S. economy a lot	Help the U.S. economy a little	Would not affect	DK/RF	Total	N
Aug-2020	17	12	34	13	21	4	100	999

[June-2010, Nov-2010, 2020] Q36C. Do you think that the United States doing things to reduce global warming in the future would cause there to be more jobs around the country, would cause there to be fewer jobs, or would not affect the number of jobs for people around the country?

[June-2010, Nov-2010, 2020] Q36C1. Do you think that the United States doing things to reduce global warming in the future would cause there to be fewer jobs around the country, would cause there to be more jobs, or would not affect the number of jobs for people around the country?

[2020] Q36Cx. Would it be a lot [more/fewer] or a little [more/fewer]?

[2009] Q36C. Do you think that the United States doing things to reduce global warming in the future would cause there to be more jobs for people around the country, would cause there to be fewer jobs, or wouldn't affect the number of jobs for people around the country

Q36C/C1	More jobs around the country	Fewer jobs around the county	Would not affect	DK/RF	Total	N
Nov-2009	40	23	33	5	100	1005
June-2010	50	18	31	2	100	1000
Nov-2010	48	18	30	4	100	1001
Aug-2020	40	23	33	3	100	999

Q36C/C1/C1x	A lot more jobs around the country	A little more jobs around the country	A lot fewer jobs around the country	A little fewer jobs around the country	Would not affect	DK/RF	Total	N
Aug-2020	23	16	13	10	33	5	100	999

[2010, 2020] Q36D. Do you think that the United States doing things to reduce global warming in the future would hurt the economy in the State where you live, would help the economy in the State where you live, or would have no effect on the economy in the State where you live?

[2010, 2020] Q361D1. Do you think that the United States doing things to reduce global warming in the future would help the economy in the State where you live, would hurt the economy in the State where you live, or would have no effect on the economy in the State where you live?

[2020] Q36Dx. Would it [help/hurt] a lot or a little?

Q36D/D1	Hurt the economy in the state you live in	Help the economy in the state you live in	Would not affect	DK/RF	Total	N
Nov-2010	21	48	29	2	100	1001
Aug-2020	23	48	27	2	100	999

Q36D/D1/Dx	Hurt the economy in the state you	Hurt the economy in the state you	Help the economy in the state you	Help the economy in the state you	Would not affect	DK/RF	Total	N

	live in a lot	live in a little	live in a lot	live in a little				
Aug-2020	15	8	31	16	27	2	100	999

[2010, 2020] Q36E. Do you think that the United States doing things to reduce global warming in the future would cause there to be more jobs for people in the State where you live, would cause there to be fewer jobs in the State where you live, or wouldn't affect the number of jobs for people in the State where you live?

[2010, 2020] Q36E. Do you think that the United States doing things to reduce global warming in the future would cause there to be fewer jobs for people in the State where you live, would cause there to be more jobs in the State where you live, or wouldn't affect the number of jobs for people in the State where you live?

[2020] Q36Ex. Would it be a lot [more/fewer] or a little [more/fewer]?

Q36E/E1	More jobs in the state you live in	Fewer jobs in the state you live in	Would not affect	DK/RF	Total	N
Nov-2010	45	19	33	2	100	1001
Aug-2020	37	22	39	2	100	999

Q36E/E1/Ex	A lot more jobs in the state you live in	A little more jobs in the state you live in	A lot fewer jobs in the state you live in	A little fewer jobs in the state you live in	Would not affect	DK/RF	Total	N
Aug-2020	21	15	13	8	39	4	100	999

[2020] Q36F. Do you think that the United States doing things to reduce global warming in the future would cause you to have more money, would cause you to have less money, or would not affect the amount of money you have?

Q36F1. Do you think that the United States doing things to reduce global warming in the future would cause you to have more money, would cause you to have less money, or would not affect the amount of money you have?

Q36Fx. Would it be a lot [more/less] or a little [more/fewer]?

Q36F/F1	More money	Less money	Would not affect	DK/RF	Total	N
Aug-2020	11	20	66	2	100	999

Q36F/F1/Fx	A lot more money	A little more money	A lot less money	A little less money	Would not affect	DK/RF	Total	N
Aug-2020	4	7	11	9	66	3	100	999

[2020] Q36G. Do you think that the United States doing things to reduce global warming in the future would make it (more) likely that you have a good-paying job, would make it (less) likely that you have a good-paying job, or would not affect whether you have a good-paying job?
Q36G1. Do you think that the United States doing things to reduce global warming in the future would make it (more) likely that you have a good-paying job, would make it (less) likely that you have a good-paying job, or would not affect whether you have a good-paying job?
Q36Fx. Would it be a lot [more/less] likely or a little [more/fewer] likely?

Q36G/G1	More likely to have a good paying job	Less likely to have a good paying job	Would not affect	DK/RF	Total	N
Aug-2020	17	12	69	2	100	999

Q36E/E1/Ex	A lot more likely to have a good paying job	A little more likely to have a good paying job	A lot less likely to have a good paying job	A little less likely to have a good paying job	Would not affect	DK/RF	Total	N
Aug-2020	11	6	7	4	69	3	100	999

[2015-2020] Q35. For each of the following, please tell me whether you favor or oppose it as a way for the federal government to try to reduce future global warming. Each of these changes would increase the amount of money that you pay for things you buy.
[2012] Q35. For each of the following, please tell me whether you favor or oppose it as a way for the federal government to try to reduce future global warming. [ONLY ASKED IN ONE HALF SAMPLE: Each of these changes would increase the amount of money that you pay for things you buy.]
[2006-2011]. For each of the following, please tell me whether you favor or oppose it as a way for the federal government [HALF SAMPLE, doing it/HALF SAMPLE, to try to reduce future global warming].

Q35a. Increasing taxes on electricity so people use less of it?

Q35_1	Favor	Oppose	DK/RF	Total	N
Mar-2006	19	80	0	100	1002
Apr-2007	20	79	1	100	1002
Nov-2009	21	77	2	100	1005
Jun-2010	22	77	1	100	1000
Nov-2010	24	76	1	100	1001
Mar-2012	18	80	2	100	1428
Jun-2012	25	74	1	100	804
Jan-2015	25	74	1	100	1006
May-2018	27	72	1	100	1000
Aug-2020	28	71	1	100	999

Q35b.   Increasing taxes on gasoline so people either drive less, or buy cars that use less gas?

Q35_2	Favor	Oppose	DK/RF	Total	N
Mar-2006	31	68	1	100	1002
Apr-2007	32	67	1	100	1002
Nov-2009	32	67	1	100	1005
Jun-2010	28	71	1	100	1000
Nov-2010	33	67	0	100	1001
Mar-2012	26	73	2	100	1428
Jun-2012	28	71	1	100	804
Jan-2015	36	63	1	100	1006
May-2018	35	64	1	100	1000
Aug-2020	43	56	1	100	999

Q35c.   Giving companies tax breaks to build nuclear power plants?

Q35_3	Favor	Oppose	DK/RF	Total	N
Nov-2009	54	43	3	100	1003
Jun-2010	48	48	4	100	1000
Nov-2010	47	49	4	100	1001
Dec-2013	37	62	1	100	801
Jan-2015	36	61	3	100	1006
May-2018	43	55	2	100	1000
Aug-2020	37	59	4	100	999

Q35d.   Giving companies tax breaks to produce more electricity from water, wind, and solar power?

Q35_4	Favor	Oppose	DK/RF	Total	N
Mar-2006	87	12	1	100	1002
Nov-2009	88	12	1	100	1005
Jun-2010	84	15	0	100	1000
Nov-2010	86	13	1	100	1001
Mar-2012	73	25	2	100	1428
Jun-2012	77	22	1	100	804
Dec-2013	75	24	1	100	801
Jan-2015	80	19	1	100	1006
May-2018	82	18	1	100	1000
Aug-2020	83	16	1	100	999

Q35e.   Giving tax breaks to companies that burn coal to make electricity if they use new methods to reduce the air pollution being released from their smokestacks?

Q35_5	Favor	Oppose	DK/RF	Total	N
Jun-2012	66	33	1	100	804
Jan-2015	68	29	2	100	1006
May-2018	66	32	2	100	1000
Aug-2020	63	36	1	100	999

[2015-2020] For the next items, please tell me for each one whether it's something the government should require by law to try to reduce future global warming, should encourage with tax breaks but not require, or stay out of entirely. Each of these changes [would/could] increase the amount of money that you pay for things you buy. …First…Next…

[2013-2014] Q36**.** For the next items, please tell me for each one whether it's something the government should require by law to try to reduce future global warming, should encourage with tax breaks but not require, or stay out of entirely. [Each of these changes would increase the amount of money that you pay for things you buy.] …First…Next…

[2012] For the next items, please tell me for each one whether it's something the government should require by law, encourage with tax breaks but not require, or stay out of entirely. [IF SUBSAMPLE2: Each of these changes would increase the amount of money that you pay for things you buy.]

[2006-2011]. For the next items, please tell me for each one whether it's something the government should require by law, encourage with tax breaks but not require, or stay out of entirely.

Q36_1: Building cars that use less gasoline?

Q36_1	Require by law	Encourage with tax breaks	Stay out of entirely	DK/RF	Total	N
Mar-2006	44	40	15	1	100	1002
Apr-2007	42	44	14	1	100	1002
Nov-2009	31	47	22	0	100	1005
Jun-2010	31	49	19	1	100	1000
Nov-2010	31	48	22	0	100	1001
Mar-2012	26	39	33	2	100	1428
Jun-2012	23	49	27	0	100	804
Dec-2013	27	45	27	0	100	801
6/8/2014	31	38	28	2	100	1023
Jan-2015	27	46	27	1	100	1006
May-2018	24	45	30	1	100	1000
Aug-2020	25	47	28	1	100	999

Q36_3: Building air conditioners, refrigerators, and other appliances that use less electricity?

Q36_3	Require by law	Encourage with tax breaks	Stay out of entirely	DK/RF	Total	N
Mar-2006	41	40	17	1	100	1002
Apr-2007	36	43	19	2	100	1002
Nov-2009	30	47	23	0	100	1005
Jun-2010	29	51	20	0	100	1000
Nov-2010	30	47	22	1	100	1001
Mar-2012	24	40	33	2	100	1428
Jun-2012	21	52	27	0	100	804
Dec-2013	26	45	28	0	100	801
Jan-2015	24	47	28	0	100	1006
May-2018	21	50	28	1	100	1000
Aug-2020	23	49	28	1	100	999

Q36_4: Building new homes and offices that use less energy for heating and cooling?

Q36_4	Require by law	Encourage with tax breaks	Stay out of entirely	DK/RF	Total	N
Mar-2006	33	50	15	1	100	1002
Apr-2007	30	51	17	1	100	1002
Nov-2009	22	57	21	0	100	1005
Jun-2010	24	56	20	0	100	1000
Nov-2010	24	54	22	0	100	1001
Mar-2012	21	46	30	2	100	1428
Jun-2012	18	56	26	0	100	804
Dec-2013	20	54	26	0	100	801
Jan-2015	18	54	27	0	100	1006
May-2018	20	55	25	0	100	1000
Aug-2020	21	54	25	0	100	999

Q36_5: Lowering the amount of greenhouse gases that power plants are allowed to release into the air?

Q36_5	Require by law	Encourage with tax breaks	Stay out of entirely	DK/RF	Total	N
Mar-2006	61	26	11	2	100	1002
Apr-2007	62	26	10	3	100	1002
Nov-2009	42	34	22	1	100	1005
Jun-2010	42	38	19	1	100	1000
Nov-2010	44	33	20	2	100	1001
3/11/2012	42	28	27	3	100	1428
Jun-2012	41	37	21	1	100	804
Dec-2013	54	25	21	1	100	801
6/8/2014	49	28	20	3	100	1023
Jan-2015	50	29	19	1	100	1006
May-2018	51	32	17	1	100	1000
Aug-2020	52	29	18	1	100	999

Q17B1. [IF Q12 = 1 "PROBABLY HAS BEEN HAPPENING", If/IF Q12 = DK OR REF OR 2 "PROBABLY HAS NOT BEEN HAPPENING", Assuming it's happening, if] nothing is done to reduce global warming in the future, how much do you think it will help you personally—a great deal, a lot, a moderate amount, a little or not at all?

Q17B1	A great deal	A lot	A moderate amount	A little	Not at all	DK/RF	Total	N
Jan-2015	3	3	9	12	72	1	100	1006
Aug-2020	9	5	15	14	58	0	100	999

Q18A1. [IF Q12 = 1 "PROBABLY HAS BEEN HAPPENING", If/IF Q12 = DK OR REF OR 2 "PROBABLY HAS NOT BEEN HAPPENING", Assuming it's happening, if] nothing is done to reduce global warming in the future, how much do you think it will help future generations—a great deal, a lot, a moderate amount, a little, or not at all?

Q18A1	A great deal	A lot	A moderate amount	A little	Not at all	DK/RF	Total	N
Jan-2015	5	4	9	11	69	2	100	1006
Aug-2020	16	7	12	9	55	1	100	999

Q18A2. [IF Q12 = 1 "PROBABLY HAS BEEN HAPPENING", If/IF Q12 = DK OR REF OR 2 "PROBABLY HAS NOT BEEN HAPPENING", Assuming it's happening, if] nothing is done to reduce global warming in the future, how much do you think it will hurt you personally—a great deal, a lot, a moderate amount, a little, or not at all?

Q18A2	A great deal	A lot	A moderate amount	A little	Not at all	DK/RF	Total	N
Nov-09	19	15	26	15	24	*	100	1005
Jun-10	18	17	27	17	20	1	100	1000
Nov-10	17	14	24	20	25	1	100	1001
Dec-2013	18	14	30	17	21	1	100	801
Jan-2015	18	16	20	17	28	1	100	1006
Aug-2020	22	9	22	20	27	0	100	999

Q18A. [IF Q12 = 1 "PROBABLY HAS BEEN HAPPENING", If/IF Q12 = DK OR REF OR 2 "PROBABLY HAS NOT BEEN HAPPENING", Assuming it's happening, if] nothing is done to reduce global warming in the future, how much do you think it will hurt future generations—a great deal, a lot, a moderate amount, a little, or not at all?

Q18A	A great deal	A lot	A moderate amount	A little	Not at all	DK/RF	Total	N
Nov-09	42	21	13	8	15	1	100	1005
Jun-10	43	21	16	11	9	*	100	1000
Nov-10	38	21	16	11	12	1	100	1001
Dec-2013	48	19	13	9	10	1	100	801
Jan-2015	43	16	15	11	14	1	100	1006
Aug-2020	45	17	11	12	14	0	100	999

[2013, 2015, 2020]. Q38B. There's a proposed system called "cap and trade." The government would <u>sell</u> permits to companies limiting the amount of greenhouse gases they can put out. Companies that do not use all their permits could sell them to other companies. Companies that need more permits can buy them, or these companies can pay money to reduce the amount of greenhouse gases that other people or organizations put out. <u>Economists say that this system is likely to cause companies to figure out the cheapest way to reduce greenhouse gas emissions</u>. <u>The money the government makes from selling the permits would be returned to all Americans equally by reducing the amount of income taxes they pay</u>. Would you favor or oppose this cap and trade system?

[2013, 2015]. Q38A. here's a proposed system called 'cap-and-trade.' The government would <u>issue</u> permits limiting the amount of greenhouse gases companies can put out. Companies that did not use all their permits could sell them to other companies. Companies that need more permits can buy them, or these companies can pay money to reduce the amount of greenhouse gases that other people or organizations put out. <u>Economists say that this system is likely to cause companies to figure out the cheapest way to reduce greenhouse gas emissions</u>. Would you favor or oppose a cap-and-trade system <u>to reduce the amount of greenhouse gases that companies put out</u>?

[2013]. Q38C. There's a proposed system called "cap and trade." The government would <u>give</u> permits to companies limiting the amount of greenhouse gases they can put out. Companies that do not use all their permits could sell them to other companies. Companies that need more permits can buy them, or these companies can pay money to reduce the amount of greenhouse gases that other people or organizations put out. <u>Economists say that this system is likely to cause companies to figure out the cheapest way to reduce greenhouse gas emissions</u>. Would you favor or oppose this cap and trade system?

[June 2010, Nov. 2010]. Q38A. There's a proposed system called "cap and trade." The government would issue permits limiting the amount of greenhouse gases companies can put out. Companies that did not use all their permits could sell them to other companies. Companies that need more permits can buy them, or these companies can pay money to reduce the amount of greenhouse gases that other people or organizations put out. This will cause companies to figure out the cheapest way to reduce greenhouse gas emissions. <u>This type of permit system has worked successfully in the past to reduce the air pollution that companies put out. For example, in 1990, the federal government passed a law like this, called the Clean Air Act, which caused companies to put out a lot less of the air pollution that causes acid rain</u>. Would you favor or oppose a cap and trade system <u>to reduce the amount of greenhouse gases that companies put out</u>?

[2009, June 2010]. Q38A. There's a proposed system called "cap and trade." The government would issue permits limiting the amount of greenhouse gases companies can put out. Companies that did not use all their permits could sell them to other companies. Companies that need more permits can buy them, or these companies can pay money to reduce the amount of greenhouse gases that other people or organizations put out. <u>This will cause companies to figure out the cheapest way to reduce greenhouse gas emissions</u>. Would you favor or oppose this system?

[2008, 2009]. Q38A. There's a proposed system called "cap and trade." The government would issue permits limiting the amount of greenhouse gases companies can put out. Companies that did not use all their permits could sell them to other companies. <u>The idea is that many companies would find ways to put out less greenhouse gases, because that would be cheaper than buying permits</u>. Would you support or oppose this system?

Q38B	Favor	Oppose	DK/RF	Total	N
Dec-2013	65	33	2	100	284
Jan-2015	62	34	4	100	509
Aug-2020	61	33	5	100	999

Q38A	Favor	Oppose	DK/RF	Total	N
Dec-2013	59	36	4	100	293
Jan-2015	52	42	6	100	497

Q38C	Favor	Oppose	DK/RF	Total	N
Dec-2013	48	49	4	100	295

Q38A	Favor	Oppose	DK/RF	Total	N
June-2010	74	25	1	100	502
Nov-2010	72	25	2	100	1001

Q38A	Favor	Oppose	DK/RF	Total	N
Nov-2009	58	37	5	100	503
June-2010	65	32	3	100	503

Q38A	Favor	Oppose	DK/RF	Total	N
Jul-2008	59	41	3	100	496
Nov-2009	50	47	3	100	502

[2020] Q92a. [1] [2] When companies burn oil, coal, and natural gas, they put greenhouse gases into the air. The federal government can charge these companies a tax for every ton of greenhouse gases they put out. This will cause the companies to put out less greenhouse gases. The companies may pass along this cost to the public, by charging higher prices for some of the things people buy. Do you think the government should or should not charge companies this tax?

Q92b. When companies burn oil, coal, and natural gas, they put greenhouse gases into the air. The federal government can charge these companies a tax for every ton of greenhouse gases they put out. This will cause the companies to put out less greenhouse gases. The companies may pass along this cost to the public, by charging higher prices for some of the things people buy. The government will give the money from the companies back to all American adults and children, divided equally. If each person would get $800 on average next year, and the amount would get bigger each year after that, do you think the government should or should not charge companies this tax?

Q92c. When companies burn oil, coal, and natural gas, they put greenhouse gases into the air. The federal government can charge these companies a tax for every ton of greenhouse gases they put out. This will cause the companies to put out less greenhouse gases. The companies may pass along this cost to the public, by charging higher prices for some of the things people buy. The government will give the money from the companies back to all American adults and children, divided equally. If each person would get $600 on average next year, and the amount would get bigger each year after that, do you think the government should or should not charge companies this tax?

Q92d. When companies burn oil, coal, and natural gas, they put greenhouse gases into the air. The federal government can charge these companies a tax for every ton of greenhouse gases they put out. This will cause the companies to put out less greenhouse gases. The companies may pass along this cost to the public, by charging higher prices for some of the things people buy. The government will give the money from the companies back to all American adults and children, divided equally. If each person would get $200 on average next year, and the amount would get bigger each year after that, do you think the government should or should not charge companies this tax?

Q92a	Should charge	Should not charge	DK/RF	Total	N
Aug-2020	62	35	2	100	434

Q92b	Should charge	Should not charge	DK/RF	Total	N
Aug-2020	58	38	4	100	335

Q92c	Should charge	Should not charge	DK/RF	Total	N
Aug-2020	63	33	4	100	381

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[1] Respondents were randomly assigned to be asked each of these four versions of the questions.
[2] Q92a-Q92d in 2020 were also asked in a separate national telephone survey, referred to as survey 2, with the same methodology and same time period of fielding. See the Appendix for details of the methodology of survey 2. When combining these four questions, the distribution of the responses did not differ between the 2020 survey and survey 2, data from both surveys are presented here.

Q92d	Should charge	Should not charge	DK/RF	Total	N
Aug-2020	57	40	3	100	351

Q92a/b/c/d	Should charge	Should not charge	DK/RF	Total	N
Aug-2020	60	36	3	100	1501

[2020] QN1. This past March, the U.S. Congress decided to spend 2 trillion dollars of government money to help American businesses and workers get through the current economic crisis. The Congress is now considering spending more money for this purpose. Some of that money could go to creating jobs and new technologies to reduce future global warming. Do you think that the government should or should not do that?

QN1	Should do	Should not do	DK/RF	Total	N
Aug-2020	66	32	2	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1a. Do you think the government should or should not spend money planting large numbers of trees to absorb and store greenhouse gases?

QN1a	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	59	8	33	0	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1b. Do you think the government should or should not spend money helping invent new ways of making electricity that put out less greenhouse gases?

QN1b	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	61	6	33	0	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1c. Do you think the government should or should not spend money helping companies to strengthen oil and gas pipelines to reduce leaking and pollution?

QN1c	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	54	12	33	1	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1d. Do you think the government should or should not spend money helping companies to use new ways of making electricity that put out less greenhouse gases?

QN1d	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	60	7	33	0	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1e. Do you think the government should or should not spend money helping companies to make more cars and trucks that run only on electricity?

QN1e	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	45	21	33	1	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1f. Do you think the government should or should not spend money helping companies to make batteries that are smaller and last longer?

QN1f	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	56	10	33	1	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1g. Do you think the government should or should not spend money helping companies to install new equipment in parking spots around the country for charging cars and trucks that run only on electricity?

QN1g	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	51	16	33	1	100	999

[2020] [ASKED IF QN1=1 "Should"] QN1h. Do you think the government should or should not spend money helping people to install solar panels on the roofs of houses and apartment buildings that they own?

QN1g	Should do	Should not do	"Should not do" to QN1	DK/RF	Total	N
Aug-2020	57	10	33	0	100	999

[2020] QN18a.[3] [4] Do you think that the federal government should or should not require that by ten years from now, power plants in America must put out 30% less greenhouse gases than they did in 2005?

QN18b. When he was president, Barack Obama issued a rule requiring that by ten years from now, power plants in America must put out 30% less greenhouse gases than they did in 2005. Do you think the federal government should or should not require this?

QN18c. Last year, President Trump cancelled a government rule requiring that by ten years from now, power plants in America must put out 30% less greenhouse gases than they did in 2005. Do you think that that rule should or should not have been cancelled?

QN18d. When he was president, Barack Obama issued a rule requiring that by ten years from now, power plants in America must put out 30% less greenhouse gases than they did in 2005. Last year, President Trump cancelled that rule. Do you think that that rule should or should not have been cancelled?

QN18a	Should require	Should not require	DK/RF	Total	N
Aug-2020	77	22	1	100	629

QN18b	Should require	Should not require	DK/RF	Total	N
Aug-2020	68	31	1	100	270

QN18c	Should have been canceled	Should not have been canceled	DK/RF	Total	N
Aug-2020	24	74	2	100	299

QN18d	Should have canceled	Should not have canceled	DK/RF	Total	N
Aug-2020	24	73	3	100	302

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[3] Respondents were randomly assigned to be asked each of these four versions of the questions: 2/5 were assigned to QN18a, 1/5 to QN18b, 1/5 to QN18c, and 1/5 to QN18d.

[4] QN18a-QN18d in 2020 were also asked in a separate national telephone survey, referred to as survey 2, with the same methodology and same time period of fielding. See the Appendix for details of the methodology of survey 2. When combining these four questions, the distribution of the responses did not differ between the 2020 survey and survey 2, data from both surveys are presented here.

[2020] QN19a.[5] [6] Do you think that by five years from now, the federal government should or should not
be required to put out 40% less greenhouse gasses than it did in 2015?

QN19b. When he was president, Barack Obama issued a rule that by five years from now, the
federal government must put out 40% less greenhouses gases than it did in 2015. Do you think
the federal government should or should not do this?

QN19c. Last year, President Trump cancelled a government rule requiring that by five years from
now, the federal government must put out 40% less greenhouses gases than it did in 2015. Do
you think that that rule should or should not have been cancelled?

QN19d. When he was president, Barack Obama issued a rule that by five years from now, the
federal government must put out 40% less greenhouses gases than it did in 2015. Last year,
President Trump cancelled that rule. Do you think that that rule should or should not have been
cancelled?

QN19a	Should be required	Should not be required	DK/RF	Total	N
Aug-2020	66	32	2	100	629

QN19b	Should do	Should not do	DK/RF	Total	N
Aug-2020	67	32	1	100	270

QN19c	Should have been canceled	Should not have been canceled	DK/RF	Total	N
Aug-2020	24	73	3	100	300

QN19d	Should have been canceled	Should not have been canceled	DK/RF	Total	N
Aug-2020	25	72	3	100	302

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[5] Respondents were randomly assigned to be asked each of these four versions of the questions: 2/5 were
assigned to QN19a, 1/5 to QN19b, 1/5 to QN19c, and 1/5 to QN19d.
[6] QN19a-QN19d in 2020 were also asked in a separate national telephone survey, referred to as survey 2, with the
same methodology and same time period of fielding. See the Appendix for details of the methodology of survey 2.
When combining these four questions, the distribution of the responses did not differ between the 2020 survey
and survey 2, data from both surveys are presented here.

[2020] QN20a. [7] [8] Do you think that beginning in the year 2025, the federal government should or should not require that all new cars and trucks made in the United States must get at least 55 miles per gallon of gasoline?

QN20aa. Do you think that beginning in the year 2025, the federal government should or should not require that all new cars and trucks made in the United States must get at least 40 miles per gallon of gasoline?

QN20b. When he was president, Barack Obama issued a federal rule requiring that, beginning in the year 2025, all new cars and trucks made in the United States must get at least 55 miles per gallon of gasoline. Do you think the federal government should or should not require this?

QN20c. This year, President Trump issued a federal rule requiring that, beginning in the year 2025, all new cars and trucks made in the United States must get at least 40 miles per gallon of gasoline. Do you think the federal government should or should not require this?

QN20d. When he was president, Barack Obama issued a federal rule requiring that, beginning in the year 2025, all new cars and trucks made in the United States must get at least 55 miles per gallon of gasoline. Last month, President Trump lowered the requirement, so cars and trucks must get at least 40 miles per gallon of gasoline. Do you think that President Trump should or should not lower the requirement?

QN20a	Should require	Should not require	DK/RF	Total	N
Aug-2020	64	35	1	100	309

QN20aa	Should require	Should not require	DK/RF	Total	N
Aug-2020	60	39	1	100	320

QN20b	Should require	Should not require	DK/RF	Total	N
Aug-2020	60	39	1	100	270

QN20c	Should require	Should not require	DK/RF	Total	N
Aug-2020	64	33	2	100	300

QN20d	Should lower the requirement	Should not lower the requirement	DK/RF	Total	N
Aug-2020	38	60	2	100	302

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[7] Respondents were randomly assigned to be asked each of these five versions of the questions.

[8] QN20a-QN20d in 2020 were also asked in a separate national telephone survey, referred to as survey 2, with the same methodology and same time period of fielding. See the Appendix for details of the methodology of survey 2. When combining these four questions, the distribution of the responses did not differ between the 2020 survey and survey 2, data from both surveys are presented here.

[2020] QN21a. [9] [10] In 2015, the United States signed an agreement with 192 other countries to try to reduce the amount of greenhouse gasses they put out. The United States said that by the year 2025, its greenhouse gasses will be 25% less than were put out in 2005. If the U.S. does not succeed in doing this, there will be no penalty.   Do you think the U.S. should or should not continue to try to do this?

QN21b. When he was president, Barack Obama signed an agreement with 192 other countries to try to reduce the amount of greenhouse gasses they put out. The United States said that by the year 2025, its greenhouse gasses will be 25% less than were put out in 2005. If the U.S. does not succeed in doing this, there will be no penalty.   Do you think the U.S. should or should not continue to try to do this?

QN21c. Last year, President Trump announced that United States will withdraw from an agreement it signed in 2015 with 192 other countries. The countries committed to try to reduce the amount of greenhouse gasses they put out. The United States said that by the year 2025, its greenhouse gasses will be 25% less than were put out in 2005. If the U.S. does not succeed in doing this, there will be no penalty.   Do you think the U.S. should or should not withdraw from the agreement?

QN21d. When he was president, Barack Obama signed an agreement with 192 other countries to try to reduce the amount of greenhouse gasses they put out. The United States said that by the year 2025, its greenhouse gasses will be 25% less than were put out in 2005. If the U.S. does not succeed in doing this, there will be no penalty.   Last year, President Trump announced that United States will withdraw from the agreement. Do you think the U.S. should or should not withdraw from the agreement?

QN21a	Should continue	Should not continue	DK/RF	Total	N
Aug-2020	81	18	1	100	629

QN21b	Should continue	Should not continue	DK/RF	Total	N
Aug-2020	74	24	2	100	270

QN21c	Should withdraw	Should not withdraw	DK/RF	Total	N
Aug-2020	26	70	4	100	300

QN21d	Should withdraw	Should not withdraw	DK/RF	Total	N
Aug-2020	25	72	3	100	302

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[9] Respondents were randomly assigned to be asked each of these four versions of the questions: 2/5 were assigned to QN21a, 1/5 to QN21b, 1/5 to QN21c, and 1/5 to QN21d.

[10] QN21a-QN21d in 2020 were also asked in a separate national telephone survey, referred to as survey 2, with the same methodology and same time period of fielding. See the Appendix for details of the methodology of survey 2. When combining these four questions, the distribution of the responses did not differ between the 2020 survey and survey 2, data from both surveys are presented here.

[2020] Q69. Next, I will read you a statement that could be made by someone who wants to be a United States Senator. Here is the statement:

"I believe that global warming has been happening for the past 100 years, mainly because we have been burning fossil fuels and putting out greenhouse gasses. Now is the time for us to be using new forms of energy that are made in America and will be renewable forever. We can manufacture better cars that use less gasoline and build better appliances that use less electricity. We need to transform the outdated ways of generating energy into new ones that create jobs and entire industries, and stop the damage we've been doing to the environment."

If a candidate says this, would this make you more likely to vote for this candidate, less likely to vote for this candidate, or would it not affect how likely you would be to vote for this candidate?

Q69	More likely	Less likely	Has no effect	DK/RF	Total	N
Aug-2020	64	13	21	1	100	999

[2020] Q70. Next, I will read you a statement that could be made by someone who wants to be a United States Senator [2015: or President of the United States]. Here is the statement:

"The science on global warming is a hoax and is an attempt to perpetrate a fraud on the American people. I don't buy into the whole man-caused global warming mantra. We must spend no effort to deal with something that is not a problem at all. We should not invest in windmills and solar panels as alternative energy sources. Instead we should continue to focus on our traditional sources of energy: coal, oil, and natural gas. We should expand energy production in our country, including continuing to mine our coal and doing more drilling for oil here at home."

If a candidate says this, would this make you more likely to vote for this candidate, less likely to vote for this candidate, or would it not affect how likely you would be to vote for this candidate?

Q70	More likely	Less likely	Has no effect	DK/RF	Total	N
Aug-2020	14	67	17	2	100	999

Q901. Generally speaking, do you usually think of yourself as: a Democrat, a Republican, an
     Independent, or what?

Q901A. Generally speaking, do you usually think of yourself as: a Republican, a Democrat, an
     Independent, or what?

Q901/Q901A	Democrat	Republican	Independent	Other	DK/RF	Total	N
Oct-1997	36	27	30	4	3	100	688
Feb-1998	31	27	33	5	5	100	725
Mar-2006	30	30	28	7	4	100	1002
Apr-2007	34	22	32	7	5	100	1002
Jul-2008	34	24	31	8	3	100	1000
Nov-2009	29	23	24	21	2	100	1005
Jun-2010	32	19	26	22	1	100	1000
Nov-2010	29	23	29	17	2	100	1001
Jun-2012	32	18	38	9	3	100	804
Dec-2013	31	21	37	9	2	100	801
Jun-2014	34	23	39	1	3	100	1023
Jan-2015	29	22	40	7	3	100	1006
May-2018	29	23	34	11	3	100	1000
Aug-2020	34	23	32	8	3	100	999

Appendix A: 2020 National Survey of Public Opinion on Global Warming Method

The 2020 National Survey of Public Opinion on Global Warming involved telephone interviews with a representative sample of 999 adults living in the United States. 310 respondents were interviewed on a landline telephone, and 689 were interviewed on a cell phone. Interviewing was conducted from May 28 to August 16, 2020, in English. AAPOR's Response Rate 3 was 18% for the landline frame, 6% for the cell phone frame, and 10% for the whole study sample.

The 2020 National Survey 2 of Public Opinion on Global Warming involved telephone interviews with a representative sample of 502 adults living in the United States. 183 respondents were interviewed on a landline telephone, and 319 were interviewed on a cell phone. Interviewing was conducted from May 28 to August 10, 2020, in English. AAPOR's Response Rate 3 was 22% for the landline frame, 5% for the cell phone frame, and 9% for the whole study sample.

AAPOR's Response Rate 3 for the two surveys combined was 19% for the landline frame, 6% for the cell phone frame, and 9% for the two study samples.

Sample Design

Phone numbers used for this study were randomly generated from landline and cell phone sampling frames, with an overlapping frame design. The RDD landline sample was generated through Dynata. The Dynata RDD procedure produces an Equal Probability Selection Method (EPSEM) sample of randomly drawn telephone numbers from all working banks with one or more assigned numbers. The sample was generated shortly before the beginning of data collection to provide the most up-to-date sample possible, maximizing the number of valid telephone extensions. Additional sample was generated during the fielding period to ensure appropriate representation between census regions. The initial landline sample went through Dynata's disconnect screening process. The unlisted phone numbers are sent a 'pulse' to determine switch status. If the switch is not active, the number is flagged disconnected. If the switch is active, the system uses post-call analysis to determine if the number is disconnected (SIT, fax, fast busy etc.) or working (no answer, live answer, answering machine).

The RDD Cell Phone sample was generated by Dynata. Dynata starts with the most recent monthly Telcordia TPM (Terminating Point Master) Data file. This is Telcordia's master file of NPA-NXX and Block-ID records for the North American Number Plan. It contains at least one record per NPA-NXX. For prefixes (NPA-NXXs) where 1000-block number pooling is in effect, this file also provides information for individual 1000-blocks. This allows users to identify those 1000-blocks that have either not been assigned for service or that have been allocated to different service providers. "Mixed" or "shared" 100-blocks (NXXTYPES 50, 54, 66) are then compared to Dynata's list---assisted RDD database. 100-blocks with no listed numbers are retained in the wireless frame and 100-blocks containing listed numbers on the RDD frame are removed. The result is a frame of 100-blocks that is mutually exclusive of Dynata's list-assisted RDD frame while allowing coverage in prefixes and 1000-blocks that potentially provide both landline and wireless service.

Field Procedures

Because of the onset of the global Covid-19 Pandemic and in order to provide a safe environment for the employees to work, ReconMR shut down on-site operations in March 2020, and turned it into a virtualized call center environment. As such, the survey was conducted by interviewers working from home. Measures were taken to ensure data security and the continued adherence to data quality and data collection standards for ReconMR's work from home solution. Interviewers were set up to connect to ReconMR's data center via a secure, private VPN tunnel. This solution employs end-to-end encryption as well as multi-factor authentication. In addition, all servers remained behind a secure firewall, and all calls

were initiated from on-premises devices. ReconMR work-from-home solution allowed for all agents to continue to be live-monitored for quality assurance via our Voxco audio and video monitoring systems.

Interviews were conducted using computer-assisted telephone interviewing (CATI) software. Interviewer training was conducted prior to the study pilot. CATI interviewers received an annotated questionnaire and project materials that explained the history, background, and goals of the study. The background and overview training of the study's various components was followed by a detailed CATI program training. Experienced project team supervisors and trainers spent time reviewing both questionnaires one question at a time with each interviewer. The goal was to fully explain the proper delivery of each question and the reasoning and intent behind all the sections and response option in each questionnaire. Interviewers spent a great deal of time practicing with the CATI program and conducting mock interviews with each other and the data collection supervisors. Interviewers were carefully trained to ask for the youngest male or the youngest female currently at home when calling a landline. Interviewers were also trained at explaining the purpose of the study, how to gain respondent cooperation by explaining the inherent benefits of the research, how the project will benefit the public good and how to answer respondent's questions, as well as how to record respondents' answers accurately.

In order to maximize survey participation, the following procedures were enacted during the field period:

- Up to 5 follow-up attempts were made to contact non-responsive numbers (e.g. no answer, busy, answering machine). Exception was made to records flagged as belonging to census groups greater than 50% Hispanic. These cases received up to 7 follow-up attempts to non-responsive numbers.

- Non-responsive numbers were contacted multiple times, varying the times of day, and the days of the week that call-backs were placed.

- Interviewers stressed that the study was done for research purposes and that responses were strictly confidential and, when asked, they stated as accurately as possible the expected length of the interview. In addition, interviewers were provided with responses to possible respondent concerns raised during interviews, in order to minimize break offs.

- Respondents were offered the option of scheduling a call-back at their convenience.

- Households where the initial call resulted in respondents hanging up the phone or breaking off during the interview were called back after a 28-hour delay in an attempt to convert into a completed interview. Interviewers received special instructions on how to handle these calls.

- Respondents reached by cell phone were offered $10 if they requested compensation for their time. No such cell phone complaints were made during fielding of either study.

Quality/Data Verification

Project supervisors validated 10% of each interviewer's completed surveys by calling back the respondent and verifying specific responses. Additionally, supervisors continually monitored live calls through ReconMR's call monitoring system in order to ensure proper interviewing procedures were maintained.

Appendix B: 2020 National Survey of Public Opinion on Global Warming Weighting

This Appendix describes the two-stage procedure used to construct weights for the 2020 National Survey of Public Opinion on Global Warming. Procures for constructing weights for the combined 2020 National Survey and National Survey 2 of Public Opinion on Global Warming is described in the last section of the Appendix.

During the first stage, each respondent was assigned a base weight that accounted for unequal probability of selection. The second stage introduced adjustments to the base weights so that sample distributions of target variables match distributions of those same variables in the in the U.S. adult population. More details about each of these stages are provided below.

Stage 1: Constructing base weights

A base weight was constructed for each respondent to account for unequal selection probabilities. Some respondents could have been contacted by via multiple telephone numbers (mobile and/or landline), and for some telephone numbers persons other than the respondent may also have been reachable. The base weights account for these differences by assigning respondents who could have been contacted via several telephone numbers a value that is proportionally smaller that values assigned to respondents who could have been contacted via fewer numbers.

The base weights were constructed by first computing a total number of "selection opportunities" for each respondent. Each selection opportunity for a respondent is the probability of selecting the respondent via one of the telephone numbers by which she or he could have been contacted. Each selection opportunity is based on the assumption that mobile device telephone numbers are not shared with other adults while landline telephone numbers are shared with all adults in a household. This means the probability of selecting the respondent if a respondent's mobile device telephone number had been dialed is 1.00. However, for landline telephone numbers the selection opportunity is proportional to the number of adults in a household. For example, the probability of selecting the respondent if the respondent's landline telephone number had been dialed and the respondent lives in a household with three other adults would be ¼ or .25. The selection opportunities across all telephone numbers by which a respondent could have been reached were summed to produce a "total selection opportunities" for each respondent.

Two transformations to each respondent's total selection opportunities produced the base weights. First, 1 was divided by each respondent's total selection opportunities to produce values that decreased proportionally to increases in total selection opportunities. This transformation produced values that ranged from 4.00 to .06, with a mean value across the sample of .67. Second, the values produced by the first transformation were divided by the mean value for a sample. This second transformation produced base weights for the respondents with a sample mean value of 1.00. For the sample, the base weights ranged from 5.98 to .10.

Stage 2: Post-stratification

Post-stratification using ANESRake in R was used to adjust the base weights to produce weights that brought sample distributions in line with U.S. adult population distributions in terms of sex, age combined race and ethnicity, education, census region, and telephone use. The U.S. adult population distributions of sex, age combined race and ethnicity, education, and census region were based on data from the March 2020 Current Population Survey (CPS). The U.S. adult population distribution of

telephone use was based National Health Interview Survey data collected during the first six months of 2019 and published by the National Center for Health Statistics (Blumberg & Luke, May, 2020).[11]

Post-stratification raking using ANESRake in R was conducted such that the one-way marginal distributions of the preceding demographic variables in the sample converged on the one-way marginal distributions of those variables in the U.S. adult population. Post-stratification raking was conducted using only variables for which all categories included at least 5% of the U.S. adult population and 5% of the sample, and for which the percentage in the U.S. adult population differed from the percentage in the sample by at least 5 percentage points.[12] The weights produced by post-stratification raking were constrained such that no weight was greater than 5, and the mean weight was 1, ranging from .80 to 5.0.

Effects of weighting

Weights produced by post-stratification brought the sample distributions into alignment with population distributions. Table 1 includes the U.S. adult population distributions of variables used in post-stratification raking, as well as the unweighted, base weighted, and post-stratification weighted sample distributions of those variables. The table also include U.S adult population and sample distributions of variables that were not used in post-stratification. For all categories of variables used in post-stratification, no difference between the post-stratification weighted sample and U.S. adult population was greater than 1.5 percentage points. Thus, no difference exceeded the 5 percentage points identified by DeBell and Krosnick (2009) as a criterion for additional post-stratification adjustment.

The design effect associated with the final (post-stratification) weights was 1.64.

Procedures for weights construction for the combined surveys

The weights for the combined 2020 National Survey and National Survey 2 of Public Opinion on Global Warming were constructed in the same procedure as the weights for the National Survey of Public Opinion on Global Warming delineated above. Table 2 presents the U.S. adult population distributions of variables used in post-stratification raking, as well as the unweighted, base weighted, and post-stratification weighted sample distributions of those variables of the combined surveys.

The design effect associated with the final (post-stratification) weights for the combined surveys was 1.65.

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[11] Blumberg, Stephen J. and Julian V. Luke. May, 2020. Wireless substitution: Early release of estimates from the National Health Interview Survey, January–June 2019. National Center for Health Statistics. Available from: https://www.cdc.gov/nchs/nhis.htm.

[12] This strategy follows recommendations in DeBell, Matthew and Jon A. Krosnick. 2009. *Computing Weights for American National Election Study Survey Data*, ANES Technical Report Series, No. nes012427.

Appendix C: 2020 National Surveys of Public Opinion on Global Warming Weighting

The weights for the combined 2020 National Survey and National Survey 2 of Public Opinion on Global Warming were constructed using the same procedure as the weights for the first survey alone.

Stage 1: Constructing base weights

A base weight was constructed for each respondent to account for unequal selection probabilities. Some respondents could have been contacted by via multiple telephone numbers (mobile and/or landline), and for some telephone numbers persons other than the respondent may also have been reachable. The base weights account for these differences by assigning respondents who could have been contacted via several telephone numbers a value that is proportionally smaller that values assigned to respondents who could have been contacted via fewer numbers.

The base weights were constructed by first computing a total number of "selection opportunities" for each respondent. Each selection opportunity for a respondent is the probability of selecting the respondent via one of the telephone numbers by which she or he could have been contacted. Each selection opportunity is based on the assumption that mobile device telephone numbers are not shared with other adults while landline telephone numbers are shared with all adults in a household. This means the probability of selecting the respondent if a respondent's mobile device telephone number had been dialed is 1.00. However, for landline telephone numbers the selection opportunity is proportional to the number of adults in a household. For example, the probability of selecting the respondent if the respondent's landline telephone number had been dialed and the respondent lives in a household with three other adults would be ¼ or .25. The selection opportunities across all telephone numbers by which a respondent could have been reached were summed to produce a "total selection opportunities" for each respondent.

Two transformations to each respondent's total selection opportunities produced the base weights. First, 1 was divided by each respondent's total selection opportunities to produce values that decreased proportionally to increases in total selection opportunities. This transformation produced values that ranged from 4.00 to .06, with a mean value across the sample of .67. Second, the values produced by the first transformation were divided by the mean value for a sample. This second transformation produced base weights for the respondents with a sample mean value of 1.00. For the sample, the base weights ranged from 5.98 to .10.

Stage 2: Post-stratification

Post-stratification using ANESRake in R was used to adjust the base weights to produce weights that brought sample distributions in line with U.S. adult population distributions in terms of sex, age combined race and ethnicity, education, census region, and telephone use. The U.S. adult population distributions of sex, age combined race and ethnicity, education, and census region were based on data from the March 2020 Current Population Survey (CPS). The U.S. adult population distribution of telephone use was based National Health Interview Survey data collected during the first six months of 2019 and published by the National Center for Health Statistics (Blumberg & Luke, May, 2020).[13]

Post-stratification raking using ANESRake in R was conducted such that the one-way marginal distributions of the preceding demographic variables in the sample converged on the one-way marginal distributions of those variables in the U.S. adult population. Post-stratification raking was conducted using only variables for which all categories included at least 5% of the U.S. adult population and 5% of the

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[13] Blumberg, Stephen J. and Julian V. Luke. May, 2020. Wireless substitution: Early release of estimates from the National Health Interview Survey, January–June 2019. National Center for Health Statistics. Available from: https://www.cdc.gov/nchs/nhis.htm.

sample, and for which the percentage in the U.S. adult population differed from the percentage in the sample by at least 5 percentage points.[14] The weights produced by post-stratification raking were constrained such that no weight was greater than 5, and the mean weight was 1, ranging from .80 to 5.0.

Effects of weighting

Weights produced by post-stratification brought the sample distributions into alignment with population distributions. Table 1 includes the U.S. adult population distributions of variables used in post-stratification raking, as well as the unweighted, base weighted, and post-stratification weighted sample distributions of those variables. The table also include U.S adult population and sample distributions of variables that were not used in post-stratification. For all categories of variables used in post-stratification, no difference between the post-stratification weighted sample and U.S. adult population was greater than 1.5 percentage points. Thus, no difference exceeded the 5 percentage points identified by DeBell and Krosnick (2009) as a criterion for additional post-stratification adjustment.

The design effect associated with the final (post-stratification) weights was 1.64.

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[14] This strategy follows recommendations in DeBell, Matthew and Jon A. Krosnick. 2009. *Computing Weights for American National Election Study Survey Data*, ANES Technical Report Series, No. nes012427.

Table 1. Distributions of variables in the U.S. adult population and the sample (variables used for post-stratification raking are in **bold**)

| Variable | Category | Sample (N=999) | | | U.S. adult population | Difference between base weighted plus post-stratified and U.S. adult population |
		Unweighted	Base weighted	Base weighted plus post-stratified		
Sex	**Male**	**53.7%**	**53.9%**	**48.2%**	**48.3%**	**-.1%**
	Female	**46.0%**	**45.8%**	**51.6%**	**51.7%**	**-.1**
	Missing	**.3%**	**.3%**	**.2%**	**.0%**	
	Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	
Age	**18 to 24 years old**	**6.8%**	**8.2%**	**11.5%**	**11.5%**	**.0%**
	25 to 34 years old	**8.5%**	**8.7%**	**17.8%**	**17.9%**	**.0**
	35 to 44 years old	**14.2%**	**14.3%**	**16.3%**	**16.4%**	**-.1**
	45 to 54 years old	**16.0%**	**14.8%**	**15.9%**	**15.9%**	**.0**
	55 to 64 years old	**20.8%**	**20.7%**	**16.8%**	**16.8%**	**.0**
	65 years old or older	**33.2%**	**32.8%**	**21.5%**	**21.5%**	**.0**
	Missing	**.4%**	**.3%**	**.2%**	**.0%**	
	Total	**100.0%**	**99.9%**	**100.1%**	**100.0%**	
Combined race and Hispanicity	**Hispanic**	**7.7%**	**7.9%**	**16.7%**	**16.7%**	**.0%**
	White	**72.2%**	**71.9%**	**62.7%**	**62.7%**	**.0**
	Black	**7.8%**	**8.2%**	**12.0%**	**11.9%**	**.1**
	Other	**12.3%**	**12.0%**	**8.6%**	**8.7%**	**.0**
	Missing	**.0%**	**.0%**	**.0%**	**.0%**	
	Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	
Education	**No diploma**	**5.1%**	**5.0%**	**9.6%**	**9.8%**	**-.2%**
	High school	**17.3%**	**17.6%**	**27.2%**	**27.7%**	**-.5**
	Some college	**25.8%**	**25.1%**	**27.3%**	**27.8%**	**-.5**
	Bachelor's degree	**26.2%**	**26.4%**	**21.9%**	**22.0%**	**-.1**
	Advanced degree	**24.4%**	**24.1%**	**12.6%**	**12.6%**	**.0**
	Missing	**1.1%**	**1.7%**	**1.2%**	**.0%**	
	Total	**100.0%**	**100.0%**	**99.9%**	**100.0%**	
Census region	**Northeast**	**17.5%**	**17.6%**	**17.3%**	**17.4%**	**-.1%**
	Midwest	**21.9%**	**21.9%**	**19.4%**	**20.7%**	**-1.3**
	South	**35.3%**	**35.3%**	**37.7%**	**38.0%**	**-.2**
	West	**25.0%**	**25.0%**	**25.3%**	**23.8%**	**1.5**

	Missing	**.2%**	**.2%**	**.2%**	**.0%**	
	Total	**100.0%**	**100.1%**	**100.0%**	**100.0%**	
Phone service	**Not mobile only**	**45.6%**	**44.9%**	**39.5%**	**40.1%**	**-.6%**
	Mobile only	**52.9%**	**53.6%**	**59.0%**	**59.9%**	**-.9**
	Missing	**1.5%**	**1.5%**	**1.4%**	**.0%**	
	Total	**100.0%**	**100.0%**	**99.9%**	**100.0%**	
Race	White only	77.0%	77.2%	73.4%	77.5%	-4.2%
	Black only	8.1%	8.6%	13.1%	12.7%	.4
	Other/Mixed	14.9%	14.2%	13.5%	6.3%	7.2
	Missing	.0%	.0%	.0%	.0%	
	Total	100.0%	100.0%	100.0%	96.6%	
Hispanic	Yes	7.7%	7.9%	16.7%	16.7%	.0%
	No	90.3%	90.0%	81.6%	83.3%	-1.7
	Missing	2.0%	2.2%	1.7%	.0%	
	Total	100.0%	100.1%	100.0%	100.0%	
Marital status	Married	52.9%	51.3%	42.9%	53.1%	-10.1%
	Not married	46.4%	48.1%	56.5%	46.9%	9.5
	Missing	.7%	.6%	.6%	.0%	
	Total	100.0%	100.0%	100.0%	100.0%	
Income	Less than $35,000	16.1%	16.1%	20.7%	23.5%	-2.8%
	$35,000 to $49,999	11.1%	11.8%	13.9%	12.8%	1.1
	$50,000 to $74,999	15.3%	15.3%	16.0%	18.7%	-2.7
	$75,000 to $99,999	12.2%	12.2%	11.8%	13.3%	-1.4
	$100,000 or more	32.7%	32.1%	26.1%	31.8%	-5.7
	Missing	12.5%	12.4%	11.5%	.0%	
	Total	100.0%	100.0%	100.1%	100.0%	

Table 2. Distributions of variables in the U.S. adult population and the combined questionnaire samples (variables used for post-stratification raking are in **bold**).

| Variable | Category | Sample (N=1,501) | | | U.S. adult population | Difference between base weighted plus post-stratified and U.S. adult population |
		Unweighted	Base weighted	Base weighted plus post-stratified		
Sex	**Male**	**51.4%**	**52.1%**	**48.2%**	**48.3%**	**-.1%**
	Female	**48.2%**	**47.5%**	**51.5%**	**51.7%**	**-.2**
	Missing	**.5%**	**.4%**	**.3%**	**.0%**	
	Total	**100.0%**	**100.0%**	**99.9%**	**100.0%**	
Age	**18 to 24 years old**	**7.1%**	**8.3%**	**11.5%**	**11.5%**	**.0%**
	25 to 34 years old	**8.6%**	**8.6%**	**17.8%**	**17.9%**	**-.1**
	35 to 44 years old	**13.4%**	**13.4%**	**16.3%**	**16.4%**	**-.1**
	45 to 54 years old	**15.6%**	**14.6%**	**15.9%**	**15.9%**	**-.1**
	55 to 64 years old	**21.3%**	**21.5%**	**16.8%**	**16.8%**	**.0**
	65 years old or older	**33.7%**	**33.3%**	**21.5%**	**21.5%**	**.0**
	Missing	**.4%**	**.3%**	**.2%**	**.0%**	
	Total	**100.0%**	**99.9%**	**99.9%**	**100.0%**	
Combined race and Hispanicity	**Hispanic**	**8.2%**	**8.4%**	**16.7%**	**16.7%**	**.0%**
	White	**71.1%**	**71.4%**	**62.7%**	**62.7%**	**.0**
	Black	**8.0%**	**8.2%**	**12.0%**	**11.9%**	**.0**
	Other	**12.7%**	**12.1%**	**8.6%**	**8.7%**	**-.1**
	Missing	**.0%**	**.0%**	**.0%**	**.0%**	
	Total	**100.0%**	**100.1%**	**100.0%**	**100.0%**	
Education	**No diploma**	**4.6%**	**4.5%**	**9.7%**	**9.8%**	**-.2%**
	High school	**17.5%**	**17.2%**	**27.2%**	**27.7%**	**-.5**
	Some college	**26.4%**	**26.1%**	**27.4%**	**27.8%**	**-.4**
	Bachelor's degree	**25.9%**	**26.4%**	**22.0%**	**22.0%**	**.0**
	Advanced degree	**24.5%**	**24.3%**	**12.7%**	**12.6%**	**.0**
	Missing	**1.0%**	**1.4%**	**1.1%**	**.0%**	
	Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	
Census region	**Northeast**	**17.6%**	**17.9%**	**17.4%**	**17.4%**	**-.1%**
	Midwest	**21.8%**	**21.9%**	**20.1%**	**20.7%**	**-.6**
	South	**35.4%**	**35.2%**	**36.8%**	**38.0%**	**-1.1**
	West	**24.9%**	**24.7%**	**25.2%**	**23.8%**	**1.3**
	Missing	**.3%**	**.3%**	**.5%**	**.0%**	

	Total	**100.0%**	**99.9%**	**100.0%**	**100.0%**	
Phone service	**Not mobile only**	**45.8%**	**44.9%**	**39.4%**	**40.1%**	**-.7%**
	Mobile only	**52.2%**	**53.2%**	**58.8%**	**59.9%**	**-1.0**
	Missing	**1.9%**	**1.9%**	**1.7%**	**.0%**	
	Total	**100.0%**	**100.0%**	**99.9%**	**100.0%**	
Race	White only	76.0%	76.5%	72.4%	77.5%	-5.1%
	Black only	8.3%	8.7%	13.2%	12.7%	.5
	Other/Mixed	15.7%	14.9%	14.4%	6.3%	8.0
	Missing	.0%	.0%	.0%	.0%	
	Total	100.0%	100.0%	100.0%	96.6%	
Hispanic	Yes	8.2%	8.4%	16.7%	16.7%	.0%
	No	89.7%	89.4%	81.6%	83.3%	-1.7
	Missing	2.1%	2.2%	1.7%	.0%	
	Total	100.0%	100.0%	100.0%	100.0%	
Marital status	Married	52.4%	51.2%	43.4%	53.1%	-9.7%
	Not married	47.0%	48.2%	56.2%	46.9%	9.3
	Missing	.6%	.6%	.5%	.0%	
	Total	100.0%	100.0%	100.1%	100.0%	
Income	Less than $35,000	17.7%	17.3%	21.4%	23.5%	-2.1%
	$35,000 to $49,999	11.2%	11.7%	13.5%	12.8%	.8
	$50,000 to $74,999	14.4%	14.6%	15.9%	18.7%	-2.8
	$75,000 to $99,999	12.5%	12.4%	12.1%	13.3%	-1.1
	$100,000 or more	31.7%	31.2%	25.4%	31.8%	-6.4
	Missing	12.5%	12.7%	11.7%	.0%	
	Total	100.0%	99.9%	100.0%	100.0%	