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Understanding Nonresponse in Live Video Survey Interviews: Evidence from Two Tests Conducted as Part of the American National Election Studies (ANES)

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Abstract

Live video interviewing is an attractive mode for survey research because it has the potential to supplement or, someday, even replace in-person interviewing at a reduced cost and without sacrificing data quality. The reasons for this optimism are several: live video interviewing maintains some of the desirable elements of in-person interviews, such as visual cues and rapport from the interaction between respondents and interviewers, while potentially conferring additional advantages, such as access to respondents living in remote locations. However, previous evidence and experience suggest respondents are reluctant to be interviewed via video, and that reluctance is non-ignorable. This paper explores these recruitment and non-response challenges, informed by the experience of two tests conducted by the American National Election Studies (ANES). The first study is the ANES 2020 Time Series Study, where respondents were randomly assigned to three sequential mode conditions, one of which included live video interviewing as the initial mode. The second study is the ANES 2023 Video Interviewing Pretest, in which respondents were recruited to an in-person interview with a one-month follow-up conducted by video. Respondents to the 2020 ANES video mode were more educated relative to benchmarks and more likely to be Democrats than the rest of the sample. Both qualitative and quantitative data suggest video non-response is heavily related to discomfort with technology, lack of skills, and distrust or dislike of video, and lack of access to equipment. Finally, offering prepaid incentives resulted in more video completions than postpaid incentives.

Keywords: live video interviewing, survey recruitment, representative samples, incentives, unit nonresponse

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While video communication has become increasingly common in domains such as videoconferencing and medical visits, its adoption has lagged in both academic and commercial opinion surveys. This is likely because it is a relatively new mode of communication for most members of the public. Survey researchers have long considered how the capabilities of live video might shape the survey interview, reflecting on its strengths and weaknesses relative to other interviewer-administered modes (e.g., Anderson, 2008; Jeannis et al., 2013). However, the mode was not widely studied before the COVID-19 pandemic made its use imperative. The pandemic both accelerated the adoption of video communication among the public and convinced some survey organizations to deploy live video alternatives for in-person interviews.

Live video interviewing involves the use of real-time, two-way communication between the interviewer and respondent, facilitated by online platforms such as Zoom or Webex. Live video interviews hold particular appeal as a substitute for in-person interviews, given the increasing cost and logistical challenge of in-person approaches. Often considered the gold standard for surveys, in-person interviews are now prohibitively expensive for most research (Schober, 2018). Live video interviewing could preserve many advantages of in-person interviews, including the direct interaction between the interviewer and respondent, while also reducing travel and logistical complexity. Despite this promise, however, we currently know little about the data quality of this mode in large-scale surveys, and we are only beginning to understand its practical challenges (Schober et al., 2020).

This paper focuses on the recruitment of respondents into live video interviews—which has been difficult in both small and large-scale study designs (e.g., Bearfield & Smith, 2021; Conrad et al., 2023)—using data from the American National Election Studies (ANES). The ANES incorporated live video interviewing into its 2020 election study to compensate for the loss of in-person interviews during the COVID-19 pandemic. At the time, sending interviewers door-to-door for traditional in-person interviews was impossible, so ANES eliminated these interviews and attempted to shift some to video. Respondents also completed the survey online and by phone. Although the proportion of completed video interviews was low, the data helped inform a follow-up test conducted in 2023. This second study assessed a procedure where respondents initially completed in-person interviews with follow-up interviews completed by live video after a one-month break.

In the paper, we will: (a) review the current literature and discuss how features of live video may affect recruiting respondents into video interviews, (b) discuss the design and implementation of the studies, (c) examine the representativeness of the video components of the studies and examine potential underlying reasons for unit nonresponse, (d) review the results of efforts designed to

increase response rates, and (e) consider how video might best be incorporated into surveys in the future.

Background and Literature Review

Live video interviewing has often been compared with in-person interviews (Anderson, 2008; Endres et al., 2023) and web-based surveys (Conrad et al., 2023; Endres et al., 2023). This is because the technical features of video platforms overlap with—and even rely on—those modes. They therefore share some of their advantages and disadvantages, while also having strengths and weaknesses of their own. Shared advantages of in-person and video stem from the face-to-face nature of the interview experience, especially the inclusion of an interviewer. Video interviewers seem to develop similar levels of rapport with respondents relative to in-person modes (Sun et al., 2021). This may boost data quality compared to non-interviewer modes, although interviewer effects are possible (West et al., 2022). In lab studies comparing in-person and video (Sun et al., 2021), web and video (Conrad et al., 2023), or in-person, web, and video (Endres et al., 2023), data quality via video appears similar to other interviewer-administered modes. For example, relative to web, the advantages of video include less satisficing—that is, more response differentiation and reduced straightlining—(Conrad et al., 2023; Endres et al., 2023), longer, more effortful responses to open-ended questions (Endres et al., 2023), and fewer breakoffs (Hupp et al., 2026). Overall, to date, the quality of data from live video interviews is high and similar to that of in-person interviews.

Live video interviewing also shares advantages with web-based surveys. Because it eliminates interviewer travel, live video could extend survey access to respondents in remote locations who could be missed by in-person designs (Hupp et al., 2026). On the downside, video interviews generally require scheduled appointments or on-demand access to interviewers, restricting some of the respondents' ability to be flexible with timing. However, live video allows participation from various locations and devices. Nevertheless, just as with in person interviews, some benefits of web surveys—quick turnaround times, large samples (Couper, 2000), less rounding of numerical answers (Conrad et al., 2023; Liu & Wang, 2015), or fewer socially desirable responses (Conrad et al., 2023; Endres et al., 2023; Heerwegh, 2007; Kreuter et al., 2008)—may be missing from live video.

One potential drawback of live video is the possibility of exacerbating unit nonresponse compared to online modes. Although most American adults use the internet, some demographic groups, such as older people and those with lower income and less education, are less likely to use or have access to the web (Pew Research Center, 2024). Video interviews obviously require a high-speed internet connection but also the necessary equipment, including a camera,

microphone, and speakers (Schober et al., 2020). User abilities and skills also vary meaningfully, especially among older or less educated respondents. Even those with access to video technology may not feel confident setting it up, using it, or troubleshooting problems (Pew Research Center, 2021). The Pew Research Center (2021) found that while video communication was widespread during the pandemic, 19% of adults had not used video, and this gap was especially pronounced among those over 65 and with a high school education or less. Thus, both skills and access issues could explain why some groups rarely participate in video interviews.

Technological features of video may have a distinct impact on nonresponse relative to in-person interviews. In video interactions, participants view each other on screen. Differences in screen dimensions and settings cause face size to vary, and respondents may sit closer to the screen than to an interviewer in an in-person interview. The field of view is confined, and the presence of the camera may remind users that they are being watched (Shockley et al., 2021). Likewise, seeing one's own image via self-view could trigger self-focusing, an effect similar to the presence of a mirror (Bailenson, 2021; Fauville et al., 2023; but see Feuer & Schober, 2026). During the pandemic, both researchers (Bailenson, 2021) and the media (e.g., Fosslien & Duffy, 2020; Sklar, 2020) discussed the concept of "videoconference fatigue," with at least one study documenting its existence (Shockley et al., 2021). Research also found that individuals' attitudes toward live video in general are predictive of their willingness to participate in video interviews (Schober et al., 2023). For some, video could feel uncomfortable or require additional effort compared to an in-person interaction, and past exposure to video could shape their view of the technology, reducing willingness to participate in a video interview.

Distrust may also predict willingness to respond to video interviews. Although trust is important in survey response across modes (Dillman et al., 2014), security and privacy concerns specific to video—such as camera use and ease of recording—may change expectations of the privacy of the interview. Perceptions about online safety and privacy in general could also influence nonresponse; as more people are exposed to identity theft (Federal Trade Commission, 2024), computer viruses, and security breaches, individuals may be growing more skeptical of survey requests (Dillman, 2020). Such negative experiences are linked to distrust (Blank & Lutz, 2016; Dutton & Shepherd, 2006), although the relationship between online trust and internet use is less straightforward (e.g., Barth & de Jong, 2017; Blank & Lutz, 2016). Nevertheless, privacy and security concerns have sometimes been associated with engaging in privacy-protective behaviors (e.g., Baruh et al., 2017), such as limiting online use (Pew Research Center, 2000a, 2000b) or avoiding purchases and financial transactions (National Telecommunications and Information Administration, 2016), which could extend to the use of video communication.

Additional recruitment and unit nonresponse challenges may stem from the lack of an in-person interviewer to overcome respondents' reluctance to participate. Interviewers can play an important role in recruitment because they are able to address respondent concerns (Groves & Couper, 1996; Groves et al., 2004; West & Blom, 2016). More generally, the presence of the interviewer is thought to increase response rates (de Leeuw, 1992). Although recruitment methods for video can vary, respondents must be recruited by a mode other than video at present[1] since there are no video sampling frames. Given these challenges, it is not surprising to find low response rates for live video. For example, Conrad and colleagues (Conrad et al., 2023) found that address-based sampling achieved such low response rates—less than 1%—that they switched to opt-in sources. In general, prior experience suggests that recruitment to video may be easier when respondents are recruited via interviewer-led methods (Hanson et al., 2026) or are recruited as part of a longitudinal design (Wood et al., 2020).

Low response rates are a challenge to high-quality surveys because recruitment into a study can be costly and because low response rates (along with the systematic nonresponse to surveys among some groups) could lead to nonresponse bias. There has long been concern about declining response rates (de Leeuw & de Heer, 2002; Luiten et al., 2020), which necessitate greater fieldwork effort (Williams & Brick, 2018). Increased incentives, contacts with respondents, reminders, and other methods of increasing response rates are labor-intensive and costly. If respondents are reluctant to participate in video interviews, recruitment costs could make video prohibitively expensive or erode savings gained by eliminating travel for the interviewers. Also, although low response rates on their own do not necessarily increase nonresponse bias (e.g., Curtin et al., 2000; Groves, 2006; Groves & Peytcheva, 2008; Keeter et al., 2000), survey nonresponse can lead to bias when it is associated with the outcomes of interest (Groves, 1989). Perhaps more relevantly, differential nonresponse due to mode is a potential source of nonresponse bias (Groves & Peytcheva, 2008). If nonrespondents to video interviews differ from respondents in systematic ways related to the survey questions and topic, bias would surely grow. Nonresponse issues for video might be exacerbated for panel studies, where participants might drop out from subsequent waves because they cannot be contacted, they are unable to participate, or they refuse. Similar to nonresponse at the outset, panel attrition can lower sample size and potentially contribute to bias. Research is slim on attrition in video, but one study found that those who remained in video mode when given the option were younger, more educated, and married compared to those who opted to switch away from video in a subsequent wave of a panel study (Arrue et al., 2023).

[1] We acknowledge that it may be possible to build a frame of iPhone mobile numbers and use Facetime to complete the video interview.

Research Questions

Based on the state of the literature reviewed above, we were interested in the following five research questions:

RQ1: *How do response rates to video compare to other modes?*

RQ2: *How do respondent demographic characteristics differ in video from population benchmarks, and how do they compare to web and in-person interviews?*

RQ3: *Which respondents are most likely to drop out of panel studies using video?*

RQ4: *What sorts of strategies might help decrease nonresponse to video?*

RQ5: *What factors are associated with nonresponse for video interview requests?*

Design and Implementation of the Studies

The ANES 2020 Time Series Study

The 2020 ANES is a two-wave panel consisting of pre- and post-election interview waves conducted among U.S. citizens ages 18 and over (American National Election Studies, 2022). The main study consisted of a freshly drawn cross-section from an address-based sampling (ABS) frame in all 50 states and D.C.[2] Households received invitation letters by mail and were invited to complete a survey online. The survey began with a screener that randomly selected a household member and assigned them to one of three conditions: web-only, web-mixed, and video-mixed, as shown in Figure 1 below. In the web-only condition, respondents completed the pre- and post-election questionnaires online. The remaining two groups followed a sequential mode ordering; in the web-mixed condition, respondents were asked to complete a questionnaire online, with nonrespondents subsequently pushed to phone. In the video-mixed condition, respondents received a request to complete the survey via live video interview, and nonrespondents were pushed first to the web and finally to the phone if they did not respond. All respondents completed the post-election interview in the same mode as their pre-election interview. Pre-election interviews took place between August 18 and November 3, 2020, and the post-election survey was conducted between November 8 and January 4, 2021. Median administration times were 71 minutes for the pre-election and 78 minutes for the post-election survey.

[2] Two additional sample groups in the study, which were administered at the same time as the cross-sectional sample, consisted of reinterviews with 2016 ANES respondents to create a panel and interviews with General Social Survey (GSS) respondents. These two groups are excluded from the discussion since the focus of this paper is on the fresh cross-sectional sample recruited in 2020.

Incentives were used in both pre- and post-election surveys, ranging from $40 to $200 with non-response escalations.[3] Figure 1 shows the ANES 2020 design, along with the mode information.

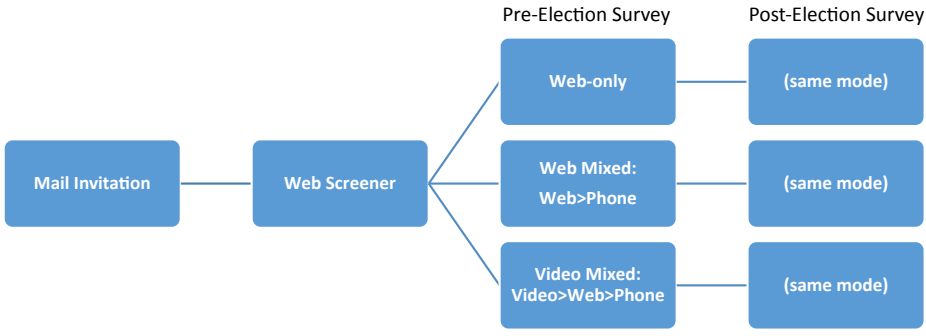

Figure 1 ANES 2020 Sample Design with Mode Information

To administer the video interviews and recruit respondents using this mode, the study relied primarily on inbound contacts, in a method combining mostly on-demand interviews with some appointment setting (DeBell et al., 2022). After completing the screener, the selected respondent was redirected to a virtual waiting room (or received a follow-up email directing them there if they were not currently available) that provided information about the video interview process, the equipment needed, the Zoom video software, and, most importantly, a Zoom link if an interviewer was available. The waiting room also described current interviewer availability in terms of expected wait time (if any), allowed respondents to set appointments, or gave respondents the opportunity to speak with someone on a live help desk by chat, phone, or email. More information on the interview setup is in Appendix A.

Respondents who scheduled an appointment were emailed a confirmation of the appointment date/time and a reminder on the morning of the interview. During the field period, it became clear that more reminders were necessary to reduce the rate of missed appointments, which was 65%. A new protocol was established that added a text reminder 30 minutes before the appointment, five minutes after the scheduled time if the respondent had not connected by then, and a missed appointment email 30-60 minutes after the appointment time if the respondent failed to connect, respond, or reschedule with any of the previous contacts.

[3] More information about the study design and administration can be found in the Methodology Report for the ANES 2020 Time Series Study (DeBell et al., 2022) or the User Guide (ANES, 2022).

The ANES 2023 Video Interviewing Pretest

The 2023 Pretest is a two-wave panel study where respondents completed interviews in person followed by a live video interview four weeks later. Figure 2 shows the design of the pretest, where households first received recruitment letters by mail, followed by an in-person interview visit. Those completing the first interview in person were asked if they wanted to participate in a second interview, one month later, via video. Respondents who agreed provided their email and phone number and scheduled an appointment. For those who scheduled an appointment and were able to be reached, a follow-up interview took place over Zoom. At the end of the interview, interviewers copied a link into the chat and asked respondents to fill out a few final questions about the interview. The reminder protocol included email or text messages around 24 hours before the appointment and on the day of the appointment.

Figure 2 ANES 2023 Pretest Design with Mode Information

The pretest used a three-stage sample design. First, nine geographical areas were strategically identified in different parts of the country near the location of twelve experienced interviewers and covered locations that were rural, suburban, and urban. In five areas, the Republican candidate won a majority or plurality of votes in the 2020 presidential election, while the Democratic candidate won in the other four. In the second stage, a probability sample of addresses was selected from an address-based sampling frame. In the final stage, a respondent within the household was interviewed based on their availability and willingness to participate. Data collection took place between September 7 and November 27, 2023.

Two procedures were employed to encourage respondents to set appointments and complete the video interview: a prepaid-postpaid incentive experiment and an offer to run a connection test with respondents—that is, an offer to show respondents during the in-person interview how to connect to Zoom for the follow-up interview. Studies show prepaid incentives tend to be more effective than postpaid incentives at increasing response rates (Singer et al., 1999), but it is not known whether this extends to video. Respondents to the in-person wave were randomly assigned to receive either a prepaid or postpaid incentive, both for $25. At the end of the in-person wave, respondents were told that an interviewer wanted to complete a video interview with them in a few weeks. They were either told that if they agreed to participate, they would receive the cash right now (i.e., prepaid) or would receive the cash after completing the inter-

view (i.e., postpaid). The connection test was also offered at that point. Then the respondent either agreed or declined the video invitation. Interviewers recorded the incentive, whether (and how successfully) the respondent participated in the connection test, and listed an appointment time if the respondent made one. In 12 cases, there was a discrepancy between the assigned experimental group and the interviewer record of the incentive in the questionnaire. We used actual payment records to resolve the discrepancies for those cases, except for one case that could not be resolved and was dropped. Exact wording for the experiment can be found in Appendix B.

In both the 2020 study and 2023 pretest, non-cooperative cases were asked by interviewers why they did not want to participate via video. In the ANES 2020, non-cooperative cases were asked during an intervention that was designed to increase response rates, while in the pretest, respondents were asked as a follow-up immediately after they declined the request to participate by video.

Methods

RQ1 focuses on response rates, and is answered by calculating the response rates from ANES 2020 using AAPOR RR1 (American Association of Public Opinion Research, 2023) and the reinterview rates, including the reinterview rate for the 2023 ANES Video Pretest. Differences between response rates were calculated using chi-squared tests. For RQ2, ANES responses were recoded for ease of interpretation or to match the Current Population Survey's (CPS) November 2020 Supplement, and then video respondents were compared to respondents in other modes and benchmarks using chi-squared tests and differences in percentage points. RQ3, about panel attrition, is answered using the same method, except comparing the respondent distributions at two time points for both studies. Strategies to help decrease nonresponse (RQ4) are investigated by looking at missed appointment rates, analyzing the results of an incentive experiment using chi-squared tests, assessing the results of a connection test, and examining the frequencies of respondent concerns with video. Finally, to examine differential nonresponse (RQ5) a logistic regression was estimated predicting video completion relative to completion through other modes in the video-mixed group from the 2020 study, and the differences in respondent attitudes towards video and technology between those who responded in person (Wave 1) and by video (Wave 2) were examined using chi-squared tests. All analyses were completed using Stata MP version 18.0.

Results

Response and Reinterview Rates (RQ1)

Table 1 below shows the response and reinterview rates from the 2020 ANES by each of the three sequential mixed-mode groups to which respondents were assigned. Response and reinterview rates from the ANES 2016 Time Series Study are also shown, broken out by mode, to serve as a comparison. For the full 2020 study, the response rate (AAPOR RR1) was 36.7%, while the video-mixed condition had a 27.6% response rate, the lowest of all groups (it also had the lowest re-interview rate).[4] All groups in the 2020 study had a slightly lower response rate than in 2016, which is unsurprising as the general trend is toward declining response rates. However, the response rate for the 2016 in-person mode appears to be quite different from the video-mixed group, with an RR1 of 50.2% compared with an RR1 for the video-mixed of 27.6%. Table 2 shows the contribution of interviews in each mode toward the response rate of the video-mixed condition in Table 1. Table 2 shows that only about half (i.e., 47.8%) of the respondents recruited into the video-mixed group completed the study using video interviewing. The rest were pushed to the web or phone. Moreover, despite the similar reinterview rates across groups in Table 1, Table 2 shows that, in fact, the reinterview rate is also lower for the video mode (76.3%) than the web (93.6%) in the mixed video condition[5] and lower than the web-only (88.1%) and web-mixed groups (88.7%) in Table 1.

Turning to the 2023 Pretest, there were 157 in-person completions from Wave 1 and 48 video completions from Wave 2, a reinterview rate of 30.6%. It is important to note that follow-up efforts were not comparable to standard ANES reinterviews that achieve much higher reinterview rates. This is in contrast to the 2020 study's mode experiment, where video-mixed efforts were comparable to web-only efforts. A total of 35 respondents (72.9% of the video respondents) followed the link the interviewers placed in the chat, completing the online follow-up questionnaire.

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[4] The response rates between the conditions are significantly different, $\chi^2(2, N = 14{,}827) = 124.83$, $p < .001$, and a series of three pairwise comparisons with Bonferroni adjustments indicate that the video-mixed response rate is significantly lower than the web-only response rate ($\chi^2(1, N = 8{,}771) = 86.09$, $p < .001$) and the web-mixed response rate ($\chi^2(1, N = 8{,}780) = 120.95$, $p < .001$). The web-only and web-mixed groups are not significantly different from each other.

[5] Within the video-mixed group, the reinterview rates by mode are significantly different, $\chi^2(2, N = 751) = 39.16$, $p < .001$. This is driven by web, which is significantly higher than the other two modes. A series of three pairwise comparisons with Bonferroni adjustments indicate that the web reinterview rate was significantly higher than video ($\chi^2(1, N = 687) = 39.20$, $p < .001$) and phone ($\chi^2(1, N = 392) = 6.25$, $p = .012$), but the video to phone comparison was not significant.

Table 1 Response and Reinterview Rates in ANES 2020 and 2016, Cross-Sectional Samples

	Pre-Election		Post-Election	
	N	RR1 (%)	*N*	Reinterview (%)
2020 Fresh Cross-Sectional Sample	5,441	36.7	4,783	87.9
Web-only (Web)	2,283	37.8	2,012	88.1
Web-mixed (Web>Phone)	2,407	39.7	2,136	88.7
Video-mixed (Video>Web>Phone)	751	27.6	635	84.6
2016 Web	3,090	44.4	2,590	83.8
2016 Face-to-Face	1,180	50.2	1,058	89.7

Notes: Response rates are based on AAPOR Response Rate 1. Reinterview rates are the percentage of respondents from the pre-election that completed the post-election study. Response rates are republished from the ANES Users Guides (ANES 2019, ANES 2022).

Table 2 Contribution of Each Mode to Video-Mixed Condition and Reinterview Rate for Each Mode in Video-Mixed (Video>Web>Phone) Condition, ANES 2020

	Pre-Election Contribution		Post-Election Reinterview Rate	
	N	%	*N*	%
Video	359	47.8	274	76.3
Web	328	43.7	307	93.6
Phone	64	8.5	54	84.4
Total	751	100.0	635	84.6

Both studies' response and reinterview rates indicate that recruiting respondents into video interviews and maintaining their interest for further completions presents a challenge. Next, we examine the characteristics of the video cases relative to other modes and benchmarks.

Representativeness of Video by Demographic Subgroups in ANES 2020 (RQ2)

We compared demographic characteristics of the 2020 ANES video respondents with the population and to other modes using three sources: (a) respondents to the 2020 ANES who responded by a mode other than video, which combine all web and phone cases across the three study groups,[6] (b) the U.S. adult citizen

6 Phone cases only make up 1.7% of the freshly sampled cross-sectional cases.

population as measured by the Current Population Survey's (CPS) November 2020 Supplement (Flood et al., 2023); and (c) the in-person cases in the 2016 ANES (American National Election Studies, 2019). Unweighted results are provided for the ANES samples, whereas CPS data are weighted to adjust to the population. The unweighted ANES results show the characteristics of the respondents who were recruited into video after contact attempts and incentives (more on this shortly). Note that for most purposes, researchers would use the weighted results, which attempt to minimize the difference between the sample and the population (DeBell et al., 2022). We use unweighted results because weights would adjust respondent characteristics to the population, thereby masking the differences between respondent demographics by mode.

Table 3 shows the demographic characteristics of the samples described above, focusing on age, education, income, sex, race/ethnicity, party identification, home tenure, and urbanicity. The first column shows the CPS benchmarks, which are limited to adult citizens aged 18 and over for a more direct comparison to the ANES. The second column shows the unweighted in-person respondents to the 2016 ANES survey, which serves as a comparison despite the different context and year. The third column shows the unweighted non-video (i.e., web and phone respondents across the groups) modes in the 2020 ANES. The distribution for the unweighted video cases is shown in the fourth column. The differences between the benchmarks and the unweighted distributions for the ANES 2020 video mode are shown in the fifth column. These differences give us an indication of the representativeness of the video mode. Following Chang and Krosnick (2009), column 5 also shows the mean of the absolute values of the differences for each demographic distribution. The largest of these mean deviations from the benchmarks is education ($M = 8.3$ percentage points). Relative to the population benchmark, video respondents were far more educated. This is especially notable for those in the highest education category; among those who responded via video, 25.8% had a graduate degree compared with only 12.4% of Americans (as measured by the CPS benchmark); this is a 13.4 percentage point difference. Though other differences were less striking, the video mode respondents were higher in income, more white, and less Hispanic.

To better understand how the characteristics of respondents in the video mode might differ from other modes, the demographics of the video respondents can also be compared to the rest of the cross-sectional sample in 2020 in Table 3. Columns three and four show the unweighted distributions of the video respondents (column 4) compared to the web and phone modes (column 3). These comparisons show significant differences between the mode groups for education, $\chi^2(4, N = 5{,}343) = 20.84$, $p < .001$; income, $\chi^2(3, N = 5{,}230) = 17.72$, $p = .001$; and party identification ($\chi^2(6, N = 5{,}407) = 51.76$, $p < .001$). Put simply, relative to the rest of the cross-sectional sample in 2020, the video respondents were more educated, had a higher income, and were more likely to be Democrats.

Table 3 Comparisons of Respondent Characteristics Between CPS Benchmarks and ANES Modes (2016 In-person Mode; 2020 Web and Phone Modes; and 2020 Video Mode) (Unweighted)

Characteristic	CPS Nov 2020 benchmarks	ANES 2016 In-Person	ANES 2020 Web and Phone Modes ($N = 5082$)	ANES 2020 Video Mode ($N = 359$)	ANES 2020 Video Difference (CPS-ANES Video)
	Percent	Percent	Percent	Percent	Percent
Age					
18-29	20.3	16.7	14.2	14.6	5.7
30-39	16.5	17.3	17.5	17.7	−1.2
40-49	15.0	15.0	14.8	14.9	0.1
50-59	16.4	18.4	16.5	15.7	0.7
60-69	16.2	17.0	19.2	20.8	−4.6
70 or older	15.6	15.7	17.7	16.3	−0.7
Mean deviation					2.2
χ^2			1.004		
Education					
Less than HS cred.	7.6	9.0	4.8	2.2	5.4
HS credential	29.2	22.0	16.6	13.8	15.4
Some college/ AA degree	28.5	33.1	35.0	28.9	−0.4
Bachelor's degree	22.4	22.6	24.7	29.2	−6.8
Graduate degree	12.4	13.3	18.9	25.8	−13.4
Mean deviation					8.3
χ^2			20.843***		
Income					
Under $25,000	15.0	26.0	21.2	16.7	−1.7
$25,000-$49,999	21.6	23.3	18.9	12.7	8.9
$50,000-$99,999	32.1	30.4	28.2	35.9	−3.8
$100,000 or more	31.3	20.3	31.7	34.7	−3.4
Mean deviation					4.5
χ^2			17.716***		
Sex					
Male	48.1	47.5	45.7	44.0	4.1
Female	51.9	52.5	54.3	56.0	−4.1
Mean deviation					4.1
χ^2			0.376		

Table 3 (continued)

Characteristic	CPS Nov 2020 benchmarks	ANES 2016 In-Person	ANES 2020 Web and Phone Modes (*N* = 5082)	ANES 2020 Video Mode (*N* = 359)	ANES 2020 Video Difference (CPS-ANES Video)
	Percent	Percent	Percent	Percent	Percent
Race/Ethnicity					
White, non-Hispanic	66.9	67.7	72.6	75.9	−9.0
Black, non-Hispanic	12.4	10.1	9.0	10.2	2.2
Hispanic	13.2	14.4	9.0	7.6	5.6
Other, non-Hispanic	7.5	7.8	9.4	6.2	1.3
Mean deviation					4.5
χ^2			5.269		
Party ID 7-point					
Strong Democrat	–	18.9	22.8	29.7	–
Not strong Democrat	–	11.8	11.0	12.6	–
Lean Democrat	–	15.0	12.1	17.6	–
Independent	–	10.3	12.7	3.1	–
Lean Republican	–	16.6	10.4	13.7	–
Not strong Republican	–	11.3	10.1	8.7	–
Strong Republican	–	16.0	20.8	14.6	–
Mean Deviation					–
χ^2			51.764***		
Home Tenure[a]					
Own	73.8	59.8	71.9	70.0	3.8
Rent/Other	26.2	40.2	28.1	30.0	−3.8
Mean deviation					3.8
χ^2			0.279		
Urbanicity[b]					
Rural	–	–	15.2	11.8	–
Small town	–	–	25.1	21.0	–
Suburb	–	–	30.3	31.0	–
City	–	–	29.4	36.2	–
Mean deviation		–			–
χ^2			7.804#		

Notes: The Pearson's χ^2 and significance levels in the table are for the comparison of the video respondents (column 4) compared to the web and phone modes (column 3). ANES data are unweighted. #$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 3 (continued)

[a] To compare to CPS benchmarks for home tenure, the ANES used a split half design where only half the sample was asked the CPS version of the question and the other half was asked an older ANES version of the home tenure item. In this table, the analysis is based on the CPS version of the question.
[b] Urbanicity is based on respondent self-report and not on geographical data.

Attrition Across Waves (RQ3)

Attrition Between the Pre- and Post-Election Survey in ANES 2020

To examine the nature of cases lost between pre- and post-election surveys, we next measure attrition in the video mode. Respondents who were initially interviewed by video were all invited to complete the post-election interview by video after the election. Recall from the reinterview rates in Table 2 that the video-mixed condition in 2020 had the largest attrition (15.4% of respondents were not reinterviewed in this condition), and within that condition, the video mode had the highest attrition (i.e., 23.7% of video-mode respondents were not reinterviewed). Table 4 compares respondents who completed both the pre- and post-election survey in the video mode ($N = 274$) to those who only completed the pre-election study by video (i.e., the attrition cases; $N = 85$).

There are significant differences in age ($\chi^2(5, N = 356) = 19.33$, $p = .002$) and education $\chi^2(4, N = 356) = 16.88$, $p = .002$) between those who remained in the study and those who did not in 2020. Those who completed both the pre and post tended to be older and more highly educated than those who dropped out. For example, respondents age 30-39 were 11.5 points more likely to drop out than to complete the post-election survey (26.5% to 15.0%). That younger respondents tend to attrite from the video mode is in keeping with prior research. Likewise, attrition from the video mode among the less educated is consistent with the literature. This attrition may also be related to issues with technology access and skills among the less educated. By contrast, the distributions of party identification among pre-only and those who completed both pre- and post-election survey are not significantly different. Readers who wish to compare characteristics between those who attrit from the video mode with other modes will find a similar table for attrition from the web in the Appendix C (Table C1).

ANES 2023 Pretest Video Attrition

In Table 5 we examine how respondents who participated in the video component of the 2023 Pretest during Wave 2 compared to those who only engaged in the face-to-face portion in Wave 1. Respondents who participated in the video follow-up may be demographically similar to the 2020 ANES video respondents because video is more appealing or accessible to certain respondents. However, nonresponse to video in Wave 2 is likely not solely due to the request to partici-

Table 4 Attrition among Video Cases in the 2020 ANES (Unweighted)

Characteristic	Completed Pre Only (Attrition Cases) (*N* = 85)	Completed Pre and Post (Reinterview Cases) (*N* = 274)	Difference (Attrition-Reinterview)
	Percent	Percent	Percent
Age			
18-29	22.9	12.1	10.8
30-39	26.5	15.0	11.5
40-49	18.1	13.9	4.2
50-59	10.8	17.2	−6.4
60-69	10.8	23.8	−13.0
70 or older	10.8	17.9	−7.1
Mean deviation			8.8
χ^2	19.333**		
Education			
Less than HS cred.	5.9	1.1	4.8
HS credential	20.0	11.8	8.2
Some college/AA degree	35.3	26.9	8.4
Bachelor‘s degree	22.4	31.4	−9.0
Graduate degree	16.5	28.8	−12.3
Mean deviation			8.5
χ^2	16.877**		
Income			
Under $25,000	24.1	14.4	9.7
$25,000-$49,999	8.4	14.0	−5.6
$50,000-$99,999	33.7	36.5	−2.8
$100,000 or more	33.7	35.1	−1.4
Mean deviation			4.9
χ^2	5.322		
Sex			
Male	42.4	44.5	−2.1
Female	57.6	55.5	2.1
Mean deviation			2.1
χ^2	0.124		
Race/Ethnicity			
White, non-Hispanic	78.6	75.1	3.5
Black, non-Hispanic	9.5	10.4	−0.9
Hispanic	9.5	7.1	2.4

Table 4 (continued)

Characteristic	Completed Pre Only (Attrition Cases) (*N* = 85)	Completed Pre and Post (Reinterview Cases) (*N* = 274)	Difference (Attrition-Reinterview)
	Percent	Percent	Percent
Other, non-Hispanic	2.4	7.4	−5.0
Mean deviation			3.0
χ^2		3.281	
Party ID 7-point			
Strong Democrat	25.3	31.0	−5.7
Not strong Democrat	14.5	12.0	2.5
Lean Democrat	20.5	16.8	3.7
Independent	1.2	3.6	−2.4
Lean Republican	15.7	13.1	2.6
Not strong Republican	6.0	9.5	−3.5
Strong Republican	16.9	13.9	3.0
Mean deviation			3.3
χ^2		4.295	
Home Tenure[a]			
Own	55.3	65.4	−10.1
Rent/Other	44.7	34.6	10.1
Mean deviation			10.1
χ^2		2.861$^{\#}$	

Notes: The Pearson's χ^2 values and significance levels in the table are for the comparison of respondents who completed both the pre- and post-election survey in the video mode to those who only completed the pre-election survey. $^{\#}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

[a] Home tenure combined two versions of a question that were assigned as split half: the CPS and ANES versions.

pate by video but also to other causes of attrition, such as respondent experience in the earlier wave (Frankel & Hillygus, 2014). It is also important to note that pretest cases are not worked as hard as they would be for a full study. Lastly, because the pretest was not designed to be nationally representative, comparing it to the benchmarks will be less useful; rather, the data presented are meant to be suggestive of who might be persuaded to participate once they were familiar with the survey and the interviewer and were presented with the request to participate by video.

Table 5 shows the differences between those who only completed Wave 1 (in person) and those who completed both Waves 1 and 2 (video). The demographics of Wave 2 respondents, who completed the earlier wave in person and went on to

complete the video interview in Wave 2, were younger, more Democratic, and had higher levels of education and income than those who only completed Wave 1. The only difference approaching significance is education $\chi^2(4, N = 149) = 9.05$, $p = .06$. However, the small sample size makes detecting potentially significant differences difficult. The differences appearing in these data, though, suggest that video is attracting the same sorts of respondents as in the ANES 2020 study. What is potentially notable (although not significant) is that the respondents to the video follow-up tended to be younger, i.e., 30-39, which is surprising given the expected attrition among younger respondents. This finding is similar to one by Arrue et al. (2023), who found younger respondents tended to remain in video when offered a mode switch.

Table 5 ANES 2023 Video Pretest Wave 1 (In-person) and Wave 2 (Video) Comparison of Demographic Characteristics (Unweighted)

Characteristic	Total (*N* = 157)	In-Person Only (*N* = 109)		Video (*N* = 48)	Difference (In-Person -Video)
	Percent	Percent		Percent	Percent
Age					
18-29	15.4	14.8		16.7	−1.9
30-39	15.4	13.0		20.8	−7.9
40-49	15.4	13.9		18.8	−4.9
50-59	10.3	11.1		8.3	2.8
60-69	17.9	20.4		12.5	7.9
70 or older	25.6	26.9		22.9	3.9
χ^2			3.520		
Education					
Less than HS cred.	13.4	16.2		6.8	9.4
HS credential	26.2	28.6		20.5	8.1
Some college/AA degree	24.8	24.8		25.0	−0.2
Bachelor‘s degree	22.1	21.9		22.7	−0.8
Graduate degree	13.4	8.6		25.0	−16.4
χ^2			9.054#		
Income					
Under $25,000	7.6	10.1		2.6	7.6
$25,000-$49,999	21.2	22.8		17.9	4.8
$50,000-$99,999	33.1	31.6		35.9	−4.3
$100,000 or more	38.1	35.4		43.6	−8.1
χ^2			2.843		

Table 5 (continued)

Characteristic	Total (*N* = 157)	In-Person Only (*N* = 109)	Video (*N* = 48)	Difference (In-Person -Video)
	Percent	Percent	Percent	Percent
Home tenure				
Own	68.8	71.6	62.5	9.1
Rent/Other	31.2	28.4	37.5	−9.1
χ^2		1.274		
Sex				
Male	45.2	44.0	47.9	−3.9
Female	54.8	56.0	52.1	3.9
χ^2		0.203		
Race/Ethnicity				
White, non-Hispanic	73.4	72.6	75.0	−2.4
Black, non-Hispanic	9.1	10.4	6.3	4.1
Hispanic	13.0	12.3	14.6	−2.3
Other, non-Hispanic	4.5	4.7	4.2	0.6
χ^2		0.803		
Party ID 7-point				
Strong Democrat	19.6	21.8	14.9	6.9
Not strong Democrat	10.1	5.9	19.1	−13.2
Lean Democrat	8.8	7.9	10.6	−2.7
Independent	6.8	7.9	4.3	3.7
Lean Republican	20.9	18.8	25.5	−6.7
Not strong Republican	12.2	11.9	12.8	−0.9
Strong Republican	21.6	25.7	12.8	13.0
χ^2		10.415		

Notes: The Pearson's χ^2 values and significance levels in the table are for the comparison of the in-person and video cases. Data are unweighted. $^{\#}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Understanding and Attempting to Reduce Unit Nonresponse to Video (RQ4)

Appointment Setting and Reminders

One way to encourage respondents who were offered video to complete the ANES 2020 study by that mode was to set appointments and provide reminder(s). As described above, cases that set appointments for video in the pre-election survey

initially received only an appointment confirmation and a single reminder, automated and sent by email. The single reminder was offered until mid-September. The missed appointment rate during that period was 65.4%. A change in protocol after that date provided cases with two additional text reminders and a missed appointment email, sent manually. Before the reminders, 34.6% of appointments were on time, and after the additional reminders, 43.6% were on time (DeBell et al., 2022). In the 2023 Pretest, those who scheduled an appointment for the Wave 2 interview were also reminded of their appointments. Depending on the information provided by the respondent, the interviewer sent an email, a text message, or both the day before the scheduled appointment and a few hours prior to the scheduled appointment. A total of 83 respondents set an appointment, and 48 completed the video interview.

Pretest Incentive Experiment and Connection Test

As described above, the 2023 Pretest included an incentive experiment at the end of the in-person wave. Table 6 shows the outcome of the incentive offered on appointment setting and completions. Among those who were offered the prepaid incentive, 57.7% set an appointment with the interviewer, compared with only 47.4% among those offered the postpaid incentive. Ultimately, 38.5% of respondents who were offered the prepaid incentive completed a video interview, compared to only 23.1% of postpaid respondents, a statistically significant 15.4 percentage point difference, $\chi^2(1, N = 156) = 4.33$, $p < .05$. However, the cost was more than four times as large for the prepaid incentive.[7] Results suggest that the prepaid incentive could encourage appointment setting. More importantly, the prepaid incentive appears to significantly increase video completions.

Table 6 ANES 2023 Pretest: Video Appointment Setting and Completions by Incentive Type

Incentive offered	Set Appointment		Video Completion		Total
	No %	Yes %	No %	Yes %	%
Offered prepaid (N = 78)	42.3	57.7	61.5	38.5	100.0
Offered postpaid (N = 78)	52.6	47.4	76.9	23.1	100.0
χ^2	1.645		4.333*		

Notes: #$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

[7] This number is calculated based on the incentive amount and number of respondents receiving the incentive. All 78 respondents assigned to the prepaid group were offered the $25 incentive, but only 18 in the postpaid group completed the study and received the $25 incentive.

All respondents who reached the end of the in-person interview were offered the connection test. Connection test results are reported in Table 7. Only 7.8% of respondents successfully completed the test, while an additional 3.2% tried unsuccessfully, and the rest (88.9%) declined. In addition, 30.5% of respondents declined to try because they said they already knew Zoom, and 58.4% of respondents declined without explanation. To understand whether experiences with technology influenced respondents' decisions to participate in the test, we looked at whether prior video call experience or comfort using a smartphone was associated with completing the test. We found that among those who were not at all comfortable with smartphones, 100% were not willing to try the connection test, compared with 89.1% of those who were either slightly or moderately comfortable with smartphones and 86.4% of those who were very comfortable with smartphones. Among those who had never participated in a video call, 90.9% did not try to connect, compared with 88.6% of respondents who had participated in calling. These results suggest that this procedure designed to help overcome respondent misgivings was less successful among those who would benefit most from just such an intervention–those who are less comfortable with technology.

Nonresponse Video Intervention in ANES 2020

Approximately two weeks into the field period of the 2020 ANES, 16% of cases from the video-mixed group had completed the screener but opted not to continue. In the other cross-sectional groups, failure to continue was less than 3%. The underperformance of the video-mixed group relative to the other two groups led to the creation of an intervention designed to increase the response rate for video (ANES, 2021; DeBell et al., 2022). Two experienced interviewers placed outbound calls to cases who had been selected upon screener completion but had not started the interview. Although 422 cases qualified for a contact, interviewers were only able to complete calls with 67 potential respondents or members of their household during this intervention period. Table 8 shows the reasons these participants gave to the interviewers for their nonresponse.[8] Overall, the conversion team recorded more concerns about video privacy or image appearance than other problems. Respondents also gave a variety of reasons for not wanting to participate that had nothing to do with video or technology; it is possible that some respondents had reasons that they were unable or unwilling to articulate, although some likely declined for reasons other than mode.

Additionally, these two interviewers acted as a refusal conversion team. In addition to using standard techniques for gaining cooperation, the interviewers could offer: (a) use of a different video platform, such as Facetime, and (b) an

[8] This analysis used closed-ended questions from the call outcome questionnaire completed by the video conversion team interviewers. More information can be found in Appendix D.

increased incentive of $200 for completing the live video interview. The refusal team was allowed to provide one or both offers at their discretion, based on what they thought would gain cooperation. During the intervention, the team chose not to offer any nonrespondents the use of a different video platform but did offer 17 nonrespondents the incentive. Additionally, 29 nonrespondents reached during the intervention agreed to complete a video interview later. However, only three nonrespondents ultimately ended up completing a video interview, and none of those who were offered the increased incentive completed by video.

Table 7 ANES 2023 Pretest: Which respondents were more likely to complete the connection test?

Test Completion	Comfort with Smartphone			Ever participated in a video call		Total
	Not at all %	Slightly/ Moderately %	Very %	No %	Yes %	%
Yes, completed	0.0	3.6	12.3	9.1	7.6	7.8
Tried unsuccessfully	0.0	7.3	1.2	0.0	3.8	3.2
No, did not try	100.0	89.1	86.4	90.9	88.6	88.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
χ^2		9.056#		0.903		

Notes: #$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 8 ANES 2020: Issues Mentioned by Respondent (Completed Calls) in Nonresponse Intervention

Issue	*N*
Video Privacy or Image Concerns:	
Did not want their image appearing on video	11
Privacy/confidentiality of videoconferencing generally	6
Did not want their surroundings appearing on video	3
Concerned that they are being recorded	2
Subtotal	22
Lacks Equipment:	
Does not have a capable device (smartphone, tablet, computer, laptop) at all	7
Does not have a microphone	4
Does not have a video camera	3
Does not have speakers	3

Table 8 (continued)

Issue	*N*
Subtotal	17
Lacks Skills or is uncomfortable with Video/Technology:	
Uncomfortable with videoconferencing generally	7
Technical difficulties in installing the Zoom app	4
Uncomfortable with technology generally	3
Subtotal	14
Other	21
Total Number of Issues	74
Total Number of Completed Calls	67

Notes: Interviewers could record multiple issues for each respondent. An earlier version of this table appeared in DeBell et al. (2022) but has been revised and extended.

Response to Interviewers in 2023 ANES Pretest

Interviewers in the 2023 Pretest attempted to gain cooperation to participate in the video interviews at the end of Wave 1 in-person interview. Respondents who did not agree to participate in the video interview one month later were asked why they did not want to participate. Respondents could provide as many explanations as they wanted, and interviewers took notes on their answers. Responses were recorded for a total of 75 respondents. These were then coded for the presence or absence of a number of concerns related to non-response and then organized by category type into Table 9. More information about the coding can be found in the Appendix D. Although only 24 responses were about video, there were a number of responses about technology generally. Overall, the main reasons respondents did not want to complete the video interview could be categorized as concerns about privacy, lack of trust in technology, dislike of videoconferencing or technology, or lack of skills. Not many respondents lacked equipment. Many respondents gave general or idiosyncratic reasons for not participating. These were related to the usual concerns about completing surveys (e.g., "too busy"), or respondents may have had reasons for declining the interview that were related to video that they did not share with the interviewer.

Differential Nonresponse (RQ5)

Next, we look within the sequential video-mixed condition to see which respondents were more likely to respond to the video request and which were more likely to wait and respond in other modes. We examine whether respondent attitudes (i.e., social trust and political interest) and access to technology (i.e.,

Table 9 ANES 2023 Pretest: Issues mentioned by respondents

Issue	*N*
General lack of trust in technology	13
Video Privacy or Image Concerns:	
Did not want their image appearing on video	6
Did not want their surroundings appearing on video	1
Concerned that they are being recorded	3
Privacy/confidentiality of video or image	3
Subtotal	13
Dislikes technology or using technology:	
Doesn't like internet	4
Doesn't like videoconferencing	7
Generally doesn't like technology	4
Subtotal	15
Lacks Skills or uncomfortable with video/technology:	
Don't use videoconferencing	4
Not familiar/comfortable with video technology	5
Not familiar/comfortable with technology generally	2
Subtotal	11
Lacks equipment:	
Does not have a capable device (smartphone, computer)	1
Does not have internet	2
Subtotal	3
Other issues:	
Don't like surveys	3
General privacy concerns	4
Too busy	18
Don't want to	10
Other	14
Subtotal	49
Total number of concerns related specifically to video	24
Total concerns over all	104
Total number of respondents	75

Notes: Interviewers could record multiple issues for each respondent. Responses were recorded for respondents who declined a follow-up interview during the first in-person interview.

internet at home and access to the internet via phone) are associated with this outcome. Table 10 shows the results of a logistic regression predicting video completion relative to completion through other modes (i.e., web, phone) among those respondents assigned to the video-mixed group. These results underscore previous findings. Those with higher levels of education were more likely to participate by video, as were Democrats and Republicans relative to independents. Those with higher levels of trust and access to the internet on their phones were also more likely to participate by video.

Switching to the 2023 pretest results, Table 11 shows a comparison of the difference in respondent attitudes among those who responded in person (Wave 1) compared to the video (Wave 2) follow-up. First, the table shows that 67.1% of respondents dislike video surveys, with a lower proportion of respondents disliking paper and web. Similarly, Schober and colleagues (Schober et al., 2023) show that respondents in their study gave lower ratings for their willingness to participate in live video surveys relative to other modes, including in-person, phone, and web. There are several significant differences between those who participated in the in-person wave and those who completed the video follow-up, which are shown in Table 11. However, the largest differences between those who completed the video follow-up and those who completed only the in-person are (a) their comfort levels with a smartphone, (b) their difficulty with video calling, and (c) whether they like video surveys.

Table 10 Logistic Regression Predicting Video Completion to Pre-Election Survey in Video-Mixed (Video>Web>Phone) Group, 2020 ANES (Unweighted)

Independent variables	*B*	*SE*	*z*	*p*
Age	−0.10	0.35	−0.30	.764
Education	1.03	0.34	3.05	.002
Female	0.18	0.16	1.11	.266
Income	0.16	0.32	0.50	.617
Black (r: White)	0.23	0.30	0.78	.435
Hispanic	0.12	0.32	0.36	.719
Other race	−0.05	0.33	−0.14	.886
Democrat (r: Independent)	1.73	0.40	4.36	.000
Republican	1.37	0.41	3.37	.001
Homeowner[a] (r: Rent/Other)	−0.41	0.20	−2.05	.040
Social trust	1.34	0.41	3.27	.001
Political interest	0.11	0.18	0.63	.530
Internet at home	1.01	0.69	1.46	.143
Access to internet on cell phone	0.87	0.36	2.44	.015
Constant	−4.65	0.86	−5.42	.000
N	698			
Pseudo R^2	.094			

Notes: Logistic regression is unweighted. All variables are from the pre-election survey. Non-dichotomous variables are recoded 0-1.
[a] Home tenure (i.e., homeowner) combined two versions of a question that were assigned as split half: the CPS and ANES versions.

Table 11 ANES 2023 Video Pretest Wave 1 (In-person) and Wave 2 (Video) Comparison (Unweighted)

Characteristic	In-person Only (*N* = 109)	Video (*N* = 48)	Total (*N* = 157)
	Percent	Percent	Percent
Comfort with smartphone			
Not at all comfortable	15.0	0.0	10.3
Slightly comfortable	14.0	6.3	11.6
Moderately comfortable	27.1	20.8	25.2
Very comfortable	43.9	72.9	52.9
χ^2	14.682*		

Table 11 (continued)

Characteristic	In-person Only ($N = 109$)		Video ($N = 48$)	Total ($N = 157$)
	Percent		Percent	Percent
Ever participated in a video call				
Yes	81.5		95.8	85.9
No	18.5		4.2	14.1
χ^2		5.650*		
Difficulty video calling today				
Easy	63.2		93.6	72.5
Not easy	36.8		6.4	27.5
χ^2		15.120***		
Use the internet at home				
Yes	87.2		95.8	89.8
No	12.8		4.2	10.2
χ^2		2.742#		
Like web surveys				
Like	43.0		51.1	45.5
Neither like nor dislike	14.0		25.5	17.5
Dislike	43.0		23.4	37.0
χ^2		6.322*		
Like paper surveys				
Like	33.3		48.9	38.1
Neither like nor dislike	31.5		40.4	34.2
Dislike	35.2		10.6	27.7
χ^2		9.974*		
Like video surveys				
Like	11.0		34.8	18.1
Neither like nor dislike	12.8		19.6	14.8
Dislike	76.1		45.7	67.1
χ^2		15.589***		

Notes: The Pearson's χ^2 and significance levels in the table are for the comparison of the in-person and video cases. Data are unweighted. #$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Conclusion

Findings and Limitations

Findings from the ANES 2020 show that response rates were lower and that attrition was higher for video than for other modes (RQ1). Those who were more likely to be successfully recruited into the video mode tended to be more highly educated than benchmarks and other modes and were more likely to identify as Democrats (RQ2). Those who stayed in the 2020 study for the post-election survey by video mode tended to be older and more educated than those who dropped out of the video mode before the post-election survey (RQ3). However, relative to Wave 1 of the 2023 pretest, the data suggest younger respondents were less likely to drop out of the study for Wave 2, which was a switch from in-person to video and is in line with other research examining attrition in a live video panel survey (Arrue et al., 2023). Educated respondents were also less likely to attrite. Both qualitative and quantitative data indicated that respondents who declined to participate in video interviews disliked or were distrustful of technology in general (and video, in particular), had privacy concerns, were uncomfortable with technology (including smartphones), or lacked equipment (RQ5).

Many potential designs and implementations can be used to recruit respondents, and despite using two different designs (i.e., ABS recruitment to video in two waves relative to in-person recruitment to video in the second wave only) with different implementations (i.e., using a combination of on-demand interviews and appointment-setting relative to appointment-setting only), some conclusions can be drawn about recruitment practices (RQ4) and reasons for refusals (RQ5). In both studies, missed appointment rates were high. One useful strategy to increase response was to increase appointment reminders, potentially including reminder modes with more immediacy and visibility, such as text message. Another strategy, offering prepaid incentives (relative to postpaid incentives), produced a modest increase in response, an effect consistent with the literature on the relative impact of incentives (e.g., Church, 1993; Singer & Ye, 2013). One strategy that was tried but did not work as anticipated was the offer from interviewers to show respondents how to connect to video so they would be prepared for Wave 2; most respondents turned down the offer. This was an attempt to alleviate respondent concerns or inexperience with the mode, but it suggests some of these concerns may be difficult for interviewers to overcome. Other failed strategies included increasing the incentive amount (which was relatively high to begin with) and the possibility of using an alternative video platform.

Recruitment to video was one of the main challenges of these studies, but the study designs themselves limited the video response rates and potential comparability to other studies using video. As part of the sequential mixed mode approach in the 2020 ANES, the design quickly shifted respondents from video to other modes in the video-mixed condition to prioritize overall response rate and

sample size rather than video response. Because only 48% of the video-mixed group completed the video component, the analyses focused on mode rather than experimental groups. The 2023 Pretest used a convenience sample and had fewer contact attempts than a typical ANES study. In both studies, a longer field period might have allowed more respondents in hard-to-reach groups to be recruited into the studies and for larger sample sizes overall. However, many studies using video may also face similar constraints. Moreover, both studies faced similar hesitancy from respondents despite the different designs.

Discussion and Future Directions

The differences between who can be recruited into video relative to the population may be reduced over time as the technology continues to diffuse and people become more comfortable with it. The advantages of different modes can change over time because of changes in technology, changing respondent preferences for mode, and best practices in survey research. For example, phone surveys were once common, but the change from landline to cell phones along with the way people use their phones has contributed to the mode's declining popularity (e.g., Kennedy & Hartig, 2019; Olson, Smyth et al., 2021). Currently, 90% of American adults have a smartphone (Pew Research Center, 2024) and thus are equipped for video interviews, even if they have not yet participated in video communication. As respondents come to use video communication more frequently in their everyday lives, they may find the request to participate by video to be unremarkable, and recruitment will be less challenging. However, some differences are likely to remain in terms of who can be recruited to the mode, as respondent characteristics tend to differ by mode. This suggests that live video interviewing's best contribution to surveys may be as part of a mixed-mode design.

It is now common for studies to mix modes to address issues such as declining response rates and the potential for nonresponse bias (Atkeson et al., 2014, 2018; de Leeuw, 2005). In a mixed-mode design, individuals less likely to participate in one mode may participate in another, allowing for better representation of the population across modes. Because video appears more appealing to educated respondents and Democrats, a mixed-mode design with video could employ another mode to compensate. This could also extend beyond response rates and groups that are less likely to participate to take advantage of some of the other strengths and compensate for weaknesses across modes.

In assessing how viable live video is as a supplement or replacement for in-person interviews, questions remain. One of the largest is cost. Although expenses could be lower in video than traditional in-person designs, understanding cost will be challenging because it can be hard to disentangle those attributable to the mode itself from other elements of the study (see, e.g., Olson, Wagner et al.,

2021, on difficulties in estimating costs in surveys). Additionally, best practices in recruitment have not yet been established, including the best ways to invite sampled respondents, establish a video connection with respondents, pursue a reminder strategy, or overcome respondent concerns about the mode. More research is also needed about data quality, but the evidence so far does seem to indicate that live video interviews produce data of similar quality to in-person interviews (Endres et al., 2023) and can exceed online questionnaires in terms of data quality (Conrad et al., 2023). While further investigation is needed into the methods and best practices for live video interviewing, we are cautiously optimistic about its potential to supplement or replace some in-person interviewing in mixed-mode survey designs.

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Conflict of Interest

The authors declare no conflicts of interest.

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Appendix A

Implementation of the Video Interviews in the 2020 ANES and 2023 Pretest

In the 2020 ANES Time Series studies, when an interviewer was ready to take an available live video interview, the interviewer would launch a case management system within a web browser. The case management system would then provide the interviewer with a list of available respondents who had entered the live video interviewing queue. The interviewer could select among the available respondents, after which the interviewer and respondent would be prompted to launch Zoom. Zoom would launch for the interviewer in a second tab within their web browser, at which time the interviewer could see their own image and that of the respondent upon their joining. The interviewer would read a welcome script and then be prompted to launch the Blaise instrument (survey), which appeared in a third tab of their browser. The interviewer would navigate between the Zoom and survey tabs as necessary. Whenever a showcard was indicated for a question, the showcard was displayed to the respondent using screen sharing within Zoom, using a showcard file that was stored locally on the interviewer's computer.

To conduct video interviews in the 2023 Pretest, interviewers used a single laptop display, with the left-hand portion of the screen containing the instrument, and the right-hand portion containing the showcards to screenshare with the respondent. The Zoom window was kept on the right-hand portion of the screen when showcards were not being shared, and between the two windows when sharing the showcard.

Appendix B

Incentive Experiment and Connection Test Question in 2023 Pretest

To conduct the incentive experiment and connection test (described in the Design & Implementation section and the Results section under RQ4), the ANES 2023 Pretest used the following question:

> "We would like to do another interview in a few weeks. [INCENTIVE EXPERIMENT: We will give you $25 in cash right now if you agree to do the interview./ We will give you $25 for completing that interview.] I won't need to come to your home this time. We would like to complete this interview on video using Zoom. I will make it very easy by scheduling a time that is convenient for you, and by emailing you a link to click on to join the interview. There is nothing to download or install. [CONNEC-

TION TEST: I can show you how easy it will be right now if you'd like.] Are you willing to do this second interview over video?"

Appendix C

Attrition Among Fresh Web Cases, 2020 ANES

Table C1 Attrition among Fresh Web Cases in the 2020 ANES (Unweighted)

Characteristic	Completed Pre Only (Attrition Cases) (N = 549)	Completed Pre and Post (Reinterview Cases) (N = 4,394)	Difference (Attrition-Reinterview)
	Percent	Percent	Percent
Age			
18-29	17.0	14.0	3.0
30-39	17.2	17.8	−0.6
40-49	14.6	15.0	−0.4
50-59	18.0	16.5	1.5
60-69	17.4	19.1	−1.7
70 or older	15.8	17.6	−1.8
Mean deviation			1.5
χ^2	4.996		
Education			
Less than HS cred.	8.2	4.3	3.9
HS credential	22.9	15.5	7.4
Some college/AA degree	34.5	35.1	−0.6
Bachelor's degree	20.0	25.5	−5.5
Graduate degree	14.4	19.6	−5.2
Mean deviation			4.52
χ^2	44.902***		
Income			
Under $25,000	21.4	20.7	0.7
$25,000-$49,999	21.4	18.5	2.9
$50,000-$99,999	24.0	28.9	−4.9
$100,000 or more	33.2	31.9	1.3
Mean deviation			2.5
χ^2	5.818		

Table C1 (continued)

Characteristic	Completed Pre Only (Attrition Cases) (N = 549)	Completed Pre and Post (Reinterview Cases) (N = 4,394)	Difference (Attrition-Reinterview)
	Percent	Percent	Percent
Sex			
Male	48.9	45.4	3.5
Female	51.1	54.6	−3.5
Mean deviation			3.5
χ^2	2.296		
Race/Ethnicity			
White, non-Hispanic	66.9	73.5	−6.6
Black, non-Hispanic	9.2	8.8	0.4
Hispanic	11.7	8.7	3.0
Other, non-Hispanic	12.2	9.0	3.2
Mean deviation			3.3
χ^2	12.606**		
Party ID 7-point			
Strong Democrat	18.7	23.3	−4.6
Not strong Democrat	13.9	10.6	3.3
Lean Democrat	10.5	12.3	−1.8
Independent	12.9	12.8	0.1
Lean Republican	10.9	10.3	0.6
Not strong Republican	8.7	10.4	−1.7
Strong Republican	24.4	20.3	4.1
Mean deviation			2.3
χ^2	15.709*		
Home Tenure[a]			
Own	62.3	68.6	−6.3
Rent/Other	37.7	31.4	6.3
Mean deviation			6.3
χ^2	8.691**		

Notes: Data include all fresh cross-sectional web cases from the 2020 ANES Time Series Study, which includes web cases from the web-only, web-mixed, and video-mixed group. All web cases were offered web either first or second in the sequential, mixed groups. The Pearson's χ^2 and significance levels in the table are for the comparison of the attrition and reinterview cases in the first two columns. Data are unweighted. $^{\#}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

[a] Home tenure combined two versions of a question that were assigned as split half: the CPS and ANES versions.

Appendix D

Methods of Analysis for Issue Mentions by the Non-Respondents in ANES 2020 and the 2023 Pretest

The two interviewers who made up the refusal conversion team as part of the ANES 2020 Nonresponse Video Intervention were given an introductory script and a post-contact questionnaire where they recorded the outcome of calls. The script included the question: "Did you encounter any problems or have any concerns about the interview? What are they?" The interviewers recorded whether respondents mentioned any issues using the following question, which was part of the post-contact questionnaire:

Issues mentioned by respondent (check all that apply)

1. Uncomfortable with technology generally
2. Uncomfortable with videoconferencing generally
3. Uncomfortable with Zoom specifically
4. Did not want their image appearing on video
5. Did not want their surroundings appearing on video
6. Concerned that they are being recorded
7. Privacy/confidentiality of videoconferencing generally
8. Privacy/confidentiality of Zoom specifically
9. Security concerns about installing Zoom app
10. Technical difficulties in installing the Zoom app
11. Problems with them seeing us
12. Problems with us seeing them
13. Problems with them hearing us
14. Problems with us hearing them
15. Does not have a video camera
16. Does not have a screen/display
17. Does not have speakers

18. Does not have a microphone

19. Does not have a capable device (smartphone, tablet, computer, laptop) at all

20. Other, specify _____

Each issue was included in the ANES 2020 Methodology Dataset Release (2021) as binary response variables. Frequencies were run on each of the 20 issues and included in the table if the issue occurred more than once. The set of issues with a frequency greater than one were then organized by topics into themed categories that make up Table 8.

For the 2023 Pretest, interviewers asked respondents who declined to participate in the video follow-up the question, "Why do you not want to do the video interview? (Write reasons.)" and took notes on their answers. Notes were taken for 75 respondents. A coding scheme was created to code these notes for reasons for non-participation. To create the coding scheme, categories from the issue checklist used in the ANES 2020 Nonresponse Video Intervention were used, additional categories were created, and modifications were made to some of the 2020 checklist items after a review of the responses. Each response was then coded for the presence or absence of the following reasons:

- Too busy
- Don't want to
- Don't have equipment generally
- Does not have a microphone
- Does not have a capable device (phone, computer)
- Does not have a video camera
- Does not have speakers
- No internet
- Video privacy or image concerns generally
- Do not want image appearing on video
- Do not want surroundings appearing
- Concern they are being recorded
- Privacy/confidentiality of video
- General privacy concerns
- General lack of trust in technology
- Dislike technology generally
- Don't like Internet
- Don't like Zoom/video
- Don't use Zoom/video

- Not familiar/comfortable with video
- Not familiar/comfortable with technology generally
- Don't like surveys
- Other

Responses were coded for present or absent for all the categories because some responses contained multiple reasons. For example, the response, "Not comfortable talking to someone I don't know. Don't want my image online. AI Artificial Intelligence is a big issue," includes several reasons. To create Table 9, frequencies were run on each of the coded categories (i.e., reasons for non-participation). Then the reasons were organized by topic into themed categories, and reasons that were not present in the data were cut. The average percent agreement based on double-coding of the variables appearing in the table was 94.1%.