

Peer-Graded Assignment: Milestone 2:

Descriptive Stats

Questions

1. Provide a summary of the different descriptive statistics you looked at and WHY.

I examined an overall summary (total count by group) of the responses to the following survey questions (using unweighted values throughout). This gave me a good overall indication of respondents' feelings and beliefs related to the COVID-19 pandemic.

How would you rate the job each of the following is doing responding to the coronavirus outbreak? [RANDOMIZE]

- a. Joe Biden
- b. Your state elected officials
- c. Your local elected officials
- d. Public health officials such as those at the CDC (Centers for Disease Control and Prevention)

NO ITEMS e-f

- g. Hospitals and medical centers in your area

RESPONSE OPTIONS:

- 1 Excellent
- 2 Good
- 3 Only fair
- 4 Poor

And overall, how would you rate the job Donald Trump did responding to the coronavirus outbreak during his time in office?

- 1 Excellent
- 2 Good
- 3 Only fair
- 4 Poor

Thinking about restrictions on public activity because of the coronavirus outbreak IN YOUR AREA, do you think there should be... [RANDOMIZE RESPONSE OPTIONS 1 AND 2 WITH OPTION 3 ALWAYS LAST]

- 1 MORE restrictions right now
- 2 FEWER restrictions right now
- 3 About the same number of restrictions right now [anchor]

Thinking about policies in place in some areas to address the coronavirus outbreak, in general do you think each of the following is necessary or unnecessary? [RANDOMIZE ITEMS]

a. Restricting international travel to the U.S.

NO ITEM b

c. Asking people to avoid gathering in large groups

NO ITEM d

e. Closing K-12 schools for in-person learning

f. Limiting restaurants to carry-out only

NO ITEM g

h. Requiring masks or face coverings for travelers on airplanes and public transportation

RESPONSE OPTIONS:

1 Necessary

2 Unnecessary

Thinking about K-12 schools that are not currently open for any in-person instruction, how much consideration should be given to each of the following as these schools decide whether to reopen? [RANDOMIZE ITEMS]

ASK ALL:

a. The risk to teachers of getting or spreading the coronavirus

b. The risk to students of getting or spreading the coronavirus

ASK FORM 1 ONLY:

c. The financial cost to school systems of following public health guidelines for safe reopening

d. The possibility that students will fall behind academically without in-person instruction

ASK FORM 2 ONLY:

e. Parents not being able to work if their children are at home

f. The possibility that students' emotional well-being will be negatively impacted if they don't attend school in person

RESPONSE OPTIONS

1 A lot

2 Some

3 Not too much

4 None at all

ASK ALL:

Have you received a vaccine to prevent COVID-19?

1 Yes, have received at least one dose of a vaccine

2 No, have not received a vaccine

2. Submit 2-3 key points you may have discovered about the data, e.g. new relationships? Aha's! Did you come up with additional ideas for other things to review?
 - I was surprised that most survey respondents felt that hospitals and medical centers have done an excellent job responding to the COVID-19 pandemic. (I thought this would be rated lower.)
 - For those who responded “necessary” to the question “Thinking about policies in place in some areas to address the coronavirus outbreak, in general do you think each of the following is necessary or unnecessary?” it was surprising that the lowest volume of responses (4503) was for closing K-12 schools for in-person learning. It seems many people were eager for schools to reopen and for virtual learning to end. Correspondingly, 5210 participants deemed this restriction “unnecessary.”
3. Did you prove or disprove any of your initial hypotheses? If so, which one and what do you plan to do next?

Some were proven; some were disproven. I have provided additional details below for each of my hypotheses. I could always continue analyzing the data to find additional relationships, but for now I focused on trying to prove or disprove my initial hypotheses.

The majority of Americans are vaccinated against COVID-19.

DISPROVEN — This may be because at the time the survey was taken (February 2021), the vaccine was not yet widely available. These are responses to the survey question “Have you received a vaccine to prevent COVID-19?”

Total	
COVID Vaccine	
No	7659
Yes	2432

The majority of Americans are not happy with the way Donald Trump handled the response to COVID-19 during his term as president.

PROVEN — See results for the question “And overall, how would you rate the job Donald Trump did responding to the coronavirus outbreak during his time in office?” below.

COVIDEGFPDT_W83	Count	Category
0	1 1509	Excellent
1	2 1807	Good
2	3 1273	Only fair
3	4 5499	Poor
4	99 33	No answer

The majority of Americans want schools to reopen (and in general want a return to normalcy in society).

PROVEN — Looking at the responses to the question “Thinking about policies in place in some areas to address the coronavirus outbreak, in general do you think each of the following is necessary or unnecessary?” 5210 participants believed it was “unnecessary” to close K-12 schools for in-person learning—the highest volume of responses for the options listed as part of the question. This supports my hypothesis that most Americans want schools to reopen.

Rating	Restricting international travel to the U.S.	Asking people to avoid gathering in large groups	Closing K-12 schools for in-person learning	Limiting restaurants to carry-out only	Requiring masks or face coverings for travelers on airplanes and public transportation	Category
0 1	8011	7930	4503	5119	8702	Necessary
1 2	1755	1862	5210	4658	1093	Unnecessary
2 98	296	296	296	296	296	Translation error — do not include in analysis
3 99	59	33	112	48	30	No answer

Americans with a lower level of education and a lower level of household income likely did not receive the vaccine for the coronavirus.

PARTIALLY PROVEN — The results for this hypothesis were surprising. Of those who did receive the vaccine (as indicated by answering “Yes” to the question “Have you received a vaccine to prevent COVID-19?”), most (1574) were college graduates. When looking at household income, however, it appears that more middle-class respondents had received the vaccine than upper-class respondents. Breaking it down even further, there was a significant gap between wealthier participants (those making \$100,000 or more annually) and poorer participants (those making \$30,000 or less annually). I was surprised that there was such a large gap between these income brackets. These are unweighted values, but the results are interesting nonetheless.

Survey documentation describes lower income, middle income, and higher income as follows:

“To create upper-, middle- and lower-income tiers, respondents’ family incomes were adjusted for differences in purchasing power by geographic region and for household size. “Middle-income” adults live in families with annual incomes that are two-thirds to double the median family income in the panel (after incomes have been adjusted for the local cost of living and for household size). The middle-income range for the American Trends Panel is about \$38,900 to \$116,800 annually for an average family of three. Lower-income families have incomes less than roughly \$38,900, and upper-income families have incomes greater than roughly \$116,800.”

		Total
COVID Vaccine	Education 1	
Yes	College graduate+	1574
	Some college	602
	High school graduate or less	250
	Don't know/refused to answer	6
No	College graduate+	3958
	Some college	2361
	High school graduate or less	1325
	Don't know/refused to answer	15

		Total
COVID Vaccine	Education 2	
Yes	Postgraduate	908
	College graduate/some postgrad	666
	Some college, no degree	405
	High school graduate	203
	Associate's degree	197
	Less than high school	47
	Don't know/refused to answer	6
No	College graduate/some postgrad	2256
	Postgraduate	1702
	Some college, no degree	1576
	High school graduate	1065
	Associate's degree	785
	Less than high school	260
	Don't know/refused to answer	15

		Total
COVID Vaccine	Income Tier Three-Way	
Yes	Middle income	1152
	Upper income	857
	Lower income	309
	Refused to answer	114
No	Middle income	3652
	Upper income	1908
	Lower income	1796
	Refused to answer	303

		Total
COVID Vaccine	Family Income	
Yes	\$100,000 or more	818
	Less than \$30,000	260
	\$30,000 to less than \$40,000	207
	\$50,000 to less than \$60,000	202
	\$60,000 to less than \$70,000	180
	\$40,000 to less than \$50,000	172
	\$70,000 to less than \$80,000	168
	\$90,000 to less than \$100,000	165
	\$80,000 to less than \$90,000	146
	Refused to answer	114

4. What additional questions are you seeking to answer?

It would be interesting to analyze a more recent data set to see if survey participants who indicated that they would get the COVID-19 vaccine are indeed now vaccinated. It would also be interesting to see how religious beliefs and political leanings affect participants' vaccination status. I also did not incorporate weighted values from the survey results, so that could be something to examine as well.