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Cover letter language framing in a survey of 19-25 year olds

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Abstract

As young adults are increasingly reluctant to participate in surveys, survey researchers turn to multiple approaches to convince them to respond. In the absence of an incentive, researchers may vary the cover letter language framing from the standard language to be more attractive to young adults or to deemphasize the topic of the survey being about socially undesirable behaviors. We report results from a cover letter experiment in the 2024 Nebraska Young Adult Risk Behavior Survey (n=18,985), a sequential mixed-mode push-to-web survey of 19-25 year olds in Nebraska. Sample members received one of three cover letters, framing the purpose of the research as 1) helping identify prevention strategies, 2) understanding substance use and driving habits, or 3) understanding substance use and driving habits from all types of people. We found no significant differences in response rates, days to respond, respondent composition, substance use behaviors, or measures of depression. Fewer people reported that risky behaviors were wrong or very wrong in conditions 2 and 3, but this was only seen for two of the nine variables in this section. For a population of younger adults, more research is needed on the best ways to increase response rates for surveys of socially undesirable behaviors.

Introduction

Cover letters are an important tool for survey designers that frame the content and intent of a survey to a selected sample (Dillman et al., 2014). Among the goals of a cover letter is to inform the sampled person about the goals of the study, why they individually are important for the study, and thank them for their participation, along with providing other information that is critical to their informed consent. Past research on the content of cover letters has shown mixed results. For instance, in a health survey conducted in Denmark, Christensen et al. (2019) found that any of 10 different sentences that informed the respondents about the goals of the study (e.g., “stress, alcohol, and sleep problems”) had no effect or lowered response rates overall compared to a control condition without a “study goals” sentence, although the effects varied across subgroups. Similarly, a study of veterans that used alternative description of the topics of the survey had no effect on response rates, although some differences in sample composition across different survey topic framings (Murdoch et al., 2022). Other studies that attempt to tailor cover letters to particular subpopulations also show no or mixed results, with targeted letters for subpopulations being effective for past nonrespondents in a panel survey, but not past respondents (Lynn, 2016).

Young adults are a notoriously difficult group from whom to gain cooperation (Mann, et al. 2008). Most of the past experiments on cover letters are of general populations, or populations of older adults. Whether young adults are affected by different framing of a survey topic in a cover letter is unknown. Under a leverage-saliency framework (Groves et al., 2000) or under a social exchange framework (Dillman et al., 2014), a survey topic that is made salient and viewed positively or seen as a benefit should increase response rates. Thus, communicating that a survey is about understanding substance use and driving behaviors, rather than being used to design prevention programs for substance use, may help with positive perceptions of a sensitive survey topic. Additionally, communicating the importance of the individual to the study should also increase the perceived relevance to the sampled person of the study. Furthermore, telling the individual that the data will be used for specific policy outcomes may change how they view the study, compared to a more general use for understanding of the study.

This study examines cover letter language in a study of young adults on substance use. In this report, we address the following research questions:

- RQ1: Does cover letter language framing the study goals and importance affect response rates?
- RQ2: Does cover letter language framing the study goals and importance affect time to completion?
- RQ3: Does cover letter language framing the study goals and importance affect respondent composition?
- RQ4: Does cover letter language framing the study goals and importance affect substance use outcomes?

Data and Methods

This study used the 2024 Nebraska Young Adult Risk Behavior Survey (NYARBS). This statewide sequential mixed-mode web and mail survey is conducted by the Bureau of Sociological Research (BOSR) at the University of Nebraska-Lincoln and sponsored by Nebraska Department of Health and Human Services. The questionnaire asks about alcohol and substance use behaviors and attitudes. NYARBS uses a stratified sample of young adults aged 19 (Nebraska’s age of majority) to 25, drawn from the Department of Motor Vehicles’ registry of driver’s licenses. Each respondent was sent an initial letter with the web survey URL and a QR code, followed by a reminder postcard with web survey information. Nonrespondents were sent another letter directing sample members to the web survey. Those that still

had not responded received a survey packet with a letter with the web survey information, a paper survey, and a postage-paid business reply envelope. In 2024, NYAAOS was administered to a sample of 18,985 young adults and achieved a 10.6% response rate (AAPOR RR2) overall.

Experimental Cover Letter Treatment. At the beginning of the project, each sampled person was randomly assigned to receive one of three cover letters that used alternative framing for the study. In these three different cover letter framings, two sentences, located in the first paragraph and at the end of the letter, varied across experimental conditions. One of the letters was the letter traditionally used by the project. In particular, the traditional language of “This data will help us identify prevention strategies related to substance use and impaired driving” and “Thank you in advance for this important contribution to a safer Nebraska” tells people who do these activities that the data will be used to encourage people to stop doing these activities. This language frames certain behaviors as unsafe and needing prevention; the language, in concert with the questionnaire starting with attitudinal questions about drinking being wrong, may encourage people who engage in substance or alcohol use not to respond. We refer to this condition as “**Standard**.”

An alternative framing separates the topic and goals from ‘prevention’ to ‘understanding.’ It is possible that framing the letter more as “understanding substance use and driving habits” and “thank you for this important contribution to understanding substance use and driving habits of people like you” would make the request neutral for those who use substances and still appeal to the broader population who may care about prevention strategies. We refer to this condition as the “**Understanding**” condition. Finally, neither of these approaches frames the data collection request as being relevant for the population of young adults. Thus, we also included a third version of the experimental neutral language that emphasizes “we want to hear from all types of young adults in Nebraska, no matter where you live or what groups you represent.” This message can be sent to any young adult, but we hope it would be especially attractive to young adults in groups that are traditionally less likely to participate in surveys. This condition is referred to as “**Understanding plus**.” Thus, our key independent variable for the experimental analyses is the experimental treatment for the cover letter framing.

Dependent Variables. We are interested in response rates across experimental conditions and in how the distributions of the above respondent characteristics vary across experimental conditions. We use a response indicator (1=respondent; 0= nonrespondent) as our first dependent variable. Unweighted response rates were calculated using the American Association for Public Opinion Research’s (AAPOR) standard definition for Response Rate 2. Our second dependent variable is speed of response, calculated as number of days after the first mailing until the completed survey was received. Our third group of dependent variables are the respondent demographic characteristics. We use unimputed respondent characteristics as listed in Table 2. Finally, we examine important survey variables on substance use behaviors and attitudes. We use F tests to test for statistical significance across experimental conditions. Response rate and level of effort analyses are unweighted; all analyses of the survey data are weighted and design adjusted.

Results

RQ1: Response Rates by Experimental Condition. There was no significant difference in response rate between experimental conditions ($p=0.737$) (Table 1).

Table 1. Response rates and average days to respond by cover letter condition

	Percent/Count	N respondents	Total	χ^2/F	<i>p</i> -value
AAPOR RR2					
Overall	10.6%	1955	18,465	0.610	0.737
Standard	10.5%	648	6158		
Understanding	10.8%	666	6150		
Understanding plus	10.4%	641	6157		
Average days to respond					
				1.05	0.35
Standard	4.97	648	6157		
Understanding	5.44	666	6150		
Understanding plus	5.18	641	6157		

RQ2: Time to completion. We see no significant difference in number of days to respond by cover letter framing condition ($F=1.05$, $p=0.35$, Table 1).

RQ3: Respondent composition. We examined respondent composition by age range, binary sex, binary racial category, education, and employment/student status. There were no significant differences in respondent characteristics across cover letter framing by these respondent characteristics (Table 2).

Table 2. Weighted Respondent Composition Across Cover Letter Framing

Variable	Cover letter framing			F	<i>p</i>
	Standard	Understanding	Understanding plus		
Age				0.54	0.58
19 to 21	48.8	44.9	43.2		
22 to 25	51.2	55.1	56.9		
Sex				1.04	0.35
Male	53.3	46.4	53.5		
Female	46.7	53.6	46.5		
Race				1.22	0.30
Non-Hispanic White	72.8	78.4	70.5		
People of color	27.2	21.6	29.5		
Education				0.22	0.93
High school diploma/ GED or less	31.1	32.3	28.5		
Some college or Technical/ Associate/Junior college	45.1	45.7	49.7		
Bachelor's degree or higher	23.9	22.0	21.8		
Urbanicity				0.07	0.98
Urban	68.5	68.3	68.9		
Large rural	18.7	19.2	17.9		
Small rural	12.8	12.6	13.3		
Status				0.28	0.76
Employed or armed forces	51.5	51.7	55.8		
Student	48.5	48.3	44.3		

RQ4: Substance use outcomes. We examined substance use behaviors, measures of depression, and opinions on substance use (Tables 3 and 4). There were no significant differences in responses across cover letter framing by these variables except in two opinions on substance use.

Those who received the Understanding and Understanding Plus letters, framing the survey as being about “understanding” rather than “prevention” of substance use behaviors and impaired driving, reported different attitudes about whether consuming substances was “wrong” or “very wrong.” Under the Standard letter, young adults were more likely to rate the behaviors of individuals 21 and older having five or more drinks at one setting ($p < 0.05$) or individuals 21 and older providing e-cigarettes or vape products with nicotine to minors ($p < 0.00$) as wrong or very wrong, compared to those who were sent the letters framing the study about Understanding substance use or Understanding plus wanting to hear from all types of people. The direction of these findings is consistent with bringing in individuals who were more likely to think the topic of “prevention” was not of interest or framing the measurement so that “wrong” was a more acceptable response. However, it is possible that these two statistically significant differences, out of 29 tests, are simply Type I error.

Table 3. Weighted Substance Use Behaviors and Measures of Depression Across Cover Letter Framing

Variable	Cover letter framing			F	p
	Standard	Understanding	Understanding plus		
Lifetime alcohol use				1.72	0.18
Have never	28.2	21.1	30.0		
Have ever	71.8	78.9	70.0		
Past month alcohol use				0.11	0.90
Have not	52.5	52.7	54.8		
Have	47.5	47.3	45.2		
Binge drank in past month				0.16	0.85
Have not	78.7	76.1	78.0		
Have	21.3	23.9	22.0		
Driven after drinking				0.08	0.92
Have not	92.8	91.5	92.0		
Have	7.2	8.5	8.0		
Binge drank and drove				0.07	0.93
Have not	97.9	98.5	98.1		
Have	2.2	1.5	1.9		
Lifetime marijuana use				0.80	0.45
Have never	64.9	58.5	64.7		
Have ever	35.1	41.5	35.4		
Past month marijuana use				0.81	0.45
Have never	88.5	91.3	86.4		
Have	11.5	8.7	13.6		
Drove under influence of marijuana				1.66	0.19
Have never	80.2	92.8	83.7		
Have	19.8	7.0	16.3		
Ever taken prescription pain meds without a prescription				0.23	0.79
Have never	92.6	93.4	91.3		
Have	7.4	6.6	8.7		
Doctor told you that you had anxiety				1.56	0.21
No	73.4	63.6	67.2		
Yes	26.6	36.4	32.8		
Doctor told you that you had depression				0.86	0.43
No	76.4	69.7	74.9		
Yes	23.6	30.3	25.1		
Felt depressed in past year				1.97	0.14
No	81.4	74.8	83.2		
Yes	18.6	25.2	16.8		
Considered suicide in past year				2.44	0.09
No	94.7	87.6	92.0		
Yes	5.3	12.5	8.0		
Attempted suicide in past year				0.13	0.88
No	98.1	97.2	97.3		
Yes	1.9	2.8	2.7		

Table 4. Weighted Opinions on Substance Use Across Cover Letter Framing

Variable – How wrong is it for...	Cover letter framing			F	p
	Standard	Understanding	Understanding plus		
Individuals 21+ to have 5+ drinks				3.36	0.04
Not wrong	60.0	74.1	67.8		
Wrong/very wrong	40.0	25.9	32.2		
Individuals 21+ provide alcohol for minors				0.29	0.75
Not wrong	22.1	25.0	26.0		
Wrong/very wrong	77.9	75.0	74.0		
Individuals 18-20 to have 1-2 drinks				0.49	0.61
Not wrong	55.8	61.4	58.0		
Wrong/very wrong	44.2	38.6	42.0		
Individuals 18-20 to have 5+ drinks				0.41	0.67
Not wrong	20.6	21.9	25.0		
Wrong/very wrong	79.4	78.1	75.0		
Individuals 18-20 to use e-cigs or vapes with nicotine				1.27	0.28
Not wrong	24.3	25.8	32.0		
Wrong/very wrong	75.7	74.2	68.0		
Individuals 21+ to provide e-cigs or vapes with nicotine to minors				5.80	0.00
Not wrong	10.5	14.3	24.6		
Wrong/very wrong	89.6	85.7	75.4		
Individuals 18-20 to use marijuana				0.12	0.89
Not wrong	36.5	37.0	34.3		
Wrong/very wrong	63.5	63.0	65.7		
Individuals 21+ to use marijuana				1.97	0.14
Not wrong	55.2	65.5	56.9		
Wrong/very wrong	44.8	34.5	43.2		
Individuals to use marijuana while driving				0.20	0.82
Not wrong	10.0	12.3	11.4		
Wrong/very wrong	90.0	87.7	88.6		

Conclusion and Discussion

We experimentally tested three different versions of framing a cover letter in a survey of substance use and impaired driving for young adults. Across these three cover letters, we found no significant differences in response rate, speed of response, respondent composition, substance use behaviors measures, or mental health measures. We found statistically significant differences across the cover letter conditions for two of the nine substance use opinion measures; for these two items, those who received the cover letters expressing understanding of substance use were less likely to think those

behaviors were wrong or very wrong, consistent with the standard letter perhaps suppressing those who were less likely to view these behaviors as problematic.

Although we examined three versions of cover letters in this study, we do not know whether the sample members actually read the letters. We also did not do qualitative research to identify possible messages that could be efficacious with this group. Future research could follow-up with nonrespondents to evaluate whether the letters were read, conduct interviews or focus groups with youth to identify possible messages, and examine alternative messages that may be more effective in convincing this age group to participate in surveys.

Young adults continue to be difficult to survey. Researchers should continue to test different methods for recruiting young adults to participate in surveys, including alternative options for framing studies beyond those used in this study.

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