The General Social Survey

GSS

2022 GSS
(Cross-section
Study)

Mode Sensitivity in the 2022 GSS Release 1

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INTRODUCTION

In 2022, the GSS conducted a methodological experiment to (1) help bridge the 2018 and 2021 data with future rounds of the GSS and (2) to help rein in growing costs associated with conducting an in-person field study. The experiment divided the 2022 GSS sample into two conditions. The first condition contacted sampled households for an in-person field interview first (as has been traditionally done in the GSS) and then nonrespondents were offered a web option. In the second condition, sampled households were presented with a web survey first and then nonrespondents were approached to participated in an in-person field interview. While the 2022 GSS experiment was set up to compare data collection approaches and not directly compare modes, users are encouraged to check for mode sensitivities, comparing cases completed in different modes.

While the GSS has always to some extent been a multimode survey (i.e., face-to-face with telephone), the 2022 GSS is the first year to conduct primary data collection with both face-to-face interviews and web questionnaires. As a result of the experimental multimode approach, it is the first year in which potential mode sensitivity can be better studied.

GSS data users should use caution when analyzing variables by mode of survey (the variable MODE in the data) in the 2022 GSS data. Basic mode analyses may find differences between individual modes; however, the weights included in the current release do not support single mode analyses. The current weights are provided to support inferential statistics using all cases. While observed differences between modes may suggest mode sensitivities, these are not true "mode effects." The mode of completion for a respondent is determined by a number of factors, including the experimental group the respondent was assigned, the sequence and timing of modes made available to the respondent during the field period, the use of nonresponse follow-up approaches (such as offering larger incentives and subsampling of nonrespondents), and measurement differences related to different modes (e.g., response order, interviewer effects, and/or social desirability bias).

PRELIMINARY ANALYSIS

A preliminary review of 163 GSS variables fielded in 2022, typically associated with the GSS key trends, was conducted to identify variables that may be sensitive to mode. We categorized these variables into three groups based on their likelihood of being mode sensitive: likely mode sensitive, requires further investigation, and less likely to be mode sensitive. Users should use caution particularly when looking at results by mode for variables labeled in those first two categories. Variables not listed in the tables below have not been assessed by the GSS team at this time. Users should not assume that because a particular variable is not listed that it is not likely to be mode sensitive. The GSS team will provide further insights and analyses related to mode in future reports.

To determine the categorization for each variable, we examined a multivariate logistic regression that regressed each substantive category[1] of each variable (e.g., yes, no; or strongly agree, agree, disagree, and strongly disagree) on demographic variables used in weighting (sex, age, ethnicity, race, education, marital status, foreign born status,

[1] We ignore missing values ("Don't Know," "No Answer," "Skipped on Web," "Refused") for this analysis. Preliminary analyses show that there are some significant differences in item missing rates by mode when combining all item missing values, with web often having fewer missing values (e.g., CAPPUN, CONLABOR, DISCAFF, and nearly every national spending measure). Voting measures (e.g., IF20WHO, PRES20, and VOTE20) and non-English language speaking ability (SPKLANG) have higher item missing rates on web.

and region of country), experimental condition, and mode the survey was completed in. These models were estimated accounting for the sample design (strata and clusters) and using analysis weights accounting for sample design and nonresponse (WTSSNR). We then used the logistic regression coefficients to predict the probabilities of a variables' response options by the mode of completion. Variables were assigned to "Likely mode sensitive" when the likelihood that the difference in the observed predicted probabilities by mode of at least one response category was equal to zero was less than 0.10 (or 10%) after adjusting for multiple comparisons through a Bonferroni correction. Additional variables that did not meet the above criteria but were identified by the GSS team as being of potential concern were assigned as "Requires further investigation." All other variables were categorized as "Less likely to be mode sensitive," but researchers should still conduct their own mode sensitivity analyses to understand their data.

PRELIMINARY RESULTS

For those variables flagged as "Likely mode sensitive," we see a variety of instances of mode sensitivities. The ideal number of children question (CHLDIDEL) is a classic example of differences in stimulus between interviewer-administered and self-administered modes. The category "As many as you want" is explicitly displayed on the web whereas it is only recorded by the interviewer if the respondent provides this response. However, most of the remaining variables identified are multipoint scales. Multiple national spending questions (NATCHLD, NATFAREY, NATRACE, NATROAD) see shifts in response distributions between face-to-face and web with web respondents favoring one endpoint or the other (e.g., "Too much" or "Too little"), depending on the topic, over the more neutral category or opposite endpoint. Similarly, confidence in certain institutions (CONEDUC, CONLEGIS, CONMEDIC) shifts from greater levels of confidence (e.g., "A great deal") in face-to-face to lower levels of confidence (e.g., "Only some," "Hardly any") on the web. Several Yes/No questions also see large differences including many of the police violence items (POLABUSE, POLATTAK, POLMURDR) and whether a racist should be allowed to speak in your community (SPKRAC). Finally, we do see nominal categorical responses also differ my mode like voting-related variables (VOTE16, VOTE20) which estimate higher rates of reported voting on the web. While party identification (PARTYID) is constructed from multiple questions, web respondents more often provided responses across this question set that categorized them as Independents without leanings towards Republicans or Democrats. For the multipoint scale, yes/no, and categorical responses, these differences could be due to cognitive differences between aural and visual processing or interviewer effects.

For those variables flagged as "Requires further investigation", we see very similar patterns for web respondents on additional national spending items (more to one endpoint, dependent on topic), additional voting items (higher rates of voting for a non-party candidate if they had voted for those who were ineligible or failed to vote) beliefs about women in the workplace (more extreme responses), and certain abortion and suicide items (yes/no). In addition, web respondents reported much lower religious activity and beliefs across multiple religious measures (ATTEND, PRAY, REBORN, RELPERSN, SAVESOUL).

These findings are limited for several reasons. First, we have not controlled for several variables we think may play a role in mode sensitivity such as timing on when the mode was offered, incentive amount, or non-demographic explanatory variables. Second, many variables we consider here have multiple response categories (typically as part of a response scale) where collapsing categories may reduce the instances of differences due to the granularity which may be impacted by aural versus visual processing (e.g., categorizing church attendance into three commonly used categories such as almost every week, sometimes and never). We intend to refine these analyses this summer and develop tools that help analysts handle potential mode sensitivities when analyzing

GSS survey data over time. These tools could consist of new survey weights that are mode specific, updated weights that adjust for the multimode design, or using imputation methods (Kolenikov and Kennedy 2014; Suzer-Gurtekin et al. 2018; Brick et al. 2022).

Likely mode sensitive					
ATTEND	CHLDIDEL	CONEDUC	CONLEGIS	CONMEDIC	IF20WHO
MARBLK	MEOVRWRK	NATCHLD	NATFAREY	NATRACE	NATRACEY
NATROAD	PARTYID	POLABUSE	POLATTAK	POLMURDR	SOCBAR
SPKRAC	VOTE16	VOTE20	WORDSUM	XMARSEX	

Requires further investigation					
ABANY	ABPOOR	ABRAPE	ADULTS	CONARMY	FAMDIF16
FEFAM	FEJOBAFF	FEPRESCH	IF16WHO	NATCITYY	NATCRIMY
NATHEAL	NATSPACY	NEWS	PILLOK	PRAY	REBORN
RELPERSN	SAVESOUL	SUICIDE1			

Less likely to be mode sensitive					
ABDEFECT	ABHLTH	ABNOMORE	ABSINGLE	CAPPUN	CHILDS
COLATH	COLRAC	COMPUSE	CONBUS	CONCLERG	CONFED
CONFINAN	CONJUDGE	CONLABOR	CONPRESS	CONSCI	CONTV
DISCAFF	DIVORCE	DWELOWN	EARNRS	EQWLTH	EVWORK
FAMILY16	FEAR	FECHLD	FINALTER	FINRELA	GOD
GUNLAW	HAPCOHAB	HAPPY	HEALTH	HELPBLK	HELPPOOR
HELPSICK	HOMOSEX	INCOM16	JOBFIND	LETDIE1	LETIN1A
LIBATH	LIBCOM	LIFE	MARHOMO	NATAID	NATAIDY
NATARMS	NATARMSY	NATCITY	NATCRIME	NATDRUG	NATDRUGY
NATEDUC	NATEDUCY	NATENRGY	NATENVIR	NATENVIY	NATFARE
NATHEALY	NATMASS	NATPARK	NATSCI	NATSOC	NATSPAC
OTHLANG	OWNGUN	PARSOL	PISTOL	POLESCAP	POLHITOK
POLVIEWS	PORNLAW	POSSLQ	POSSLQY	PREMARSX	PRES16
PRES20	RACDIF1	RACDIF1Y	RACDIF2	RACDIF3	RACDIF4
RACEACS1	RACEACS2	RACEACS3	RACEACS4	RACEACS5	RACEACS6
RACEACS7	RACEACS15	RACEACS16	RACLIVE	RACWORK	RANK
REG16	RELPERSN	RES16	RICHWORK	RIFLE	ROWNGUN
SATFIN	SATJOB	SEXEDUC	SHOTGUN	SOCFREND	SOCOMMUN
SOCREL	SPANKING	SPKATH	SPKLANG	SUICIDE4	TEENSEX

UNEMP	WIDOWED	WRKSLF	WRKSTAT	WRKWAYUP	

Not tested at this time

Variables not listed above have not been accessed by the GSS team at this time. Users should not assume that because a particular variable is not listed above that it is not likely to be mode sensitive. The GSS team will provide further updates in future reports.

References

Brick, J. Michael, Courtney Kennedy, Ismael Cervantes-Flores, and Andrew W. Mercer. "An Adaptive Mode Adjustment for Multimode Household Surveys." Journal of Survey Statistics and Methodology 10, no. 4 (2022): 1024-1047.

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