



Knowledge and Sentiments of *Roe v. Wade* in the Wake of Justice Kavanaugh's Nomination to the U.S. Supreme Court

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Abstract

With Justice Kavanaugh joining the U.S. Supreme Court, there is speculation that *Roe v. Wade* may be overturned. For decades, public opinion polls have asked people how they feel about overturning *Roe v. Wade*. However, people may be uninformed about *Roe v. Wade* and the implications of overturning the decision. To account for this, we examined people's knowledge of and sentiments toward *Roe v. Wade* using a tiered survey design. First, we assessed participants' baseline knowledge. Next, we provided information about *Roe v. Wade* and implications associated with overturning the decision. Finally, we assessed people's sentiments toward *Roe v. Wade*. Using quota-based sampling, data were collected from a national sample of English- and Spanish-speaking US adults ($N = 2557$). Results suggest people are somewhat knowledgeable—they know *Roe v. Wade* pertains to abortion and they know abortion is currently legal. However, people were less knowledgeable about implications of overturning the decision. Although the majority of our sample supported upholding *Roe v. Wade*, support was lower compared with previous research. Perhaps being more informed dissuaded some support. We recommend researchers use comprehensive mechanisms to assess complex issues, like *Roe v. Wade*. We also recommend policy-makers avoid basing important decisions on data from single, simplistic items.

Keywords *Roe v. Wade* · Abortion · Public opinion · Abortion knowledge · Abortion sentiments

Introduction

Abortion attitudes have been regularly assessed using public opinion polls and national surveys such as the General Social Survey (GSS) since before the landmark decision of *Roe v. Wade* in 1973. Researchers have measured abortion attitudes using multiple frameworks including the legality of abortion in general, the legality of abortion under certain circumstances, the morality of abortion, and the acceptability of abortion (see Bowman & Sims, 2017 for review). For example,

Pew Research Center assessed abortion legality by asking participants if abortion should be (1) legal in all cases, (2) legal in most cases, (3) illegal in all cases, or (4) illegal in most cases (Dimock, Lugo, Doherty, & Cooperman, 2013). The GSS (e.g., Smith, Davern, Freese, & Hout, 2018) includes a more nuanced assessment of abortion legality by asking whether it should be possible for a woman to obtain a legal abortion given specific circumstances—birth defects, life endangerment, rape, affordability, not being married, or not wanting more children.

Another specific dimension of abortion legality commonly assessed via public opinion polls is people's attitudes toward and knowledge of *Roe v. Wade*—the Supreme Court decision establishing abortion before viability as a constitutionally protected right (Watson, 2018, p. 41). Assessing people's knowledge and attitudes toward *Roe v. Wade* is challenging for a variety of reasons. First, it is difficult to assess any complex issue via public opinion polling as polls are typically limited to a few oversimplified questions to assess a particular construct (Adamek, 1994). Polls tend to continue to use simplified questions, allowing researchers to compare attitudinal trends over time. However, a second complication arises when issues are complex and temporal—the initial item may no

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longer be adequate to explore a specific topic (Adamek, 1994). Third, many adults in the USA may be underinformed or uninformed about Supreme Court decisions and their impact on policy and legislation (Adamek, 1994). As such, items may not be interpreted the same over time as knowledge becomes distorted. Thus, the extent that researchers are accurately assessing people's true attitudes is questionable.

Public opinion about *Roe v. Wade* seems relatively stable over the last 30 years based on polling data. According to most polls, upwards of 60% of US adults indicated they did not want to see *Roe v. Wade* overturned (Bowman & Sims, 2017). From 1989 to 2018, Gallup found that between 58 and 64% of adults in the USA did not want to see the decision in *Roe v. Wade* overturned, and from 2013 to 2016, Pew Research Center found that 62 to 69% did not want to see *Roe v. Wade* overturned (Bowman & Sims, 2017). A poll conducted by Harris Interactive found less support for upholding *Roe v. Wade* though (Taylor, 2009). According to the same poll, only a slight majority (51%) of US adults reported favoring the decision in *Roe v. Wade*. It is worth noting that compared with the *Roe v. Wade* questions asked by Gallup and Pew Research Center, the question asked in the Harris Interactive poll (Taylor, 2009, p. 2) was phrased differently. It read: "In 1973, the U.S. Supreme Court decided that states laws which made it illegal for a woman to have an abortion up to three months of pregnancy were unconstitutional, and that the decision on whether a woman should have an abortion up to three months of pregnancy should be left to the woman and her doctor to decide. In general, do you favor or oppose this part of the U.S. Supreme Court decision making abortions up to three months of pregnancy legal?" This item is different from others in two ways. First, the question does not include the name of the case. Second, this question provides more and different details about the decision compared with some of the other polling items, which typically describe the decision as establishing a woman's constitutional right to an abortion (see Bowman & Sims, 2017 for a review of polling items). These differences may explain, in part, the discrepancy in support found in Harris Interactive's poll compared with other polls.

Support for *Roe v. Wade* varies across some demographic characteristics. People who identify as Republican, politically conservative, or evangelical more frequently report wanting to overturn *Roe v. Wade* (Dimock et al., 2013; Fingerhut, 2017). Pew Research Center found that 54% of White evangelical Protestants favored **overturning** *Roe v. Wade*; however, the majority of mainline Protestants (76%), Black Protestants (65%), White Catholics (63%), and religiously unaffiliated participants (82%) indicated that *Roe v. Wade* **should not be overturned** (Dimock et al., 2013). Additionally, 50% of people who reported attending religious services once or more a week supported overturning *Roe v. Wade* compared with only 17% of participants who reported attending religious services

less frequently. Gallup also found that opinions were polarized on political party lines with 81% of Democrats, 70% of Independents, and 41% of Republicans not wanting *Roe v. Wade* overturned. Comparatively, 51% of Republicans, 22% of Independents, and 13% of Democrats reported wanting it overturned (Brenan, 2018). According to the Harris Interactive poll, there are race and ethnic differences—people who identified as Black (35%) and Hispanic (40%) reported less support for the decision compared with White participants (55%; Humphrey et al., 2009).

There is less variation in people's attitudes toward overturning *Roe v. Wade* based on gender—65% of women and 63% of men reported agreeing with the *Roe v. Wade* Supreme Court decision (Malloy & Smith, 2018) and 64% of women and 63% of men indicated that *Roe v. Wade* should not be overturned (Dimock et al., 2013). There are also small differences by age category with 61% to 69% of adults in age categories ranging from 29 to 64 indicating that *Roe v. Wade* should not be overturned (Dimock et al., 2013), whereas adults 65 years and older exhibit less support (52%). The percent of adults in support of *Roe v. Wade* increases as educational level increases, ranging from 53% of those with a high school diploma or less to 82% of those with a graduate degree (Dimock et al., 2013; Humphrey et al., 2009). Similarly, people with higher household incomes tend to report more support.

Although pollsters have asked about *Roe v. Wade* for decades, the extent that people understand the content and implications of the decision is questionable. Dimock et al. (2013) found that appropriately 40% of US adults did not know that the Supreme Court decision in *Roe v. Wade* was related to abortion. Further, knowledge is not consistent across some demographic characteristics (e.g., age, education, political affiliation). For example, only 44% of 18 to 29 year olds correctly identified that *Roe v. Wade* is related to abortion compared with 64% of 30 to 49 year olds, 74% of 50 to 64 year olds, and 62% of those 65 and older. Additionally, only 47% of participants with a high school degree or less correctly indicated that *Roe v. Wade* is related to abortion compared with 63% of those with some college, 79% of those who graduated college, and 91% of those with a post-graduate degree. Finally, 68% of Republicans compared with 63% of Independents, and 57% of Democrats knew *Roe v. Wade* is related to abortion.

Despite the fact that approximately 60% of adults in the USA correctly indicated that *Roe v. Wade* dealt with abortion, some of these people may not understand the details or implications of the case and decision. Unfortunately, research assessing people's nuanced understanding is limited. It is important to assess people's knowledge about what the decision entails and the resulting implications in order to more accurately understand how people feel about it.

Assessing people's accurate opinions regarding *Roe v. Wade* is particularly salient at this moment in time due to the recent confirmation of Justice Brett Kavanaugh to the Supreme Court. Since his nomination and subsequent confirmation, political analysts and activists on both sides of the abortion movement have questioned the extent that abortion will remain legal in the USA (e.g., Toobin, 2018; Times, 2018). Indeed, some have argued that with the addition of Justice Kavanaugh to the Supreme Court, there are enough justices opposed to abortion such that *Roe v. Wade* could be overturned if a challenge to the case is brought before the Court. As such, this is a particularly relevant and timely social policy issue.

Current Study

The purpose of the current study is to examine people's knowledge of and sentiments regarding *Roe v. Wade*. This study extends previous work in multiple ways. First, according to Cook, Jelen, and Wilcox (1993), asking multiple specific questions about a topic results in more reliable estimates of people's opinions on that particular topic compared with assessing people's opinions via a single, general item. Most public opinion research assesses people's knowledge of or feelings toward *Roe v. Wade* via single items, which Adamek (1994) points out is problematic as *Roe v. Wade* is a complex issue. Our study extends previous research by providing a more comprehensive assessment of both knowledge and sentiment. We incorporated several items for each and used polytomous scale response options when assessing people's sentiments toward *Roe v. Wade* to account for people who may have more complex views which may not be captured effectively with dichotomous response options (e.g., agree/disagree [Jozkowski, Crawford, & Hunt, 2018]). Second, we used quota-based sampling to oversample participants based on race/ethnicity and to achieve diversity in participants' age and political affiliation. Third, to account for the growing linguistic diversity in the USA, we administered the survey in English and Spanish to recruit participants who spoke both languages. Finally, our study is unique in design as we acknowledge that people may be unaware of the Supreme Court decision in *Roe v. Wade* as well as the implications associated with overturning the decision. Thus, after assessing basic knowledge, we provided participants with information about the case itself and implications of overturning it prior to assessing sentiment. This allows for a potentially more informed assessment of their feelings toward *Roe v. Wade*.

Specifically, we used a tiered design by first asking baseline *Roe v. Wade* knowledge questions. Next, we informed participants that *Roe v. Wade* was associated with abortion and then conducted a second knowledge assessment regarding outcomes if *Roe v. Wade* were overturned. We then informed

participants about what would actually happen if *Roe v. Wade* were overturned. After providing this information, we assessed participants' sentiments toward overturning *Roe v. Wade*. This tiered design allows for a comparison of how people respond to *Roe v. Wade* questions when they are provided information about implications of overturning the decision compared with previous research when explanations were not provided.

Based on previous research, we have three hypotheses. First, we hypothesize that a majority of participants will know that *Roe v. Wade* is related to abortion and that abortion is legal in the USA and their state. However, second, we posit that people will be less knowledgeable about the implications of overturning *Roe v. Wade*. Third, given that certain subgroups appear to be more vested in the abortion movement—(1) people who identify as pro-choice and pro-life and (2) people who identify as Republican and Democrat—we posit that knowledge will function differently across political and abortion identity groups. That is, people who identify as either pro-life or pro-choice will be more knowledgeable than people who do not identify as either. And people who identify as a Republican or Democrat will be more knowledgeable about *Roe v. Wade* than people who identify as an Independent, some other political party, or those with no party affiliation. In addition to testing these hypotheses, we report findings related to *Roe v. Wade* knowledge and sentiments for various demographic subgroups for comparison with prior research (e.g., gender, race/ethnicity, age, education, rurality, education, income, religious affiliation, religiosity).

Method

Procedures and Participants

Data were collected in Summer 2018 via a national survey administered by Qualtrics Online Survey Company. Qualtrics is an online research sample aggregator that identified people from their national participant pool who met the study's eligibility requirements. Incentivized invitations were sent to eligible participants. Those interested in completing the survey read a brief informed consent page, which provided information about the study. Participants were notified that by continuing with the survey, they were indicating their consent to participate. The study protocol was approved by the Institutional Review Board prior to survey dissemination.

A total of 3030 participants were recruited from Qualtrics' panel. Eligibility criteria included being 18 years of age or older, residing in the USA, and being able to read in either English or Spanish. Quota-based sampling was used to achieve a diverse sample. Quotas were set for language of survey administration (33% Spanish and 67% English), gender (50% women; 50% men), age (12.8% 18–24; 17.7% 35–

34; 16.7% 35–44; 17.7% 45–54; 16.4% 55–64; and 18.8% 65 and up), race/ethnicity (25% Black/African American; 25% White; 25% Hispanic; 25% other), and political affiliation (30% Democrat; 30% Republican; 30% Independent; 10% other).

A minimum time for survey completion of 10 minutes was selected as one quality control indicator. Data for 10% ($n = 330$) of participants were set aside for insufficient time. An additional 140 participants were set aside due to missing data or an incorrect response to a data quality item embedded in the survey, resulting in an analytic sample of 2557. Among the analytic sample, 34% of participants completed the survey in Spanish and 66% completed the survey in English. The mean age of participants was 46 years old ($SD = 15.79$) See Table 1 for full demographic information.

Measures

The survey comprised items assessing participants' knowledge of and sentiments toward abortion and *Roe v. Wade*, abortion-related advocacy behaviors, and participant demographics. The *Roe v. Wade* knowledge and sentiment items were generated specifically for this survey in combination with previous public opinion polling questions. Items were designed concurrently in English and Spanish using a multi-stage, dual-focused approach for instrument development and evaluation (Erkut, 2010; Kaplan, Valdez, Jozkowski, & Crawford, 2019). Items were also evaluated by a panel of content and measurement experts, including a legal scholar.

Demographic Characteristics Participants were asked to indicate their gender, age, race/ethnicity, education, political affiliation, religion, abortion identity label, and the state where they live (see Table 1 for response options).

***Roe v. Wade* Knowledge** There were two sets of questions assessing *Roe v. Wade* and abortion legality knowledge. The first set of items comprises three questions. The first item assessed people's knowledge regarding what *Roe v. Wade* pertains to: *The Supreme Court ruling in Roe v. Wade deals with constitutional rights related to*, with response options randomly ordered—(1) *Gun ownership*, (2) *Abortion*, (3) *Desegregation of public schools*, and (4) *Corporate political donations*. The second item asked about knowledge of abortion legality: *Based on what you know or have heard, is it legal to get an abortion in the United States* with response options *Yes, it is legal here*, *No abortion is not legal here*, and *Not sure/Don't know*. The third item was structured the same, but asked participants if abortion was legal in the state in which they currently reside.

The second set of questions were true/false and assessed participants' knowledge of outcomes should *Roe v. Wade* be overturned. These two questions include: (1) *If the Supreme*

Table 1 Sample descriptive statistics

	Spanish		English		Total	
	No.	%	No.	%	No.	%
Gender						
Women	550	64.1	854	50.3	1404	54.9
Men	308	35.9	845	49.7	1153	45.1
Race/ethnicity						
White	160	18.6	867	51.0	1027	40.2
Black or African American	50	5.8	418	24.6	468	18.3
Hispanic	545	63.5	146	8.6	691	27.0
Asian American	30	3.5	106	6.2	136	5.3
Bi-Racial/Multi-Racial	37	4.3	82	4.8	119	4.7
Other	36	4.2	80	4.7	116	4.5
Age						
18–29	190	22.1	331	19.5	521	20.4
30–39	147	17.1	292	17.2	439	17.2
40–49	180	21.0	286	16.8	466	18.2
50–59	219	25.5	308	18.1	527	20.6
60–69	106	12.4	374	22.0	480	18.8
70+	16	1.9	108	6.4	124	4.8
Education						
Less than high school	47	5.5	60	3.5	107	4.2
High school or equivalent	188	21.9	417	24.5	605	23.7
Some college/associates	264	30.8	709	41.7	973	38.1
Bachelor's degree	239	27.9	341	20.1	580	22.7
Graduate degree	120	14.0	172	10.1	292	11.4
Religion						
Evangelical	186	21.7	431	25.4	617	24.1
Mainline Protestant	109	12.7	382	22.5	491	19.2
Catholic	399	46.5	338	19.9	737	28.8
Other Christian	36	4.2	112	6.6	148	5.8
Other	38	4.4	145	8.5	183	7.2
Agnostic/Atheist	90	10.5	291	17.1	381	14.9
Political affiliation						
Republican	181	21.1	505	29.7	686	26.8
Democrat	370	43.1	504	29.7	874	34.2
Independent	171	19.9	526	31.0	697	27.3
No party	116	13.5	136	8.0	252	9.9
Other	20	2.3	28	1.6	48	1.9
Abortion identity label						
Pro-Life	226	26.3	498	29.3	724	28.3
Pro-Choice	392	45.7	736	43.3	1128	44.1
Equally both	113	13.2	241	14.2	354	13.8
Neither	127	14.8	224	13.2	351	13.7

Court overturned (got rid of) Roe v. Wade, it would be illegal to get an abortion everywhere in the United States (Correct Answer: False) and (2) *If the Supreme Court overturned (got rid of) Roe v. Wade, states could pass more laws restricting*

Table 2 Percent correct for *Roe v. Wade* knowledge questions across subgroups

	About abortion		Legal: own state		Legal: USA		Overtum illegal		Overtum restrictions	
	No.	%	No.	%	No.	%	No.	%	No.	%
Overall	1767	69.1	1717	67.2	2000	78.2	877	34.3	2158	84.4
Language										
Spanish	482	56.2	519	60.5	592	69.0	282	32.9	690	80.4
English	1285	75.6	1198	70.5	1408	82.9	595	35.0	1468	86.4
Gender										
Women	886	63.1	925	65.9	1064	75.8	444	31.6	1176	83.8
Men	881	76.4	792	68.7	936	81.2	433	37.6	982	85.2
Race/ethnicity										
White	843	82.1	727	70.8	868	84.5	398	38.8	884	86.1
Black or African American	304	65.0	339	72.4	388	82.9	132	28.2	402	85.9
Hispanic	368	53.3	403	58.3	469	67.9	225	32.6	561	81.2
Asian American	88	64.7	78	57.4	89	65.4	43	31.6	113	83.1
Bi-Racial/Multi-Racial	84	70.6	89	74.8	99	83.2	42	35.3	95	79.8
Other	80	69.0	81	69.8	87	75.0	37	31.9	103	88.8
Age										
18–29	257	49.3	318	61	371	71.2	161	30.9	420	80.6
30–39	255	58.1	288	65.6	333	75.9	142	32.3	370	84.3
40–49	333	71.5	335	71.9	375	80.5	150	32.2	396	85.0
50–59	390	74.0	361	68.5	407	77.2	179	34.0	449	85.2
60–69	414	86.2	332	69.2	409	85.2	202	42.1	415	86.5
70+	118	95.2	83	66.9	105	84.7	43	34.7	108	87.1
Education										
Less than high school	44	41.1	61	57	71	66.4	24	22.4	84	78.5
High school or equivalent	348	57.5	333	55	425	70.2	199	32.9	497	82.1
Some college/associates	697	71.6	680	69.9	785	80.7	329	33.8	821	84.4
Bachelor's degree	451	77.8	431	74.3	481	82.9	214	36.9	504	86.9
Graduate degree	227	77.7	212	72.6	238	81.5	111	38.0	252	86.3
Religion										
Evangelical	408	66.1	416	67.4	496	80.4	201	32.6	515	83.5
Mainline Protestant	356	72.5	353	71.9	412	83.9	159	32.4	426	86.8
Catholic	473	64.2	462	62.7	523	71.0	259	35.1	602	81.7
Other Christian	106	71.6	95	64.2	115	77.7	42	28.4	125	84.5
Other	132	72.1	117	63.9	138	75.4	58	31.7	159	86.9
Agnostic/Atheist	292	76.6	274	71.9	316	82.9	158	41.5	331	86.9
Political affiliation										
Republican	518	75.5	474	69.1	566	82.5	236	34.4	574	83.7
Democrat	549	62.8	622	71.2	683	78.1	268	30.7	748	85.6
Independent	529	75.9	465	66.7	558	80.1	259	37.2	590	84.6
No party	138	54.8	122	48.4	154	61.1	96	38.1	204	81.0
Other	33	68.8	34	70.8	39	81.2	18	37.5	42	87.5
Abortion identity label										
Pro-Life	548	75.7	477	65.9	569	78.6	262	36.2	621	85.8
Pro-Choice	817	72.4	861	76.3	955	84.7	387	34.3	987	87.5
Equally both	218	61.6	206	58.2	255	72.0	107	30.2	285	80.5
Neither	184	52.4	173	49.3	221	63.0	121	34.5	265	75.5

abortion than they can now (Correct Answer: True). See Table 2 for a summary of participants' knowledge for each question; questions are listed in the order they were presented. Individual questions were analyzed to provide a comparison of subgroup responses at varying stages of the tiered design where incremental information about *Roe v. Wade* was provided. Questions were also summed to create the *Roe v. Wade* knowledge variable with greater scores indicating more knowledge. Knowledge scores ranged from zero (indicating no knowledge) to five (indicating highest level of knowledge).

Roe v. Wade Sentiments The survey included four questions assessing participants' feelings toward *Roe v. Wade*. Response options were presented in a seven-point bipolar slider format with a neutral response option in the middle. The four *Roe v. Wade* sentiment questions include the following: (1) *How would you feel if the Supreme Court overturned (got rid of) Roe v. Wade and removed the constitutional right for a woman to choose to have an abortion?* with response options ranging from *Very Happy* to *Neither Happy or Unhappy* to *Very Unhappy*; (2) *Do you think that Roe v. Wade should be overturned (gotten rid of)?* with response options ranging from *Definitely Should* to *Unsure* to *Definitely Should Not*; (3) *Which best represents your feelings towards Roe v. Wade* with response options of *Strong desire to see Roe v. Wade upheld (kept)* to *Strong desire to see Roe v. Wade overturned (gotten rid of)*; and (4) *Which best represents your feelings towards the constitutional right of a woman to choose to have an abortion until about 24 weeks?* with response options of *Strong desire to keep the right to have an abortion* to *Strong desire to remove the right to have an abortion*. Participants could select response options on either extreme or somewhere in the middle by sliding a response bar to the location that best corresponded to how they felt (see Table 2 for a summary of participants' mean responses for each of the four sentiment items). All four items (individually scored from zero to six) were summed to create the *Roe v. Wade* sentiment variable with scores ranging from zero (indicating no support for *Roe v. Wade*) to 24 (indicating highest level of support for *Roe v. Wade*).

Survey Flow Questions were intentionally presented to participants in a specific order. First, participants received demographic questions. Second, participants received the *Roe v. Wade* and abortion legality knowledge questions. After completing this first set of knowledge questions, participants were provided a narrative description of *Roe v. Wade* (*Roe v. Wade said that a woman has a constitutional right to choose to have an abortion until she is about 24 weeks pregnant*) followed by the second set of knowledge questions asking participants' perceptions of the impact of overturning *Roe v. Wade*. Participants were not given the option to return to previous pages.

After completing the second set of knowledge questions, participants were again provided narrative text. This text described what would happen if *Roe v. Wade* were overturned: *If Roe v. Wade was overturned (gotten rid of), the right to choose to have an abortion would no longer be constitutionally guaranteed. Instead, states could choose to prohibit abortion if they wanted. If Roe v. Wade was overturned by the Supreme Court, it is likely that abortion would be legal in some states and illegal in other states in all or most situations. Individual states would get to decide when a woman could have an abortion, if at all, and how far into a pregnancy a woman could obtain an abortion.* After being provided this information, participants were asked the abortion sentiment questions to assess their feelings toward *Roe v. Wade*.

Analyses

Descriptive statistics are provided as a description of the sample, participants' knowledge of *Roe v. Wade* and abortion legality, and sentiment toward *Roe v. Wade* and abortion legality. Chi-square measures of association were used to assess for group differences on *Roe v. Wade* knowledge and sentiment questions across various subgroups. Group comparisons on the scale-level variables were conducted using the Kruskal-Wallis test due to the data not meeting assumptions of normality.

Results

Descriptive Statistics

The mean age for the English sample is 47 years compared with 43 years of age for the Spanish sample. The Spanish sample had a higher proportion of females (64.1%) than the English sample (50.3%). And the Spanish sample had more participants with bachelor and graduate degrees whereas the English sample had a larger proportion of participants with an associate's degree or some college. The most common religious identification for the Spanish sample was Catholic (46.5%) whereas the English sample identified as evangelical within the religious categories (25.4%) with the greatest frequency. More of the Spanish sample identified as Democrat (43.1%) than the English sample (29.7%). Finally, pro-choice was the most common abortion identity category selected for both samples, with similar proportions for both groups in the other identity categories (see Table 1).

Roe v. Wade Knowledge

This section begins with a high-level overview of *Roe v. Wade* knowledge across the entire sample and concludes with knowledge findings across various subgroups (see Table 2

Table 3 Chi-square results for *Roe v. Wade* knowledge ($N=2557$)

Category	<i>df</i>	About abortion		Legal: own state		Legal: USA		Overturn illegal		Overturn restrictions>	
		χ^2	<i>p</i>	χ^2	<i>p</i>	χ^2	<i>p</i>	χ^2	<i>p</i>	χ^2	<i>p</i>
Language	1	101.073	< .001	25.961	< .001	64.412	< .001	1.173	.279	15.502	< .001
Gender	1	52.480	< .001	2.262	.133	10.819	.001	9.88	.002	0.954	.329
Race/ethnicity	5	167.452	< .001	45.952	< .001	88.83	< .001	18.465	.002	12.168	.033
Age	5	233.059	< .001	15.37	.009	34.955	< .001	17.273	.004	8.278	.142
Education	4	110.728	< .001	65.921	< .001	44.265	< .001	10.847	.028	8.699	.069
Religion	5	24.955	< .001	17.056	.004	39.665	< .001	13.392	.020	9.252	.099
Political affiliation	4	68.724	< .001	48.034	< .001	52.336	< .001	9.489	.050	3.862	.425
Abortion identity label	3	75.687	< .001	107.263	< .001	83.447	< .001	3.757	.289	34.458	< .001

for the percent correct for each of the knowledge questions across demographic subgroups). Corresponding results from chi-square tests examining knowledge across demographic subgroups can be found in Table 3. In the overall sample, 69.7% of respondents knew that the ruling in *Roe v. Wade* was related to abortion. Similarly, 67.2% of the sample knew that abortion was legal in their state. A higher percentage (78.2%) of the sample correctly indicated that abortion is legal in the USA. The sample was the most uninformed regarding the legal status of abortion should *Roe v. Wade* be overturned. Specifically, 65.7% of the sample incorrectly answered that abortion would be illegal everywhere if *Roe v. Wade* were overturned. Although overturning *Roe v. Wade* would result in abortion becoming immediately illegal in some states as a result of “trigger laws,” the overturning of *Roe v. Wade* in and of itself would not make abortion illegal. Finally, 84.4% of the sample correctly indicated that states could pass more abortion restrictions should *Roe v. Wade* be overturned.

Language Across all five knowledge questions (KQs), the Spanish sample was less likely to answer correctly. These differences were significant for every question with the exception of KQ4. The largest difference between the groups was for KQ1, with 25.7% more of the English sample getting the item correct compared with the Spanish sample.

Gender Across all five questions, a higher percent of men than women answered correctly. These differences were significant for KQs 1, 3, and 4. The largest difference was for KQ1, with 17% more men getting the question correct when compared with women (see Tables 2 and 3).

Race/Ethnicity When examining differences across race and ethnicity, there were significant differences for all five questions (see Table 3). For KQ1, White respondents were the most likely to answer correctly (82%), compared with Bi-Racial/Multi-Racial, which was the next highest group (71%). Hispanic participants (53%) were the least likely to

answer correctly (see Table 2). For KQs 2 and 3, Bi-Racial/Multi-Racial, Black/African American, and White participants had similar rates of correct answers and were the racial and ethnic groups most likely to answer the question correctly. For KQ4, White and Bi-Racial/Multi-Racial participants were the most likely to answer correctly and Black/African American participants were the least likely to answer correctly. For KQ5, participants who identified as “Other” were the most likely to answer correctly, followed by White and Black/African American participants (see Tables 2 and 3).

Age There were significant differences across age groups for every question except KQ5 (see Table 3). Consistently across all five questions, participants in the 18–29 year-old group were the least likely to answer correctly. There were less consistent trends when examining the participants most likely to answer correctly (see Table 2). For KQs 1 and 5, the likelihood of answering correctly increased as age increased. For KQ1, there was a difference of approximately 46 percentage points from the youngest to oldest participants. Although KQ5 followed the same trend, there was only a 6 percentage point difference. For KQ2, participants between the ages of 40 and 49 years old were the most likely to answer correctly. For KQ3, 85% of participants in the age groups of 60–69 years old and 70 years old or older answered correctly, making them the most likely to answer the question correctly. Similarly, participants who were 60–69 years old were the most likely to answer KQ4 correctly (42%) (see Tables 2 and 3).

Education For education, the group differences were significant for KQs 1 through 4 with marginally significant differences for KQ5 (see Table 3). Across all five knowledge questions, those with at least some college were the most likely to answer correctly and as college education increased so too did the percentage of respondents who answered correctly (see Table 2).

Religion Religion followed a similar pattern as education, with the group differences significant for KQs 1 through 4 and marginally significant for KQ5 (see Table 3). For KQs 1, 2, 3, and 5, those identifying as Catholic were the least likely to answer the question correctly (see Table 2). Across all five questions, those identifying as Agnostic or Atheist had one of the highest rates of correct responses. With the exception of KQ4, mainline Protestant respondents also had one of the highest rates of correct responses.

Political Affiliation There were significant group differences across political affiliation for KQs 1 through 4. For KQ5, group differences across political affiliation were not significant (see Table 3). With the exception of KQ4, those who did not identify with a party were the least likely to answer correctly. For KQs 1, 3, and 4, those identifying as Democrat were the least likely to answer correctly among those with a political party. For KQs 1 and 3, those identifying as Republican and Independent were the most likely to answer correctly. For KQ2, participants identifying as Democrat or Other were the most likely to answer correctly. For KQ4, those identifying as Other or “No Party” were the most likely to answer correctly (see Tables 2 and 3).

Abortion Identity Labels Across abortion identity labels, group differences were significant for KQs 1, 2, 3, and 5 (see Table 3). With the exception of KQ4, those who identified as neither Pro-Life nor Pro-Choice were the least likely to answer correctly. Those who identified as Pro-Life or Pro-Choice were generally the most likely to answer correctly. For KQs 1 and 4, those identifying as Pro-Life were the most likely to answer correctly, and for KQs 2, 3, and 5, those identifying as Pro-Choice were the most likely to answer correctly (see Table 2). The difference between Pro-Life and Pro-Choice groups was less than 3-percentage points for KQs 1, 4, and 5. The difference between Pro-Choice and Pro-Life respondents was the greatest for KQ2 (10.4 points) and KQ4 (6.1 points).

Overview In general, a few trends emerged across the abortion knowledge questions. For language, the English sample was more knowledgeable. Although the group differences across gender were not always significant, men were consistently more likely to answer correctly. There were significant group differences across race and ethnicity for all five questions but there were not clear trends regarding who was most likely to answer correctly. There were significant group differences across age for four of the five knowledge questions. With some exceptions, the general trend was that older participants were more likely to answer correctly than those who are younger. Results were similar for education and religion with group differences being at least marginally significant across all five

knowledge questions. In general, the likelihood of answering correctly increases with education, although the differences were less pronounced among those with at least some college education. With the exception of KQ4, those identifying as Catholic were the least likely to answer correctly. Those identifying as Atheist or Agnostic were consistently one of the groups most likely to answer correctly.

Across political affiliation, group differences were significant for every question except KQ5. In general, those who did not identify with a party were the least likely to answer correctly. With the exception of KQ1, the differences between those identifying as Republican, Democrat, Independent, and Other did not exceed 6-percentage points. However, for KQ1, there was a 13-percentage point difference between both Republicans and Independent when compared with Democrats. With the exception of KQ4, group differences across abortion identity labels were significant. Those who did not identify with Pro-Choice or Pro-Life labels were consistently the least likely to answer correctly and those who identified as either Pro-Life or Pro-Choice were the most likely to answer correctly.

Roe v. Wade Sentiment

This section begins with an overview of *Roe v. Wade* sentiments across the entire sample and concludes with sentiment findings across different subgroups. Table 4 contains a breakdown of the four *Roe v. Wade* sentiment questions and the combined sentiment scores. For the individual questions, a score of higher than three suggests a preference for upholding *Roe v. Wade*. The final row shows the mean for the combined *Roe v. Wade* sentiment score. The combined scores range from 0 to 24. A higher score represents more support for upholding *Roe v. Wade*. The mean scores for *Roe v. Wade* sentiments across subgroups can be found in Table 5. Results from Kruskal-Wallis tests can be found in Table 6. In the overall sample, participants showed the most support for upholding *Roe v. Wade* in SQ2 (3.63) and SQ3 (3.62). Although support was slightly lower, people were still generally supportive of upholding *Roe v. Wade* in SQ1 (3.49) and SQ4 (3.47). The mean combined *Roe v. Wade* sentiment score for the entire sample was 14.21, indicating an overall preference for upholding *Roe v. Wade* (see Table 5).

Language There were no significant differences between the English and Spanish participants across SQ1, SQ2, and SQ3 (see Table 6). However, for both SQ4 and the *Roe v. Wade* sentiment score, there were significant differences between the English and Spanish samples. For both, the English sample had scores indicative of more support for upholding *Roe v. Wade* (see Table 5).

Table 4 *Roe v. Wade* sentiments

	Spanish		English		Total	
	No.	%	No.	%	No.	%
Feel if overturned						
0—Very happy	133	15.5	272	16.0	405	15.8
1	91	10.6	123	7.2	214	8.4
2	77	9.0	119	7.0	196	7.7
3—Neither	129	15.0	298	17.5	427	16.7
4	87	10.1	186	10.9	273	10.7
5	113	13.2	202	11.9	315	12.3
6—Very unhappy	228	26.6	499	29.4	727	28.4
Should be overturned						
0—Definitely should	122	14.2	313	18.4	435	17.0
1	76	8.9	94	5.5	170	6.6
2	76	8.9	112	6.6	188	7.4
3—Unsure	118	13.8	237	13.9	355	13.9
4	96	11.2	163	9.6	259	10.1
5	100	11.7	163	9.6	263	10.3
6—Definitely should not	270	31.5	617	36.3	887	34.7
Uphold <i>Roe v. Wade</i>						
0—Strong desire to see overturned	130	15.2	285	16.8	415	16.2
1	66	7.7	102	6.0	168	6.6
2	74	8.6	121	7.1	195	7.6
3—No preference	120	14.0	246	14.5	366	14.3
4	102	11.9	182	10.7	284	11.1
5	118	13.8	200	11.8	318	12.4
6—Strong desire to see upheld	248	28.9	563	33.1	811	31.7
Uphold const. right abortion						
0—Strong desire to overturn	179	20.9	303	17.8	482	18.9
1	75	8.7	122	7.2	197	7.7
2	81	9.4	133	7.8	214	8.4
3—No preference	83	9.7	192	11.3	275	10.8
4	96	11.2	202	11.9	298	11.7
5	104	12.1	206	12.1	310	12.1
6—Strong desire to keep	240	28.0	541	31.8	781	30.5
Mean of combined sentiment (0–24)		13.86		14.38		14.21

Gender Differences across gender were significant for the sentiment score, SQ1, SQ2, and SQ3. The differences for SQ4 bordered on marginal significance (see Table 6). Although scores for both women and men indicated a preference for upholding *Roe v. Wade*, women were more supportive of upholding *Roe v. Wade* (see Table 5).

Race/Ethnicity Across racial and ethnic groups, there were significant group differences for all four questions and the sentiment score. For all four questions, those identifying as Black/African American or Bi-Racial/Multi-Racial

exhibited scores indicating the most support of upholding *Roe v. Wade*. For all four questions, those identifying as White, Hispanic, and Other had the lowest scores. Those identifying as White (13.34) had the lowest overall sentiment score. Those identifying as Bi-Racial/Multi-Racial (16.10) or Black/African American (16.05) had the highest scores (see Tables 5 and 6).

Age Differences across age groups were not significant for any of the questions or the overall sentiment score (see Table 6). There was only a difference of 1.09 between the most

Table 5 *Roe v. Wade* sentiment means across subgroups

	Feel if overturned <i>M (SD)</i>	Should be overturned <i>M (SD)</i>	Overturn <i>Roe v. Wade</i> <i>M (SD)</i>	Overturn const. right. abortion <i>M (SD)</i>	<i>Roe v. Wade</i> sent. scale <i>M (SD)</i>
Overall	3.49 (2.18)	3.63 (2.26)	3.62 (2.21)	3.47 (2.28)	14.21 (7.73)
Language					
Spanish	3.40 (2.19)	3.60 (2.19)	3.57 (2.17)	3.30 (2.31)	13.86 (7.02)
English	3.53 (2.18)	3.65 (2.30)	3.64 (2.23)	3.56 (2.26)	14.38 (8.06)
Gender					
Women	3.73 (2.19)	3.83 (2.24)	3.76 (2.20)	3.55 (2.31)	14.86 (7.61)
Men	3.20 (2.14)	3.39 (2.27)	3.44 (2.06)	3.38 (2.44)	13.41 (7.81)
Race/ethnicity					
White	3.26 (2.26)	3.35 (2.35)	3.39 (2.31)	3.33 (2.33)	13.34 (8.38)
Black or African American	3.89 (2.00)	4.14 (2.04)	4.10 (2.00)	3.92 (2.10)	16.05 (7.03)
Hispanic	3.41 (2.18)	3.60 (2.24)	3.57 (2.16)	3.32 (2.32)	13.90 (7.13)
Asian American	3.48 (2.00)	3.67 (2.10)	3.85 (1.94)	3.65 (2.06)	14.64 (6.70)
Bi-Racial/Multi-Racial	4.06 (2.15)	4.19 (2.23)	3.97 (2.35)	3.87 (2.28)	16.10 (7.79)
Other	3.70 (2.12)	3.56 (2.22)	3.31 (2.25)	3.25 (2.32)	13.82 (7.46)
Age					
18–29	3.52 (2.18)	3.80 (2.14)	3.81 (2.04)	3.62 (2.22)	14.75 (7.23)
30–39	3.54 (2.16)	3.64 (2.26)	3.70 (2.16)	3.54 (2.21)	14.42 (7.41)
40–49	3.32 (2.24)	3.52 (2.29)	3.58 (2.27)	3.39 (2.34)	13.81 (7.77)
50–59	3.64 (2.13)	3.67 (2.26)	3.64 (2.21)	3.47 (2.31)	14.41 (7.64)
60–69	3.45 (2.22)	3.52 (2.35)	3.42 (2.34)	3.26 (2.35)	13.66 (8.46)
70+	3.27 (2.10)	3.57 (2.29)	3.33 (2.28)	3.73 (2.22)	13.91 (8.10)
Education					
Less than high school	3.16 (2.33)	3.13 (2.32)	2.65 (2.22)	2.54 (2.36)	11.49 (7.14)
High school or equivalent	3.41 (2.17)	3.52 (2.20)	3.60 (2.12)	3.23 (2.29)	13.77 (7.27)
Some college/associates	3.47 (2.13)	3.66 (2.24)	3.57 (2.21)	3.47 (2.26)	14.18 (7.82)
Bachelor's degree	3.57 (2.24)	3.74 (2.32)	3.68 (2.27)	3.64 (2.30)	14.63 (8.10)
Graduate degree	3.64 (2.21)	3.73 (2.32)	4.02 (2.17)	3.98 (2.15)	15.36 (7.56)
Religion					
Evangelical	2.77 (2.24)	2.81 (2.35)	2.76 (2.29)	2.57 (2.31)	10.91 (8.00)
Mainline Protestant	3.76 (2.14)	3.90 (2.20)	3.87 (2.17)	3.67 (2.27)	15.20 (7.59)
Catholic	3.43 (2.10)	3.57 (2.20)	3.56 (2.15)	3.44 (2.21)	14.00 (7.22)
Other Christian	3.28 (2.22)	3.36 (2.31)	3.55 (2.23)	3.22 (2.31)	13.42 (7.82)
Other	4.02 (2.16)	4.06 (2.19)	4.45 (1.85)	4.23 (2.09)	16.77 (6.87)
Agnostic/Atheist	4.22 (1.91)	4.62 (1.80)	4.41 (1.87)	4.48 (1.85)	17.73 (6.53)
Political affiliation					
Republican	2.73 (2.25)	2.80 (2.34)	2.86 (2.33)	2.70 (2.33)	11.09 (8.01)
Democrat	4.04 (2.09)	4.20 (2.11)	4.20 (2.05)	4.06 (2.16)	16.51 (6.90)
Independent	3.58 (2.04)	3.74 (2.16)	3.68 (2.13)	3.55 (2.21)	14.55 (7.65)
No party	3.33 (2.06)	3.56 (2.15)	3.37 (2.00)	3.14 (2.21)	13.40 (7.12)
Other	3.62 (2.15)	3.90 (2.15)	4.15 (2.02)	4.38 (1.82)	16.04 (6.79)
Abortion identity label					
Pro-Life	1.82 (2.00)	1.83 (2.09)	1.93 (2.12)	1.44 (1.81)	7.02 (6.59)
Pro-Choice	4.57 (1.90)	4.74 (1.90)	4.78 (1.79)	4.80 (1.80)	18.89 (5.88)
Equally both	3.63 (1.63)	3.86 (1.83)	3.71 (1.75)	3.66 (1.80)	14.86 (5.49)
Neither	3.30 (1.69)	3.57 (1.73)	3.27 (1.62)	3.19 (1.80)	13.33 (5.12)

Table 6 Kruskal-Wallis test for *Roe v. Wade* sentiment ($N = 2557$)

Category	df	Feel if overturned		Should be overturned		Overturn <i>Roe v. Wade</i>		Overturn const. right. abortion		<i>Roe v. Wade</i> sentiment scale	
		χ^2	p	χ^2	p	χ^2	p	χ^2	p	χ^2	p
Language	1	2.113	.146	0.724	.395	0.753	.386	6.684	.010	7.622	.006
Gender	1	37.637	<.001	25.097	<.001	15.560	<.001	3.812	.051	20.213	<.001
Race/ethnicity	5	34.219	<.001	41.383	<.001	34.934	<.001	25.101	<.001	43.889	<.001
Age	5	4.527	.454	4.025	.546	6.695	.244	7.438	.190	4.517	.478
Education	4	6.013	.198	10.868	.028	32.529	<.001	43.400	<.001	30.178	<.001
Religion	5	132.060	<.001	165.569	<.001	172.657	<.001	192.696	<.001	229.316	<.001
Political affiliation	4	143.171	<.001	148.465	<.001	143.112	<.001	148.691	<.001	193.398	<.001
Abortion identity label	3	685.172	<.001	692.352	<.001	733.479	<.001	938.714	<.001	1033.238	<.001

supportive age group (18–29, 14.75) and the least supportive group (60–69, 13.66) (see Table 5).

Education With the exception of SQ1, group differences across education were significant for every question and the overall sentiment score (see Table 6). Across all four questions, the general trend was that more education was associated with scores that were more supportive of upholding *Roe v. Wade* (see Table 5). For SQ3 and SQ4, those with a high school education or less are the first groups to have mean scores indicating a preference for overturning *Roe v. Wade*. In fact, the overall sentiment score for those with less than a high school education indicates a slight preference for overturning *Roe v. Wade*. All of the other groups have scores that indicate some preference for upholding *Roe v. Wade*.

Religion Group differences across religion were significant for all four questions and the overall sentiment scores (see Table 6). Across all four sentiment questions, those identifying as evangelical have the lowest scores indicating support for overturning *Roe v. Wade*. They are the only religious group to have scores that indicate a preference for overturning *Roe v. Wade*. Across all four questions and overall sentiment, those identifying as Agnostic or Atheist have the highest scores. Those identifying as “Other Christian” are the closest to evangelicals, but their score is still 2.51 points higher (see Table 5).

Political Affiliation Group differences across political affiliation were also significant across all four questions and the *Roe v. Wade* sentiment score (see Table 6). Those identifying as Republican had the lowest mean scores across all four questions. The mean Republican scores for all four questions and the overall sentiment score were also indicative of a preference to overturn *Roe v. Wade*. The mean scores for all other political affiliations were indicative of a preference to see *Roe v. Wade* upheld (see Table 5). For SQ1 through SQ3, mean

scores were the highest for those identifying as Democrat. For SQ4, those identifying as Other had the highest mean scores. Those identifying with No Party had the mean score closest to Republicans, but it was still 2.31 points higher and indicative of a preference for upholding *Roe v. Wade*.

Abortion Identity Label Group differences across abortion identity labels were also significant for all four questions and the overall sentiment score (see Table 6). Unsurprisingly, those identifying as pro-life had a mean score lower than any other group in the sample across all four questions. Also unsurprisingly, those identifying as pro-choice exhibited mean scores higher than any other groups in the sample. Across all four questions, those who identified as Neither pro-choice nor pro-life had the next lowest scores (see Table 5). The difference between the lowest overall sentiment score (pro-life, 7.02) and highest overall sentiment score (pro-choice, 18.89) was 11.87. This subgroup difference was the largest, which is not surprising given that those identifying as pro-life are likely the most supportive of overturning *Roe v. Wade* and those identifying as pro-choice are the most supportive of upholding *Roe v. Wade*. The group with the next lowest overall sentiment score was those identifying as neither (13.33) but their score was closer to the mean score of those identifying as pro-choice than the mean score of those identifying as pro-life (see Tables 5 and 6).

Overview As with knowledge, there were some key trends and significant differences in *Roe v. Wade* sentiment scores that emerged across many of the subgroups. With the exception of a few subgroups, most groups exhibited a preference to see *Roe v. Wade* upheld. Across language, there were only significant differences for one sentiment question (SQ4) and the overall sentiment score. In both cases, the English sample exhibited more support for upholding *Roe v. Wade*. Overall, women showed a stronger preference for upholding *Roe v.*

Wade than men. Across race and ethnicity, those who identified as Black/African American or Bi-Racial/Multi-Racial were more supportive of upholding *Roe v. Wade*. Across the sample, there were no significant differences in overall preference for upholding *Roe v. Wade* across age groups. Across education, those with less than a high school education exhibited a slight preference to see *Roe v. Wade* overturned. Overall sentiment scores for all of the other age groups were indicative of a preference to see *Roe v. Wade* upheld (see Tables 5 and 6).

There was a consistent trend across religious groups. Evangelicals showed a preference for seeing *Roe v. Wade* overturned whereas all other religious identifications showed a preference for seeing *Roe v. Wade* upheld. For political affiliation, those identifying as Republican were the only group to show preference for seeing *Roe v. Wade* overturned. Of the other affiliations, Democrats showed the strongest overall preference for seeing *Roe v. Wade* upheld. Unsurprisingly, the greatest differences in preference were across the abortion identity label groups. Those identifying as pro-life exhibited the strongest preference for seeing *Roe v. Wade* overturned and those identifying as pro-choice exhibited the strongest preference for seeing it upheld.

Discussion

Compared with most public opinion research, which often assesses knowledge of *Roe v. Wade* using a single item, our study provides a more comprehensive assessment through our use of multiple questions, with more than simple binary response options. In support of our first hypothesis, we found that participants were generally aware that *Roe v. Wade* addressed abortion and that abortion is legal. Approximately 69% of the sample knew that the ruling in *Roe v. Wade* was related to abortion. Such high knowledge could be a function of ongoing discussion about this particular Supreme Court case in mainstream media, compared with other cases. Dimock et al. (2013) found approximately 60% of their sample knew that *Roe v. Wade* is about abortion. Related, our sample's high knowledge could also be a function of timing—this survey was administered immediately following Justice Kavanaugh's nomination to the Court, prior to his confirmation. During this time, there was increased media discussion regarding abortion and *Roe v. Wade* specifically. As such, it may be that people could more easily identify the case's relation to abortion because media coverage about the issue had been prominent at the time of data collection.

Although the majority of our sample correctly indicated that abortion is legal in the USA and their own state, 33% reported it was currently illegal in their state, and 22% reported it was illegal in the USA. These participants represent a substantial proportion of the sample. As contentious as this issue is and as pervasive as it seems, it is notable that such a

large portion of our sample is potentially uninformed about abortion legality at the most fundamental level.

We also assessed whether participants were aware of the implications should *Roe v. Wade* be overturned. To our surprise and contrary to our hypotheses, 84% of the sample correctly indicated that if *Roe v. Wade* were overturned, states could pass more laws restricting abortion. However, consistent with our hypotheses, over 65% of the sample incorrectly indicated that if *Roe v. Wade* were overturned, abortion would be illegal everywhere in the USA. These findings suggest that people may only be somewhat aware of how this Supreme Court decision functions. On the one hand, most people are aware that it will be easier to restrict abortion if *Roe v. Wade* were overturned. On the other hand, participants did not fully grasp the nuance that if *Roe v. Wade* were overturned abortion would not immediately be illegal, but rather the decision of abortion legality would default back to individual states. If *Roe v. Wade* is overturned, it is likely that abortion will become illegal in some states, remain legal in other states with no additional restrictions, and remain legal in other states, with access further restricted. For example, some states like Mississippi, Louisiana, North Dakota, and South Dakota have “trigger laws.” This means that overturning *Roe v. Wade* at the federal level will “trigger” a ban on abortion at the state level (Guttmacher, 2019). Other states will need to pass specific legislation to make abortion illegal, if desired, if *Roe v. Wade* is overturned.

To our knowledge, surveys about people's sentiments toward *Roe v. Wade* rarely provide information regarding the practical implications should *Roe v. Wade* be overturned. Given our finding that 65% of respondents incorrectly assumed that overturning *Roe v. Wade* would make abortion illegal in the USA, it is possible that previous findings regarding people's feelings toward *Roe v. Wade* were inaccurate because they were based on a false assumption. To address this, we provided people with accurate information about the implications of overturning *Roe v. Wade* prior to assessing their sentiments toward overturning *Roe v. Wade*. By providing this information, we presumably have a more informed assessment of people's sentiments. Additionally, we administered several questions, as opposed to a single item, with polytomous response options, as opposed to dichotomous response opinions (e.g., agree/disagree; yes/no), to gain a more comprehensive assessment of sentiments toward *Roe v. Wade* compared with most public opinion polls (Bowman & Sims, 2017), allowing people to express ambivalence.

Overall, participants were more supportive of upholding *Roe v. Wade* and less supportive of overturning *Roe v. Wade*. Because we provided scale response options for the sentiment items, we cannot make direct comparisons with dichotomous polling items. Instead, if we collapse responses from the four sentiment questions into groups of (1) support for overturning *Roe v. Wade*, (2) support for upholding *Roe v. Wade*, and (3)

people who feel ambivalent (i.e., people who reported feeling neither or unsure), we can make rudimentary comparisons. Consistent with a number of previous polls (see Bowman & Sims, 2017 for a review), we found that approximately a third of our sample (30.4–35.0%) endorsed overturning *Roe v. Wade*. Just over half (51–55%) supported upholding *Roe v. Wade*, which is slightly lower than the roughly 60% of people who report upholding *Roe v. Wade* in most public opinion poll questions (e.g., Bowman & Sims, 2017).

Although more people in our sample supported upholding *Roe v. Wade* than overturning it, we found less support for upholding it compared with previous research. There are a few possible explanations for this finding. First, it may be the case that people's sentiments have changed and are simply less supportive of upholding *Roe v. Wade*; this seems to be the least plausible explanation. Second, it may be the case that when people are presented with more than dichotomous response options, they select options that fall along a continuum instead of at the extreme. This rationale is supported by previous research, which suggests people's attitudes toward abortion are complex and contextual (e.g., Hans & Kimberly, 2014; Jozkowski et al., 2018). Third, we provided participants with information about *Roe v. Wade* and the implications of overturning the decision prior to asking them how they feel. After being provided with accurate information—that if *Roe v. Wade* were overturned, the decision about abortion legality would revert to each state—perhaps people were less supportive of upholding the decision. Unfortunately, we are unable to definitively say which of these rationales, if any, are influencing responses because we did not ask people *Roe v. Wade* sentiment questions sans providing information nor did we obtain information on whether their sentiment changed after we provided information about *Roe v. Wade*.

Abortion Identity Label

As predicted, people who identify as pro-life or pro-choice were significantly more knowledgeable on four out of the five questions compared with people who identified as equally both (pro-life and pro-choice) and neither. There was no difference on the question assessing if *Roe v. Wade* were overturned, abortion would be illegal everywhere; participants tended to answer this question incorrectly disregarding their abortion identity label. Interestingly, in our sample, 13.8% of participants indicated they identified as *both* pro-choice and pro-life, and another 13.7% indicated *neither* pro-life nor pro-choice. Our findings are similar to a 2015 poll conducted by Vox and PerryUndem in which 18% of US adults identified as *both* pro-choice and pro-life and another 21% indicated they were *neither* pro-life nor pro-choice (Kliff, 2015). Collectively, these findings indicate that some people do not identify with these dichotomous abortion labels. However, those that do identify as either pro-life or pro-choice seem to

be more knowledgeable than those who refrained from endorsing either or endorsed both. It may be the case that those who opted to select either the pro-choice or pro-life label, are more involved in the abortion movement, even in minor ways, and thus more generally knowledgeable.

Although people who identified as pro-life or pro-choice scored higher on four of the knowledge questions, they still followed the same trend in that they seemed to believe that if *Roe v. Wade* were overturned, abortion would become illegal everywhere in the USA. One additional nuance worth noting is that a higher percentage of participants who identified as pro-life incorrectly indicated that abortion is illegal in their state and the USA compared with those who identified as pro-choice. Pro-life identifying people also tended to have lower educational attainment, which may explain why their *Roe v. Wade* knowledge scores were lower.

Not surprising, across all four sentiment questions, people who identified as pro-life and pro-choice were the most polarized in their sentiments. Pro-life identifying people were more supportive of overturning *Roe v. Wade* compare with people who identified as pro-choice. People who identified as equally both or neither fell in the middle, but trended toward feeling as though *Roe v. Wade* should not be overturned.

Political Party Affiliation

Consistent with the sample trends, across party affiliation (i.e., Republican, Democrat, Independent), most participants knew that *Roe v. Wade* pertained to abortion, that abortion was legal in their state and the USA, and that overturning *Roe v. Wade* would make it easier for states to pass laws restricting access to abortion. The majority also incorrectly indicated that overturning *Roe v. Wade* would result in abortion being illegal everywhere in the USA. Republicans, Democrats, and Independents were correct more often than participants who did not identify with a political party, with the exception of the last knowledge question in which there were no differences. Those who identify as Republican, Democrat, or Independent are more likely to vote than people who do not identify with a party (Pew Research Center, 2019). Because these people seem more politically engaged, they may also be more knowledgeable about political issues such as abortion, than those who do not identify with a political party.

Among the major political parties, there were similar trends across Republicans and Democrats, with the exception of the first knowledge question about what *Roe v. Wade* pertains to. Contrary to our predictions, Republicans and Independents were more likely to answer this question correctly (75.5% and 75.9% respectively) compared with Democrats (62.8%). Interestingly, and in contrast with our predictions, of the three major parties, more Independents correctly responded to the question about abortion becoming illegal everywhere in the USA if *Roe v. Wade* is overturned—37.2% compared with

30.7% of Democrats; Republicans fell in the middle—34.4% responded correctly to this item. One explanation for this finding may be that more contemporary Republicans consider abortion a critical issue facing the country compared with Democrats (Dimock et al., 2013). As such, they may be more knowledgeable about the nuances of the case and the implications of overturning *Roe v. Wade* compared with Democrats. It is unclear why Independents and those not affiliated with a party scored higher than Democrats. Since the 1980s, the Democrat party has championed abortion rights whereas the Republican party has advocated for increased abortion restrictions or making abortion universally illegal. Independents tend to fall somewhere in the middle depending on their particular stance and subgroup affiliation (e.g., American Independent Party; New Independent Party). However, platforms for all political parties are composed of several issues (e.g., immigration, tax reform, gun control), so widespread knowledge about abortion may be an unrealistic characterization of people comprising any party.

Similar to the pro-life and pro-choice division, across all four sentiment questions, there was also division among Republicans and Democrats. Democrats supported upholding *Roe v. Wade* whereas Republicans reported feeling *Roe v. Wade* should be overturned. However, when looking across all four sentiment questions and the overall sentiment score, means for Democrats and Republicans were muted when compared with the abortion identity labels of pro-choice and pro-life. In other words, means for Democrats were overall lower than means for pro-choice identifying people and means for Republicans were higher than for pro-life identifying people. Once again, those who identified as Independent and No Party fell in the middle but tended to report feeling as though *Roe v. Wade* should be upheld.

Other Demographic Characteristics

Because we used quota-based sampling, we are able to provide comparisons across particular demographics, extending previous research. Our mean score for the *Roe v. Wade* knowledge variable suggests that people on average responded correctly for more than three out of the five questions. However, this varied by certain demographic characteristics. For example, those who completed the survey in English were more knowledgeable compared with those who took it in Spanish. Older adults (60 years of age and older) were more knowledgeable than those 59 and under. There were more subtle differences in knowledge as well. For example, people who identified as White compared with other race/ethnic groups tended to be slightly more knowledgeable about *Roe v. Wade*. Additionally, there were significant differences in *Roe v. Wade* sentiments across religious affiliation. As expected, people who identified as evangelical had the lowest *Roe v. Wade* sentiment scores. Given the consistent linkage between

religion and abortion (e.g., Jelen & Wilcox, 2003), it is not surprising that evangelicals would be most supportive of overturning *Roe v. Wade*. For all other demographic characteristics, mean scores across all four items suggest people, disregarding gender, race, age, and education, were more supportive upholding *Roe v. Wade*.

Comparison with Previous Polling

Over the past 40 plus years, a number of public opinion polls have assessed people's sentiment toward *Roe v. Wade* with a variety of item wordings (for review, see Bowman & Sims, 2017). For example, in 2000, Gallup asked: "Would you vote for or against a constitutional amendment that would overturn the *Roe v. Wade* decision, and make abortion illegal in all states?" with 67% of people indicating they would vote against such an amendment. Since 1989, several polling organizations (e.g., Gallup, Pew Research Center, CNN/ORC, NBC/WSJ) asked: "The 1973 *Roe v. Wade* decision established a woman's constitutional right to an abortion, at least in the first three months of pregnancy. Would you like to see the Supreme Court completely overturn its *Roe v. Wade* decision or not?" Upwards of 60% of people indicated they would not like to see the Supreme Court overturn this decision with the exception of a Gallup poll from 2011 in which only 52% of people indicated no (Bowman & Sims, 2017). And since 2003, a Quinnipiac poll included the question: "In general, do you agree or disagree with the 1973 *Roe v. Wade* Supreme Court decision that established a woman's right to an abortion?" with upwards of 60% of people indicating they agreed (Bowman & Sims, 2017). Collectively, these findings indicated general support for upholding *Roe v. Wade*, but as we have argued, they may be inaccurate because people may be uninformed about the implications of overturning *Roe v. Wade*.

Our findings indicate that even with a more informed opinion, people are still more supportive of upholding *Roe v. Wade* than they are overturning it. Nevertheless, our sample is less supportive of upholding *Roe v. Wade* when compared with findings from these polling questions. Thus, it may be that the limited knowledge we provided prior to assessing sentiments, most notably that overturning *Roe v. Wade* makes it easier for states to make abortion illegal but does not result in abortion being illegal in all states, may have influenced how people felt. It may also be that the different demographic make-up of our sample, compared with national polls, influenced sentiments toward *Roe v. Wade*.

Implications for Public Policy

Presumably, public policy should reflect people's attitudes and beliefs as policy-makers are expected to align with their constituents. As such, it is important to understand

people's attitudes and sentiments, particularly regarding social issues such as abortion where policy decisions with significant ramifications are happening at a rapid pace. To that end, we recommend that when polling about specific policy-driven issues, researchers provide information and context to participants, particularly when the issue is complicated. As Adamek (1994) points out, *Roe v. Wade* is a complex issue, which cannot be adequately assessed via a single, simplistic item. Thus, any sort of policy decision or public declaration that is made based on data from a single, sometimes dichotomous item, may not be a true reflection of people's sentiments. Further, policy-makers should be particularly weary of push-polls, and should avoid basing any substantial decision on those data. Researchers should strive to develop measures that are methodological rigorous and avoid bias language. Practically speaking, we recommend researchers use a more comprehensive array of questions to assess complicated issues such as abortion. And we recommend that policy-makers draw on thorough, methodologically rigorous research assessing public sentiment to inform these important decisions.

Limitations and Future Research

Although our study had several strengths such as its large sample size, inclusion of English- and Spanish-speaking US adults, and diversity in terms of age and race/ethnicity, there are important limitations worth noting. First, although our survey was distributed nationally, we used quota-based sampling from a sample aggregator, thus our findings are not representative to the US population. Our sample is limited to those who have access to a computer with internet and are literate. We recommend using probability-based, nationally representative samples when possible. Second, we assessed participants' sentiment toward *Roe v. Wade* after providing information. We cannot discern whether people read this information and whether it influenced participants' sentiments. Future research may examine the extent that this knowledge actually influenced *Roe v. Wade* sentiments. Specifically, future research would benefit from a specific comparison in attitudes and sentiments when providing knowledge versus not providing knowledge, using an experimental design. Third, it would be helpful to assess participants' knowledge on other Supreme Court decisions to better contextualize our finding that 69% of participants were aware that *Roe v. Wade* is related to abortion. Related, although the timing of our survey was intentional, it may have artificially inflated the extent that people were aware of *Roe v. Wade* being related to abortion because abortion and this particular case had been featured

prominently in news media at the time of data collection.

Conclusion

We found that most people accurately knew *Roe v. Wade* pertained to abortion and that overturning *Roe v. Wade* would allow states to pass more abortion restrictions. However, 65% of the sample incorrectly indicated that overturning *Roe v. Wade* would result in abortion being illegal in the USA. A limitation of previous public opinion polling research is that it assumes people know this information. Because we provided participants accurate information about the case and implications of overturning the decision, our participants' sentiments toward upholding or overturning *Roe v. Wade* are arguably more accurate.

After we provided information about *Roe v. Wade* and the implications of overturning it, the majority of our sample expressed overall support for upholding *Roe v. Wade* across all four sentiment questions. Compared with previous polls asking about *Roe v. Wade* though, our sample exhibited less support and a higher percent in neutral or unsure categories. It may be that people who reported support for upholding *Roe v. Wade* on dichotomous polling items responded to our items with some ambivalence, which may be a more accurate reflection of how they feel. Unfortunately, we did not assess *Roe v. Wade* sentiments before and after providing accurate information regarding *Roe v. Wade* and the implications of overturning it. As such, we cannot say with certainty if having this more thorough understanding resulted in changes in sentiments. Future research should examine if, and how, knowledge about *Roe v. Wade* is related to changes in sentiment.

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