**Our Coastal Future Surveys: National Codebook**

This is the codebook for all of the surveys conducted as part of the *Our Coastal Future Forum* project. Research to be reported was supported by the Gulf Research Program of the National Academies of Sciences, Engineering, and Medicine under award number 200007353. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Gulf Research Program or the National Academies of Sciences, Engineering, and Medicine.

Several public opinion surveys were fielded as part of this project and this document contains all the questions asked in each of the surveys. Below is specific information for each survey such as data source, dates collected, and file name (.csv) for each survey. Following each question, there is a list of the surveys in which that question appeared.

**National**: The national survey included respondents from the United States obtained from SSI and was fielded from 10-5-2017 to 10-10-2017. File name nationalData.csv.

**Question Wording and Numerical Values**

The variable names, question wording, and the surveys in which the questions appeared are in the following format: **variable name**: question wording (*surveys*)

**Issues**

Listed below are several issues that may impact the natural environment and human health. ***On a scale from 0 to 10, with 0 being not at all concerned and 10 being extremely concerned***, how concerned are you about...

**wildfires**: The number of wildfires in the United States (*national*)

**biodiversity:** Loss of biodiversity (*national, state, coastal, participants*)

**SLR:** Sea-level rise (*national, state, coastal, participants*)

**flooding:** Flooding in your local area(*national, state, coastal, participants*)

**drought:** Drought in your local area (*national, state, coastal, participants*)

**ocean:** Changes in the chemical balance of the oceans (*national, state, coastal, participants*)

**infections:** An increase in infections resistant to antibiotics (*national, state, coastal, participants*)

**hurricanes:** An increase in the intensity of hurricanes (*national, state, coastal, participants*)

**energy:** The availability and costs of energy in the United States (*national, state, coastal, participants*)

**waterways:** The quality of natural waterways such as streams, lakes, and rivers in your local area (*national, state, coastal, participants*)

**Energy Sources**

Listed below are several potential sources of energy that individuals, homes, and businesses can use to provide electricity. ***On a scale from 1 to 7, with 1 being strongly oppose and 7 being strongly support***, what is your view on increasing the use of the following energy sources to provide electricity?

**solar** (*national, state, coastal, participants)*

**wind** (*national, state, coastal, participants)*

**coal** (*national, state, coastal, participants)*

**hydro** (*national, state, coastal, participants)*

**gas** (*national, state, coastal, participants)*

**nuclear** (*national, state, coastal, participants)*

The next question is about the overall mix of energy sources in the U.S. ***Approximately what percentage of the total U.S. energy supply would you like to see come from each of the following energy sources? Total must add to 100***

**oilPercent**: Oil, produced 37 percent in 2016 (*national, state, coastal, participants*)

**gasPercent**: Natural gas, produced 29 percent in 2016 (*national, state, coastal, participants*)

**coalPercent**: Coal, produced 15 percent in 2016 (*national, state, coastal, participants*)

**renewPercent**: Renewable (wind, solar, hydro), produced 10 percent in 2016 (*national, state, coastal, participants*)

**nuclearPercent**: Nuclear, produced 9 percent in 2016 (*national, state, coastal, participants*)

**Policy Measures**

Listed below are several actions that private businesses and/or state and local governments can take to resolve some community concerns. ***On a scale from 1 to 7, with 1 being strongly oppose and 7 being strongly support***, please indicate your view on the following actions…

**offshoreDrill**: Drilling for oil and natural gas off the shore of South Carolina (*national, state, coastal, participants*)

**offshoreWind:** Placing wind turbines for wind energy off the shore of South Carolina (*national, state, coastal, participants*)

**nuclearLocal:** Building nuclear power plants in your local area(*national, state, coastal, participants*)

**retreat:** Require vulnerable, highly populated residential and commercial areas to retreat inland and away from the coast (*national, state, coastal, participants*)

**develop:** Change government regulations and zoning laws in coastal areas to restrict development(*national, state, coastal, participants*)

**pipelines**: Construct pipelines to move oil and natural gas across the country (*national)*

**fracking:** The process of hydraulic fracturing (or fracking) for oil and natural gas(*national, state*)

**seaWalls:** Building sea walls or other barriers to protect coastal areas from sea-level rise and flooding(*national, state, coastal, participants*)

**taxRebates**: Provide tax rebates for people who purchase energy efficient vehicles or solar panels (*national)*

**New Ecological Paradigm**

The next several questions are about your views on the environment. ***Please respond to each of the following statements using a scale from 1 to 7, where 1 means strongly disagree and 7 means strongly agree***

(*national survey only*)

**nep1**: Humans will eventually learn enough about how nature works to be able to control it.

**nep2:** The balance of nature is very delicate and easily upset

**nep3**: Humans live on a planet with very limited room and resources

**nep4**: The so-called “ecological crisis” facing humankind has been greatly exaggerated

**nep5**: The Earth has plenty of natural resources if we just learn how to develop them

**nep6**: Humans are seriously abusing the environment

**nepScale**: *Average of questions nep1 to nep6. Note nep1, nep4, and nep5 were reverse coded*

**Science**

The next several statements are about your views on science and the scientific method of hypothesis testing using empirical data. **Please respond to each of the following statements using a scale from 1 to 7, where 1 means strongly disagree and 7 means strongly agree.**

**sci1**: The scientific process is the only valid and reliable way to understand nature (*national, coastal, participants*)

**sci2**: Scientific evidence can be interpreted to fit opposing points of view (*national, coastal, participants*)

**sci3:** Intuition can provide an understanding of nature as valid as that of science (*national, coastal, participants*)

**sci4**: The results of scientific research will always be significantly affected by the values held by the researcher (*national, coastal, participants*)

**sci5**: Science and advanced technologies can solve almost all of society's problems (*national, coastal, participants*)

**sciScale**: *Average of questions sci1 to sci5. Note sci2, sci3, sci4, were reverse coded*.

**Science and Policymaking**

The next several statements are about your views on the role of science in political and policy decision-making. ***Please respond to each of the following statements using a scale from 1 to 7, where 1 means strongly disagree and 7 means strongly agree.***

**sciPol1**: Scientists and technically trained experts, not the public, should make decisions about the applications of advanced technologies to address energy needs and environmental concerns (*national, coastal, participants*)

**sciPol2**: Those who are better informed and knowledgeable should have greater influence in policy making (*national, coastal, participants*)

**sciPol3**: Technical issues are so complex that most people cannot contribute to reasonable policy choices (*national, coastal, participants*)

**sciPol4**: Even if the public is not well-informed about an issue, policy makers should rely on popular opinion in making important policy decision about that issue (*national, coastal, participants*)

**sciPol5**: When taken as a whole, public opinion usually provides a reasonable direction for public policy (*national, coastal, participants*)

**sciPolScale:** *Average of questions sciPol1 to sciPol5. Note sciPol4 and scPol5 were reverse coded*.

**Climate Science**

Please answer the following questions about climate scientists to the best of your knowledge.

**cckIcecap**: Climate scientists believe that if the North Pole icecap melted as a result of human-caused global warming, global sea levels would rise. (*national, state*)

0 – False

1 – True

**cckIcecapC:**

0 – Incorrect

1 – Correct

**cckAveTemp**: Climate scientists have concluded that globally averaged surface air temperatures were higher for the first decade of the twenty-first century (2000-2009) than for the last decade of the twentieth century (1990-1999). (*national, state*)

0 – False

1 – True

**cckAveTempC:**

0 – Incorrect

1 – Correct

**cckCoastal:** Climate scientists believe that human-caused global warming will result in flooding of many coastal regions. (*national, state*)

0 – False

1 – True

**cckCoastalC:**

0 – Incorrect

1 – Correct

**cckHurricanes:** Climate scientists believe that human-caused global warming has increased the severity of hurricanes around the world in recent decades. (*national, state*)

0 – False

1 – True

**cckHurricanesC:**

0 – Incorrect

1 – Correct

**cckNuclear:** Climate scientists believe that nuclear power generation contributes to global warming. (*national, state*)

0 – False

1 – True

**cckNuclearC:**

0 – Incorrect

1 – Correct

**cckCancer:** Climate scientists believe that human-caused global warming will increase the risk of skin cancer in human beings. (*national, state*)

0 – False

1 – True

**cckCancerC:**

0 – Incorrect

1 – Correct

**cckEffects:** Climate scientists and economists predict there will be positive as well as negative effects from human-caused global warming. (*national, state*)

0 – False

1 – True

**cckEffectsC:**

0 – Incorrect

1 – Correct

**cckPlants:** Climate scientists believe that the increase of atmospheric carbon dioxide associated with the burning of fossil fuels will reduce photosynthesis by plants. (*national, state*)

0 – False

1 – True

**cckPlantsC:**

0 – Incorrect

1 – Correct

**cckGas:** What gas do most scientists believe causes temperatures in the atmosphere to rise? Is it... (*national, state*)

1 – Carbon Dioxide

2 – Helium

3 – Hydrogen

4 – Radon

**cckGasC:**

0 – Incorrect

1 – Correct

**gccKnow**: *Additive scale of correct cck answers*

**Climate Change Views and Perceptions**

Recently, you may have noticed that climate change has been getting more attention in the news. Climate change refers to the significant change in the measures of climate lasting for an extended period of time. In other words, climate change includes major changes in temperature, rainfall, or wind patterns, among other effects that occur over several decades or longer.

The next several questions ask about *your* views on climate change. These questions concern your perceptions and beliefs, so don't worry about being right or wrong when providing your answers.

**gcc**: Do you think that climate change is happening? (*national, state, coastal, participants*)

-1 – No

0 – Don’t know

1 – Yes

**gccDummy:** Do you think that climate change is happening?

0 – No / Don’t Know

1 – Yes

**gccCertIS:** How sure are you that climate change is happening? (*national, state, coastal, participants*)

**gccCertISNOT:** How sure are you that climate change is not happening? (*national, state, coastal, participants*)

**gccCert:** *Combines gccCertIS and gccCertISNOT*

0 – Not at all sure

1 – Somewhat sure

2 – Very sure

3 – Extremely sure

**gccCertScale**: Scale the combines gcc and gccCert. Ranges from -3 to 3, where -3=Extremely sure that climate change is NOT happening, 0=Don’t know/not at all sure, 3=Extremely sure that climate change IS happening

**gccAnthro:** Assuming climate change is happening, do you think it is... (*national, state, coastal, participants*)

1 – Caused mostly by human activity

2 – Caused mostly by changes in the natural environment

3 – None of the above, because the climate isn’t changing

**gccAnthroDummy:** Assuming climate change is happening, do you think it is...

0 – Caused mostly by changes in the natural environment; None of the above, because the climate isn’t changing

1 – Caused mostly by human activity

**gccSciCon:** Which of the following statements comes closest to your view? (*national, state, coastal, participants,* )

1 – Most scientists think climate change is happening

2 – There is disagreement among scientists

3 – Most scientists think climate change is not happening

4 – Don’t know

**gccSciConDummy:** Which of the following statements comes closest to your view?

0 – There is disagreement among scientists; Most scientists think climate change is not happening; Don’t know

1 – Most scientists think climate change is happening

**gccReduce:** Which of the following statements comes closest to your view? (*national*)

0 – Climate change isn’t happening

1 – Humans can't reduce climate change, even if it is happening

2 – Humans could reduce climate change, but people aren't willing to change their behavior, so we're not going to

3 – Humans could reduce climate change, but it's unclear at this point whether we will do what's needed

4 – Humans can reduce climate change, and we are going to do so successfully

**gccIndiv:** Using a scale from 1 to 7, where 1 means strongly disagree and 7 means strongly agree, how much do you agree or disagree with the following statement, **the actions of a single individual won't make any difference in climate change (***national***)**

**gccHurricanes**: In your view, are the hurricanes that have occurred this year evidence of climate change or global warming? (*national, state(second wave only)*)

1 – Definitely not

2 – Probably not

3 – Might or might not

4 – Probably yes

5 – Definitely yes

On the scale from zero to ten, where 0 means no risk and 10 means extreme risk, how much risk do you think climate change poses for people and the environment?

**gccrsk:** Climate Change Risk (*national, state, coastal, participants*)

Do you think each of the following should be doing less or more to address climate change, or do you think they are currently doing the right amount to address it?

**gccCongress**: The U.S. Congress (*national, state*)

-2 – Much less

-1 – Less

0 – Currently doing the right amount

1 – More

2 – Much more

**gccPres:** President Trump (*national, state*)

-2 – Much less

-1 – Less

0 – Currently doing the right amount

1 – More

2 – Much more

**gccCorps:** Corporations and industry (*national, state*)

-2 – Much less

-1 – Less

0 – Currently doing the right amount

1 – More

2 – Much more

**gccCitizens:** Citizens themselves (*national, state*)

-2 – Much less

-1 – Less

0 – Currently doing the right amount

1 – More

2 – Much more

**gccLocalGov:** Your local government officials (*national, state*)

-2 – Much less

-1 – Less

0 – Currently doing the right amount

1 – More

2 – Much more

**gccStateGov:** Your state government officials (*national, state*)

-2 – Much less

-1 – Less

0 – Currently doing the right amount

1 – More

2 – Much more

**gccMC:** Your member of Congress (*national, state*)

-2 – Much less

-1 – Less

0 – Currently doing the right amount

1 – More

2 – Much more

**Climate Change Federal Policy**

Various policy solutions have been proposed as ways for the federal government in the United States to deal with climate change. ***Using a one to seven scale, where 1 is strongly oppose and 7 is strongly support***, please indicate your support for each of the following policy proposals.

(*national only*)

**gccIntagree**: Accept internationally-established limits on U.S. production of carbon dioxide and other greenhouse gases thought to cause climate change.

**gccRenew**: Encourage research and development of renewable energy sources like solar or wind power.

**gccNuclear**: Expand the use of nuclear energy.

**gccTax**: A carbon tax that imposes a charge on coal, oil, and natural gas in proportion to the carbon they contain.

**gccEpa**: Environmental Protection Agency regulations that limit the amount of carbon dioxide and other greenhouse gases that power plants can emit.

**gccCapTrade**: A cap and trade program that sets an overall cap on emissions through allowances that can be bought, sold, or saved for future use

**gccGeoEng**: Encourage development of “geoengineering” technology such as filters that remove excess carbon dioxide from the air and high-altitude orbiting reflectors to reduce solar heating

**Cultural Theory**

*Asked on all surveys*

Now, please respond to each of the following statements using a scale from 1 to 7, where **1 means strongly disagree** and **7 means strongly agree**.

**egal1:** What society needs is a fairness revolution to make the distribution of goods more equal

**indiv1:** Even if some people are at a disadvantage, it is best for society to let people succeed or fail on their own

**hier1:** The best way to get ahead in life is to work hard and do what you are told to do

**fatal1:** The most important things that take place in life happen by chance

**egal2:** Society works best if power is shared equally

**indiv2:** Even the disadvantaged should have to make their own way in the world

**hier2:** Society is in trouble because people do not obey those in authority (*state, coastal, participants,* )

**fatal2:** No matter how hard we try, the course of our lives is largely determined by forces beyond our control (*state, coastal, participants,* )

**egal3:** It is our responsibility to reduce differences in income between the rich and the poor (*state, coastal, participants,* )

**indiv3:** We are all better off when we compete as individuals (*state, coastal, participants,* )

**hier3:** Society would be much better off if we imposed strict and swift punishment on those who break the rules (*state, coastal, participants,* )

**fatal3:** For the most part, succeeding in life is a matter of chance (*state, coastal, participants,* )

**egal:** *Average of egal questions*

**indiv:** *Average of indiv questions*

**hier:** *Average of hier questions*

**fatal:** *Average of fatal questions*

**Demographics**

*Asked on all surveys, unless otherwise indicated*

The survey is almost complete. Please answer the following questions to tell us about yourself.

**age**: How old are you?

**gender (male):** Are you male or female?

0 – Female

1 – Male

**edu:** What is the highest level of education that you have completed?

1 – Less than high school

2 – High school graduate / GED

3 – Vocational or technical training

4 – Some college

5 – 2 year / associate’s degree

6 – 4 year / bachelor’s degree

7 – Graduate of professional degree

**zip:** What is the five-digit zip code of your primary residence?

**religion:** What is your present religion, if any?

**religionOther:** What is your present religion, if any?

**bornAgain:** Would you describe yourself as a "born again" evangelical Christian, or not?

0 – No/ Don’t know

1 – Yes

**attend:** Aside from weddings and funerals, how often do you attend religious services?

0 – Never

1 – Seldom

2 – A few times a year

3 – Once or twice a month

4 – Once a week

5 – More than once a week

**party/party2:** With which political party do you most identify? (*state, coastal, participants*) **party2** includes party with leaners from **partyLean** question

-1 – Democratic

0 – Independent

1 – Republican

**partyOther:** With which political party do you most identify? *(verbatim)*

**partyLean: (Asked only of independents)** As of today do you lean more to the Republican Party or more to the Democratic Party or neither?

**partyIden:** Do you completely, somewhat, or slightly identify with that party?

1 – Slightly

2 – Somewhat

3 – Completely

**partisan**: Combines party/party2 and partyIden. *1 to 7 scale, where 1 is strong Democrat, 4 is independent, and 7 is strong Republican*

**ideology:** On a scale of political ideology, individuals can be arranged from strongly liberal to strongly conservative. Which of the following best describes your views? Would you say that you are

1 – Strongly liberal

2 – Liberal

3 – Slightly liberal

4 – Middle of the road

5 – Slightly conservative

6 – Conservative

7 – Strongly conservative

**race:** Which of the following best describes your race or ethnic background?

**white:**

0 – Other race

1 – White

**inc:** Last year, that is in 2016, what was your total family income from all sources, before taxes?

1 – 0 to 19,999

2 – 20 to 39,999

3 – 40 to 59,999

4 – 60 to 79,999

5 – 80 to 99,999

6 – 100,000 to 149,999

7 – 150,000 or more