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# In the Wake of Dobbs: The Effect of State Abortion Bans on Women's College Choices

Samantha B. Kane
Harvard University

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# In the Wake of *Dobbs*: The Impact of State Abortion Bans on Women's College Choices*

Samantha Batel Kane†

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**Abstract**

This paper studies the impact of state reproductive rights laws on women's human capital decisions after the U.S. Supreme Court eliminated the constitutional right to abortion in *Dobbs v. Jackson Women's Health Organization* (2022). Using data from the Common App, the undergraduate college admission application, I implement a difference-in-differences design that compares high-achieving women's college choices to those of their male peers. I find that abortion bans caused a 2.7 percentage point decrease in the proportion of high-achieving women who applied to a school in one of the 13 states with a total ban. Effects were larger for applicants from states without a restriction on abortion, as well as for applicants from the most liberal counties in the United States. Further, treatment effects first emerged in the 2021-22 college application season after several Court actions suggested that it would overturn *Roe v. Wade* (1973) the following year, increased in magnitude in the 2022-23 college application season, and persisted in the 2023-24 college application season.

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†Harvard University. Contact: sbatel@g.harvard.edu.

# 1 Introduction

Conditional on applying to college, deciding where to apply is one of the most important decisions that applicants make in their college search process. Differences in behavior in the application stage affect where students enroll (Hoxby and Avery, 2013), and where students enroll impacts their human capital and labor market outcomes (Chetty, Deming, and Friedman, 2023; Zimmerman, 2019). This search process is particularly salient for prospective college students who cast a wide net and apply out-of-state. In 2020, for example, a quarter of all first-time undergraduate students enrolled out-of-state (U.S. Department of Education, 2023b).[1]

Applicants have historically based their college decisions on a variety of institution and match-specific factors, such as school quality, cost, and quality (Long, 2004). However, state reproductive rights laws became a new variable for applicants to consider in their college search process after the U.S. Supreme Court overturned *Roe v. Wade* (1973) in *Dobbs v. Jackson Women's Health Organization* (2022). This decision eliminated the federal constitutional right to abortion and set in motion state trigger laws and other restrictions that were previously blocked in court. Press coverage shortly thereafter suggested that these restrictions could affect where students attend college (Anderson, 2022, Bernstein and Horowitch, 2022).

In this paper, I estimate the causal impact of state reproductive rights laws on where women apply to college by examining changes in application behavior to states with and without abortion restrictions before and after the *Dobbs* decision. Using data from the Common Application (Common App), I estimate treatment effects for high-achieving female college applicants relative to their high-achieving male peers. The analysis focuses on high-achieving women for two reasons. First, high-achieving applicants exert more choice (i.e., apply to more out-of-state schools and states) in the college search process than their lower-achieving peers. These applicants are thus more likely to be impacted by out-of-state social policies.[2] Second, state reproductive rights laws are more salient for young women, even if the effect on men is not zero.[3] I thus estimate the impact of abortion bans for a "more" treated group relative to a "less" treated group, which is a conservative approach to identifying their causal impact on women's college application behavior. Further, high-achieving women and men had similar college application patterns prior to *Dobbs*, which facilitates using a difference-in-differences identification strategy.

To implement the analysis, I conduct a state-by-state review of abortion policy by the 2022-23 college application season, which was the first application season post-*Dobbs*. As shown in the

[1] This figure is based on the number of domestic degree-seeking undergraduate students who enrolled in four-year public and private not-for-profit institutions of higher education in one of the 50 U.S. States and D.C. within 12-months of graduating high school for the first time.

[2] According to the Common App, more than half of all applicants apply to five or fewer schools, and the modal applicant applies just once.

[3] In Section 8, I provide suggestive evidence that there is no significant treatment effect for men.

right-hand column of Table 1, 24 states passed a law to restrict or ban access to abortion, some of which were blocked by court orders. Of those states, 13 states (marked in bold with a bullet) enforced a total abortion ban. In the remainder of the analysis I refer to all 24 states as those with an "abortion law" and the most restrictive 13 states as those with an "abortion ban". In the left-hand column, 26 states and D.C. did not have a law to restrict or ban access to abortion. I refer to this group of states as those with "no abortion restriction".

To identify the treatment period, I take into consideration both the timing of *Dobbs* and the policy environment leading up to the decision. I consequently define the treatment period as both the 2021-22 and 2022-23 college application seasons, as several Court actions in 2021 suggested that it would overturn *Roe* in 2022 (see Section 3). This approach captures changes in the application behavior of women who were making choices in 2021 in anticipation of the Court's decision, as nearly all of the 13 states with an abortion ban passed their laws prior to the 2021-22 college application season,[4] as well as in 2022 after the Court's decision was handed down. I extend the analysis to the 2023-24 application season in Section 9.

I find that, relative to their high-achieving male peers, high-achieving female applicants were 1.2 percentage points less likely to apply to one of the 24 states with an abortion law in the 2021-22 and 2022-23 application seasons. This estimate is driven by changes in women's application behavior to the subset of 13 states with an enforceable abortion (-2.7 percentage points), with the effect size increasing from -1.4 percentage points in 2021 to -3.7 percentage points in 2022. Further, women from one of the 26 states and D.C. with no abortion restriction had a larger response to abortion bans than their peers from states with an abortion law. Women from states without a ban were less likely to apply to a state with a ban by 1.3 percentage points in 2021 and 4.5 percentage points in 2022. Treatment effects persisted in 2023. On the other hand, there was no effect of *Dobbs* on whether applicants applied out-of-state to a state with no abortion restriction. To my knowledge, these results are the first piece of evidence about the effect of state reproductive rights laws on women's college choices.

I also explore two mechanisms – concerns about access to reproductive health care and political identity – that may drive changes in the application behavior of women from states with no abortion restriction. These two mechanisms are highly correlated (see Section 2). I find that these women live too far from states that are landlocked by abortion bans to be sensitive to the travel distance to home to access care, but there is suggestive evidence that they are sensitive to how far schools are from the nearest abortion provider. Further, relative to women from less liberal counties, women from the most liberal counties in states with no abortion restriction were even less likely to apply to a state with an abortion ban compared with their male peers.

These application decisions have important implications for education, as women make up more

[4]West Virginia is the one exception. The state signed a total ban into law in September 2022.

than half of the college student population (U.S. Department of Education, 2023b). With fewer high-achieving women applying out-of-state to states with bans, colleges and universities may need to either accept lower-performing women from out-of-state, or admit more women from in-state to maintain their gender diversity balance. However, fewer out-of-state students would reduce the social and cultural diversity of learning environments that enhances human capital, and colleges and universities would lose a source of revenue (Mixon and Hsing, 1994). Fewer out-of-state students would also have downstream effects on communities and labor markets. Students often remain in the area where they attended college (Groen, 2004, Groen and White, 2004; Hickman, 2009, Huffman and Quigley, 2002, Winters, 2011a, Winters, 2011b), and larger shares of college graduates drive population growth by raising productivity and wages (Moretti, 2004, Rauch, 1993, Shapiro, 2006) and improving quality of life through greater consumer amenities and tolerance of others (Diamond, 2016, Florida, 2002, Shapiro, 2006).

This research contributes to and connects several different literatures. First, this research extends the literature on college choice. Prospective college students weigh a variety of institution-level characteristics, such as cost, distance, and quality, when deciding whether to cross state lines for college (Adkisson and Peach, 2008, Kyung, 1996, Baryla and Dotterweich, 2006, Mixon and Hsing, 1994, Tuckman, 1970). Geographic amenities such as a favorable climate (Morgan, 1983, Dotzel, 2017) and local economic conditions (Baryla Jr and Dotterweich, 2001, Hsing and Mixon, 1996, Morgan, 1983) also play a role in this decision. To my knowledge, this paper is the first to examine the role of reproductive rights laws in the college choice process.

Second, this project contributes to research on access to reproductive care and women's social and economic outcomes. A body of literature explores the effect of abortion and contraception on fertility (Levine et al., 1999, C. K. Myers, 2017), educational attainment (Angrist and Evans, 1996, Jones, 2021), educational expectations (Jones, 2021), labor force participation (Bailey, 2006, Goldin and Katz, 2002, Kalist, 2004), career outcomes (Jones, 2021), and earnings (Abboud, 2019, Jones, 2021). This paper connects this body of work to the literature on college choice.

Third, this research contributes to the literature on political identity and partisan sorting. Studies find that partisan affiliation affects behavior in economic realms, such as consumer spending (Gerber and Huber, 2009), household financial (Bonaparte, Kumar, and Page, 2017; Meeuwis et al., 2018), and real estate decisions (McCartney, Orellana, and Zhang, 2021), as well as behavior in the labor market (Colonnelli, Neto, and Teso, 2022; Fos, Kempf, and Tsoutsoura, 2022). I build on this literature by exploring the impact of political identity, which is correlated with views on abortion, on women's college location choices.

Lastly, this work contributes to the broader literature on the consequences of state abortion bans. A growing body of work discusses implications for the health care system, including medical education and training (Lambert, Horvath, and Casas, 2023; Orgera, Mahmood, and Grover, 2023;

Stephenson-Famy et al., 2023), patient care (Grossman et al., 2023), health inequity (Kimport, 2022), and fertility (Dench, Pineda-Torres, and C. Myers, 2024). On the other hand, abortion protections correlate with stronger indicators of economic well-being (Banerjee, 2023) and job recruitment in Democratic-leaning states and female-dominated jobs (Adrjan et al., 2023).

In the next section, I introduce the conceptual framework for this paper. In Section 3, I discuss the history of abortion access in the United States and the current state landscape. I describe the data in Section 4, trends in out-of-state college applications and enrollment in Section 5, and the empirical strategy in Section 6. Section 7 reports results, Section 8 explores mechanisms, Section 9 performs robustness checks and examines treatment effect persistence, and Section 10 concludes.

## 2 Conceptual Framework

This papers uses the theoretical framework developed by Sjaastad, 1962, which views migration as an investment in human capital. A student seeks to maximize her expected utility and will migrate if she expects the net present value of moving to exceed the cost. She will thus move if another location offers her a higher future utility than her current location, provided that this difference in utility compensates for the costs of moving. Since preferences vary, students receive different net benefits from a given location and will make different migration choices.

Based on this framework, I hypothesize that state laws on reproductive rights laws will impact the utility of college applicants. Surveys from the summer and fall following the *Dobbs* decision provide compelling evidence for this hypothesis. According to a BestColleges survey from July 2022, 39 percent (43 percent) of prospective (current) undergraduate students said that the decision will impact where they attend college (Bryant, 2022). Polling from the Lumina Foundation-Gallup 2022 State of Higher Education Study found that state reproductive rights laws were similarly important to 60 percent (72 percent) of unenrolled (enrolled) college adults.

Further, I hypothesize that these laws will affect female college applicants more than male college applicants, causing a differential impact on women's college application behavior. According to the Lumina-Gallup survey, 62 percent (76 percent) of unenrolled (enrolled) women reported that reproductive health laws would affect their college decisions, compared with smaller majorities of unenrolled (57 percent) and enrolled men (68 percent) (Marken and Hrynowski, 2023). These findings persist. The Lumina- Gallup 2024 study found that 89 percent (71 percent) of women (men) would rather attend college in a state with greater access to reproductive healthcare (Marken and Hrynowski, 2024).

Next, I posit that, in response to state reproductive rights laws, women may change where they apply to college for two reasons: (1) concerns about access to reproductive health care and (2)

political identity. First, women value access to reproductive health care services to exercise bodily autonomy (Adler et al., 2023). At the same time, partisan affiliation is an important part of an individual's social identity (Green, Palmquist, and Schickler, 2002) that may affect where she chooses to live (Tam Cho, Gimpel, and Hui, 2013; Kinsella, McTague, and Raleigh, 2015; Lang and Pearson-Merkowitz, 2015; McDonald, 2011; A. S. Myers, 2013). Notably, these two mechanisms are highly correlated. According to a 2023 Gallup poll, 84 percent of Democrats identified as pro-choice, compared with just 21 percent of Republicans (Saad, 2023). Further, a 2023 study by Arts & Science Group LLC found that 31 percent (28 percent) of liberal (conservative) students ruled out schools due to state social policies, compared with just 12 percent of students who reported not knowing their party affiliation (Goebel et al., 2023).

## 3 Policy Context

Prior to 1973, access to abortion care was determined by state-level policy. Five states and the District of Columbia provided legal access to abortion, and 13 states adopted laws that made abortion legal in limited cases. In the remaining states, abortion was generally prohibited except to save a woman's life (C. K. Myers, 2022).

The Supreme Court's landmark decision in *Roe* (1973) held that a woman has the constitutional right to make decisions about her reproductive life, including whether to continue or end her pregnancy before viability.[5] This decision legalized abortion nationwide, and the Court reaffirmed the core holding of *Roe* in *Planned Parenthood of Southeastern Pennsylvania v. Casey* (1992). In the mid-2000s, states began to pass new laws to restrict access to abortion, including late gestational age bans after 20 or 22 weeks[6]; early gestational age bans after 6, 8, 12, or 15 weeks; trigger laws that would ban abortion if the Court overturned *Roe*; and total abortion bans. Most late gestational age bans took effect under *Roe*, but early gestational age and total bans were blocked by court orders.[7,8]

The change in the composition of the Supreme Court and its shift to a conservative majority set the stage for its decision in *Dobbs*. In 2018, then-President Donald Trump appointed Brett Kavanaugh to the Court. This appointment made the Court more conservative than at any other time in modern history with two distinct blocs – five conservatives and four liberals (Liptak, 2018). Notably, more restrictive state abortion bans – including early gestational age bans, trigger laws,

[5] The current standard for fetal viability is 22-24 weeks (Cha and Roubein, 2021).

[6] There are two main ways to calculate gestational age: postfertilization, which is from the date of conception, and last menstrual period (LMP), which is from the start of the most recent menstrual period. For example, a ban after 20 weeks postfertilization is equivalent to a ban after 22 weeks LMP.

[7] Texas is an exception. The state's 6-week ban took effect in 2021.

[8] This paper focuses on state abortion laws, but states have also enacted targeted restrictions on abortion providers, limitations on insurance coverage of abortion, and limitations on medication abortion.

and total bans – picked up steam after this appointment, as Justice Kavanaugh would become, as many predicted, the fifth vote to uphold new limits on abortion (Tavernise, 2019). On June 29, 2020, the Court decided the first major abortion case since the shift in its balance of power. In *June Medical Services LLC v. Russo*, the Court struck down a Louisiana law that required doctors who preform abortions to have admitting privileges at nearby hospitals. Chief Justice John G. Roberts added his fifth vote to those of the Court's four-member liberal bloc, halting anti-abortion momentum (Tavernise and Dias, 2020). However, after Justice Ruth Bader Ginsburg died on September 18, 2020, she was replaced by Justice Amy Coney Barrett. Barrett, who had previously spoken out against abortion, created a six-justice conservative majority on the Court (Liptak, 2021) to make it the most conservative it had been since the 1930s (Biskupic, 2020).

Three major developments in 2021 then signaled the likelihood that the Court would overturn *Roe* – or, at a minimum, further restrict access to abortion – in 2022. First, on May 17, 2021, the Court agreed to hear the *Dobbs* case, which concerned a Mississippi law that banned abortion after 15 weeks of pregnancy. To many, the Court's decision to hear the case signaled the willingness of the justices to revisit – and potentially overturn – its precedent (Liptak, 2021). Second, on September 1, 2021, the Court denied an emergency request to block Texas' 6-week abortion ban, fueling the "hopes of abortion opponents and fears of abortion rights advocates" as the court took up the *Dobbs* case (Liptak, Goodman, and Tavernise, 2021). Texas' law became the most restrictive abortion measure in the United States at that time.[9] Third, on December 1, 2021, the Court heard oral arguments in the *Dobbs* case. Press coverage of the hearings suggested that the majority would uphold the Mississippi law, which banned abortion two months before the viability line determined by *Roe* (Phillips, 2021; Vogue, 2021). Six months later, on May 2, 2022, *Politico* published an initial draft majority opinion for the *Dobbs* case, which was written by Justice Samuel Alito and voted to strike down *Roe* (Gerstein and Ward, 2022). On June 24, 2022, the Court officially decided the case in a 6-3 decision that eliminated the federal constitutional right to abortion. Dozens of state abortion restrictions subsequently went into effect.

In this paper, I group states into three categories based on their abortion policy by the 2022-23 college application season, which was the first application season after the Court's decision in *Dobbs*. The first category includes the 24 states with laws that restricted access to abortion (i.e., an early gestational age ban) and/or banned abortion (i.e., a trigger law or total ban). Some of these laws remained blocked by court orders in the wake of *Dobbs*. The second category includes the 13 of the 24 states where a complete abortion ban was enforced. The third category includes the 26 states and D.C. that did not have a law restricting access to or banning abortion.[10] I subsequently refer

[9]The Texas Legislature drafted the law to make it difficult to challenge in court. According to *The New York Times*, "Usually, a lawsuit seeking to block a law because it is unconstitutional would name state officials as defendants. However, the Texas law, which makes no exceptions for pregnancies resulting from incest or rape, bars state officials from enforcing it and instead deputizes private individuals to sue anyone who performs the procedure or "aids and abets" it" (Liptak, Goodman, and Tavernise, 2021).

[10]Two states in the "no abortion restriction" category – Montana and Nebraska – had late gestational age bans

to these three categories as states with an abortion law, states with an abortion ban, and states with no abortion restriction. See Table 1 and Figure 1 for a complete list of states in each category, and Appendix Section 13.3 for a detailed analysis of state abortion restrictions.

# 4 Data

I use college application data from the Common App from the 2016-17 through 2022-23 college application seasons for the main analysis.[11,12] I interchangeably refer to each application season by the full year (e.g., the 2016-2017 application season) or the fall of that year (e.g., 2016). The data include the de-identified list of schools that applicants applied to via the Common App platform, as well as a set of observable applicant characteristics. I start by identifying a sample of 6,350,153 17- and 18-year-old college applicants who were high school seniors and lived in one of the 50 U.S. states or the District of Columbia.[13] To identify high-achieving applicants, I use the cut score for the 90th percentile of SAT/ACT test-takers in the sample in 2016 to create a subsample of 597,755 applicants.[14] I combine these data with zip-code level covariates from the American Community Survey 5-Year Estimates.

Next, I match each applicant's college applications to the corresponding state abortion policies (abortion law, abortion ban, no abortion restriction) using the coding scheme in Section 3. I also identify the state abortion policy in each applicant's state of residence. I then construct three primary binary outcomes – whether an applicant applied to a state with an abortion law, an abortion ban, or no abortion restriction – and collapse the data to the applicant-level.

Table 3 summarizes applicant covariates. Of the full sample, 69 percent of applicants were 17-years-old and 57 percent were women. Fifty-three percent identified as White, 12 percent as Black, 17 percent as Hispanic, and 10 percent as Asian. A quarter of applicants were eligible for or received a Common App application fee waiver. Nearly the entire sample consists of U.S. citizens who attended high school in their home state. Nearly 70 percent of applicants were from states

starting at 20 weeks that were in effect prior to *Dobbs*.

[11] I exclude three additional years of available Common App data from the 2013-14, 2014-15, and 2015-16 application seasons for two reasons. First, high school class year, which I use to define the sample, is unavailable in those years. Second, the SAT, which I use to define high-achieving applicants in the sample, changed its format in spring 2016.

[12] I bring in data from the 2023-24 college application season in Section 9.2.

[13] By construction, applicants who were not high school seniors, 17- or 18-years-old (which cover 98 percent of all observations), and from one of the 50 U.S. states or the District of Columbia are excluded from the sample. For applicants who applied in more than one application season, I use their first observation.

[14] Following Hoxby and Avery, 2013, I define high-achieving students as those who score at or above the 90th percentile on the ACT or SAT. The authors also restrict their definition of high-achieving students to those with a high school grade point average of A- or above, but they note that this criterion hardly matters after conditioning on having test scores in the top 10 percent. I use the cut score for the 90th percentile on the SAT/ACT in 2016 (a score of 1460) in all application seasons to avoid selection into test-taking after institutions of higher education announced test-optional policies in spring 2020. The proportion of applicants in the data who reported an SAT/ACT score to the Common App declined from an average of 72 percent prior to 2020 to an average of 47 percent post-2020.

with no abortion restriction and approximately one third were from states with an abortion law, of which 11 percent were from states with an abortion ban. Compared with the full sample, high-achieving applicants were less likely to be Black or Hispanic, fee-waiver eligible, or first generation. In addition, high-achieving applicants applied to more schools, were more likely to apply out-of-state, and sent a larger proportion of their applications out-of-state.[15] These application sending patterns suggest that high-achieving applicants are more likely to be impacted by social policy in other states because they cast a wider net.

Between 2016 and 2022, applicants in the sample sent nearly 34.5 million applications to 1,000 schools using the Common App platform, which is limited to public and private not-for-profit four-year institutions of higher education in the United States.[16] Applications to schools that were not sent through the Common App are not captured in the data. For context, public and private not-for-profit four-year colleges and universities received a total of 12,033,078 applications from first-time, degree-seeking undergraduate students for fall 2021 enrollment (U.S. Department of Education, 2023a). Applicants in the sample sent 5,440,009 applications (45 percent) in the corresponding application season (2020-2021), making the platform the most comprehensive centralized source of application data.

Notably, applicants' school choice sets in the Common App increased from 616 schools in 2016 to 943 schools in 2022 (Figure 2a) as Common App membership grew at a similar rate in states with an abortion ban, an abortion law, and no abortion restriction (Figure 2b). The growth in the number of Common App members was largely driven by schools that are among the least selective, as shown in Figure 2c. Following prior work (Chetty, Friedman, et al., 2017; Deming et al., 2015), I use data from the Barron's 2009 index to classify schools into four tiers based on their selectivity: elite (Ivy-Plus, which includes the Ivy League plus Stanford, MIT, Chicago, and Duke, and Barron's Tier 1 excluding the Ivy-Plus), highly selective (Barron's Tier 2), selective (Barron's Tiers 3-5), and non-selective (Barron's Tier 9, specialized schools, and schools that are otherwise not included in the selectivity index). As the number of selective schools grew, the number of elite schools remained nearly constant over time alongside a small increase in the number of highly selective schools. Further, as the number of Common App members increased, so did the number of applications that applicants sent out-of-state and the number of states that applicants applied to out-of-state (Figure 3).

## 5 Trends in Out-of-State Applications and Enrollment

To motivate the analysis, I separately examine institution-level trends in out-of-state applications using data from the Common App, and institution-level trends in out-of-state enrollment using

[15] Further, Figure A9 shows that the likelihood of applying out-of-state increases with SAT/ACT score.
[16] I drop two schools that have an "NA" value for state.

publicly available data on residence and migration from the Integrated Postsecondary Education Data System (IPEDS). I constrain the window of analysis to the pre-period, and focus on college enrollment in the fall of 2016, 2018, and 2020 because IPEDS requires that institutions provide data on residence and migration only in even-numbered years. I identify 569 Common App members with available IPEDS data in all three years.[17] For out-of-state applications, I focus on applicants who met the sample criteria (defined in Section 4) and applied to college in 2016 (a proxy for 2015, which is excluded from the sample – see footnote 11), 2017, and 2019 for enrollment in the fall of 2016, 2018, and 2020, respectively. These restrictions identify a sample of 593 schools.

I start by calculating the proportion of each school's applications that were sent from in-state, out-of-state from a state with an abortion ban, out-of-state from a state with an abortion law, and out-of-state from a state with no abortion restriction. I similarly calculate the proportions of each school's student population that enrolled from in-state and out-of-state by abortion policy. (By construction, the proportion of out-of-state applicants and enrolled students from a state with an abortion law encompasses those from a state with an abortion ban.) I then take the average for each outcome across states with an abortion ban, an abortion law, or no restriction.

Figure 4 shows that there is a sizeable amount of student migration across states with an abortion ban, an abortion law, and no restriction. For schools in states with an abortion ban, 40 percent of applicants and nearly a quarter of enrolled students were from states with no abortion restriction. Notably, a greater proportion of enrolled students in these schools were from states with no abortion restriction than from states with an abortion law or ban. Similarly, for schools in states with an abortion law, approximately 35 percent of applicants and a quarter of enrolled students were from states with no abortion restriction. For schools in states with no restrictions, approximately 10 percent of applicants and 8 percent of enrolled students were from states with an abortion law, and approximately 10 percent of applicants and 4 percent of enrolled students were from states with an abortion ban. The majority of out-of-state applicants and enrolled students were from other states with no abortion restriction.

Importantly, because the Common App does not capture all of the applications that a school receives, out-of-state applications by state of residence may be over or understated. For example, for schools in states with an abortion ban, the proportion of applicants from states with no restrictions would be inflated if non-Common App applications were disproportionately from students in other states with an abortion ban. This feature would attenuate the difference in the proportion of students from states with no abortion restriction who applied to (40 percent) and enrolled in (nearly 25 percent) schools in states with an abortion ban. Nonetheless, these trends suggest that changes in state social policy may have a nontrivial effect on migration to schools in states with an abortion ban or law, given that a significant portion of the students who applied to and enrolled

[17] I focus on the residence and migration of first-time degree/certificate-seeking undergraduate students who graduated from high school in the past 12 months across.

in these schools prior to *Dobbs* were from states with no abortion restriction. On the other hand, changes in state social policy may have less of an effect on migration to schools in states with no abortion restriction, as a smaller portion of the students who applied to and enrolled in these schools were from states with an abortion ban or law.

# 6 Empirical Framework

## 6.1 Identification Strategy

The naïve approach to estimating the causal impact of abortion laws on application behavior would be to compare differences in outcomes between female and male applicants after the *Dobbs* decision. This relationship can be expressed with the following reduced-form equation

$$Y_i = \alpha + \beta Female_i + \mathbf{X}_i + \epsilon_i, \tag{1}$$

where $Y_i$ is a measure of an individual's application behavior and $Female_i$ is an indicator for applicant sex.[18] To obtain an unbiased estimate of $\beta$, the regression must include all of the elements of $\mathbf{X}_i$ that are correlated with an applicant's gender and her application behavior. However, in practice, many of these covariates are unavailable, and unobserved differences across gender that also induce variation in application behavior would bias the estimate.

Instead, I use a difference-in-differences strategy to compare the change in female applicants' behavior to the change in male applicants' behavior before and after *Dobbs*. The key identifying assumption is that any relative change in application behavior is attributable to state abortion restrictions. I estimate

$$Y_i = \alpha + \beta(Female_i \times After_t) + \gamma Female_i + \delta X_i + \eta_{st} + \nu_{sg} + \epsilon_i, \tag{2}$$

where $Y_i$ is a binary indicator for one of three application outcomes (applied to a state with an abortion ban, law, or no restriction). $After_i$ equal to 1 in the 2021 and 2022 application seasons. $X_i$ is a vector of applicant-level covariates, including age, race/ethnicity, Common App fee waiver eligibility, whether the applicant was first generation, SAT/ACT score, whether the applicant attended high school in her home state, high school type, median household income of the applicant's zip code adjusted to 2021 dollars, and percent adults with at least a BA degree in the applicant's zip code. I include state-by-season ($\eta_{st}$) and state-by-gender ($\nu_{sg}$) fixed effects to account for state-specific shocks and differences in state of residence by gender.[19] I cluster standard

[18] For the years in this analysis, the Common App uses a binary indicator for applicant sex.

[19] I also estimate a specification that includes include career-by-season and career-by-gender fixed effects to account for academic program-specific shocks and differences in academic programs by gender, using applicants' career inter-

errors by applicant state of residence. I also estimate an event study version of equation (2) using

$$Y_i = \alpha + \sum_{\substack{t=-5 \\ t\neq -1}}^{1} \beta_t (Female_i \times \mathbf{1}[\tau = t]) + \gamma Female_i + \delta X_i + \eta_{st} + \nu_{sg} + \epsilon_i, \tag{3}$$

which separately estimates effects for every year using indicators for gender, year, and their interactions, with 2020 as the reference year. The coefficients on 2021 and 2022 estimate separate treatment effects by year, whereas the estimate of $\beta$ from equation (2) averages treatment effects across both years. Near-zero coefficients for 2016-2019 provide evidence of parallel trends in the pre-period.

### 6.2 Evidence on Identifying Assumptions

My identification relies on the assumption that women's college application behavior would have trended similarly to men's in the absence of *Dobbs*, where the treatment period is defined as the 2021 and 2022 college application seasons. Defining treatment in this way captures changes in the application behavior of women who were making choices in 2021 in anticipation of the Court's decision, as well as in 2022 after the decision was handed down (see Section 3). To assess the plausibility of parallel trends and treatment timing, I examine observed trends in women and men's college application decisions over time.

Figure 5a shows that the proportion of high-achieving female and male applicants who applied to a state with an abortion ban tracked each other closely from 2016 to 2020, with a constant gap of roughly 3 percentage points over this period. In 2021, the difference narrows by half, as the proportion of female applicants decreases by approximately 1.5 percentage points. In 2022, the proportion of female applicants drops below the proportion of male applicants by nearly 1 percentage point. Figure 5c similarly shows that the proportion of high-achieving female and male applicants who applied to a state with an abortion law tracked each other closely from 2016 to 2020, with a constant gap of approximately 2-3 percentage points over this period. In 2021 and 2022, the gap widened to approximately 4 percentage points. On the other hand, Figure 5e shows that similar proportions of high-achieving women and men applied to a state with no abortion restriction over time. Lower-achieving applicants also trended similarly across all three outcomes (see Figures 5b, 5d, and 5f).

ests as a proxy for college major. The Common App does not systematically collect information on applicants' college majors, but applicants can choose from a list of 50 careers. I group these careers into nine occupation categories (plus "other", "non-employment", and "undecided"). However, as students are deciding college and career jointly, it is possible that career decisions are also impacted by state abortion bans. I therefore exclude career-related fixed effects from my preferred specification. Estimates from specifications with these fixed effects are similar to those without, with slight attenuation in 2022.

These patterns provide support for common trends in the pre-period as well as suggestive evidence of a *Dobbs* treatment effect on the application behavior of high-achieving women in 2021 and 2022. Changes in the proportion of applicants who applied to a state with an abortion ban were even larger for high-achieving applicants from states with no abortion restriction. Figure 6a shows a gap of approximately 1-1.5 percentage points between women and men from these states in 2016 through 2020, after which the proportion of women drop below men by half a percentage point in 2021 and 3.5 percentage points in 2022. Trends in outcomes for applicants from states with an abortion law or ban in Figures 7 and 8, on the other hand, were more similar over time.

Notably, Figures 5 and 6 show an upward trend in the proportion of high-achieving women who applied to a state with an abortion ban or law, even as the proportion of women decreased relative to men in 2021 and 2022. These patterns mirror the increase in the number of Common App member institutions in these states in Figure 2b. In Figure 9, I restrict applications to the subset of Common App members that received at least one application in each season. This subsample includes application data for 590,363 high-achieving applicants applying to the set of 580 schools that were always Common App members between 2016 and 2022.[20] This subsample thus may not capture a state that an applicant applied to if she only applied to a school in the state that was not always a Common App member.[21] However, this subsample has the benefit of estimating changes in application behavior for a constant set of schools over time. Using these data, Figure 9 shows that the proportion of high-achieving women who applied to a state with an abortion ban decreased in both treated years relative to the proportion of women in 2020, and the proportion of high-achieving women who applied to a state with an abortion law flattened out.

A close inspection of Figures 5a and 6a also suggests that there was an uptick in the proportion of high-achieving men who applied to a state with an abortion ban in 2022 beyond the trend line. This uptick is largely driven by new Common App members in Texas, including its two flagship universities that joined in 2022 (Steele, 2022). In Figure 10a, I plot the proportion of high-achieving applicants who applied to a state with an abortion ban, excluding schools in Texas. This figure eliminates the uptick in the proportion of high-achieving men who applied to a state with an abortion ban in 2022, and shows an attenuated increase in the proportion of high-achieving women.[22] Figures 9a and 9c, which use application data for schools that are always Common App members and thus similarly exclude the new Texas schools, also eliminate this uptick.

Importantly, for the main identifying assumption to hold, the proportion of high-achieving women who applied to a state with an abortion ban or law would have had to increase at a similar rate

[20] Applicants who only applied to schools that were not Common App members in all application seasons are subsequently dropped.

[21] For example, the modified sample excludes applications to North Dakota and Wyoming. One school in each state joined the Common App after 2016. See Table A1.

[22] New Common App members in Wisconsin that appeal particularly to high-achieving applicants also entered the sample over time. Figure 10c plots application trends to states with an abortion ban excluding schools in both Texas and Wisconsin.

as men as new Common App members joined the sample in the post-period. Figures 5 and 6, as previously discussed, provide support for this assumption. Further, Figure 11 shows similar pre-period trends in the proportion of men and women who applied in- and out-of-state to Texas, as well as a sharp increase in 2022 in the proportion of men and women who applied in-state to Texas. These data suggest that, similar to men, more out-of-state women would have applied to Texas in 2022 after the state's flagship universities joined the Common App if not for the state's abortion ban.

Lastly, to provide further support for the timing of the treatment – which I define as the 2021 and 2022 college application seasons – I explore trends in Google searches on the topic of abortion in Figure 12.[23] Numbers on the Y-axis represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term, which corresponds with the *Dobbs* decision in June 2022. There is also a notable spike in spring 2019, which is when states passed restrictive laws with greater intensity, and in fall 2021, when Texas' 6-week ban went into effect. Importantly, Figures 10a and 10c provide evidence that women changed their application behavior in response to more than Texas' 6-week ban in 2021, as the proportion of high-achieving women who applied to a state with an abortion ban or law – excluding Texas – declined relative to men in both 2021 and 2022.

# 7 Results

Table 4 reports the proportion of high-achieving women and men who applied to a state with an abortion ban, an abortion law, or no restriction in the pre- and post-periods. For example, in the pre-period in Panel A, 40.4 percent of high-achieving women applied to a state with an abortion ban, relative to 37.6 percent of high-achieving men. In the post-period in Panel A, approximately 43 percent of both men and women applied to a state with an abortion ban. The last column takes the difference between these two differences, for an implied effect of -2.5 percentage points. Panel B reports a -1.1 percentage point effect on applying to a state with an abortion law and Panel C reports a near zero effect on applying to a state with no abortion restriction.

The differences in means in Table 4 correspond with columns 1, 3, and 5 in Table 5. The preferred specification in columns 2, 4, and 6 in Table 5 includes applicant covariates and fixed effects. Relative to high-achieving men, high-achieving women were 2.7 percentage points less likely to apply to a state with an abortion ban (column 2) and 1.2 percentage points less likely to apply to a state with an abortion law (column 4). There is a small, negative effect on applying to a state with no abortion restriction (column 6) when effects are averaged across both treated years, but Table 6 reports null effects in both 2021 and 2022.

[23] A Google Trends topic is a group of search terms that share the same concept or entity, in any language.

These results indicate that women had the greatest behavioral response to the subset of 13 states with an enforceable abortion ban, and the magnitude of this effect increased after the *Dobbs* decision was handed down. Column 2 of Table 6 reports that women were 1.4 percentage points less likely to apply to these states in 2021, and 3.7 percentage points less likely to apply to these states in 2022. Further, women from states with no abortion restriction largely drove the estimated treatment effects. Column 2 of Table 7 reports that, relative to women from states with an abortion law, women from states with no abortion restriction were less likely to apply to a state with an abortion ban by approximately 2 percentage points more than their male peers, for a total effect of -3.3 percentage points across both treated years. In 2022, this subset of women was 4.5 percentage points less likely to apply to a state with an abortion ban, as reported in column 2 of Table 8. See Figure 13 for the corresponding event studies for all applicants and for those from states with no abortion restriction.[24]

However, the *Dobbs* decision did not affect the application behavior of women from states with an abortion law to states with no abortion restriction. Column 6 of Table 7 reports a null effect for this population, indicating that treatment effects are asymmetric – women from states with no abortion restriction were less likely to apply to a state with an abortion ban, but women from states that signed an abortion restriction into law were no more or less likely to apply to a state with no restriction. Women from states with no restriction similarly did not shift their applications toward states with no restriction as they decreased their applications to states with a ban.

These results report changes in application behavior for whether an applicant applied to any school in one of the 13 states with an abortion ban. However, as schools vary in selectivity, they may also vary in their appeal to high-achieving college applicants. Panel A of Table 2 provides a break down of school selectivity in each state with an abortion ban for schools that were ever Common App members during the sample window (see Section 4 for a discussion of school selectivity categorization). There are four elite Common App members, including one in Louisiana, Missouri, Tennessee, and Texas, and 26 highly selective members spread out across Arkansas, Kentucky, Louisiana, Oklahoma, Tennessee, Texas, and Wisconsin. More than two-thirds of schools fall in the selective category, and a small number are non-selective.

Event study estimates in Figure 14a show significant treatment effects for applying to an elite or highly selective school, both of which drew the largest proportion of high-achieving applicants (35.5 percent) in the pre-period. Applications to selective schools, which drew a much smaller proportion of high-achieving applicants in the pre-period (3.7 percent), were largely unaffected. There is a precise null for non-selective schools, which drew just 0.01 percent of high-achieving applicants in the pre-period. These results suggest that changes in application behavior to the most competitive schools in states with an abortion ban drive the main findings, largely because those are the schools to which high-achieving applicants apply.

[24] See Figure A2 for event studies for applicants from states with an abortion ban or law.

Indeed, in the pre-period, significantly more high-achieving applicants from states with no abortion restriction applied out-of-state to the five states – Louisiana, Missouri, Tennessee, Texas, and Wisconsin (see Figure A1) – that are home to all of the elite schools and nearly 90 percent of the highly selective schools in states with a ban. As a result, restricting the outcome to whether an applicant applied to one of these five states in Figure A3a recovers similar estimates to the main findings.[25]

Notably, Panel A (schools that were ever Common App members in the sample window) and Panel B (schools that were always Common App members in the sample window) of Table 2 show that the number of elite schools remained constant over time, while the number of highly selective schools increased due to nine schools in Texas and Wisconsin becoming members. Figure 14b plots the event study estimates by school selectivity for the subsample of application data to schools that are always Common App members in the sample window. The pattern of results is consistent with those in Figure 14a. There is a smaller treatment effect in 2022 with the exclusion of the highly selective schools that joined the Common App in 2022, particularly the flagship universities in Texas. Tables A2 and A3 report average treatment effects and event study estimates across all schools for this subsample.

## 8 Mechanisms

In this section, I explore two mechanisms that I hypothesize may drive changes in women's application behavior to states with an abortion ban: concerns about access to reproductive health care and political identity. I restrict the analytic sample to applicants from states with no abortion restriction.

I start by considering the sensitivity of women's college choices to the nearness of available reproductive services. Women attending college in a state with an abortion ban would have to travel out-of-state for care, and travel distance has a significant impact on abortion access. Lindo et al. (2020), for example, find substantial and nonlinear effects of travel distance on abortion rates in Texas – an increase in travel distance from 0–50 miles to 50–100 miles reduces abortion rates by 16 percent, but the effects of increasing distance are smaller when the nearest clinic is already more than 50 miles away. Of the 13 states with an abortion ban, three states – Arkansas, Louisiana, and Mississippi – do not share a border with a state where abortion is legal. I posit that if women were to apply to and attend school in one of these states, they would subsequently be likely to travel back home to access a clinic.

Arkansas, Louisiana, and Mississippi are clustered together in the U.S. South, geographically far from states with no abortion restriction (see Figure 1). I measure the distance (in miles) between

[25] Figure A3 also shows how treatment effects vary when each of the five states is excluded from the outcome.

the center of population of each of the three states and the centroid of each applicant's home zip code. I then calculate the average distance-to-home across the three states for each applicant, and take the average by applicant home state.[26] Applicants live at least nearly 500 miles from Arkansas, Louisiana, and Mississippi, and an average of nearly 1200 miles. With these significant distances to home, applicants are unlikely to be sensitive to incremental changes in proximity. Results in Table 9 confirm this hypothesis. There is no incremental effect of living in the second or third tercile of distance-to-home relative to the first on whether an applicant applies to a school in Arkansas, Louisiana, or Mississippi. Importantly, this result does not imply that women do not care about access to reproductive care, but rather that they live too far from the states that are landlocked by abortion bans to be sensitive to the travel distance to home.

In addition to school-home distance, I explore whether applicants are sensitive to how far schools are from the nearest abortion provider. I focus on changes in application behavior to elite and highly selective schools, which draw the largest proportion of high-achieving applicants (see Section 7).[27] These schools are located in eight of the 13 states with an abortion ban, including Arkansas, Kentucky, Louisiana, Missouri, Oklahoma, Tennessee, Texas, and Wisconsin. I match each school's geocoordinates to the corresponding county and each county to public-use data based on the Myers Abortion Facility Database, which is a panel of United States county-by-month distances to the nearest abortion provider (C. Myers, 2024). I use data on abortion providers in the August of each year, which marks the start of the Common App application season. Following Lindo et al. (2020), I then group schools into five categories based on their distance to the nearest abortion provider in 2022: 0-50 miles, 50-100 miles, 100-150 miles, 150-200 miles, and more than 200 miles.[28]

The event study in Figure 15a shows that treatment effects are largest for the schools that are more than 200 miles from the nearest abortion clinic, which are concentrated in Louisiana and Texas. The effect size for this subset of schools is larger in magnitude than the main results, particularly in 2022, which is largely driven by application behavior to the highly selective schools in Texas that joined the Common App in 2022.[29,30] This analysis provides suggestive evidence that college-going women *are* sensitive to access to reproductive care when making application decisions; however, they may also be responding to other characteristics about the abortion ban policies or

[26] I exclude applicants from Alaska and Hawaii from this analysis.

[27] Limiting the analysis to elite and highly selective schools also avoids potentially conflating student preferences for selectivity with student preferences for distance to abortion providers if more selective schools are systematically closer to abortion clinics than their less selective peer institutions.

[28] There are 30 elite or highly selective schools in states with an abortion ban (see Table 2), which are not equally distributed across the distance bins. There are four schools in the 0-50 mile bin, eight schools in the 50-100 mile bin, two schools in the 100-150 mile bin, 4 schools in the 150-200 mile bin, and 12 schools in the more than 200 mile bin.

[29] Importantly, omitting applications decisions to Louisiana and Texas from the main outcome in Section 7 – a binary indicator for whether an applicant applied to a state with an abortion ban – only slightly attenuates the main results, providing evidence that changes in application behavior to these two states do not solely drive the main findings.

[30] Effect sizes are similar in magnitude to the main results in Section 7 for the subsample of elite and highly selective schools that are always Common App members.

environments that are specific to these two states and correlated with clinic distance.

Next, I examine the impact of political identity on women's college choices. Given the relationship between political ideology and views on abortion, I hypothesize that treatment effects will be larger for more liberal women. To test this mechanism, I match each applicant's zip code to its county-level vote share in the 2016 presidential election using data from the MIT Election Data and Science Lab, 2018.[31] I then cut Democratic vote share into terciles. Vote share for Hillary Clinton ranged from approximately 7-55 percent in the first tercile, 55-68 percent in the second tercile, and 68-91 percent in the third tercile. I create a binary indicator for applicants from counties in the top tercile (the most liberal counties).

Results in Table 10 show that, relative to women from less liberal counties, women from the most liberal counties were less likely to apply to a state with an abortion ban by nearly 2 percentage points more than their male peers. In particular, women from the most liberal counties had a significantly larger behavioral response in 2021 in anticipation of *Dobbs* (see Figure 15b). Notably, according to the *The New York Times*, 11 of the 13 states with a ban tended to vote much more Republican than the country as a whole ("2016 Presidential Election Results" 2017). Women from the most liberal counties in the U.S. were thus less likely to apply to schools in the the most conservative states with abortion bans.

However, it is plausible that men also changed their application behavior due to political ideology. If so, the estimated treatment effects would understate the impact of state reproductive rights law on women's college choices. I explore this possibility by separately plotting the proportion of men and women from the most (the top tercile) and less (the bottom two terciles) liberal counties. Figure A7 shows that the proportion of men in more liberal counties who applied to a state with an abortion ban trended similarly to men in less liberal counties, with no relative change in application behavior in 2021 and 2022. However, for women, those from more liberal counties changed their behavior relative to those from less liberal counties during the treatment period. These descriptive data provide suggestive evidence that political identity motivated changes in women's but not men's application behavior.

# 9 Robustness and Persistence

## 9.1 Alternative Explanations and Specification Checks

In this section, I test alternative explanations for the main findings and perform sensitivity checks for the preferred specification. I start by examining whether treatment effects could be driven by

[31] Zip codes may span more than one county. To allocate vote share data from the county to the zip code, I weight by the ratio of residential addresses when collapsing.

state policies on COVID-19. People living in states won by Donald Trump in the 2016 election – which include all of the 24 states with an abortion law – were less likely to live under mask mandates, stay-at-home orders, or limitations on social gatherings compared with people in states won by Hillary Clinton (Rothwell and Makridis, 2020). The results in Section 7 could be driven by a response to COVID-19 if, relative to men, women from states with no abortion restriction – which were largely won by Hillary Clinton – were deferentially impacted by COVID-19 protocols.

I provide two pieces of evidence to rule out this alternative explanation. First, the 2020-21 college application season began in the summer immediately following the COVID-19 pandemic outbreak in spring 2020. Panel B of Figure 13 provides no evidence of differential trends in the 2016-2020 application seasons for applicants from states with no abortion restriction. Second, Figure A6 presents null effects for whether applicants from states with no abortion restriction applied to one of the six states (Alaska, Kansas, Pennsylvania, Montana, Nebraska, and North Carolina) with no abortion restriction that voted for Donald Trump in the 2016 election.

Next, I assess whether the main findings are sensitive to how I define the outcomes, which are based on state laws passed by the 2022-23 application season. It is possible, though improbable, that a state's decision to pass an abortion law is endogenous to changes in the proportion of it's out-of-state college applicants. I define two new variables for whether an applicant applied to a state with an abortion law or ban based on states that passed a law by the 2021-22 college application season, which was the first treated year. Consistent with the main findings, Figure A8 shows a negative treatment effect in 2021 and a larger negative treatment effect in 2022 for both outcomes.[32] I also assess the sensitivity of the main findings to applications to Indiana and West Virginia, which signed abortion laws on August 5 and September 16, 2022, respectively, after the start of the Common App season on August 1. For high-achieving applicants, nearly 100 percent of applications to Indiana were sent after August and approximately 98 percent of applications to West Virginia were sent after September, indicating that nearly all application decisions were made after the states passed their laws.[33]

I then show that the main findings are not sensitive to how I define high-achieving applicants. To motivate this analysis, Figure A9 shows that the proportion of applicants who applied out-of-state is increasing in SAT/ACT score.[34] The proportion starts to level off after a score of 1460, which is the cut score for the 90th percentile of SAT/ACT test-takers in the sample in 2016, which I apply

[32]These results should not be surprising, as nearly all of the states with an abortion ban passed their corresponding laws prior to 2022. Indeed, the outcome for applying to a state with an abortion ban by 2021 excludes only West Virginia and the outcome for applying to a state with an abortion law by 2021 excludes Florida, Indiana, West Virginia, and Wyoming. Figure A1 confirms that a small proportion of high-achieving applicants applied to these states in the pre-period.

[33]Over 95 percent of applications from all high-achieving applicants were sent between October and January across all application seasons. Thirty-five percent of applicants' first applications were submitted in October and 47 percent of applicants' first applications were submitted in January of their respective application seasons.

[34]For this figure, I restrict the sample to 2016-2020 to avoid capturing an effect of treatment. However, the pattern is unchanged if I use all application seasons.

in all years. In Table A4, I estimate the preferred specification for high-achieving students based on an SAT/ACT cut score of 1300, 1350, or 1400.[35] Results are similar in magnitude to the main results in Table 5.

Next, I test the sensitivity of the main findings to alternative sample selection criteria by predicting the likelihood of applying out-of-state using a logit regression with applicant and zip code covariates.[36] I cut the predicted propensity to apply out-of-state into deciles and re-estimate treatment effects by decile for applying to a state with an abortion ban. Figure A5 compares the characteristics of applicants in the top decile of likelihood to the high-achieving sample of applicants. A greater proportion of applicants in the top decile are women, White, and Black, and fewer applicants are Asian. These applicants are more likely to be from states with an abortion ban. They are slightly more likely to apply out-of-state than their high-achieving peers (96 percent vs. 93 percent), apply to fewer out-of-state states (4.59 states vs. 4.75 states), and send a greater proportion of their applications out-of-state (83 percent vs. 72 percent).

Figures A10a and A10b plot the treatment effects in 2021 and 2022, respectively, by decile.[37] Effect sizes are increasing in decile, meaning that applicants who are more likely to apply out-of-state experienced larger treatment effects. Figure A10c plots event study estimates for the top decile of propensity to apply out-of-state. These results are similar to Figure 13a in Panel A, which plots event study estimates for the top decile by achievement.

Lastly, I use a synthetic difference-in-differences (SDID) research design to compare changes in the college application behavior of women from states with and without abortion restrictions. To implement the SDID, I restrict my sample to high-achieving women and collapse the data to applicant state of residence by application season cells. The advantage of SDID is that, by combining features of synthetic control and difference-in-differences, it consistently estimates the causal effect of treatment even without the parallel trends assumption holding between all treatment and control unit on average.[38] This feature allows me to estimate the effect of *Dobbs* on changes in women's application behavior, independent of changes in men's. However, unlike the main analysis,

[35] According to the College Board, in 2016 a score of 1290 corresponded with the 90th percentile of a nationally representative sample of U.S. students in the 11th and 12 grade weighted to represent all U.S. students in thoes grades, regardless of whether they typically take the SAT. A score of 1340 corresponded with the 90th percentile of a nationally representative sample of U.S. college bound students, weighted to represent students who typically take the SAT last as 11th- or 12th-graders.

[36] I restrict the logit regressions to the pre-period application seasons (2016-2020) and then predict applicants' propensity to apply out-of-state in all seasons. Logit regressions include race, gender, age, Common App fee waiver eligibility, first generation status, SAT score, whether an applicant attended high school in her home state, the type of high school the applicant attended, median household income of the applicant's zip code adjusted to 2021 dollars, percent adults with at least a BA degree in the applicant's zip code, applicant home state, and application season.

[37] Note that for applicants with a lower propensity to apply out-of-state, particularly those in the first three deciles, event studies reveal significant pre-trends.

[38] SDID re-weights and matches pre-exposure trends to weaken the reliance on parallel trends like synthetic control, and is invariant to additive unit-level shifts and allows for valid large-panel inference like difference-in-differences (Arkhangelsky et al., 2021).

which weights data at the applicant-level, collapsing the data gives equal weight to each state and decreases precision.

I model this analysis on work by Dench, Pineda-Torres, and C. Myers (2024), who estimate the effect of *Dobbs* on fertility. Using SDID, the authors compare changes in birth rates in the 13 states with a total abortion ban (treated states) to those in the 24 states and D.C. where abortion was protected (control states). The remaining 13 states with gestational age limits or blocked bans are excluded from the control states. The authors' classification scheme closely aligns with my organization of state abortion restrictions with minimal exceptions.[39] However, in the context of college applications, as reported in Section 7, *Dobbs* induced women from states without an abortion restriction to change their behavior, but not women from states with a restriction. I therefore compare changes in the application behavior of women from the 26 states and D.C. with no restriction on abortion (treated states) to those of women from the 24 states with an abortion law (control states). I also restrict the group of control states to the 13 states with an abortion ban.

To estimate treatment effects, I use

$$\left(\hat{\tau}^{sdid}, \hat{\mu}, \hat{\alpha}, \hat{\beta}\right) = \underset{\tau, \mu, \alpha, \beta}{\arg\min} \left\{ \sum_{i=1}^{N} \sum_{t=1}^{T} \left(Y_{it} - \mu - \alpha_i - \beta_t - W_{it}\tau\right)^2 \hat{\omega}_i^{sdid} \hat{\lambda}_t^{sdid} \right\} \tag{4}$$

with a balanced panel of $N$ states and $T$ application seasons, where the outcome for state $i$ in application season $t$ is denoted by $Y_{it}$. The binary treatment, which is equal to 1 for states in the treated group in the 2021-22 and 2022-23 application seasons and zero otherwise, is denoted by $W_{it}$. The average treatment effect on the treatment is generated from a two-way fixed effects regression with optimally chosen weights, $\hat{\omega}_i^{sdid}$ and $\hat{\lambda}_t^{sdid}$. The selection of unit weights, $\omega$, seeks to ensure that comparison is made between treated and control units that approximately followed parallel trends prior to treatment. The selection of time weights, $\lambda$, seeks to draw more weight from pre-treatment periods that are more similar to post-treatment periods. In comparison, difference-in-differences procedures estimate the effect of treatment by solving the same two-way fixed effects regression without the time or unit weights (Arkhangelsky et al., 2021; Clarke et al., 2023). I rely on block bootstrap methods for statistical inference using 1,000 replications and follow Clarke et al. (2023) to estimate SDID event studies with confidence intervals.

The first two columns of Panel A of Table A6 provide evidence that high-achieving women from states with no abortion restriction were less likely to apply to a state with an abortion ban relative to women from states with an abortion law (-1.3 percentage points) and relative to women from states with an abortion ban (-2.6 percentage points, significant at the 10 percent level). There was

[39] There are four exceptions. Dench, Pineda-Torres, and C. Myers (2024) classify Michigan as a protected state, and Nebraska, North Carolina, and Pennsylvania as an excluded state.

no effect on applying to a state with an abortion law or no restriction. In Panel B, I restrict the sample to the pool of applications to schools that were Common App members in the 2019-2020 through 2021-2022 application seasons. I narrow the estimation window to include more Common App member schools in the sample, which is made possible by SDID requiring a minimum of two pre-treatment periods to determine control units (Clarke et al., 2023), and estimates are similar to those in Panel A. Figure A11 presents corresponding event study estimates for applying to a state with an abortion ban with the control group restricted to states with an abortion ban.

### 9.2 Treatment Effect Persistence

A natural next question is whether treatment effects persisted beyond the 2022-23 college application season. To answer this question, I incorporate preliminary college application data from the 2023-24 application season into the analysis and focus on application behavior to states with an abortion ban.[40] Notably, as described in Appendix 13.3, several states made changes to their abortion policy post-2022. Abortion policy changes in three states – Indiana, North Dakota, and Wisconsin – are the most relevant for this analysis. Indiana and North Dakota began enforcing complete abortion bans in the spring and summer of 2023, while abortion access resumed in Wisconsin in the fall of 2023. As a result, 14 states had a total abortion ban in the 2023-24 college application season, compared with 13 states in the 2022-23 season.

One potential solution is to incorporate changes in state policy into the outcome variable in the main analysis, which is a binary indicator for whether an applicant applied to a state with a ban. In Section 7, applicants in the 2016-17 through 2022-23 application seasons were coded as a 1 if they applied to one of the 13 states with an abortion ban and 0 otherwise. Applying this logic forward, applicants in the 2023-24 application season would be coded as a 1 if they applied to one of the 14 states with an abortion ban and 0 otherwise.

However, men and women's application behavior differed across these two pools of states. In Figure 5a, the proportion of high-achieving women who applied to one of the 13 states with an abortion ban in the 2022-23 application season outpaced their male peers at every point in time in the pre-period. On the other hand, Figure A4 shows opposite trends – the proportion of high-achieving men who applied to one of the 14 states with an abortion ban in the 2023-24 application season outpaced their female peers at every point in time in the pre-period. Using differences in men and women's application behavior to the 13 states with a ban as the counterfactual for differences in application behavior to the 14 states with a ban will thus bias the estimated treatment effect in 2023-24 upwards.

Alternatively, I incorporate the new application data into the analysis and estimate two separate

[40] These data include applications from August 2023 through March 2024.

event studies. In the first specification, I use the original outcome variable (whether an applicant applied to one of the 13 states with a ban).[41] In the second specification, I define the outcome based on whether an applicant applied to one of the 14 states with a ban. Figure A5 shows that the magnitude of the treatment effect in the 2023-24 application season was the same as that in the 2022-23 application season. This finding provides evidence of persisting changes in high-achieving women's college application behavior in response to state abortion bans.

## 10 Conclusion

In this paper, I estimate the impact of state laws on reproductive rights on women's human capital decisions. I use variation in state abortion restrictions from the timing of the *Dobbs* case, which the U.S. Supreme Court agreed to hear in May 2021 and decided in June 2022. Using a difference-in-differences identification strategy, I show that state abortion restrictions, particularly total bans that were enforced, impacted high-achieving women's college choices relative to men.

High-achieving female college applicants were 2.7 percentage points less likely to apply to a state that enforced a total abortion ban and 1.2 percentage points less likely to apply to a state with any abortion law relative to their male peers. Effects on applying to a state with an abortion ban were larger in 2022 (-3.7 percentage points) than in 2021 (-1.4 percentage points) and persisted in 2023. Further, effects were driven by high-achieving women from states with no abortion restriction – these applicants were 1.3 percentage points less likely to apply to a state with an abortion ban in 2021 and 4.5 percentage points less likely to apply to a state with an abortion in 2022, for a combined effect of -3.3 percentage points. There was no effect on whether women, including those from states with an abortion law or ban, applied to a state with no abortion restriction, implying that effects are asymmetric.

Further, I posited that women from states with no abortion restriction changed their application behavior because of their concerns about access to reproductive health care and/or political identity. Given the politics of abortion, the two mechanisms are likely highly correlated for women from primarily "blue" states. In trying to disentangle the two, I find that the distance between a woman's home state and a state with an abortion ban (i.e., the distance she would need to travel back home to access reproductive services) does not have an incremental effect on whether she applied to a school in that state, but that the distance between schools in states with an abortion ban and the nearest abortion clinic does. Further, women from the most liberal counties were less likely to apply to a state with an abortion ban relative to their peers from less liberal counties.

[41] I also estimate a specification where the outcome is whether an applicant applied to one of 12 states with a ban, where I exclude Wisconsin from the outcome because the state resumed access to abortions in 2023. Results are nearly identical.

Notably, the main finding that women were less likely to apply to a state with an abortion ban is largely driven by changes in application behavior to the most competitive schools, as these schools draw a large proportion of high-achieving applicants. This result has economic implications for students. The average annual out-of-state tuition fee for elite and highly selective schools in states with an abortion ban was approximately $42,000 in 2022, compared with an average out-of-state fee of approximately $49,000 in states with no abortion restriction. Women are thus willing to forgo applying to a less expensive schooling option – a potential $7,000 savings, not including differences in the cost of living – based on state abortion policy.

Beyond the economic cost to students, these results also have significant policy implications. First, these findings indicate that state social policy impacts where women apply out-of-state to college, which may translate into changes in college learning environments. Second, this result has potential downstream implications for labor markets, as individuals are more likely to work in the states where they attended college. If fewer high-achieving women from liberal states migrate to more conservative states, for example, the U.S. will experience an increase in partisan sorting by gender. Third, these findings suggest there is a need for additional research on the effect of state abortion bans on other migration decisions in education (e.g., college enrollment and transfers, graduate school applications and enrollment) and beyond (e.g., migration more broadly).

# 11 Tables

Table 1: Abortion Policy by State in the 2022 College Application Season

| No Restriction | | Abortion Law | |
|---|---|---|---|
| Alaska | Nebraska | **Alabama**• | Ohio |
| California | Nevada | Arizona | **Oklahoma**• |
| Colorado | New Hampshire | **Arkansas**• | South Carolina |
| Connecticut | New Jersey | Florida | **South Dakota**• |
| Delaware | New Mexico | Georgia | **Tennessee**• |
| D.C. | New York | **Idaho**• | **Texas**• |
| Hawaii | North Carolina | Indiana | Utah |
| Illinois | Oregon | Iowa | **West Virginia**• |
| Kansas | Pennsylvania | **Kentucky**• | **Wisconsin**• |
| Maine | Rhode Island | **Louisiana**• | Wyoming |
| Maryland | Vermont | Michigan | |
| Massachusetts | Virginia | **Mississippi**• | |
| Minnesota | Washington | **Missouri**• | |
| Montana | | North Dakota | |

*Notes:* This table categorizes the 50 U.S. states and D.C. based on their abortion restrictions in the 2022-23 college application season. In the first column, 26 states and D.C. did not have an abortion restriction beyond a 20-week late gestational age ban in Montana and Nebraska. In the second column, 24 states had an early gestational age or complete abortion ban, some of which were blocked by court orders. Of those states, the 13 states with enforceable abortion bans are in **bold** with a bullet(•). Abortion bans in Arizona, Indiana, Michigan, North Dakota, Utah and Wyoming, and early gestational age bans in Iowa, Ohio, and South Carolina were blocked by court orders. Access to abortion in Arizona, Florida, Georgia, and Utah was restricted after 6, 15, or 18 weeks.

Table 2: School Selectivity in States with an Abortion Ban

*Panel A: Ever a Common App member*

| | Elite | Highly Selective | Selective | Non-selective |
|---|---|---|---|---|
| Alabama | - | - | 8 | 1 |
| Arkansas | - | 1 | 1 | 2 |
| Idaho | - | - | 3 | - |
| Kentucky | - | 1 | 8 | 3 |
| Louisiana | 1 | 1 | 5 | 1 |
| Mississippi | - | - | 5 | - |
| Missouri | 1 | - | 24 | 1 |
| Oklahoma | - | 1 | 3 | - |
| South Dakota | - | - | 4 | - |
| Tennessee | 1 | 2 | 10 | 1 |
| Texas | 1 | 9 | 18 | 3 |
| West Virginia | - | - | 9 | - |
| Wisconsin | - | 11 | 10 | - |
| Total | 4 | 26 | 108 | 12 |

*Panel B: Always a Common App member*

| | Elite | Highly Selective | Selective | Non-selective |
|---|---|---|---|---|
| Alabama | - | - | 4 | - |
| Arkansas | - | 1 | - | 1 |
| Idaho | - | - | 3 | - |
| Kentucky | - | 1 | 2 | - |
| Louisiana | 1 | 1 | 3 | - |
| Mississippi | - | - | 2 | - |
| Missouri | 1 | - | 8 | 1 |
| Oklahoma | - | 1 | 2 | - |
| South Dakota | - | - | 1 | - |
| Tennessee | 1 | 2 | 5 | - |
| Texas | 1 | 6 | 4 | 1 |
| West Virginia | - | - | 4 | - |
| Wisconsin | - | 5 | 7 | - |
| Total | 4 | 17 | 45 | 3 |

*Notes:* This table categorizes schools using the Barron's selectivity index: elite schools (Ivy-Plus, which includes the Ivy League plus Stanford, MIT, Chicago, and Duke, and Barron's Tier 1 excluding the Ivy-Plus), highly selective schools (Barron's Tier 2), selective schools (Barron's Tiers 3-5), and non-selective schools (Barron's Tier 9 and colleges that are not included in the selectivity index). Panel A includes schools that were ever a Common App member between the 2016-17 and 2022-23 application seasons. Panel B includes schools that were always Common App members between the 2016-17 and 2022-23 application seasons.

Table 3: Summary Statistics

| | Full Sample | High-Achieving Applicants |
|---|---|---|
| 17-years-old | 0.69 | 0.71 |
| 18-years-old | 0.31 | 0.29 |
| HS senior | 1.00 | 1.00 |
| Female | 0.57 | 0.45 |
| White | 0.53 | 0.50 |
| Black or African American | 0.12 | 0.02 |
| Hispanic or Latino | 0.17 | 0.07 |
| Asian | 0.10 | 0.28 |
| Two or More Races | 0.05 | 0.06 |
| Unknown Race | 0.03 | 0.07 |
| Fee waiver eligible | 0.26 | 0.08 |
| First generation | 0.32 | 0.08 |
| Attends high school in home state | 0.97 | 0.97 |
| No Restriction Home State | 0.68 | 0.68 |
| Abortion Ban Home State | 0.11 | 0.14 |
| Abortion Law Home State | 0.32 | 0.32 |
| Total number of applications | 5.43 | 7.70 |
| Applied out-of-state | 0.71 | 0.93 |
| Number of states applied out-of-state | 2.42 | 4.75 |
| Prop. of apps sent out-of-state | 0.49 | 0.72 |
| Observations | 6350153 | 597755 |

*Notes:* This table describes the sample of applicants who applied to college using the Common App in application seasons 2016-17 through 2022-23. High-achieving applicants scored at or above the 90th percentile on the SAT/ACT in the sample in 2016.

Table 4: Proportion of High-Achieving Applicants who Applied to a State with an Abortion Ban, Abortion Law, or No Restriction Before and After *Dobbs*

*Panel A*: Abortion Ban

| | Women | Men | Difference |
|---|---|---|---|
| Before | 0.404 | 0.376 | 0.029 |
| After | 0.430 | 0.427 | 0.003 |
| Difference | 0.026 | 0.051 | -0.025 |

*Panel B*: Abortion Law

| | Women | Men | Difference |
|---|---|---|---|
| Before | 0.625 | 0.653 | -0.028 |
| After | 0.684 | 0.723 | -0.039 |
| Difference | 0.059 | 0.070 | -0.011 |

*Panel C*: No Restriction

| | Women | Men | Difference |
|---|---|---|---|
| Before | 0.871 | 0.835 | 0.037 |
| After | 0.885 | 0.854 | 0.031 |
| Difference | 0.014 | 0.019 | -0.005 |

*Notes:* This table shows the proportion of high-achieving applicants who applied to a state with an abortion ban, an abortion law, or no restriction in the pre- and post-periods. The third column (Difference) is the difference between the proportion of women and men.

Table 5: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions: Applied to a State with an Abortion Ban, Abortion Law, or No Restriction

| | Abortion Ban | | Abortion Law | | No Restriction | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Female x After | -0.025*** | -0.027*** | -0.011*** | -0.012*** | -0.005* | -0.006** |
| | (0.005) | (0.005) | (0.003) | (0.003) | (0.003) | (0.002) |
| Female | 0.029*** | | -0.028*** | | 0.037*** | |
| | (0.007) | | (0.006) | | (0.004) | |
| After | 0.051*** | | 0.070*** | | 0.019* | |
| | (0.009) | | (0.010) | | (0.011) | |
| Applicant covariates | No | Yes | No | Yes | No | Yes |
| State-by-season FE | No | Yes | No | Yes | No | Yes |
| State-by-gender FE | No | Yes | No | Yes | No | Yes |
| R-squared | 0.002 | 0.076 | 0.005 | 0.081 | 0.003 | 0.097 |
| N | 597755 | 596526 | 597755 | 596526 | 597755 | 596526 |

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the difference-in-differences estimates of the impact of *Dobbs* on high-achieving female college applicants relative to high-achieving male college applicants. The outcome is whether an applicant applied to one of 13 states with an enforceable abortion ban (columns 1-2); one of 24 states with an abortion law (columns 3-4), which includes those with an enforceable ban; or one of 26 states and D.C. with no abortion restriction (columns 4-6). The first estimate for each outcome uses the baseline specification without any controls. The second estimate for each outcome controls for applicant-level covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table 6: Event Study Estimates for High-Achieving Applicants:
Applied to a State with an Abortion Ban, Abortion Law, or No Restriction

| | Abortion Ban | | Abortion Law | | No Restriction | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Female x After x 2022 | -0.035*** | -0.037*** | -0.009 | -0.010** | -0.004 | -0.005 |
| | (0.008) | (0.007) | (0.005) | (0.005) | (0.003) | (0.003) |
| Female x After x 2021 | -0.015*** | -0.014*** | -0.009* | -0.009* | -0.003 | -0.003 |
| | (0.005) | (0.005) | (0.005) | (0.005) | (0.003) | (0.003) |
| Female x After x 2019 | -0.000 | 0.002 | 0.005 | 0.006 | 0.007** | 0.006** |
| | (0.004) | (0.004) | (0.005) | (0.005) | (0.003) | (0.003) |
| Female x After x 2018 | 0.001 | 0.002 | 0.003 | 0.004 | 0.002 | 0.003 |
| | (0.005) | (0.005) | (0.006) | (0.005) | (0.003) | (0.003) |
| Female x After x 2017 | 0.000 | 0.003 | 0.002 | 0.005 | 0.005* | 0.004 |
| | (0.005) | (0.005) | (0.006) | (0.005) | (0.003) | (0.003) |
| Female x After x 2016 | 0.001 | 0.002 | -0.007 | -0.005 | -0.006 | -0.007 |
| | (0.007) | (0.006) | (0.006) | (0.005) | (0.004) | (0.004) |
| Applicant covariates | No | Yes | No | Yes | No | Yes |
| State-by-season FE | No | Yes | No | Yes | No | Yes |
| State-by-gender FE | No | Yes | No | Yes | No | Yes |
| R-squared | 0.003 | 0.076 | 0.008 | 0.081 | 0.003 | 0.097 |
| N | 597755 | 596526 | 597755 | 596526 | 597755 | 596526 |

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the event study estimates of the impact of *Dobbs* on high-achieving female college applicants relative to high-achieving male college applicants. The outcome is whether an applicant applied to one of 13 states with an enforceable abortion ban (columns 1-2); one of 24 states with an abortion law (columns 3-4), which includes those with an enforceable ban; or one of 26 states and D.C. with no abortion restriction (columns 4-6). The first estimate for each outcome uses the baseline specification without any controls. The second estimate for each outcome controls for applicant-level covariates (see text for details), and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table 7: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions by State of Residence: Applied to a State with an Abortion Ban, Abortion Law, or No Restriction

| | Abortion Ban | | Abortion Law | | No Restriction | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Female x After x No Restriction | -0.020** | -0.019** | -0.013* | -0.012* | -0.007 | -0.008 |
| | (0.009) | (0.009) | (0.007) | (0.006) | (0.006) | (0.006) |
| Female x After | -0.013* | -0.014* | -0.003 | -0.003 | -0.002 | -0.001 |
| | (0.007) | (0.007) | (0.007) | (0.006) | (0.006) | (0.006) |
| Female x No Restriction | -0.050*** | | -0.041*** | | -0.022*** | |
| | (0.008) | | (0.009) | | (0.008) | |
| No Restriction x After | 0.025 | | 0.040** | | 0.042** | |
| | (0.017) | | (0.017) | | (0.019) | |
| No Restriction | -0.031 | | -0.028 | | 0.103*** | |
| | (0.034) | | (0.030) | | (0.028) | |
| Female | 0.063*** | | 0.001 | | 0.051*** | |
| | (0.007) | | (0.008) | | (0.007) | |
| After | 0.033** | | 0.043*** | | -0.007 | |
| | (0.013) | | (0.012) | | (0.017) | |
| Applicant covariates | No | Yes | No | Yes | No | Yes |
| State-by-season FE | No | Yes | No | Yes | No | Yes |
| State-by-gender FE | No | Yes | No | Yes | No | Yes |
| R-squared | 0.005 | 0.076 | 0.007 | 0.081 | 0.023 | 0.097 |
| N | 597755 | 596526 | 597755 | 596526 | 597755 | 596526 |

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the triple difference-in-differences estimates of the impact of *Dobbs* on high-achieving female college applicants from states with no abortion restriction relative to their high-achieving male peers.The outcome is whether an applicant applied to one of 13 states with an enforceable abortion ban (columns 1-2); one of 24 states with an abortion law (columns 3-4), which includes those with an enforceable ban; or one of 26 states and D.C. with no abortion restriction (columns 4-6). The first estimate for each outcome uses the baseline specification without any controls. The second estimate for each outcome controls for applicant-level covariates (see text for details), and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table 8: Event Study Estimates for High-Achieving Applicants from States with No Abortion Restriction: Applied to a State with an Abortion Ban, Abortion Law, or No Restriction

| | Abortion Ban | | Abortion Law | | No Restriction | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Female x After x 2022 | -0.044*** | -0.045*** | -0.013** | -0.013*** | -0.005 | -0.005 |
| | (0.007) | (0.007) | (0.005) | (0.005) | (0.004) | (0.004) |
| Female x After x 2021 | -0.014** | -0.013** | -0.013* | -0.012* | -0.001 | -0.001 |
| | (0.006) | (0.006) | (0.006) | (0.006) | (0.003) | (0.003) |
| Female x After x 2019 | 0.005 | 0.005 | 0.009 | 0.009 | 0.010*** | 0.010*** |
| | (0.005) | (0.004) | (0.006) | (0.006) | (0.003) | (0.003) |
| Female x After x 2018 | 0.006 | 0.006 | 0.004 | 0.004 | 0.006 | 0.006* |
| | (0.006) | (0.005) | (0.006) | (0.005) | (0.003) | (0.003) |
| Female x After x 2017 | 0.003 | 0.005 | 0.003 | 0.004 | 0.010*** | 0.009*** |
| | (0.005) | (0.005) | (0.007) | (0.006) | (0.002) | (0.003) |
| Female x After x 2016 | 0.006 | 0.008 | -0.008 | -0.006 | -0.001 | -0.000 |
| | (0.009) | (0.007) | (0.007) | (0.005) | (0.004) | (0.004) |
| Applicant covariates | No | Yes | No | Yes | No | Yes |
| State-by-season FE | No | Yes | No | Yes | No | Yes |
| State-by-gender FE | No | Yes | No | Yes | No | Yes |
| R-squared | 0.003 | 0.081 | 0.012 | 0.088 | 0.005 | 0.075 |
| N | 406627 | 406058 | 406627 | 406058 | 406627 | 406058 |

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the event study estimates of the impact of *Dobbs* on high-achieving female college applicants from states with no abortion restriction relative to high-achieving male college applicants. The outcome is whether an applicant applied to one of 13 states with an enforceable abortion ban (columns 1-2); one of 24 states with an abortion law (columns 3-4), which includes those with an enforceable ban; or one of 26 states and D.C. with no abortion restriction (columns 4-6). The first estimate for each outcome uses the baseline specification without any controls. The second estimate for each outcome controls for applicant-level covariates (see text for details), and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table 9: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions by Distance to Home

| | Applied to AR, LA, or MS | |
|---|---|---|
| | (1) | (2) |
| Female x After x Second Tercile | 0.003 | 0.002 |
| | (0.004) | (0.004) |
| Female x After x Third Tercile | 0.004 | 0.004 |
| | (0.004) | (0.003) |
| Female x Second Tercile | -0.002 | |
| | (0.003) | |
| Female x Third Tercile | -0.005 | |
| | (0.003) | |
| After x Second Tercile | -0.009** | |
| | (0.003) | |
| After x Third Tercile | -0.005* | |
| | (0.003) | |
| Female x After | -0.012*** | -0.011*** |
| | (0.002) | (0.002) |
| Second Tercile | 0.015* | |
| | (0.008) | |
| Third Tercile | 0.001 | |
| | (0.007) | |
| Female | 0.030*** | |
| | (0.003) | |
| After | -0.011*** | |
| | (0.003) | |
| Applicant covariates | No | Yes |
| State-by-season FE | No | Yes |
| State-by-gender FE | No | Yes |
| R-squared | 0.005 | 0.025 |
| N | 404254 | 403713 |

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the triple difference-in-differences estimates of the impact of *Dobbs* on high-achieving female college applicants relative to their high-achieving male peers by distance-to-home. The sample is restricted to applicants from states with no abortion restriction. The outcome is whether an applicant applied to Arkansas, Louisiana, or Mississippi. The first estimate uses the baseline specification without any controls. The second estimate controls for applicant-level covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table 10: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions by County Politics: Applied to a State with an Abortion Ban

| | Abortion Ban | |
|---|---|---|
| | (1) | (2) |
| Liberal x Female x After | -0.014** | -0.017** |
| | (0.006) | (0.006) |
| Female x After | -0.028*** | -0.027*** |
| | (0.006) | (0.005) |
| Liberal x After | 0.008 | -0.002 |
| | (0.013) | (0.010) |
| Liberal x Female | -0.010 | -0.007 |
| | (0.006) | (0.005) |
| Liberal | 0.045** | 0.002 |
| | (0.021) | (0.008) |
| Female | 0.016*** | |
| | (0.005) | |
| After | 0.056*** | |
| | (0.008) | |
| Applicant covariates | No | Yes |
| State-by-season FE | No | Yes |
| State-by-gender FE | No | Yes |
| R-squared | 0.004 | 0.081 |
| N | 406200 | 405750 |

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the triple difference-in-differences estimates of the impact of *Dobbs* on high-achieving female college applicants from liberal counties relative to their high-achieving male peers. The sample is restricted to applicants from states with no abortion restriction. The outcome is whether an applicant applied to a state with an abortion ban. The first estimate uses the baseline specification without any controls. The second estimate controls for applicant-level covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

# 12 Figures

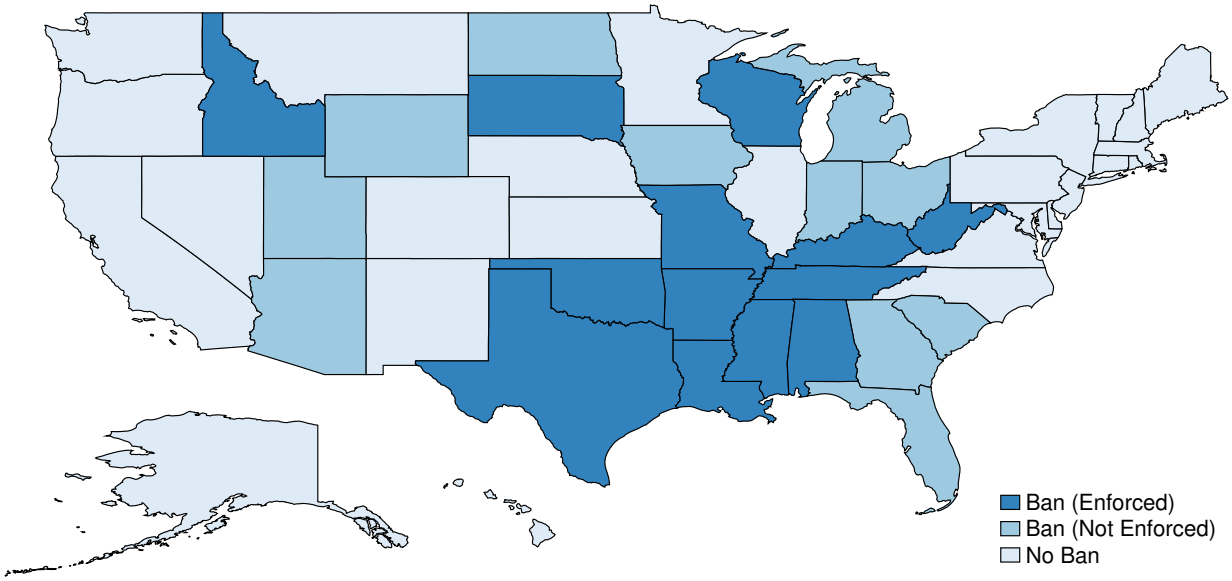
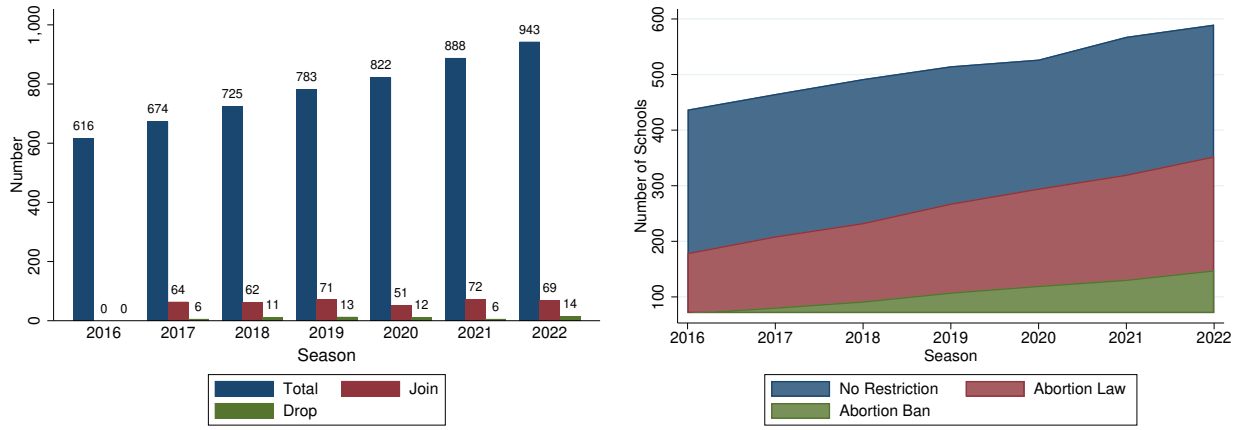
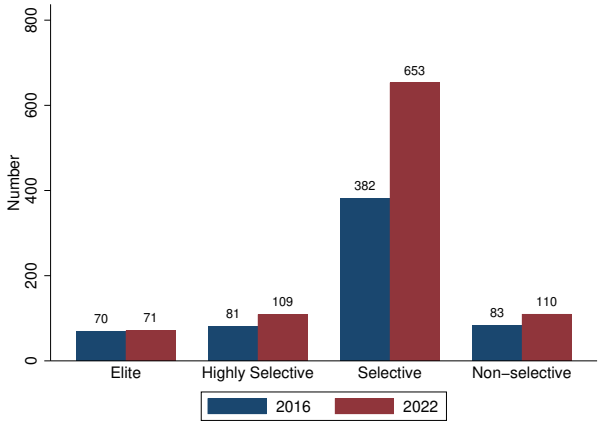



Figure 1: Map of State Abortion Policy in the 2022 College Application Season

*Notes:* This figure categorizes the 50 U.S. states and D.C. based on their abortion restrictions in the 2022-23 college application season. See Table 1 for more details.




(a) (b)

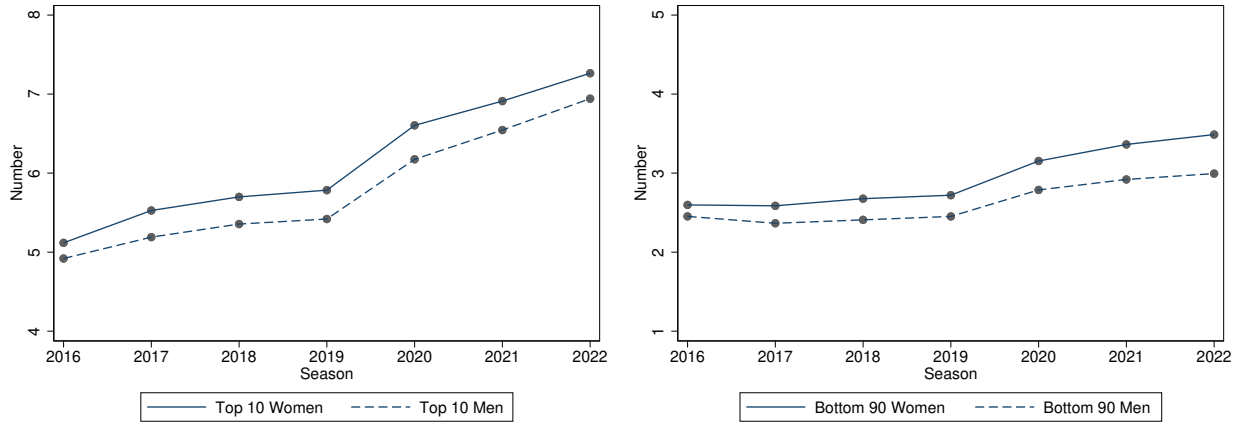



(c)

Figure 2: Common App Schools

*Notes:* This figure uses college application data from seasons 2016-17 through 2022-23. In Figure 2a, five schools that exited in one season re-entered in a later season. See Table 1 for state categorization scheme used in Figure 2b and text for details on the selectivity categories in Figure 2c.

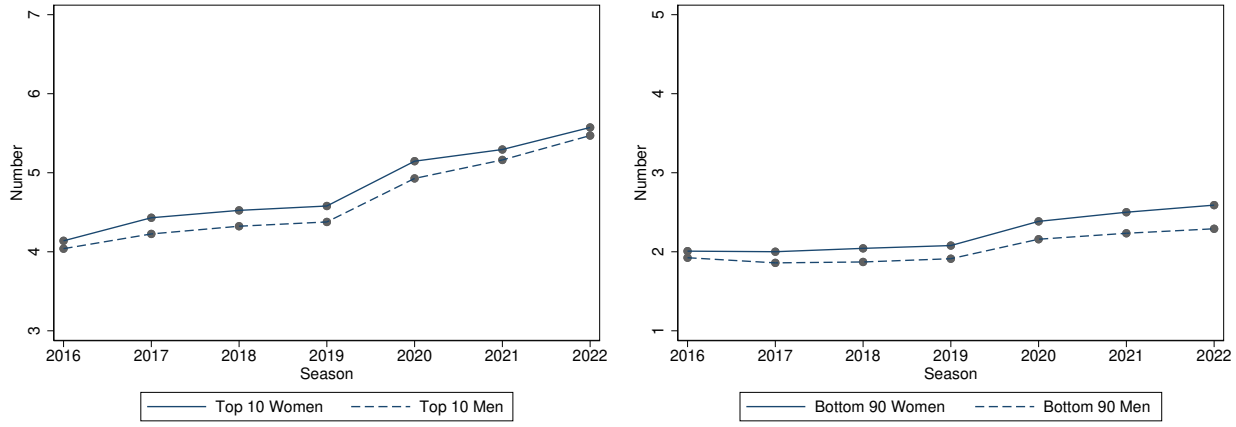
Panel A: Number of Out-of-State Applications




(a) High-achieving applicants

(b) Lower-achieving applicants

Panel B: Number of States Applied to Out-of-State



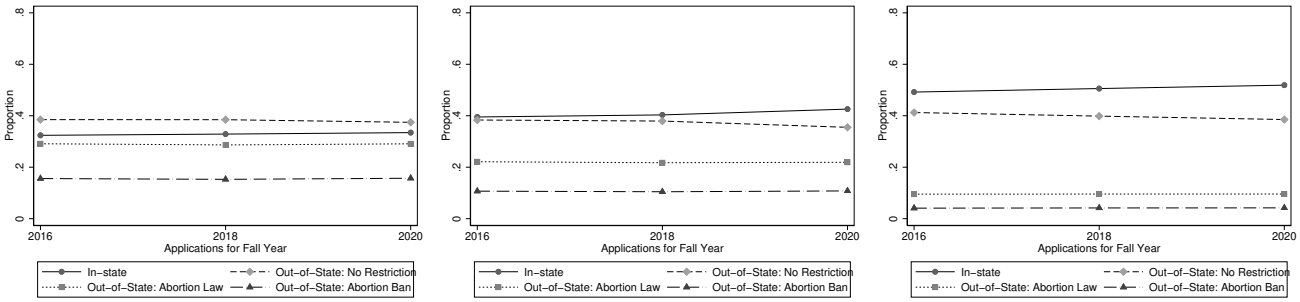

(c) High-achieving applicants

(d) Lower-achieving applicants

Figure 3: Out-of-State Application Patterns Over Time

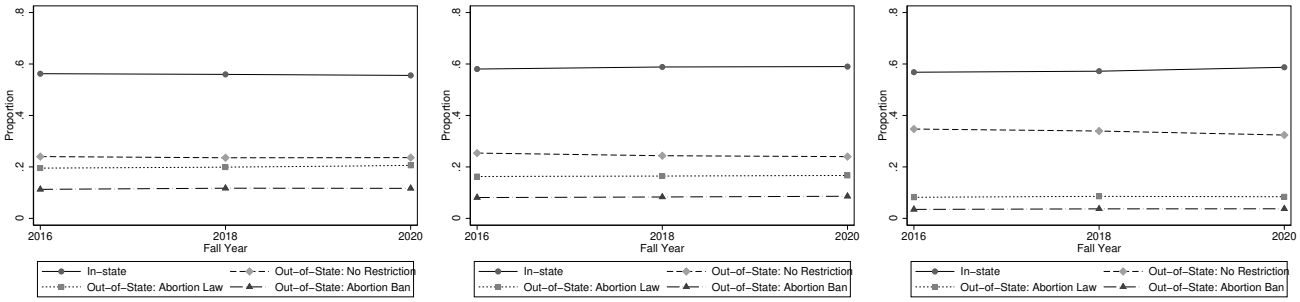
*Notes:* This figure shows the number of applications sent out-of-state and the number of states to which applicants applied out-of-state over time using college application data from seasons 2016-17 through 2022-23. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016.

Panel A: Applications




(a) Abortion Ban States (b) Abortion Law States (c) No Restriction States

Panel B: Enrollment

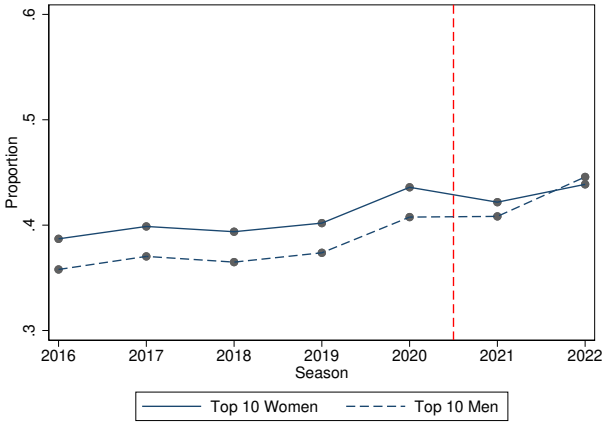



(d) Abortion Ban States (e) Abortion Law States (f) No Restriction States

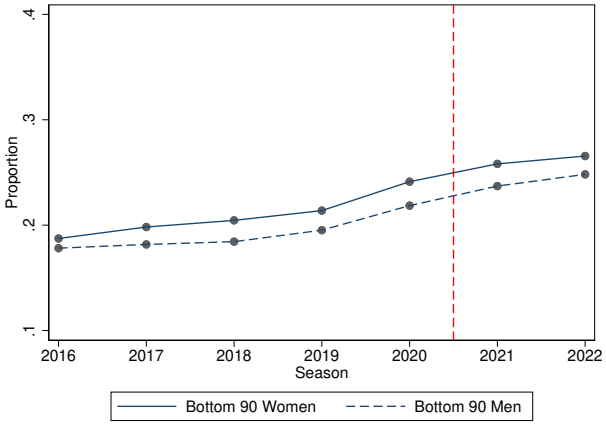
Figure 4: Out-of-State Application and Enrollment Patterns Prior to *Dobbs*

*Notes:* Panel A uses institution-level data on college applications from the Common App. Applications are from applicants who met the sample criteria (see Section 4) and applied to college in the 2016-17, 2017-19, and 2019-20 application seasons for enrollment the following fall (2016, 2018, and 2020). Application season 2016-17 is a proxy for 2015-16. See Table 1 for state categorization scheme and Section 5 for more details on sample construction. Panel B uses institution-level data on residence and migration of first-time freshmen from the Integrated Postsecondary Education Data System from 2016-2020 to plot the average proportion of schools' enrolled students by state of residence.

Panel A: Applied to a State with an Abortion Ban

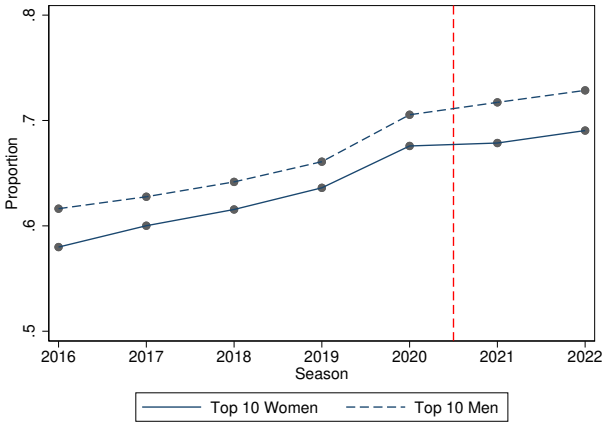



(a) High-achieving applicants

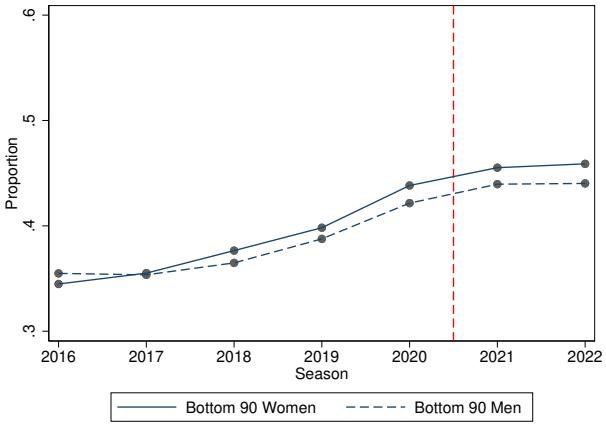



(b) Lower-achieving applicants

Panel B: Applied to a State with an Abortion Law

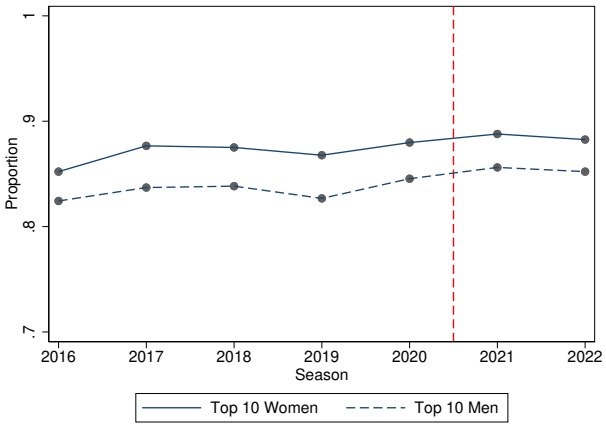



(c) High-achieving applicants

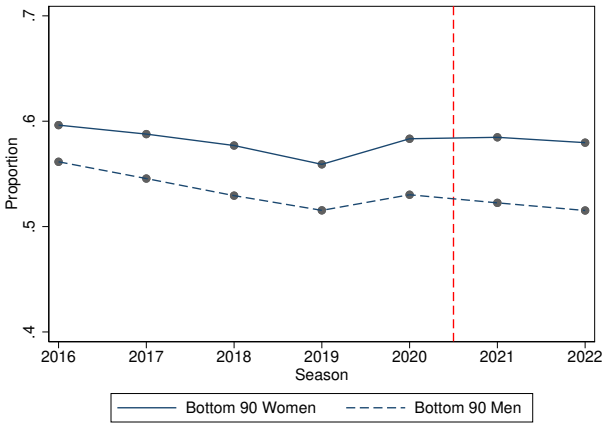



(d) Lower-achieving applicants

Panel C: Applied to a State with No Abortion Restriction




(e) High-achieving applicants

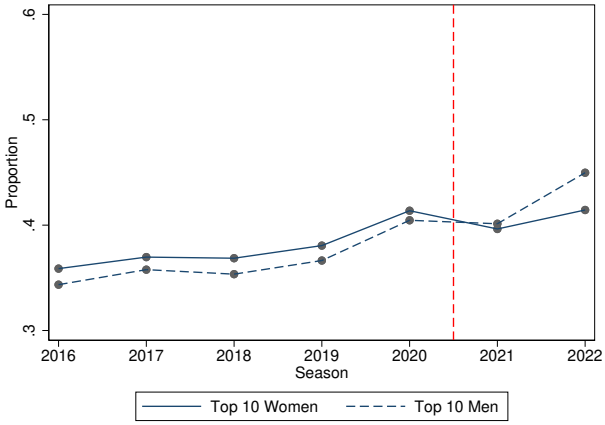



(f) Lower-achieving applicants

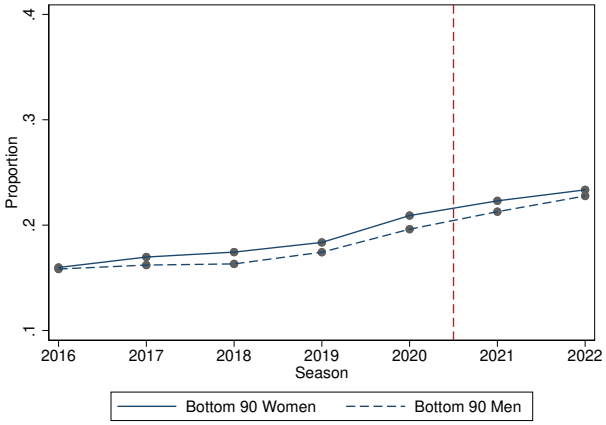
Figure 5: Application Patterns Over Time, All Applicants

*Notes:* This figure shows the proportion of applicants who applied to a state with an abortion ban, an abortion law, or no abortion restriction using college application data from seasons 2016-17 through 2022-23. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016. The dashed vertical line indicates the timing of *Dobbs*.

Panel A: Applied to a State with an Abortion Ban

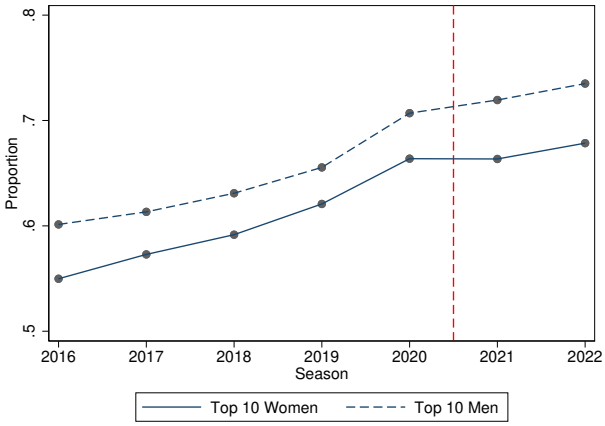



(a) High-achieving applicants

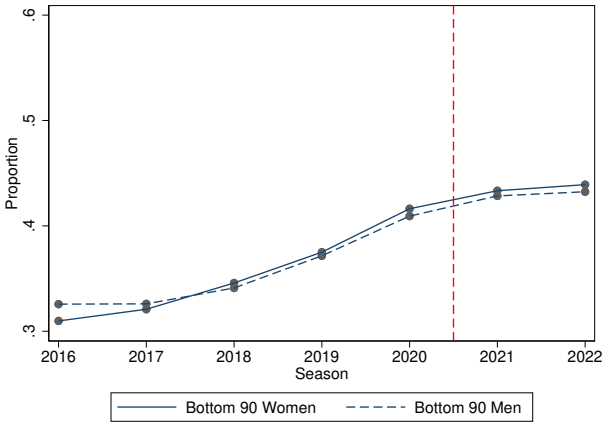



(b) Lower-achieving applicants

Panel B: Applied to a State with an Abortion Law

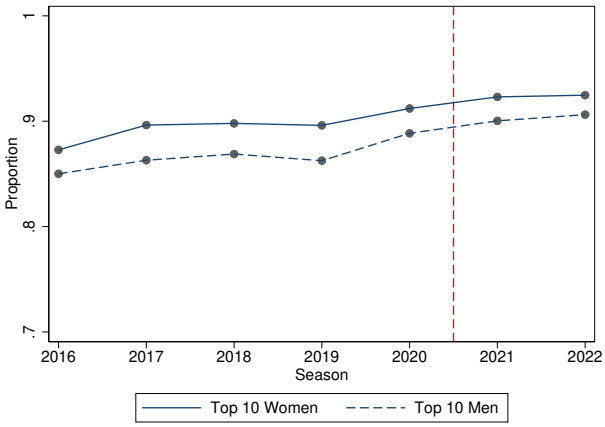



(c) High-achieving applicants

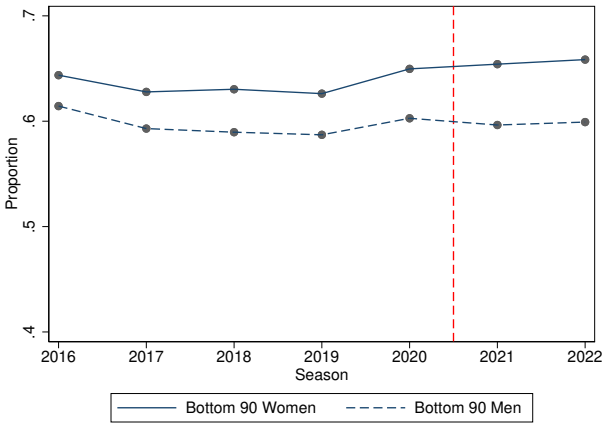



(d) Lower-achieving applicants

Panel C: Applied to a State with No Abortion Restriction




(e) High-achieving applicants

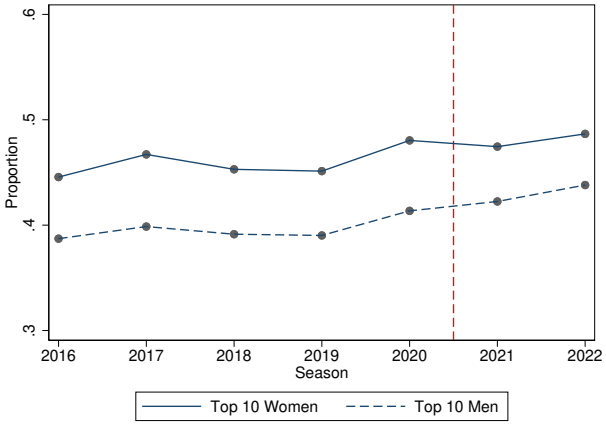



(f) Lower-achieving applicants

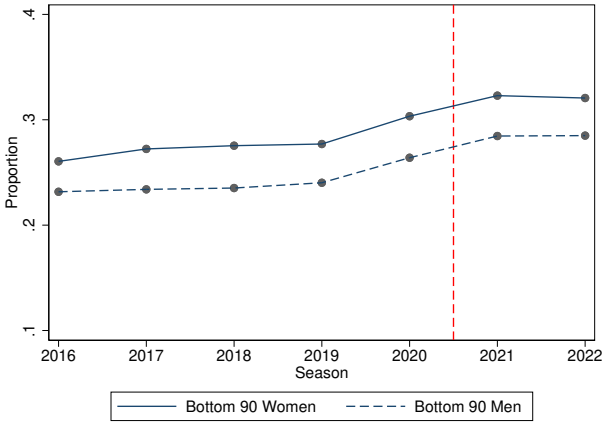
Figure 6: Application Patterns Over Time, Applicants from States with No Abortion Restriction

*Notes:* This figure shows the proportion of applicants from states with no abortion restriction who applied to a state with an abortion ban, an abortion law, or no abortion restriction using college application data from seasons 2016-17 through 2022-23. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016. The dashed vertical line indicates the timing of *Dobbs*.

Panel A: Applied to a State with an Abortion Ban

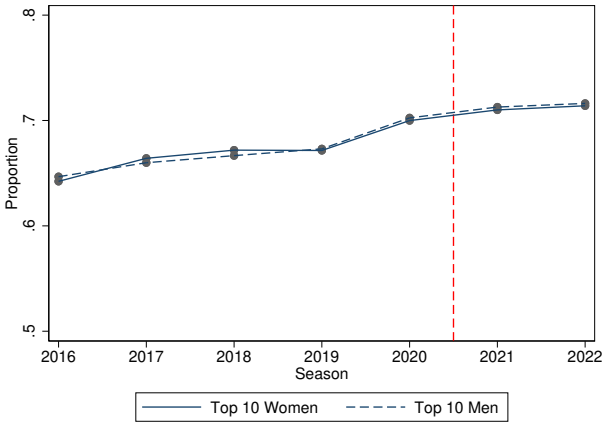



(a) High-achieving applicants

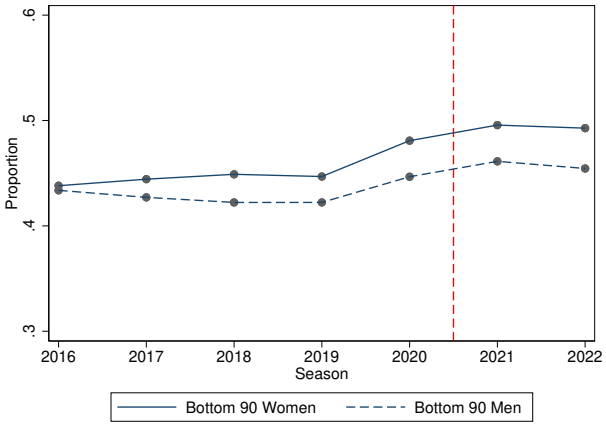



(b) Lower-achieving applicants

Panel B: Applied to a State with an Abortion Law

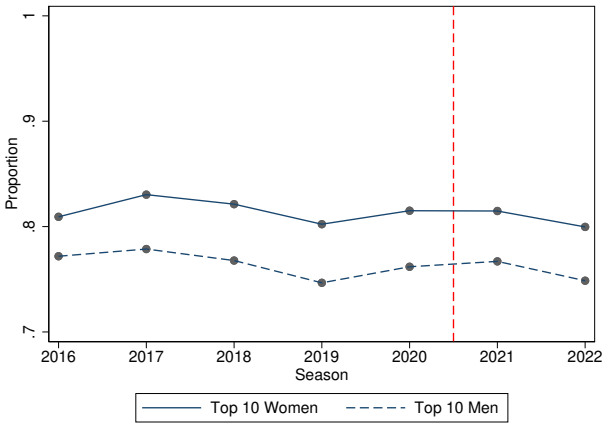



(c) High-achieving applicants

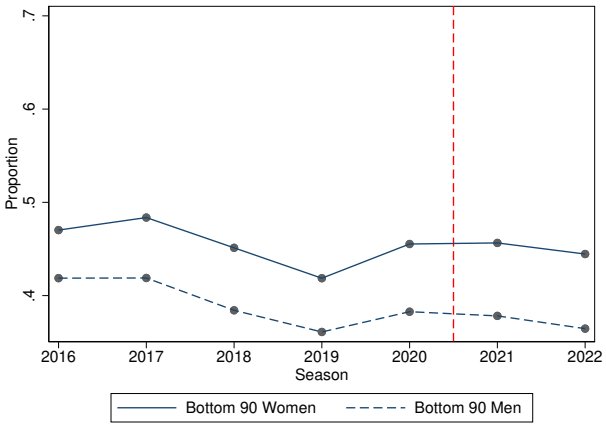



(d) Lower-achieving applicants

Panel C: Applied to a State with No Abortion Restriction




(e) High-achieving applicants

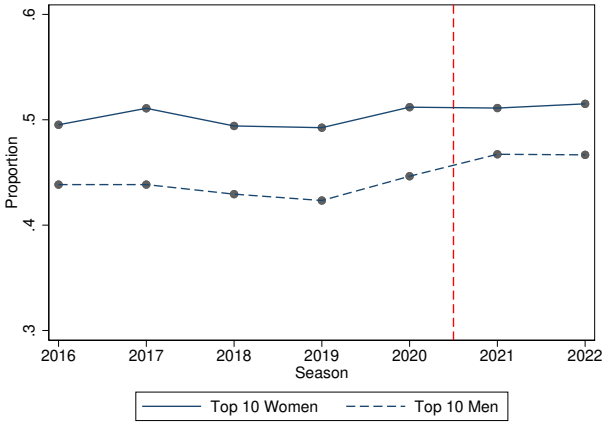



(f) Lower-achieving applicants

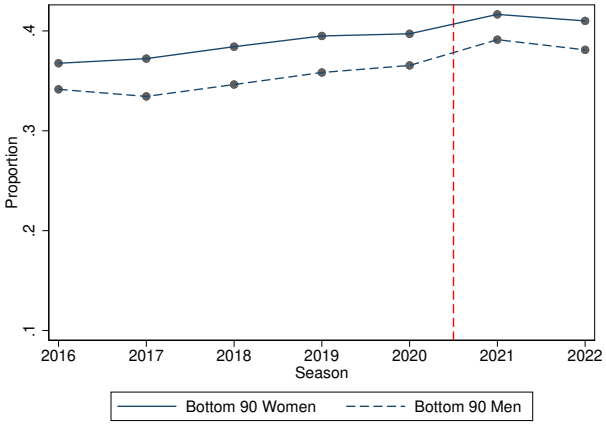
Figure 7: Application Patterns Over Time, Applicants from States with an Abortion Law

*Notes:* This figure shows the proportion of applicants from states with an abortion law who applied to a state with an abortion ban, an abortion law, or no abortion restriction using college application data from seasons 2016-17 through 2022-23. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016. The dashed vertical line indicates the timing of *Dobbs*.

Panel A: Applied to a State with an Abortion Ban

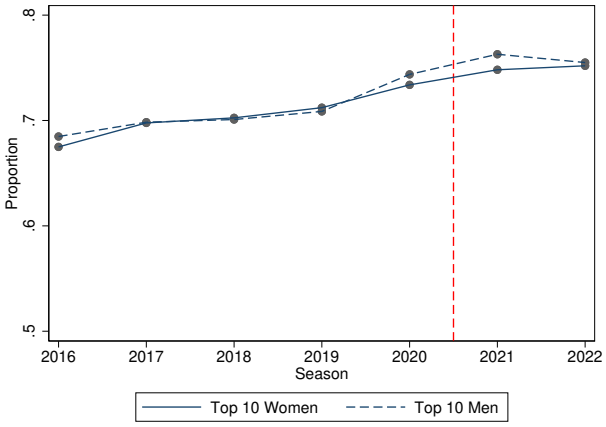



(a) High-achieving applicants

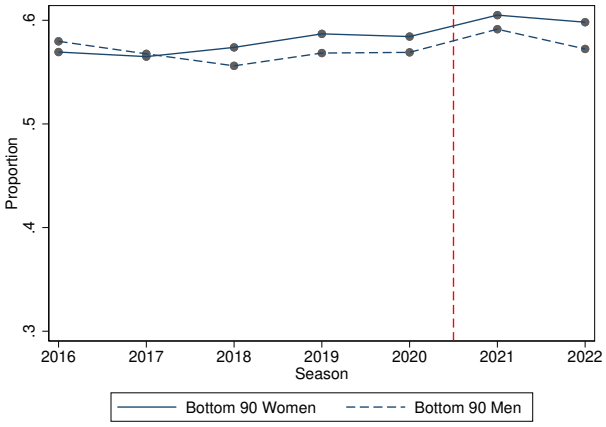



(b) Lower-achieving applicants

Panel B: Applied to a State with an Abortion Law

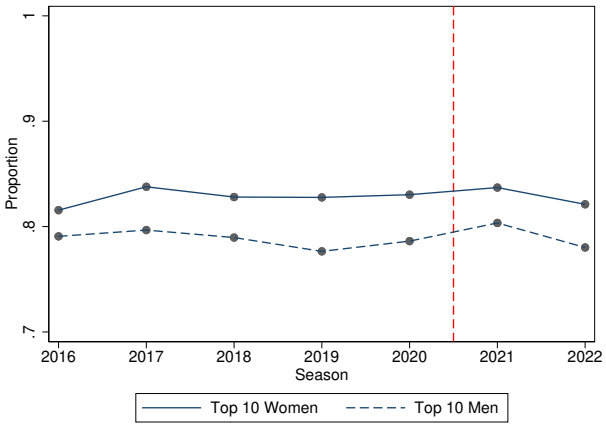



(c) High-achieving applicants

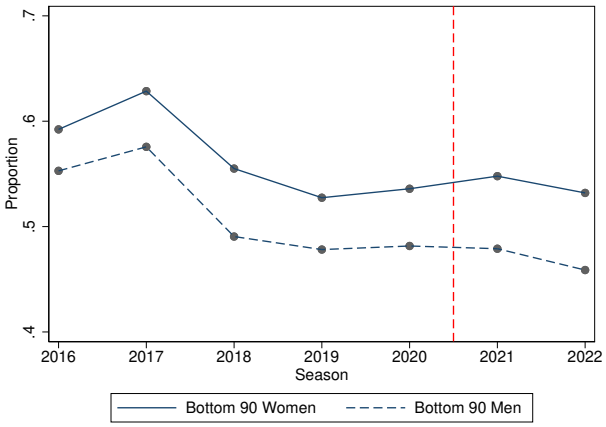



(d) Lower-achieving applicants

Panel C: Applied to a State with No Abortion Restriction




(e) High-achieving applicants

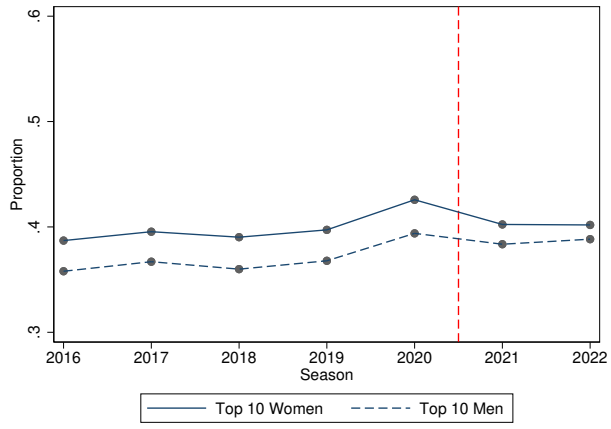



(f) Lower-achieving applicants

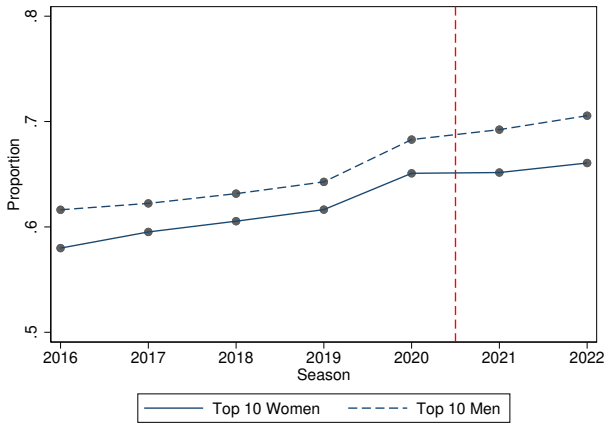
Figure 8: Application Patterns Over Time, Applicants from States with an Abortion Ban

*Notes:* This figure shows the proportion of applicants from states with an abortion ban who applied to a state with an abortion ban, an abortion law, or no abortion restriction using college application data from seasons 2016-17 through 2022-23. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016. The dashed vertical line indicates the timing of *Dobbs*.

Panel A: High-Achieving Applicants

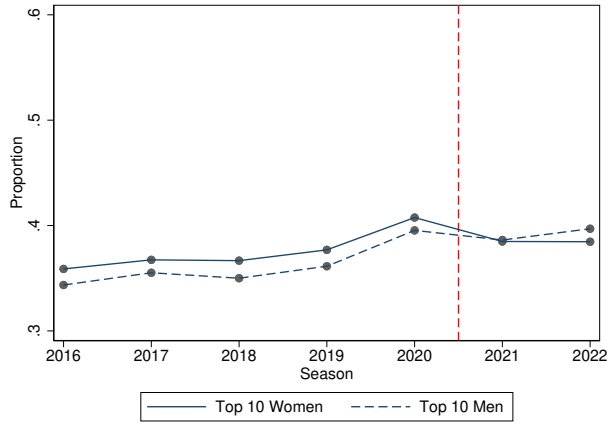



(a) Applied to a state with an abortion ban

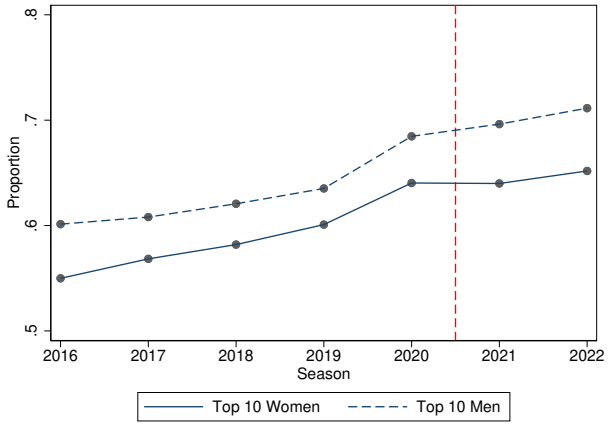



(b) Applied to a state with an abortion law

Panel B: High-Achieving Applicants from States with No Abortion Restriction




(c) Applied to a state with an abortion ban

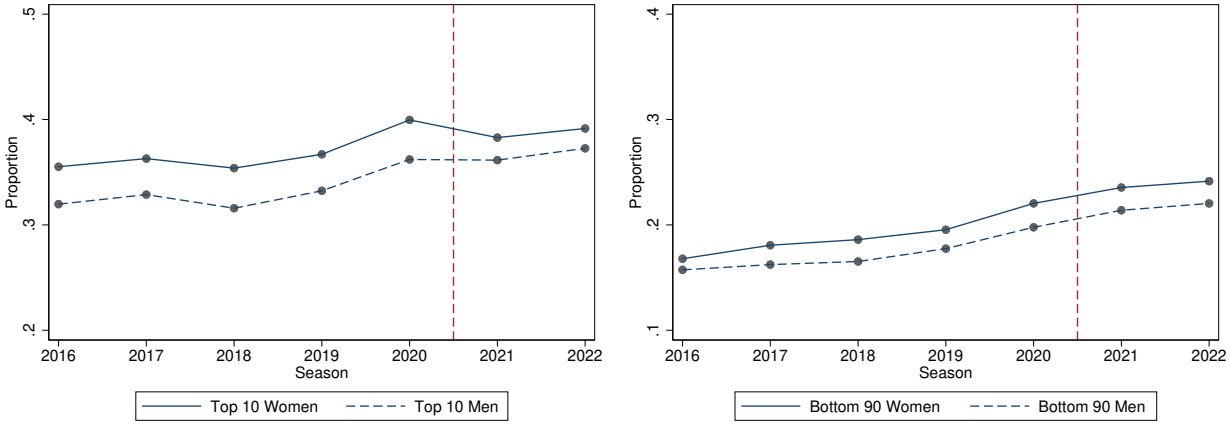



(d) Applied to a state with an abortion law

Figure 9: Application Patterns for High-Achieving Applicants to Always Common App Members

*Notes:* This figure shows the proportion of high-achieving applicants who applied to a state with an abortion law or an abortion ban using college application data from seasons 2016-17 through 2022-23. The sample is restricted to applications to schools that were Common App members in all application seasons. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016. The dashed vertical line indicates the timing of *Dobbs*.

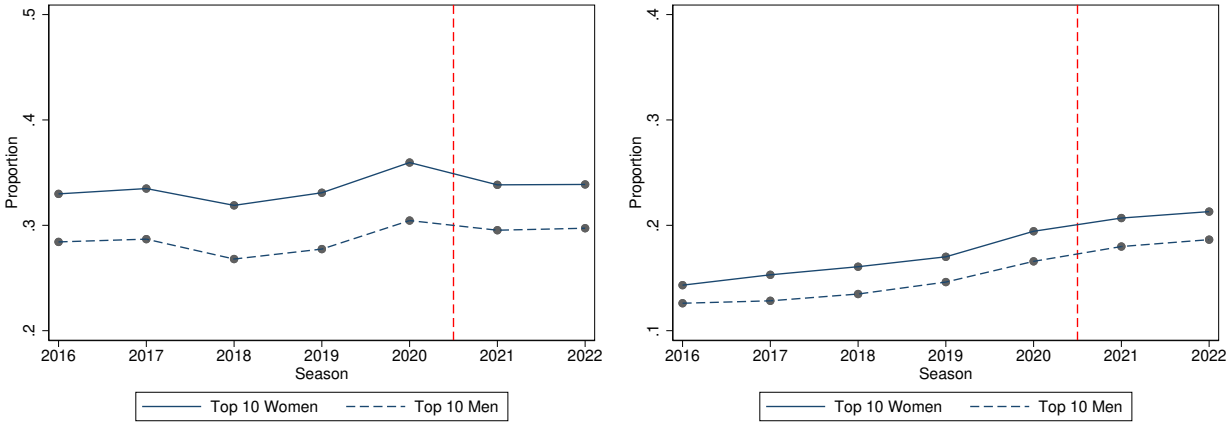
Panel A: Excluding Schools in Texas




(a) High-achieving applicants

(b) Lower-achieving applicants

Panel B: Excluding Schools in Texas and Wisconsin

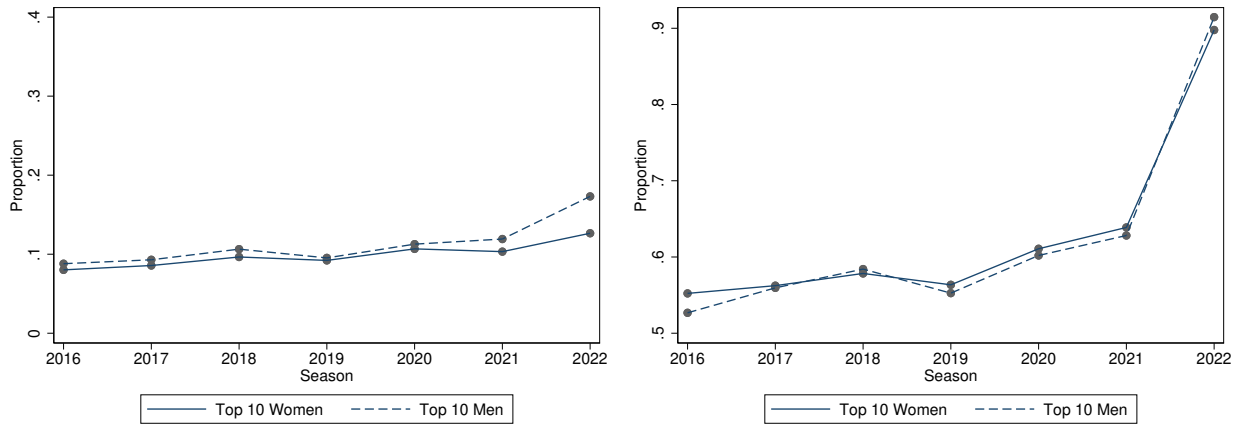



(c) High-achieving applicants

(d) Lower-achieving applicants

Figure 10: Application Patterns Over Time to States with an Abortion Ban Excluding Schools in Texas and Wisconsin

*Notes:* This figure shows the proportion of applicants who applied to a state with an abortion ban – excluding schools in Texas or Texas and Wisconsin – using college application data from seasons 2016-17 through 2022-23. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016. The dashed vertical line indicates the timing of *Dobbs*.




(a) Applied Out-of-State to Texas

(b) Applied In-State to Texas

Figure 11: Application Patterns of High-Achieving Applicants to Texas Over Time

*Notes:* This figure shows the proportion of applicants who applied in- and out-of-state to Texas in the 2016-17 through 2022-23 college application seasons. High-achieving applicants scored in the top 10 percent of SAT/ACT test-takers in the sample in 2016.

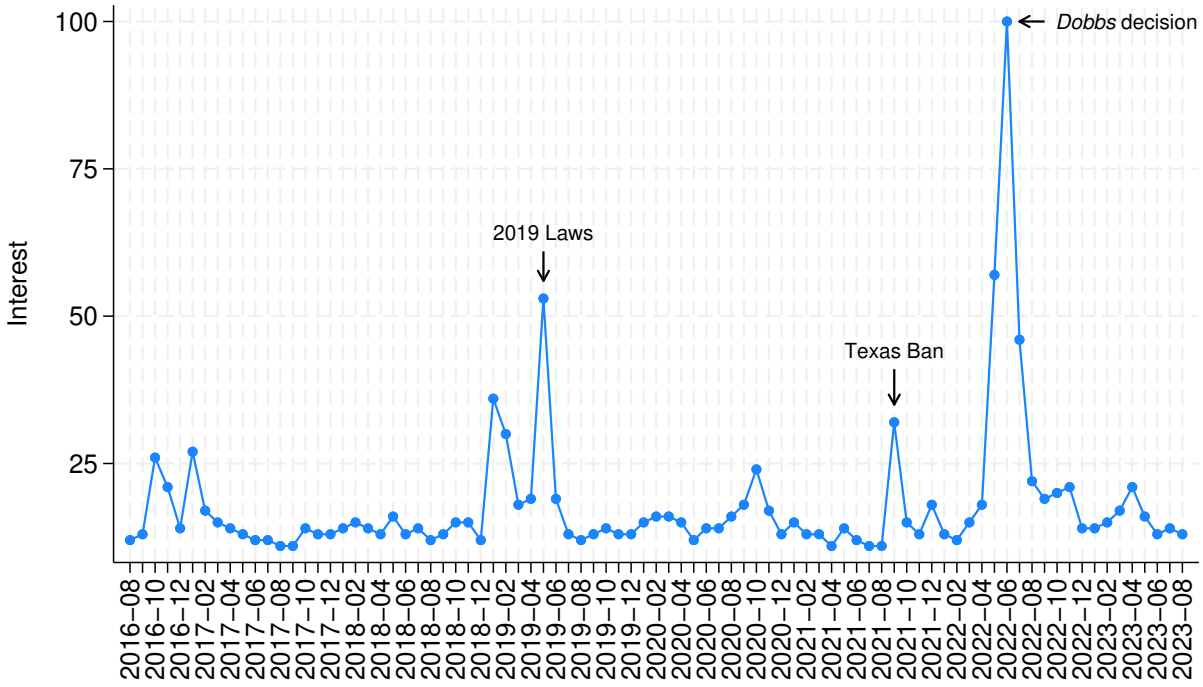
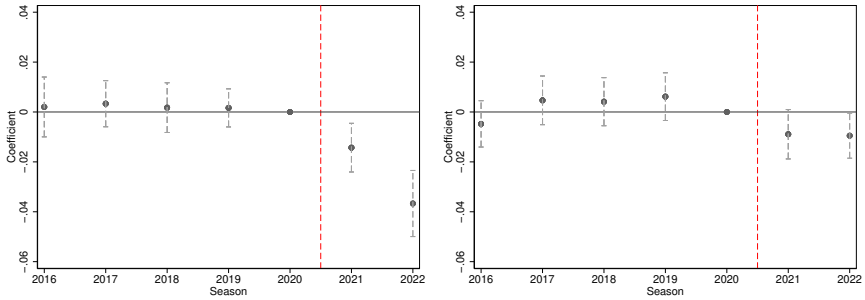


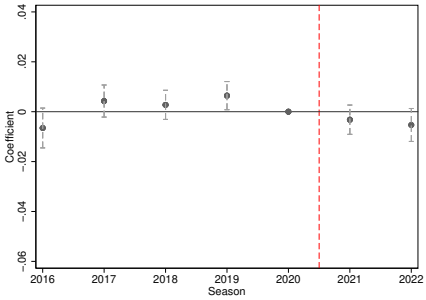

Figure 12: Interest in Abortion Topic Over Time

*Notes:* This figure uses GoogleTrends data on the topic "Abortion" in the United States from August 2016 through August 2023. A topic is a group of search terms that share the same concept or entity, in any language. Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term. An improvement in the data collection system was applied from 1/1/2022.

Panel A: All Applicants

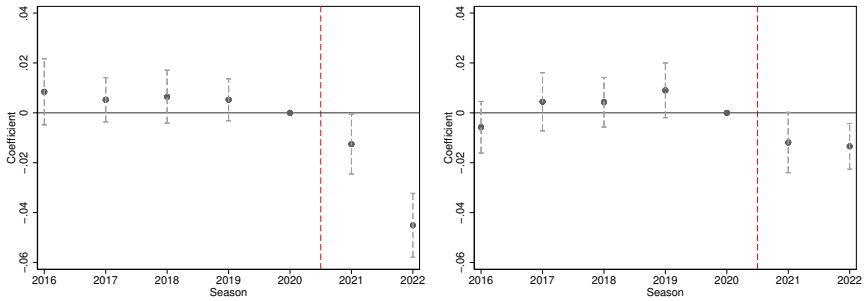



(a) Abortion ban (b) Abortion law

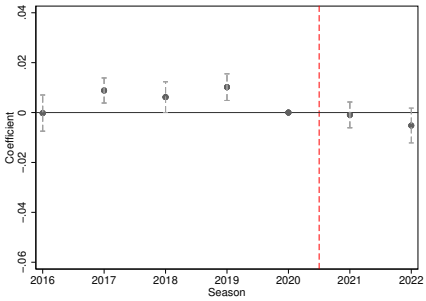



(c) No abortion restriction

Panel B: Applicants from States with No Abortion Restriction



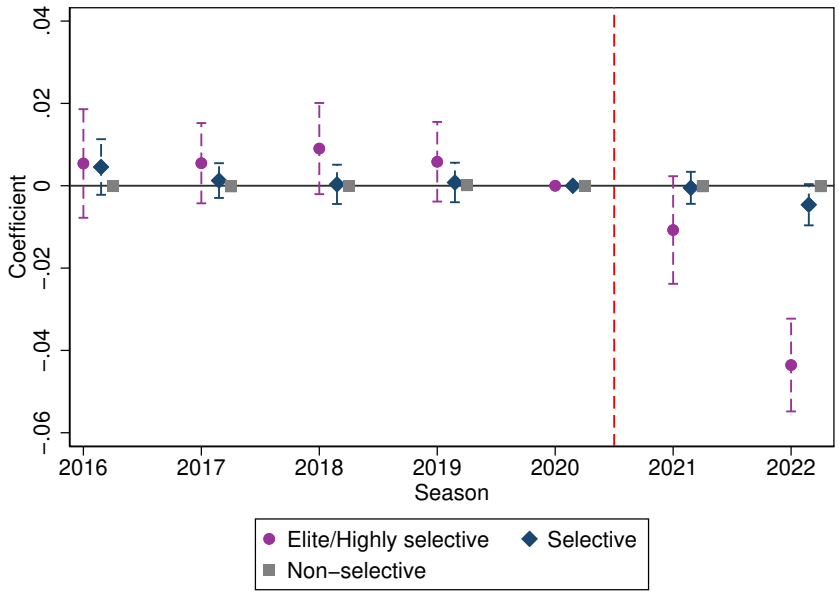

(a) Abortion ban (b) Abortion law



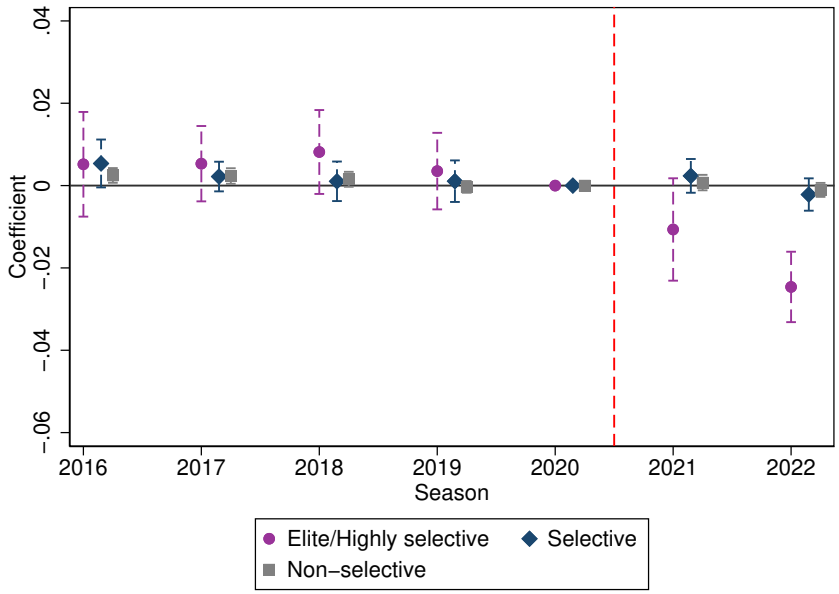

(c) No abortion restriction

Figure 13: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions

*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender, where the outcome is an indicator for whether an applicant applied to a state with an abortion ban, abortion law, or no abortion restriction. Year 2020 is the omitted category. The dashed vertical line indicates the start of the treatment period. Regressions control for applicant covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.



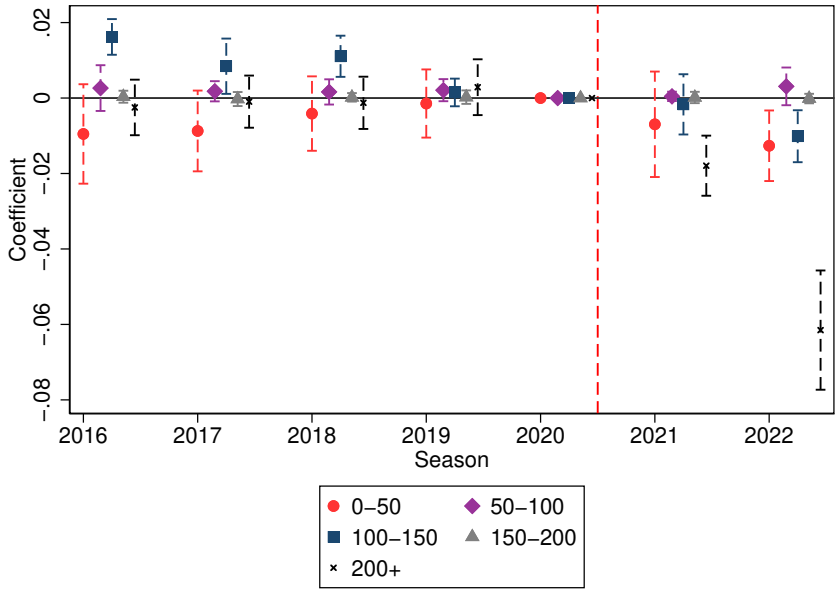

(a) Ever Common App members



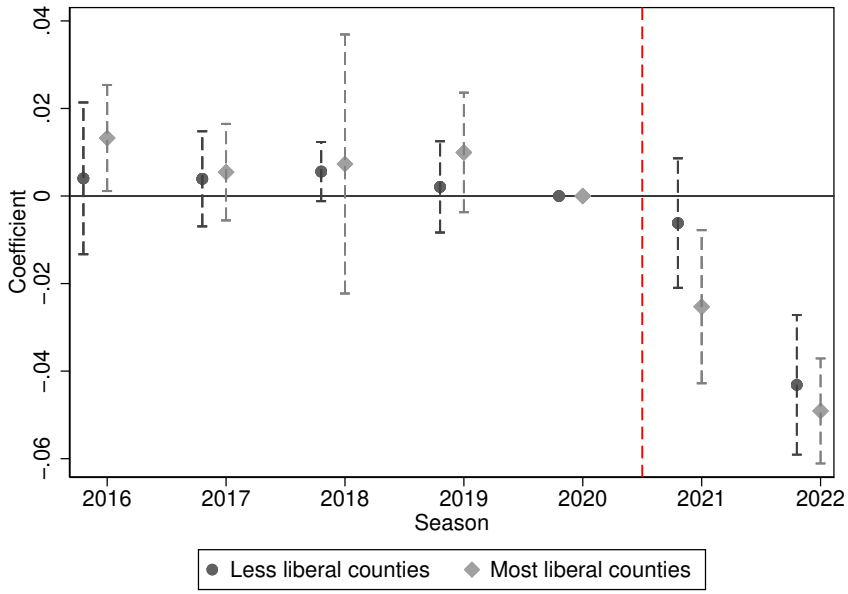

(b) Always Common App members

Figure 14: Event Study Estimates by School Selectivity

*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender, where the outcome is an indicator for whether an applicant applied to a school by selectivity category. The sample is restricted to applicants from states with no abortion restriction. The first figure uses schools that were ever Common App members between the 2016 and 2022 college application seasons. The second figure uses schools that were always Common App members between the 2016 and 2022 college application seasons. The dashed vertical line indicates the start of the treatment period. Regressions control for applicant covariates (see text), and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.




(a) Nearness to Abortion Provider (in miles)




(b) Political Ideology

Figure 15: Event Studies for Mechanisms

*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender. In the first figure, the outcome is an indicator for whether an applicant applied to an elite or highly selective school based on distance to the nearest abortion provider. In the second figure, the outcome is an indicator for whether an applicant applied to a state with an abortion ban. The sample is restricted to applicants from states with no abortion restriction. The dashed vertical line indicates the start of the treatment period. Regressions control for applicant covariates (see text), and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

# 13 Appendix

## 13.1 Tables

Table A1: Number of Schools in Sample by State and Year

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|
| Alabama | 4 | 6 | 5 | 5 | 7 | 9 | 8 |
| Alaska | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Arizona | 2 | 4 | 4 | 4 | 4 | 4 | 3 |
| Arkansas | 2 | 2 | 2 | 4 | 5 | 4 | 3 |
| California | 38 | 41 | 40 | 41 | 43 | 44 | 42 |
| Colorado | 8 | 9 | 9 | 8 | 11 | 14 | 14 |
| Connecticut | 17 | 18 | 18 | 18 | 18 | 18 | 18 |
| Delaware | 1 | 1 | 1 | 1 | 1 | 2 | 3 |
| District of Columbia | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Florida | 20 | 22 | 26 | 29 | 31 | 33 | 35 |
| Georgia | 10 | 11 | 11 | 12 | 14 | 14 | 17 |
| Hawaii | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Idaho | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Illinois | 25 | 27 | 29 | 33 | 35 | 48 | 50 |
| Indiana | 15 | 20 | 21 | 23 | 23 | 27 | 31 |
| Iowa | 11 | 11 | 13 | 15 | 16 | 16 | 16 |
| Kansas | 1 | 1 | 3 | 5 | 5 | 5 | 5 |
| Kentucky | 4 | 4 | 6 | 9 | 10 | 10 | 12 |
| Louisiana | 5 | 6 | 7 | 7 | 7 | 7 | 8 |
| Maine | 16 | 18 | 18 | 18 | 18 | 18 | 18 |
| Maryland | 14 | 13 | 14 | 16 | 17 | 19 | 20 |
| Massachusetts | 47 | 48 | 49 | 51 | 50 | 53 | 55 |
| Michigan | 14 | 15 | 17 | 22 | 25 | 29 | 32 |
| Minnesota | 11 | 14 | 15 | 16 | 17 | 18 | 18 |
| Mississippi | 2 | 2 | 4 | 4 | 4 | 5 | 5 |
| Missouri | 10 | 14 | 18 | 22 | 23 | 25 | 26 |
| Montana | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| Nebraska | 3 | 3 | 4 | 4 | 4 | 4 | 4 |
| Nevada | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| New Hampshire | 10 | 10 | 11 | 10 | 10 | 10 | 10 |
| New Jersey | 20 | 22 | 22 | 22 | 23 | 23 | 23 |
| New Mexico | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| New York | 93 | 95 | 98 | 101 | 96 | 100 | 100 |
| North Carolina | 13 | 18 | 21 | 23 | 24 | 29 | 39 |
| North Dakota | . | . | . | 1 | 1 | 1 | 1 |
| Ohio | 31 | 39 | 43 | 44 | 46 | 46 | 48 |
| Oklahoma | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| Oregon | 8 | 10 | 12 | 11 | 11 | 13 | 14 |
| Pennsylvania | 55 | 56 | 64 | 72 | 76 | 81 | 78 |
| Rhode Island | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| South Carolina | 4 | 4 | 4 | 7 | 12 | 16 | 19 |
| South Dakota | 1 | 1 | 1 | 3 | 3 | 3 | 4 |
| Tennessee | 9 | 10 | 11 | 10 | 12 | 13 | 14 |
| Texas | 12 | 13 | 13 | 15 | 18 | 21 | 31 |
| Utah | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Vermont | 14 | 15 | 12 | 12 | 11 | 11 | 9 |
| Virginia | 15 | 17 | 20 | 22 | 25 | 26 | 30 |
| Washington | 8 | 8 | 9 | 9 | 10 | 11 | 18 |
| West Virginia | 4 | 5 | 5 | 7 | 7 | 7 | 9 |
| Wisconsin | 12 | 12 | 14 | 16 | 18 | 20 | 21 |
| Wyoming | . | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 616 | 674 | 725 | 783 | 822 | 888 | 943 |

*Notes:* Data include all Common App member schools that applicants applied to in seasons 2016-17 through 2022-23.

Table A2: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions: Applied to a State with an Abortion Ban, Abortion Law, or No Restriction using Always Common App Members

| | Abortion Ban | | Abortion Law | | No Restriction | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Female x After | -0.014*** | -0.015*** | -0.014*** | -0.015*** | 0.003 | 0.002 |
| | (0.004) | (0.004) | (0.003) | (0.003) | (0.003) | (0.002) |
| Female | 0.030*** | | -0.029*** | | 0.036*** | |
| | (0.007) | | (0.006) | | (0.004) | |
| After | 0.016* | | 0.058*** | | 0.007 | |
| | (0.009) | | (0.011) | | (0.009) | |
| Applicant covariates | No | Yes | No | Yes | No | Yes |
| State-by-season FE | No | Yes | No | Yes | No | Yes |
| State-by-gender FE | No | Yes | No | Yes | No | Yes |
| R-squared | 0.001 | 0.071 | 0.004 | 0.080 | 0.003 | 0.093 |
| N | 590363 | 589171 | 590363 | 589171 | 590363 | 589171 |

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the difference-in-differences estimates of the impact of *Dobbs* on high-achieving female college applicants relative to high-achieving male college applicants. The sample is restricted to applications to schools that were Common App members in all application seasons between 2016-17 and 2022-23. The outcome is whether an applicant applied to one of 13 states with an enforceable abortion ban (columns 1-2); one of 24 states with an abortion law (columns 3-4), which includes those with an enforceable ban; or one of 26 states and D.C. with no abortion restriction (columns 4-6). The first estimate for each outcome uses the baseline specification without any controls. The second estimate for each outcome controls for applicant-level covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table A3: Event Study Estimates for High-Achieving Applicants: Applied to a State with an Abortion Ban, Abortion Law, or No Restriction using Always Common App Members

| | Abortion Ban | | Abortion Law | | No Restriction | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Female x After x 2022 | -0.018*** | -0.019*** | -0.013*** | -0.014*** | -0.001 | -0.003 |
| | (0.006) | (0.005) | (0.005) | (0.005) | (0.004) | (0.004) |
| Female x After x 2021 | -0.013** | -0.013** | -0.009 | -0.009* | 0.005 | 0.004 |
| | (0.005) | (0.005) | (0.005) | (0.005) | (0.003) | (0.003) |
| Female x After x 2019 | -0.003 | -0.001 | 0.006 | 0.006 | 0.001 | 0.000 |
| | (0.004) | (0.004) | (0.005) | (0.005) | (0.003) | (0.003) |
| Female x After x 2018 | -0.002 | -0.001 | 0.006 | 0.006 | -0.001 | -0.001 |
| | (0.005) | (0.005) | (0.006) | (0.005) | (0.004) | (0.003) |
| Female x After x 2017 | -0.003 | -0.001 | 0.005 | 0.006 | 0.002 | 0.001 |
| | (0.005) | (0.005) | (0.007) | (0.005) | (0.003) | (0.004) |
| Female x After x 2016 | -0.003 | -0.002 | -0.004 | -0.003 | -0.009** | -0.010** |
| | (0.006) | (0.006) | (0.006) | (0.004) | (0.004) | (0.004) |
| Applicant covariates | No | Yes | No | Yes | No | Yes |
| State-by-season FE | No | Yes | No | Yes | No | Yes |
| State-by-gender FE | No | Yes | No | Yes | No | Yes |
| R-squared | 0.001 | 0.071 | 0.005 | 0.080 | 0.003 | 0.093 |
| N | 590363 | 589171 | 590363 | 589171 | 590363 | 589171 |

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the event study estimates of the impact of *Dobbs* on high-achieving female college applicants relative to high-achieving male college applicants. The sample is restricted to applications to schools that were Common App members in all application seasons between 2016-17 and 2022-23. The outcome is whether an applicant applied to one of 13 states with an enforceable abortion ban (columns 1-2); one of 24 states with an abortion law (columns 3-4), which includes those with an enforceable ban; or one of 26 states and D.C. with no abortion restriction (columns 4-6). The first estimate for each outcome uses the baseline specification without any controls. The second estimate for each outcome controls for applicant-level covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table A4: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions by SAT/ACT Score: Applied to a State with an Abortion Ban, Abortion Law, or No Restriction

| | Abortion Ban | | | Abortion Law | | | No Restriction | | |
|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Female x After | -0.020*** | -0.025*** | -0.028*** | -0.008* | -0.010*** | -0.011*** | -0.001 | -0.002 | -0.003 |
| | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.003) | (0.002) | (0.002) | (0.002) |
| SAT/ACT cut score | 1300 | 1350 | 1400 | 1300 | 1350 | 1400 | 1300 | 1350 | 1400 |
| Applicant covariates | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| State-by-season FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| State-by-gender FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| R-squared | 0.109 | 0.099 | 0.089 | 0.116 | 0.104 | 0.092 | 0.175 | 0.148 | 0.128 |
| N | 1667112 | 1263607 | 984852 | 1667112 | 1263607 | 984852 | 1667112 | 1263607 | 984852 |

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

*Notes:* This table shows the difference-in-differences estimates of the impact of *Dobbs* on high-achieving female college applicants relative to high-achieving male college applicants. The outcome is whether an applicant applied to one of 13 states with an enforceable abortion ban (columns 1-2); one of 24 states with an abortion law (columns 3-4), which includes those with an enforceable ban; or one of 26 states and D.C. with no abortion restriction (columns 4-6). Columns 1, 4, and 7 estimate treatment effects for applicants who scored at or above a 1300 on the SAT/ACT. Columns 2, 5, and 8 estimate treatment effects for applicants who scored at or above a 1350 on the SAT/ACT. Columns 3, 6, and 9 estimate treatment effects for applicants who scored at or above a 1400 on the SAT/ACT. Regressions include applicant-level covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

Table A5: Summary Statistics for Mobile Applicants

| | Likely to Apply Out-of-State (Top Decile) | High-Achieving |
|---|---|---|
| 17-years-old | 0.67 | 0.71 |
| 18-years-old | 0.33 | 0.29 |
| Female | 0.60 | 0.45 |
| White | 0.55 | 0.50 |
| Black or African American | 0.09 | 0.02 |
| Hispanic or Latino | 0.08 | 0.07 |
| Asian | 0.13 | 0.28 |
| Two or More Races | 0.08 | 0.06 |
| Unknown Race | 0.06 | 0.07 |
| Fee waiver eligible | 0.11 | 0.08 |
| First generation | 0.06 | 0.08 |
| Attends high school in home state | 0.94 | 0.97 |
| Min SAT/ACT | 400 | 1460 |
| Mean SAT/ACT | 1416 | 1511 |
| Missing SAT/ACT | 0.12 | 0 |
| No Restriction Home State | 0.72 | 0.68 |
| Abortion Ban Home State | 0.22 | 0.14 |
| Abortion Law Home State | 0.28 | 0.32 |
| Total number of applications | 7.13 | 7.70 |
| Applied out-of-state | 0.96 | 0.93 |
| Number of states applied out-of-state | 4.59 | 4.75 |
| Prop. of apps sent out-of-state | 0.83 | 0.72 |
| Observations | 637929 | 597755 |

*Notes:* This table describes two different samples of applicants who applied to college using the Common App in application seasons 2016-17 through 2022-23. The left-hand column describes the sample of applicants who were most likely to apply out-of-state based on their observable characteristics. The right-hand column describes the sample of high-achieving applicants who scored at or above the 90th percentile on the SAT/ACT in the sample in 2016.

Table A6: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions: Synthetic Differences-in-Differences Estimates

| | *Panel A: All Application Seasons* | | | | | |
|---|---|---|---|---|---|---|
| | Abortion Ban | | Abortion Law | | No Restriction | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Treated Group | -0.013 | -0.026* | 0.005 | -0.005 | 0.002 | 0.004 |
| | (0.012) | (0.015) | (0.011) | (0.012) | (0.008) | (0.012) |
| Comparison Group States | Abortion Law | Abortion Ban | Abortion Law | Abortion Ban | Abortion Law | Abortion Ban |
| N | 357 | 280 | 357 | 280 | 357 | 280 |
| | *Panel B: Application Seasons 2019-2022* | | | | | |
| | Abortion Ban | | Abortion Law | | No Restriction | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Treated Group | -0.010 | -0.021* | -0.000 | -0.005 | 0.005 | 0.009 |
| | (0.010) | (0.011) | (0.011) | (0.011) | (0.007) | (0.009) |
| Comparison Group States | Abortion Law | Abortion Ban | Abortion Law | Abortion Ban | Abortion Law | Abortion Ban |
| N | 204 | 160 | 204 | 160 | 204 | 160 |

*Notes:* This table shows the synthetic difference-in-differences estimates of the impact of *Dobbs* on high-achieving female college applicants. Standard errors are calculated using block bootstrap inference.

## 13.2 Figures

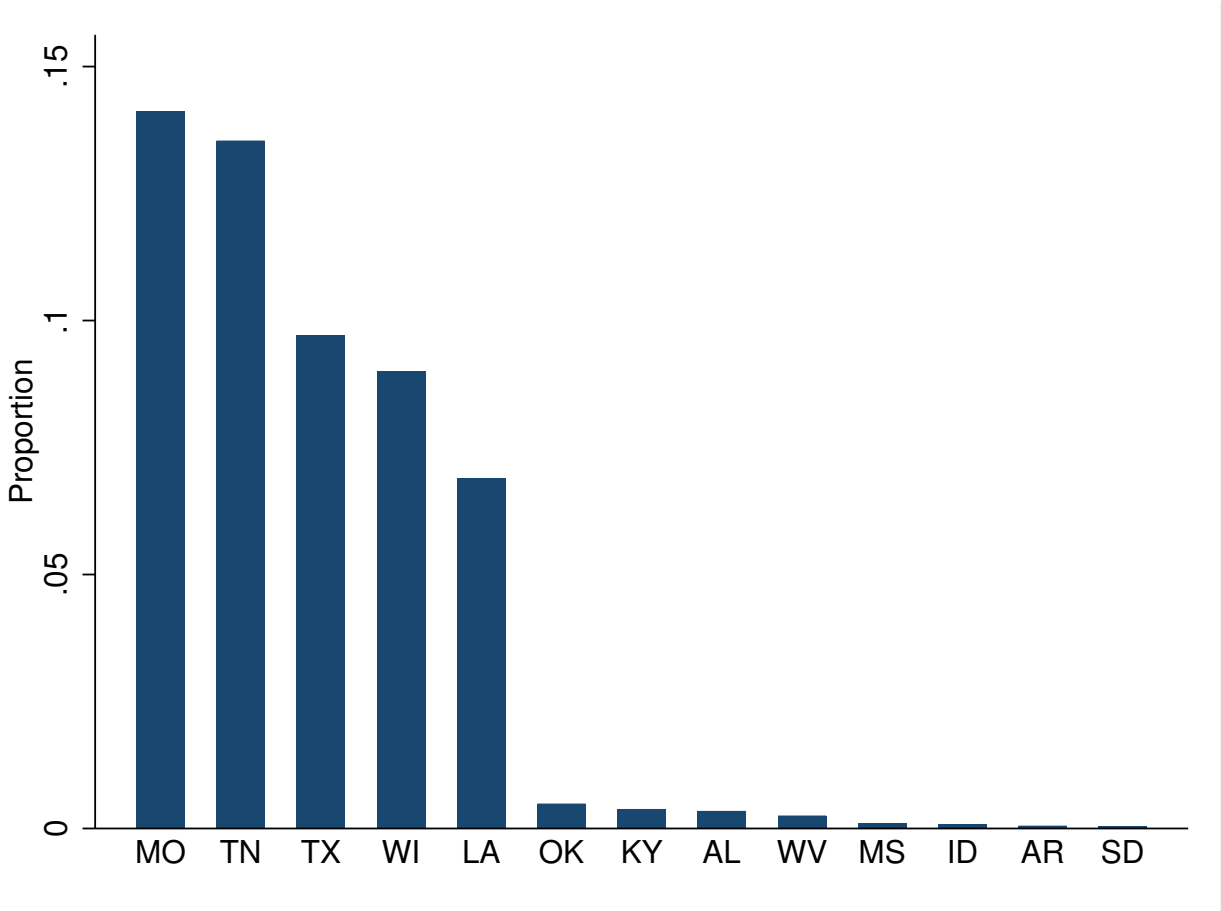
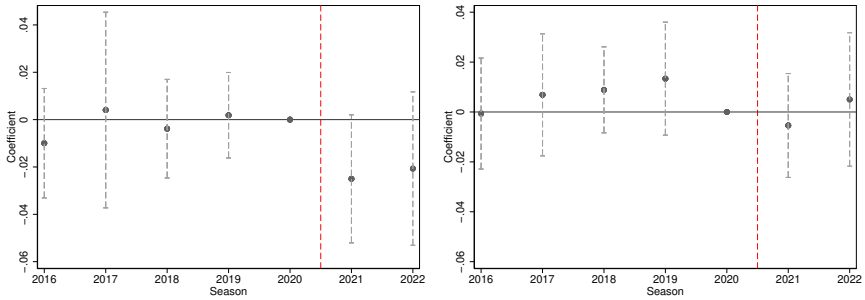


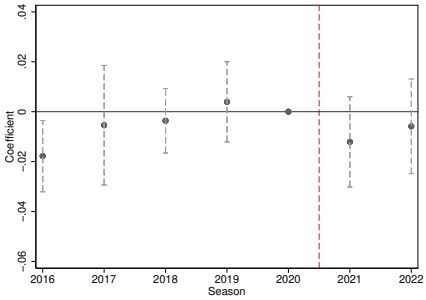

Figure A1: Application Behavior to States with an Abortion Ban prior to *Dobbs*

*Notes:* This figure shows the proportion of high-achieving applicants from states with no abortion restriction who applied to each state with an abortion ban prior to the 2021-22 and 2022-23 college application seasons.

Panel A: Applicants from States with an Abortion Ban

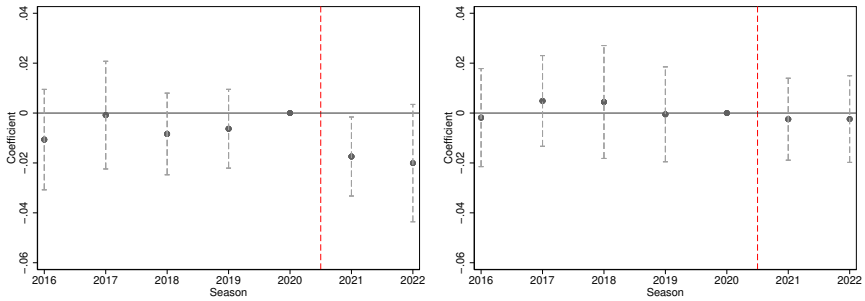



(a) Abortion ban (b) Abortion law

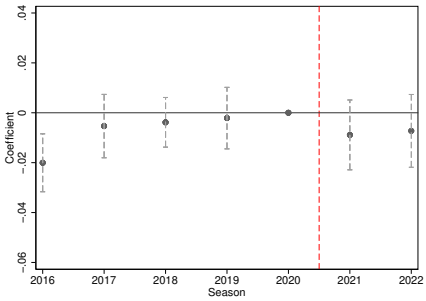



(c) No abortion restriction

Panel B: Applicants from States with an Abortion Law



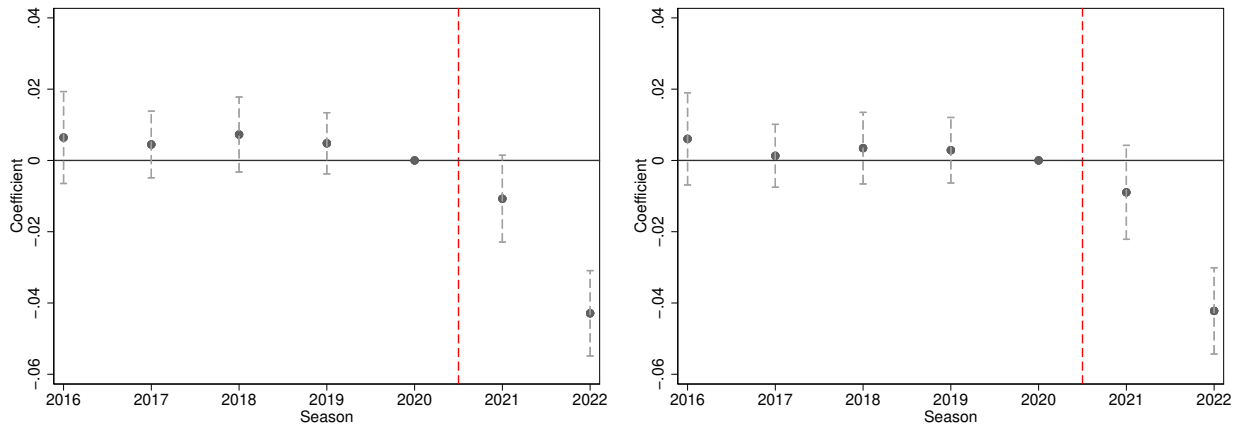

(a) Abortion ban (b) Abortion law




(c) No abortion restriction

Figure A2: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions

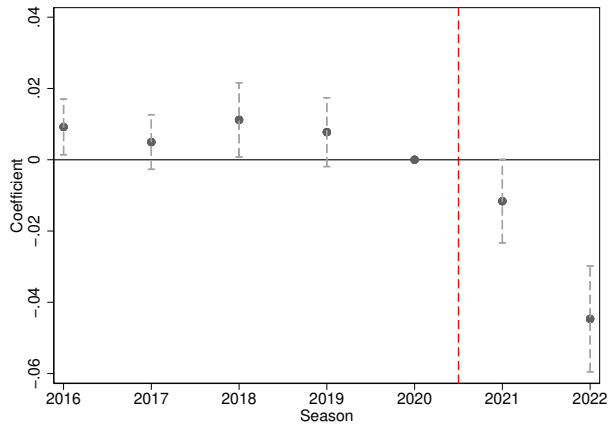
*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender, where the outcome is an indicator for whether an applicant applied to a state with an abortion ban, abortion law, or no abortion restriction. Year 2020 is the omitted category. The dashed vertical line indicates the start of the treatment period. Regressions control for applicant covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.



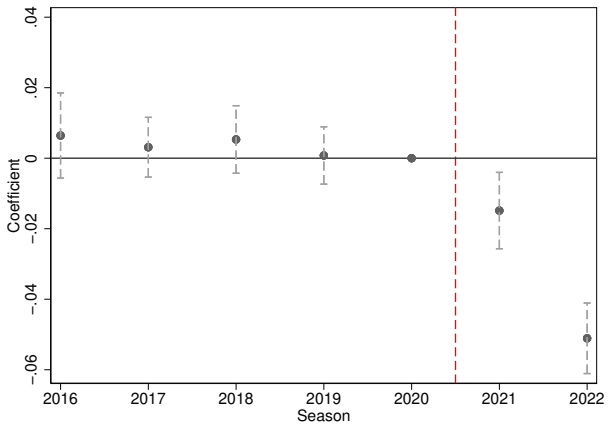

(a) All five states



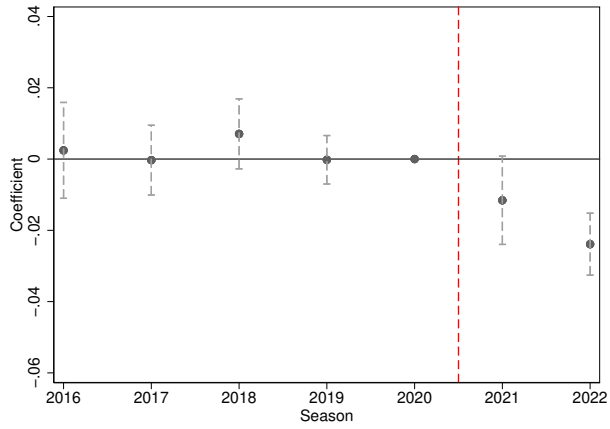

(b) Excluding LA



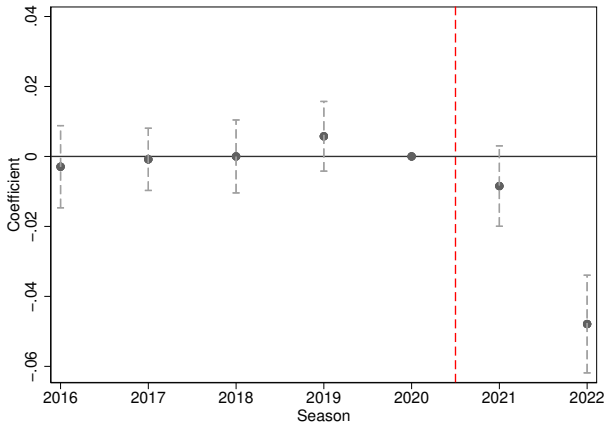

(c) Excluding MO




(d) Excluding TN




(e) Excluding TX




(f) Excluding WI

Figure A3: Event Study Estimates for Five States with an Abortion Ban

*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender. The sample includes high-achieving applicants from states with no abortion restriction who applied to college during the 2016-17 through 2022-23 application seasons. The outcome in the first figure is an indicator for whether an applicant applied to at least one of five states (Louisiana, Missouri, Tennessee, Texas, and Wisconsin) with a ban based on state abortion policy in the 2022-23 college application season. These fives states received the largest proportion of applicants prior to treatment (see Figure A1). The subsequent figures systematically exclude one state from the outcome. Regressions control for applicant covariates (see text) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

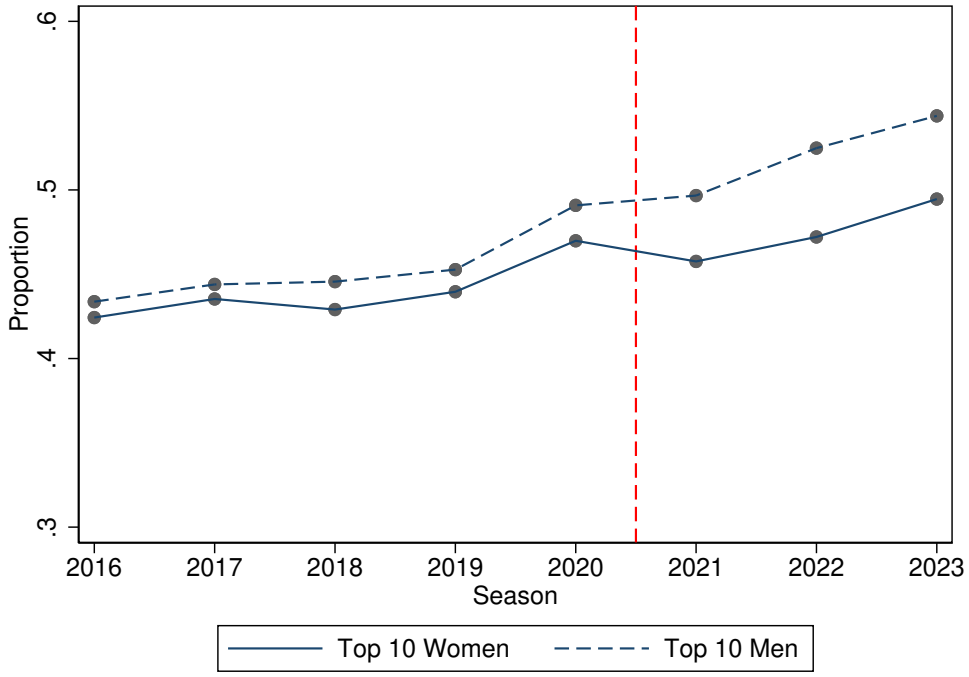
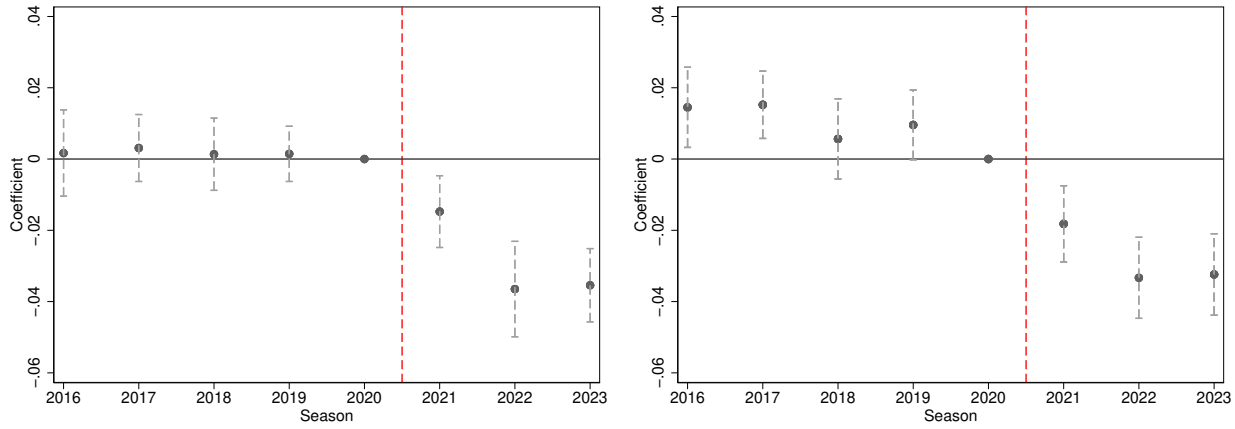



Figure A4: Proportion of High-Achieving Applicants who Applied to at least One of 14 States with an Abortion Ban in 2023

*Notes:* This figure shows the proportion of high-achieving male and female applicants who applied to at least one of the 14 states with an abortion ban (see text for details) in the 2023-24 application season. The dashed vertical line indicates the start of the treatment period.




(a) Outcome based on 13 states with a ban

(b) Outcome based on 14 states with a ban

Figure A5: Persisting Treatment Effects in the 2023-24 Application Season

*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender. The sample includes high-achieving applicants who applied to college during the 2016-17 through 2022-23 application seasons. The outcome in the first figure is an indicator for whether an applicant applied to at least one of 13 states with a ban based on state abortion policy in the 2022-23 college application season. The outcome in the second figure is an indicator for whether an applicant applied to at least one of 14 states with a ban based on state abortion policy in the 2023-24 college application season. Year 2020 is the omitted category. The dashed vertical line indicates the start of the treatment period. Regressions control for applicant covariates (see text) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.

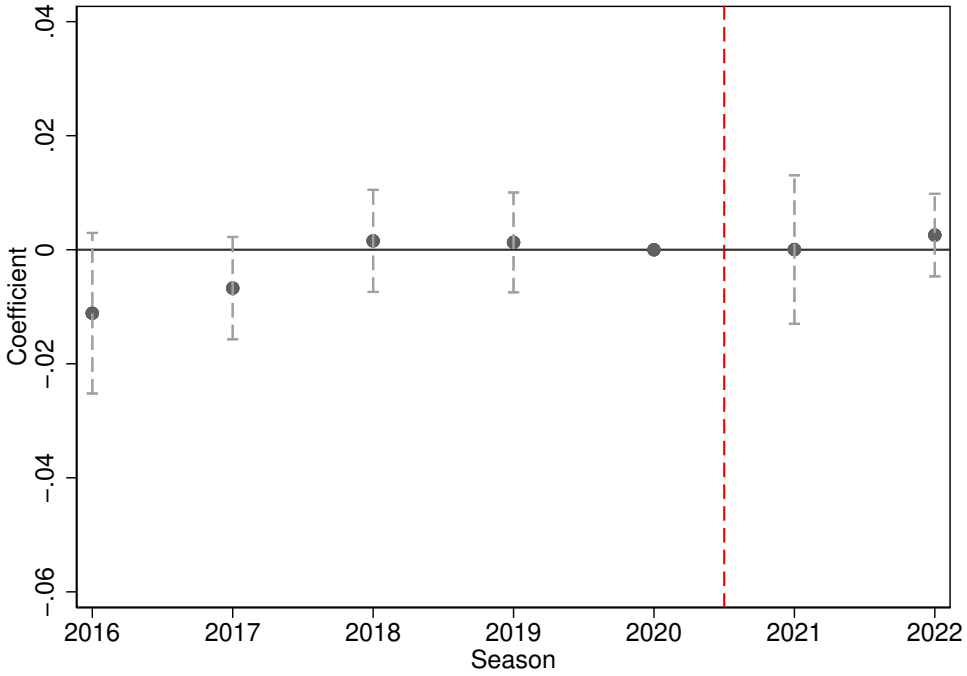
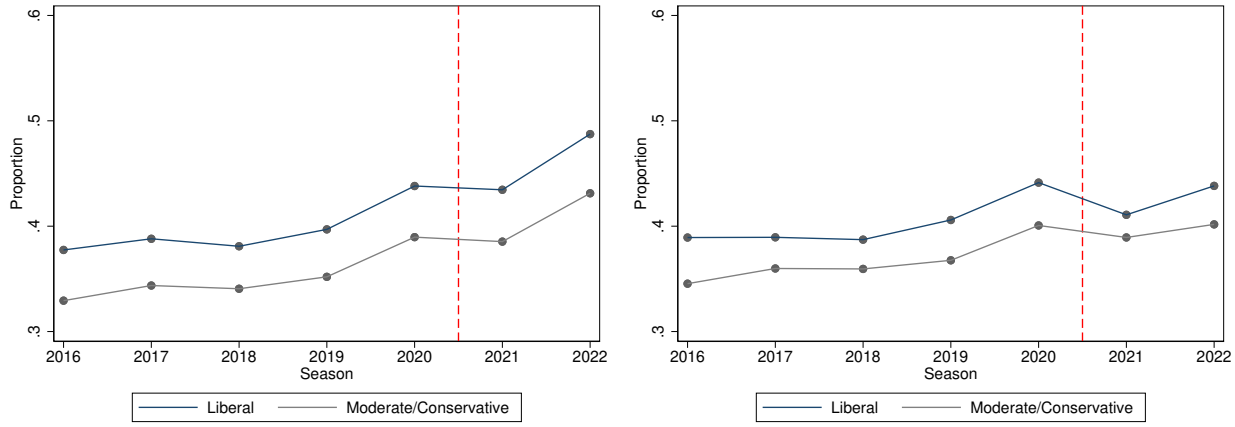



Figure A6: Event Study for Applying to a Red State with No Abortion Restriction

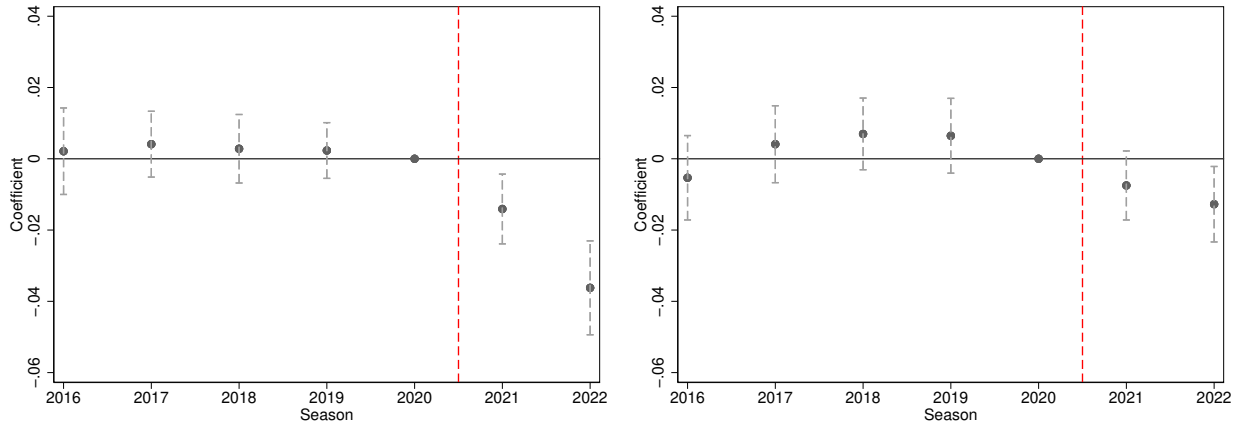
*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender. The outcome is whether an applicant applied to a state that voted for Donald Trump in the 2016 election that does not have an abortion restriction. The sample is restricted to applicants from states with no abortion restriction. The dashed vertical line indicates the start of the treatment period. Regressions control for applicant covariates (see text for details) and state-by-season and state-by-gender fixed effects. Standard errors are clustered by applicant state of residence.




(a) Men (b) Women

Figure A7: Application Patterns to States with an Abortion Ban by County Partisanship

*Notes:* This figure shows the proportion of high-achieving men and women from states with no abortion restriction that applied to a state with an abortion ban in the 2016-17 through 2022-23 college application seasons. County partisanship is defined based on presidential vote share in the 2016 election (see text for details).




(a) Applied to a state with an abortion ban (b) Applied to a state with an abortion law

Figure A8: The Effect of *Dobbs* on High-Achieving Women's College Application Decisions (Abortion Restrictions by the 2021-22 College Application Season)

*Notes:* This figure shows the coefficients and 95 percent confidence intervals from event study regressions that estimate interaction terms between year and gender, where the outcome is an indicator for whether an applicant applied to a set of states with an abortion law or ban by 2021, and year 2020 is the omitted category. The dashed vertical line indicates the start of the treatment period. Regressions control for applicant covariates (see text for details) and state-by-season, state-by-gender. Standard errors are clustered by applicant state of residence.

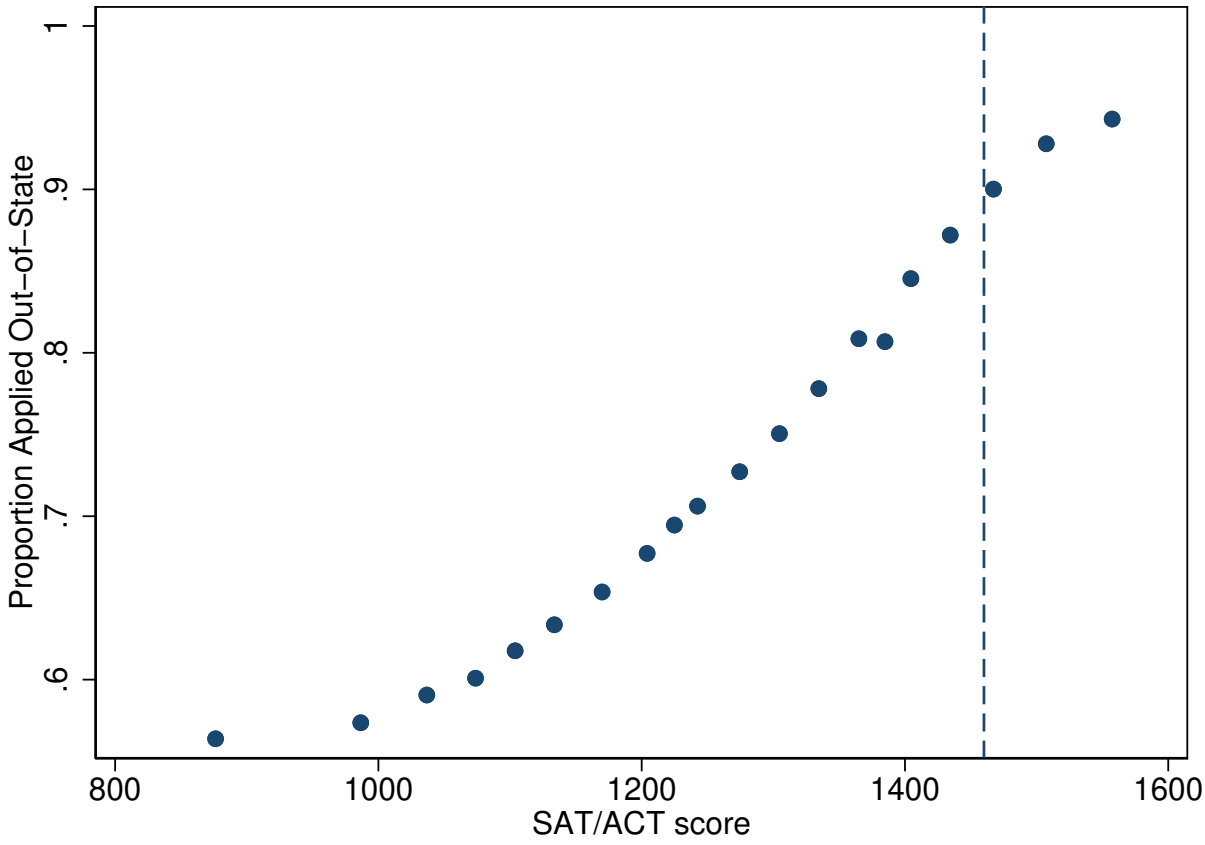
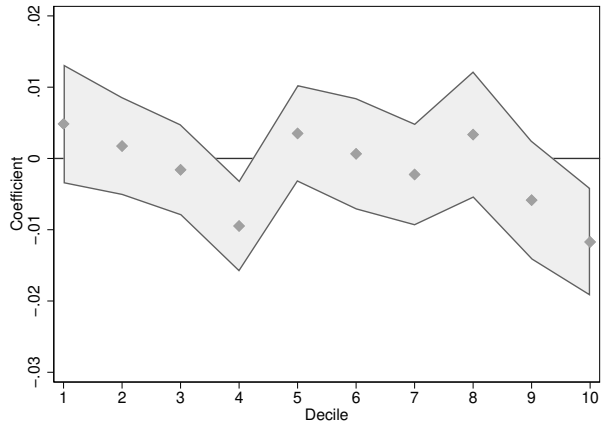
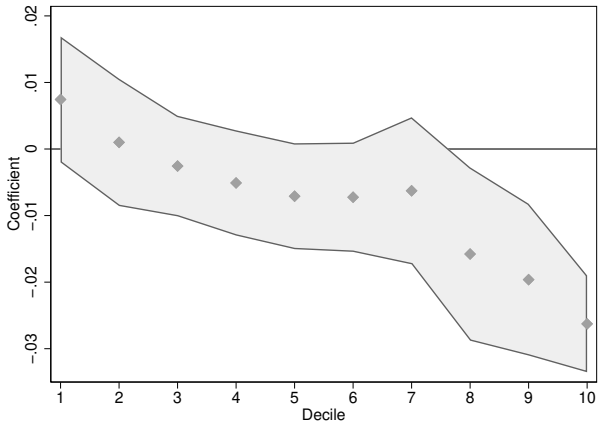



Figure A9: Proportion of Applicants who Applied Out-of-State by SAT/ACT Score

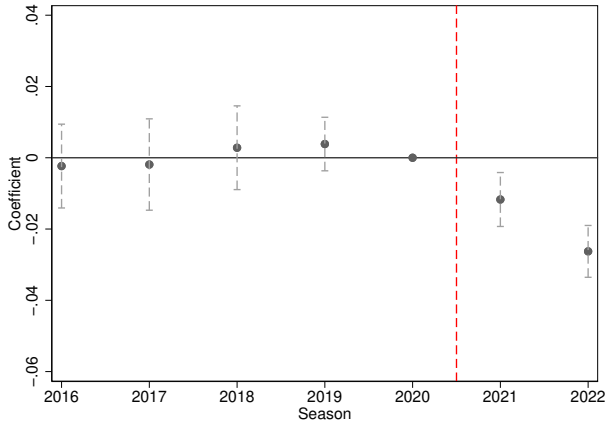
*Notes:* This figure shows a binscatter plot of the proportion of applicants in the sample who applied out-of-state by SAT/ACT score between the 2016 and 2020 application seasons. The dotted line is at an SAT/ACT score of 1460, which defines the top 10 percent of SAT/ACT test-takers in the sample in 2016.




(a) Treatment effects in 2021 by decile



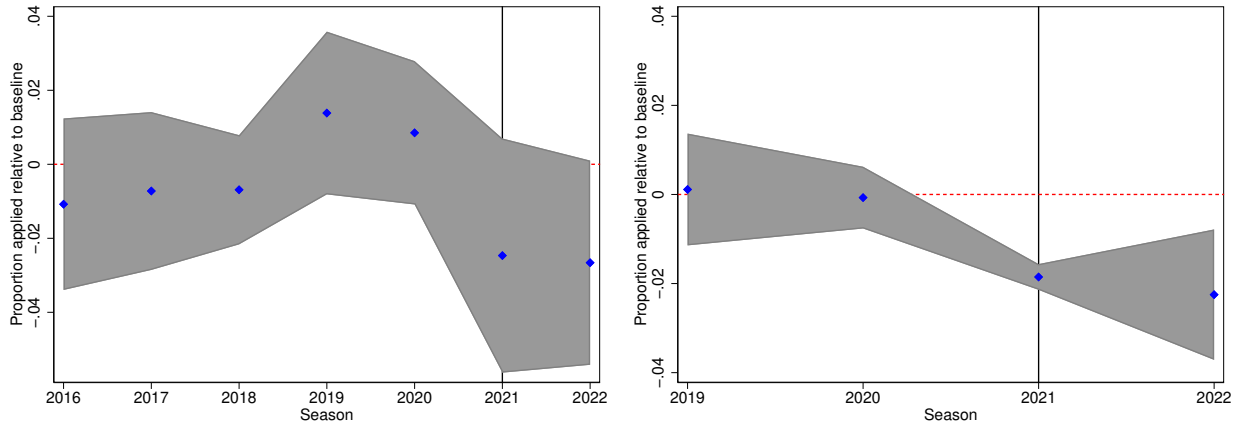

(b) Treatment effects in 2022 by decile




(c) Treatment effects for top decile

Figure A10: Estimates for Applying to a State with an Abortion Ban by Likelihood of Applying Out-of-State (in deciles)

*Notes:* The first two figures plot treatment effects in 2021 and 2022, respectively, for deciles of predicted likelihood that an applicant applies out-of-state. The third figure plots event study estimates for the top decile. See text for sample selection details.




(a) All application seasons

(b) Application seasons 2019-2022

Figure A11: Synthetic Difference-in-Differences Event Study Estimates

*Notes:* This figure shows synthetic difference-in-differences event study estimates. The outcome is whether an applicant applied to a state with an abortion ban. The control group includes states with an abortion ban and the treatment group includes states with no abortion restriction. The event study estimates are produced using the procedure outlined in Clarke et al. (2023).

### 13.3 Analysis of State Abortion Policy

I draw on a combination of primary and secondary sources for my analysis of state abortion policy, including state legislation, news articles, and organizations such as the Center for Reproductive Rights, the Guttmacher Institute, and KFF. My analysis reflects the state abortion landscape as of the 2022-23 college application season, and I focus on state laws that intended to severely restrict access to abortion based on gestational age (early gestational age bans) or completely ban access to abortion (trigger laws and total abortion bans). Laws in 24 states meet these criteria, and of those states, 13 states enforced a total abortion ban in the 2022-23 college application season. These 13 states, which are marked with a bullet (•), include Alabama, Arkansas, Idaho, Kentucky, Louisiana, Mississippi, Missouri, Oklahoma, South Dakota, Tennessee, Texas, West Virginia, and Wisconsin.

In addition to their more restrictive laws, many of the 24 states passed late gestational age bans at 20 or 22 weeks in prior years, including Alabama, Arizona, Arkansas, Georgia, Idaho, Indiana, Iowa, Kentucky, Louisiana, Mississippi, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Texas, West Virginia, and Wisconsin. Four states without restrictive abortion policies also previously passed late gestational age bans, including Kansas, Montana, Nebraska, and North Carolina. Many, but not all, of these laws took effect under *Roe*. In this analysis, I focus on the most restrictive abortion laws – limited to those based on gestational age or total bans – that took effect after *Dobbs*. Texas and Oklahoma are two exceptions. Texas' 6-week ban took effect in September 2021, and Oklahoma's 6-week and total bans took effect in May 2022.

It is also helpful to understand some technical details included in my review. First, there are two common ways to calculate the gestational age of a pregnancy, which is relevant for the severity of abortion restrictions as codified in state law. These definitions include post-fertilization, which is based on the date of conception, and last menstrual period (LMP), which is based on the first day of a woman's most recent menstrual period. Gestational age based on LMP is roughly two weeks more than gestational age based on post-fertilization. I refer closely to the language in state legislation in my analysis. Second, I use the term "medical emergency" – which is the most common exception in legislation that restricts access to abortion – to broadly capture various definitions regarding the health of a pregnant person, such as to save the pregnant person's life or to prevent serious risk to the pregnant person's physical health.

**Alabama•**

On May 15, 2019, Governor Kay Ivey signed H.B. 314 made performing an abortion a Class A felony punishable by up to 99 years in prison, and attempting to perform an abortion a Class C felony punishable by up to 10 years in prison, except in the case of a medical emergency. The law, which was scheduled to take effect on November 15, 2019, was blocked by a federal judge on October 29, 2019. The law went into effect on June 24, 2022.

**Arizona**

On March 30, 2022, Governor Doug Ducey signed S.B. 1164, which made performing an abortion after 15 weeks LMP, except in the case of a medical emergency, a Class 6 felony, punishable by fines, probation, and possible prison time between months and up to 5 years. The law went into effect on September 24, 2022. One day prior, on September 23, 2022, a state judge allowed a pre-statehood law from 1864 that banned abortion except in the case of a medical emergency, punishable by two to five years in prison, to take effect. The law was blocked by an appeals court on October 7, and on October 27, 2022 the state attorney general agreed to not enforce the law until at least 2023. However, a ruling on December 30, 2022 held that the state's total ban did not take precedence over the state's other laws and regulations.

**Arkansas**•

On February 19, 2019, Governor Asa Hutchinson signed S.B. 149, which made performing an abortion an unclassified felony, except in the case of a medical emergency, if the U.S. Supreme Court overruled *Roe v. Wade*, punishable by up to 10 years in prison or a fine of up to $100,000. The law went into effect on June 24, 2022.

The state also passed three other pieces of legislation to severely restrict access to abortion that were blocked by court orders. On March 6, 2013, the state senate overrode Governor Mike Beebe's veto of S.B. 134, which banned abortion starting at twelve weeks LMP except in the case of a medical emergency, rape, or incest. The law, which was set to take effect on August 16, 2013, was blocked by a federal judge on May 17, 2013 and struck down by a federal judge on March 15, 2014 and a federal appeals court on May 27, 2015. On March 15, 2019, Governor Hutchinson signed H.B. 1439, which made performing an abortion after 18 weeks LMP a Class D felony, except in the case of a medical emergency, rape, or incest, punishable by up to six years in prison and a fine of up to $10,000. The law, which was set to take effect on July 24, 2019, was blocked by a federal judge that day and on August 6, 2019, as well as by a federal appeals court on January 5, 2021. On March 9, 2021, Governor Hutchinson signed S.B. 6, which made performing an abortion an unclassified felony, except in the case of a medical emergency, punishable up to 10 years in prison or a fine of up to $100,000. The law, which was set to take effect on July 28, 2021, was blocked by a federal judge on July 20, 2021.

**Florida**

On April 14, 2022, Governor Ron DeSantis signed H.B. 5, which banned abortion after 15 weeks LMP except in the case of a medical emergency or lethal fetal abnormality. The law, which was scheduled to take effect on July 1, 2022, was blocked by a state judge on June 30, 2022 and reinstated by the state on July 5, 2022.

**Georgia**

On May 7, 2019, Governor Brian Kemp signed H.B. 481, which banned abortion after the detection

of a fetal heartbeat except in the case of a medical emergency, rape, incest, or medically futile pregnancy. The law, which was scheduled to take effect on January 1, 2020, was blocked by a federal judge on October 1, 2019. The law was reinstated by a federal appeals court on July 20, 2022, blocked by a federal judge on November 15, 2022, and reinstated by the state's supreme court on November 23, 2022.

**Idaho•**

On March 19, 2020, Governor Brad Little signed S.B. 1385, which made performing an abortion a felony, except in the case of a medical emergency, rape, or incest if the U.S. Supreme Court overturned *Roe v. Wade*, punishable by two to five years in prison. On August 24, 2022, a federal judge partially blocked the law, which then went into effect the next day on August 25, 2022.

The state also passed two other pieces of legislation to severely restrict access to abortion that were blocked by court orders. On April 27, 2021, Governor Brad Little signed H.B. 366, which made performing an abortion after the detection of a fetal heartbeat a felony, except in the case of a medical emergency, rape, or incest, if the U.S. Supreme Court overturned *Roe v. Wade*. On March 23, 2022, Governor Little signed S.B. 1309, which expanded on H.B. 366 to allow relatives of the person who received an abortion to sue the medical professional for damages of at least $20,000. The law, which was scheduled to take effect on April 22, 2022, was blocked by the state's supreme court on April 8, 2022.

**Indiana**

On August 5, 2022, Governor Eric Holcomb signed S.B. 1, which made performing an abortion a Level 5 felony, except in the case of a medical emergency, rape, incest, or lethal fetal anomaly, punishable by one to six years in prison and a fine of up to $10,000. The law, which took effect on September 15, 2022, was blocked by a state judge on September 22, 2022 and December 2, 2022.

**Iowa**

On May 4, 2018, Governor Kim Reynolds signed S.F. 359, which made performing an abortion after the detection of a fetal heartbeat a Class C felony, except in the case of a medical emergency, rape, incest, or lethal fetal abnormality, punishable by a maximum two-year prison sentence and a $4,000 fine. The law, which was scheduled to take effect on July 1, 2018, was blocked by a state judge on June 1, 2018 and January 22, 2019. A state judge declined to lift the block on December 12, 2022.

**Kentucky•**

On March 15, 2019, Governor Bevin signed S.B. 9, which made abortion after the detection of a fetal heartbeat a Class D felony except in the case of a medical emergency, punishable by up to five years in jail. The law, which was scheduled to take effect immediately, was blocked by a federal judge that same day. On March 26, 2019, Governor Bevin signed H.B. 148, which made abortion a Class D felony, except in the case of a medical emergency, if the U.S. Supreme Court overruled

*Roe v. Wade*. The law went into effect on June 24, 2022. A state judge blocked S.B. 9 and H.B. 148 on June 30, 2022, but they were reinstated on August 2, 2022.

In addition to these two laws, on April 14, 2022, the state legislature overrode Governor Andy Beshear's veto of H.B. 3, which banned abortion starting at 15 weeks post-fertilization except in the case of a medical emergency. The law, which was scheduled to take effect immediately, was blocked by a federal judge on April 21, 2022. The federal judge lifted her injunction on July 14, 2022.

**Louisiana•**

On June 17, 2006, Governor Kathleen Blanco signed S.B. 33, which banned abortion except in the case of a medical emergency if the U.S. Supreme Court overruled *Roe v. Wade*, and made the punishment for performing an abortion imprisonment at hard labor for between one and ten years and fines between $10,000 and $100,000. The law went into effect on June 24, 2022. It was blocked by a state judge on June 27, 2022, reinstated by a state judge on July 8, 2022, blocked by a state judge on July 12, 2022 and July 21, 2022, and reinstated by a state appeals court on July 29, 2022.

The state has also passed four other pieces of legislation to severely restrict access to abortion. On June 18, 1991, the state legislature overrode a veto by Governor Buddy Roemer to enact a law that banned abortion except in the case of a medical emergency, rape, or incest, punishable by up to 10 years in prison and fines up to $100,000. The law was blocked by a federal judge on August 8, 1991 and ruled unconstitutional by a federal appeals court on September 22, 1991. On May 23, 2018, Governor John Bel Edwards signed S.B. 181, which banned abortion after 15 weeks LMP if a federal court upheld a similar law (S.B. 1510) in Mississippi, with similar punishment provisions as S.B. 33. On May 30, 2019, Governor Bel Edwards signed S.B. 184, which banned abortion after the detection of a fetal heartbeat, except in the case of a medical emergency, if a federal court upheld a similar law (S.B. 2116) in Mississippi. On June 17, 2022, Governor Bel Edwards signed S.B. 342, which expanded the exceptions in S.B. 33 to include medical futility and ectopic pregnancies.

**Michigan**

On May 17, 2022, a state judge blocked a 1931 law that made performing an abortion a felony except in the case of a medical emergency, punishable by up to four years in prison. On August 1, 2022, a state judge granted Governor Gretchen Whitmer's request to temporarily block enforcement of the law. On September 7, 2022, a state court order declared the law unconstitutional. Voters approved Proposal 3, an amendment to protect abortion rights, on November 8, 2022.

**Mississippi•**

On March 22, 2007, Governor Haley Barbour signed S.B. 2391, which made performing an abortion a felony if the U.S. Supreme Court overruled *Roe v. Wade* except in the case of a medical emergency or rape, punishable by one to ten years in prison. The law went into effect on July 7, 2022.

The state also passed two other pieces of legislation to severely restrict access to abortion, including the law at the center of the *Dobbs* case. On March 19, 2018, Governor Phil Bryant signed H.B. 1510, which made performing an abortion after 15 weeks LMP a misdemeanor, except in the case of a medical emergency or severe fetal abnormality, punishable by up to six months in prison and a fine of $1,000. The law was blocked by a federal judge on March 20, 2018 and November 20, 2018. On March 21, 2019, Governor Bryant signed S.B. 2116, banned abortion after the detection of a fetal heartbeat except in the case of a medical emergency. The law was blocked by a federal judge on May 24, 2019.

**Missouri**•

On May 24, 2019, Governor Mike Parson signed H.B. 126, which made performing an abortion a Class B felony (1) starting at eight weeks LMP except in the case of a medical emergency and (2) if the U.S. Supreme Court overruled *Roe v. Wade* except in the case of a medical emergency, punishable by between five and 15 years in prison. The 8-week ban was blocked by a federal judge on August 27, 2019, the day before it was scheduled to take effect. The trigger law took effect on June 24, 2022.

**North Dakota**

On April 26, 2007, Governor John Hoeven signed H.B. 1466, which made performing an abortion a Class C felony, except in the case of a medical emergency, rape, or incest, if the U.S. Supreme Court overruled *Roe v. Wade*, punishable by up to 5 years in prison and a fine of $10,000. The law was blocked by a state judge on August 25, 2022, the day before it was scheduled to take effect.

Previously, on March 26, 2013, Governor Jack Dalrymple signed H.B. 1456, which made performing an abortion after the detection of a fetal heartbeat a Class C felony except in the case of a medical emergency. The law, which was scheduled to take effect on August 1, 2013, was blocked by a federal judge on July 22, 2013 and April 16, 2014, and a federal appeals court on July 22, 2015.

**Ohio**

On April 11, 2019, Governor Mike DeWine signed S.B. 23, which made performing an abortion after the detection of a fetal heartbeat a fifth degree felony except in the case of a medical emergency or ectopic pregnancy, punishable by by between 6 and 12 months in prison and a fine of up to $2,500. The law, which was scheduled to take effect on July 10, 2019, was blocked by a federal judge on July 3, 2019. The law went into effect on June 27, 2022, but it was blocked by a state judge on September 14, 2022 and October 7, 2022.

**Oklahoma**•

On May 3, 2022, Governor Kevin Stitt signed S.B. 1503, which banned abortion after the detection of a fetal heartbeat, except in the case of a medical emergency. The law went into effect immediately, and offered damages of at least $10,000 to anyone who successfully sues an abortion provider or anyone who aids and abets someone seeking abortion. On May 25, 2022, Governor Stitt signed

H.B. 4327, which banned abortion, except in the case of a medical emergency, rape, or incest, with similar enforcement provisions as S.B. 1503. The law took effect immediately, making Oklahoma the only state to successfully outlaw abortion under *Roe*.

On April 27, 2021, Governor Stitt signed S.B. 918, which banned abortion except in the case of a medical emergency if the U.S. Supreme Court overruled *Roe v. Wade*. On April 29, 2022, Governor Stitt signed S.B. 1555, which amended the trigger language in S.B. 918 to allow the state to enforce a 1910 abortion ban. The law, which went into effect on June 24, 2022, made performing an abortion a felony, except in the case of a medical emergency, if the Court overruled *Roe*, punishable by up to five years in prison.

On April 12, 2022, Governor Stitt signed S.B. 612, which made performing an abortion a felony, except in the case of a medical emergency, punishable by up to 10 years in prison and fine of up to $100,000. The law went into effect on August 25, 2022.

**South Carolina**

On February 18, 2021, Governor Henry McMaster signed S.B. 1, which made performing an abortion after the detection of a fetal heartbeat a felony except in the case of a medical emergency, rape, incest, or lethal fetal abnormality, punishable by up to 2 years in prison and a $10,000 fine. The law was blocked by a federal judge the following day and reinstated on June 27, 2022. The law was blocked by the state supreme court on August 17, 2022.

**South Dakota•**

On March 22, 2005, Governor Mike Rounds signed H.B. 1249, which made performing an abortion a Class 6 felony except in the case of a medical emergency if the U.S. Supreme Court overruled *Roe v. Wade*, punishable by up to 2 years in prison and a fine of $4,000. The law went into effect on June 24, 2022.

**Tennessee•**

On May 10, 2019, Governor Bill Lee signed S.B. 1257, which made performing an abortion a Class C felony except in the case of a medical emergency if the U.S. Supreme Court overruled *Roe v. Wade*, punishable by 3 to 15 years in prison and fines up to $10,000.. The law went into effect on August 25, 2022.

On July 13, 2020, Governor Lee signed H.B. 2263, which made performing abortion after the detection of a a fetal heartbeat a Class C felony except in the case of a medical emergency. The law was blocked by a federal judge that same day and instated by a federal appeals court on June 28, 2022.

**Texas•**

On May 19, 2021, Governor Greg Abbott signed S.B. 8, which banned abortion after the detection of

a fetal heartbeat except in the case of a medical emergency. The law went into effect on September 1, 2021, and offered damages of at least $10,000 to anyone who successfully sues an abortion provider or anyone who aids and abets someone seeking abortion. On June 16, 2021, Governor Abbott signed H.B. 1280, which made performing an abortion a first degree felony except in the case of a medical emergency if the U.S. Supreme Court overruled *Roe v. Wade*, punishable by up to life in prison and a fine of up to $10,000. The law went into effect on August 25, 2022. Notably, the state supreme court allowed a pre-*Roe* abortion ban from 1925, which took effect on June 24, 2022 and blocked by a state judge on June 28, 2022, to take effect on July 1, 2022. The law made performing an abortion punishable by two to 10 years in prison.

**Utah**

On March 25, 2019, Governor Gary Herbert signed H.B. 136, which made performing an abortion after 18 weeks LMP a second degree felony except in the case of a medical emergency, rape, incest, or lethal fetal anomaly, punishable by a 1 to 15-year prison sentence and fines up to $10,000. The law was blocked by a federal judge on April 18, 2019 and took effect on June 28, 2022.

The state passed two other pieces of legislation to severely restrict access to abortion. On January 25, 1991, Governor Norman Bangerter signed a law that made performing an abortion a class 3 felony except in the case of a medical emergency, rape, incest, or lethal fetal anomaly, punishable by a $5,000 fine and up to five years in jail. The law was ruled unconstitutional by a federal judge in December 2022. On March 28, 2020, Governor Herbert signed S.B. 174, which made performing an abortion a second degree felony except in the case of medical emergency, rape, incest, or lethal fetal anomaly. The law took effect on June 24, 2022 but was blocked by a state judge on June 27, 2022.

**West Virginia•**

On September 16, 2022, Governor Jim Justice signed H.B. 302, which made performing an abortion a felony except in the case of a medical emergency, nonmedically viable fetus, or ectopic pregnancy, punishable by three to ten years in prison. The law immediately took effect.

**Wisconsin•**

On June 24, 2022, abortion law in the state reverted back to an 1849 law that made performing an abortion a Class H or Class E felony except in the case of a medical emergency, punishable by up to six years in prison and a fine up to $10,000 or up to 15 years in prison and a fine up to $50,000.

**Wyoming**

On March 15, 2022, Governor Mark Gordon signed H.B. 92, which made performing an abortion a felony, except in the case of medical emergency, rape, or incest, if the U.S. Supreme Court overruled *Roe v. Wade*, punishable by up to 14 years in prison. The law was blocked by a state judge on July 27, 2022, the day it was scheduled to take effect.

**Post-2022 Changes in State Abortion Policy**

Eleven states made changes to their abortion laws or policies after the start of the 2022-23 college application season.[42] However, these changes either did not impact or have a minimal impact on the state categorization in my analysis. The status of abortion access did not change in three states (Iowa, Florida, and Wyoming) or impact the categorization of one state (South Carolina). Three states moved from no restriction to an abortion law (Montana, Nebraska, and North Carolina). Two states (Indiana and North Dakota) moved from an abortion law to an abortion ban. One state (Michigan) moved from an abortion law to no restriction and one state (Wisconsin) moved from an abortion ban to no restriction.

On June 30, 2023, the **Indiana** Supreme Court vacated the injunction on S.B. 1. The law, which bans abortion, took effect on August 1, 2023.

On July 14, 2023, **Iowa** Governor Reynolds signed H.F. 597, which banned abortion after the detection of a fetal heartbeat except in the case of a medical emergency, rape, incest, or lethal fetal anomaly. The law, which took effect upon enactment, was blocked by a state judge on July 17, 2023.

On April 13, 2023, **Florida** Governor DeSantis signed S.B. 300, which banned abortion after six weeks LMP except in the case of a medical emergency or lethal fetal abnormality, or rape or incest within the first 15 weeks of pregnancy. The law takes effect thirty days after the Florida Supreme Court rules on the case challenging the state's 15-week ban.

On November 8, 2022, **Michigan** voters approved Proposal 3, an amendment to protect abortion rights. On April 5, 2023, Governor Whitmer signed into law two pieces of legislation, H.B. 4006 and 4032, which repealed the 1931 law.

On May 3, 2023, **Montana** Governor Greg Gianforte signed S.B. 154, which stated that the right to privacy under the state's constitution does not include the right to abortion. On May 12, 2023, the Montana Supreme Court reaffirmed that the state constitution guarantees the right to seek abortion care. On May 16, 2023, Governor Gianforte signed H.B. 721, which banned the most common method of abortion that is used after approximately 15 weeks of pregnancy. The law was blocked by a state judge on May 18, 2023.

On May 22, 2023, **Nebraska** Governor Jim Pillen signed L.B. 574, which banned abortion starting at 12 weeks LMP, except in the case of a medical emergency, sexual assault, or incest. The law immediately took effect.

[42]Note: Some laws were passed in the spring of 2023, which was during the 2022-23 college application season. However, it is unlikely that these laws would have affected applicants' decisions in that season because the majority of applications were submitted by February 2023.

On May 16, 2023, the **North Carolina** state legislature overrode Governor Roy Cooper's veto of S.B. 20, which banned abortion after 12 weeks of pregnancy. A federal judge allowed the ban to take effect on July 1, 2023.

On April 24, 2023, **North Dakota** Governor Doug Burgum signed S.B. 2150, which made abortion a class C felony, punishable by up to five years in prison and a fine of $10,000. Exceptions include medical emergencies, and sexual assault or incest within the first six weeks of pregnancy. The law immediately took effect.

On May 25, 2023, **South Carolina** Governor McMaster signed S.B. 474, which made performing an abortion after the detection of a fetal heartbeat a felony except in the case of a medical emergency, rape, incest, or lethal fetal abnormality, punishable by up to 2 years in prison and a $10,000 fine. On August 23, 2023, the South Carolina Supreme Court upheld S.B. 474, which had been blocked by a state judge on May 26, 2023. The law is nearly identical to S.B. 1, which the state supreme court permanently struck down on January 5, 2023.

On September 18, 2023, abortion access resumed in **Wisconsin** after a state judge ruled on July 17, 2023 that the 1849 law did not apply to abortions.

On March 17, 2023, **Wyoming** Governor Gordon allowed H.B. 0152 to become law, which made performing an abortion a felony, except in the case of a medical emergency, rape, incest, or lethal fetal anomaly, punishable by up to 5 years in prison and a fine of $20,000. The law, which went into effect on March 19, 2023, blocked by a state judge on March 22, 2023.

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