Applying R-indicators to data collection and case management

Operationalizing ASD for the GSS 2020 Panel

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Overview

Overview and Background

COVID-19 and the General Social Survey

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Intro to the General Social Survey (GSS)

- Collects nationally representative survey data from adults across the United States since 1972

- Fielded every two years

- Used to monitor and explain trends in opinions, attitudes, and behaviors

- Contains:
  - Standard core of demographic, behavioral, and attitudinal questions
  - Special topics of interest - may change round to round

The General Social Survey

GSS

America's Research Project Since 1972

https://gss.norc.org/

The pandemic forced big changes for the General Social Survey (GSS) data collection effort

"Typical" GSS Fielding

- In person, face to face interviews across the country

- Minimal phone interviewing after in person visit

- Sample units = randomly selected *addresses* across the US

Modified GSS Fielding for 2020 Panel

- Web based interview with phone follow up

- No in person visits to household

- Sample units = prior round *participants* from 2016 and 2018

Goals for GSS 2020 Panel Data Collection

- Contact 2016 and 2018 participants to complete the GSS 2020 survey

- Send out initial invitations to participate by mail August 24th, with push to complete survey online

- Follow up with phone contacts from trained NORC interviewers

- Continue outreach by mail and email

- Complete approximately 1,320 interviews with 2016/2018 GSS respondents by October 31st, 2020
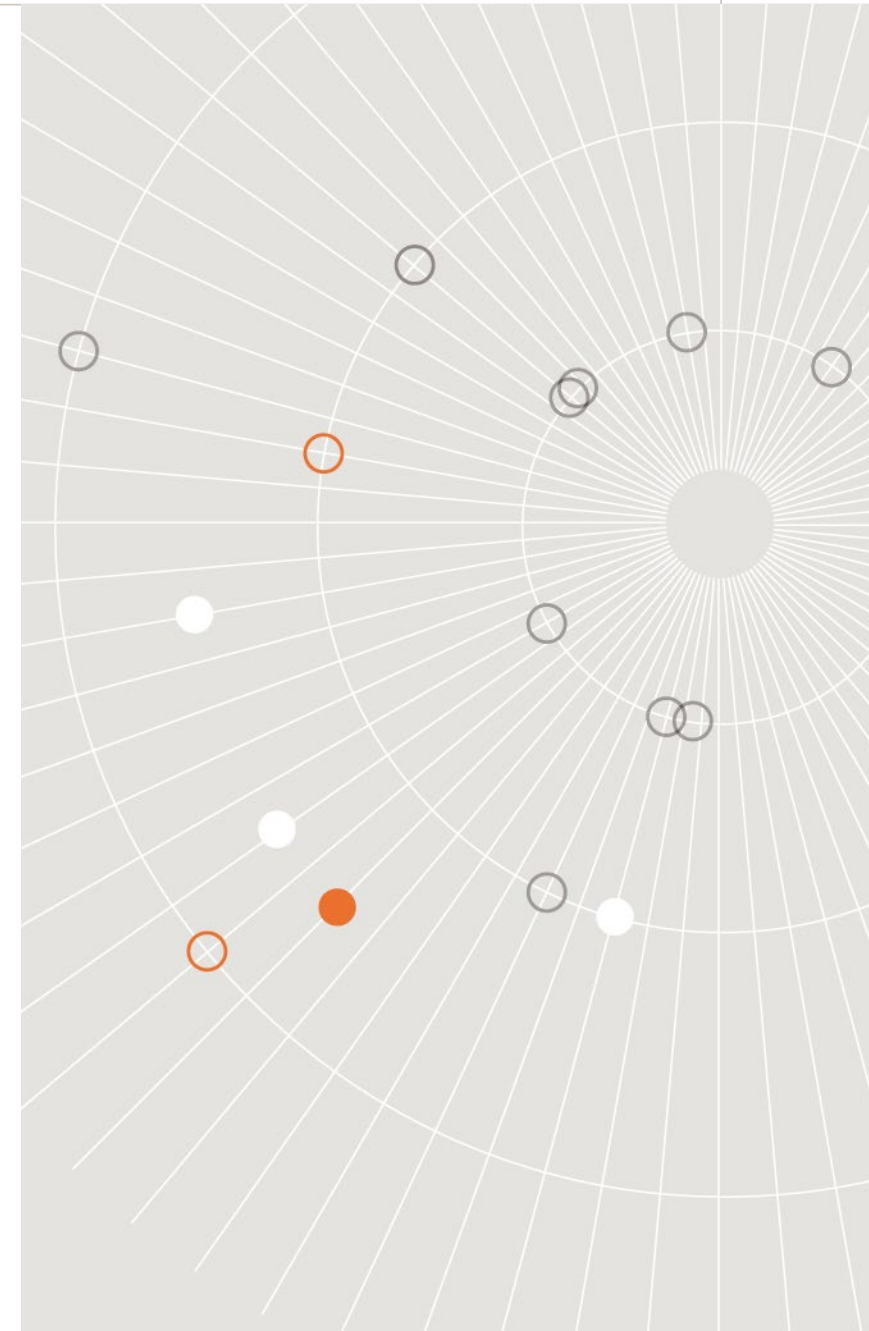
Adaptive Survey Design and R-Indicators

Opportunities for the use of adaptive survey design

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Assessment during Data Collection – an unexpected opportunity

- Early weeks of data collection substantially exceeded projections

- Unlike a "typical" GSS data collection, we knew *a lot* of information about our panelists, specifically our non-responders

- This presented an opportunity to improve representativeness of our sample and deploy adaptive survey design

Representative Indicators

- Based on what we knew about the panel, we should expect some similarities between how respondents answered in 2016/18 and how they answered in 2020

- We can use this to assess what subgroups of respondents are under- or overrepresented in our 2020 data

- This data could allow us to more strategically contact subgroups of non-responders while staying within project goals

Operationalizing R-indicators

1 - Underrepresented

Not enough panelists in this group had participated in 2020.

To allow for additional experimentation, the underrepresented group was randomly assigned into one of two conditions:

1a) Receive more interventions relative to the rest of the non-responders

1b) Receive an equal amount of interventions as the group 2

2 – On target

Panelists in this group were generally represented in the proportions we would expect – they were neither overrepresented nor underrepresented.

3 - Overrepresented

Too many panelists in this group had already participated

Operationalizing R-indicators

Getting this into the field

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The following strategies were implemented for the groups of non-responders based on how over or underrepresented they were in the existing 2020 panel data set.

GROUP	n	DESCRIPTION	OUTREACH	INCENTIVE	WEB SURVEY
1A	**548**	**HIGHER PRIORITY, UNDERREPRESENTED**	Keep working and **prioritize contact of these cases, locating, and outreach**	**Double**	Still accessible
1B	**200**	**HIGHER PRIORITY, UNDERREPRESENTED CONTROL**	Keep working these cases, but prioritize under the high group	No change	Still accessible
2	**1396**	**MIDDLE PRIORITY, NEITHER OVER OR UNDERREPRESENTED**			
3	**929**	**LOWER PRIORITY, OVERREPRESENTED**	Suspend all outreach to cases	No change	Still accessible

Identifying and mitigating potential challenges

To ensure successful implementation of our proposed strategy, the project team identified and addressed potential pain points.

Challenge	Solution
Improving data quality without impacting response rate. While we wanted to increase completes in groups 1a and 1b, we did not want to miss our target number of completed interviews.	The web survey was left available for all groups to complete, allowing for passive completes in group 3, in addition to groups 1a/b and 2.
Keeping rapport with respondents in group 3. Some respondents already had scheduled upcoming appointments.	Those respondents in group 3 that already had scheduled appointments were moved to group 2. Any group 3 respondents that contacted us for an appointment were allowed to schedule an appointment to complete a phone interview.
Keeping field staff engaged and informed of unanticipated change in study design.	Frequent and consistent communication shared in a timely fashion. Clear indicators in the CMS to help interviewers quickly and accurately determine how to prioritize cases.

Outcomes

Evaluating our implementation

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How effective was our guidance?

Measures:

- **Average number of contacts made to each group pre- and post-intervention**

- Mode in which those interviews were completed

- Percent of completed interviews in each group

Group	Avg. number of contacts pre-intervention	Avg. number of contacts post-intervention	Percent of all completes completed by phone	Proportion of non-appointment cases that completed interview
1A	3.01	3.32	36.0%	19.6%
1B	3.21	2.18	43.8%	10.8%
2	3.07	1.65	24.9%	14.1%
3	2.82	0.04	5.6%	9.9%

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Table 1. Characteristics by Group (unweighted)

	Group 1A		Group 1B		Group 2		Group 3	
Level of Sample Representation	UNDER		UNDER		ON TARGET		OVER	
Fielding Prioritization	FIRST		SECOND		SECOND		NONE	
Incentive Increase	DOUBLE		NO CHANGE		NO CHANGE		NO CHANGE	
	Count	%	Count	%	Count	%	Count	%
Sample Type								
2016 GSS	279	50.9	102	51.0	645	48.9	435	46.8
2018 GSS	269	49.1	98	49.0	674	51.1	494	53.2
Completed interview	128	23.4 [a, b]	32	16.0 [a]	203	15.4 [b, c]	107	11.5 [c]
Ever refused	217	39.6	88	44.0	608	46.1	264	28.4
Number of FI contacts (mean) (std. deviation)	23.36	(2.9)	5.39	(2.9)	4.6	(2.2)	2.9	(1.6)
Total	548	100.0	200	100.0	1319	100.0	929	100.0

a. Significant difference in proportion complete between Group 1A and Group 1B
b. Significant difference in proportion complete between Group 1A and Group 2
c. Significant difference in proportion complete between Group 2 and Group 3

	Coefficient	Standard Error	Odds Ratio
Intercept	-1.327 ***	0.287	0.287
Sample Type (reference category: 2018 GSS)			
2016 GSS	-0.526 **	0.197	0.591
Number of FI contacts	0.057	0.033	1.059
Ever refused	-2.033 ***	0.269	0.131
Appointment scheduled[a]	1.829 ***	0.404	6.226
Group Assignment			
Group 1A (reference category: Group 1B)	0.470 *	0.239	1.600
n	748		
-2 Log Likelihood	657.51		
Degrees of Freedom	5		

*p<0.05, **p<0.01, ***p<0.001

a. If we remove this variable and the cases with an appointment scheduled, the impact associated with being in Group1A increases to 0.571 with a P value of .025.

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c. Significant difference in proportion complete between Group 2 and Group 3

Table 3. Logistic Regression Predicting Interview Completion - Groups 2 & 3 (unweighted)

	Coefficient	Standard Error	Odds Ratio
Intercept	-1.770 ***	0.149	0.170
Sample Type (reference category: 2018 GSS)			
2016 GSS	-0.251 *	0.126	0.778
Number of FI contacts	0.066 *	0.030	1.069
Ever refused	-2.528 ***	0.216	0.080
Appointment scheduled	2.033 ***	0.296	7.635
Group Assignment			
Group 2 (reference category: Group 3)	0.538 ***	0.142	1.713
n	2,325		
-2 Log Likelihood	1,659.71		
Degrees of Freedom	5		

*p<0.05, **p<0.01, ***p<0.001

Implications for the GSS 2020 Panel and Beyond

- We were able to significantly increase the response rate within our group of underrepresented panelists.

- The project was able to contain cost and field efforts while still meeting data collection goals.

- Effective communication with all staff was critical in the successful modification to study design. However, future rounds of data collection may want to build in this change to study protocol at the outset.

What did we learn?

Thank you.

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