Access to Abortion in the United States: Before and After *Dobbs vs. Jackson*

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Introduction

The topic of abortion digs deep into the human experience, highlighting the cyclical connection between an individual and the social world. It stimulates inquiry into core philosophical questions such as life, death, and morality. While at the same time, the topic holds a mirror up to the inequalities that shape our social world: sexism, racism, poverty, food insecurity, underfunded schools, housing shortages, domestic abuse, sexual assault, mental and physical illness, addiction, etc. The barriers in place that restrict access perpetuate inequality along deeply ingrained lines that have shaped our social world. Research has shown that women denied abortion are more likely end up living below the federal poverty line, more likely to stay with an abusive partner, and less likely to pursue higher education or have career aspirations. (Green-Foster, 2019) In addition, the groups most likely to be negatively impacted by restrictive abortion policies are those facing larger socio-economic disadadvantages.

The Dobbs vs. Jackson decision drastically changed access to abortion care in the United States. Overturning nearly 50 years of judicial precedent, the decision revoked the constitutional right to abortion and granted state governments complete control over abortion policies. While full impact of the decision is yet to be determined, several states have implemented abortion bans or other restrictive policies. As of July 24, 2022, exactly one month after the decision, abortion was banned in 8 states, soon be banned in 4 additional states, and 5 states implemented stricter gestational limits.

The foundation of abortion policy in the United States has remained relatively stable for the past 50 years. Thus, our understanding of the topic and the majority of existing research focuses on a structure that is no longer in place. Given this unprecedented upheaval of the abortion care system, it is of utmost importance that develop strategies for understanding the changes that are taking place. This study provides a comprehensive analysis of access to abortion care in the United States. It takes into account the factors identified by previous research as key to determining access to abortion care including, geography, cost, law, and politics. It also looks to the five dimensions defined by Thomas and Pechansky (1981) as a guideline incooporating different types of variables into a single, over-arching measure– “access”.

The study involved several different phases of analysis, each of which offered insight into a separate aspect of access and worked together to provide a comprehensive understanding . The first step in measuring access was to identify where the clinics in the United States are located in relation to population density and the average distances needed to travel to receive care. Next, we turn our attention toward the geographic distribution of race and rates of poverty across the country. This phase allows us to consider factors that impede access and identify locations that are most vulnerable to clinic closures. Finally, we will measure the level of restrictiveness of laws in each state and consider the impact of various types of regulations. Each of these phases work together to provide a comprehensive analysis of access and comparison of access to abortion prior to and after the Dobbs vs. Jackson decision.

Access: Definiton, Dimensions, and Determinants

Access is one of the health care system's most often addressed concerns. It examines the availability of health care services as well as the variables that promote or impede their usage. One of the most prominent frameworks used to understand access defines the term as, “the degree of fit between the clients and the system.” (Thomas and Pechansky, 128). The authors

also propose there are five dimensions that make up access: availability, accessibility, accommodation, affordability, and acceptability. Each of these dimensions is clearly defined and while differentiation exists among the five areas they also overlap and interact with one another. The variables selected for this research in each of the indices aim to fulfill each of the five dimensions of access. The following section identifies the variables chosen for each category.

Availability focuses on the supply of resources in relation to demand. The supply of resources was measured based on the location and number of abortion clinics in each county, state, and region. These values were then compared to the level of demand based on population density and demographic factors (race, income) that influence rates of abortion.

A*ccessibility* takes into account the location of clinics in relation to patient location. This dimension was assessed by measuring the distance from each county to the nearest abortion clinic. The county level analysis provided insight into variations in accessibility within and between states.

Affordability addresses the cost of a service in relation to the patient's ability to pay. The variables used to assess this dimension included county-level income estimates and rates of poverty. In addition to state laws that regulate both public and private insurance plans from providing coverage for abortion care.

Accommodation considers how resources are set up to provide for patients, and the patients' experiences and evaluations of the processes required to receive care. The variables used for this dimension highlight the influence of state abortion law on clinic policies. Specifically, laws that require in-person counseling and waiting periods that necessitate more than one trip to the facility.

Acceptability encompasses provider opinions about acceptable client characteristics and vice versa. This complex dimension takes into account the implicit and explicit biases that shape our social world. Given the scope of this study, it was necessary to concentrate on variables that could be explicitly defined and measured across all clinics in the country. This dimension is assessed based on laws that require parental consent and/or notification for patients under the age of 18.

The five dimensions of access offer a framework for distilling our conceptual understanding of access into quantifiable measures. This assessment provides a foundation upon which key determinants of access to abortion care in the United States can be discussed. The major factors to be considered are geography, demographics, politics, cost, and law.

Geography: A crucial indicator of access is the distance women must travel to reach an abortion facility. Previous studies have shown that women who live further away from an abortion clinic are less likely to obtain care in cases of unwanted pregnancy than those who reside closer to an abortion clinic. Long-distance travel can impose a substantial burden on women in regard to transportation costs, transit duration, time off work, and child care accommodations, particularly for economically disadvantaged women. According to this study, women who live in

rural locations with long travel distances were most likely to be negative effected by restrictive abortion policies. Distance to the nearest clinic, however, is not the only way in which geography plays a role in access. Social-structural factors such as political representation and economic opportunity are also closely tied to place.

Cost: The life-altering effects of unintended pregnancy and the time sensitive nature of the procedure underscore the importance of accessibility. A research study comparing access to abortion in the U.S. to Western European countries found that lack of public funding for abortion services was the most effective deterrent for women accessing abortion care in the United States. (McFarlane, 2021). Despite abortion being one of the most common surgical procedures in the United States, there are 24 states that ban private health insurance plans from offering coverage for abortion, and there are only 14 states that offer funding through Medicaid (McFarlane; Guttmacher). Lack of funding for abortion care creates a significant barrier to access. Women who cannot cover the cost of the procedure might delay until they have saved up the funds. However, the cost of the procedure increasing as time passes. Abortions occurring within 12 weeks of pregnancy cost approximately $400-$550. Whereas, a procedure occurring around 20 weeks costs $1100-$1650 (McFarlane, 2021). The barrier of cost for low income women is tightened for women living in states that have strict regulations on gestational limits. If a woman cannot gather the funds necessary for the procedure before reaching the gestational limit in their state, they will either have to collect more money to travel out of state or be forced to carry the unintended pregnancy to term. The significance of economic barriers to access are heightened by the consequences of being denied care. Previous research shows that among women seeking abortion, those who were denied care were four times more likely to end up living below the Federal Poverty Level (FPL)(Foster, 2020).

Politics: An influential factor producing geographic disparities in access to abortion care in the United States is the absorption of the topic by the political sphere. The divide between the Republican party's "pro-life" stance and Democratic party's "pro-choice" approach has been normalized and widely accepted. However, it is important to note that abortion only became a bipartisan political issue in 1972, when Nixon's presidential campaign took a strong anti-abortion position in an attempt to garner votes from Catholics and social conservatives (Greenhouse, 2011). As a result of this party alignment, political representation in state government among Republicans and Democrats is consistently a determining factor in state-level abortion policies. The politicization of abortion has created an environment where abortion is singled out in government health care policies. For example, in 2010 the political divide surrounding abortion nearly derailed the passage of the Affordable Care Act (ACA). Despite abortion being one of the most common surgical procedures in the United States, funding for abortion was removed in order for the ACA to be put in place (McFarlane, 2021). Existing research consistently shows that the political party affiliation of state representatives is a driving factor in state-level abortion policies that affect access to care.

Law: Since the legalization of abortion in 1973, anti-abortion officials and advocates have worked to implement countless regulations on the procedure. In 2011 alone, there were 62 new restrictions placed on abortion throughout 21 of the U.S. states. These restrictions included measures such as: in-person visits, 24-72 hour waiting periods after the initial appointment,

regulation of gestational limits, and hospital admitting privileges for clinics (Jones 2011). These restrictions result in disparate access to care throughout the county.

Gestational Limits

The Roe vs. Wade decision protected the right to abortion up until the point of fetal viability– defined as the point at which a fetus can survive outside the womb. While medical experts generally consider a fetus to be viable at 23-24 weeks LMP, the decision did not explicitly define the gestational age at which a fetus is considered viable. As a result, several states implemented gestational limits that stretch the definition of "viability" to fit anti-abortion opinion rather than medical expertise. For example, 17 states in the contiguous United States ban abortion at 20 weeks post fertilization (22 weeks LMP) based on the unscientific claim that a fetus can feel pain at this point. As of April 2022, 43 of the 48 states in the contiguous United States have legislation that establishes an upper-limit on the gestational period after which abortion is prohibited; 6 states impose no limit; 1 state in the 3rd trimester (post-25 weeks LMP); 19 states at viability (~ 23-24 weeks LMP); 4 states at 22 weeks post-fertilization (24 weeks LMP); 17 states at 20 weeks post- fertilization (22 weeks LMP); 1 state at 6 weeks LMP.

Funding

The Hyde Amendment, passed in 1976, restricts the use of federal funds for abortions to cases of life endangerment, rape, or incest. Because Medicaid is a joint program funded by federal and state governments, states can use their own public funds to cover abortion care. As of 2021, only 14 states in the contiguous U.S. provide public state funding for "all or most medically necessary abortions"; 33 states limit funding to cases of life endangerment, rape, or incest; and 1 state, in violation of the federal standards, restricts funding to cases of life endangerment only (Guttmacher, 2022).

States have also implemented laws surrounding abortion care coverage by private health insurance providers. There are 6 states in the contiguous US that require private insurers to cover abortion care. However, the majority of states (30) have laws in place that restrict various types of private insurance plans from offering coverage: all private insurance plans (11 states), insurance policies for public employees (22 states), and state-level health insurance exchanges (25 states). The limits on private insurance providers that require patients to pay out of pocket are unlikely to present a significant barrier to access for individuals with the economic means. For women in difficult financial situations, these restrictions can result in putting off the procedure or not being able to access it at all. It is important to note that health insurance exchanges only recently became a prominent feature of the US healthcare system in 2014 with the implementation of the Affordable Care Act (ACA). The primary goal of the ACA was to provide near universal health care coverage in the US, the act aims to improve the fairness, quality, and affordability of health insurance, as well as make the health-care system more accountable to a diverse patient population. Abortion is one of the most commonly performed procedures in the US. The restriction of abortion care coverage creates a disproportionate barrier to access for individuals without the economic means. State governments have found multiple ways to limit insurance coverage of abortion through bans on abortion coverage in public employees' insurance policies. Several states have restricted abortion coverage in other private health insurance plans, especially following passage of the Affordable Care Act (ACA) in 2010, which provided for the establishment of state-level health insurance exchanges. While these coverage restrictions on private health plans are in place in half of the states, other states have taken steps to protect abortion access and affordability by requiring insurance plans to cover abortion. The

laws in these states either require abortion coverage or require the coverage if a health plan includes coverage for prenatal care.

Medical regulations

The legal regulation of abortion care is often identified as the Targeted Restriction of Abortion Providers, or TRAP laws. Researchers have criticized TRAP laws, stating that they do not serve the intended purpose of protecting women's health, but rather work to deter women from seeking care and make abortion clinics too expensive to operate (Greenhouse, 2021; Jones, 2011; Lichter 1998; Bearak, 2017). One of such laws is the requirement that a second physician must be involved in the procedure after a certain point in gestation. There are 17 states that enforce this requirement despite the lack of evidence that a second physician's involvement is necessary or beneficial for patient health. Rather, this law contributes to increased procedure costs and longer wait times.

There are also federal and state laws that regulate the types of procedures that can be performed. One of the most controversial of which is the the Partial-Birth Abortion Ban Act (PBABA). Passed by Congress in 2003, the PBABA states that doctors are prohibited from"performing an overt act that [the doctor] knows will kill the partially delivered living fetus" (327). The act does not define a specific procedure, but is generally understood to refer to what medical professionals call dilation and extraction (D&X). D&X is a procedure used to terminate pregnancy in the latter part of the second trimester (13-24 weeks) by dilating the women's cervix and removing the fetus through the birth canal. Medical experts have consistently opposed the PBABA. They argue that D&X is the safest method of abortion in late-terms and presents the lowest risk of causing infertility. D&X is also the only procedure that allows parents to hold the fetus after abortion. Research has shown that this can be an important step in the grieving process. At this stage of pregnancy it is rare that a fetus has reached viability. It has, however, developed to the point of resembling a human infant. This is a significant factor in the controversy surrounding late-term abortions.

Personal Restrictions

In addition to targeted regulations, abortion restrictions that impede access to services include state-mandated waiting periods and counseling topics. Although many states require some kind of counseling, five states (Louisiana, Mississippi, Utah, Wisconsin, and Indiana) require counseling in person at least 18 hours before the procedure, which means women must make at least two trips to the office or clinic (Harper, 2022). This type of requirement is particularly burdensome for women who have to travel some distance to reach a clinic, including women who live in the 87% of counties, mostly rural, that do not have abortion services (Harper, 2022).

Most states require parental consent or notification for minors but provide the option of seeking a court ordered exemption. The regulations are complex, ranging from consent, notification, judicial bypass, involvement of other adult relatives, to exceptions for medical emergencies or abuse, assault, incest or neglect (Harper, 2022). Such extensive variation in different laws means that few minors are likely to be aware of all requirements. The process also delays scheduling the procedure which can pose a risk of being denied care due to gestational limits. This delay is also problematic because the methods used to terminate pregnancy become more invasive and costly as the pregnancy progresses.

Methods

Population and Spatial Scale

This study included all women of reproductive age (females 15 to 49 years of age) in the continental United States. The total observed population for this group was approximately 73 million based on census estimates. This research provides a county-level analysis of access to abortion services in the United States based on clinic location and distance to nearest clinic. The location of clinics were sourced from a 2020 database provided by the program for Advancing New Standards in Reproductive Health (ANSIRH) at the University of California San Francisco. The database included a total of 1067 clinics, 765 of which were included in this study. Following the analysis of county-level variables, a secondary analysis of abortion laws on the state-level was performed. Data analyses were conducted between July 1, 2021 and August 30, 2022.

Analysis

Nearest Resource Analysis:

Geographic access to abortion clinics was calculated by measuring the minimum distance from the centroid of each county to the nearest abortion clinic. The clinic locations were sourced from the program for Advancing New Standards In Reproductive Health (ANSIRH) at the University of California San Francisco. The 2020 database, includes information on 1,068 facilities publicly known to provide abortion in the United States. The ANSIRH data base includes only facilities that publicly advertise providing abortion care. As such, this database is representative of the locations where most people would go to seek an abortion. It is a comprehensive list of specialized and non-specialized clinics, which account for 95% of abortions provided in the United States.

In the 2020 update by researchers at ANSIRH, there were several facilities that reported they no longer provided abortions, locations that were temporarily or permanently closed, and several in which the researchers were not able to determine status. Of the 1067 facilities included in the database, 765 were reported to provide abortions, 6 were marked unsure of whether they were open and providing abortions, and 296 were reported to no longer provide abortion care. Of the 765 facilities reported to provide care, 9 were marked temporarily closed and 2 were marked unsure of operating status at the time. Of 296 locations noted to not provide abortions, either because the clinic was permanently closed (n= 226) or because they no longer provided abortion care (n= 70). Finally, there were 6 facilities marked as unsure for open and whether they provide abortions. The facilities that did not provide abortion due to closure or change of services, and those marked as unsure in both categories were removed from the sample. The facilities marked temporarily closed due to COVID-19, but offering abortion care upon reopening were included. Thus, there was a total of 765 facilities included in the data set that were known to provide abortion under Roe vs. Wade. As of June 24, 2022, exactly one month after the Dobbs vs. Jackson decision, 8 states have officially banned abortion and bans in 4 additional states are expected to take effect soon. To measure the impact of these bans, this study will compare the change between the nearest resource analysis before and after the Dobbs decision.

The values produced by the nearest resource analysis provide an estimated minimum distance from each county to the nearest abortion clinic. The measures of distance provided are based on the euclidian distance from the centroid of each county to the nearest clinic, rather than travel distance based on road maps. The minimum distance values calculated are comparable in ranking between counties but do not provide exact measures of travel distance. I will discuss the results based on these estimates.

Demographics and Demand

There are significant variations in the rates of abortion across racial groups and income levels. Minority groups across all categories of race have higher rates of abortion than White women (approximately 13 per 1,000 women). The highest rates are amongst Black and Hispanic women with 49 per 1000 and 31 per 1000, respectively. Rates of abortion are also significantly higher amongst low income groups. Approximately 44 per 1000 women living below the Federal Poverty Level obtain abortions. This rate decreased as income increased with estimated rates of 38 per 1000 women living within 100-199% of the FPL, 21 per 1000 within 200-299%, and 10 per 1000 above 300%.

As Black and Hispanic women are far more likely than White women to have low-incomes, their abortion rates may be affected by their larger economic disadvantage. Controlling for this interaction however, Black and Hispanic women had greater abortion rates than White women at all income levels. This suggests that while race and income interact, they also have independent effects on rates of abortion. Research suggests that this is primarily due to disparities in contraception access and utilization. In 2002, 15% of black women at risk of unwanted pregnancy (those who are sexually active, fertile, and do not want to be pregnant) did not use contraception, relative to 12% of Hispanic and 9% of White women. The variation between groups on this measure is significant because unintended pregnancy is the most common factor leading to abortion, and approximately half of all unplanned pregnancies are a result of not using contraception (Cohen, 2020).

The racial composition and poverty rates for each county were defined based on data from the 2018 American Community Survey. The specific variables included the estimated racial composition proportions (Black, Hispanic, White) in each county, as well as, the percent of the population living below the federal poverty line. A preliminary visual analysis of this data suggested potential grouping effects within each of the variables. In other words, counties with comparable demographics appeared to be concentrated in similar regions. To test the validity of this observation, Global and Local Moran statistics were used to assess the statistical probability that clusters, or groupings of locations with similar values, were not a result of spatial randomness. The Global Moran statistic was used to determine the likelihood of clustering across the complete spatial pattern. In turn, the Local Moran statistic was applied to identify the location of clusters and outliers. The Moran results across each of the demographic variables worked in conjunction with the data reflecting differential rates of abortion to identify locations with the greatest demand for services. This measure was also applied to identify regions with the greatest travel distances before and after the Dobbs decision. The counties in which high demand and high travel distances intersected were identified as those most impacted by clinic closures.

State Abortion Law Index

The Guttmacher Institute provides regularly updated documentation of abortion laws. To analyze the restrictiveness of abortion policy in each state, I focused on several key regulations

from the Guttmacher Institute's data set including: the requirement of a licensed physician for non-surgical and/or surgical abortions, gestational limits on abortion, partial birth abortion bans, Medicaid coverage, state-wide bans on private insurance coverage, waiting periods, and the requirement of parental notification/consent for minors.

The State Abortion Law (SAL) Index was created to assess the restrictiveness of abortion laws in each state. The SAL Index groups the included laws into four categories: gestational limits, funding, medical regulations, personal restrictions. To create the index, the variations in each law were assigned a score starting at 1 and consecutively increasing, with larger numbers representing a greater level of restrictiveness. Special cases and exceptions in each state were taken into consideration by adding or subtracting values of 0.25 or 0.5 from the original score assigned. The results were then rescaled to range from zero to one. The values for each of the laws were then grouped into their respective category and added together. Gestational limit is the only measure that includes only one law. The funding measure includes whether public funding is available or limited, and if private insurance coverage is limited. The medical regulations category groups the two laws specific to procedural regulations, which include,"partial birth" abortions bans and the period after which a second physician must participate. Personal restrictions include whether in-person counseling necessitates two trips to the clinic and whether parental notification and/or consent is required for minors. The values obtained for each measure were again rescaled to range from zero to one. Each of the categories are equally weighted. A summary score was calculated for each state by adding the values of each measure together. These values provided a general overview of each state's abortion laws, with higher values reflecting greater restrictiveness.

The index provides a summary value for the level of restrictiveness of laws in each state before and after the Dobbs decision. As of July 30, 2022, the laws implemented following the overturn of Roe vs. Wade have primarily focused on either banning abortion completely or reducing the gestational limit at which abortion can be performed. The changes applied to the index values after the Dobbs decision reflect the following changes: 8 states with abortion banned, 4 states with bans soon to be implemented, and 5 states that have reduced gestational limits. The full impact of the Dobbs decision has not taken effect however and it is likely we will see additional restrictions implemented.

Political Representation

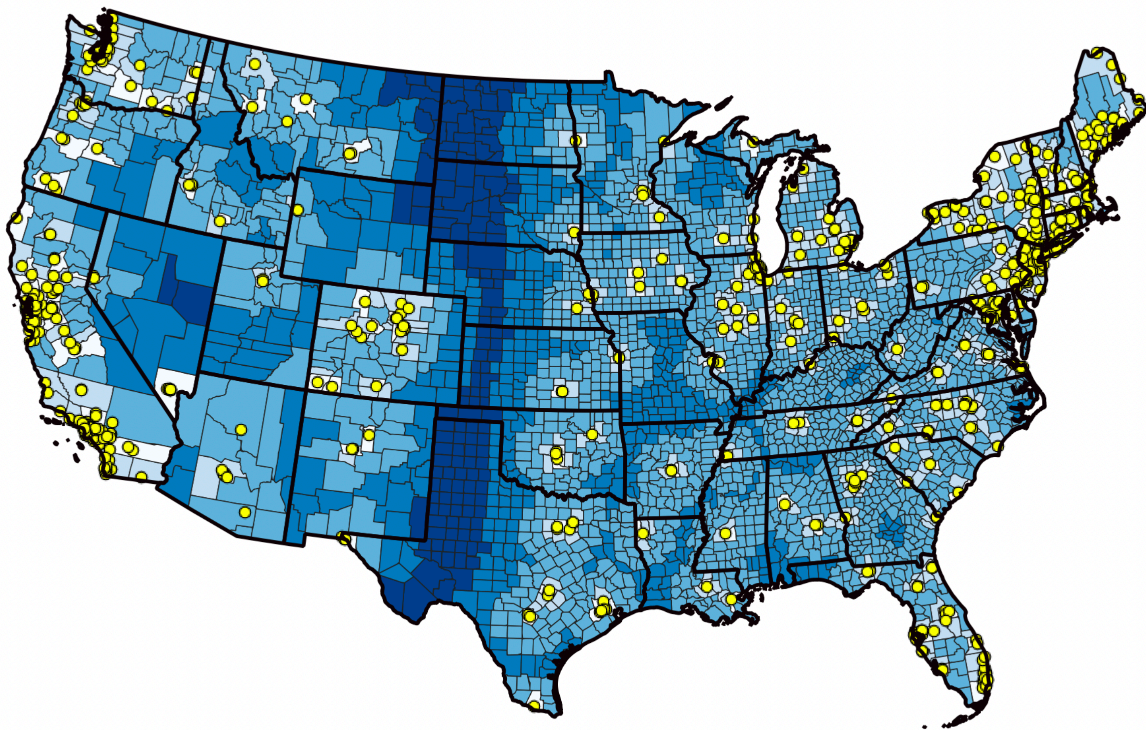
Access to abortion care, particularly in the case of legislative policies, is commonly attributed to the political party affiliation of state leadership. In order assess the effect of this relationship, this study will explore the relationship between political party and the variables used to measure access. Referencing the National Conference of State Legislatures (2021), the representation in each state will be separated into 3 categories: chamber control, legislative control, and state control. Chamber control is defined as the majority political party in either the House or Senate. Legislative control delineates the partisan majority in the House and Senate. When the same party controls both the House and the Senate, legislative control is either Republican or Democrat. If different parties control the chambers, legislative control is considered to be divided. State control extends this classification to the governorship. If the political affiliation of the governor and the majority in each chamber are the same, state control is either Republican or Democrat. If not, state control is divided. Nebraska is the only state excluded from this classification because it operates on a unicameral, nonpartisan system.

Therefore, Nebraska is recorded as nonpartisan. In outlining the partisan composition of representatives in each state, this data provides a necessary foundation to understanding the correlation between politics and access to abortion.

Results

Nearest Resource Analysis
Under Roe vs. Wade, the average minimum distance from each county to the nearest clinic was 65.2839 miles. While only 11% of counties contained an abortion clinic, the majority of WRA (62%) lived in a county with a clinic. The results from the nearest resource analysis show that approximately 12% of WRA lived beyond 60 miles of a clinic and only ~0.7% lived beyond 180 miles. The most notable gap in geographic access begins in the western region of North Dakota and extends southward to the western part of Texas. This area is primarily made up of rural counties with low population density.

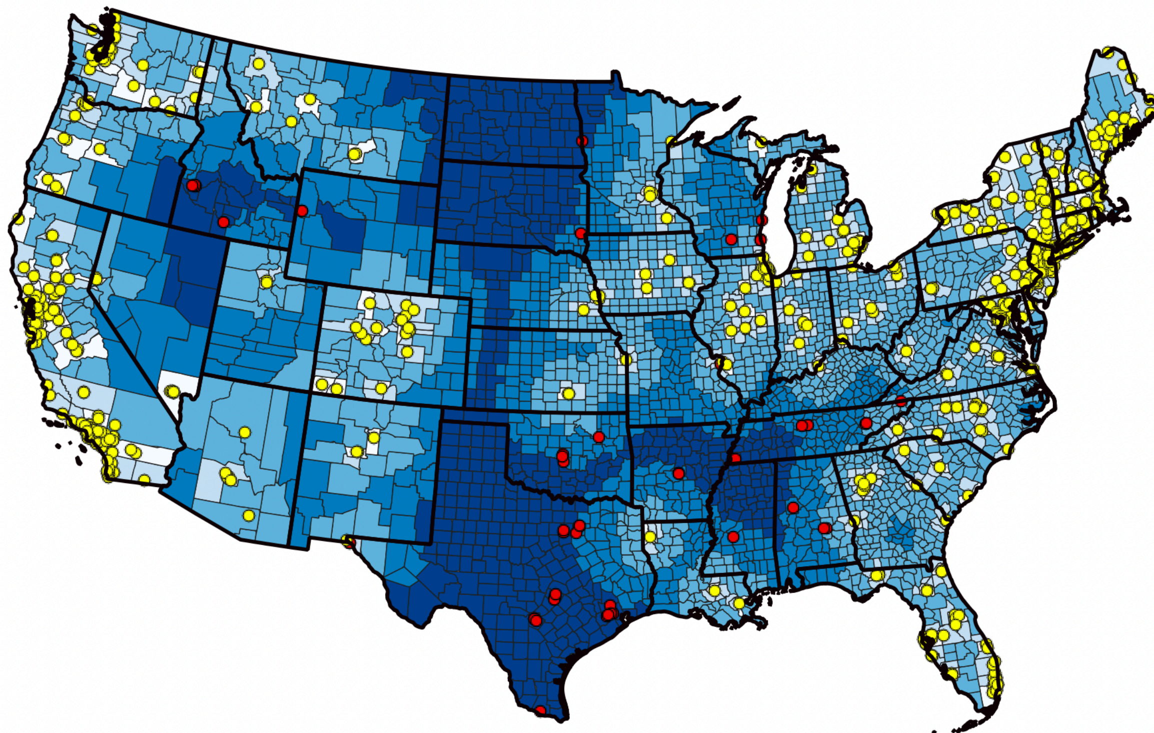
Map: min dist and clinics under roe



Following the Dobbs vs. Jackson decision, abortion has, or will soon be, banned in 12 of the 48 states in the continental United States. As a result, 53 of the 752 clinics identified for this study have either closed or no longer provide abortion. Clinics located in the state of Texas account for 22 of the 53 clinics. Tennessee had the second highest number of clinics (n=8) effected by the decision. The number of clinics in the remaining 10 states ranged from 1 and 4.

The closures make up an approximate 7% change in the total number of clinics and only ~1% change in the total number of counties without a clinic. However, the population of reproductive aged women living in a county without a clinic increased by 5,817,800 and the average minimum distance to the nearest clinic increased from 65.2839 miles to 90.7058 miles. This increase reflects an overall increase of ~7-12% in population living beyond each of the assigned distance categories (15, 30, 60, 90, 180 miles). The largest shift between categories, in terms of population, is reflected in the 8,787,800 WRA now living beyond 90 miles of the nearest clinic, a 239.23% change from pre-Dobbs estimates. A large proportion of women living beyond 90 miles of a clinic also meet the threshold of greater than 180 miles. The population of women living beyond 180 miles of a clinic increased from 520,100 to 6,241,810. This category showed a substantial percent change of 1,100.12%.

Map: min dist post-roe with clinics closed shown in red

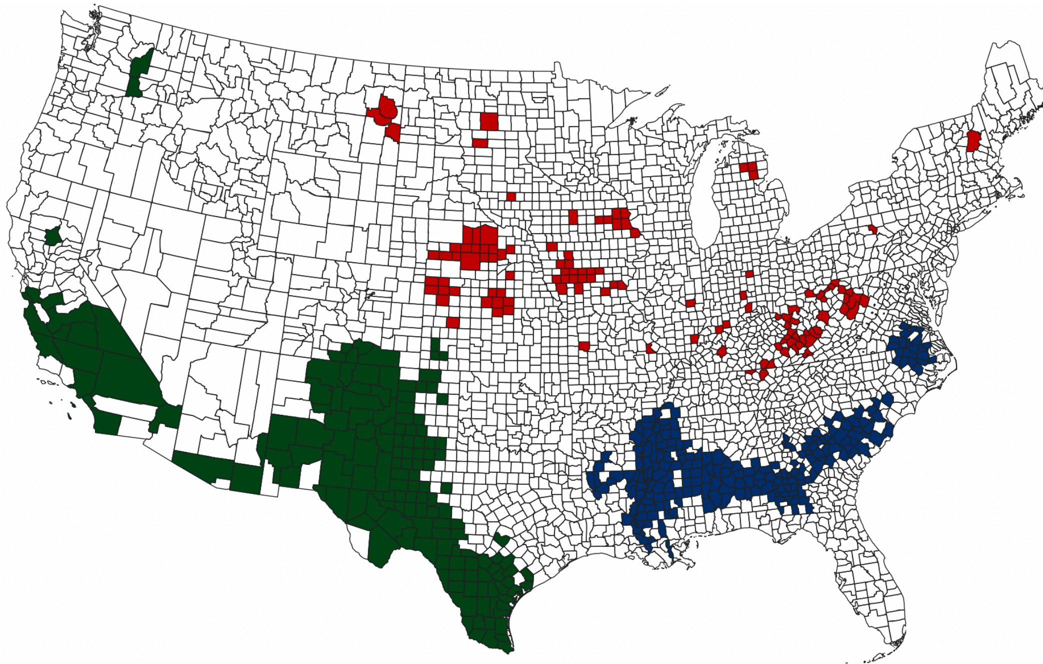


Demographics and Demand

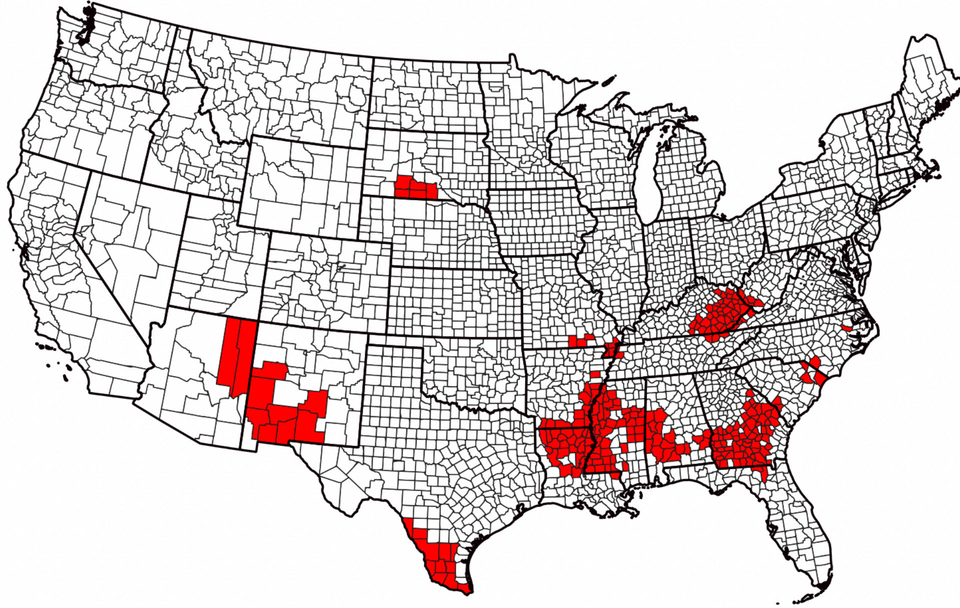
Grouping effects across each of the variables (% black, % hispanic, % white, % poverty) were identified using Moran analysis at significance levels p = 0.01 and p = 0.001. Counties with high proportions of Black residents were predominately located in the Southeast, and majority Hispanic populations were concentrated in the Southwest. Clusters of counties with largely White populations were scattered throughout the Midwest and Northeast.

Locations with high proportions of the population living below the Federal Poverty Line were largely located in the Southeast, spanning across Louisiana, Mississippi, Alabama, Georgia, and Kentucky. The results also identified groups in the southern-most part of Texas, areas of New Mexico and Arizona, and a small area in South Dakota. Many of the counties in these clusters were also areas that were identified as predominantly Black or Hispanic. Based data showing differential rates of abortion by race and income groups, these locations are likely to have higher rates of unintended pregnancy and demand for abortion services.

Map: Distribution of Race based on high-high locations at p=0.001, (Black= Blue, Hispanic= Green, White= Red)



Map: Distribution of Poverty based on high-high locations at p=0.01,

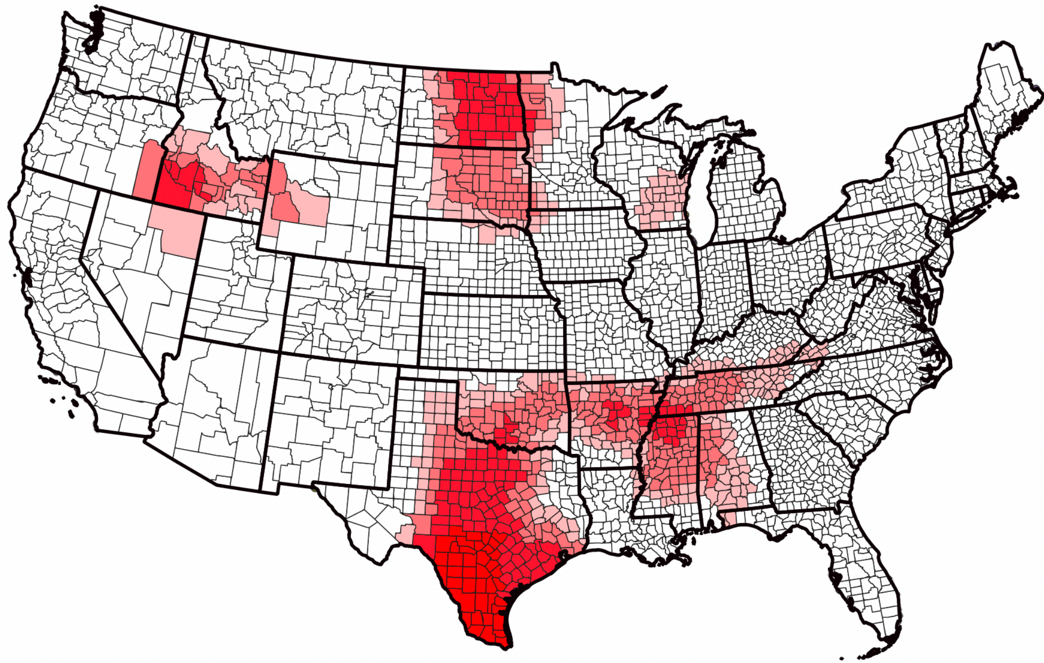


Demographics and Change in Distance:

Moran statistics were applied to the distance to nearest clinic from each county measures under Roe and after the Dobbs decision. These results were compared to the clusters for high percent Black or Hispanic, and high proportions of poverty. Under Roe vs. Wade, there were no counties identified as significant across all three categories. The results based on the Dobbs decision revealed several locations that met the criteria. At significance level p=0.001, there were 3 counties identified for high percent Black, and 6 counties for high percent Hispanic. The counties were concentrated in Missouri and Texas, respectively. At significance level p=0.01, there were 26 counties for high percent Black located in Missouri, Mississippi, and Alabama. And 11 counties for high percent Hispanic, all of which were located in Texas.

The counties with the 10 highest changes in distance to nearest clinic were clustered in the southern-most region of Texas. The average minimum distance amongst these counties was 479.2 miles, with an average change of 419.5 miles. The population in these counties is majority Hispanic, with an average of 92% overall. In addition, 9 of the 10 counties fall in the 75th percentile range for poverty rates with an average of 33% of the population living below the poverty line.

Map: Change in distance between roe and dobbs

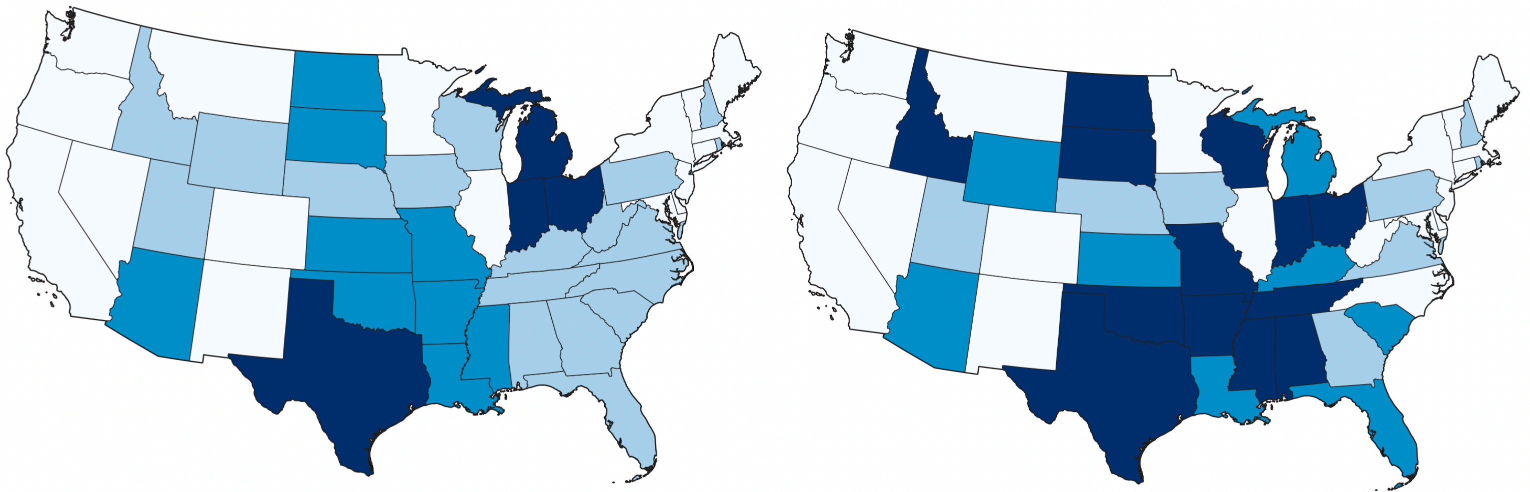


Access and Law:

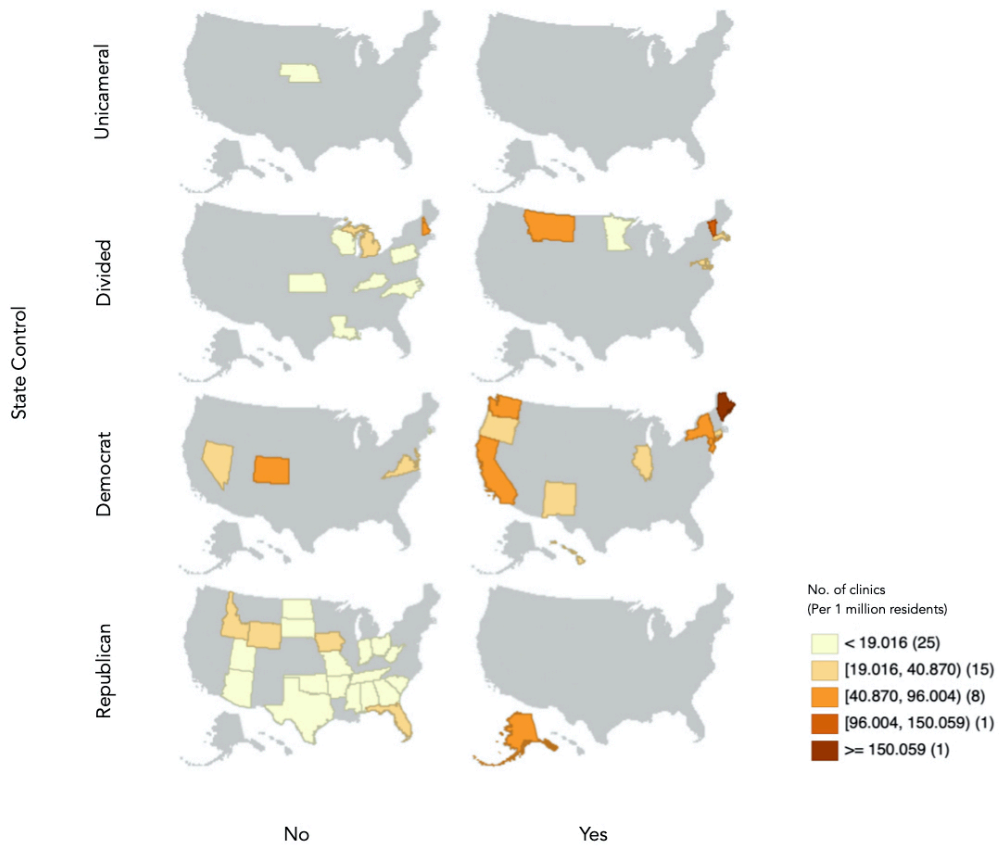
The previous analysis offers a straightforward assessment of access to abortion care based on the location of clinics, distance to nearest clinic, and recent clinic closures in relation to the need for services defined by population density and demographic characteristics. The landscape of abortion care access in the United States is also heavily influenced by the restrictiveness of abortion care policies in each state. For example, women living in a state where abortion has been banned that is also surrounded by states with similarly restrictive policies faces greater barriers to access than if near to states where care is readily available. The SAL index provides insight into the climate surrounding abortion in each state to determine accessibility.

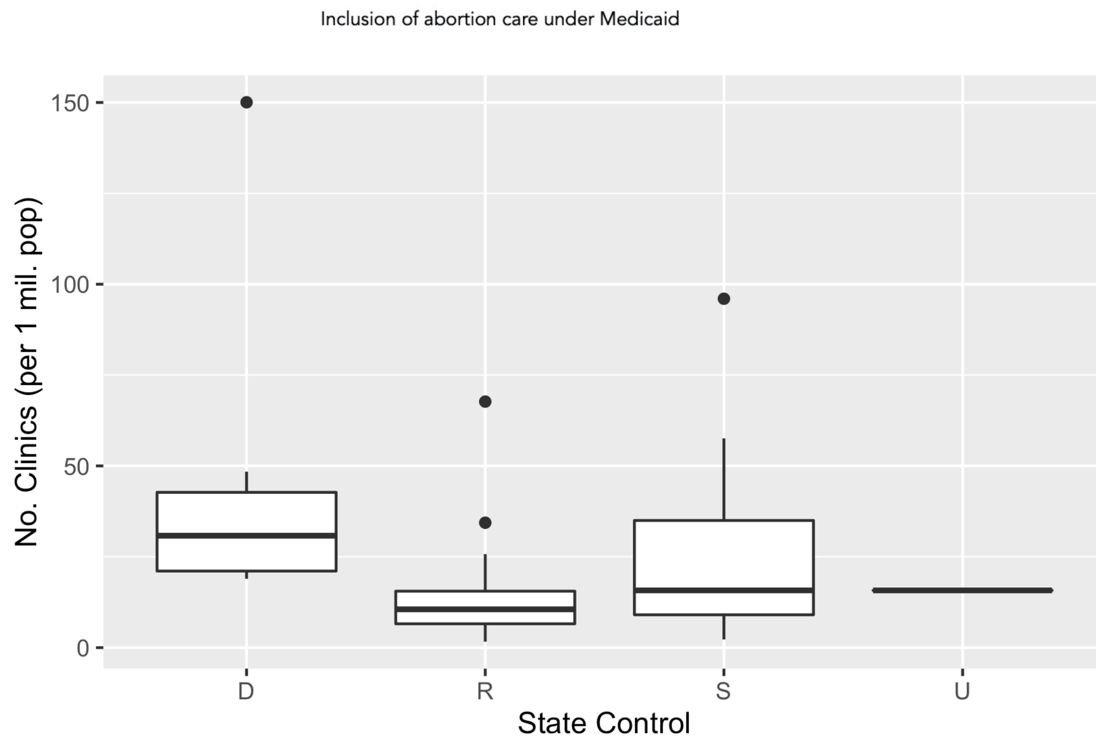
The results show a significant increase in the states with high levels of restrictivness. There is also a concentration of these states in the south-eastern region of the United States. We also see a connection between states that have implemented bans and those with restrictive policies in other areas.

Map: Compare level of legal restrictiveness before and after, (dark blue= higher levels, white= lower levels)



Political Representations: The conditional map below outlines the relationship between three of the constructs identified as important variables in determining access to abortion on the state level: location of clinics (geography), politics, and cost. The x-axis represents whether abortion care is covered under Medicaid in each state, the y-axis shows the partisan composition of state control, and the colors shown in the legend demonstrate the number of clinics in each state per 1 million of the estimated state population. Looking at the map, we can see that all of the states where the Republican party holds state control, do not provide public funding for abortion care under Medicaid. Additionally, the majority of states within the lowest quantile range for number of clinics per capita are controlled by the Republican Party, while none of the states under Democratic control fall into this category. While public funding and number of clinics per capita are not directly determined by state control, there does seem to be correlation between Republican state control and decreased access to abortion in terms of clinic availability and public funding. The results shown in the conditional map above are further outlined by the box plot shown below. We can see that the states under Democratic State control have the highest median number of clinics per capita, those under Republican control have the lowest, and those that are split or unicameral (Nebraska) fall in between.


State Control
Unicameral
Divided
Democrat
Republican
No. of clinics
(Per 1 million residents)
< 19.016 (25)
[19.016, 40.870) (15)
[40.870, 96.004) (8)
[96.004, 150.059) (1)
>= 150.059 (1)
No
Yes
Inclusion of abortion care under Medicaid


No. Clinics (per 1 mil. pop)
150
100
50
0
D
R
S
U
State Control

Discussion

The Dobbs vs. Jackson decision significantly impacted access to abortion care in the United States. For nearly half a century, abortion was recognized as a constitutional right. The federal protection of women's right to abortion reduced disparities in access across the country. Under this jurisdiction, every state was required to have at least one abortion clinic. This law, and the concentration of clinics in densely populated areas, made abortion care accessible to the majority of the population. This structure did however produce significant spatial disparities in access between urban and rural populations. Consequently, a sizeable minority of women living in rural or marginally populated regions would have had to travel at least 90 miles to reach the closest abortion clinic. Reflecting this barrier, scholars suggest that women who already live substantial distances from the nearest clinic were the most likely to be negatively impacted by clinic closures. The result of this study demonstrate however that disparities in access between rural and urban populations that were of primary concern under Roe vs. Wade are no longer the key factor in determining geographic disparities in access. As a result of state-wide abortion bans, clinic closures have impacted both urban and rural areas and in the post Roe landscape, geographic disparities in access strongly correlated with political party representation in the given state, as well as, the political party representation of neighboring states.

The results of this study show significant differences in the regions of with clusters of locations of predominantly Black, Hispanic, and White populations. With black populations located in the southeast, hispanic in the southwest and white grouped sporadically across the northern states. The results also show significant overlap between regions with the highest rates of poverty, and the highest rates of Black and Hispanic populations. Locating these areas is crucial to identifying the areas most vulnerable to restrictive abortion policies based on pre-existing socio-economic disadvantages. Under the protection of Roe vs. Wade, the majority of the population lived within a reasonable proximity to the nearest clinic and (except for Texas), the minimum gestational limits across all of the states was 20 weeks. The primary barriers to access therefore centered around affordability and accommodation. Which could be influenced by lack of insurance coverage or state restrictions that prohibit insurance coverage of abortion care. This barrier was compounded by policies that required more than one visit to the clinic in order to receive care. Having to schedule multiple trips to the clinic compounds the cost of the procedure due to travel costs but also indirect effects such as time off of work and child care for existing children.

Prior to the Dobbs decision, the primary reason women would travel out of state to receive care was if they were beyond the gestational limit in their state of residence. Roe vs. Wade established the constitutional right to abortion up to viability, which medical experts define as around 24 weeks LMP. While many states attempted to pass legislation to lower gestational limits to 6 weeks or 15 weeks LMP the lowest gestational limit was set at 20 weeks LMP. Except for the the 6 weeks ban passed in Texas in December 2021. In many ways, this law foreshadowed the transformation of abortion law and the Dobbs vs. Jackson decision. Even in states that have not banned abortion, many have implemented stricter gestational limits at 6 weeks or 15 weeks LMP, reflecting laws that were previously struck down as unconstitutional. This trend is predicted to result in significantly more women traveling out of state to receive

care, either because the procedure has been banned in their state or because gestational limits have been reduced. In fact, many states have implemented strategies for expanding services to accommodate women traveling from out of state. These efforts however, can only benefit women who have the resources to travel out of state to receive care.

This study provides a comprehensive analysis of access to abortion care in the United States. It takes into account the factors identified by previous research as key to determining access to abortion care including, geography, cost, law, politics, and demographics. This topic's large body of knowledge includes contributions from experts in a variety of fields. Typically, the methodologies employed in each piece favored either a quantitative or qualitative approach. However, the term "access" encompasses both concrete, data-driven factors and more flexible, abstract variables. This study looks to the five dimensions defined by Thomas and Pechansky as a guideline incooporating different types of variables into a single, over-arching measure– “access”. The results of which are then used to measure access before and after the Dobbs vs. Jackson decision, identify locations and populations most likely to be adversely effected by restrictive abortion policies and clinic closures.

Limitations & Future Research

This study had several limitations. The most foundational of which was caused by the difficulty of gathering comprehensive, accurate data on abortion care. The number of abortions performed each year and the clinics offering treatment are often undisclosed. As a result, the abortion clinics included in this study are not representative of all facilities at which women can receive abortion care. It is probable that the model used to estimate demand underestimates the actual rates of abortion. While the results of this study are likely influenced by underreporting, this limitation is shared across all abortion related research.

Specific to this study, one of the key limitations was the broad scope of analysis. While the results provided an overarching view of access across the continental United States, the depth to which each of the dimensions of access could be analyzed was significantly limited. The categories that were most difficult to operationalize at this magnitude were accommodation and acceptability. A more detailed assessment of the organization and operational structure of clinics would provide a more thorough assessment of accommodation. For example, hours of operation, appointment services, intake processes, waiting times, etc. A more detailed approach is also required to measure acceptability based on the intricacies of the interpersonal dynamics between patients and providers within abortion clinics.

While intensive efforts were made to provide an up-to-date comparison between access to abortion care before and after the overturn of Roe vs. Wade, the results section is limited to policy changes effective, or soon to be implemented, as of July 24, 2022. Therefore, the results of this study reflect changes in access during the first month of this transitional period, rather than a finite assessment of the overall impact of the Dobbs vs. Jackson decision. The point at which the current state of flux will subside remains to be determined, and continued research is needed to understand the impact of newly implemented policies on access to abortion care across the country. In the context of the rapidly changing abortion care landscape, the State Abortion

Law index developed for this study may provide a useful tool for tracking new abortion policies and measuring changes in access.

Finally, the population included in this study is limited to reproductive aged women, specifically defined as females between 15 and 49 years of age (WHO, U.S. Census, ACS). While this group encompasses a large number of individuals who may seek abortion care, it is important to note that this categorization is not all-inclusive. More research needs to be done to understand access to abortion care for those who fall outside of the age and gender categories predominantly used to define "reproductive aged women."

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