

Mapping Abortion Care Deserts for Policy Recommendations: A Spatial Analysis of Policy, Access, and Health Inequities in Post-Dobbs America

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In the aftermath of the 2022 Supreme Court decision in *Dobbs v. Jackson Women's Health Organization*, which overturned *Roe v. Wade*, abortion policy and access in the United States have entered an era of uncertainty, with abortion policies ranging from total bans to zero restrictions. This unstable policy landscape has exacerbated existing health disparities surrounding reproductive health, rights, and access. An analysis of national mortality data from 2015-2018 revealed that states with more restrictive abortion policies displayed a 7% increase in maternal mortality compared to states with less restrictive policies (Vilda et al., 2021), and these disparities have continued as restrictions have intensified. In states without bans but with restrictions, choice is still heavily policed and restrictions are often enforced through ambiguous or nonmedical language that creates confusion for patients and clinicians. These restrictions also aren't medically accurate, with some states subjecting patients and practitioners to legal repercussions for performing or seeking the procedure despite many people not knowing they're pregnant within the time frame specified to receive abortion care for restrictive policies (Chiu et al., 2024). Individuals in states with restrictive policies are also often spatially challenged and face increased travel distances as states order clinic closures and logistical barriers to seeking abortion services increase. These logistical barriers tend to affect the most vulnerable populations without access to resources needed to circumvent these challenges. Individuals facing socioeconomic hardship, living in medically underserved areas, or belonging to marginalized racial and ethnic groups, are already facing social disenfranchisement and unfair treatment, and now their reproductive rights are also threatened. Research consistently shows that restrictive abortion policies are associated with increased maternal and infant mortality, increased financial instability for families, and increasing health inequities (Steinzor, 2025) (Elakbawy & Rogers, 2024). In this unpredictable policy landscape, spatial analyses of policy status and its effects are essential for understanding how legal, geographic, and social factors intersect to create "abortion

care deserts,” where policy, social class, and determinants of health compound to create counties with a severe lack of access to reproductive health care (Newsome). This project utilizes a series of GIS maps to identify and visualize how restrictive state abortion policies, geographic barriers to provider access, and county-level health vulnerability combine to create abortion care deserts, providing insights and informing policy and advocacy recommendations for legislators and threatened communities.

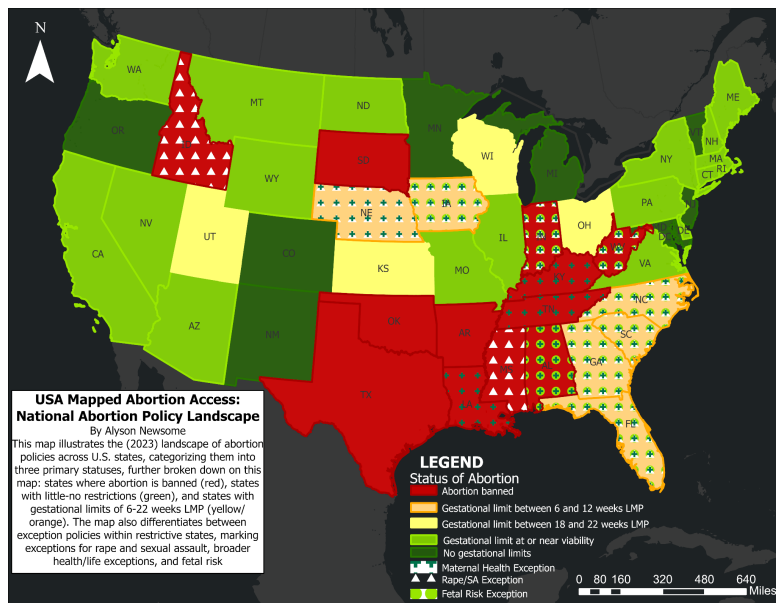
There is significant supportive literature underscoring the critical role of spatial analysis in assessing abortion access and its implications across the U.S.. Since the *Dobbs* decision, the shifting abortion policy landscape is felt at the community level, affecting women across the country. Quantifying and inspecting reproductive rights data after this decision is crucial for informing individuals in a changing policy environment. For example, one study reported that “within 30 days of the *Dobbs* decision, 43 clinics in 11 states had stopped providing abortion care. By 100 days after the decision, this...increased to 66 clinics in 15 states; no abortion-providing facilities operated in the 14 states enforcing total abortion bans” (“Clear and growing evidence that Dobbs is harming reproductive health and freedom”). Reporting and visualizing this data is critical for raising awareness and protecting reproductive freedom. Clinic closures have significantly increased travel distances for those seeking in-person abortion care, especially in the South and Midwest. Women in Texas and Louisiana who once had 15-minute median travel times now face trips over six hours long, post-*Dobbs* (University of California San Francisco). The impacts are not evenly distributed, and marginalized identities experience further barriers. Research highlights that Black women and younger women’s abortion and birth rates are most likely to respond proportionally to increases in distance, meaning these populations face significant barriers to reproductive health (Ranji et al.). Interstate travel for abortion care has nearly doubled, and progressive states are experiencing surges

of out-of-state patients (Ranji et al.). Despite these trends, gaps remain in understanding how policy restrictiveness, provider proximity, and local health vulnerabilities intersect at the county level to shape abortion access. This study addresses these gaps using GIS-based spatial analysis.

Map-By-Map: Integrated Methodology and Results

This project utilizes a map-by-map walkthrough to combine methodology, results, and analysis for each created policy/informational map, making the findings here more accessible and easily interpreted for policymakers. Each map is designed as a standalone piece of evidence, with clear explanations of its purpose, data sources, and intended analysis. This structure allows for readers to easily examine the policy implications of each map and the associated recommendations. Additionally, some maps have supplemental versions that add a layer of analysis for optional use.

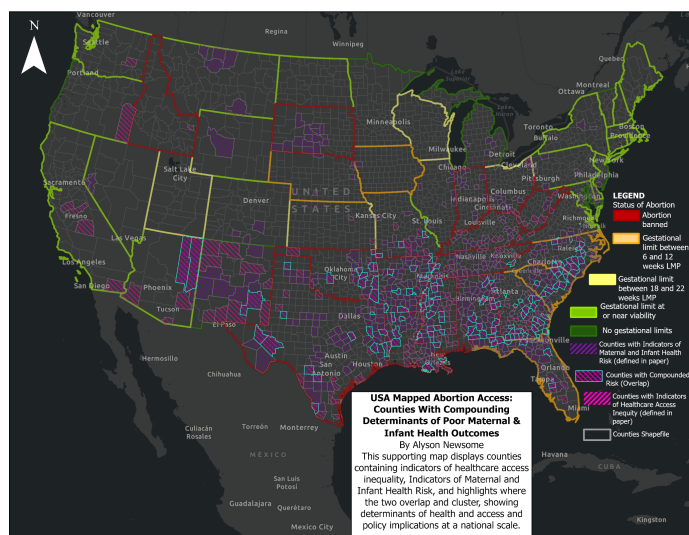
Map 1



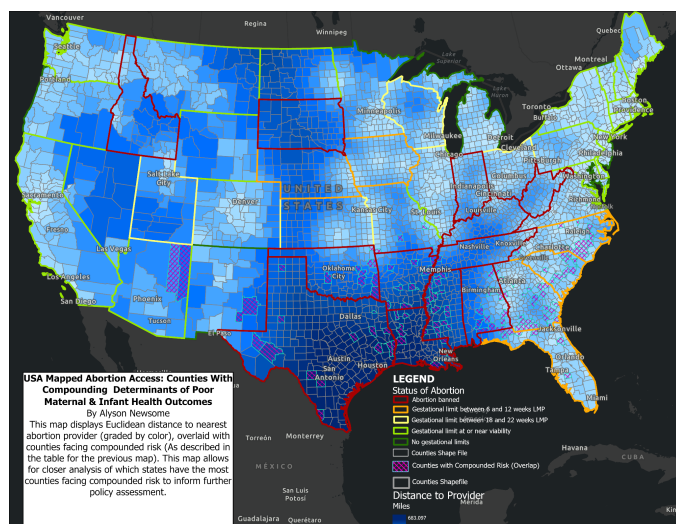
Map 1: US National Abortion Policy Map, with state exceptions

At a basic spatial analysis level, Map 1 shows that “care deserts” are concentrated in the South and Midwest, where, as displayed later on, restrictive policies and long travel distances intersect. These factors, compounded with those in later maps, result in care that is delayed, denied, or inaccessible. This access and policy gap, especially acute in poor, rural communities, leads to financial and emotional hardship and increased maternal and infant health risks, particularly for marginalized groups. This map makes clear that the intersection of policy and geography likely create large-scale barriers to abortion access for many Americans.

Maps 2 & 3



Map 2: National Map with counties at risk



Map 3: National Map with distance, and CR counties

Maps 2 and 3 visualize where counties facing the greatest barriers to reproductive health care cluster at a national scale by integrating county-level health determinants, outcomes, and Social Deprivation Index (SDI) scores calculated for 2019 using the American Community Survey (ACS) (“Social Deprivation Index (SDI)”) with distance to a provider. Map 2 visualizes and categorizes these intersecting vulnerabilities and their national clusters, providing policymakers and advocates

with a framework for targeted change and support. SDI(a critical factor in determining compounded risk) quantifies social disadvantage using demographic and household characteristics, such as percent living in poverty, less than 12 years of education, single-parent households, rented housing, etc.,. SDI scores range from 0 (least deprived) to 100 (most deprived) and higher values indicate more deprivation and a greater risk of poor health outcomes (Butler et al., Valenzuela et al.). Using SDI to determine vulnerability classifications (displayed in Table 1) allows this map to highlight the multidimensional and compounding barriers to reproductive health visually, rather than a single indicator.

Classifications (Table 1):

County Classification	Criteria
Indicators of Healthcare Access Inequity (Pink) (IHAI)	- Over 542.5 (National Average) uninsured women of reproductive age - Fewer than one hospital offering obstetric (OB) care, - Social Deprivation Index (SDI) score above 50 - 13.6% or more (Census Average) households in poverty
Indicators of Maternal and Infant Health Risk (Dark Purple) (IMIHR)	- infant mortality, preterm birth, and lack of prenatal care in the first trimester exceed or reduce from 2022 national averages (5.61 deaths per live birth (CDC), 10.38% (CDC), and 77% respectively (CDC)
Compounded Risk (Light purple) (CR)	- Counties where the above categories overlap, and individuals living here face both structural healthcare access barriers and poor maternal/infant health outcomes.

The Central Southeast (Mississippi, Tennessee, Alabama, Louisiana, Georgia, etc.) show the highest density of CR counties, all within states that have total abortion bans or highly restrictive gestational limits. Parts of Appalachia (Kentucky, West Virginia, Tennessee), and parts of Texas and

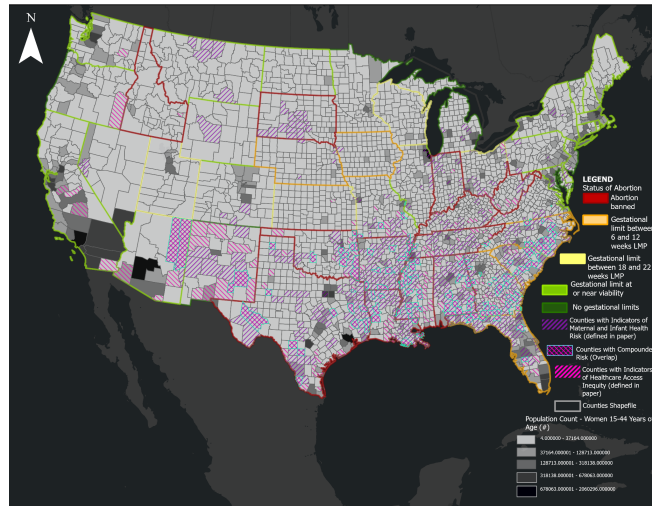
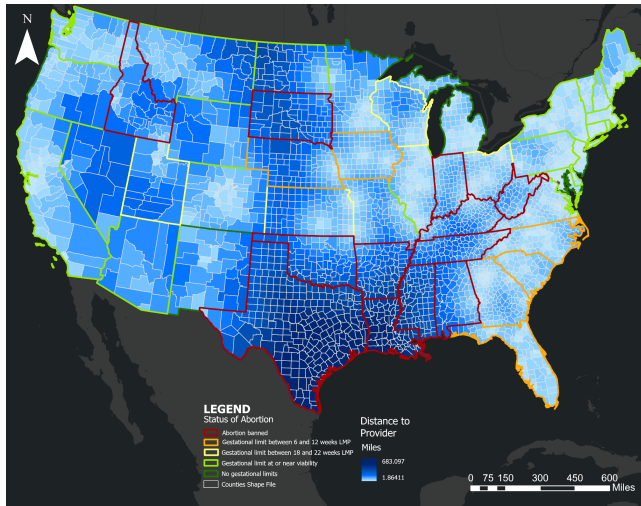
Oklahoma also exhibit significant clusters of pink and purple counties with restrictive policies and poor outcomes, reinforcing proven intersections of poverty, location, systemic health access issues, and legal abortion restrictions. Far less CR is exhibited in urban counties and states with more progressive policies, highlighting the urban/rural divide in reproductive health access (Concordia Texas Accelerated Bachelor's in Nursing)

Map 3 synthesizes this project's spatial results by overlaying CR counties with county-level travel distances to the nearest physical abortion provider. This map portrays the real travel burdens women face across U.S. counties, layered with each state's abortion policy landscape and the counties that hold "care deserts". I used the Euclidean Distance tool in ArcGIS Pro to calculate the distance from each county's center to the nearest abortion provider, using the University of California San Francisco: Advancing New Standards in Reproductive Health facility database (*ANSIRH Abortion Facility Database*). The resulting raster map uses a blue gradient to indicate proximity—lighter shades represent closer distances, while darker shades show counties where residents must travel farther for care. This map shows that severe "care deserts" are concentrated in the Southeast and South Central U.S. (Eastern Texas, Oklahoma, Louisiana, Alabama, Georgia, and Northern Florida), predominantly in rural counties. These regions have the most restrictive abortion policies, further worsening impacts on already vulnerable communities ("Rural Health: Addressing Barriers to Care"). Individuals in CR counties face the most severe barriers to safe pregnancy and childbirth, as indicated by their maternal and infant health outcomes and the socioeconomic factors used to determine these counties' risk status (Kheifets et al., Wells and Wells).

The project's purpose is to identify "care deserts," and this map shows that most are concentrated in states with the most restrictive policies. Texas and Louisiana have counties with the greatest distances to providers, and neighboring states show similar patterns. Some long distances are

due to extremely rural counties, such as northeastern Montana, which, despite a state progressive policy, face high travel distances, possibly due to low population (1,000–12,000) and few women of reproductive age (5–2,000). In contrast, Louisiana parishes with populations above 400,000 and Texas counties with populations over 4 million face travel distances exceeding 600 miles and extremely restrictive abortion policies (“Louisiana Parishes by Population (2025)”, “Montana Counties by Population (2025)”, “Texas Counties by Population (2025)”). Areas farthest from providers face compounding barriers, and individuals in restrictive states and high-distance counties bear a travel burden that is insurmountable for many, especially those with limited resources or mobility. Denying abortion care to these individuals directly endangers both parents and children and deepens disparities for the most vulnerable populations in the U.S. For example, Tyler County, Texas (identified as a CR county) has been cited in the 2022-2023 Healthy Texas Mothers and Babies Data Book as having one of the highest infant mortality rates in Texas, with at least 10 deaths per 1,000 live births, above both state and national averages (Texas Department of State Health Services). These counties are likely to have higher rates of uninsurance, poverty, etc., making the future access of infants born into these communities as uncertain as their parents’ without policy reform. In contrast, urban and coastal regions with more progressive policies and robust healthcare infrastructure show far fewer counties with CR and much shorter travel distances, underscoring how spatial inequity is reinforced by restrictive laws, provider limitations, and lower socioeconomic status. This difference translates to real and quantifiable disparities in reproductive health outcomes (Clove), and by identifying “care deserts” with CR, Map 3 provides valuable insights for national and sub-national policymakers. map 3 highlights where targeted changes like expanded medicaid, mobile clinics, or rural OB/GYN services are critically needed. (“Rural Health: Addressing Barriers to Care”, *Module 2: Rural Health Promotion and Disease Prevention Program Approaches - RHHub Toolkit*)

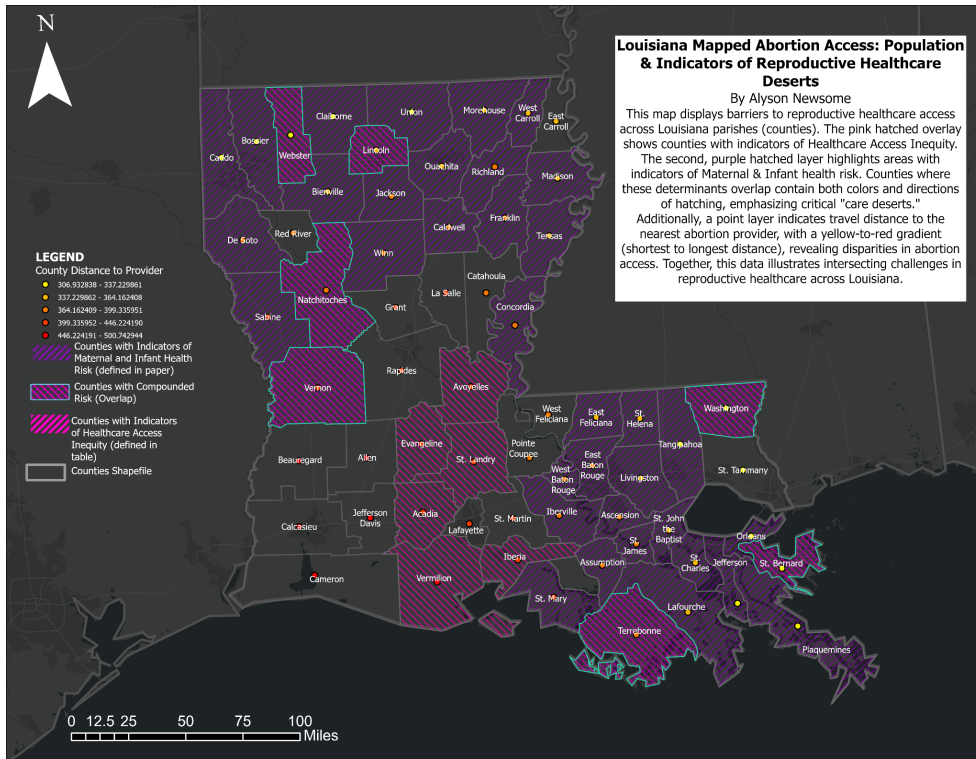
Supplemental maps:



Map 3.1: No Risk, Spatial Analysis National County Map

Map 2.1: National Risk with Female populations, 15-44 y/o

Map 4 (Louisiana Case Study)



Louisiana serves as the case study for this project because it enforces one of the strictest abortion bans in the country, prohibiting abortion at every stage of pregnancy except to prevent the

death of the mother or when a pregnancy is medically futile (LOUISIANA: *Know Your State's Abortion Laws, Louisiana Laws - Louisiana State Legislature*). The state's policy landscape is similarly volatile to the national one, with even these limited exceptions being attached to mandatory waiting periods, parental consent, unpredictable exceptions, and criminal penalties for providers and patients, driving all physical abortion providers from the state (Westwood, Felix et al.). As a result, over 900,000 Louisiana women are left with few or no options in a state with one of the highest maternal mortality rates nationally (Martinez).

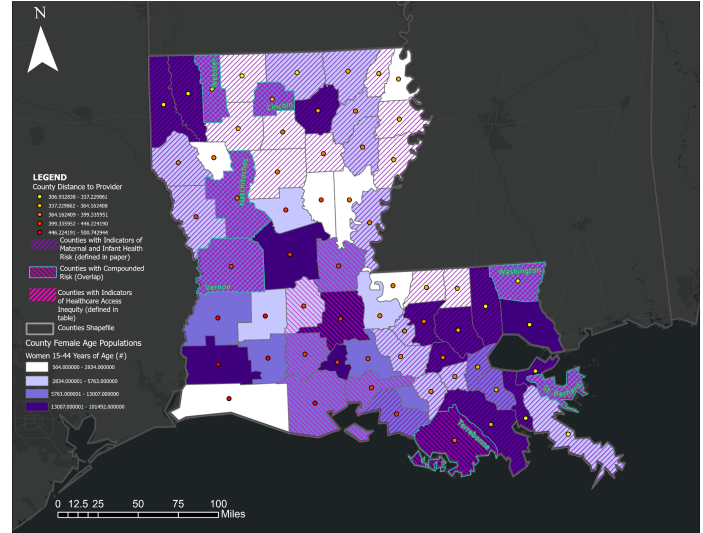
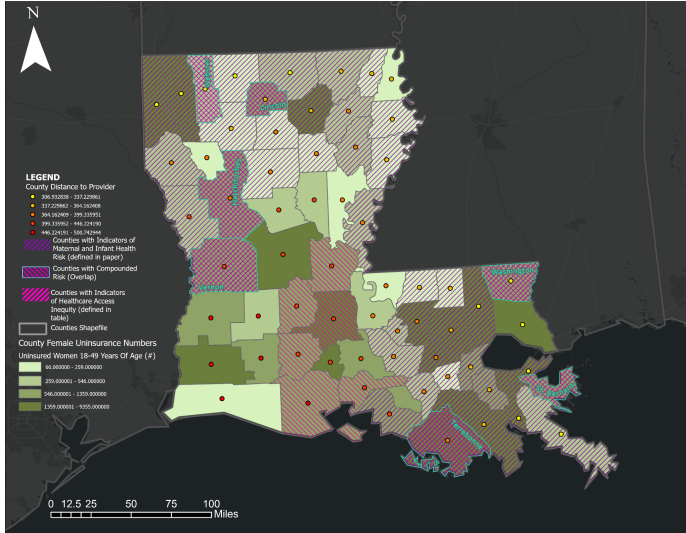
Despite this, Louisiana recorded the highest rate of telemedicine abortion among all states with bans in the first half of 2023, with nearly 60% of abortions occurring via abortion pills ordered by mail from out-of-state clinicians (Westwood, "Survey..."). This demonstrates a high need, but not everyone in Louisiana can obtain or perform a self-medicated abortion. Barriers include lack of internet access, physical incompatibility with a medication abortion, abortion restrictions' physical requirements, and inability to afford medication out-of-pocket, especially since insurance providers in ban states rarely cover abortion pills (Northcraft et al.). National debates and legal battles over mifepristone, a key abortion medication, further complicate and stigmatize access. For example, Louisiana recently reclassified mifepristone as a controlled substance, even after the FDA confirmed its safety (Westwood, "Survey...").

Map 4 uses the same classification system as Maps 2&3 at the county level to indicate different risk zones in Louisiana, and the CR counties where systemic disadvantages are higher and outcomes are worse. The colored point markers represent county travel distances to the nearest abortion provider, using a gradient from yellow (shortest) to red (longest), calculated in ArcGIS Pro. The map reveals that Louisiana experiences significant CR and high travel distances. Shortest distances (306.93–337.29 miles) are found in more urbanized or border counties like Orleans,

Plaquemines, Madison, and St. Bernard, while the longest distances (446.22–500.72) are concentrated in rural and southwestern/central counties like Sabine, Vernon, Cameron, and Claiborne. CR counties are not limited to isolated areas. While some, like Natchitoches, Vernon, and Lincoln, are more rural and have some of the longest travel distances (up to 439 miles), others, like St. Bernard, Washington, Webster, and Terrebonne, are closer to urbanized areas but still experience long travel distances and non-spatial barriers to care.

This map demonstrates that CR in Louisiana is driven by more than provider distance. Socioeconomic deprivation, high uninsurance rates, and other systemic barriers are key factors shaping reproductive health outcomes for women too. Research documents that women in counties lacking maternal care face a 91% higher risk of death during pregnancy, regardless of age, race, socioeconomic position, or whether the county is urban or rural, impoverished or underinsured (Wallace et al.). The observed extremely high SDI scores in CR counties highlight why these risks are distributed so broadly across Louisiana and why policy efforts should focus on increasing access and supporting provider access in these communities. These risks are compounded by racial disparities, as “Maternal mortality in Louisiana is increasing at a rate that exceeds the national average... Louisiana’s own experts believe that nearly half of confirmed pregnancy-related deaths in the state are preventable” (Center For Reproductive Rights).

Supplemental Maps:



Map 4.1: Louisiana Counties: Expanded Uninsurance Data & CR Map 4.2: Louisiana Counties: Female populations, aged 15-44 & CR

Conclusions

This project is meant to serve as a supplemental resource for policymakers and reproductive rights advocates, offering a spatial analysis and data-based insights to support evidence-based work on abortion access in the U.S.. While I am not a policy expert, my findings reinforce multiple research-backed policy options such as repealing abortion bans, removing barriers to telemedicine, and ensuring insurance coverage for abortion and related care (“Increasing Access to Abortion”). Specifically, expanding Medicaid, investing in rural/underserved healthcare infrastructure, and protecting access to medication abortion are recommendations I would make that support women in the Louisiana case study that are also supported by substantial evidence as ways to reduce disparities and improve outcomes (Modrek et al.). Findings in this project indicate that, with no major changes, the U.S. should alter policies to clarify exceptions for medical or other emergencies, protect patient and provider privacy, and eliminate punitive measures for medication abortions. The primary aim of

this project isn't to prescribe policy, but it does present clear, spatial evidence that highlights exactly where policy reform is necessary and, by equipping more influential figures with these visualizations. This work can support a larger project of creating targeted, equitable, and effective policy responses to the shifting landscape of abortion policy in the U.S..

Citations

Data used for ArcGIS analysis:

ANSIRH Abortion Facility Database. (January 2024).

<https://abortionfacilitydatabase-ucsf.hub.arcgis.com/>

Area health Resources files. (2021.). <https://data.hrsa.gov/topics/health-workforce/ahrf>

Data Access (2021) - Vital Statistics online..

https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm

Felix, M., Sobel, L., & Salganicoff, A. (2024, August 6). *A Closer Look at Rape and Incest*

Exceptions in States with Abortion Bans and Early Gestational Restrictions | KFF. KFF.

<https://www.kff.org/policy-watch/rape-incest-exceptions-abortion-bans-restrictions/>

Guttmacher Institute. (2025). *Interactive Map: US abortion policies and access after Roe*.

<https://states.guttmacher.org/policies?bans=no-gestational-ban>

KFF. (2025, January 6). *Policy Tracker: Exceptions to state abortion bans and early gestational*

limits | KFF.

<https://www.kff.org/womens-health-policy/dashboard/exceptions-in-state-abortion-bans-and-early-gestational-limits/>

Louisiana State Boundary. (n.d.). Overview.

<https://www.arcgis.com/home/item.html?id=bb20a784f77548e99807d466e20d3a03>

Maternal & child health. (2020-2022). <https://data.hrsa.gov/maps/mchb>

“State Abortion Laws | LawAtlas.” *LawAtlas*, lawatlas.org/datasets/abortion-laws.

State Policy Trends 2024: Anti-Abortion policymakers redouble attacks on bodily autonomy. (2024, December 16). Guttmacher Institute.

<https://www.guttmacher.org/2024/12/state-policy-trends-2024-anti-abortion-policymakers-redouble-attacks-bodily-autonomy>

US Census Bureau. “Poverty.” *Census.gov*, 13 Nov. 2024, www.census.gov/topics/income-poverty/poverty.html.

Research:

Alyson, Newsome “Research Plan_Alyson Newsome_GIS”, GEOS 214, March 20, 2025, file:///C:/Users/arn3/Downloads/Research%20Plan_AlysonNewsome_GIS%20(1)%20(1).pdf (Introductory paragraph)

Butler, Danielle C., et al. “Measures of Social Deprivation That Predict Health Care Access and Need Within a Rational Area of Primary Care Service Delivery.” *Health Services Research*, vol. 48, no. 2pt1, July 2012, pp. 539–59, doi:10.1111/j.1475-6773.2012.01449.x.

“Clear and growing evidence that Dobbs is harming reproductive health and freedom.” *Guttmacher Institute*, 22 Aug. 2024, www.guttmacher.org/2024/05/clear-and-growing-evidence-dobbs-harming-reproductive-health-and-freedom.

Clove, David. “Healthcare Access Disparities Among Rural Populations in the United States - Ballard Brief.” *Ballard Brief*, 2 Jan. 2025, ballardbrief.byu.edu/issue-briefs/healthcare-access-disparities-among-rural-populations-in-the-united-states.

Chiu, D., Bernstein, A., Cartwright, & Jones, R. (2024, November 19). Why Six-Week abortion bans make it impossible for many people to get care. Guttmacher Institute.

<https://www.guttmacher.org/2024/10/why-six-week-abortion-bans-make-it-impossible-many-people-get-care#:~:text=Bans%20at%20six%20weeks'%20gestation,by%20the%20six%2Dweek%20cutoff>

Concordia Texas Accelerated Bachelor's in Nursing. "States With the Biggest Discrepancies Between Urban and Rural Healthcare Access." *Concordia Texas Accelerated Bachelor's in Nursing*, 5 Mar. 2025, absn.concordia.edu/states-rural-urban-healthcare-disparities.

Felix, Mabel, et al. "A Closer Look at Rape and Incest Exceptions in States With Abortion Bans and Early Gestational Restrictions | KFF." *KFF*, 6 Aug. 2024, www.kff.org/policy-watch/rape-incest-exceptions-abortion-bans-restrictions.

---. "Criminal Penalties for Physicians in State Abortion Bans | KFF." *KFF*, 4 Mar. 2025, www.kff.org/womens-health-policy/issue-brief/criminal-penalties-for-physicians-in-state-abortion-bans.

"Increasing Access to Abortion." *ACOG*, www.acog.org/clinical/clinical-guidance/committee-statement/articles/2025/02/increasing-access-to-abortion.

KFF. "Abortion in the United States Dashboard | KFF." *KFF*, 22 May 2025, www.kff.org/womens-health-policy/dashboard/abortion-in-the-u-s-dashboard.

---. "The Availability and Use of Medication Abortion | KFF." *KFF*, 10 Mar. 2025, www.kff.org/womens-health-policy/fact-sheet/the-availability-and-use-of-medication-abortion

Kheyfets, Anna, et al. "The Impact of Hostile Abortion Legislation on the United States Maternal Mortality Crisis: A Call for Increased Abortion Education." *Frontiers in Public Health*, vol. 11, Dec. 2023, doi:10.3389/fpubh.2023.1291668.

LOUISIANA. *LOUISIANA Know Your State's Abortion Laws: A Guide for Medical Professionals*. Apr. 2025, abortiondefensenetwork.org/wp-content/uploads/2025/04/Louisiana-March-2025-Final.pdf.

Louisiana Laws - Louisiana State Legislature. legis.la.gov/legis/Law.aspx?d=97020.

"Louisiana Parishes by Population (2025)." *worldpopulationreview.com*, worldpopulationreview.com/us-counties/louisiana.

Martinez. "Louisiana Experiencing the Highest Maternal Mortality Rate in the Country | Consumers for Quality Care." *Consumers for Quality Care*, 17 May 2023, consumers4qualitycare.org/louisiana-experiencing-the-highest-maternal-mortality-rate-in-the-country/#:~:text=By%20Consumers%20for%20Quality%20Care%2C%20on%20May%2017%2C%202023&text=According%20to%20Dr.,during%20or%20shortly%20after%20childbirth.

Modrek, Sepideh, et al. "Medication Abortion: Current State and Changing Information on University Student Health Center Websites." *Perspectives on Sexual and Reproductive Health*, Mar. 2025, doi:10.1111/psrh.70003.

Module 2: Rural Health Promotion and Disease Prevention Program Approaches - RHHub Toolkit. www.ruralhealthinfo.org/toolkits/health-promotion/2/program-approaches.

"Montana Counties by Population (2025)." *worldpopulationreview.com*, worldpopulationreview.com/us-counties/montana.

Northcraft, Dana, et al. "Expanding Access to Telehealth for Medication Abortion Care."

Commonwealth Fund, May 2024, doi:10.26099/W589-KS64.

Ranji, Usha, et al. "Key Facts on Abortion in the United States | KFF." *KFF*, 24 Mar. 2025,

www.kff.org/womens-health-policy/issue-brief/key-facts-on-abortion-in-the-united-states.

ReproductiveRights.org. *Maternal Health in Louisiana*.

reproductiverights.org/wp-content/uploads/2020/12/USPA-MHRI-LA-FS-FINAL-Update.pdf.

Rogers, S. E., & Rogers, S. E. (2025, January 30). The economic fallout of Reproductive Rights

Restrictions on Women's Futures - IWPR. IWPR - Institute for Women's Policy Research.

<https://iwpr.org/the-economic-fallout-of-reproductive-rights-restrictions-on-womens-futures/#:~:text=Additionally%2C%20in%20states%20where%20abortion,abortion%20increases%20poverty%20among%20individuals>

"Rural Health: Addressing Barriers to Care." *NIHCM*,

nihcm.org/publications/rural-health-addressing-barriers-to-care.

"---." *NIHCM*, nihcm.org/publications/rural-health-addressing-barriers-to-care.

"Social Deprivation Index (SDI)." *Robert Graham Center*,

www.graham-center.org/maps-data-tools/social-deprivation-index.html.

Steinzor, P. (2025, February 13). Abortion bans linked to higher infant mortality, disproportionately

impact Black infants. *AJMC*.

<https://www.ajmc.com/view/abortion-bans-linked-to-higher-infant-mortality-disproportionately-impact-black-infants>

"Texas Counties by Population (2025)." *worldpopulationreview.com*,

worldpopulationreview.com/us-counties/texas.

- Texas Department of State Health Services. *Healthy Texas Mothers and Babies Data Book*. 2022, www.dshs.texas.gov/sites/default/files/mch/pdf/HTMB_Data_Book_2022-2023_revFeb2025.pdf.
- University of California San Francisco. “Model Shows Where Women Lost Access to Abortion After Dobbs | UC San Francisco.” *Model Shows Where Women Lost Access to Abortion After Dobbs | UC San Francisco*, 1 Nov. 2022, www.ucsf.edu/news/2022/10/424121/model-shows-where-women-lost-access-abortion-after-dobbs.
- Upadhyay, Ushma D., et al. “Effectiveness and Safety of Telehealth Medication Abortion in the USA.” *Nature Medicine*, vol. 30, no. 4, Feb. 2024, pp. 1191–98, doi:10.1038/s41591-024-02834-w.
- Valenzuela, Steele, et al. “Social Deprivation and Multimorbidity Among Community-Based Health Center Patients in the United States.” *Preventing Chronic Disease*, vol. 21, Sept. 2024, doi:10.5888/pcd21.240060.
- Vilda, D., Wallace, M. E., Daniel, C., Evans, M. G., Stoecker, C., & Theall, K. P. (2021). State Abortion Policies and Maternal Death in the United States, 2015–2018. *American Journal of Public Health*, 111(9), 1696–1704. <https://doi.org/10.2105/ajph.2021.306396>
- Wallace, Maeve, et al. “Maternity Care Deserts and Pregnancy-Associated Mortality in Louisiana.” *Women S Health Issues*, vol. 31, no. 2, Oct. 2020, pp. 122–29, doi:10.1016/j.whi.2020.09.004.
- Wells, Mikaela, and Mikaela Wells. “The Growing Crisis of Maternity Care Deserts | the Regulatory Review.” *The Regulatory Review*, 30 July 2024, www.theregreview.org/2024/08/03/the-growing-crisis-of-maternity-care-deserts.

Westwood, Rosemary. "All Three Louisiana Abortion Clinics Are Leaving the State, Staff Say."

WWNO, 15 Aug. 2022,

www.wwno.org/public-health/2022-08-15/all-three-louisiana-abortion-clinics-are-leaving-the-state-staff-say.

---. "Survey: Louisiana's Abortion Numbers Rose in 2023 Thanks to Pills by Mail." *WWNO*, 22 Oct. 2024, www.wwno.org/public-health/2024-10-22/survey-louisianas-abortion-numbers-rose-in-2023-thanks-to-pills-by-mail