



Benchmarking Knowledge Networks' Web-Enabled Panel Survey of Selected GSS Questions Against GSS In-Person Interviews

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By J. Michael Dennis, Rick Li, Cindy Chatt

Background

The General Social Survey, funded in part by the National Science Foundation (NSF), is a bi-annual data collection conducted by the National Opinion Research Center (NORC) via in-person interviewing, respondent incentives, and an area probability sample frame. In March 2000, Knowledge Networks (KN) conducted a parallel GSS study for NORC, using selected items from the GSS instrument. KN results have significantly higher percentages of "Don't know" respondents throughout the survey, compared with those shown in the in-person interviews conducted by NORC. We replicated the study again in 2002. This paper presents the results of the 2002 replication.

An examination of the KN 2000 study reveals that the presentation of the survey to respondents was distinctively different from the typical surveys conducted by Knowledge Networks. That is, the study presented "Don't know" or "No opinion" options on the survey screen, whereas most surveys administered to KN panel members do not include "Don't know" or "No opinion" as an explicit response option on the screen. In addition, the presence of the "Don't know" or "No opinion" option on the screen is different from typical treatment of these response options in the in-person interviews. For instance, this response option is not read in the in-person interviews conducted in the GSS. We therefore hypothesize that these two methodological differences might have considerably contributed to the large differences in the results, as reported by Mr. Tom Smith at the Annual Meeting of the American Association for Public Opinion Research and later published in the *International Journal of Public Opinion Research* (2003 15: 167-179).

Methodology

To test this hypothesis, we administered the selected questions to Knowledge Networks panel members between April and June 2002, in order to correspond as much as possible with the field period of the GSS 2002 in-person survey. The sample was randomly assigned to one of four experimental groups, each of which received a different treatment of presenting the "Don't know/No opinion" option. Table 1 displays the description and sample sizes of the experimental groups.

Table 1. GSS Parallel Study 2002 Treatment Description and Sample Sizes

Treatment No.	Treatment Description	N Fielded Sample	N Completed Interviews	Survey Completion Rate
1	Instruction on first screen to skip questions to indicate "Don't know/No opinion"; "Don't know option is not presented on the screen	800	655	82%
2	"Don't know" option presented on screen	400	333	83%
3	Respondents who answered, "Don't know" first are prompted to choose answer on the screen that follows.	400	334	84%
4	Instruction on all screens to skip questions to indicate "Don't know/No opinion"	400	333	83%

Each sampled panel member received an email pre-notification, a standard default email reminder, and four customized email reminders, to encourage response. This paper will focus on the first experimental

group because this treatment appears to provide the most reliable benchmarking results and has the largest sample size.¹

The KN-administered GSS questions regard opinions on national spending priorities. Specifically, respondents were asked whether they think the government is spending too much money, too little money, or about the right amount on 16 national issues:

In the previous parallel study conducted in March 2000, each respondent either received the standard or the variant wording questions. In the 2002 study, all respondents were administered both the standard and variant wording to be consistent with the protocol of the 2002 GSS in-person survey. Also, to control for possible response order effects, half of the sample received the response options in the order of “too much”, “too little”, and “about right”, and the other half were shown the order of “too little”, “about right”, and “too much”. The standard and variant wordings are shown below.

Standard Wording	Variant Wording
The space exploration program	Space exploration
Improving and protecting the environment	The environment
Improving and protecting the nation's health	Health
Solving the problems of the big cities	Assistance to big cities
Halting the rising crime rate	Law enforcement
Dealing with drug addiction	Drug rehabilitation
Improving the nation's education system	Education
Improving the conditions of Blacks	Assistance to Blacks
The military, armaments and defense	National defense
Foreign aid	Assistance to other countries
Welfare	Assistance for the poor
Highways and bridges	
Social Security	
Mass transportation	
Parks and recreation	
Assistance for childcare	

The demographic comparison between the GSS 2002 and KN 2002 survey samples is displayed in Table 2 below. The differences between the GSS 2002 and KN 2002 were mostly insignificant, with a couple of exceptions: GSS had significantly fewer Hispanics than did KN (7.3% vs. 10.9%, $p < .05$); GSS had a significantly higher percentage of respondents from the Middle Atlantic region (15.7% vs. 11.4%, $p < .05$) and a significantly lower percentage of respondents from the Mountain region (6.0% vs. 10.1%, $p < .05$) than did KN.

¹ The other treatments will be examined and discussed in other papers.

Table 2: Demographic Comparisons between GSS and KN (% of Weighted Interview Respondents)

Demographic characteristics		GSS 2002	KN 2002
Gender	Male	44.4	48.0
	Female	55.6	52.0
Age	18-29	19.2	21.7
	30-44	31.0	31.1
	45-59	25.7	25.8
	60+	24.1	21.4
Education	Less than HS	14.5	16.7
	HS/Some College	61.0	59.4
	BA or higher	24.3	24.0
Race	White	78.7	81.2
	Black	14.5	12.1
	Other	6.8	6.7
Hispanic Ethnicity	Hispanic	7.3*	10.9*
	Non-Hispanic	92.7*	89.1*
Region	New England	5.7	7.7
	Middle Atlantic	15.7*	11.4*
	E. North Central	16.7	13.0
	W. North Central	8.1	9.6
	South Atlantic	17.6	16.2
	E. South Central	7.2	7.1
	W. South Central	9.8	12.4
	Mountain	6.0*	10.1*
Pacific	13.2	12.4	

*p<.05

Results

Table 3 shows the weighted percentage of “Don’t know” respondents between the four studies: the GSS conducted by NORC in 2000 and 2002, and the GSS conducted by KN in 2000 and 2002. For the GSS conducted by KN in 2002, the results are displayed for the experimental treatment number one where the respondent was instructed at the beginning of the survey to skip the question to register a “Don’t know” or “No opinion” response, and the “DK” option was not an available response option.

As seen in Table 3, the differences in “Don’t know” rates between the GSS 2000 and KN 2000 studies are substantially reduced in the GSS 2002 and KN 2002 study.

The summary results for the four studies are shown in Table 4. Across all items, the average “Don’t know” rates of GSS 2000 were 6.1% and 6.1% for standard and variant wordings. In the KN 2000 study where “Don’t know” was present on the screen, the “Don’t know” rates were 14.3% and 13.9% respectively for standard and variant wordings. However, in the most recent 2002 KN study, the “Don’t know” levels were reduced to 3.5% and 3.9%, compared to 3.9% and 4.3% respectively in GSS 2002. Clearly, when respondents were instructed at the beginning of the survey to skip the question to register “Don’t know” or “No opinion.” KN produced very similar results compared to the GSS in terms of the percentage of people who answered “Don’t know.” The average absolute percentage point difference between the GSS and KN decreased from 8.2 in 2000 to 0.5 in 2002, for the standard wording. For the variant wording, the difference decreased from 7.8 to 0.7.

Table 3. “Don’t Know” Rates by Individual Items (Weighted %)

	2000				2002			
	GSS		KN		GSS		KN ²	
	Standard wording	Variants wording	Standard wording	Variants wording	Standard wording	Variants wording	Standard wording	Variants wording
Space exploration	7.6	6.3	14.3	11.6	6.4	5.3	3.6	3.3
Environment	3.6	3.8	7.4	9.0	2.4	2.6	2.8	2.9
Health	1.9	2.6	7.8	6.4	1.5	1.3	1.5	1.8
Cities	12.8	16.3	29.9	28.1	8.6	10.6	4.8	6.3
Crime	2.8	3.3	13.4	8.0	2.6	2.1	2.4	2.6
Drugs	4.9	7.5	17.5	21.8	3.2	6.1	3.2	3.8
Education	1.3	1.1	4.4	2.5	1.0	1.1	1.2	1.6
Blacks	11.7	11.9	25.9	29.4	6.5	9.5	7.8	8.1
National defense	6.4	6.3	14.1	13.3	2.4	4.1	3.9	3.7
Foreign aid	6.5	4.4	12.0	10.4	3.1	2.7	2.4	2.8
Welfare	4.5	2.7	7.7	10.2	3.0	2.1	2.1	2.6
Highways and bridges	5.2	3.9	13.2	12.5	3.5	NA	3.4	NA
Social security	6.4	4.8	11.0	11.5	3.6	NA	2.8	NA
Mass transportation	9.5	10.3	22.9	23.0	5.7	NA	6.3	NA
Parks and recreation	3.9	4.1	10.5	12.6	2.8	NA	3.0	NA
Child care	8.3	7.8	16.1	12.8	6.0	NA	2.5	NA

Table 4. Overall “Don’t Know” Rates (Weighted)

	GSS 2000	GSS 2002	KN2000	KN2002	Average Absolute Percentage Point Difference: KN 2000-GSS 2000	Average Absolute Percentage Point Difference: KN 2002 – GSS 2002
Standard wording	6.1%	3.9%	14.3%	3.5%	8.2	0.5
Variants wording	6.1%	4.3%	13.9%	3.9%	7.8	0.7

We also examined the substantive results once the responses indicating “Don’t know” were removed from the data and were ignored as missing data. The results in Table 5 show that for most spending items, the differences in responses between KN and GSS are rather small, after removing “Don’t know” responses. However, there are rather substantial differences between KN and GSS on three items. A common feature of these three spending items (dealing with drugs, assistance to blacks, and welfare) is that these are potentially controversial and sensitive issues. Because GSS surveys are conducted with a professional interviewer, social desirability effects could potentially help to explain the finding that a higher percentage of respondents in the in-person GSS survey selected “too little” for these sensitive spending items. For example, when respondents were asked about “welfare” (a relatively neutral term), the results from GSS and KN were extremely similar. However, when “welfare” is switched to “assistance to the poor” in the variant wording, GSS in-person interview produced a much higher “too little” percent (by 22 percentage points). This is an area for further research.

In the standard wording for the GSS 2002 and KN 2002 surveys, the median difference in response marginals across the 16 items using the standard wording in Table 5 is 3.0 percentage points. For the 11

² This is the treatment where respondents were instructed on the first screen to skip any questions to indicate “Don’t know” or “No opinion”.

items using the variant wording, the average difference in responses is 4.3 percentage points. The aggregate differences are within sampling error.

Table 5. Responses After Excluding “Don’t Know” (Weighted %)

	GSS 2002		KN 2002		Absolute Difference KN 2002-GSS 2002	
	Standard wording	Variant wording	Standard wording	Variant wording	Standard wording	Variant wording
Space exploration						
Too much	37.7	39.1	38.8	43.6	1.1	4.5
About right	50.4	48.6	49.8	43.0	0.6	5.6
Too little	11.8	12.2	11.5	13.5	0.3	1.3
Environment						
Too much	6.8	9.0	10.3	9.1	3.5*	0.1
About right	33.2	26.9	29.2	31.2	4.0	4.3
Too little	60.0	64.1	60.5	59.6	0.5	4.5
Health						
Too much	3.9	6.9	5.6	5.9	1.7	1.0
About right	21.3	19.1	25.1	25.4	3.8	6.3*
Too little	74.9	74.0	69.3	68.6	5.6*	5.4*
Cities						
Too much	14.8	36.2	21.1	31.3	6.3*	4.9
About right	39.9	46.2	44.5	45.3	4.6	0.9
Too little	45.4	17.6	34.4	23.3	11.0*	5.7*
Crime						
Too much	6.8	10.3	7.4	9.4	0.6	0.9
About right	35.8	41.4	40.8	45.6	5.0	4.2
Too little	57.4	48.3	51.7	45.0	5.7*	3.3
Drugs						
Too much	9.7	13.4	16.7	23.3	7.0*	9.9*
About right	31.2	32.3	38.2	42.4	7.0*	10.1*
Too little	59.1	54.3	45.1	34.2	14.0*	20.1*
Education						
Too much	5.4	4.7	6.6	6.6	1.2	1.9
About right	20.7	18.1	19.9	21.1	0.8	3.0
Too little	73.9	77.1	73.5	72.4	0.4	4.7
Blacks						
Too much	18.3	26.4	32.1	34.2	13.8*	7.8*
About right	49.0	46.8	44.9	44.7	4.1	2.1
Too little	32.7	26.8	23.0	21.1	9.7*	5.7*
National defense						
Too much	22.3	20.8	23.1	21.8	0.8	1.0
About right	46.5	43.8	44.3	44.5	2.2	0.7
Too little	31.3	35.4	32.5	33.8	1.2	1.6
Foreign aid						
Too much	65.5	70.8	74.0	74.6	8.5*	3.8
About right	27.8	20.2	19.9	18.9	7.9*	1.3

	GSS 2002		KN 2002		Absolute Difference KN 2002-GSS 2002	
	Standard wording	Variant wording	Standard wording	Variant wording	Standard wording	Variant wording
Too little	6.7	9.0	6.1	6.5	0.6	2.5
Welfare						
Too much	40.6	7.9	50.3	20.3	9.7*	12.4*
About right	38.2	25.0	31.2	34.7	7.0*	9.7*
Too little	21.2	67.1	18.5	44.9	2.7	22.2*
Highways and bridges						
Too much	12.7	NA	12.8	NA	0.1	NA
About right	51.7	NA	51.9	NA	0.2	NA
Too little	35.7	NA	35.3	NA	0.4	NA
Social security						
Too much	4.6	NA	5.4	NA	0.8	NA
About right	34.6	NA	32.3	NA	2.3	NA
Too little	60.8	NA	62.4	NA	1.6	NA
Mass transportation						
Too much	10.7	NA	13.2	NA	2.5	NA
About right	52.4	NA	49.3	NA	3.1	NA
Too little	37.0	NA	37.5	NA	0.5	NA
Parks and recreation						
Too much	5.5	NA	9.4	NA	3.9*	NA
About right	59.5	NA	52.8	NA	6.7*	NA
Too little	35.0	NA	37.8	NA	2.8	NA
Child care						
Too much	7.7	NA	9.5	NA	1.8	NA
About right	33.2	NA	37.2	NA	4.0	NA
Too little	59.1	NA	53.3	NA	5.8*	NA
Median	NA	NA	NA	NA	3.0	4.3

* p <.05

Discussion

The results are consistent with the hypothesis that the screen presentation of the “Don’t know” response option in the KN 2000 survey had the effect of increasing the percentage of respondents that selected the “Don’t know” response option. By displaying an instruction to skip questions for which the respondent does not know the answer or has “no opinion,” the KN “don’t know” rate is similar to that obtained in the in-person mode (3.5% vs. 3.9% for standard wording, 3.9% vs. 4.3% for variant wording). The “Don’t know” rate is much higher when the “Don’t know” option is present as a valid response option in the KN context.

Future Research

Our future research plans include:

1. Analysis of the other experimental treatments.
2. Assess the impact of recency and primacy effects from the response rotation experiment.
3. Conduct multivariate analyses to estimate the determinants of “Don’t know” rates, from KN profile data on education, age, income, etc.

We welcome suggestions and comments on this research note. Please send them to Mike Dennis at mdennis@knowledgenetworks.com.