

Women's Knowledge of and Support for Abortion Restrictions in Texas: Findings from a Statewide Representative Survey

CONTEXT: States have passed numerous laws restricting abortion, and Texas passed some of the most restrictive legislation between 2011 and 2013. Information about women's awareness of and support for the laws' provisions could inform future debates regarding abortion legislation.

METHODS: Between December 2014 and January 2015, some 779 women aged 18–49 participated in an online, statewide representative survey about recent abortion laws in Texas. Poisson regression analysis was used to assess correlates of support for a law that would make obtaining an abortion more difficult. Women's knowledge of specific abortion restrictions in Texas and reasons for supporting these laws were also assessed.

RESULTS: Overall, 31% of respondents would support a law making it more difficult to obtain an abortion. Foreign-born Latinas were more likely than whites to support such a law (prevalence ratio, 1.5), and conservative Republicans were more likely than moderates and Independents to do so (2.3). Thirty-six percent of respondents were not very aware of recent Texas laws, and 19% had never heard of them. Among women with any awareness of the laws, 19% supported the requirements; 42% of these individuals said this was because such laws would make abortion safer.

CONCLUSIONS: Many Texas women of reproductive age are unaware of statewide abortion restrictions, and some support these requirements because of misperceptions about the safety of abortion. Advocates and policymakers should address these knowledge gaps in efforts to protect access to legal abortion.

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Between 2011 and 2015, U.S. state legislatures enacted 282 abortion-related restrictions, more than were passed by states in the preceding 10 years.¹ These laws include measures aimed at influencing women's decision making by establishing or expanding waiting periods before women may obtain an abortion, mandating that women make additional clinic visits before an abortion and requiring women to have an ultrasound prior to the procedure. In addition, several states have passed bills that place limits on the gestational age at which abortions can be performed, require abortion providers to have admitting privileges at a nearby hospital and require facilities that perform abortions to meet the standards for ambulatory surgical centers. Proponents of these provisions often claim they will make abortion safer, despite substantial evidence that abortion is very safe and that restricted access to care may increase health risks to women.^{2,3}

Public opinion polls and surveys on abortion have focused primarily on whether abortion should be legal. Although the data consistently show that the majority of Americans support access to legal abortion,^{4–6} the standard questions provide little insight into public opinion about laws that restrict—rather than prohibit—abortion. Results from a 2011 Gallup poll suggest that Americans' attitudes about specific restrictions are not uniform. For example, more than two-thirds of respondents stated that they would favor a law requiring women seeking abortion to wait 24

hours before having an abortion, and 50% would support a law requiring a woman to be shown an ultrasound image of the fetus before the procedure.⁷ However, public attitudes toward restrictions on abortion providers that limit women's access to services have not been assessed. An examination of support for these specific regulations, rather than abortion legality in general, is needed to better understand public opinion regarding the laws.

Polls and other studies commonly report on differences in support for legal access to abortion according to respondents' race and ethnicity, nativity, party identification and religious affiliation,^{8–10} but few studies have homed in on support for the laws among women of reproductive age, who may be directly affected by the regulations. A qualitative study of abortion patients found that although their views about abortion regulations were often complex, overall women supported policies that ensured that care was equally available and accessible.¹¹ A study conducted with a convenience sample of women aged 18–44 reported that fewer than 20% of participants believed abortion should be illegal;¹² in that study and another one, women who favored more restricted access had lower levels of knowledge about the safety of abortion than did women who opposed restrictions, and the researchers speculated that some women may support restrictions because they overestimate the risks of the procedure.^{12,13} Additional information on awareness of restrictions and values motivating

support or opposition among women of reproductive age, which have been absent from polls and surveys, could help to inform advocacy and debates on abortion legislation.

In this study, we provide an examination of women's opinions of abortion regulations that extends beyond the general assessment provided in many national surveys. Specifically, we used data from a statewide representative survey of women of reproductive age to assess their knowledge of and attitudes toward recent abortion laws in Texas, which has passed numerous regulations on abortion since 2011—some of which are considered the most restrictive in the nation.¹⁴ We also investigate the reasons women hold the opinions they do.

BACKGROUND

Until 2011, Texas required that women seeking abortion be provided with state-produced materials that describe the risks of and alternatives to the procedure. In that year, the state legislature passed a law expanding the preprocedure requirements. Under the new law, House Bill 15, a woman also has to make an in-person visit to the clinic at least 24 hours before her procedure to undergo an ultrasound and have the physician who will perform the procedure give a detailed description of the image displayed on the ultrasound monitor. For women living more than 100 miles from the nearest clinic, the waiting period is reduced to two hours. Exemptions to the verbal description of the ultrasound are made in cases of rape, incest or fetal anomaly, and the two-visit requirement can be waived for medical emergencies.

During the following legislative session, in 2013, legislators considered an omnibus abortion bill, House Bill 2, which has four main components. First, the law bans most abortions at or after 20 weeks postfertilization, except in cases of severe fetal abnormality or life endangerment, but not rape. Second, it restricts the use of medication abortion to the protocol included in the 2000 Food and Drug Administration–approved label for mifepristone, which lists a dosing regimen that is inferior to current evidence-based practice,¹⁵ and reduces the gestational age eligibility from nine to seven weeks after a woman's last menstrual period. Third, it requires abortion providers to have admitting privileges at a hospital within 30 miles of the clinic where the abortion is performed. Fourth, it requires all abortion facilities to meet the standards of ambulatory surgical centers, even if those facilities provide only medication abortion.

Debates over the bill drew thousands of supporters and opponents of abortion rights to the Texas capitol in Austin, nearly 200,000 people live-streamed the 11-hour filibuster by State Senator Wendy Davis and more than 1.5 million tweets were sent about the bill—almost half of which were from Twitter users in Texas.¹⁶ After two special legislative sessions, House Bill 2 was eventually passed. The first three components went into effect by November 2013; judicial relief from the admitting privileges requirement has been granted for two clinics. The ambulatory surgical centers requirement was scheduled to go into effect on September 1,

2014, but enforcement has been delayed (except for a brief period in October 2014) as a result of a series of court challenges. At the time of this writing, this requirement is not being enforced because of a stay issued by the U.S. Supreme Court, which agreed to hear the case in its 2016 term.

The implementation of these abortion restrictions has affected access to abortion in several ways. More than half of the Texas clinics that provided abortion prior to passage of House Bill 2 have closed.¹⁷ Large areas of the state are now without an abortion provider, so women who want an abortion must travel long distances for care.¹⁸ At several of the remaining facilities, the wait time for appointments has increased.¹⁹ Furthermore, the use of medication abortion has declined by 70%.¹⁸

METHODS

Data and Sampling

We analyzed survey data on knowledge and attitudes about recent abortion restrictions collected from a statewide representative sample of women aged 18–49 who were living in Texas and were members of the GfK KnowledgePanel. This is a nationally representative, online, probability-based nonvolunteer panel, which has been shown to provide an accurate sample of the U.S. population, including hard-to-reach groups.^{20,21} KnowledgePanel was used to field several large surveys of women, and participant characteristics were similar to those of women sampled in the National Survey of Family Growth.^{22,23}

GfK uses a probability-based sample of addresses from the U.S. Postal Service's Delivery Sequence File. Via a series of mailings in English and Spanish, it invites residents at randomly sampled addresses to join KnowledgePanel; follow-up phone calls are made to nonrespondents when a telephone number can be matched to a sampled address.²⁴ Recruitment of Latino participants is supplemented by using a random-digit-dialing approach that selects telephone exchanges in census blocks where the Latino population density is 65% or greater. Eligible households are selected into the supplemental sample if Spanish is spoken in the home at least half of the time. Selected households that do not have Internet access are provided a web-enabled device (e.g., laptop) and free Internet access. Panel members are invited to complete one survey a week, on average, and receive non-survey-specific opportunities to enter raffles or sweepstakes for cash and other prizes.

The number of KnowledgePanel members residing in Texas enabled GfK to select a sample that was representative at the state level. Female members who had a Texas home address and who were aged 18–49 and spoke English or Spanish were invited by e-mail to participate in a 15-minute survey about their experiences seeking reproductive health services; the survey was designed by the study authors. Between three and 35 days after the initial invitation, eligible participants received four follow-up e-mails reminding them to complete the survey.

We had a target sample size of 800 respondents. With this sample size, the margin of error attributable to sampling

and other random effects was estimated to be 4.6% at a 95% confidence level and a design effect of 1.8. Assuming a cooperation rate of approximately 55%, we estimated that we would need to contact 1,455 panel members of reproductive age to reach the target sample size.²⁵

In December 2014, we pretested the survey with 25 participants to make sure the questions were understood, and we had the survey translated into Spanish. GfK fielded the final survey between December 2014 and January 2015. Women provided informed consent before completing the online survey and received a \$5 cash-equivalent for their participation. The institutional review board at the principal investigator's university approved this study.

Measures

The 41-item survey collected information on women's access to family planning services, contraceptive use, and history of pregnancy and abortion. Of relevance to the current study, we also asked women a series of questions about their opinions of abortion restrictions and knowledge of abortion regulations in Texas. We assessed general views on abortion with two questions that have been used in other public opinion polls.^{8,26} To allow women to express their personal opposition to abortion while still supporting access to the procedure, we asked, "Which of the following statements about the issue of abortion comes closest to your own view?" Response options were "I believe having an abortion is morally acceptable and should be legal"; "I am personally against abortion for myself, but I don't believe government should prevent a woman from making that decision for herself"; and "I believe having an abortion is morally wrong and should be illegal." Women could also respond that they held some other view. In addition, we asked women if they would be for or against a law that would make it more difficult to obtain an abortion; they had the option to respond "not sure."

To assess women's knowledge of abortion regulations in Texas, we first asked if they were aware of any laws that had been passed about abortion in the state in the last five years. Women could respond that they were "very aware," were "somewhat aware," were "not very aware" or had "not heard of any recent laws." Those who reported any awareness of such laws were provided with a list of eight requirements and asked to indicate those that had recently become law in Texas. Five of the items were actual abortion regulations included in House Bills 15 and 2: Women are required to have an ultrasound at least 24 hours before an abortion; physicians at abortion clinics are required to have the ability to admit patients at a nearby hospital; use of medication abortion, also known as RU486 or the abortion pill, is restricted; abortions after 20 weeks postfertilization are prohibited;* and clinics providing abortion are required to meet the standards of ambulatory surgical centers or minihospitals. The remaining three were not current restrictions in Texas: Married women are required to have their husband's consent before abortion; abortion is prohibited if done to have a baby of a different sex ("sex-

selective abortion"); and abortion is prohibited if done because the fetus has Down syndrome.

Women with any self-reported awareness of Texas laws then ranked their level of support for or opposition to them on a five-point scale: "strongly support," "somewhat support," "support some parts of the laws and oppose others," "somewhat oppose" and "strongly oppose." Women were also given the option of stating they were "not sure." We asked those who endorsed any support to select the main reason from the following options: The laws will make abortion harder to get; the laws will make abortion safer; one can trust the legislature to make the right decision about laws related to women's health; or other reason. Women who strongly or somewhat opposed the laws were provided a related list from which to select their main reason: The laws will make abortion harder to get; the laws will not make abortion safer; doctors should make decisions about how health care is provided, not politicians; or other reason. Because of a programming error, women who indicated that they supported some parts but opposed other parts of the laws were not asked their reasons for opposition.

The initial profile survey that women completed upon joining KnowledgePanel allowed us to obtain information on their age, race and ethnicity, nativity, marital status, educational attainment, household size, annual income, place of residence, political ideology, party affiliation and religious affiliation. We used household size and annual income to estimate household income as a proportion of the federal poverty level, following 2014 guidelines.²⁷ Because of the small number of women in some groups, we categorized participants' religious affiliation as Catholic, Baptist, other Protestant, other Christian (e.g., Pentecostal, Mormon, Eastern Orthodox), other religion (e.g., Muslim, Hindu, Buddhist, Jewish) or not reported, or none.

Finally, we created a composite variable for the strength of respondents' party affiliation and political ideology, each of which was measured on a seven-point scale (from strong Republican to strong Democrat, and from extremely conservative to extremely liberal). We recoded these two variables to range from 0 to 1 and averaged them to create an overall score, in which smaller values indicate the woman is more conservative and strongly identifies as Republican, and larger values indicate she is more liberal and a strong Democrat. This approach has been considered more reliable than the use of a single variable.²⁸ For ease of interpretation, we used quintiles to create the following categories: conservative Republican, somewhat conservative Republican, moderate or Independent, somewhat liberal Democrat and liberal Democrat.

Analysis

We first examined participants' sociodemographic characteristics, opinions about the morality and legality of abortion, and support for a law making it more difficult

*Although the law bans most abortions at or after 20 weeks postfertilization, we used this simplified language in the survey.

to get an abortion. We then assessed associations between selected characteristics and whether women would support such a law (rather than being against it or being not sure). We estimated unadjusted prevalence ratios using Poisson regression analysis with robust standard errors, since these estimates are more reliable than those from logistic regression when the outcome is common (prevalence greater than 10%).²⁹ Characteristics in the unadjusted models that had a $p \leq .20$ were initially included in the multivariable Poisson regression model (age, which missed this cutoff, was retained). We sequentially removed independent variables with $p > .10$ to achieve a parsimonious model.

Next, among women who reported any awareness of recent Texas abortion laws, we calculated the proportion who correctly identified whether each of the eight possible restrictions was a state law; we used chi-square tests to assess differences in knowledge by women's level of awareness. We then examined their main reason for supporting or opposing the laws. As a final step, and using data from the entire sample, we assessed women's awareness of and support for Texas abortion laws by political ideology and party affiliation, as well as by race and ethnicity (characteristics that have been associated with support for and opposition to abortion in other public opinion surveys^{5,9,10}). We tested for significant differences in support (versus opposition) between subgroups by conducting multinomial logistic regression analyses, in which the reference groups were conservative Republicans and whites, respectively.

All analyses were conducted with Stata 13 and used weights provided by GfK. The weights adjusted for the probability of selection into the sample and poststratifying on the basis of demographic characteristics that were benchmarked to the March 2014 supplement of the Current Population Survey and the Spanish-language distribution of respondents to the Pew Hispanic Center's National Survey of Latinos in 2010–2012.

RESULTS

Of the 1,397 eligible panel members contacted for the study, 779 participated (yielding a 56% response rate). We excluded 19 women who were missing information on abortion opinions or knowledge and another 23 who were missing information on sociodemographic characteristics. Among the 737 respondents included in our analysis, the majority were black or Latina, were married or cohabiting, had at least one child and had more than a high school education (Table 1). Twelve percent of women had ever had an abortion. Sixty-nine percent of respondents reported household incomes of at least 200% of the federal poverty level, and 90% lived in a metropolitan area. Forty-five percent of the women were categorized as conservative or somewhat conservative Republicans, 16% as moderates or Independents, and 39% as liberal or somewhat liberal Democrats. Thirty percent of women identified themselves as Catholic and 17% as Baptist; 13% of respondents reported no affiliation. More than two-thirds of women believed that the government should not prevent women

TABLE 1. Percentage distribution of women aged 18–49 who participated in a survey about awareness of and attitudes toward abortion laws, by selected characteristics, Texas, 2014–2015

Characteristic	% (N=737)
Age	
18–29	37.4
30–39	30.1
40–49	32.5
Race/ethnicity	
White	37.4
Black	12.4
U.S.-born Latina	22.1
Foreign-born Latina	21.0
Other	7.1
Marital status	
Married	50.2
Cohabiting	12.2
Not married or cohabiting/separated	37.6
Parity	
0	38.1
1	18.3
≥2	43.6
Ever had an abortion	
No	88.4
Yes	11.6
Educational attainment	
≤high school	40.5
Some college	33.3
≥college	26.2
Household income as % of federal poverty level	
<100	15.1
100–199	15.7
≥200	69.2
Residence	
Metropolitan	90.0
Nonmetropolitan	10.0
Ideology and party affiliation	
Conservative Republican	19.1
Somewhat conservative Republican	26.0
Moderate/Independent	15.9
Somewhat liberal Democrat	25.3
Liberal Democrat	13.7
Religious affiliation	
Catholic	30.4
Baptist	17.0
Other Protestant	8.9
Other Christian	23.6
Other/not reported	7.0
None	13.0
Personal view on abortion	
Abortion is morally acceptable and should be legal	18.4
Personally against abortion, but government should not prevent a woman from making that decision	50.6
Abortion is morally wrong and should be illegal	23.9
Other	7.0
Support for a law making it more difficult to get an abortion	
Would support	30.7
Would not support	35.7
Not sure	33.6
Total	100.0

Notes: Percentages are weighted to account for survey design and may not add to 100.0 because of rounding.

from obtaining an abortion—despite different personal views on morality—and fewer than one-quarter believed abortion was morally wrong and should be illegal. Overall, 31% of women said they would support a law that would make it more difficult for a woman to get an abortion, 36% would not support such a law and 34% were not sure.

In adjusted Poisson regression analysis, foreign-born Latinas were more likely than whites to support a law making it more difficult to get an abortion (prevalence ratio, 1.5), and women with incomes of 100–199% of the federal poverty level were more likely than those with higher incomes to do so (1.7—Table 2). Compared with respondents classified as moderates or Independents, conservative Republicans were more likely to support such a law (2.3), whereas liberal Democrats were less likely to do so (0.5). Finally, women who reported an affiliation with “other Protestant” denominations and women with no religious affiliation were less likely than Catholic respondents to support a law making abortion more difficult to obtain (0.5 and 0.3, respectively). Having ever had an abortion was marginally associated with not supporting a law making abortion more difficult to get.

Thirteen percent of respondents said that they were very aware of abortion laws that had been passed in Texas in the last five years, 32% were somewhat aware and 36% were not very aware; 19% had not heard of any recent laws. Among the 603 women who had heard of recent laws, more than 90% knew that they do not require married women to get their husbands’ consent for abortion, prohibit sex-selective abortion or prohibit abortion because a fetus has Down syndrome (Table 3). Some 25–30% of respondents knew that women are required to have an ultrasound at least 24 hours before an abortion, that physicians must have hospital admitting privileges, that abortions after 20 weeks postfertilization are prohibited and that clinics must meet the standards of ambulatory surgical centers; only 7% were aware that medication abortion is restricted. Women who reported being very aware or somewhat aware of recent requirements were significantly more likely than those who were not very aware to correctly identify the five restrictions that were passed in Texas, but there was no difference among groups regarding knowledge of the three restrictions that are not state laws.

Of the women with any awareness of Texas laws, 19% supported them (12% strongly and 7% somewhat), 17% supported some parts of the laws and opposed others, 7% somewhat opposed the laws and 11% strongly opposed them; the remaining 46% were not sure how they felt, and 75% of this group said they were not very aware of the laws. Among the women who strongly or somewhat supported the laws, 42% said the main reason was that they believed the laws would make abortion safer; among the 17% whose support was mixed with opposition, 64% cited this reason (Table 4). One-third of women who strongly or somewhat supported the laws and one-quarter of those who supported only parts of the laws did so because they felt that the laws would make abortion harder to get. Of

TABLE 2. Percentage of women who would support a law that made it more difficult to get an abortion, by selected characteristics; and prevalence ratios (and 95% confidence intervals) from unadjusted and adjusted regression analyses assessing associations between such support and these characteristics

Characteristic	%	Unadjusted	Adjusted
Age			
18–29	33.3	1.21 (0.84–1.74)	1.40 (1.00–1.98)†
30–39	31.1	1.13 (0.82–1.57)	1.18 (0.85–1.62)
40–49 (ref)	27.5	1.00	1.00
Race/ethnicity			
White (ref)	26.9	1.00	1.00
Black	26.4	0.98 (0.53–1.81)	1.24 (0.69–2.23)
U.S.-born Latina	34.4	1.28 (0.86–1.90)	1.31 (0.90–1.89)
Foreign-born Latina	37.6	1.40 (0.98–2.01)†	1.48 (1.00–2.18)*
Other	27.2	1.01 (0.50–2.05)	1.52 (0.80–2.90)
Ever had an abortion			
No (ref)	32.2	1.00	1.00
Yes	19.6	0.61 (0.32–1.15)	0.62 (0.35–1.09)†
Household income as % of federal poverty level			
<100	34.2	1.31 (0.94–1.82)	1.34 (0.93–1.93)
100–199	47.3	1.80 (1.32–2.46)***	1.74 (1.26–2.40)**
≥200 (ref)	26.2	1.00	1.00
Ideology and party affiliation			
Conservative Republican	51.6	1.80 (1.18–2.75)**	2.33 (1.51–3.59)***
Somewhat conservative Republican	32.9	1.15 (0.72–1.82)	1.22 (0.79–1.88)
Moderate/Independent (ref)	28.7	1.00	1.00
Somewhat liberal Democrat	25.1	0.88 (0.52–1.48)	0.96 (0.59–1.57)
Liberal Democrat	10.3	0.36 (0.18–0.73)**	0.45 (0.22–0.92)**
Religious affiliation			
Catholic (ref)	35.7	1.00	1.00
Baptist	42.0	1.18 (0.80–1.72)	1.31 (0.88–1.94)
Other Protestant	16.0	0.45 (0.25–0.82)**	0.49 (0.26–0.91)*
Other Christian	37.5	1.05 (0.73–1.50)	0.99 (0.71–1.38)
Other/not reported	22.3	0.62 (0.29–1.33)	0.74 (0.35–1.55)
None	6.8	0.19 (0.08–0.46)***	0.25 (0.10–0.63)**

*p<.05. **p<.01. ***p<.001. †p<.10. Notes: Percentages are weighted to account for survey design. ref=reference group.

those who strongly or somewhat opposed the laws, 49% said the main reason was that the laws would make abortion harder to get, 15% said the reason was that the laws would not make abortion safer and 30% believed that doctors should make decisions about health care provision, not politicians.

Among the entire sample, the proportion opposing the laws was 8–40% of women reporting different political ideologies and party affiliations (Table 5); these differences were not assessed for statistical significance. However, women’s awareness of and support for the laws varied by these characteristics. Some 18–24% of conservative and somewhat conservative Republicans, moderates and Independents, and somewhat liberal Democrats had not heard of recent Texas abortion laws, but only 9% of liberal Democrats were unaware of the laws. There was no significant difference among groups in support for the laws because they make abortion safer (versus being opposed to the laws). In contrast, somewhat conservative Republicans, somewhat liberal Democrats and liberal Democrats were less likely than conservative Republicans to support the laws (versus oppose them) because they would make

TABLE 3. Among women who reported any awareness of recent abortion laws in Texas, percentage who correctly identified specific requirements, by level of awareness

Requirement	Total (N=603)	Very aware (N=84)	Somewhat aware (N=243)	Not very aware (N=276)
Women must have an ultrasound at least 24 hours before an abortion***	28.2	46.7	39.5	11.3
Married women must have their husband's consent before an abortion‡	90.5	89.3	88.3	92.9
Physicians at abortion clinics must have admitting privileges at a nearby hospital***	25.7	48.8	37.8	6.4
Use of medication abortion is restricted*	7.2	13.1	9.8	2.7
Abortions after 20 weeks postfertilization are prohibited***	30.0	40.7	42.3	15.0
Clinics providing abortion must meet the standards of ambulatory surgical centers***	29.2	52.0	42.2	9.1
Sex-selective abortion is prohibited‡	95.2	92.8	93.6	97.4
Abortion because the fetus has Down syndrome is prohibited‡	96.8	96.7	97.1	96.6

*p<.05. ***p<.001. ‡This was not law in Texas. Notes: Differences among subgroups were assessed in chi-square tests. Percentages are weighted to account for survey design.

TABLE 4. Percentage distribution of women who reported any awareness of and opinion about recent abortion laws in Texas, by main reason for supporting or opposing laws, according to their position

Reason	Support (N=108)	Both support and oppose (N=99)	Oppose (N=123)
Will make abortion harder to get	33.1	27.5	49.4
Will make abortion safer	41.8	63.7	na
Trust the legislature to make the right decision about women's health laws	18.7	6.6	na
Will not make abortion safer	na	na	15.2
Doctors should make decisions about how health care is provided, not politicians	na	na	30.3
Other	6.4	2.2	5.0
Total	100.0	100.0	100.0

Notes: Percentages are weighted to account for survey design and may not add to 100.0 because of rounding. na=not applicable, because the reason was not offered to this subgroup.

TABLE 5. Percentage distribution of women by awareness of and support for Texas abortion laws, according to political ideology and party affiliation

Awareness and support	Conservative Republican (N=139)	Somewhat conservative Republican (N=182)	Moderate/Independent (N=125)	Somewhat liberal Democrat (N=173)	Liberal Democrat (N=111)
Has not heard of the laws	17.8	20.2	23.7	23.0	9.1***
Opposes the laws	7.6	15.0	8.4	10.1	39.6
Supports the laws because they make abortion safer	10.4	16.5	12.9	17.3	18.3†
Supports the laws because they make abortion harder to get	23.5	7.3**	7.8	3.5**	2.1***
Supports the laws for other reasons	5.4	7.4	0.5*	6.0	3.2**
Not sure about opinions	35.3	33.7	46.7	40.1	27.8***
Total	100.0	100.0	100.0	100.0	100.0

*Different from percentage for conservative Republicans at p<.05. **Different from percentage for conservative Republicans at p<.01. ***Different from percentage for conservative Republicans at p<.001. †Different from percentage for conservative Republicans at p<.10. Notes: Subgroup differences in support (versus opposition) were assessed in multinomial logistic regression analyses. Percentages are weighted to account for survey design and may not add to 100.0 because of rounding.

abortion harder to get (2–7% vs. 24%). Finally, liberal Democrats were less likely than conservative Republicans to be unsure of their opinions about the laws (28% vs. 35%).

White women and both U.S.-born and foreign-born Latinas were more likely to report that they had not heard of Texas abortion laws or were not sure of their opinions about the laws than to say they held a position for or against the laws (Table 6); foreign-born Latinas were more likely than whites to be unsure of their opinions (42% vs. 31%). Blacks appeared to be more likely than whites to support the laws (versus oppose them) because they believed the laws made abortion safer, although this finding was only marginally significant. Across all subgroups, no more than 12% supported the laws because they would make abortion harder to get, and the proportion was particularly low (3%) among foreign-born Latinas.

DISCUSSION

Much of the data on U.S. public opinion about abortion comes from polls and surveys assessing respondents' position on the legality of abortion, which do not typically elicit opinions regarding restrictions or exemptions allowed for the procedure. In this statewide representative sample of women of reproductive age, we were able to move beyond broad, hypothetical questions and more closely examine women's knowledge of and support for recent abortion legislation in Texas. Overall, our findings reveal that the majority of women are not well informed about these regulations and that there is not strong support for restricting access.

In comparing our results of women's general opinions about abortion with those from other surveys that used the same questions,^{8,26} we similarly found that one-quarter of women believed that abortion was morally wrong and should be illegal, and nearly one-third supported laws that would make abortion harder to get. Likewise, consistent with results of other surveys,^{4,9} our findings identified an increased likelihood of supporting laws restricting abortion access among several subgroups—namely, foreign-born Latinas compared with whites, conservative Republicans compared with moderates and Independents, and Catholics compared with women who said they had “other Protestant” or no religious affiliation. Such support was also higher among women with incomes of 100–199% of the federal poverty level than among those with greater incomes; this finding may reflect that this group tends to have conservative attitudes about abortion and favors more government involvement in this area.³⁰

However, when we asked women about specific laws in Texas, we gained a different perspective. For example, although a small proportion of foreign-born Latinas opposed current abortion regulations in Texas, very few said they supported these restrictions because they would make abortion harder to get, and the majority were uninformed about the laws or were unsure of their opinions. In fact, more than half of our respondents reported that they

either had not heard of any abortion laws passed in the last five years or were not very aware of recent legislation, despite widespread local and national media coverage. Furthermore, even women who said they were very aware of the laws had poor knowledge of the specific regulations. This is concerning because they also are likely unaware of how these restrictions have affected the availability of services, such as clinic closures. These findings, which correspond with those from several smaller studies noting that women of reproductive age often are unaware of abortion regulations until they need to access care,^{11,31} suggest that given the recent increase in abortion restrictions in Texas, a growing number of women may find they are unable to obtain time-sensitive abortion care when they need it.

Our findings also point to a relationship between poor knowledge of the safety of abortion and support for additional regulations among women of reproductive age. With few exceptions, we found that the most common reason women from different racial and ethnic groups and of different political affiliations and ideologies endorsed recent restrictions in Texas was that they believe these laws will make abortion provision safer. These results are consistent with the messaging strategy used by proponents of such restrictions, who tie the laws to claims of increased safety. Similarly, black women's somewhat elevated level of support for Texas laws for safety reasons, although marginally significant (probably because of a small sample size), corresponds to antiabortion groups' campaigns targeting black communities.^{32,33} Because women of reproductive age tend to overestimate the risks associated with abortion,¹¹⁻¹³ claims about safety may seem reasonable and, in turn, may attenuate or neutralize opposition to restrictions among those who support access to legal abortion.

If women had more complete and accurate information about the trend in and nature of abortion restrictions in Texas, they may be even less likely to support recent laws, because they generally support access to safe, legal abortion.³⁴ Following the implementation of House Bill 2 in 2013, abortion care became less accessible as a result of clinic closures, and many women now need to travel greater distances for services; some may be unable to overcome the logistical challenges necessary to reach the nearest clinic.^{17,18} These regulations also may make abortion less safe. Reduced access to care and long wait times for appointments may lead some women to attempt to self-induce abortions using ineffective or unsafe methods, and may force others to obtain services later in pregnancy, when the procedure may carry an increased risk of complications.³⁵

Passage of restrictive laws, despite the lack of broad public support, likely reflects the ability of organized, singularly focused antiabortion interest groups to shape the political agenda to the extent that support for restrictions is often highlighted among candidates for elected offices that are generally not involved with regulating abortion.^{36,37} Therefore, protecting women's access to legal abortion may depend on the efforts of reproductive rights advocates in

TABLE 6. Percentage distribution of women by awareness of and support for Texas abortion laws, according to race and ethnicity

Awareness and support	White (N=266)	Black (N=62)	U.S.-born Latina (N=186)	Foreign-born Latina (N=183)
Has not heard of the laws	21.7	13.9	15.1	23.3
Opposes the laws	17.7	14.7	14.8	10.4
Supports the laws because they make abortion safer	13.0	27.7†	10.0	15.7
Supports the laws because they make abortion harder to get	11.6	7.9	12.0	2.6
Supports the laws for other reasons	4.7	3.2	5.3	6.3
Not sure about opinions	31.3	32.6	42.8	41.8*
Total	100.0	100.0	100.0	100.0

*Different from percentage for whites at $p < .05$. †Different from percentage for whites at $p < .10$. Notes: Subgroup differences in support (versus opposition) were assessed in multinomial logistic regression analyses. Percentages are weighted to account for survey design and may not add to 100.0 because of rounding.

effectively communicating the combined impact of abortion restrictions on women's access to care and safety, because these efforts could energize likely voters and policymakers who are supportive of these issues. Potentially effective strategies might also promote the commonly held values that the government should not prevent women from making personal decisions about abortion, a principle that many women in our study and others have endorsed.^{26,38}

Strengths and Limitations

The findings of this study should be interpreted in the context of its strengths and limitations. We conducted this survey with an online panel of women in Texas, and approximately half of those contacted completed the survey. This response rate is similar to those of other surveys conducted with KnowledgePanel,²³ and the survey weights adjust for nonresponse. In addition, as regular survey respondents, participants may have above-average levels of political awareness,³⁹ and therefore their knowledge and opinions of abortion restrictions may not be generalizable. Nonetheless, compared with nonprobability Internet and phone survey samples, probability-based online samples have been found to yield more accurate responses that are also more representative of the general population.²⁰

Finally, we assessed women's main reason for support or opposition to the laws, and because of a survey programming error, we do not know the reasons of a subset of women who opposed the laws. Women's opinions on abortion are multifaceted, and even those who have had an abortion do not always endorse the same views about these restrictions, as our findings and those of others have demonstrated.^{11,40} Other ways of assessing women's support for regulations and their related motivations—beyond both the standard polling questions and those used in this survey—should be explored in future research.

Conclusions

We believe this is the first study to assess knowledge and opinions about state-specific abortion restrictions among a representative sample of women who are of reproductive

age. Our findings suggest that these laws do not reflect the opinions of the majority of women aged 18–49 in Texas, and that misinformation about the safety of abortion may lead some to support medically unnecessary restrictions. Accurate information about abortion and the impact of restrictions on women could inform strategies to oppose legislation that impedes access to this essential health service.

REFERENCES

- Guttmacher Institute, Laws affecting reproductive health and rights: state trends at midyear, 2015, 2015, <http://www.guttmacher.org/media/inthenews/2015/07/01/>.
- Aaronson B, Critics of state bill say it would restrict abortions, *New York Times*, Mar. 23, 2013, <http://www.nytimes.com/2013/03/24/us/foes-of-texas-bill-say-it-would-restrict-legal-abortion.html>.
- White K, Carroll E and Grossman D, Complications from first-trimester aspiration abortion: a systematic review of the literature, *Contraception*, 2015, 92(5):422–438.
- Pew Research Center, *Roe v. Wade at 40: Most Oppose Overturning Abortion Decision*, 2013, <http://www.pewforum.org/files/2013/01/Roe-v-wade-full.pdf>.
- Saad L, Majority of Americans still support Roe v. Wade decision, Princeton, NJ: Gallup, 2013, <http://www.gallup.com/poll/160058/majority-americans-support-roe-wade-decision.aspx?version=print>.
- Associated Press and GfK Group, *The AP-GfK Poll, December 2015: A Survey of the American General Population (Ages 18+)*, 2015, http://ap-gfkipoll.com/main/wp-content/uploads/2015/12/AP-GfK_Poll_December-2015-Final-topline_abortion1.pdf.
- Saad L, *Common State Abortion Restrictions Spark Mixed Reviews*, Princeton, NJ: Gallup, 2011, <http://www.gallup.com/poll/148631/Common-State-Abortion-Restrictions-Spark-Mixed-Reviews.aspx?version=print>.
- Pew Research Center, *Results from the 2009 Annual Religion and Public Life Survey*, 2009, <http://www.people-press.org/files/legacy-pdf/549.pdf>.
- Jelen TG and Wilcox C, Causes and consequences of public attitudes toward abortion: a review and research agenda, *Political Research Quarterly*, 2003, 56(4):489–500.
- Lopez MH et al., Latino voters and the 2014 midterm elections, Washington, DC: Pew Research Center, 2014, <http://www.pewhispanic.org/2014/10/16/latino-voters-and-the-2014-midterm-elections/>.
- Cockrill K and Weitz TA, Abortion patients' perceptions of abortion regulation, *Women's Health Issues*, 2010, 20(1):12–19.
- Wiebe ER, Littman LL and Kaczorowski J, Knowledge and attitudes about contraception and abortion in Canada, US, UK, France and Australia, *Gynecology & Obstetrics*, 2015, 5:322, doi:10.4172/2161-0932.1000322.
- Kavanaugh ML et al., Connecting knowledge about abortion and sexual and reproductive health to belief about abortion restrictions: findings from an online survey, *Women's Health Issues*, 2013, 23(4):e239–e247, doi: 10.1016/j.whi.2013.04.003.
- Liptak A and Fernandez M, Supreme Court allows Texas abortion clinics to remain open, *New York Times*, June 29, 2015, <http://www.nytimes.com/2015/06/30/us/supreme-court-allows-texas-abortion-clinics-to-remain-open.html>.
- American College of Obstetricians and Gynecologists and Society of Family Planning, Clinical guidelines: medical management of first-trimester abortion, *Contraception*, 2014, 89(3):148–161.
- Stevenson AJ, Finding the Twitter users who stood with Wendy, *Contraception*, 2014, 90(5):502–507.
- Fuentes L et al., Women's experiences seeking abortion care shortly after the closure of clinics due to a restrictive law in Texas, *Contraception*, 2016, 93(4):292–297.
- Grossman D et al., Change in abortion services after implementation of a restrictive law in Texas, *Contraception*, 2014, 90(5):496–501.
- Texas Policy Evaluation Project, *Abortion Wait Times in Texas: The Shrinking Capacity of Facilities and the Potential Impact of Closing Non-ASC Clinics*, 2015, http://sites.utexas.edu/txpep/files/2016/01/Abortion_Wait_Time_Brief.pdf.
- Chang L and Krosnick J, National surveys via RDD telephone interviewing versus the Internet: comparing sample representativeness and response quality, *Public Opinion Quarterly*, 2009, 73(4):641–678.
- Yeager D et al., Comparing the accuracy of RDD telephone surveys and Internet surveys conducted with probability and non-probability samples, *Public Opinion Quarterly*, 2011, 75(4):709–747.
- Guttmacher Institute, *A Real-Time Look at the Impact of the Recession on Women's Family Planning and Pregnancy Decisions*, 2009, <http://www.guttmacher.org/pubs/RecessionFP.pdf>.
- Grossman D et al., Interest in over-the-counter access to oral contraceptives among women in the United States, *Contraception*, 2013, 88(4):544–552.
- GfK Group, *KnowledgePanel Design Summary*, Palo Alto, CA: GfK Group, 2013.
- Callegaro M and Disogra C, Computing response metrics for online panels, *Public Opinion Quarterly*, 2008, 72(5):1008–1032.
- Greenberg Quinlan Rosner Research, *NARAL Pro-Choice America: National Survey*, Washington, DC: Greenberg Quinlan Rosner Research, 2014.
- Office of the Federal Register, Department of Health and Human Services, Annual update of the HHS poverty guidelines, 2014, <https://www.federalregister.gov/articles/2014/01/22/2014-01303/annual-update-of-the-hhs-poverty-guidelines#-1>.
- Johnston CD, Hillygus DS and Bartels BL, Ideology, the Affordable Care Act ruling and Supreme Court legitimacy, *Public Opinion Quarterly*, 2014, 78(4):963–973.
- Zou G, A modified Poisson regression approach to prospective studies with binary data, *American Journal of Epidemiology*, 2004, 159(7):702–706.
- Pew Research Center, *Beyond Red vs. Blue: The Political Typology*, 2014, <http://www.people-press.org/files/2014/06/6-26-14-Political-Typology-release1.pdf>.
- Lara D et al., Knowledge of abortion laws and services among low-income women in three United States cities, *Journal of Immigrant and Minority Health*, 2015, 17(6):1811–1818.
- Joffe C and Parker WJ, Race, reproductive politics and reproductive health care in the contemporary United States, *Contraception*, 2012, 86(1):1–3.
- Belluck P, Pregnancy centers gain influence in anti-abortion arena, *New York Times*, Jan. 4, 2013, <http://www.nytimes.com/2013/01/05/health/pregnancy-centers-gain-influence-in-anti-abortion-fight.html>.
- PerryUndem Research/Communication, *Analysis of Voters' Opinions on Abortion Restrictions and Affirmative Policies*, 2016, http://www.nirhealth.org/wp-content/uploads/2016/01/Memo-NIRH-Poll_Final_3.pdf.
- Zane S et al., Abortion-related mortality in the United States: 1998–2010, *Obstetrics & Gynecology*, 2015, 126(2):258–265.

36. Gilens M and Page BI, Testing theories of American politics: elites, interest groups and average citizens, *Perspectives on Politics*, 2014, 12(3):564–581.
37. Aaronson B, Anti-abortion candidates saw strong primary returns, *Texas Tribune*, Mar. 5, 2014, <http://www.texastribune.org/2014/03/05/anti-abortion-stance-proves-successful-statewide-r/>.
38. PerryUndem Research/Communication, *Latino Voters in Texas and Abortion*, 2014, http://www.latinainstitute.org/sites/default/files/NLIRH%20Research%20Memo_Final%20%281%29.pdf.
39. Hillygus DS, Jackson N and Young M, Professional respondents in non-probability online panels, in: Callegaro M et al., eds., *Online Panel Research: A Data Quality Perspective*, West Sussex, United Kingdom: John Wiley & Sons, 2014, pp. 219–237.
40. Nickerson A, Manski R and Dennis A, A qualitative investigation of low-income abortion clients' attitudes toward public funding for abortion, *Women & Health*, 2014, 54(7):672–686.

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