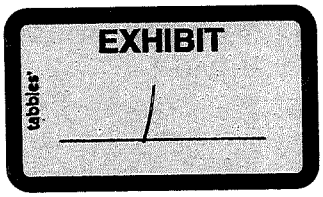
PLAINTIFFS-APPELLEES' APPENDIX
VOLUME II

Exhibit	Description
5	Affidavit of Ashlee Bergin, M.D., M.P.H. - Exhibit 1 from July 6, 2022 Temporary Injunction Hearing, *EMW Women's Surgical Center v. Cameron*, Case No. 22-SC-3225, filed July 7, 2022 (Jefferson Circuit Court)
6	Affidavit of Jason Lindo, Ph.D. - Exhibit 4 from July 6, 2022 Temporary Injunction Hearing, *EMW Women's Surgical Center v. Cameron*, Case No. 22-SC-3225, filed July 7, 2022 (Jefferson Circuit Court)
7	Affidavits of Jane Doe 1-6 - Exhibits C-H of Plaintiffs' Memorandum in Support of Restraining Order and Temporary Injunction, *EMW Women's Surgical Center v. Cameron*, Case No. 22-SC-3225, filed June 27, 2022 (Jefferson Circuit Court)
8	American College of Obstetricians and Gynecologists' Brief of *Amici Curiae* in Support of Plaintiffs' Motion for Restraining Order and Temporary Injunction, *EMW Women's Surgical Center v. Cameron*, Case No. 22-SC-3225, filed July 18, 2022 (Jefferson Circuit Court)

EXHIBIT 5



NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ (__)
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., *et al.*,

PLAINTIFFS

v.

DANIEL CAMERON, *et al.*,

DEFENDANTS.

AFFIDAVIT OF ASHLEE BERGIN, M.D., M.P.H.

I, Ashlee Bergin, M.D., M.P.H., swear and state the following:

1. I am a board-certified obstetrician-gynecologist (OB/GYN) licensed to practice in Kentucky and one of the physicians who works at EMW Women's Surgical Center ("EMW"). I submit this declaration in support of Plaintiffs' motion for a restraining order and or temporary injunction.

2. I graduated from Reed College, in Oregon, in 1999 and from George Washington University School of Medicine, in Washington, D.C., in 2006; completed my residency in OB/GYN at the University of Chicago, in Illinois, in 2010; and completed a family planning fellowship at the University of Illinois College of Medicine at Chicago, in 2015. I also earned a Master of Public Health from the University of Illinois at Chicago. I am a fellow of the American Congress of Obstetricians and Gynecologists and a Junior Fellow of the Society of Family Planning. A copy of my curriculum vitae is attached.

3. In addition to providing abortion care at EMW, I am currently an Assistant Professor and the Assistant Director of the Ryan Residency Program in the Department of Obstetrics, Gynecology and Women's Health at the University of Louisville School of Medicine. I am also the Section Chair of the American Congress of Obstetricians and Gynecologists' Kentucky Section. I am participating in this action as an individual and not on behalf of any institution or association other than EMW.

4. As an OB/GYN, I provide the full spectrum of obstetric and gynecological care including inpatient and outpatient care, surgery, labor and delivery, miscarriage management, abortion, and contraception. I am dedicated to providing high-quality, patient-centered health care to all of my patients, including those who decide to terminate their pregnancies. I am challenging Kentucky's abortion bans because they are forcing me to violate not only my medical and ethical obligations as a physician, but my personal obligation to ensure that those who decide to terminate their pregnancies can obtain safe, legal, and compassionate abortion care.

5. I have been providing reproductive health services, including abortion care, at EMW for almost seven years. EMW is one of the two outpatient abortion clinics in the Commonwealth of Kentucky.

6. The information provided in this declaration is based on my personal knowledge. The opinions in this declaration are my expert opinions as an OB/GYN and an abortion provider. My expert opinions are based on my education, training, professional experience, and review of relevant medical literature. All of my opinions in this declaration are expressed to a reasonable degree of medical certainty.

7. The ability to control whether to carry a pregnancy to term, or to terminate a pregnancy, is essential to a woman's overall health. Pregnancy and childbirth are major medical events that

carry risks, particularly for people with underlying health conditions, that could lead to hospitalization, life-long complications, or death. Compared to childbirth, abortion is very safe – one of the safest medical procedures in the United States.[1] If Kentuckians are prohibited from obtaining an abortion because of Kentucky's laws, and instead are forced carry their pregnancies to term and give birth against their will, the consequences will be dire.

8. A typical pregnancy is about 40 weeks long as dated from last menstrual period to delivery. Pregnancy inherently causes major physiological changes to a person's body. One of the biggest changes involves increased intravascular (blood) volume. This can have several consequences including making patients more vulnerable to anemia, which is a condition that develops when the patient's blood has a lower amount of red blood cells. Anemia can increase risks for preterm labor and delivery as well as need for a blood transfusion following delivery. During pregnancy, the heart rate increases and with increased blood volume, the heart is forced to do more work than usual. The cardiac output increases 30-60% during pregnancy.[2] While most people can tolerate increases in cardiac output, these changes can lead to complications in patients with a history of cardiac disease.

9. Pregnancy also changes lung functioning. The diaphragm elevates, which decreases the overall lung capacity. As a patient's uterus increases in size, patients cannot take as deep of breaths, which causes them to experience shortness of breath.[3]

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[1] National Academies of Sciences, Engineering, and Medicine, *The Safety and Quality of Abortion Care in the United States* (2018), https://doi.org/10.17226/24950.

[2] Pascual, Zoey, et al., *Physiology, Pregnancy*, StatPearls [Internet] (last updated May 8, 2022), https://www.ncbi.nlm.nih.gov/books/NBK559304.

[3] *Id.*

10. Approximately a third of patients with asthma experience a worsening of asthma during pregnancy. Although most patients with asthma remain stable during their pregnancy, some can require an inhaled steroid, and if the condition worsens, the patient must be hospitalized to help manage her breathing. Poorly controlled asthma can increase both maternal and fetal morbidity and mortality. For example, patients are at higher risk for developing high blood pressure during pregnancy, and the risk for preterm labor and premature birth is also increased.[4]

11. A number of preexisting conditions can increase the morbidity or mortality associated with pregnancy, including sickle cell disease, lupus and collagen vascular diseases, epilepsy, substance use disorder, and infectious diseases such as HIV or hepatitis.[5]

12. Many patients experience nausea and vomiting during pregnancy due to the pregnancy hormone, beta hCG, and elevated levels of estrogen and progesterone. Some patients experience vomiting so severe that they cannot tolerate food, which leads to weight loss.[6] It can also lead to electrolyte changes, and, if these are not corrected, heart rhythm abnormalities can occur. A patient could also lose key nutrients, such as thiamine. If there is prolonged nausea and vomiting, it can lead to Wernicke's Encephalopathy, which is a neurological disorder typically associated with alcoholism and malnutrition.

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[4] Shebl, Eman, *et al.*, *Asthma In Pregnancy*, StatPearls [Internet] (last updated April 25, 2022), https://www.ncbi.nlm.nih.gov/books/NBK532283.

[5] Blackwell, Sean, *et al.*, *Reproductive services for women at high risk for maternal mortality: a report of the workshop of the Society for Maternal-Fetal Medicine, the American College of Obstetricians and Gynecologists, the Fellowship in Family Planning, and the Society of Family Planning*, Am. J. Obstet. Gynecol., April 2020.

[6] Pascual, Zoey, *et al.*, *Physiology, Pregnancy*, StatPearls [Internet] (last updated May 8, 2022), https://www.ncbi.nlm.nih.gov/books/NBK559304.

13. Furthermore, pregnancy increases clotting factors present in the blood, and in conjunction with compression of the inferior vena cava by the gravid uterus, there is an increased risk of developing blood clots during pregnancy. In fact, pregnancy increases the risk of developing blood clots by fivefold. Deep vein thrombosis ("DVT") is also a risk. DVT involves a blood clot that forms in one's veins and that clot can migrate into the lungs, potentially causing death. Blood clots can also form in arteries and lead to heart attack or stroke during pregnancy. The increased risk for blood clot formation exists throughout pregnancy and delivery but is highest after delivery in the post-partum period.[7]

14. Patients who have Type 2 diabetes or develop gestational diabetes because of the pregnancy also face greater risks. The risks of developing pre-eclampsia and needing cesarean section to achieve delivery are increased. Diabetes during pregnancy can lead to complications during delivery including fetal shoulder dystocia (where the fetus's shoulders get stuck during delivery), fetal nerve palsies (nerve damage), and oxygen deprivation to the fetus, which could lead to fetal brain injury or even fetal demise.

15. Preterm premature rupture of the membranes (where the patient's "water breaks" too early) can occur during pregnancy and puts patients at risk for infection and placental abruption (where the placenta separates from the uterine wall, which can cause serious fetal complications, including fetal death). If a patient experiences placental abruption, the patient's risk for life-threatening hemorrhage is increased.[8]

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[7] *ACOG Practice Bulletin No. 196: Thromboembolism in Pregnancy*, Obstetrics & Gynecology, July 2018; Walker, Isobel D., *Venus and arterial thrombosis during pregnancy: epidemiology, Seminars In Vascular Medicine* (Feb. 2003), https://pubmed.ncbi.nlm.nih.gov/15199490.

[8] *ACOG Practice Bulletin No. 217: Prelabor Rupture of Membranes*, Obstetrics & Gynecology, March 2020.

16. Hypertensive disorders are also a significant concern in pregnancy. Preeclampsia is a condition characterized by high blood pressure during pregnancy, which puts the patient at risk for many things, including stroke, seizure, and placental abruption. Furthermore, patients can also experience headaches or altered consciousness. The patient's lungs could retain fluid decreasing a patient's oxygen saturation. Preeclampsia can also lead to impaired liver and kidney function. There are also risks to the fetus including growth restriction. If a patient experiences preeclampsia in one pregnancy she is at a greater risk for developing it in subsequent pregnancies.[9]

17. Patients with renal disease also face risks from pregnancy, and their renal function can worsen after delivery given pregnancy's effect on the kidneys. Renal disease can lead to anemia and put a patient at risk for preterm birth and even pregnancy loss. People with renal disease can also develop high blood pressure during pregnancy. Some patients will require dialysis.[10]

18. Approximately 10-15% of pregnancies will end in miscarriage. Most people will pass the products of conception without issue, but some people will have complications such as hemorrhage that will require an emergency procedure (dilation and curettage) to empty the uterus, and possibly a blood transfusion. If the fetus or the placental tissue doesn't pass on its own, infection including sepsis can result, requiring hospitalization.

19. In patients who carry their pregnancies to term, there are risks associated with the labor and delivery process. For example, during the labor process, patients are at risk of developing

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[9] *ACOG Practice Bulletin No. 222: Gestational Hypertension and Preeclampsia*: Obstetrics & Gynecology, June 2020.

[10] Gonzalez Suarez, Maria L., *et al.*, *Renal Disorders in Pregnancy: Core Curriculum 2019*, American Journal of Kidney Diseases (Aug. 16, 2018), https://doi.org/10.1053/j.ajkd.2018.06.006.

infection in the uterus, or chorioamnionitis, also known as intrauterine infection or inflammation (Triple I Infection).

20. Patients who deliver by cesarean section (C-section), when an incision is made on the lower abdomen, face additional risks, as with any surgery. These risks increase for patients who are immunocompromised, such as those with diabetes, or who are significantly obese. Risks include skin infection, hemorrhage (especially given the increased blood flow to the uterus during pregnancy), inflammation of the lining of the uterus, abscesses in the abdomen, and damage to surrounding organs (uterus, bladder, bowels). Those who have repeat C-sections face additional risks including morbidly adherent placenta (such as placenta accreta where the placenta does not detach because it has grown into the uterine wall), and risk of hysterectomy (removal of the uterus). Patients who have a C-section also face risks from complications of the anesthesia. People who have C-sections are also at higher risk for blood clots compared to those who deliver vaginally.

21. Patients who deliver vaginally also face risks, including pelvic floor injury, such as tearing of the perinium, which is painful and requires time to heal. More extensive tears can lead to problems with a patient's bowel and bladder function. Furthermore, given the increased blood flow to the uterus, there is a risk of hemorrhage from vaginal delivery as well as C-section.

22. Some patients experience cardiomyopathy (weakness of the heart muscle) at the time of delivery or afterward. This weakness results in a lower percentage of blood that gets pumped out with every beat. If the heart is not pumping as much blood as it should, it means the heart is not meeting the body's demand for oxygen, which can adversely affect the lungs and liver, and other body systems. Some people will recover but some will have permanent reduced cardiac

function. If a patient has experienced it in one pregnancy, there is a greater risk she will experience it in a subsequent one.[11]

23. Patients face mental health risks as well. Approximately 15% of patients suffer from post-partum depression, which will necessitate counseling and/or medication. If post-partum depression goes untreated, it can lead to guilt, anxiety, suicidal ideation, inability to care for oneself and/or for the baby. It can also affect the bonding between the patient and the baby, which can lead to the baby's failure to thrive and overall poor health of the baby.[12]

24. These serious complications from pregnancy, including death, are higher if you are Black due to structural racism and inequities in our health care system. For example, a Black woman's risk of dying during pregnancy or childbirth is about two times higher than her white counterpart.

25. Complications from pregnancy and childbirth not only affect the physical and mental health of the patient but can also interfere with her ability to care for her children or go to work or school if she is debilitated or hospitalized. The time to recover from childbirth can also affect a patient's life, including recovery from abdominal surgery (C-section) and injury during vaginal delivery, discussed above.

26. If Kentucky's abortion bans are permitted to stand, our patients will face all of the risks discussed above because they will be forced to carry a pregnancy to term against their will.

27. Although the Trigger Ban contains a medical emergency exception, it is very limited – it applies to prevent the death or to prevent the serious, permanent impairment of a life-sustaining organ of a pregnant woman. The Six Week Ban's exception is similar – to prevent the woman's

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[11] Arany, Zolt, *et al.*, *Peripartum cardiomyopathy*, Circulation (April 2016), https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.115.020491.

[12] Pearlstein, Teri, *et al.*, *Postpartum depression*, American Journal of Obstetrics and Gynecology, https://doi.org/10.1016/j.ajog.2008.11.033

death or prevent a substantial and irreversible impairment of a major bodily function. As discussed above, many patients will get sick but not sick enough to meet this definition. Others may eventually get sick enough to meet the definition, but it is cruel to require them to deteriorate until the point where the exception applies. Moreover, because the law carries felony penalties, myself and other doctors and health care staff members are going to be very nervous relying on the exception in case the Attorney General disagrees with our medical assessment of the emergency.

28. Abortion is one of the safest medical procedures in the United States and is substantially safer for a woman than childbirth. A woman's risk of death associated with childbirth is approximately 10-14 times higher than her risk of death associated with abortion.

29. One in four women will have an abortion in their lifetime. Every person has their own deeply personal reason for seeking an abortion, including reasons based on familial, medical, or financial circumstances. Some have abortions because they decide it is not the right time in their lives to have children or to add to their families because they need to pursue their education, they feel they lack the resources or partner support to raise a child, they face onset of intimate partner violence (IPV) or intensified levels of IPV, or they are concerned that adding another child will make it harder to care for their existing children. Some decide to have an abortion because of risks to their health, including the risks of pregnancy and childbirth discussed above.

30. Some patients decide to have an abortion after receiving a diagnosis of a fetal anomaly. When patients receive a diagnosis of a fetal anomaly, they can experience stress and anxiety, and some decide to terminate the pregnancy while others decide to carry the pregnancy to term. In cases of lethal fetal anomalies, while some patients continue the pregnancy, most find that the prospect of continuing a pregnancy to term and giving birth to an infant who will not survive is

extremely distressing and decide to terminate the pregnancy, especially given the risks of pregnancy and delivery discussed above.

31. Furthermore, a number of my patients seeking abortion care have been sexually assaulted, and if these patients were forced to carry their pregnancies to term and give birth against their will, they would possibly face additional trauma by constantly being reminded of the violation committed against them.

32. Although people can travel to another state to get an abortion, many of our patients are low-income and will not have the ability or resources to travel. Those that are able to travel will also face risks to their health if they have to delay their abortion while they raise funds to travel and make arrangements. Although abortion is extremely safe, and safer than remaining pregnant and giving birth, delay increases risks by forcing the patient to remain pregnant, which is risky itself, and by necessitating a procedure later in pregnancy, when the complication rate is greater.

I have reviewed the facts contained in this affidavit and they are true and correct to the best of my knowledge.

Ashlee Bergin, MD, MPH

Ashlee Bergin, M.D. M.P.H.

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn, and acknowledged before me by Ashlee Bergin this 26th day of June, 2022.

Notary Public TRACY MORTIN-WILEY

My commission expires: Oct 16, 2025

Kentucky NP ID: KYNP 35554

Attachment 1

ASHLEE BERGIN

Louisville, KY

EDUCATION

MPH	University of Illinois at Chicago, School of Public Health Chicago, IL	May 2015
	Family Planning Fellowship University of Illinois at Chicago Chicago, IL	June 2015
	Obstetrics and Gynecology Residency University of Chicago Hospitals Chicago, IL	June 2010
MD	The George Washington University School of Medicine Washington, D.C.	June 2006
BA	Reed College, Biology Portland, OR	May 1999

CURRENT POSITIONS

Assistant Medical Student Clerkship Director 2019 - present
Department of Obstetrics, Gynecology, & Women's Health
University of Louisville School of Medicine
Louisville, KY

Assistant Director, Ryan Residency Training Program 2015 - present
Department of Obstetrics, Gynecology, & Women's Health
University of Louisville School of Medicine
Louisville, KY

ACADEMIC APPOINTMENT

Assistant Professor 2015 - present
Department of Obstetrics, Gynecology, & Women's Health
University of Louisville School of Medicine
Louisville, KY

OTHER POSITIONS AND EMPLOYMENT

Staff Obstetrician/Gynecologist 2010 – 2013
Little Company of Mary Hospital
Evergreen Park, IL

Embryologist, IVF Laboratory Technician 2000 - 2002
George Washington University Medical Faculty Associates
Washington, D.C.

Laboratory Technician 1999 - 2000
Gamma-A Technologies, Inc.
Herndon, VA

CERTIFICATION AND LICENSURE

Diplomate, American Board of Obstetrics and Gynecology 2012

Colorado Medical License 2022

Kentucky Medical License 2015 - present

Illinois Medical License 2009 - present

DEA Registration 2009 - present

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

Fellow, Cefalo National Leadership Institute 2022
American College of Obstetricians and Gynecologists

Chair, Kentucky Section 2020 - present
American College of Obstetricians and Gynecologists

Vice Chair, Kentucky Section 2017 - 2020
American College of Obstetricians and Gynecologists

Secretary, Kentucky Section 2015 - 2017
American College of Obstetricians and Gynecologists

Elected Fellow 2013 - present
American College of Obstetricians and Gynecologists

Junior Fellow in Practice, District VI 2010 - 2012
American College of Obstetricians and Gynecologists
Group Leader for Mentorship Task Force

Junior Fellow 2006 - 2012
American College of Obstetricians and Gynecologists

Member 2014 - present
European Society of Contraception and Reproductive Health

Junior Fellow 2013 - present
Society of Family Planning

Member 2008 - 2019
Association of Reproductive Health Professionals

Fellow, Leadership Training Academy 2014 - 2015
Physicians for Reproductive Health

Student Teacher, MSII Physical Diagnosis Class 2004 - 2005
George Washington University School of Medicine

President, Beaumont Research Society 2004 - 2005
George Washington University School of Medicine

HONORS AND AWARDS

Chicago Lying-In Hospital Excellence in Student Teaching Award 2007

Alpha Omega Alpha National Medical Honor Society 2006

President, Kane-King-Dodek Obstetrical Honor Society 2006

Rachel Morris Dominick Award in Obstetrics and Gynecology 2006

Recipient, Charles Iber Memorial Scholarship 2003

Reed College Presidential Commendation for Academic Excellence 1998 - 1999

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES

Ethics Committee Member 2021- present
University of Louisville School of Medicine

Review Panel Member 2018 - present
Continuing Medical Education & Professional Development Advisory Board
University of Louisville School of Medicine

Member, Passport Health Plan Women's Health Committee 2018 – 2020
Member, Residency Program Evaluation Committee 2014 - 2015
University of Illinois at Chicago Hospital

Member, Perinatal Practice Committee 2010 - 2013
Little Company of Mary Hospital

Resident Member, Graduate Medical Education Committee 2009 - 2010
University of Chicago Hospitals

EDUCATIONAL ACTIVITIES

University of Louisville, Louisville, KY 2015 - present
Presenter, MVA Workshop for Medical Students and Residents

University of Louisville, Louisville, KY 2016 - present
Medical Student Advisor for Education and Research Tracts

University of Louisville, Louisville, KY 2016 - present
Presenter, First and Second Trimester Abortion

University of Louisville, Louisville, KY 2016 - present
Resident Research Advisor

University of Louisville, Louisville, KY 2016 - present
Presenter, Professionalism Workshop

University of Louisville, Louisville, KY 2016 - 2018
Presenter, Sterilization Workshop

University of Kentucky, Lexington, KY 2016
Invited Presenter for OB/GYN Grand Rounds, Physicians as Advocates

University of Louisville, Louisville, KY 2016
Presenter for OB/GYN Grand Rounds, The Interpregnancy Interval

University of Louisville, Louisville, KY 2015
Presenter, Contraception Workshop

Loyola University, Chicago, IL 2015
Presenter for TEACH Program, First Trimester Abortion

Chicago College of Osteopathic Medicine, Chicago, IL — 2015
Presenter, Professionalism Workshop

Chicago College of Osteopathic Medicine, Chicago, IL — 2015
Presenter, First and Second Trimester Abortion

Chicago College of Osteopathic Medicine, Chicago, IL — 2014
Presenter, Contraception

University of Illinois at Chicago, Chicago, IL — 2014
Presenter for OB/GYN Grand Rounds, The Interpregnancy Interval

University of Illinois at Chicago, Chicago, IL — 2013 - 2015
Presenter, First and Second Trimester Abortion

Chicago College of Nursing, Chicago, IL — 2014
Presenter, First and Second Trimester Abortion

University of Illinois at Chicago, Chicago, IL — 2013 - 2015
Presenter, Contraception

Medical Council of Guyana, Georgetown, Guyana — 2014
Invited Presenter, Family Planning Considerations

Georgetown Public Hospital Dept. OB/GYN, Georgetown, Guyana — 2014
Invited Presenter, Ectopic Pregnancy

Georgetown Public Hospital Dept. OB/GYN, Georgetown, Guyana — 2014
Assistant Course Director, Safe Abortion Training

Georgetown Public Hospital Dept. OB/GYN, Georgetown, Guyana — 2014
Invited Presenter, Contraception

Georgetown Public Hospital Dept. OB/GYN, Georgetown, Guyana — 2014
Invited Presenter, Basic Ultrasound

Georgetown Public Hospital Dept. OB/GYN, Georgetown, Guyana — 2014
Invited Presenter, Pregnancy Termination

University of Illinois at Chicago, Chicago, IL — 2013 - 2014
Presenter, Basic Ultrasound

University of Illinois at Chicago, Chicago, IL — 2013
Presenter, Ectopic Pregnancy

Loyola University, Chicago, IL — 2013
Presenter for TEACH Program, Estrogen-Containing Contraception

Chicago College of Osteopathic Medicine, Chicago, IL 2011
Presenter, Options for Abortion and Early Pregnancy Failure in the First Trimester

University of Chicago Hospitals, Chicago, IL 2010
Presented for OB/GYN Grand Rounds, Birth Spacing

GRANTS AND CONTRACT AWARDS

Past Grant
Primary Investigator (6 person months) 2014 – 2015
Family Planning Fellowship Research: Providers, Patients, and the Interpregnancy Interval: Knowledge, Attitudes, and Practices
Funded by the Society of Family Planning, Grant #SFPRF14-25
Award Total $69,621

PUBLICATIONS

Books

Bergin, A. (2018). A 19-year-old with Postoperative Fever and Lower Abdominal Pain. In K.V. Meriwether & J. England (Eds.), Obstetrics and Gynecology Morning Report: Beyond the Pearls (pp 265-269). Philadelphia, PA: Elsevier.

Journal Publications

Ruben LN, Johnson RO, **Bergin A**, Clothier RH. Apoptosis and the Cell Cycle in Xenopus: PMA and MPMA Exposure of Splenocytes. Apoptosis 2000; 5:225-33.

Dayal MB, Gindoff P, Dubey A, Spitzer TL, **Bergin A**, Peak D, Frankfurter D. Does ethnicity influence in vitro fertilization (IVF) outcomes? Fertility & Sterility 2009; 91:2414-8.

Bergin A, Whitaker AK, Terplan M, Gilliam M. Failure to return for intrauterine device insertion after initial clinic visit. Abstract. Contraception 2009; 80:217.

Bergin A, Tristan S, Terplan M, Gilliam ML, Whitaker AK. A missed opportunity for care: Two-visit IUD insertion protocols inhibit placement. Contraception 2012; 86: 694-7.

Bergin A, Rankin K, Stumbras K, Handler A, Haider S. Prenatal Patient Knowledge of the Interpregnancy Interval. Abstract. Obstetrics & Gynecology 2017; 129, 5 (Suppl): 18S.

Pomerantz T, Patel P, Miller K, Ziegler C, Hoffmann J, **Bergin A.** Teaching Medical Students About Abortion Through Problem-Based Learning. Abstract. Obstetrics & Gynecology 2018; 131, (Suppl): 163S.

Pomerantz T, **Bergin A**, Miller KH, Ziegler CH, Patel PD. A problem-based learning session on pregnancy options, counseling, and abortion care. *MedEdPORTAL*. 2019;15:10816.

Hoffmann, J, **Bergin, A.** Contraception, Abortion and More: Understanding Health Disparities for LBGTQ Patients in their Own Words. Abstract. Obstetrics & Gynecology: May 2019 - Volume 133 - Issue - p 76S
doi: 10.1097/01.AOG.0000558710.06533.3f

Sullivan, R, Franklin, T, **Bergin, A.** Anti-Abortion Picketing and Mental Health: Is There a Correlation Between Picketers and Post-traumatic Stress? Abstract. Obstetrics & Gynecology: May 2020 - Volume 135 - Issue - p 93S doi: 10.1097/01.AOG.0000664120.64643.c6

Posters

Bergin A, Whitaker AK, Terplan M, Gilliam M. Failure to return for intrauterine device insertion after initial clinic visit. Presented at Reproductive Health, Los Angeles, CA, September 30-October 3, 2009.

Bergin A, Rankin K, Stumbras K, Handler A, Haider S. Prenatal Patient Knowledge of the Interpregnancy Interval. Presented at the 65th Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists, San Diego, CA, May 6-9, 2017.

Pomerantz T, Patel P, Hughes Miller K, Ziegler C, Hoffmann J, **Bergin A.** Teaching Medical Students About Abortion Through Problem -Based Learning: An Evaluation of Medical Students' Knowledge and Experiences. Presented at the 66th Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists, Austin, TX, April 27-30, 2018.

Hoffmann J, **Bergin A.** Contraception, Abortion, and More: Understanding Health Disparities for LGBTQ Patients in Their Own Words. Presented at the 67th Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists, Nashville, TN, May 3-6, 2019.

EXHIBIT 6

NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ ( )
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., *et al.*,

PLAINTIFFS

v.

DANIEL CAMERON, *et al.*,

DEFENDANTS.

AFFIDAVIT OF JASON LINDO, Ph.D.

I, Jason Lindo, Ph.D., declare the following:

1. State bans on abortion impose substantial costs. A large body of literature shows that abortion is reduced and childbearing is increased when states enact such laws. Individuals affected in this manner are disproportionately women of color and disproportionately disadvantaged relative to the general population in terms of their economic circumstances.

2. Research resoundingly indicates these individuals are made *more* disadvantaged when they are impeded from accessing abortion. They become increasingly disadvantaged in part because of the substantial monetary costs associated with having and raising a child. As a result of these costs, adding a child to a household without expanding its resources will thrust poor families deeper into poverty and non-poor families closer to the poverty line. Moreover, research shows that household resources are *not* sufficiently expanded to prevent such increases in poverty when a child is added to a family. Indeed, household resources are typically *reduced* overall. In addition, educational attainment is reduced for younger women who have restricted access to abortion.

3. Bans on abortion also impose substantial costs even on individuals who are able to travel to other states to obtain abortions. These individuals are likely to face additional travel expenses (including childcare and/or lost wages), delays, a more-limited set of procedures, and additional medical risks and medical expenses.

4. If there is no access to abortion in Kentucky, it will impose these—and other—costs on its residents. Individuals obtaining abortions in Kentucky are more likely to be Black, more likely to be Hispanic, more likely to be unmarried, and more likely to have no more than a high school education than the general population of Kentucky residents. Many of these individuals would typically be considered of schooling age and/or early in their careers in the labor market.

5. Based on historical data, a majority of individuals seeking abortion in Kentucky have previously given birth, and many will have children later in their lives after having had an abortion. Naturally, the effects described above imply that these children will grow up in households with more limited resources and reduced parental education. Given a large body of reliable and rigorous research showing that household resources and parental education have a causal effect on a wide array of children's outcomes, we can expect the deleterious effects of restricted abortion access to extend to these children in many ways. In particular, this body of work indicates that the effects are likely to manifest in poorer health at birth, increased infant mortality, lower test scores, more behavioral and social problems, reduced educational attainment, and poorer adult economic outcomes. These conclusions are supported by a large number of rigorous studies of causal effects.

I. Professional Credentials and Experience

6. I provide the following facts and opinions as an expert in the field of economics and policy evaluation. I am a Professor of Economics and the Ray A. Rothrock '77 Senior Fellow at Texas A&M University. Prior to my appointment as full professor on September 1, 2018, I was an Associate Professor of Economics at Texas A&M beginning in 2013.

7. I have been a Research Associate at the National Bureau of Economic Research (NBER) since 2014, and before that, I was a Faculty Research Fellow at NBER beginning in 2011. NBER is the nation's leading nonprofit economic research organization, studying a wide range of topics, including the effects of various public policies.

8. I received a B.A. in economics in 2004, an M.A. in economics in 2005, and a Ph.D. in economics in 2009—all from the University of California, Davis.

9. I have published 28 research articles in peer-reviewed journals and books. I am a Specialized Co-editor of *Economic Inquiry*, where I determine whether the journal should publish submitted papers in the areas of health economics, public economics, and policy evaluation.

10. My research interests include health economics and issues concerning youth, including the economic effects of abortion and contraceptive policies.

11. I have taught courses on empirical research methods at the undergraduate and Ph.D. levels for 14 years. These courses focus on the quantitative methods that economists use to evaluate the causal effects of government programs and other interventions, how these methods overcome problems that often plague correlational analyses, and the conditions under which these methods are appropriate.

12. A copy of my curriculum vitae setting forth my experience, education, and credentials in greater detail is attached as **Attachment 1**.

II. Credibly Evaluating *Causal* Effects

13. It is generally extremely important to distinguish between correlational studies and rigorous studies of causal effects. The opinions I offer in this declaration are based primarily on the body of evidence on the *causal* effects of laws restricting access to abortion and on the *causal* effects of having children. These opinions are consistent with those described in the Economists' Amicus Brief in *Dobbs v. Jackson Women's Health*, which also emphasized credible studies of causal effects and which I signed along with 153 other distinguished economists.

14. It is common for introductory courses in statistics or the social sciences to explain that "correlation does not imply causation." This is very useful knowledge to convey to students because it cautions them against interpreting all correlations as if they reflect a causal relationship. A little knowledge can be a dangerous thing in this instance, however, because it leads some people to incorrectly believe that it is impossible for researchers to quantify causal effects. For this reason, in all the courses I teach—all of which focus on how to conduct empirical research to quantify causal effects —I explain to my students that correlation does not generally imply causation, but correlation does imply causation under some conditions. Randomized-control-trial experiments, in which researchers randomly assign participants to a treatment group or control group, illustrate this point in an intuitive manner. It is broadly accepted, by the Food and Drug Administration for example, that a correlation between treatment and outcomes *in this particular type of setting* indicates a causal effect.

15. A randomized-control-trial experiment is one approach among many for

evaluating causal effects. To be clear, it is a very powerful approach because it involves a researcher creating conditions such that a correlation between treatment and outcomes (or a difference in average outcomes across the two groups) provides compelling evidence on whether there is a causal effect of treatment on outcomes. This approach can identify a causal effect if the outcomes observed in the control group provide a good counterfactual for the outcomes that would have been observed in the treatment group in the absence of treatment. The act of random assignment (and a large number of participants) ensures that this condition will be met.[1] In such circumstances, we expect the outcomes of the two groups to be extremely similar in the absence of treatment. This is the logic implicit in the widely accepted idea that causal effects are credibly quantified by comparisons of treatment and control groups in researcher-conducted randomized-control-trial experiments.

16. As I mentioned above, there are many other approaches that can also be used to estimate causal effects. These tools are commonly used to evaluate "natural experiments" whereby chance, forces of nature, institutions, or policymakers determine who is treated and who is not treated. These tools have been developed extensively over the past 30 years by econometricians, such that there has been a "credibility revolution" in empirical research aiming to quantify causal effects.[2] Along these lines, the 2021 Nobel Prize in Economics was awarded for "methodological contributions to the analysis of causal relationships."[3] These methods were also discussed in the Economists' Amicus Brief. While these tools do not generally recover causal effects, they do under specific conditions.

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[1] Indeed, differences are expected to be zero in expectation and they are expected to shrink to zero in larger and larger samples.

[2] Joshua D. Angrist & Jörn-Steffen Pischke, *The Credibility Revolution in Empirical Economics: How Better Research Design Is Taking the Con out of Econometrics*, 24 J. OF ECON. PERSP. 3, 4 (2010).

[3] *The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2021*, THE NOBEL PRIZE (June 25, 2022), https://www.nobelprize.org/prizes/economic-sciences/2021/summary/.

17. The difference-in-differences research design features extensively amongst the causal studies I highlight below. Difference-in-differences research designs are one of the most routinely used approaches to estimating causal effects in the social sciences. This methodological approach is the focus of one of the three chapters in a section titled "The Core" of the popular and seminal Ph.D. level econometrics textbook *Mostly Harmless Econometrics.*[4] In the typical application, this empirical approach involves the comparison of *changes over time* between some treatment group (e.g., a state enacting some new policy regarding abortion) and some comparison group (e.g., a state not changing abortion policies). As such, instead of needing the treatment group and comparison group to have the same outcome *levels* in the absence of treatment, this research design requires that they would have the same *changes over time* in the absence of treatment. Researchers using this methodology in a convincing manner, such that their results can be considered credible estimates of causal effects, provide evidence that this assumption is credible in their particular context.

III. Background on Individuals Seeking Abortion

18. To provide context for the causal studies I review in the next section and what they demonstrate in terms of the consequences of eliminating access to abortion in Kentucky, in this section I discuss the characteristics of individuals seeking abortions across the United States and in Kentucky.

19. Based on 2014 abortion rates, 23.7 percent of women aged 15-44 years in 2014 would be expected to have an abortion by the time they are 45 years old (assuming 2014 abortion rates continue through the time they are 45 years old).[5] 12 percent of women obtaining abortions

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[4] Joshua D. Angrist & Jörn Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion,* PRINCETON UNIV. PRESS 169–182 (2008).

[5] Rachel K. Jones & Jenna Jerman, *Population Group Abortion Rates and Lifetime Incidence of Abortion: United States, 2008–2014,* 107 AM. J. PUB. HEALTH 1904, 1907 (2017).

are less than 20 years old and 60 percent are in their 20s.[6] Women of color are disproportionately represented among American women obtaining abortions. In terms of race, 27.6 percent of women obtaining abortions in 2014 were Black, even though only 14.9 percent of US women aged 15-44 were Black.[7] In terms of ethnicity, 24.8 percent of individuals obtaining abortions in 2014 were Hispanic, even though only 20 percent of US residents were Hispanic.[8]

20. A substantial majority of American women seeking abortions have relatively low incomes.[9] In 2014, half had incomes less than the federal poverty line and three-quarters had incomes less than 200 percent of the poverty line.[10,11] Compounding their financial difficulties, 59 percent had previously given birth and 55 percent were neither married nor cohabiting.[12] Moreover, 55 percent reported having experienced at least one "disruptive life event" during the preceding 12 months, where disruptive life events include the death of a close friend or family member, having a family member with a serious health problem, having a baby, separating from a partner, having a partner arrested or incarcerated, being unemployed for at least one month, falling behind on rent or a mortgage, or moving two or more times.[13]

21. Women's ability to obtain abortions depends on many factors beyond their control, including the availability of care, the amount of travel required, affordability, and state requirements such as waiting periods.[14] Survey data shows that among women who would have

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[6] *Id.* at 1906.
[7] *Id.*
[8] *Id.*
[9] *Id.* at 1906–1907.
[10] In 2014, the Federal Poverty line was $12,316 for a single adult, $16,317 for a family with one adult and one child, and $19,073 for a family with one adult and two children. The Federal Poverty line was $15,853 for family of two adults, $19,055 for a family with two adults and one child, and $24,008 for a family with two adults and two children. CARMEN DENAVAS-WALT & BERNADETTE D. PROCTOR, U.S. CENSUS BUREAU, INCOME AND POVERTY IN THE UNITED STATES: 2014 43 (2015).
[11] Jones, *supra* note 5, at 1906.
[12] *Id.*
[13] Rachel K. Jones & Jenna Jerman, *Characteristics and Circumstances of U.S. Women Who Obtain Very Early and Second Trimester Abortions*, 12 PLOSONE 1, 3–4 (2017).
[14] NAT'L ACAD. SCI., THE SAFETY AND QUALITY OF ABORTION CARE IN THE UNITED STATES 12 (2018).

preferred to have obtained their abortions sooner in time, 59 percent report that delays occurred because it took time for them to make arrangements.[15] Consistent with this statistic, empirical evidence indicates that regulations that substantially increase the financial, travel, and/or logistical burdens of obtaining an abortion have a significant effect on abortion access. I discuss this evidence in greater detail below.

22. The economic circumstances in Kentucky relative to the United States suggest that an even larger share of its women would face financial challenges in attempting to obtain an abortion than we would expect based on the statistics described above, which are based on U.S. averages. To put Kentucky's economic conditions in context, in the table below I report 2020 poverty rates calculated by the United States Census Bureau for Kentucky and for the United States as a whole.[16] These statistics highlight both the degree to which Kentucky has a high poverty rate relative to the U.S. average and also the high poverty rate for those in female-headed households with children and no spouse present. In Kentucky, 37.2 percent of people in such households were in poverty. These statistics suggest that individuals seeking abortions in Kentucky may be even more disadvantaged than those seeking abortions nationwide.

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[15] Lawrence B. Finer et al., *Timing of Steps and Reasons for Delays in Obtaining Abortions in the United States*, 74 CONTRACEPTION 334, 335 (2006).

[16] The statistics I show were drawn from data sets posted on the Census Bureau website. U.S. CENSUS BUREAU, CURRENT POPULATION SURVEY: DETAILED TABLES FOR POVERTY, https://www2.census.gov/programs-surveys/cps/tables/pov-46/2021/pov46_weight_10050_1.xlsx (last visited June 6, 2022); U.S. CENSUS BUREAU, CURRENT POPULATION SURVEY: DETAILED TABLES FOR POVERTY, https://www2.census.gov/programs-surveys/cps/tables/pov-46/2021/pov46_weight_10050_5.xlsx (last visited June 6, 2022); U.S. CENSUS BUREAU, CURRENT POPULATION SURVEY: DETAILED TABLES FOR POVERTY, https://www2.census.gov/programs-surveys/cps/tables/pov-46/2021/pov46_weight_10050_8.xlsx (last visited June 6, 2022).

2020 Poverty Rates (Percent of Population)

	Kentucky	U.S. Average
Overall	13.9	11.4
Adult non-elderly (18-64)	12.4	10.4
Female-headed household w/ children and no spouse	37.2	33.4

23. Data from the Kentucky Annual Abortion Report for 2020,[17] produced by Kentucky's Department for Public Health and Office of Vital Statistics, confirm that women seeking abortions in Kentucky disproportionately come from groups that are typically economically disadvantaged, as measured by many different characteristics that are strong predictors of poverty. Compared to the broader set of Kentucky residents, they are more likely to be Black, more likely to be Hispanic, more likely to be unmarried, and more likely to have no more than a high school education.

24. 87.2 percent of women obtaining abortions in Kentucky in 2020 were unmarried.[18] This is an extremely large share compared to the share of Kentucky residents over 18 who are unmarried (49.4 percent) and it is even larger compared to the share of Kentucky residents who reported giving birth in the past year who are unmarried (34.5 percent).[19]

25. In terms of race, 34.5 percent of individuals obtaining abortions in Kentucky in 2020 were Black,[20] even though only 8.5 percent of Kentucky residents are Black. In terms of ethnicity, 7.6 percent of individuals obtaining abortions in Kentucky in 2020 were Hispanic,[21] even though only 3.9 percent of Kentucky residents are Hispanic.

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[17] KY. PUB. HEALTH, KY. ANNUAL ABORTION REP. FOR 2020 (2021), https://chfs.ky.gov/agencies/dph/dehp/vsb/Forms/2020KYAbortionAnnualReport.pdf.
[18] *Id.* at 4.
[19] Statistics for Kentucky residents are authors calculations based on the 2020: ACS 5-Year Estimates produced by the United States Census Bureau.
[20] *Supra* note 17, at 6.
[21] *Id.* at 5.

26. In 2020, 4,104 people obtained abortions in Kentucky, including 3,487 Kentucky residents.[22] Many of these individuals would typically be considered of schooling age and/or early in their careers in the labor market. Specifically, 366 were under 20 years old, 1,119 were 20-24 years old, and 1,229 were 25-29 years old.[23] As such, many of these individuals are at a stage in their lives such that accessing abortion may determine whether they continue in school or make other early-career investments, both of which affect individuals' economic circumstances throughout their lives and their children's lives.

27. The same statistical report indicates that 66.3 percent of the people who obtained abortions in Kentucky in 2020 had previously given birth.[24] Thus, there is substantial potential for the existing children of individuals seeking abortions to be affected by policies that limit their parents' access to abortion.

IV. How changes in abortion access for Kentucky residents will translate into fewer abortions and increased childbearing

28. There is substantial evidence on the causal effects of abortion restrictions on abortion rates and childbearing. Consistent with what we would expect based on economic theory, this evidence routinely shows that abortion is reduced, and childbearing is increased, in circumstances in which abortion access is restricted. This has been demonstrated repeatedly in rigorous studies of causal effects and by many different research teams studying many different contexts. This evidence is also consistent with the broader evidence base on the causal effects of access to health care on health care utilization.

29. Regarding research on laws making abortion illegal altogether, there are rigorous

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[22] *Id.* at 2-3.
[23] *Id.* at 4.
[24] *Id.* at 9.

studies documenting the causal effects of changes that took place in the United States in the 1970s. These studies typically use a difference-in-differences research design to evaluate the effects of altered access, quantifying how outcomes changed over time in states where abortion became legal relative to how outcomes changed over the same period of time in states where the prevailing law did not change. Several research teams have used some version of this methodology using a variety of data sets and a variety of statistical refinements, repeatedly finding that abortion legalization has significant effects on childbearing.[25]

30. These effects are clear in the figure below, which is reproduced from the Economists' Amicus Brief in *Dobbs v. Jackson Women's Health* based on results from Levine et al. 1999.[26] It shows the difference in birth rates between a set of "repeal states" (i.e., five states where abortion became legal in 1970) and the rest of the United States from 1965 to 1980.[27] In so doing, it captures two state-level "natural experiments" on the effects of abortion legalization on birth rates. The first occurred in 1970, when abortion became legal in the five repeal states, while it remained illegal in the rest of the United States, which can thus be used for comparison to evaluate this first natural experiment. The second natural experiment occurred in 1973, when *Roe v. Wade* made abortion legal in the rest of the United States, while it remained legal in the repeal states, which can thus be used for comparison.

31. Reading the evidence in the figure from the earliest years to the latest years depicted, it first demonstrates that the difference in birth rates between the repeal states and the

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[25] *See, e.g.*, Phillip B. Levine et al., *Roe v Wade and American Fertility*, 89 AM. J. OF PUB. HEALTH 199 (1999); Jonathan Gruber et al., *Abortion Legalization and Child Living Circumstances: Who Is the 'Marginal Child'?*, 114 Q. J. OF ECON. 263 (1999); Caitlin Knowles Myers, *The Power of Abortion Policy: Reexamining the Effects of Young Women's Access to Reproductive Control*, 125 J. OF POL. ECON. 2178 (2017); Kelly Jones, *At a Crossroads: The Impact of Abortion Access on Future Economic Outcomes* (AM. U. WORKING PAPER, 2021), https://doi.org/10.17606/0Q51-0R11.

[26] Levine et al, *supra* note 25.

[27] Consistent with the difference-in-differences design, the 1970 difference is subtracted from the difference observed in all years. As such, the figure shows differences in all years relative to the difference observed in 1970.

rest of the United States was fairly constant from 1965 until 1970, a time period in which abortion was not legal in any state. Then, after abortion became legal in the repeal states, birth rates fell substantially in those states relative to other states, such that their birth rate was 5 percent lower from 1971 to 1973 (relative to the 1970 difference). As such, the first natural experiment indicates that making abortion legal in the repeal states reduced birth rates in those states. Alternatively, the evidence can be thought of as indicating that birth rates are increased if abortion is illegal.

32. Then after *Roe v. Wade* made abortion legal in the other states, their birth rates fell relative to the repeal states, such that repeal-states-minus-other-states difference that emerged from 1971-1973 had vanished by 1976. As such, the second natural experiment indicates that making abortion legal in the rest of the United States decreased birth rates in those states. Alternatively, the evidence can be thought of as indicating that birth rates are increased if abortion is illegal.

Figure 1: Trends in birth rates in repeal states relative to the rest of the country

33. Studies examining abortion legalization during this era also show that the effects of childbearing are especially large for non-white women.[28] Moreover, researchers have repeatedly documented significant effects on childbearing among teenagers and women in their early twenties.[29] Estimates from Myers indicate that legalizing abortion and allowing young women to obtain an abortion without parental consent reduced teen motherhood by 34 percent and reduced teen marriage by 20 percent. [30]

34. The aforementioned studies documenting causal effects of state bans on abortion are also consistent with rigorous research documenting the causal effects of changes in access that have taken place more recently.

35. The most exhaustive research on recent changes in access to abortion providers comes from studies that have investigated Texas's regulatory environment, in which a 2013 law (Texas HB-2) caused nearly half the clinics in the state to stop providing abortions. This scenario offered an ideal setting for research because of the sheer magnitude of the "natural experiment," and the large population that it affected, both of which are helpful in obtaining more precise estimates of the effects of abortion regulations on abortion rates and associated outcomes, such as delays in ability to obtain care and associated births. It can be thought of as a natural experiment because it was similar to a clinical trial in the sense that a "treatment" (abortion clinic access) was altered by an external force (i.e., a regulation leading to certain clinics being unable to provide abortions). Studying Texas HB-2 has allowed researchers to learn about the effects of diminished abortion clinic access by comparing counties experiencing

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[28] *See, e.g.*, Levine et al., *supra* note 25; Joshua D. Angrist & William N. Evans, *Schooling and Labor Market Consequences of the 1970 State Abortion Reforms*, NAT'L BUREAU OF ECON. RESEARCH WORKING PAPER 18 (1996); Gruber et al., *supra* note 25; Myers, *supra* note 25; Jones, *supra* note 25.
[29] *See, e.g.*, Levine, *supra* note 25; Angrist & Evans, *supra* note 28; Myers, *supra* note 25; Jones, *supra* note 25.
[30] Myers, *supra* note 25.

large changes in abortion clinic access to counties experiencing smaller (or no) changes in clinic access.

36. Researchers frequently measure access to abortion clinics based on the distance to the nearest clinic. Naturally, the nearest abortion clinic may not be able to serve all women because it may not provide all types of abortions and may not have the capacity to meet demand. Moreover, some women seeking abortion may opt for more distant clinics because of other considerations, e.g., proximity to family, access via public transportation, etc. As such, distance to the nearest clinic is thought of by researchers as a "proxy variable" that provides a useful measure of abortion clinic access.

37. Three separate research teams have rigorously evaluated how the clinic closures precipitated by Texas HB-2 affected travel distance and how these impacts on travel distance affected abortion rates: Quast, Gonzalez, and Ziemba (2017),[31] Fischer, Royer, and White (2018),[32] and Lindo et al. (2020).[33] The credibility of this body of research is bolstered by the fact that each of the independent research teams chose to use similar (though not identical) research methods and similar (though not identical) data—and all reached very similar conclusions.[34] All three determined that increases in distance to the nearest clinic caused by regulation-induced clinic closures caused significant reductions in abortions obtained from medical professionals.

38. A graphic summarizing the estimated effects of regulation-induced increases in

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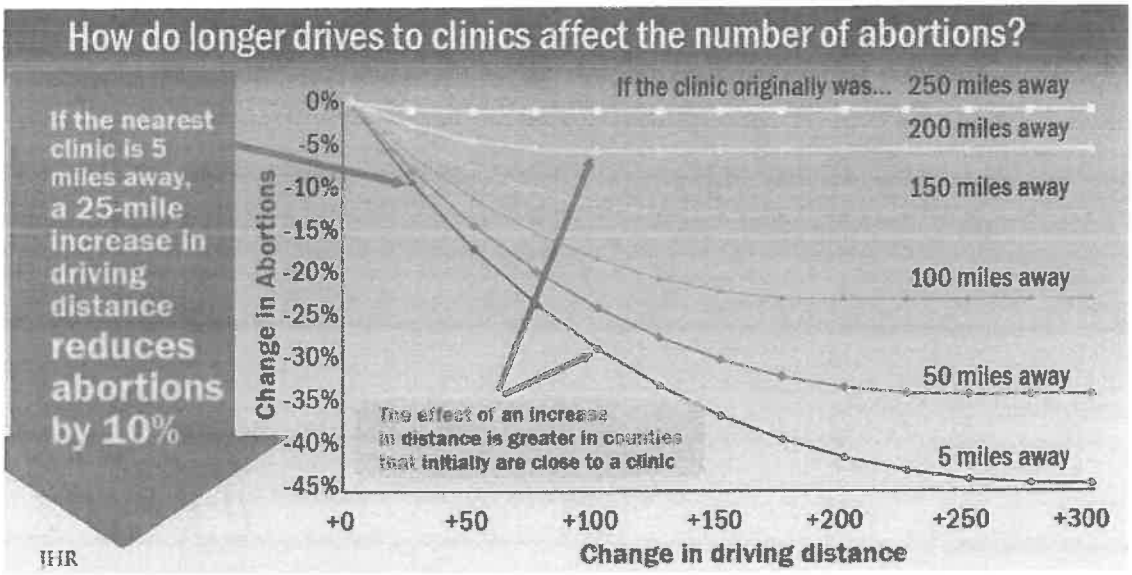
[31] *See generally* Troy Quast et al., *Abortion Facility Closings and Abortion Rates in Texas*, 54 J. HEALTH CARE ORG., PROVISION, FIN. 1 (2017)..

[32] *See generally* Stefanie Fischer et al., *The Impacts of Reduced Access to Abortion and Family Planning Services on Abortions, Births, and Contraceptive Purchases*, 167 J. PUB. ECON. 43 (2018).

[33] Jason Lindo et al., *How Far is Too Far? New Evidence on Abortion Clinic Closures, Access and Abortions*, 55 J. HUM. RESOURCES 1137 (2020).

[34] Some of the differences include the way that clinic operations were measured, the years of data that were used to measure outcomes, and the specific statistical adjustments that were made for changes in county characteristics over time.

travel distance from Lindo et al. is provided below. It demonstrates that increases in travel distance have significant effects for women initially living within 200 miles of a clinic, and that the largest effect is on those initially nearest to clinics for whom a 25-mile increase (one-way) reduces abortion rates by ten percent.



39. The estimated effects reported in Fischer et al. also indicate substantial effects of travel distance on abortion rates, though their estimates are not directly comparable to those reported in Lindo et al.[35] The estimated effects in Quast et al. are smaller in magnitude than

[35] Fischer et al. report estimates of the effects of having versus not having a clinic within 25, 50, and 100 miles in Panel A of Table 3. The estimates reported in their table, when correctly converted into percent effects, find abortions fall by 15.2–19.7 percent for counties that move from having a clinic within 25 miles to none within 25 miles; by 15.4–20.1 percent for counties that move from having a clinic within 50 miles to none within 50 miles; and by 19.8–30.2 percent for counties that move from having a clinic within 100 miles to none within 100 miles. However, the percent estimates described in the text of Fischer et al. are incorrect, because the authors have calculated percent effects from their model coefficients by multiplying them by 100, when percent effects from a Poisson regression model should be calculated by exponentiating the coefficient, subtracting one, and then multiplying by 100. That is, they calculate percent effects as $100 \times coefficient$ when they should be calculated as $100 \times (e^{coefficient} - 1)$. I also note Fischer et al. describe their preferred estimates as derived from a model that controls for regional trends. Given that increases in distance are almost certainly affected by regional trends, it is inappropriate to control for such trends. In particular, controlling for such trends makes it such that the distance variables will not fully capture the effects of increases in distance. For this reason, their "preferred estimates" are likely to understate the true effects of increases in travel distance on abortion access. Fischer, *supra* note 32 at 51.

those in Lindo et al., but Quast et al. notably foreshadowed that subsequent studies using better data would find larger effects.[36]

40. Researchers have also documented significant effects of travel distance using a similar research design applied to evaluate the effects of a regulation in Wisconsin, which caused two out of the five clinics in the state to close and increased the distance that individuals had to travel to reach their nearest clinic. Venator and Fletcher[37] found that a one-hundred-mile increase in distance to the nearest clinic led to 31 percent fewer abortions and three percent more births.[38]

41. Moreover, research has also documented significant effects of travel distance using a similar research design to evaluate changes in travel distances occurring across all U.S. counties from 2009 to 2020 resulting from changes in provider operations. In particular, Myers[39] finds that a hundred-mile increase in distance to the nearest clinic reduces abortions by 20.5 percent and increases births by 2.4 percent.

42. Combined with the aforementioned research on abortion legalization in the 1970s, this research highlights that abortion rates and births are significantly affected by abortion restrictions, even in circumstances where some individuals are able to access out-of-state abortion providers. Based on Guttmacher Institute analyses of their regulatory environments,

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[36] In Quast et al.'s own words, in their study "[a] facility was classified as operating in a given year if its license was effective for at least 6 months. Using license dates may overstate the period during which a facility was in operation. Specifically, a clinic may have ceased performing abortions even though its license was in effect. *These instances would attenuate the regression coefficients we estimate*" (emphasis added). Quast, *supra* note 31 at 2 . Lindo et al. and Fischer et al. both used improved data on clinic operations that account for the fact that many clinics were forced to close before their licenses were set to expire.

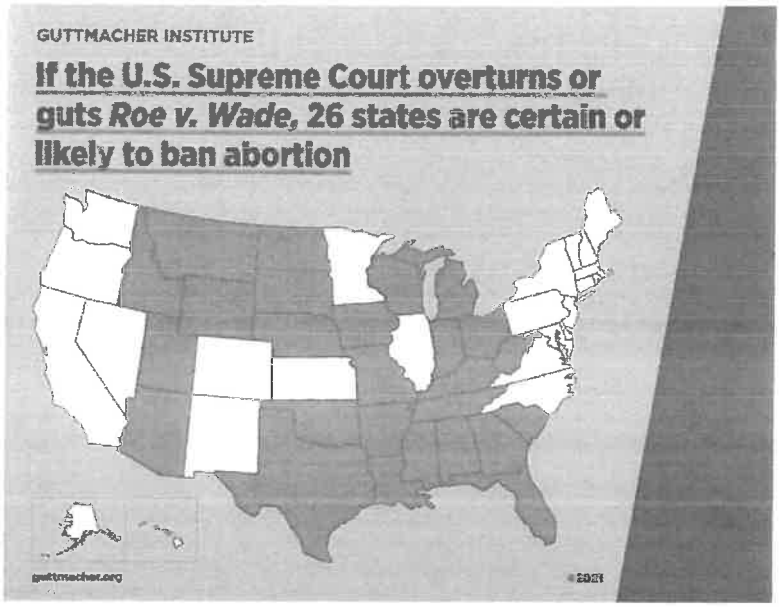
[37] Joanna Venator & Jason Fletcher, *Undue Burden Beyond Texas: An Analysis of Abortion Clinic Closures, Births, and Abortions in Wisconsin*, 278 J. POLICY ANALYSIS AND MANAGEMENT (2021).

[38] A smaller percent effect on births than on abortions is expected due to the fact that a relatively large share of pregnancies are carried to birth versus ending via an abortion. For example, suppose there are 100 pregnancies, 20 of which will end in abortion and 80 will end with childbirth. If restricted abortion access causes a 20 percent reduction in abortions, that would correspond to four fewer abortions (20 percent times 20 abortions initially) and four additional births. Four additional births represents an 5 percent increase (4 more births divided by 80 births initially times 100 percent).

[39] Caitlin Myers, *Measuring the Burden: The Effect of Travel Distance on Abortions and Births,* IZA Working Paper 14556 (2021).

most of the states around Kentucky have restrictive abortion policies in place[40] and most of the states around Kentucky are likely to ban or restrict access to abortion in the near future.[41] This information is depicted in the maps below.

[40] *Abortion after Roe: New Comprehensive Map Tracks Abortion Policies and Statistics for each State*, June 9, 2022, GUTTMACHER INST., https://www.guttmacher.org/news-release/2022/abortion-after-roe-new-comprehensive-map-tracks-abortion-policies-and-statistics.
[41] *Id* at 1.



43. With regard to the possibility of interstate travel, I would emphasize that travel is generally considered a barrier to healthcare access and that the burden of travel can delay or prevent healthcare access. In a systematic review of peer-reviewed studies, Sayed et al.[42] identified 61 studies on transportation barriers to accessing primary care or chronic disease care in the United States. They concluded that "transportation barriers are an important barrier to healthcare access, particularly for those with lower incomes or the under/uninsured."[43]

44. Noting that much of the work on this topic may be more correlational in nature rather than documenting causal effects, certain works are noteworthy for their rigorous methodology.

45. In a study of the causal effects of the distance between a person's home and the

[42] Samina T. Syed et al., *Traveling Towards Disease: Transportation Barriers to Health Care Access*, 38 J. CMTY. HEALTH 976 (2013).
[43] *Id.*

nearest hospital, Buchmeuller, Jacobson, and Wold[44] found that increases in distance resulting from hospital closures shifted care away from emergency rooms and outpatient clinics to doctors' offices, leading to significant increases in deaths from unintentional injuries and heart attacks.

46. In a study of children with varying degrees of hospital access, Currie and Reagan found that distance to a hospital has significant effects on medical checkups for Black children.[45] They found that each additional mile a child must travel to access medical care reduced the probability of that child having had a checkup in the past year by three percentage points (from a mean baseline of 74 percent).[46]

47. In another study examining the role of travel distance, Kelly, Lindo, and Packham found that the Colorado Family Planning Initiative, which expanded women's access to intrauterine devices (IUDs) and contraceptive implants at family planning clinics, significantly reduced teen birth rates, but only for those living close to a clinic.[47] Specifically, the effects were concentrated among women living in zip codes within 7 miles of a clinic, with only some modest evidence of the program having effects on women living 7 to 12 miles from a clinic, and no evidence of effects on women living more than 12 miles from a clinic.[48] The study's results highlight that expanding access to readily available health care can increase health benefits for individuals, but shows how those benefits may be limited by travel distance.[49]

48. Recent research conducted by the Kentucky Department for Public Health

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[44] Thomas C. Buchmueller et al., *How Far to the Hospital?: The Effect of Hospital Closures on Access to Care*, 25 J. HEALTH ECON. 740, 759 (2006).
[45] Janet Currie & Patricia B. Reagan, *Distance to Hospital and Children's Use of Preventative Care: Is Being Closer Better, and for Whom?*, 41 ECON. INQUIRY 378, 378–79 (2003).
[46] *Id.*
[47] Andrea M. Kelly et al., *The Power of the IUD: Effects of Expanding Access to Contraception Through Title X Clinics*, 192 J. PUBLIC ECON. 1, 2 (2020).
[48] *Id.* at 27.
[49] *Id.*

indicates that a lack of transportation and low incomes are also important barriers to health care access in Kentucky. Specifically, the Kentucky Department for Public Health's Kentucky Primary Care Office administered The Primary Care Needs Survey from December 2020 to January 2021 as a part of its research process for producing its 2021 Needs Assessment Report.[50] In so doing, they collected information from 261 individuals from state and local partners, health departments, and other groups involved in health care.[51]As described in the 2021 Needs Assessment Report: "[d]ata collected include[d] perceptions about primary care needs, populations facing health disparities, health care access, and workforce concerns in Kentucky."[52]

49. In response to a question about the greatest barriers that patients face when accessing care in the communities where they work, respondents reported transportation far more than anything else: 64 percent of respondents reported that transportation was among the greatest barriers for patients accessing care[53]. The second most cited barrier was that patients could not afford care (31 percent).[54]

50. The same survey also highlights that low-income populations and racial/ethnic minorities face the greatest health disparities. Respondents reported that low income populations face health disparities more than any other group (28 percent).[55] The second most cited group was racial/ethnic minorities (21 percent).[56] As such, these statistics indicate that the same groups of individuals who will be disproportionately affected by Kentucky's abortion ban are already disadvantaged in terms of health disparities.

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[50] 2021 NEEDS ASSESSMENT REPORT, Kentucky Department for Public Health, Kentucky Primary Care Office (2021).
[51] *Id.* at 14.
[52] *Id.* at 6.
[53] *Id.* at 19.
[54] *Id.*
[55] *Id.* at 18.
[56] *Id.*

V. Economic (and other) effects of restricted access to abortion and childbearing

51. In discussing the effects of Kentucky's ban, I consider three categories of individuals who would obtain abortions in Kentucky in the absence of a ban: (i) those who still have an abortion, travel farther to do so out of state, and do not experience any delays; (ii) those who still have an abortion, travel farther to do so out of state, and experience delays as a result; and (iii) those who are prevented from having an abortion.[57]

52. The first group (those who still have an abortion around the same time they would otherwise, but they travel farther to do so) will suffer economic harm because of financial costs associated with additional travel, including transportation costs, and possibly including lodging costs, lost wages, and/or childcare costs.

53. The second group (those who still have an abortion, but they travel farther and are delayed in so doing) will suffer the same economic harms associated with travel in addition to harms associated with delaying their abortions. Delays can limit the set of clinics that can serve an individual, the types of procedures available to them, and the costs of the procedure. A one-week delay can, for example, increase the cost of obtaining an abortion by up to $502.[58]

54. Health risks also tend to be higher for women obtaining later abortions. Though the major-complication rate (where major complications are defined as those requiring hospital admission, surgery, or blood transfusion) remains low throughout pregnancy, it increases over time. It is 0.16 percent for first-trimester aspiration abortion, and 0.41 percent for second-

[57] Note that other individuals seeking abortion may be affected as well. In particular, individuals who would typically have abortions in other states may face limited appointment availability as a result of increased pressure due to a lack of service provision in Kentucky.

[58] Jason M. Lindo & Mayra Pineda-Torres, *New Evidence on the Effects of Mandatory Waiting Periods for Abortion,* 80 J. HEALTH ECONOMICS (2021).

trimester or later procedures.[59]

55. Regarding both the first and second groups of individuals, survey data also indicate that delays and additional travel requirements impose financial *and emotional burdens*. For example, among abortion patients surveyed in Texas, 31 percent of women reported that the state's 24-hour mandatory waiting period and two-trip requirement had a negative effect on their emotional well-being.[60] Among abortion patients in Utah, 62 percent reported that the 72-hour waiting period and two-trip requirement affected them negatively in some way, including 47 percent reporting lost wages from needing to take extra time off work, 30 percent reporting increased transportation costs, 27 percent reporting lost wages by family or friends, and 33 percent reporting that they had to disclose their abortion to someone who they would not have told if there were no waiting period.[61] Women in Louisiana reported similar challenges associated with travel, highlighting concerns about missing work, encountering traffic or bad weather, thinking their car would not be able to make the trip, and having to lie about their absence to their parents or partners.[62] Some of these women also reported that challenges making arrangements, combined with the mandatory delay and two-trip requirement, resulted in them being unable to obtain their preferred abortion procedure and/or made them worry that they would have to continue an unwanted pregnancy. Notably, these surveys do not include individuals who were unable to obtain abortions and, thus, likely understate the burdens imposed on individuals interested in abortion.

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[59] Ushma D. Upadhyay et al., *Incidence of Emergency Department Visits and Complications After Abortion*, 125 OBSTETRICS & GYNECOLOGY 175, 181 (2015).
[60] TEX. POLICY EVALUATION PROJECT, IMPACT OF ABORTION RESTRICTIONS IN TEXAS 1 (2014).
[61] Jessica N. Sanders et al., *The Longest Wait: Examining the Impact of Utah's 72-Hour Waiting Period for Abortion*, 26 WOMEN HEALTH ISSUES 483, 485 (2016).
[62] Erin Carroll & Kari White, *Abortion patients' preferences for care and experiences accessing services in Louisiana*, 2 CONTRACEPTION: X 1, 3 (2020) [hereinafter, Carroll, *Abortion patients' preferences*].

56. The third group of individuals (those who are prevented from having an abortion altogether) are likely to be the most disadvantaged. Being prevented from having an abortion for these individuals can mean having a child earlier than they otherwise would and or having more children than they otherwise would. Each of these consequences of impaired abortion access involve substantial costs.

57. It is also well established that continuing a pregnancy to childbirth poses greater short-term health risks than having an abortion.[63] Thus, individuals who are prevented from having an abortion due to restricted access also face greater health risks as a result.

58. In terms of the overall economic costs of having a child, some are obvious because they involve monetary expenditures, and some are less obvious because they involve lost earnings or impaired earnings potential due to the fact that having a child is time consuming.

59. Expenditures associated with pregnancy and delivery can include medical costs for some individuals (e.g., those who are uninsured who are disproportionately likely to be people of color) that can be substantial. Indeed, the risk of catastrophic health expenditures (spending greater than 10% of family income in a year) is significantly higher for those giving birth than it is for similar non-pregnant reproductive-aged individuals.[64] And this risk is particularly high for low-income individuals giving birth.[65] Other costs besides direct medical expenses include transportation costs and childcare costs associated with medical care and other activities typically done in advance of having a child (such as parenting classes and shopping). These costs—particularly at a time when a new member is being added to the household—can

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[63] Elizabeth G. Raymond & David A. Grimes, *The Comparative Safety of Legal Induced Abortion and Childbirth in the United States*, 119 OBSTETRICS & GYNECOLOGY 215, 216–17 (2012).
[64] Jessica Peterson et. al.,*Catastrophic Health Expenditures With Pregnancy and Delivery in the United States,* 139 OBSTETRICS & GYNECOLOGY 509-520 (2022).
[65] *Id.*

push individuals further into poverty.

60. Child-*rearing* expenses include housing, food, transportation, clothing, health care, childcare, and many miscellaneous expenses. Lino et al.[66] estimates that average household expenditures on a first child exceed $11,000 annually for middle-income married-couple families, for low-income married-couple families, and for low-income single-parent families.[67] Lino et al. estimates that average household expenditures on a *second* child total over $170,000 from the birth of that child through age 17 for low-income households.[68] Moreover, these expenditures are extremely similar for single-parent households and married-couple households, even though single-parent households have one fewer potential earner and much lower income on average. As a result, child-rearing expenses consume a greater percentage of income for single-parent families and, thus, an additional child for such a family will have an especially large impact on the proportion of income that remains available to meet the needs of other family members. As I described above, a substantial share of individuals seeking abortion are already in poverty. Adding a child to such a household without substantially expanding their resources will thrust such an individual deeper into poverty. Given the highly persistent nature of economic circumstances, this is likely to affect the individual for their entire life.

61. In addition, pregnancy, childbearing, and childrearing are extremely time consuming. This can make it difficult for people to continue in school, to make other investments in their careers, to work as many hours as they would like, to maintain jobs, to look for work, etc.

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[66] Mark Lino et al. "Expenditures on Children by Families, 2015" UNITED STATES DEPARTMENT OF AGRICULTURE, CENTER FOR NUTRITION POLICY AND PROMOTION MISCELLANEOUS REPORT NO. 1528-2015 (2017).
[67] Lino et al. define the middle-income group as those in the middle tercile of the before-tax income distribution, or those with income between $59,200 and $107,400. The low-income group is comprised of households in the lowest tercile of this income distribution, or those with income less than $59,200. All numbers referenced in this paragraph are in 2015 dollars. Prices have risen substantially since 2015 due to inflation, especially childcare and housing prices.
[68] *Id.*

Thus, the time costs associated with pregnancy, childbearing, and childrearing can affect an individual's financial resources in the short run and in the long run. As a result of these costs and childrearing costs, having a child earlier than planned or having a child that was not planned can cause irreparable economic harm by putting an individual on an entirely different life course in which they have more limited resources (possibly on top of having another child to provide for).

62. Many carefully designed studies have quantified such effects. Miller et al[69] used data from the Turnaway Study, which collected data on individuals seeking abortions at 30 abortion providers across the United States from 2008 to 2010, including individuals who were (i) no more than two weeks below the gestational age limit (who were thus able to have an abortion at that clinic), and (ii) individuals who were up to three weeks past the gestational age limit of the clinic (who were thus *un*able to obtain an abortion at that clinic). Notably, all of those in category (i) obtained an abortion and thus did not carry the pregnancy to childbirth, whereas 68 percent of those in category (ii) carried the pregnancy through childbirth. The other 32 percent of these individuals either obtained an abortion elsewhere or had a miscarriage.

63. Several studies have reported how outcomes differed across these two groups of individuals in the Turnaway Study.[70] Miller et al combines data from the Turnaway Study with Experian credit report data from 2006 to 2016. These data made it possible for Miller et al. to use cutting-edge methods for estimating causal effects, which account for systematic differences

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[69] Sarah Miller et. al., *Economic Consequences of Being Denied an Abortion*, Am. ECON. J.: ECON. POL'Y, (Forthcoming) 1, 5 (2021).

[70] BM. Antonia Biggs, Ushma D. Upadhyay, Charles E. McCulloch & Diana G. Foster, *Women's Mental Health and Well-being 5 Years After Receiving or Being Denied an Abortion: A Prospective, Longitudinal Cohort Study*, 74 JAMA PSYCHIATRY 169, 169-178 (2017); Diana Greene Foster, M. Antonia Biggs, Lauren Ralph, Caitlin Gerdts, Sarah Roberts & M. Maria Glymour, *Socioeconomic Outcomes of Women Who Receive and Women Who Are Denied Wanted Abortions in the United States*, 108 AM. J. OF PUB. HEALTH 407, 407-413 (2018); Diana G. Foster, Sarah E. Raifman, Jessica D. Gipson, Corinne H. Rocca & M. Antonia Biggs, *Effects of Carrying an Unwanted Pregnancy to Term on Women's Existing Children*, 205 THE J. OF PEDIATRICS 183, 183-89 (2019).

between the two groups (besides their ability to obtain an abortion) that might cause their outcomes to differ. Moreover, Miller et al. present strong evidence that these methods are appropriate for the population and outcomes considered.

64. Miller et al. use multiple approaches to estimating the causal effect of being denied an abortion (i.e., being unable to obtain an abortion at the clinic at which they presented for care). They focus primarily on difference-in-differences estimates, which capture how outcomes change over time for denied individuals relative to those who were able to obtain abortions at the clinic they presented to.[71] The economic outcomes are measured using Experian credit report data from 2006 to 2016.[72] To measure financial distress, they examine: the amount of debt sent to a third-party collection agency; delinquent debt (i.e., debt that is 30 or more days past due on open accounts); the number of public records from courts, including bankruptcies, tax liens, and evictions; and whether the individual has a credit score at or below 600, which is considered "subprime" and thus reflects a poor credit history.[73] They use standard methodology to combine these data into a summary measure of financial distress, which they refer to as a "financial distress index."[74]

65. As I noted above, Miller et al. compare outcomes for the two groups over time. To account for the fact that individuals in the data set presented at clinics at different times between 2008 and 2010, they harmonize the data by defining an "event time" for each person.[75] For those continuing their pregnancy and delivering a child, event time is 0 during the month of

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[71] In the paper, they refer to "event study" estimates as well as "difference-in-differences" estimates. The estimates they describe as "event-study estimates" are a *set* of difference-in-differences estimates capturing the effects over time. The estimates they describe type of difference-in-differences capture the average effect across the five years individuals are observed after a childbirth would have been expected if they carried the pregnancy to term. Miller, *supra* note 69.
[72] *Id.* at 14.
[73] *Id.* at 17.
[74] *Id.* at 18.
[75] *Id.* at 13.

birth and the following 11 months, it is 1 in the following 12 months, it is 2 in the subsequent 12 months, etc.[76] And similarly, event time -1 represents the 12 months leading up to the delivery, -2 represents the preceding 12 months, etc. For those who do not deliver a child, event time is 0 in the month they would have been expected to have a child assuming a 40-week pregnancy and in the following 11 months, and the other event times are constructed in reference to this time period.[77] Given this construction, event time -1 corresponds to the year in which these individuals presented at the clinic intending to have an abortion.[78]

66. Miller et al.'s analyses demonstrate that the two groups of individuals had very similar levels of financial distress up to the year in which they presented at the clinic intending to have an abortion (event times -3, -2, and -1).[79] The outcomes then diverge the following year, with an increase in financial distress for those who were denied abortions at the clinic.[80] This difference in financial distress continues to be evident for the entire five years for which the individuals are observed. A graphic from the paper showing this pattern of estimates is presented below.[81]

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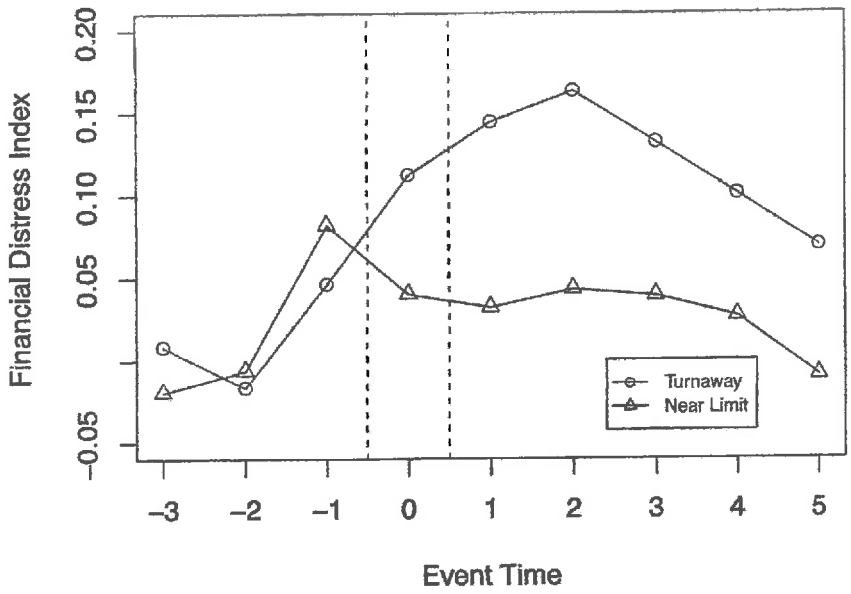
[76] *Id.* at 14.
[77] *Id.*
[78] *See id.*
[79] *Id.* at 19.
[80] *Id.*
[81] *Id.* at 40.



67. Miller et al.'s difference-in-differences estimates similarly indicate that the abortion denial significantly increased the financial distress index. Analyses of the subcategories contributing to this index indicate that the abortion denial increased past-due debt by an average of $1,750 and increased the number of negative public records on credit reports (such as bankruptcy, evictions, and tax liens) by an average of 0.07 over five years.[82] Miller et al. also examine measures of credit access and self-sufficiency. They report that their estimates for these outcomes suggest that being denied an abortion reduces credit access and self-sufficiency, particularly in the years immediately following the denial, but note that these estimates are not always statistically significant.[83]

68. To put the magnitude of these estimated effects into context, Miller et al. compare their findings to rigorous studies of causal effects. In so doing, they report that: "[t]he impact of being denied an abortion on collections is as large as the effect of being evicted (Humphries et

[82] *Id.* at 4.
[83] *Id.* at 4-5.

al., 2019) and the impact on unpaid bills is several times larger than the effect of losing health insurance (Argys et al., 2019). Although imprecisely estimated in our setting, it appears that denying a woman an abortion reduces her credit score by more than the impact of a health shock resulting in a hospitalization (Dobkin et al., 2018) or being exposed to high levels of flooding following Hurricane Harvey (Billings, Gallagher and Ricketts, 2019)."[84]

69. Miller et al. also report estimates based on a regression discontinuity design. This approach to estimating causal inference leverages the idea that the "treatment group" (those denied an abortion because they were past the clinic's gestational age limit) and the comparison group (those *not* denied an abortion because they were not past the clinic's gestational age limit) are more and more similar as one restricts attention to individuals who are closer and closer to the gestational age limit.[85] In the limiting case, this involves a comparison of individuals presenting at the clinic on the last day on which the clinic can provide an abortion versus individuals who arrive one day later and past its gestational age limit.[86] The results from the regression-discontinuity-design analyses are consistent with the results from the difference-in-differences analyses.[87]

70. Miller et al. also use a difference-in-differences approach to analyze survey data collected as a part of the Turnaway Study.[88] The nature of these data is such that they cannot examine outcomes before individuals presented for abortion care. As such, they cannot construct difference-in-differences estimates that compare how outcomes change following this encounter relative to *before* the encounter. Instead, they examine changes in survey outcomes over time

[84] *Id.* at 36.
[85] *Id.* at 28.
[86] *Id.*
[87] *Id.* at 31.
[88] *Id.*

from an initial survey, approximately one week after individuals presented for care. The results from these analyses indicate that the abortion denial led to increases in the number of children in the household without any increase in personal or household income. Indeed, the estimates indicate that the abortion denial reduced monthly personal income by 6.7 percent and reduced household income by 5.5 percent.[89] Though these estimates are not statistically significant, they are consistent with a broader literature comprised of rigorous studies of causal effects that has repeatedly documented large and persistent reductions in earnings caused by childbearing.[90]

71. To measure financial strain, it is necessary to account for needs as well as income. For this reason, researchers typically construct a measure of household's resources *relative to its needs* using federal poverty levels produced by the Department of Health and Human Services, which vary based on the number of adults and children in the household. Miller et al. find that being denied an abortion reduced income relative to the federal poverty level by 28 percentage points on average.[91] This estimate was statistically significant.[92]

72. The Miller et al. study is an extremely impressive work, made possible by combining a unique data set on individuals seeking abortion with credit report data, which provides important insights into the effects of access to abortion. Even though common-sense logic implies that impaired access to abortion will strain resources, this study sheds light on how that happens and by how much. Nonetheless, it is important to keep in mind that the sample of individuals is not representative of all individuals seeking abortion because of its focus on individuals presenting at abortion clinics near its gestational age limit who have prior credit

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[89] *Id.* at 90.
[90] *Id.* at 2 (citing Aguero and Marks, 2008; Adda, Dustmann and Stevens, 2017; Kleven, Landais and Sogaard, 2019; Sandler and Szembrot, 2019).
[91] *Id.* at 32.
[92] *Id.* at 75.

histories. Indeed, Miller et al. excludes young individuals from their sample (i.e., those who would have been less than 20 years old at childbirth if the pregnancy was carried to term) "to avoid including [in] the selected group of individuals who were teenagers in the pre-period and thus less likely to appear in credit report data."[93] Naturally, this means that this work does not capture the effects on individuals without credit histories when they were seeking an abortion and individuals who were still in high school. Notably, 11.9 percent of U.S. women obtaining abortions in 2014 were under age 20.[94]

73. Another strand of literature has examined how state policy changes altering abortion access affected the socioeconomic outcomes for the general population of women in the state, which can be measured using very large data sets. These studies typically use a difference-in-differences research design to evaluate the effects of altered access, focusing on access measured when individuals were teenagers. Specifically, studies in this literature examine how outcomes change across *cohorts* of women in response to changes in abortion access across cohorts. To do so, they evaluate how outcomes changed across birth cohorts living in areas where abortion access was altered during the time under consideration (such that different birth cohorts had different access to abortion) relative to how outcomes changed across the same birth cohorts in other areas where abortion access was not altered during the time under consideration (such that different birth cohorts had the same access to abortion). The power of this approach is that it accounts for changes in outcomes that are expected to occur across cohorts in the absence of changes in abortion access, based on the how outcomes change across cohorts in places where abortion access does not change.

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[93] *Id.* at 25.

[94] Jenna Jerman, Rachel K. Jones & Tsuyoshi Onda, *Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008*, GUTTMACHER INSTITUTE, N.Y., 6 (2016).

74. Three separate research teams have used this general approach to examine the effects of state abortion bans (in place in the 1960s and early 1970s) on women's educational and economic outcomes: Angrist and Evans,[95] Lindo et al.,[96] and Jones.[97] All three of these studies find that a state ban on abortion has deleterious effects on residents' education and economic outcomes. Specifically, all three studies find that legal access to abortion in an individual's state of residence during youth significantly increases educational attainment among Black women.[98] Angrist and Evans and Jones also find that it increases subsequent employment among Black women.[99] Jones additionally finds that it increases the probability that an individual ends up in a professional career or managerial role, it increases individual earnings and family income, and it decreases poverty and receipt of public assistance for Black women.[100] The credibility of this body of research generally is bolstered by the fact that each of the independent research teams chose to use similar (though not identical) research methods, similar (though not identical) data, and all reached very similar conclusions.[101]

75. Recent work has also used this type of methodology to investigate the effects of more-recent state laws that have altered access to abortion. In particular, Jones and Pineda-Torres[102] examine the effects of impaired access to abortion during youth resulting from state targeted-regulations on abortion providers ("TRAP Laws"), implemented by twenty-one states

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[95] Joshua D. Angrist & William N. Evans, *Schooling and Labor Market Consequences of the 1970 State Abortion Reforms*, 18 RSCH. IN LAB. ECON. 75, 75-113 (2000).
[96] Jason M. Lindo et al., *Legal Access to Reproductive Control Technology, Women's Education, and Earnings Approaching Retirement*, 110 AEA PAPERS & PROC. 231, 234 (2020).
[97] Kelly Jones, *At a Crossroads: The Impact of Abortion Access on Future Economic Outcomes*, (Am. Univ., Working Paper No. 2021-02, 2021), https://doi.org/10.17606/0Q51-0R11.
[98] *Id.*
[99] *Id.*
[100] Jones, *supra* note 97.
[101] *See* Angrist & Evans, *supra* note 95; Lindo et al., *supra* note 96; Jones, *supra* note 97.
[102] Kelly M. Jones & Mayra Pineda-Torres, *TRAP'd Teens: Impacts of Abortion Provider Regulations on Fertility & Education*, (IZA INSTITUTE OF LABOR ECONOMICS DP NO. 14837, 2021).

since 1994. They find that impaired access resulting from these laws caused a significant increase in births and reduction in educational attainment among Black women.[103] There is also evidence that these laws cause increases in violence against women.[104] This finding is consistent with prior work showing that the participants in the Turnaways study who went on to give birth after being denied an abortion were more likely to be a victim of physical violence from the man involved in the pregnancy 24-30 months after seeking an abortion (relative to other groups of women) despite being less likely to be a victim of such violence 6 months prior to seeking an abortion.[105] This finding suggests that continuing an unwanted pregnancy can put an individual at greater risk by tethering them to a potential abuser. It is also consistent with surveys in which respondents indicate "having an abusive partner" as a reason for seeking an abortion.[106]

76. An important limitation of this strand of literature is that it abstracts from the effects on individuals whose access to abortion is actually affected by the state policy changes. Studies taking this approach typically find stronger evidence that abortion legalization affects socioeconomic outcomes for Black women than for white women. This does not imply that being unable to have an abortion is more detrimental to Black women's socioeconomic outcomes. Instead, it reflects the fact that legalization had a larger impact on abortion access for Black women, as I discussed in the prior section. As such, it would be inappropriate to conclude from this strand of the literature that the socioeconomic outcomes of white women prevented from obtaining abortions are not meaningfully unaffected.

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[103] *Id.*

[104] Caterina Muratori, *The Impact of Abortion Access on Violence Against Women*, (Department of Economics, University of Reading, Working Paper No. 2021-03, 2021).

[105] Sarah C. M. Roberts, M. Antonia Biggs, Karuna S. Chibber *et al., Risk of violence from the man involved in the pregnancy after receiving or being denied an abortion*, 12 BMC MED. 144 (2014).

[106] *See, e.g.*, Karuna S. Chibber, M Antonia Biggs, Sarah C. M. Roberts & Diana Greene Foster, *The role of intimate partners in women's reasons for seeking abortion*, WOMENS HEALTH ISSUES, (2014); M Antonia Biggs, H. Gould & Diana Greene Foster, *Understanding why women seek abortions in the US*, 13 BMC WOMEN'S HEALTH 29 (2013).

77. In any case, this research is broadly consistent with other strands of the economics literature. As I noted above, rigorous studies of causal effects have repeatedly documented large and persistent reductions in earnings caused by childbearing. Rigorous studies of causal effects have also shown that educational attainment is increased when teenagers delay childbearing.[107]

78. There is also a sizeable literature on the causal effects of state laws altering access to contraception. While these laws are obviously different from laws altering abortion access and we would not expect them to have the exact same effects, they are similar in that they have the potential to affect childbearing which may in turn affect other outcomes. In any case, several studies have examined the effects of state-level restrictions on contraceptive access for unmarried, younger women who were teenagers in the 1960s and 1970s using difference-in-differences research designs. As described in Lindo and Bailey's review of these studies, legal access to the pill "had broad effects on women's and men's education, career investments, and lifetime wage earnings. (Goldin and Katz 2002, Bailey 2006, Guldi 2008, Hock 2008, Bailey 2009, Bailey et al. 2011, Guldi 2011). Affected women and men were more likely to enroll in and complete college. Women were more likely to work for pay, invest in on-the-job training, and pursue nontraditional professional occupations. And as women aged, these investments paid off. Thirty percent of the convergence of the gender wage gap in the 1990s can be attributed to these changing investments made possible by the Pill (Bailey, Hershbein, and Miller 2012)."[108]

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[107] *See, e.g.*, Daniel Klepinger, Shelly Lundberg & Robert Plotnick, *How Does Adolescent Fertility Affect the Human Capital and Wages of Young Women?*, 34 THE J. OF HUM. RES. 421, 421–48 (1999); Jason M. Fletcher & Barbara L. Wolfe, *Education and Labor Market Consequences of Teenage Childbearing Evidence Using the Timing of Pregnancy Outcomes and Community Fixed Effects*, 44 J. OF HUM. RES. 303, 303–25 (2009); Adam Ashcraft, Ivan Fernandez-Val, & Kevin Lang, *The Consequences of Teenage Childbearing: Consistent Estimates When Abortion Makes Miscarriage Non-random*, 123 THE ECON. J. 875, 875–905 (2013); Lisa Schulkind & Danielle H. Sandler, *The Timing of Teenage Births: Estimating the Effect on High School Graduation and Later-Life Outcomes*, 56 DEMOGRAPHY 345, 345–65 (2019).

[108] Martha J. Bailey & Jason M. Lindo, *Access and Use of Contraception and its Effects on Women's Outcomes in the U.S.*, (Nat'l Bureau of Econ. Rsch., Working Paper No. 23465, 2017), http://people.tamu.edu/~jlindo/ReproductiveTechnologyNBERwp.pdf.

As such, the studies in this literature provide strong support for the argument that policies altering childbearing can have substantial educational and economic impacts.

79. To put the estimated effects on educational attainment into context, it is important to keep in mind that the benefits of education are likely to go well beyond wages. As Oreopolous and Salvanes write in their summary of the literature on the non-pecuniary benefits of education: "Gains from school occur from being in a job that not only pays more but also offers more opportunities for self-accomplishment, social interaction, and independence. Schooling generates occupational prestige. It reduces the chance of ending up on welfare or unemployed. It improves success in the labor market and the marriage market. Better decision-making skills learned in school also lead to better health, happier marriages, and more successful children. School also lead to better health, happier marriages, and more successful children. Schooling also encourages patience and long-term thinking. Teen fertility, criminal activity, and other risky behaviors decrease with it. Schooling promotes trust and civic participation. It teaches students how to enjoy a good book and manage money. And for many, schooling has consumption value too."[109] As I discuss in the next section, an individual's education has important implications for their children as well.

VI. Expected Effects on the children of individuals facing restricted access to abortion

80. As noted above, a majority of those obtaining abortions have previously given birth. In addition, many individuals will go on to have children later in their lives after they have had an abortion. As such, the lives of these children will also be altered by the impacts on their parents described above.

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[109] Philip Oreopoulos & Kjell G. Salvanes, *Priceless: The Nonpecuniary Benefits of Schooling*, 25 J. OF ECON. PERSP. 159, 159-84 (2011).

81. Economists highlight that parents can invest in children's outcomes through monetary expenditures and time inputs.[110] As I described in the prior section, restricted abortion access and increased childbearing strain both of these resources. As a result, affected children suffer due to their parents' more limited resources.

82. A large literature with many high-quality studies of causal effects documents how more-limited economic resources has detrimental effects on children. Studies of this type have repeatedly found significant effects of economic resources on test scores,[111] which are strongly correlated with subsequent socioeconomic outcomes, and behavioral and emotional issues.[112] Researchers have also examined the effects on children's outcomes in adulthood. Along these lines, a recent review of the causal effects of expanding resources available to poor households on economic outcomes concludes that there are "large benefits…to children over the long run."[113] Recently released works have provided even more evidence of these benefits, in studies that measure causal effects on test scores, educational attainment, and adult earnings[114] in addition to measures of earnings capacity, economic self-sufficiency, neighborhood quality, and

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[110] Douglas Almond, Janet Currie & Valentina Duque, *Childhood Circumstances and Adult Outcomes: Act II*, 56 J. OF ECON. LITERATURE 1360, 1360-1446 (2018).

[111] *See, e.g.*, Sandra E. Black, Paul J. Devereux, Katrine V. Løken & Kjell G. Salvanes, *Care or Cash? The Effect of Child Care Subsidies on Student Performance*, 96 REV. OF ECON. AND STAT. 824, 824–37 (2014); Gordon B. Dahl & Lance Lochner, *The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit*, 102 AM. ECON. REV. 1927, 1927–56 (2012); Kevin Milligan, & Mark Stabile, *Do Child Tax Benefits Affect the Well-Being of Children? Evidence from Canadian Child Benefit Expansions*, 3 AM. ECON. J.: ECON. POL'Y 175, 175–205 (2011).

[112] *See, e.g.*, Randall Akee, William Copeland, E. Jane Costello, & Emilia Simeonova, *How Does Household Income Affect Child Personality Traits and Behaviors?*, 108 AM. ECON. REV. 775, 775-827 (2018); Kevin Milligan & Mark Stabile, *Do Child Tax Benefits Affect the Well-Being of Children? Evidence from Canadian Child Benefit Expansions*, 3 AM. ECON. J.: ECON. POL'Y 175, 175–205 (2011).

[113] Anna Aizer, Hilary Hoynes & Adriana Lleras-Muney, *Children and the US Social Safety Net: Balancing Disincentives for Adults and Benefits for Children*, 36 J. OF ECON. PERSPS. 149, 149-74 (2022).

[114] Andrew Barr, Jonathan Eggleston & Alexander A. Smith, *Investing in Infants: The Lasting Effects of Cash Transfers to New Families*, THE Q. J. OF ECON., (2022).

life expectancy.[115] These works are consistent with a much broader literature documenting strong correlations between parents' incomes and their children's adult incomes.[116]

83. Researchers have also shown that an individuals' economic circumstances *prior to birth* significantly affects health at birth,[117] which appears to translate into impacts on infant mortality, educational attainment, and adult earnings.[118] This evidence thus provides further evidence that restricted abortion access will have deleterious effects on children (i.e., children born after a parent has been prevented from obtaining an abortion and has impaired economic outcomes as a result).

84. Another strand of literature examines the causal effects of parental education. Researchers studying this topic have found that parental education significantly affects children's health at birth,[119] cognitive skills and behavioral problems in childhood,[120] the probability that children repeat a grade,[121] and involvement in crime.[122] This is relevant, given that restricted abortion access and childbearing reduces educational attainment.

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[115] Martha J. Bailey, Hilary Hoynes, Maya Rossin-Slater & Reed Walker, *Is the Social Safety Net a Long-Term Investment? Large-Scale Evidence from the Food Stamps Program*, (Nat'l Bureau of Econ. Rsch., Working Paper No. 26942, 2020).

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I have reviewed the facts contained in this affidavit and they are true and correct to the best of my knowledge.

Jason Lindo

Jason Lindo, Ph.D.

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn, and acknowledged before me by Jason Lindo this 20th day of June, 2022.

Notary Public TRACY MARTIN-WARD

My commission expires: Oct 6, 2025

Kentucky NP ID: KYNP 35554

Attachment 1

JASON M. LINDO

jlindo@tamu.edu | (979) 446-3969 | http://people.tamu.edu/~jlindo/
Texas A&M University | Department of Economics | College Station, TX 77843-4228

CURRENT POSITIONS

Professor of Economics, Texas A&M University, 2018–Present
Ray. A. Rothrock '77 Senior Fellow, Texas A&M University, 2019–Present
Distinguished Visiting Scholar, Montana State University, 2020 – Present
Fellow, Global Labor Organization, 2017–Present
Research Associate, National Bureau of Economic Research (NBER), 2014–Present
Research Fellow, Institute for the Study of Labor (IZA), 2010–Present
Co-Editor, *Economic Inquiry*, 2016–Present
Associate Editor, *Journal of Population Economics*, 2016–Present

PREVIOUS POSITIONS

Visiting Research Scholar, Montana State University, 2016 – 2020
Associate Professor of Economics, Texas A&M University, 2013–2018
Visiting Principal Fellow, University of Wollongong, 2012–2014
Faculty Research Fellow, National Bureau of Economic Research (NBER), 2011– 2014
Assistant Professor of Economics, University of Oregon, 2009–2013

EDUCATION

Ph.D., Economics, University of California, Davis, 2009
M.A., Economics, University of California, Davis, 2005
B.A., Economics, University of California, Davis, 2004

RESEARCH AND TEACHING INTERESTS

Applied microeconomics, health, issues concerning youth, econometrics

PUBLICATIONS

Refereed Publications

Lindo, Jason M., Isaac D. Swensen, and Glen R. Waddell. **"Effects of Violent Media Content: Evidence from the Rise of the UFC,"** *Journal of Health Economics*, forthcoming.

Lindo, Jason M. Ⓡ Mayra Pineda-Torres. **"New Evidence on The Effects of Mandatory Delay Laws for Abortion,"** *Journal of Health Economics*, 80, 2021.

Kelly, Andrea, Jason M. Lindo, and Analisa Packham. **"The Power of the IUD: Effects of Expanding Access to Contraception Through Title X Clinics,"** *Journal of Public Economics*, 192, 2020.

Lindo, Jason M., Caitlin Myers, Andrea Schlosser, and Scott Cunningham. **"How Far is Too Far? New Evidence on Abortion Clinic Closures, Access, and Abortions,"** *The Journal of Human Resources*, 55(4), pp. 1137-1160, 2020.

Lindo, Jason M. **"Weighing the Evidence on the Likely Effects of Expanding Access to LARCs on Poverty,"** *American Journal of Obstetrics & Gynecology*, 222(4), pp. S864-S865, 2020.

Lindo, Jason M., Dave Marcotte, Isaac D. Swensen, and Jane Palmer. **"Any Press is Good Press? The Unanticipated Effects of Title IX Investigations on University Outcomes,"** *Economics of Education Review*, 73, 2019.

Lindo, Jason M., Jessamyn Schaller, and Benjamin Hansen. **"Caution! Men Not At Work: Gender Specific Labor Market Conditions and Child Maltreatment,"** *Journal of Public Economics*, 163, pp. 77-98, 2018.

Lindo, Jason M. and María Padilla-Romo. **"Kingpin Approaches to Fighting Crime and Violence: Evidence from Mexico's Drug War,"** *Journal of Health Economics*, 58, pp. 253-268, 2018.

Bondurant, Samuel, Jason M. Lindo, and Isaac D. Swensen. **"Substance Abuse Treatment Centers and Local Crime,"** *Journal of Urban Economics*, 104, pp. 124-133, 2018.

Lindo, Jason M., Peter Siminski, and Isaac D. Swensen. **"College Party Culture and Sexual Assault,"** *American Economic Journal: Applied Economics*, 10(1), pp. 236-65, 2018.

Lindo, Jason M. and Analisa Packham. **"How Much Can Expanding Access to Long-Acting Reversible Contraceptives Reduce Teen Birth Rates?"** *American Economic Journal: Economic Policy*, 9(3), pp. 348-76, 2017.

Barreca, Alan I., Jason M. Lindo, and Glen R. Waddell. **"Heaping-Induced Bias in Regression-Discontinuity Designs,"** *Economic Inquiry*, 54(1), pp. 268–293, 2016.

Lindo, Jason M., Peter Siminski, and Oleg Yerokhin. **"Breaking the Link Between Legal Access to Alcohol and Motor Vehicle Accidents: Evidence from New South Wales,"** *Health Economics*, 25(7), pp. 908–928, 2015.

Lindo, Jason M. **"Aggregation and the Estimated Effects of Economic Conditions on Health,"** *Journal of Health Economics*, 40, pp. 83–96, 2015.

Lindo, Jason M. and Charles Stoecker. **"Drawn into Violence: Evidence on 'What Makes a Criminal' from the Vietnam Draft Lotteries,"** *Economic Inquiry*, 52(1), pp.239–258, 2014.

Lindo, Jason M., Isaac D. Swensen, and Glen R. Waddell. **"Alcohol and Student Performance: Estimating the Effect of Legal Access,"** *Journal of Health Economics*, 32(1), pp. 22–32, 2013.

Lindo, Jason M., Isaac D. Swensen, and Glen R. Waddell. **"Are Big-Time Sports a Threat to Student Achievement?"** *American Economic Journal: Applied Economics*, 4(4), pp. 254–274, 2012.

Cuffe, Harold, William T. Harbaugh, Jason M. Lindo, Giancarlo Musto, and Glen R. Waddell. **"Evidence on the Efficacy of School-Based Incentives for Healthy Living,"** *Economics of Education Review*, 31(6), pp. 1028–1036, 2012.

Barreca, Alan I., Melanie Guldi, Jason M. Lindo, and Glen R. Waddell. **"Saving Babies? Revisiting the Effect of Very Low Birth Weight Classification,"** *The Quarterly Journal of Economics*, 126(4), pp. 2117–2123, 2011.

Lindo, Jason M. **"Parental Job Loss and Infant Health,"** *Journal of Health Economics*, 30(5), pp. 869–879, 2011.

Lindo, Jason M., Nicholas J. Sanders, and Philip Oreopoulos. **"Ability, Gender, and Performance Standards: Evidence from Academic Probation,"** *American Economic Journal: Applied Economics*, 2(2), pp. 95–117, 2010.

Lindo, Jason M. **"Are Children Really Inferior Goods? Evidence from Displacement-driven Income Shocks,"** *The Journal of Human Resources*, 45(2), pp. 301-327, 2010.

Book Chapters and Other Academic Publications

Bullinger, Lindsey Rose, Jason M. Lindo, and Jessamyn Schaller. **"Economic Determinants of Child Maltreatment,"** in Alain Marciano and Giovanni Battista Ramello, eds., *Encyclopedia of Law and Economics, Second Edition*, 2021.

Lindo, Jason M., Mayra Pineda-Torres, David Pritchard, and Hedieh Tajali. **"Legal Access to Reproductive Control Technology, Women's Education, and Earnings Approaching Retirement,"** *AEA Papers and Proceedings*, 110, pp. 231-235, 2020.

Bailey, Martha J. and Jason M. Lindo. **"Access and Use of Contraceptives and Its Effects on Women's Outcomes in the United States,"** in Susan L. Averett, Laura M. Argys, and Saul D. Hoffman, ed., *Oxford Handbook on the Economics of Women*, New York: Oxford University Press, 2018.

Lindo, Jason M. and Jessamyn Schaller. **"Economic Determinants of Child Maltreatment,"** in Jürgen Backhaus, ed., *Encyclopedia of Law and Economics*, pp. 1–10, NY: Springer, 2014.

Lindo, Jason M. and Peter Siminski. **"Should The Legal Age For Buying Alcohol Be Raised to 21 Years?"**

Medical Journal of Australia, 201(10), p. 571, 2014.

Page, Marianne, Ann Huff Stevens, and Jason M. Lindo. **"Parental Income Shocks and Outcomes of Disadvantaged Youth in the United States,"** in Jonathan Gruber, ed., *An Economic Perspective on the Problems of Disadvantaged Youth*, pp. 213–235, Chicago: University of Chicago Press, 2009.

Policy Briefs and Editorials

Jason M. Lindo, Krishna Regmi, and Isaac D. Swensen, **"Layoffs, Divorce, and the Effect of Unemployment Insurance"** *EconoFact*, October 21, 2020.

Andrea M. Kelly, Jason M. Lindo, and Analisa Packham, **"Could Expanding Access to Contraception Improve Economic Outcomes?"** *EconoFact*, August 20, 2019. Republished by *PBS News Hour*, August 29, 2019.

Jason M. Lindo, Peter Siminski, and Isaac D. Swensen, **"Big game days in college football linked with sexual assault,"** *The Conversation*, September 20, 2018.

Jason M. Lindo, Dave E. Marcotte, Jane E. Palmer, and Isaac D. Swensen, **"Any Press is Good Press? Study Finds Federal Investigations of University Responses to Sexual Misconduct Cases May Help Enrollments,"** *ProMarket: The Blog of the Stigler Center at the University of Chicago Booth School of Business*, August 16, 2018.

Jason M. Lindo, Peter Siminski, and Isaac D. Swensen, **"Football, College Party Culture, and Sexual Assault,"** *EconoFact*, July 19, 2018.

Bondurant, Samuel, Jason M. Lindo, and Isaac D. Swensen, **"Access to Substance Abuse Treatment, Drug Overdose Deaths, and Crime,"** *EconoFact*, March 16, 2018.

Lindo, Jason M. **"Defunding Planned Parenthood Didn't Reduce the Number of Abortions in Texas,"** *Dallas Morning News*, July 6, 2017.

Lindo, Jason M. and Analisa Packham. **"Lowering the Teenage Birthrate,"** *New York Times*, July 13, 2015.

Lindo, Jason M. and Analisa Packham. **"Long-acting Reversible Contraceptives Reduced Teen Pregnancies, Especially in Higher-Poverty Areas,"** *UC Davis Center for Poverty Research Policy Brief*, 4(3), 2015.

Lindo, Jason M. and María Padilla-Romo. **"Kingpin Approaches to Fighting Crime and Violence: Evidence from Mexico's Drug War,"** *Cato Research Briefs in Economic Policy*, No. 31, July 2015.

Lindo, Jason M. **"Gender-Specific Measures of Economic Conditions and Child Abuse,"** *Center for the Study of Women in Society Research Matters*, Spring 2013.

Working Papers

Swensen, Isaac Ⓡ Jason M. Lindo Ⓡ Krishna Regmi. **"Stable Income, Stable Family,"** NBER Working Paper No. 26228.

Articles In Progress

Berthelon, Matias, Diana Kruger, Carolina Molinare León, and Jason M. Lindo. **"Emergency Contraception Effects on High School Drop Out."**

Jason M. Lindo, Mayra Pineda-Torres, David Pritchard, and Hedieh Tajali. **"Effects of Access to Reproduction Control Technology on Women's Retirement-Age Outcomes."**

DiNardi, Michael, Melanie Guldi, and Jason M. Lindo. **"Reassessing the Effects of Emergency Contraception on Population-Level Outcomes."**

Lindo, Jason M. and Emily Zheng. **"Better Economy, More Babies? New Evidence on the Effects of Economic Conditions on Childbearing."**

Pritchard, David, Jonathan Tillinghast, and Jason M. Lindo. **"How Do Students Respond to Historical Course Grade Information? Evidence from a Randomized Control Trial."**

GRANTS AND COMPETITIVE EXTERNAL FELLOWSHIPS

Laura and John Arnold Foundation, PI, 2018

National Institute for Health Care Management Research and Education Foundation, PI, 2017
Turnovsky Fellowship, 2017
US Department of Justice Research Grant, Co-PI with Isaac D. Swensen, Award 2014-R2-CX-0015, 2014

INTERNAL GRANTS

Texas Census Research Data Center Proposal Development Grant, 2014
Texas Census Research Data Center Proposal Development Grant, 2013
Center for the Study of Women in Society Faculty Research Grant, University of Oregon, 2012
Junior Professorship Development Grant, University of Oregon, College of Arts and Sciences, 2011
Junior Professorship Development Grant, University of Oregon, College of Arts and Sciences, 2010
Junior Faculty Award, University of Oregon, 2009
Graduate Student Travel Award, UC Davis, 2007

HONORS AND AWARDS

Best Supporter of Graduate Students, Texas A&M Department of Economics, 2020
Outstanding Graduate Instructor of the Year, Texas A&M Department of Economics, 2018
Best Graduate Advisor, Texas A&M Department of Economics, 2017
Outstanding Graduate Instructor of the Year, Texas A&M Department of Economics, 2013
Emerging Scholar, Center for Poverty Research, University of Kentucky, 2011
Phi Beta Kappa, 2005

PRESENTATIONS

2021–2022 (including planned): Elon University, University of Connecticut, Essen Health Conference (keynote)

2020–2021: Centre for Health Economics–Monash Business School, Monash University Department of Economics, Association for Mentoring & Inclusion in Economics (AMIE)

2019–2020: Miami University, Indiana University, San Diego State University, Society of Family Planning Annual Meeting, American Economic Association Annual Meetings, University of Michigan, University of South Florida

2018–2019: 3rd IZA Workshop on Gender and Family Economics, University of California at Davis, Brookings Conference on Improving Opportunity Through Family Planning

2017–2018: University of Kansas, Stata Texas Empirical Micro Conference, Sam Houston State University, Ifo Institute Workshop on Economic Uncertainty and the Family, 18th Annual Southeastern Health Economics Study Group, University of Tennessee, Texas A&M University (Agricultural Economics), Birdsall House Conference on Women (Center for Global Development), Texas A&M University (School of Public Health), University of South Carolina, Columbia University, American University, NBER Health Economics Program Meetings, University of California at Davis, Montana State University Initiative for Regulation and Applied Economic Analysis Conference on "Economics of Reproductive Health Policies"

2016–2017: Montana State University, University of Colorado at Boulder, West Virginia University, Fall Meetings of the Association for Public Policy Analysis & Management, Annual Meetings of the American Economics Association, University of California at Merced, Southern Methodist University, Victoria University of Wellington

2015–2016: Texas Tech University, Southern Economic Association Annual Meetings, National Institute for Health Care Management Webinar on Adolescent Health and Teen Pregnancy, NBER Children's Program Meetings, China Meeting of the Econometric Society

2014–2015: Monash University, University of North Carolina at Charlotte, Baylor University, SOLE/EALE World Meetings

2013–2014: Tulane University, University of Texas at Dallas, Dalhousie University, University of Houston and Rice University, University of Wollongong, Victoria University of Wellington, Massey University

2012–2013: Labour Econometrics Workshop (Discussant), University of Wollongong, Texas A&M University, University of Illinois at Urbana-Champaign, Louisiana State University, Michigan State University, University of California at Merced, 5th Annual Meeting on the Economics of Risky Behaviors, NBER Children's Program Meetings

2011–2012: The Australian National University, University of Wollongong, Australian Labour Econometrics Workshop, University of Notre Dame, Case Western Reserve University, University of Maryland, University of Oregon, SOLE Annual Meetings, IZA/SOLE Transatlantic Meeting of Labor Economists

2010–2011: NBER Children's Program Meetings, SOLE Annual Meetings, Public Policy and the Economics of the Family Conference at Mount Holyoke College, University of Kentucky, Portland State University

2009–2010: Western Economic Association Annual Meetings, American Economic Association Annual Meetings (Discussant), SOLE/EALE World Meetings, The Economics of Family Policy Conference at the University of Bergen, NBER Children's Program Meetings, Economic Demography Workshop, University of British Columbia

2008–2009: NBER Higher Education Program Meetings, RAND Corporation, University of Colorado at Denver, Stanford Institute for Economic Policy Research, University of Oregon, The College of William and Mary, Sonoma State University, California State University at Sacramento, All UC Labor Conference, UC Davis Economy, Justice, and Society Retreat, Western Economic Association Annual Meetings

ADDITIONAL PROFESSIONAL ACTIVITIES

Co-Director of Mentoring: Association for Mentoring & Inclusion in Economics (AMIE), 2020–Present

Referee: *American Economic Journal: Applied Economics, American Economic Journal: Economic Policy, American Economic Review, American Journal of Health Economics, American Journal of Obstetrics and Gynecology, The B.E. Journal of Economic Analysis and Policy, Children and Youth Services Review, Contemporary Economic Policy, Contraception, Demography, Eastern Economic Journal, The Economic Journal, Economics of Education Review, Economic Inquiry, Education Evaluation and Policy Analysis, Empirical Economics, Health Economics, Industrial and Labor Relations Review, Institute for Women's Policy Research, Journal of Applied Econometrics, Journal of Family and Economic Issues, Journal of Health Economics, The Journal of Human Resources, Journal of The Japanese and International Economies, Journal of Labor Economics, Journal of Labor Research, Journal of Law Economics and Organization, Journal of Policy Analysis and Management, Journal of Political Economy, Journal of Population Economics, Journal of Public Economics, Journal of the Royal Statistical Society, Labour Economics, Proceedings of the National Academy of Sciences, Public Choice, The Quarterly Journal of Economics, Review of Economics of The Household, Review of Economic Studies, The Southern Economic Journal, Women's Health Issues*

Reviewer: National Science Foundation, APPAM Program Committee

Co-organizer or Committee Member: Montana State University Initiative for Regulation and Applied Economic Analysis Conference on "Economics of Unemployment Insurance" 2020 (Co-organizer), Texas Health Economics Workshop 2019 (Co-organizer), Montana State University Initiative for Regulation and Applied Economic Analysis Conference on "Economics of Reproductive Health Policies" 2018 (Co-organizer), Annual Health Economics Conference 2018 (Committee Member), Economic Demography Workshop 2018 (Committee Member), Midwestern Econometrics Group Meetings 2017 ((Committee Member), Economic Demography Workshop 2017 (Committee Member), 15th Annual Labour Econometrics Workshop 2012 (Committee Member)

Advisory Board Member: Michigan Contraceptive Access, Research, and Evaluation Study, 2018–Present

TEACHING EXPERIENCE

Texas A&M University

PhD-level Applied Microeconometrics (Fall 13, Fall 14, Spr 15, Spr 16, Spr 17, Spr 18, Spr 19, Spr 21)

Program Evaluation (Fall 14, Spr 14, Spr 16, Spr 17, Spr 18, Fall 19, Fall 20, Spr 21)

Shanghai University of Finance and Economics

Short Course in Econometric Methods for Causal Inference (Summer 16)

University of Oregon

Graduate Labor Economics (Winter 10, Fall 10, Spr 13)
Topics in Labor Economics (Fall 09, Winter 10, Fall 10, Spr 11, Fall 11, Spr 12, Spr 13)
Economics of Gender (Spr 11, Fall 11, Spr 12)

PHD STUDENT ADVISING (including graduation year and initial placement)

Texas A&M University

Jiee Zhong (co-chair, in progress)
Wesley Miller (in progress)
Andre'nay Harris (in progress)
Mayra Pineda Torres (chair, 2022), Georgia Tech University
David Pritchard (chair, 2022), U.S. Census Bureau
Hedieh Tajali (2022), University of Edinburgh
Andrea Kelly (chair, 2020), Grinnell College
Manuel Hoffman (2020), University of Heidelberg
Joshua Witter (2020), Correlation Research Division at the Church of Jesus Christ of Latter-Day Saints
Roberto Mosquera (co-chair, 2019), Universidad de las Américas
Brittany Street (2019), University of Missouri
John Anders (2019), US Census Bureau
Ruichao Si (2019), Nankai University
Samuel Bondurant (chair, 2018) US Census Bureau
Abigail Peralta (2018), Louisiana State University
Yongzhi Sun (2018), Southwestern University of Finance and Economics
María Padilla-Romo (chair, 2017), University of Tennessee
Emily Zheng (chair, 2017), Chinese University of Hong Kong - Shenzen
Jaegum Lim (2017), Korean National Assembly
Analisa Packham (chair, 2016), Miami University
Pierre Mouganie (2015), American University of Beirut
Jillian Carr (2015), Purdue University

University of Oregon

Kristian Holden (co-chair, 2014), American Institutes for Research (AIR)
Harold Cuffe (co-chair, 2013), Victoria University of Wellington
Isaac Swensen (co-chair, 2013), Montana State University
Brian Vander Naald (2012), University of Alaska, Juneau
Eric Duquette (2010), Economic Research Service, USDA

UNIVERSITY SERVICE

Faculty Senate, 2014-2016
Climate and Diversity Committee, 2015-2016
Academic Affairs Committee, 2014-2015

DEPARTMENTAL SERVICE

Texas A&M University

Econometrics Search Committee, 2019–2021
Economics Department Head Search Committee, 2019–2020
PERC Applied Microeconomics Workshop Co-organizer, 2019–2020

Organizer, Inaugural Public Labor and Industrial Organization (PLIO) Alumni Conference, 2019
Graduate Placement Co-director, 2013–2014, 2015-2016, 2017–2018, 2018–2019
Economics Undergraduate Research Opportunities Program Advisor, 2014–2015, 2018–2019
PhD Qualifier Exam Committee, 2015–present
Executive Committee, 2017–2018
Graduate Instruction Committee, 2017
Applied Microeconomics Search Committee Chair, 2014–2015
Applied Microeconomics Search Committee, 2013–2014

University of Oregon

McNair Scholar Advisor, 2012–2013
Graduate Placement Co-director, 2010–2012
Undergraduate Program Committee, 2009–2013
Seminar Committee, 2009–2010
Applied Microeconomics Brownbag Co-organizer, 2009–2010

SELECTED MEDIA APPEARANCES AND COVERAGE OF RESEARCH

Television:

"Rape on College Campuses," Not Safe with Nikki Glaser (Comedy Central), 7/12/16
"College Football and Campus Sexual Assault," Outside The Lines (ESPN), 2/19/16
"College Game Day's Disturbing Trend," Watching the Hawks (RT), 1/11/16

Radio/Podcast:

"Episode 33: Persistent Effects of Violent Media Content," Probable Causation, 8/4/20
"Persistent Effects of Violent Media Content," Vox's The Weeds, 5/26/20 (46th minute)
"The benefits of IUDs," Vox's The Weeds, 3/26/19 (37th minute)
"What happens when abortion providers shut down," Vox's The Weeds, 5/3/17 (50th minute)
"Is There a Connection Between Football Games and Risks For Rape?" Morning Edition (NPR), 2/17/16

Print:

"Roe v. Wade isn't just about women's rights. The economic implications..." 5/7/22, Business Insider
"Abortion Rollback Risks Erasing Decades of Economic Gains for U.S. Women," 5/4/22, Bloomberg
"Being Denied an Abortion Has Lasting Impacts on Health and Finances," 12/22/21, Scientific American
"Texas abortion ban is an early glimpse of what post-Roe America would look like for women," 5/18/21, CNN
"Where Abortion Access Would Decline if Roe v. Wade Were Overturned," 5/18/21, The New York Times
"What History Says Will Happen Next in Iran," 1/7/20, The Atlantic
"How To Reduce Abortion," 10/17/19, New York Times
"Why America's Abortion Rate Might Be Higher Than It Appears," 9/20/19, New York Times
"Tennessee's abortion wait period law faces court arguments," 9/20/19, Associated Press (reprinted worldwide)
"Mandatory waiting periods can make abortions nearly $1,000 more expensive," 9/10/19, MarketWatch
"Could expanding access to contraception improve economic outcomes?" 8/29/19, PBS News Hour
"Judge blocks new Arkansas abortion laws just before midnight," 7/24/19, Arkansas Democrat Gazette
"Where Roe v. Wade Has the Biggest Effect," 7/18/19, New York Times
"Former Gov. Hickenlooper unveils plan to expand access to women's contraception," 5/29/19, ABC News
"Colorado teen pregnancies dropped 20% near these clinics...funding is at risk," 3/22/19, Denver Post
"Better access to IUDs drove a 20% drop in teen pregnancy and abortions, report finds," 3/18/19, Daily Mail
"One Abortion Clinic Remains Open In Missouri, Following New State Requirements," 10/3/18, NPR

"Do campus rape investigations damage colleges? Actually, the opposite may be true," 7/25/18, Salon
"Study finds home football games elevate cases of sexual assault" 2/1/18, The Battalion.
"Abortion Clinics in Texas Haven't Reopened, and It's Causing Real Damage to Real Women," 5/3/17, Salon
"The IUD Revolution," 3/23/16, Vox
"Will Nabbing of 'El Chapo' Actually Help Mexico Win the War on Drugs?" 1/23/16, Newsweek
"El Chapo Shows The Folly of the War on Drugs," 1/21/16, Time
"Less Rape On Campus? Get Rid of College Football," 1/7/16, US News and World Report
"Report: Rape Rates at Big Football Colleges Spike on Game Day," 1/16, CBS News
"What We Can Learn From That Paper About Campus Rape on Game Days," 12/15, Slate
"The Disturbing Truth About College Football and Rape," 12/2015, The Washington Post
"College Football, Parties and Rape," 12/2015, Inside Higher Ed
"With Less Money, Colorado's Birth Control Program Feels the Pain," 8/2015, The Denver Post
"Does Child Abuse Rise During a Recession?" 5/2013, Freakonomics.com
"Ticket to Drink Opens Door to Health Woes," 3/2013, Illawara Mercury
"How Does Football Success Affect Student Performance?" 10/2012, The Chronicle of Higher Education
"Rethinking The Benefits of College Athletics," 3/2012, Forbes
"How Big-Time Sports Ate College Life," 1/2012, New York Times
"College Football Victories = Worse Grades?" 1/2011, Freakonomics.com
"Study Links Winning Football and Declining Grades," 1/2011, New York Times
"Football Team Wins, Grades Plummet," 12/2011, The Wall Street Journal
"Study: Male Students' Grades Drop When Football Teams Win," 12/2011, USA Today
"Winning Football, Declining Grades," 12/2011, Inside Higher Ed
"Study: As Ducks Win, Male Grades Drop," 12/2011, ESPN
"Guys' Grades Suffer When College Football Teams Win," 12/2011, The Atlantic
"Academic Probation Hits College Guys Harder," 5/2010, Science Daily

Updated May 9, 2022

EXHIBIT 7

Exhibit C

NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ (__)
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., on behalf of itself, its staff, and its patients; **ERNEST MARSHALL, M.D.**, on behalf of himself and his patients; and **PLANNED PARENTHOOD GREAT NORTHWEST, HAWAII, ALASKA, INDIANA, AND KENTUCKY, INC.**, on behalf of itself, its staff, and its patients

PLAINTIFFS

v.

DANIEL CAMERON, in his official capacity as Attorney General of the Commonwealth of Kentucky; **ERIC FRIEDLANDER**, in his official capacity as Secretary of Kentucky's Cabinet for Health and Family Services; **MICHAEL S. RODMAN**, in his official capacity as Executive Director of the Kentucky Board of Medical Licensure; and **THOMAS B. WINE**, in his official capacity as Commonwealth's Attorney for the 30th Judicial Circuit of Kentucky

DEFENDANTS

AFFIDAVIT OF PATIENT JANE DOE

1. I am 36 years old. I currently live in Louisville, Kentucky, with my preschool-aged son. My husband, the father of my son, recently passed away.
2. I am employed as a teacher. My day-to-day life involves teaching and coordinating child care with my parents and in-laws so that I can go to work and my son can be properly cared for while I am working outside the home.
3. Roughly a year after my husband died, I learned I was pregnant by taking a home pregnancy test. I suspected that I might be pregnant because my period was late. However, I did not think it was very likely that I was pregnant, because it had taken a long time for me to become pregnant with my son.
4. While I have the financial resources to support another child, the man who got me pregnant ("A."[1]) and I did not feel that it was the right time for us to have a child together. We agreed that it was best to terminate the pregnancy, and A. supported my decision. I also did not think A. would be able to be meaningfully involved in the child's life.
5. I further felt that having another child at this time would complicate life for my young son. I felt that it would deprive him of additional resources and would increase the logistical difficulties that I already face in arranging care for him.
6. With the help of a close friend, I found and contacted EMW Women's Surgical Center ("EMW"). I was able to arrange an appointment roughly one week later.
7. My pregnancy was terminated at five weeks and six days. I had a medication abortion, and I experienced no physical discomfort or pain associated with the treatment.
8. This was the first time that I have ever terminated a pregnancy.

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[1] For ease of reference and anonymity, I am using a pseudonymous first initial to refer to the man who got me pregnant.

9. When I scheduled my appointment with EMW, I felt immense relief that I could receive care so quickly.

10. After my abortion, I felt a mix of emotions, including relief. While I also felt and continue to feel sad, I am confident that I made the right choice for me and for my son.

11. When I looked around the clinic at EMW, I saw other women and imagined what they were going through. While that weighed on me, I was glad to know that they were able to also get access to care, and that I was not alone. I also felt fortunate knowing that I had the resources, support, and access to obtain the healthcare services that I needed.

12. While at EMW, I received excellent care and support from the doctors and staff. Every single person I interacted with was so kind; they made me feel safe and supported. I deeply appreciate all of the people who work at EMW. They are doing a really hard job and doing it very well.

13. I have always supported abortion rights, but going through the process of terminating my own pregnancy made me so much more aware of how critical those rights are. Seeking an abortion can be such a challenge for so many women, and the care they need is so vital.

14. I wish to remain anonymous because of the potential backlash that A. and I would face if people found out. I rely heavily on my parents in-law, and I fear they would be upset by this information and provide less help to my son. A. does not want information about my abortion to be public, and I fear that if my identity was released it would violate his privacy and interfere with his relationships as well.

Verification

I, Jane Doe[2], verify that the foregoing facts are true and accurate to the best of my knowledge information, and belief.

[redacted]

Jane Doe

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn and acknowledged before me by Jane Doe this 22nd day of June 2022.

NOTARY PUBLIC Tracy Martin-Wray

My commission expires: Oct. 6, 2025

Commission number: KYNP35654

[2] Jane Doe is a pseudonym.

Exhibit D

NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ (__)
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., on behalf of itself, its staff, and its patients; **ERNEST MARSHALL, M.D.**, on behalf of himself and his patients; and **PLANNED PARENTHOOD GREAT NORTHWEST, HAWAII, ALASKA, INDIANA, AND KENTUCKY, INC.**, on behalf of itself, its staff, and its patients

PLAINTIFFS

v.

AFFIDAVIT OF PATIENT JANE DOE 2

DANIEL CAMERON, in his official capacity as Attorney General of the Commonwealth of Kentucky; **ERIC FRIEDLANDER**, in his official capacity as Secretary of Kentucky's Cabinet for Health and Family Services; **MICHAEL S. RODMAN**, in his official capacity as Executive Director of the Kentucky Board of Medical Licensure; and **THOMAS B. WINE**, in his official capacity as Commonwealth's Attorney for the 30th Judicial Circuit of Kentucky

DEFENDANTS

1. I live in Louisville, Kentucky, with my two daughters. I am 36 years old.
2. I work as a substance abuse counselor at a local treatment center. I have had this job for about a year now. Before that, I worked in mental health therapy for about six years. I have to be at work by 4:45 am, which requires me to go to bed by 8:30 pm and wake up by 4:00 am. I make about $55,000 annually.
3. When my oldest daughter was young, I was a single parent for a few years. Her father was never involved. I met my youngest daughters' father, ("B."[1]), and he and I had my youngest daughter together. He has been involved in both of their lives since and has helped me take care of both of them. While we are no longer in a relationship, B. remains involved in my life. B. is the man who got me pregnant.
4. I found out I was pregnant because I missed a period and began to experience some symptoms of pregnancy, including fatigue and breast tenderness. I took a test and learned I was pregnant.
5. When I realized I was pregnant, I began considering what to do. Initially, I was very scared because I worried that there wouldn't be any access to abortion in Kentucky and I wouldn't have any options. I was relieved when I learned that it was available in Kentucky so that it was something I could at least consider. I remembered being a single parent to a newborn with my first daughter, and how difficult that was. B. has been a good father, but I didn't want to force him to deal with the added burden of another child. Being a single parent was hard enough when it was only one baby, but this time I realized I would be responsible for taking care of my two daughters on top of an infant. A baby would also require a lot of money, which would take away from my ability to support my

[1] For ease of reference and anonymity, I am using a pseudonymous first initial to refer to the man who got me pregnant.

two daughters.

6. I also knew I would have to get a new job if I had this baby. I do not think it would be possible or affordable to find childcare at 4:00 am every day that I went to work, and I do not have any family nearby who could help me.
7. I discussed the options for this pregnancy with B., and we both decided it would be best to terminate the pregnancy. We were both reluctant to make this decision. I never pictured myself getting an abortion, nor did he. But when we talked about all of the obstacles, we knew this was the right decision. He fully supported me in this choice.
8. I remembered that there was an abortion clinic in Louisville and looked it up online. I also had previously spoken with one friend who had gotten an abortion at EMW Women's Surgical Center ("EMW") a while back. I called EMW and they were helpful in explaining the process to me. EMW was also able to help me access financial aid, which reduced the cost by about 50%.
9. The staff at EMW was kind and therapeutic. I was about 8 weeks and 5 days pregnant on the day of my procedure. I had never terminated a pregnancy before and was glad I had the option to select a procedure instead of a medication abortion. After the procedure, I had some cramping and felt dizzy from the anesthesia, but otherwise physically felt fine.
10. I am still processing my grief over this circumstance, but I do not regret my choice. I know that it was right for me, for my two daughters, and for B.

Verification

Further affiant sayeth not. I have reviewed the facts contained in this affidavit and they are true and correct to the best of my knowledge.

[redacted]

Jane Doe[2]

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn and acknowledged before me by Jane Doe this 23rd day of June 2022.

Tracy Martin-Wray
TRACY MARTIN-WRAY
NOTARY PUBLIC

My commission expires: Oct 6, 2025

Commission number: KYNP35554

[2] Jane Doe is a pseudonym.

Exhibit E

NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ (__)
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., on behalf of itself, its staff, and its patients; **ERNEST MARSHALL, M.D.**, on behalf of himself and his patients; and **PLANNED PARENTHOOD GREAT NORTHWEST, HAWAII, ALASKA, INDIANA, AND KENTUCKY, INC.**, on behalf of itself, its staff, and its patients

PLAINTIFFS

v.

AFFIDAVIT OF PATIENT JANE DOE 3

DANIEL CAMERON, in his official capacity as Attorney General of the Commonwealth of Kentucky; **ERIC FRIEDLANDER**, in his official capacity as Secretary of Kentucky's Cabinet for Health and Family Services; **MICHAEL S. RODMAN**, in his official capacity as Executive Director of the Kentucky Board of Medical Licensure; and **THOMAS B. WINE**, in his official capacity as Commonwealth's Attorney for the 30th Judicial Circuit of Kentucky

DEFENDANTS

1. I live in a rural, tiny town in the far western part of the state. I previously lived in a different town in Kentucky, but I was forced to relocate after a major tornado destroyed my home in December 2021.
2. I currently reside with my parents in their home. I am a single mother; my two children, live with me and my parents.
3. I am 37 years old.
4. I work multiple jobs to support my children, and I receive no financial support from their fathers. I regularly have to wake up before 5 a.m. to leave for work, and just one of my jobs requires me to work between 50 and 60 hours each week.
5. I realized I was pregnant after an unusual period. My menstrual cycle is usually very regular, so it was a surprise to me when it started and then suddenly stopped. I took a home pregnancy test on Mother's Day, and it quickly came back positive.
6. The man who got me pregnant ("C."[1]) and I are not in a relationship. When I called him to let him know that I was pregnant, he suggested that we wait a few days and that I test again at that point. I did so, and I went to his house to take another test. The second test came back with the same result as the first one.
7. C. and I discussed the options available to us. Initially, I did not even consider having an abortion. However, neither one of us is in a position where we felt having a child together was possible, either financially, physically, or emotionally.
8. While my first pregnancy in my 20s was relatively easy, my second pregnancy five years ago took a major toll on my physical health. At age 32, it took me months to recover. I was worried that a third pregnancy at age 37 would be even harder on my body.

[1] For ease of reference and anonymity, I am using a pseudonymous first initial to refer to the man who got me pregnant.

9. I knew that I was of an "advanced maternal age," meaning that I would have been required to receive extra medical attention and care throughout the course of my pregnancy. Even setting aside the physical risks associated with having another child at my age, I knew that I would not be able to reliably make it to important doctor's appointments with my work schedule, especially because I only started my primary job a few months ago and my ability to take time off is still very limited.
10. Finally, I knew that I would face major financial hardships that would impact me and my two children if I had a newborn to care for. My work schedule would not allow me to care for a newborn. I am still working on rebuilding my life after my home was destroyed last December, and the costs associated with having another child would set me and my children back significantly on the path to rebuilding. And while my parents (who are in their 60s and 70s) are doing okay with me and my two children in the house, adding a newborn would be very hard on them. There are limited housing options available in my town right now due to the tornado damage, so it would be very difficult for me to find a place to move, even if I could afford one.
11. When we talked about the pregnancy and our options, C. brought up abortion. He is in his 40s and has no children of his own; he has never wanted to have children. I did not think he would want to be involved with raising a child, and he would not be able to contribute anything financially. I agreed with him that having an abortion was the best choice. He was very supportive of my decision. He offered to help pay for the treatment and to help me get the care I needed.
12. Where I live, no one ever talks about abortion. There is so much judgment in this part of the state; people are generally very religious and judgmental if anyone elects to terminate

a pregnancy. That extends to medical providers as well; I did not feel that I could even go to see my OBGYN to discuss my pregnancy because I knew that I would not be treated with respect. I want to submit this statement anonymously because if my parents or other people in my community found out I had an abortion, I worry that they would no longer give me the help I need.

13. Rather than rely on medical providers in my area, I traveled to Louisville, Kentucky to receive care at EMW Women's Surgical Center ("EMW"). I would have been able to get care the same week that I called to make an appointment, but I had to wait another week to accommodate my work schedule. I wanted to go as soon as possible because I wanted to get a medication abortion.

14. C. and I had to travel three and a half hours by car to Louisville. We left at 3 a.m. to make the drive. We did not tell anyone where we were really going. To this day, no one knows about the abortion except the two of us.

15. The care I received at EMW was exceptional. Every single person was caring, thoughtful, and non-judgmental. While C. wasn't able to come into the treatment room with me, they told me that I could text him about the information they were giving to me. I've never felt so safe and cared for during a medical procedure. For me, even though I was going through something I've never been through, it was the most calming medical procedure experience I've ever had. I thought everyone was so sweet. The staff told me there was a hotline I could call at any time with questions or worries. The counselor gave me her personal number and told me to call if I needed anything. When people heard I was from my hometown, they asked me about how I was holding up after the tornado, and I could tell they really cared.

16. I ended up terminating my pregnancy at about seven weeks. I had a medication abortion and I went to C.'s house two days later so that he could be with me and support me through the process. Several days later, I felt much better.

17. I love my children and am very grateful to have them. But being a single mother is hard; I have to be both the good parent and the tough parent, I have to be the sole provider, and—since I don't have a lot of family support—I don't have anyone to really rely on. With this pregnancy, I had to make an extremely tough decision. I don't know what I would have done without abortion access, but I do know that I couldn't be a good mother to a newborn right now.

18. I had never thought about this before my own experience, but I realize now that if we took the right to abortion away from women, they will resort to desperate things to get access. Many people in my community view abortion as evil, but what I feel they don't recognize is that it is necessary to make abortion accessible and safe. If it isn't available, there will be desperate people who find potentially dangerous ways to get the same result, and it will hurt people. What struck me most at EMW was seeing the young women in the waiting room. I cannot imagine being their age and facing this situation. They needed this care and I am so glad they found a safe place like EMW. And while there will always be people who see evil in the world, whether it's abortion or alcohol or cigarettes or something else entirely, people deserve the ability to make their own choices. I hope that by sharing my story, I can help people understand that.

Verification

Further affiant sayeth not. I have reviewed the facts contained in this affidavit and they are true and correct to the best of my knowledge.

[redacted]

Jane Doe[2]

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn and acknowledged before me by Jane Doe this 21st day of June 2022.

[redacted]
TRACY MARTIN-WRAY
NOTARY PUBLIC

My commission expires: Oct 6, 2025

Commission number: KYNP35554

[2] Jane Doe is a pseudonym.

Exhibit F

NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ (__)
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., on behalf of itself, its staff, and its patients; **ERNEST MARSHALL, M.D.**, on behalf of himself and his patients; and **PLANNED PARENTHOOD GREAT NORTHWEST, HAWAII, ALASKA, INDIANA, AND KENTUCKY, INC.**, on behalf of itself, its staff, and its patients

PLAINTIFFS

v.

AFFIDAVIT OF PATIENT JANE DOE 4

DANIEL CAMERON, in his official capacity as Attorney General of the Commonwealth of Kentucky; **ERIC FRIEDLANDER**, in his official capacity as Secretary of Kentucky's Cabinet for Health and Family Services; **MICHAEL S. RODMAN**, in his official capacity as Executive Director of the Kentucky Board of Medical Licensure; and **THOMAS B. WINE**, in his official capacity as Commonwealth's Attorney for the 30th Judicial Circuit of Kentucky

DEFENDANTS

1. I am 23 years old and live in Jeffersonville, Indiana, which is just across the river from Louisville, Kentucky. I live with my fiancé and our son, who is one-year old. I am white, but my ethnic background is Mexican.
2. I currently work as a shift supervisor at a coffee shop, and I will continue to work there until I start nursing school in September 2022. My nursing school is in Louisville, Kentucky, which is about a 20 minute drive from where I live.
3. I can only work a certain number of hours in the week and I need a babysitter when I go to work. I don't make as much money as I wish I could. Most of my income goes to paying off my student loans, paying for my son's insurance, buying groceries, and paying utilities. Once those bills are paid, I don't usually have much money left over. My fiancé has a steady job, but I am not independently financially secure.
4. I guessed that I might be pregnant because I wasn't feeling very well. I have an irregular menstrual cycle, and my period never comes at the same time. Since I felt strange, I took a home pregnancy test. It came back positive.
5. I was really upset to learn that I was pregnant. I immediately knew that I needed an abortion; I didn't second guess that decision at all. While I have always been pro-choice and have friends who have had abortions, I felt sad about having to make this decision myself. I had never thought that *I* would need an abortion, until the day that I did.
6. When I learned I was pregnant, my first thought was about my son. While my pregnancy with him was not physically difficult, it was extremely challenging both emotionally and mentally. I was diagnosed with Bipolar 2 Disorder right before I became pregnant with my son. I had only just started taking medication and was trying to get stabilized. Unfortunately, the doctors required me to taper my medication during the pregnancy

because they thought it would harm the fetus. As a result, I couldn't take as much medication as I needed to prevent the mood fluctuations associated with Bipolar 2.

7. During this same time, my relationship with my fiancé changed dramatically. We began having serious problems after I got pregnant with our son, and our relationship has continued to deteriorate over the past two years. I did not want to bring another child into that dynamic.
8. While I was pregnant with my son, on top of dealing with my mental health and difficulties in my relationship, I was also going to school in person and working 40 hours a week. I worked my shifts up until three days before he was born.
9. I don't know whether I ever want to have a second child, but I certainly do not want to have a second child right now—for many reasons.
10. The day after I found out I was pregnant, I called EMW Women's Surgical Center ("EMW") to schedule an appointment. I had driven by the clinic several times before. I was able to be seen at EMW roughly two weeks later.
11. My fiancé was with me when I took the pregnancy test, and he was generally supportive of my decision to get the abortion. However, he didn't accompany me to EMW.
12. I received a medication abortion in early June 2022. I was taken into the clinic by an escort; she was nice and did her best to keep protestors as far away from me as she could and to prevent them from talking to me. Once I got into the clinic, people were very nice. The nurses were kind, and the doctor who helped me was great. When she gave me the pill, she was very reassuring, and, because I was emotional and anxious, she sat with me while I took it and then walked me out the back entrance to the parking garage so that I

could avoid the protestors. The counselor I met with at EMW was great as well; I actually cried because of how nice she was to me and how supportive she was of my decision.

13. I was six weeks and six days into my pregnancy when I ended my pregnancy. If I had to travel further to get my abortion, it would have been difficult, but I would have done absolutely anything to get there. I'm lucky I was so close to EMW; some of the women I spoke to in the waiting room told me that they had driven five hours to their appointment.
14. I am choosing to remain anonymous because, if my parents found out I had an abortion, they would be extremely angry with me and it would ruin our relationship. They do not support abortion at all, and I never want them to know that I had one.

Verification

Further affiant sayeth not. I have reviewed the facts contained in this affidavit and they are true and correct to the best of my knowledge.

[redacted]

Jane Doe[1]

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn and acknowledged before me by Jane Doe this 24th day of June 2022.

Tracy Martin-Wray

NOTARY PUBLIC

My commission expires: Oct 6, 2025

Commission number: KYNP35554

[1] Jane Doe is a pseudonym.

Exhibit G

NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ (__)
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., on behalf of itself, its staff, and its patients; **ERNEST MARSHALL, M.D.**, on behalf of himself and his patients; and **PLANNED PARENTHOOD GREAT NORTHWEST, HAWAII, ALASKA, INDIANA, AND KENTUCKY, INC.**, on behalf of itself, its staff, and its patients

PLAINTIFFS

v.

DANIEL CAMERON, in his official capacity as Attorney General of the Commonwealth of Kentucky; **ERIC FRIEDLANDER**, in his official capacity as Secretary of Kentucky's Cabinet for Health and Family Services; **MICHAEL S. RODMAN**, in his official capacity as Executive Director of the Kentucky Board of Medical Licensure; and **THOMAS B. WINE**, in his official capacity as Commonwealth's Attorney for the 30th Judicial Circuit of Kentucky

DEFENDANTS

AFFIDAVIT OF PATIENT JANE DOE 5

1. I am 30 years old. I live in Lexington, Kentucky with my 11-year-old son.
2. My son's father has not been in his life since he was 6 months old. He does not provide any support, and I don't know anything about his whereabouts or current situation.
3. I am a server at a restaurant. I work 4 to 5 days per week, typically from 7:30am until 3:00 or 4:00 in the afternoon, depending on the day of the week. On weekends, the restaurant is open later, so I work later on those days. I work at least 30 hours per week.
4. I was dating a man ("D") for about two months when I became pregnant. I was questioning whether our relationship would work before I found out I was pregnant, and I broke up with D shortly before I ended the pregnancy. D has an 11-month-old son.
5. I discovered I was pregnant after taking a pregnancy test shortly after I missed my period. My period was a few days late, but my period is usually late because I have PCOS. I took a home pregnancy test, and I was shocked when the test was positive.
6. I was overwhelmed and sad when I found out I was pregnant. The number one concern for me was financial. I am not very financially secure. I do not have much in savings, I am behind on some of my bills, and I need to support myself and my son. The financial impact on me and my son would have been significant. Another child would have placed a great deal more stress on me financially.
7. D. is supportive of his child, but I did not think our relationship would last and didn't think I could count on him to remain involved when we broke up. I did not want to be a single mom again—I was 19 years old when my son was born and it was very overwhelming and difficult to be a single mom.
8. I believe I would have been able to keep my job if I had a second child, but it would have been very difficult. While I live near my father and his wife, and my siblings, they would

not have been able to help provide child care. My father and his wife have a young child, and his wife is currently pregnant.

9. I knew ending the pregnancy was the correct decision for me, and I immediately called EMW Women's Surgical Center ("EMW") to schedule an appointment.
10. After calling EMW, I called the National Abortion Federation to inquire about funding assistance. I received financial assistance to cover close to half of the cost of the abortion.
11. I did tell D that I was pregnant, and he supported my decision to get an abortion.
12. I had a medication abortion six weeks and one day after my last period. After taking the pill in the clinic, I felt a sense of relief. I had some cramping and bleeding, but mentally I was still happy and confident in my decision.
13. The care I received at EMW was wonderful. Everyone I interacted with was very kind, helpful, and supportive. I felt very comfortable the entire time I was at EMW, especially with the woman who was doing my lab work. I was very well taken care of at EMW.
14. My best friend came to support me at my appointment. By the day of the appointment, I had ended my relationship with D, and even though he offered to come to the appointment with me, I did not want him there.
15. I am very thankful that EMW is in Louisville and provides such wonderful care. Louisville is about an hour and fifteen minute drive from where I live in Lexington. If EMW was not here, I would have still wanted an abortion but I do not know what I would have done.
16. I believe that all women should be able to make decisions about their own bodies. It is each woman's choice to decide whether or not she should continue a pregnancy, and it is incredibly important for women to have a safe place to go for an abortion. Having a child

is not the best choice for everyone, and everyone should have the ability to make the best decision for their own lives.

17. Some people in my life know about my abortion, but I do not want it to be public information. I know not everyone would support such a decision, and want to be able to share this with those in my life, such as my son, on my own terms.

18. I, Jane Doe 7, verify that the foregoing facts are true and accurate to the best of my knowledge, information, and belief.

Verification

Further affiant sayeth not. I have reviewed the facts contained in this affidavit and they are true and correct to the best of my knowledge.

[redacted]

Jane Doe[1]

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn and acknowledged before me by Jane Doe this 25th day of June 2022.

TRACY MARTIN-WARD

NOTARY PUBLIC

My commission expires: Oct 6, 2025

Commission number: KYNP35554

[1] Jane Doe is a pseudonym.

Exhibit H

NO. _____

JEFFERSON CIRCUIT COURT
DIVISION _____ (__)
JUDGE _____

EMW WOMEN'S SURGICAL CENTER, P.S.C., on behalf of itself, its staff, and its patients; **ERNEST MARSHALL, M.D.**, on behalf of himself and his patients; and **PLANNED PARENTHOOD GREAT NORTHWEST, HAWAII, ALASKA, INDIANA, AND KENTUCKY, INC.**, on behalf of itself, its staff, and its patients

PLAINTIFFS

v.

DANIEL CAMERON, in his official capacity as Attorney General of the Commonwealth of Kentucky; **ERIC FRIEDLANDER**, in his official capacity as Secretary of Kentucky's Cabinet for Health and Family Services; **MICHAEL S. RODMAN**, in his official capacity as Executive Director of the Kentucky Board of Medical Licensure; and **THOMAS B. WINE**, in his official capacity as Commonwealth's Attorney for the 30th Judicial Circuit of Kentucky

DEFENDANTS

AFFIDAVIT OF PATIENT A.B. ("JANE DOE 6")

1. I am 25 years old. I live In New Albany, Indiana, which is just across the river from Louisville, Kentucky, with my boyfriend and our two children. We live in a home that we rent. Our children are both under the age of four.
2. I have been with my boyfriend for five years. Though we have previously broken up, we later reconciled.
3. I am a stay-at-home parent; I do not work outside the home. My boyfriend works outside the home doing odd jobs, primarily yard work.
4. I was waiting to get my period when I started feeling sick. Since I have already had two children, I recognized the feeling of being sick from a pregnancy. I took a home pregnancy test and it came back positive. That result was both shocking and scary.
5. I knew right away that I did not want to continue with the pregnancy. I was incredibly sick when I was pregnant with my second child. I threw up all day long, which resulted in me losing 30 pounds during the pregnancy. Ultimately, I had to be on an IV at home with a Zofran pump attached to it to keep me from living in the bathroom. My doctor gave me needles that I had to inject myself with through my stomach; my boyfriend ended up having to administer most of those shots. I would vomit ten times a day. I couldn't eat or sleep. I even lost a tooth because of it. Though I was considering an abortion at that time, I ultimately did not choose to have one.
6. My earlier pregnancies were also physically and emotionally difficult. I was previously pregnant with triplets, but I had a miscarriage at 14 weeks. The physical and emotional stress of my prior pregnancies are a major reason I chose to get an abortion this time. I couldn't go through those experiences again.

7. When choosing to have an abortion, I thought about how hard it would be mentally to take care of three young kids. I also knew that I couldn't be sick all day during this pregnancy and still be a good mom to my two children.
8. My boyfriend was with me when I found out I was pregnant. He supported any choice I wanted to make regarding whether or not to get an abortion.
9. I found EMW Women's Surgical Center ("EMW") online when I was looking up my resources. I called on the weekend and was initially able to get an appointment on a Friday, but I called them every day to see if they could move my appointment up because of how sick I felt. Ultimately, I was able to get in on a Tuesday, almost immediately after I first called to schedule my appointment. I was also able to get financial assistance from the National Abortion Federation.
10. The staff at EMW was great, especially the doctor. She was able to thoroughly explain the process, and she was sweet and understanding. Everyone at the clinic was like that.
11. I was six weeks and four days pregnant when I ended my pregnancy.
12. I had a medication abortion. I took the first pill in the clinic, and the next day I was not feeling sick anymore, even before I took the other pills. After I was able to get the first pill, I knew it was the best choice I could have made.
13. I am so grateful that EMW was just a short drive from my home. If I had to travel for hours to get the same care, it would have been a lot more difficult because I would have had to find child care, and my car probably couldn't make a long drive like that, so I also would have needed to find a ride or pay someone to take me.
14. After my miscarriage, I did not really support abortion. But over time, I realized that, even if someone is taking precautions, unintended pregnancies happen, and many people

may not be physically or emotionally able to be pregnant or take care of a child. I feel it is important to preserve access to abortion to help people make the right choices for their own lives.

15. Only one person other than my boyfriend knows about my abortion. It makes it easier for me to not have many people know.

Verification

Further affiant sayeth not. I have reviewed the facts contained in this affidavit and they are true and correct to the best of my knowledge..

[redacted]

A.B.[1]

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed, sworn and acknowledged before me by A.B. this 21st day of June, 2022.

Tracy Martin-Wren
NOTARY PUBLIC TRACY MARTIN WREN

My commission expires: Oct 6, 2025

Commission number: KYNP 35554

[1] A.B. is a pseudonym.

EXHIBIT 8

NO. 22-CI-03225

JEFFERSON CIRCUIT COURT
DIVISION THREE (3)
HON. MITCH PERRY

EMW WOMEN'S SURGICAL CENTER, P.S.C. *et. al.* **PLAINTIFFS**

v.

DANIEL CAMERON, *et al.* **DEFENDANTS**

BRIEF OF *AMICI CURIAE* IN SUPPORT OF PLAINTIFF'S MOTION FOR RESTRAINING ORDER AND TEMPORARY INJUNCTION

Molly A. Meegan (*pro hac vice pending*)
AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS
409 12th Street, SW
Washington, D.C. 20024
(202) 863-2585

Counsel only for Amicus Curiae *the American College of Obstetricians and Gynecologists*

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Counsel For Amici Curiae The American College Of Obstetricians And Gynecologists, American Medical Association, And Society For Maternal-Fetal Medicine

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INTEREST OF AMICI CURIAE

The American College of Obstetricians and Gynecologists ("ACOG"), the American Medical Association ("AMA"), and the Society for Maternal-Fetal Medicine ("SMFM") submit this *amicus curiae* brief in support of Plaintiffs.

ACOG is the nation's leading group of physicians providing health care for women. With more than 62,000 members, ACOG advocates for quality health care for women, maintains the highest standards of clinical practice and continuing education of its members, promotes patient education, and increases awareness among its members and the public of the changing issues facing women's health care. ACOG is committed to ensuring access to the full spectrum of evidence-based quality reproductive health care, including abortion care. ACOG's Kentucky Section has over 600 members living and practicing in the state who, together with their patients, are directly affected by laws restricting access to abortion care and other reproductive health care. ACOG has appeared as *amicus curiae* in courts throughout the country. ACOG's briefs and medical practice guidelines have been cited by numerous authorities, including the U.S. Supreme Court, as a leading provider of authoritative scientific data regarding childbirth and abortion.[1]

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[1] *See, e.g.*, *June Med. Servs. LLC v. Russo*, 140 S. Ct. 2103 (2020); *Whole Woman's Health v. Hellerstedt*, 579 U.S. 582 (2016); *Stenberg v. Carhart*, 530 U.S. 914, 932-936 (2000) (quoting ACOG brief extensively and referring to ACOG as among the "significant medical authority" supporting the comparative safety of the abortion procedure at issue); *Hodgson v. Minnesota*, 497 U.S. 417, 454 n.38 (1990) (citing ACOG in assessing disputed parental notification requirement); *Simopoulos v. Virginia*, 462 U.S. 506, 517 (1983) (citing ACOG in discussing "accepted medical standards" for the provision of obstetric-gynecologic services, including abortions); *see also Gonzales v. Carhart*, 550 U.S. 124, 170-171, 175-178, 180 (2007) (Ginsburg, J., dissenting) (referring to ACOG as "experts" and repeatedly citing ACOG's brief and congressional submissions regarding abortion procedure).

The AMA is the largest professional association of physicians, residents, and medical students in the United States. Additionally, through state and specialty medical societies and other physician groups seated in the AMA's House of Delegates, substantially all U.S. physicians, residents, and medical students are represented in the AMA's policymaking process. The objectives of the AMA are to promote the art and science of medicine and the betterment of public health. AMA members practice in all fields of medical specialization and in every state. The AMA's publications and *amicus curiae* briefs have been cited in cases implicating a variety of medical questions in courts across the U.S., including the U.S. Supreme Court.

SMFM, founded in 1977, is the medical professional society for maternal-fetal medicine subspecialists, who are obstetricians with additional training in high-risk pregnancies. SMFM represents more than 5,500 members who care for high-risk pregnant people and provides education, promotes research, and engages in advocacy to advance optimal and equitable perinatal outcomes for all people who desire and experience pregnancy. SMFM and its members are dedicated to ensuring that all medically appropriate treatment options are available for individuals experiencing a high-risk pregnancy.

INTRODUCTION AND SUMMARY OF ARGUMENT

Abortion is an essential part of comprehensive health care. When abortion is legal, it is safe. *Amici curiae* are leading medical societies representing physicians, nurses, and other clinicians who serve patients in Kentucky and nationwide, and whose policies represent the education, training, and experience of the vast majority of clinicians in this country. *Amici*'s position is that state laws that criminalize and effectively ban abortion:

(1) are not based on any medical or scientific rationale;

(2) threaten the health of pregnant patients;

(3) disproportionately harm patients of color, patients in rural settings, and patients with low income; and

(4) impermissibly interfere with the patient-physician relationship and undermine longstanding principles of medical ethics.

As the AMA has recently recognized, "it is a violation of human rights when government intrudes into medicine and impedes access to safe, evidence-based reproductive health services, including abortion and contraception."[2] ACOG, the AMA, SMFM, and approximately 75 other health care organizations agree that "[a]bortion care is safe and essential reproductive health care. Keeping the patient-clinician relationship safe and private is essential not only to quality individualized care but also to the fabric of our communities and the integrity of our health care infrastructure."[3]

In the wake of *Dobbs v. Jackson Women's Health Org.*, 597 U.S. __ (2022), Kentucky intends to enforce KRS 311.772, which imposes criminal penalties on individuals who provide abortions.[4] This statute was designed to become effective upon the reversal of *Roe v. Wade*,[5] and therefore is colloquially known as the "Trigger Ban."[6] Kentucky also or in the alternative intends to enforce KRS 311.7701 to -11, which imposes criminal penalties on individuals who

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[2] AMA, *Press Release: AMA bolsters opposition to wider criminalization of reproductive health* (June 14, 2022).

[3] ACOG, *Press Release: More Than 75 Health Care Organizations Release Joint Statement in Opposition to Legislative Interference* (July 7, 2022).

[4] Ky. Rev. Stat. Ann. ("KRS") § 311.772 (West).

[5] 410 U.S. 113 (1973).

[6] *Amici* understand that Kentucky asserts the Trigger Ban is effective in light of the Supreme Court's June 24, 2022 decision in *Dobbs v. Jackson Women's Health Organization*, 597 U.S. __, No. 19-1392 (2022). Alternatively, it may become effective once the U.S. Supreme Court transmits a certified copy of the judgment and opinion. Compl. ¶ 28.

provide abortions after embryonic cardiac activity becomes detectable, which generally occurs around the sixth week of pregnancy (the "Six-Week Ban").[7]

Collectively and individually, the Kentucky Bans would—without any valid medical justification—jeopardize the health and safety of pregnant people in Kentucky and place extreme burdens and risks upon providers of essential reproductive health care. *Amici* oppose such laws.

ARGUMENT

I. Abortion Is a Safe, Common, and Essential Component of Health Care

The medical community recognizes abortion as a safe and essential component of reproductive health care.[8] Abortion is a common medical procedure. In 2020, over 930,000 abortions were performed nationwide,[9] including roughly 4,100 in Kentucky.[10] Approximately one quarter of American women have an abortion before the age of 45.[11]

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[7] KRS § 311.7701-11.

[8] *See, e.g.*, Editors of the *New England Journal of Medicine*, the American Board of Obstetrics and Gynecology, et al., *The Dangerous Threat to* Roe v. Wade, 381 New Eng. J. Med. 979 (2019) (stating the view of the Editors of the New England Journal of Medicine along with several key organizations in obstetrics, gynecology, and maternal-fetal medicine that "[a]ccess to legal and safe pregnancy termination … is essential to the public health of women everywhere"); ACOG, *Abortion Policy* (revised and approved May 2022); Soc'y for Maternal-Fetal Med., *Access to Pregnancy Termination Services* (2017); ACOG, *Press Release: More Than 75 Health Care Organizations Release Joint Statement in Opposition to Legislative Interference*, *supra* note 3.

[9] Jones et al., Guttmacher Inst., *Long-Term Decline in US Abortions Reverses, Showing Rising Need for Abortion as Supreme Court is Poised to Overturn* Roe v. Wade (June 15, 2022).

[10] KY Dept. for Pub. Health, Office of Vital Statistics, *Kentucky Annual Abortion Report for 2020*, at 2 ("*Kentucky Annual Abortion Report for 2020*"). https://chfs.ky.gov/agencies/dph/dehp/vsb/Forms/2020KYAbortionAnnualReport.pdf (last visited June 28, 2022).

[11] Jones & Jerman, *Population Group Abortion Rates and Lifetime Incidence of Abortion: United States, 2008-2014*, 107 Am. J. Pub. Health 1904, 1908 (2017).

The overwhelming weight of medical evidence conclusively demonstrates that abortion is a very safe medical procedure.[12] Complication rates from abortion are extremely low, averaging around 2%, and most complications are minor and easily treatable.[13] Major complications from abortion are exceptionally rare, occurring in just 0.23 to 0.50% of instances across gestational ages and types of abortion methods.[14] Only 0.73% of abortions in Kentucky in 2020 resulted in any type of complication.[15] The risk of death from an abortion is even rarer: nationally, fewer than one in 100,000 patients die from an abortion-related complication.[16] By contrast, the "risk of death associated with childbirth [is] approximately 14 times higher."[17] In fact, abortion is so

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[12] *See, e.g.*, National Academies of Sciences, Engineering, Medicine, *The Safety and Quality of Abortion Care in the United States* 10 (2018) ("*Safety and Quality of Abortion Care*") ("The clinical evidence clearly shows that legal abortions in the United States—whether by medication, aspiration, D&E, or induction— are safe and effective. Serious complications are rare.").

[13] *See, e.g.*, Upadhyay et al., *Incidence of Emergency Department Visits and Complications After Abortion*, 125 Obstetrics & Gynecology 175, 181 (2015) (finding 2.1% abortion-related complication rate); *Safety and Quality of Abortion Care*, *supra* note 12 at 55, 60.

[14] White et al., *Complications from First-Trimester Aspiration Abortion: A Systematic Review of the Literature*, 92 Contraception 422, 434 (2015). This is also true for medication abortions, which account for about half of all abortions in Kentucky and nationwide. Raymond et al., *First-Trimester Medical Abortion with Mifepristone 200 mg and Misoprostol: A Systematic Review*, 87 Contraception 26, 30 (2013) (regarding major complication rates for medication abortion); *Kentucky Annual Abortion Report for 2020*, *supra* note 10 at 12 (number of Kentucky medication abortions, category labeled "medical non-surgical"); Jones et al., Guttmacher Inst., *Medication Abortion Now Accounts for More than Half of All US Abortions* (Mar. 2, 2022) (nationwide data).

[15] *Kentucky Annual Abortion Report for 2020*, *supra* note 10 at 12.

[16] *See* Kortsmit et al. U.S. Dep't of Health & Human Services, Centers for Disease Control and Prevention, *Abortion Surveillance—United States, 2019*, 70 Morbidity & Mortality Weekly Rep. 1, 29 tbl. 15 (2021) (finding mortality rate from 0.00041% to 0.00078% for approximately five-year periods from 1978 to 2014); Zane et al., *Abortion-Related Mortality in the United States*, 1998-2010, 126 Obstetrics & Gynecology 258, 261 (2015) (noting an approximate 0.0007% mortality rate for abortion).

[17] Raymond & Grimes, *The Comparative Safety of Legal Induced Abortion and Childbirth in the United States*, 119 Obstetrics & Gynecology 215, 216 (2012).

safe that there is a greater risk of complications or mortality for procedures like wisdom-tooth removal, cancer-screening colonoscopy, and plastic surgery.[18]

Similarly, there are no significant risks to mental health or psychological well-being resulting from abortion care. Recent long-term studies have found that women who obtain wanted abortions had "similar or better mental health outcomes than those who were denied a wanted abortion," and that receiving an abortion did not increase the likelihood of developing symptoms associated with depression, anxiety, post-traumatic stress, or suicidal ideation compared to women who were forced to continue a pregnancy to term.[19] One recent study noted that 95% of participants believed an abortion had been the "right decision for them" three years after the procedure.[20]

II. Despite the Safe and Routine Nature of Abortions, Kentucky's Trigger Ban and Six-Week Ban Effectively Prohibit All Abortions with No Medical Justification

Collectively and individually, the Trigger Ban and the Six-Week Ban would—without any valid medical justification—jeopardize the health and safety of pregnant people in Kentucky and place extreme burdens and risks upon providers of essential reproductive health care by criminalizing nearly all abortions. The State purports to justify at least the Six-Week Ban by citing the State's "interests from the outset of the pregnancy in protecting the health of the

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[18] ANSIRH, *Safety of Abortion in the United States*, Issue Brief No. 6, at 2 (Dec. 2014); American Soc'y for Gastrointestinal Endoscopy, *Complications of Colonoscopy*, 74 Gastrointestinal Endoscopy 745, 747 (2011); Grazer & de Jong, *Fatal Outcomes from Liposuction: Census Survey of Cosmetic Surgeons*, 105 Plastic & Reconstructive Surgery 436, 441 (2000); Kortsmit et al., *Abortion Surveillance—United States, 2019*, *supra* note 16 at 29 tbl. 15.

[19] Biggs et al., *Women's Mental Health and Well-Being 5 Years After Receiving or Being Denied an Abortion: A Prospective, Longitudinal Cohort Study*, 74 JAMA Psychiatry 169, 177 (2017).

[20] Rocca et al., *Decision Rightness and Emotional Responses to Abortion in the United States: A Longitudinal Study*, 10 PLoS ONE 1, 7 (2015).

woman and the life of an unborn human individual who may be born,"[21] but the Bans are not medically justified in light of those asserted interests. To the contrary, the Bans will harm the health of pregnant individuals in Kentucky, as described *infra* Part III, and the idea of protecting embryonic development or fetuses beginning with fertilization creates arbitrary, medically unjustified, and conflicting responsibilities for medical providers, see *infra* Parts II.C, III.B.

A. *The Trigger Ban Criminalizes Providing Abortion Care at any Point After Fertilization*

The Trigger Ban effects a near-total prohibition against any and all abortion care. The Trigger Ban subjects clinicians to criminal penalties (imprisonment and a fine) for, *inter alia*, performing procedures and prescribing medication "with the specific intent of causing or abetting the termination of the life of an unborn human being."[22] "Unborn human being" covers the time period "from fertilization to full gestation and childbirth."[23]

There are only two narrow exceptions to this otherwise complete ban on all abortion care: (1) procedures that are "necessary in reasonable medical judgment to prevent the death or substantial risk of death due to a physical condition, or to prevent the serious, permanent impairment of a life-sustaining organ of a pregnant woman;"[24] or (2) "[m]edical treatment" resulting "in the accidental or unintentional injury or death to the unborn human being."[25]

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[21] KRS § 311.7702(8).

[22] *Id.* § 311.772(3).

[23] *Id.* § 331.772(1)(c).

[24] *Id.* § 331.772(4)(a). This exception also directs that "the physician shall make reasonable medical efforts under the circumstances to preserve both the life of the mother and the life of the unborn human being in a manner consistent with reasonable medical practice."

[25] *Id.* § 331.772(4)(b).

Because of the criminal penalties and extremely narrow exceptions, the Trigger Ban functions as a near-absolute ban on abortion services.

B. *The Six-Week Ban Criminalizes Providing Abortion Care Where There Is Detectable Cardiac Activity, Which has the Effect of Prohibiting the Majority of Abortions*

In addition to the Trigger Ban, Kentucky law also independently bans abortion after approximately six weeks' gestational age. The Six-Week Ban subjects clinicians to criminal penalties (imprisonment and a fine[26]) for performing an abortion (1) if the clinician did not first attempt to determine whether there is a "fetal heartbeat," except in the case of a medical emergency;[27] or (2) after a "fetal heartbeat" has been detected,[28] unless the procedure is "designed or intended to prevent the death" or "substantial and irreversible impairment of a major bodily function of the pregnant woman."[29] The Trigger Ban reflects a misunderstanding by the legislature of key medical issues and terminology. *Amici* understand that Kentucky believes its definition of "fetal heartbeat" includes the embryonic cardiac activity that occurs as a result of electrical flickering of a portion of the embryonic tissue, which typically is detectable at approximately six weeks' gestation. However, as a matter of medical science, a true fetal heartbeat exists only after the chambers of the heart have been developed and can be detected via ultrasound, which typically occurs around 17-20 weeks' gestation.[30]

In addition, although the ban purports to allow individuals to seek an abortion before approximately six weeks' gestation, in practice, due to the ways in which pregnancy symptoms

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[26] *Id.* §§ 311.990(23); 532.060(2)(d); 534.030(1).

[27] *Id.* § 311.7705.

[28] *Id.* § 311.7706(1).

[29] *Id.* § 311.7706(2)(a).

[30] *See ACOG Guide to Language and Abortion* 1 (Mar. 2022).

are observed and challenges in seeking care, the Six-Week Ban will prevent many pregnant patients who want an abortion from obtaining one.

First, many people do not know they are pregnant by six weeks' gestational age, or only learn they are pregnant shortly before that window closes. The gestational age of a pregnancy is measured in weeks from the first day of a person's last menstrual period. The average menstrual cycle is four-weeks long, which means that at six weeks' gestation, a person would be only two weeks from their missed period. And, for a variety of reasons—including stress, obesity, thyroid dysfunction, and premature ovarian failure—many people experience irregular menstrual cycles, and adolescents may have cycles that are six weeks or longer in early menstrual life;[31] under these circumstances, people might not even notice a missed period before six weeks have passed. Further, because nearly half of pregnancies in the United States are unplanned,[32] many pregnant patients may not consider other potential symptoms—such as nausea or vomiting—to indicate pregnancy; other pregnant patients may simply not experience these symptoms at all before five or six weeks.[33]

Even if a person suspects they may be pregnant before six weeks pass, many people are unable to see a physician to confirm their pregnancy, let alone make a thoughtful, informed

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[31] Bae et al., *Factors Associated with Menstrual Cycle Irregularity and Menopause*, 18 BMC Women's Health 1, 1 (2018); ACOG, Committee Opinion No. 651, *Menstruation in Girls and Adolescents: Using the Menstrual Cycle as a Vital Sign* 2 (Dec. 2015).

[32] Guttmacher Inst., Fact Sheet, *Unintended Pregnancy in the United States* (Jan. 2019); Boonstra et al., Guttmacher Inst., *Abortion in Women's Lives* 29 (May 2006).

[33] Gadsby et al., *A Prospective Study of Nausea and Vomiting During Pregnancy*, 43 Brit. J. of Gen. Prac. 245, 246 (June 1993).

decision about whether to continue the pregnancy before the six weeks' gestation mark.[34] It often takes time before patients who have decided they need to end their pregnancy can access abortion care given the logistical and financial barriers many face, including health center wait times as well as organizing funds, transportation, accommodation, childcare, and time off from work.[35] Moreover, before six weeks' gestation, physicians cannot always confirm an intrauterine pregnancy via ultrasound and therefore in some cases, may not be able to offer an abortion.[36]

For all of these reasons, the majority of abortions provided in Kentucky—and nationwide—are performed after six weeks' gestational age. In 2020, approximately two-thirds of abortions provided in Kentucky were performed after six weeks' gestation.[37] The Six-Week Ban thus has the effect of criminalizing the majority of abortions provided in the State.

Because of its criminal penalties and extremely narrow exceptions, combined with the fact that many individuals do not know they are pregnant and cannot access reproductive health care before six weeks' gestation, the Six-Week Ban, like the Trigger Ban, functions as a near-absolute ban on abortion services.

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[34] Administering a home pregnancy test too early in a patient's menstrual cycle or too close to the time a patient became pregnant may result in a false negative result. FDA, *Pregnancy* (Apr. 29, 2019).

[35] *Cf.* Drey et al., *Risk Factors Associated With Presenting for Abortion in the Second Trimester*, 107 Obstetrics & Gynecology 128, 130 (Jan. 2006).

[36] Heller & Cameron, *Termination of Pregnancy at Very Early Gestation Without Visible Yolk Sac on Ultrasound*, 41 J. Fam. Plann. Reprod. Health Care 90, 90-91 (2015).

[37] *Kentucky Annual Abortion Report for 2020*, *supra* note 10 at 7. Nationwide, as well, the majority of abortions occur after six weeks' gestation. *See* Kortsmit et al., *Abortion Surveillance—United States, 2019*, *supra* note 16 at 24 tbl. 10.

C. *Neither the Trigger Ban nor the Six-Week Ban Allow Sufficient Time for Patients and Clinicians to Consult Regarding Potential Risks Involving the Fetus*

The Trigger Ban's prohibition on abortion at any stage post-fertilization by definition does not permit patients to consult with their clinicians about the risks of continuing a pregnancy that may not be viable or that involves genetic, chromosomal, or other issues that may affect the likelihood of survival of a fetus or child after birth.[38] With respect to the Six-Week Ban, the Kentucky legislature's claim that embryonic cardiac activity is a "key medical predictor that an unborn human individual will reach live birth," is inconsistent with scientific understanding and medical practice. While embryonic cardiac activity can signal that an early pregnancy may continue to develop (as opposed to end in a spontaneous abortion or miscarriage),[39] embryonic cardiac activity is a scientifically arbitrary point in pregnancy. It does not by itself indicate whether a pregnancy will develop normally or end in a live birth, and it certainly is not a sign of fetal viability.

Further, embryonic cardiac activity occurs too early in a pregnancy for patients to have undergone screening for genetic, chromosomal, or other issues that could detect potentially life-threatening fetal anomalies. Pregnant patients typically undergo ultrasound scans late in the first trimester and again in the second trimester to detect potential abnormalities.[40] One study concluded that 23% of major fetal anomalies were detected between 11 to 14 weeks of gestation

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[38] Soc'y for Maternal-Fetal Med., *Access to Pregnancy Termination Services*, *supra* note 8, at 1.

[39] ACOG, Practice Bulletin No. 200, *Early Pregnancy Loss* (Nov. 2018).

[40] Royal College of Obstetricians and Gynecologists, *Termination of Pregnancy for Fetal Abnormality in England, Scotland and Wales* 11 (May 2010).

and that 33.7% were detected in the second trimester.[41] Two additional studies found that in over half of the pregnancies studied, fetal malformations were not detected until the second trimester.[42] Major fetal anomalies are often incompatible with survival; a pregnant patient who cannot obtain abortion care under these circumstances can be forced to carry to term a fetus that has little or no life expectancy. Carrying such a pregnancy to term may present life-threatening or life-altering risks to the pregnant patient. Forcing abortions to occur before this screening occurs or not at all deprives patients of the opportunity to discuss these personal, complex, medical considerations with their clinicians and families and make informed decisions about their health and the health of their families.

III. By Prohibiting Abortions, the Bans Will Harm Pregnant Patients' Health

Either of Kentucky's bans would cause severe and detrimental physical and psychological health consequences for pregnant patients who want to obtain an abortion. First, while abortion is overall a safe medical procedure, the risk of complications and associated costs are lower the earlier the abortion is performed—the Trigger Ban and Six-Week ban will likely cause delays in obtaining an abortion. Second, pregnant individuals may be more likely to

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[41] Fong et al., *Detection of Fetal Structural Abnormalities with US During Early Pregnancy*, 24 RadioGraphics 157, 172-173 (Jan.-Feb. 2004).

[42] Kashyap et al., *Early Detection of Fetal Malformation, a Long Distance Yet to Cover! Present Status and Potential of First Trimester Ultrasonography in Detection of Fetal Congenital Malformation in a Developing Country: Experience at a Tertiary Care Centre in India*, 2015 Journal of Pregnancy 1, 6 (2015) (finding that, out of the total number of women with diagnosed fetal malformation, 65% presented before 20 weeks of gestation and of that, only 1.6% were diagnosed prior to 12 weeks of gestation); Rydberg & Tunon, *Detection of Fetal Abnormalities by Second-Trimester Ultrasound Screening in a Non-Selected Population*, 96 Acta Obstetricia Gynecologica Scandinavica 176, 176 (Nov. 22, 2016) (finding that half of the major structural malformations in otherwise normal fetuses were detected by routine ultrasound examination in the second trimester).

attempt self-managed abortions using harmful or unsafe methods—that is, self-managed methods other than procuring appropriate medications through licensed providers.[43] Third, continuing a pregnancy to term presents higher risk to the health and mortality of the pregnant patient than obtaining a safe, legal abortion. Each of these outcomes increases the likelihood of negative consequences to the patient's physical and psychological health that could be avoided if abortion were available.[44]

Both the Trigger Ban and Six-Week Ban have limited exceptions for abortions necessary to prevent a pregnant patient's death or permanent impairment to life-sustaining organs or bodily function (with respect to (1) the Trigger Ban and (2) the Six-Week Ban in the case of an abortion performed after embryonic cardiac activity is detected) or in the case of a "medical emergency" (with respect to the Six-Week Ban in the case of an abortion performed without determining whether fetal cardiac activity is detectable). But these narrow exceptions are vague and thus create risks for clinicians. Moreover, they are inadequate to protect the health of pregnant patients as they do not permit them to obtain an abortion in a wide range of circumstances that could risk substantial harm to patients and yet do fall within the narrow exceptions, as is described *infra* Part B.

A. *The Bans Will Endanger the Physical and Psychological Health of Pregnant Patients*

Criminalizing safe abortions provided by a licensed clinician in the State of Kentucky will likely result in delays in obtaining abortions. Typically, many delays in seeking an abortion

[43] The safety of medication abortion is well established. *See supra* note 14.

[44] *See, e.g.*, ACOG, Committee Opinion No. 815, *Increasing Access to Abortion* (Dec. 2020).

are caused by the patient's lack of information about where to find abortion care.[45] The need to travel out of state and consider various states' individual criminal and/or civil penalties related to abortion is likely to further increase confusion for patients about where they can find needed health care. In addition, almost a third of delays are caused by travel and procedure costs.[46] With no in-state abortion providers, the travel and procedure costs for Kentuckians seeking abortion will very likely increase. For example, a 2020 analysis demonstrated that the closure of Kentucky's abortion clinics would nearly double the average required travel distance for Kentuckians seeking an abortion.[47] This distance is likely even greater now in light of similar bans going into effect in neighboring states, including Tennessee and West Virginia. Though the risk of complications from abortion care overall remains exceedingly low, increasing gestational age results in an increased chance of a major complication.[48] Moreover, abortions at later gestational ages are typically more expensive, further increasing the barriers to obtaining care.[49]

By removing access to safe, legal abortion, the Bans will also increase the possibility that a pregnant patient will attempt self-managed abortions through harmful or unsafe methods.[50] Studies have found that women are more likely to self-manage abortions when they face barriers

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[45] Upadhyay et al., *Denial of Abortion Because of Provider Gestational Age Limits in the United States*, 104 Am. J. Pub. Health 1687, 1689 (Sept. 2014).

[46] *Id.*

[47] Bearak et. al., Guttmacher Inst., *COVID-19 Abortion Bans Would Greatly Increase Driving Distances for Those Seeking Care* (updated Apr. 23, 2020).

[48] Upadhyay et al., *Incidence of Emergency Department Visits and Complications After Abortion*, *supra* note 13 at 181.

[49] Jones et al., *Legal Barriers to Second-Trimester Abortion Provision and Public Health Consequences*, 99 Am. J. Pub. Health 623, 624 (2009).

[50] *See, e.g.*, Jones et al., Guttmacher Inst., *Abortion Incidence and Service Availability in the United States, 2017*, at 3, 8 (2019) (noting a rise in patients who had attempted to self-manage an abortion, with highest proportions in the South and Midwest).

to reproductive services, and methods of self-management outside safe medical abortion (i.e., abortion by pill) may rely on harmful tactics such as herbal or homeopathic remedies, intentional trauma to the abdomen, abusing alcohol or illicit drugs, or misusing dangerous hormonal pills.[51]

Those patients who do not, or cannot, obtain an abortion due to the Bans will be forced to continue a pregnancy to term—an outcome with significantly greater risks to the health and mortality of the pregnant individual. The U.S. mortality rate associated with live births from 1998 to 2005 was 8.8 deaths per 100,000 live births,[52] and rates have sharply increased since then.[53] In contrast, the mortality rate associated with abortions performed from 1998 to 2005 was 0.6 deaths per 100,000 procedures.[54] A pregnant patient's risk of death associated with childbirth is approximately 14 times higher than any risk of death from an abortion.[55]

Continued pregnancy and childbirth also entail other substantial health risks for the pregnant person. Even an uncomplicated pregnancy causes significant stress on the body and involves physiological and anatomical changes. Moreover, continuing a pregnancy to term can exacerbate underlying health conditions or cause new conditions. For example, approximately 6-7% of pregnancies are complicated by gestational diabetes mellitus, a condition which frequently

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[51] Grossman et al., *Knowledge, Opinion and Experience Related to Abortion Self-Induction in Texas*, 92 Contraception 360 (2015).

[52] Raymond & Grimes, *The Comparative Safety of Legal Induced Abortion and Childbirth in the United States*, *supra* note 17 at 216.

[53] MacDorman et al., *Recent Increases in the U.S. Maternal Mortality Rate: Disentangling Trends from Measurement Issues*, 128 Obstetrics & Gynecology 447 (2016) (finding a 26.6% increase in maternal mortality rates between 2000 and 2014).

[54] Raymond & Grimes, *The Comparative Safety of Legal Induced Abortion and Childbirth in the United States*, *supra* note 17 at 216.

[55] *Id.*

leads to maternal and fetal complications, including developing diabetes later in life.[56] Preeclampsia, another relatively common complication, is a disorder associated with new-onset hypertension that occurs most often after 20 weeks of gestation and can result in blood pressure swings, heart disease, liver issues, and seizures, among other conditions.[57]

Labor and delivery are likewise not without significant risk, including those of hemorrhage, placenta accreta spectrum (a potentially life-threatening complication that can cause the placenta to not detach at childbirth), hysterectomy, cervical laceration, and debilitating postpartum pain, among others.[58] Approximately one in three people who give birth in the United States do so by cesarean delivery, a major surgical procedure that carries increased risk of complications.[59]

Evidence also suggests that pregnant people denied abortions because of gestational age limits are more likely to experience negative psychological health outcomes—such as anxiety, lower self-esteem, and lower life satisfaction—than those who obtained an abortion.[60]

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[56] ACOG Practice Bulletin No. 190, *Gestational Diabetes Mellitus* (Feb. 2018).

[57] ACOG Practice Bulletin No. 222, *Gestational Hypertension and Preeclampsia* (June 2020).

[58] ACOG Practice Bulletin No. 183, *Postpartum Hemorrhage* (Oct. 2017); ACOG Obstetric Care Consensus, *Placenta Accreta Spectrum* (July 2012, reaff'd 2021); ACOG Practice Bulletin No. 198, *Prevention and Management of Obstetric Lacerations at Vaginal Delivery* (Sept. 2018); ACOG Clinical Consensus No. 1, *Pharmacologic Stepwise Multimodal Approach for Postpartum Pain Management* (Sept. 2021).

[59] Martin et al., *Births: Final Data for 2019*, CDC-National Vital Statistics Reports, Vol. 70 (Mar. 23, 2021); ACOG, Obstetric Care Consensus No. 1, *Safe Prevention of the Primary Cesarean Delivery* (Mar. 2014, reaff'd 2016).

[60] Biggs et al., *Women's Mental Health and Well-Being 5 Years After Receiving or Being Denied an Abortion: A Prospective, Longitudinal Cohort Study*, *supra* note 19 at 172.

B. *The Narrow Exceptions to the Bans Do Not Adequately Protect Patients' Health*

The narrow maternal health-related exceptions of the Trigger Ban and Six-Week Ban are insufficient to protect the health of the pregnant patient. Pregnancy can exacerbate existing health issues that do not necessarily lead to death or permanent impairment of a life-sustaining organ, but nevertheless pose serious health risks for patients during pregnancy. Examples include: Alport Syndrome (a form of kidney inflammation), valvular heart disease (abnormal leakage or partial closure of a heart valve), lupus (a connective tissue disease that may suddenly worsen during pregnancy and lead to blood clots and other serious complications), pulmonary hypertension (increased pressure within the lung's circulation system that can escalate during pregnancy), and diabetes (which can worsen to the point of causing blindness as a result of pregnancy).[61] Further, neither Ban takes into account whether patients experienced life-threatening or permanent impairment of a life-sustaining organ during prior pregnancies. Any of these prior conditions can progress or reoccur if abortion care is not available. Various complications that present danger to the health of the pregnant patient also can directly affect fetal development and survival. For example, if a patient experiences premature rupture of membranes and infection, preeclampsia, placental abruption, and/or placenta accreta, that patient may be at risk of extensive blood loss, stroke, and/or septic shock, all of which would negatively affect the fetus.

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[61] *See* Matsuo et al., *Alport Syndrome and Pregnancy*, 109 Obstetrics & Gynecology 531, 531 (2007); Stout & Otto, *Pregnancy in Women with Valvular Heart Disease*, 93 Heart Rev. 552, 552 (May 2007); Cortes-Hernandez et al., *Clinical Predictors of Fetal and Maternal Outcome in Systemic Lupus Erythematosus: A Prospective Study of 103 Pregnancies*, 41 Rheumatology 643, 646-647 (2002); Kiely et al., *Pregnancy and Pulmonary Hypertension; A Practical Approach to Management*, 6 Obstetric Med. 144, 153 (2013); Greene & Ecker, *Abortion, Health and the Law*, 350 New Eng. J. Med. 184, 184 (2004).

The Kentucky Bans and their exceptions are too vague to give clinicians workable guidance about what procedures are permitted or prohibited, especially with respect to managing early pregnancy loss. For example, incomplete miscarriages are commonly treated via uterine aspiration, which is the same procedure as that used for the majority of abortions (other than medication abortions).[62] Neither of the Kentucky Bans clearly state that miscarriage management is permissible or protect clinicians that must use their medical judgment to determine the best treatment plan and provide care in the moment. As another example, neither Kentucky Ban contains an explicit exception for an ectopic pregnancy (which occurs when a fertilized egg grows outside the uterine cavity). Ectopic pregnancies can never be viable and must be treated urgently through medication or surgery.[63] The lack of clarity with respect to the Kentucky Bans is creating unacceptable barriers to care and unacceptable risks for physicians seeking to provide necessary, routine care in changing circumstances and real time.

Other elements of the Kentucky Bans' exceptions are equally problematic. For example, the Trigger Ban states that if the death or permanent impairment exception is applied, the physician must still "make reasonable medical efforts under the circumstances to preserve both the life of the mother and the life of the unborn human being in a manner consistent with reasonable medical practice." The Trigger Ban provides no guidance into how physicians are meant to undertake this analysis, leaving clinicians in the impossible position of providing care that can and will be second-guessed and disputed for ideological purposes.

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[62] Allen et al., *Pain Relief for Obstetric and Gynecologic Ambulatory Procedures*, 40 Obstetrics & Gynecology Clinics N. Am. 625, 632 (2013) (uterine aspiration is used for induced abortion and treatment of miscarriages); Dennis et al., *Barriers to and Facilitators of Moving Miscarriage Management Out of the Operating Room*, 47 Persp. on Sexual & Reprod. Health 141, 141, 143 (2015) (technical aspects of miscarriage management and induced abortion are the same).

[63] ACOG, *Facts Are Important: Understanding Ectopic Pregnancy*.

In addition, by limiting its exception to only potentially fatal "physical condition[s]" and "permanent impairment of a life-sustaining organ," neither the Trigger Ban nor the Six-Week Ban take into account mental health issues that can put a pregnant patient's health and life at risk.[64]

Further, the Trigger Ban's exception for medical treatment that "results in the accidental or unintentional injury or death to the unborn human being" is a vague standard that could be easily second-guessed by the State, subjecting medical professionals, who are using their medical judgment and skills to treat patients in accordance with their training and ethical obligations, to liability.

The Six-Week Ban's exception for procedures where "the physician believes that a medical emergency exists that prevents compliance" with the prohibition on abortion creates a vague and confusing standard for physicians to attempt to apply because "medical emergency" is not and cannot reasonably be defined in legislation. The medical necessity of any particular medical procedure must, instead, be left to the discretion of physicians, in consultation with their patients wherever possible.

Also, both exceptions applicable to the Six-Week Ban require physicians to document their rationale for providing an abortion on the basis of the exception and retain those records for at least 7 years, indicating that the State is willing to second-guess medical judgments in a way that may expose physicians to substantial risk.

It is untenable to force pregnant patients to wait until their medical condition escalates to the point that an abortion is necessary to prevent death or permanent injury to a major bodily

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[64] *See, e.g.*, Mangla et al., *Maternal Self-Harm Deaths: An Unrecognized and Preventable Outcome*, 221 Am. J. Obstetrics & Gynecology 295 (2019).

function or life-sustaining organ before being able to seek potentially life-saving medical care. Nor should physicians be put in the impossible position of either letting a patient deteriorate until one of these narrow exceptions is met or facing potential criminal punishment for providing medical care in contravention of the Bans. Indeed, that impossible choice could cause some physicians to second guess the necessity of critical abortion care until the pregnant patient has serious medical complications or it is too late to save the pregnant patient's life. The limited exceptions described here indefensibly jeopardize patients' health.

IV. The Bans Will Hurt Rural, Minority, and Poor Patients the Most

The Bans will disproportionately impact people of color, those living in rural areas, and those with limited economic resources. *Amici* are opposed to abortion policies that increase the inequities that already plague the health care system in this country.[65]

In Kentucky, 34.5% of patients who obtained abortions in 2020 were Black and 7.5% were Hispanic.[66] In addition, 75% of abortion patients nationwide have household incomes below 200% of the federal poverty level.[67] Patients with limited means and patients living in geographically remote areas will be disproportionately affected by the closure of clinics, which requires them to travel longer distances (and pay higher associated costs) to obtain safe, legal abortions. These travel and procedure costs are compounded by the fact that other Kentucky laws create substantial financial barriers to abortion care (e.g., lack of coverage under insurance

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[65] ACOG, *Press Release: More Than 75 Health Care Organizations Release Joint Statement in Opposition to Legislative Interference*, *supra* note 3.

[66] *Kentucky Annual Abortion Report for 2020*, *supra* note 10 at 5-6.

[67] Jerman et al., Guttmacher Inst., *Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008* (2016).

policies).[68] This impact of the Bans on low-income people will likely be particularly acute in Kentucky, which had the fourth highest poverty rate in the United States as of 2019.[69]

The inequities continue after an abortion is denied. As explained *supra* Part III.A, forcing patients to continue pregnancy increases their risk of complications, and the risk of death associated with childbirth is approximately 14-times higher than that associated with abortion. Nationwide, Black patients' pregnancy-related mortality rate is 3.2-3.5 times higher than that of white patients, with significant disparities persisting even in areas with the lowest overall mortality rates and among women with higher levels of education.[70] Black patients in Kentucky are nearly two-and-a-half times more likely to die from pregnancy-related causes than white patients,[71] making continuing an unwanted pregnancy to term disproportionately dangerous for them. The Bans thus exacerbates inequities in maternal health and reproductive health care, disproportionately harming the most vulnerable Kentuckians.

V. The Bans Force Clinicians To Make an Impossible Choice Between Upholding Their Ethical Obligations and Following the Law

Abortion bans such as the one at issue in this case violate long-established and widely accepted principles of medical ethics by: (1) substituting legislators' opinions for a physician's individualized patient-centered counseling and creating an inherent conflict of interest between

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[68] Guttmacher Inst., *State Facts About Abortion: Kentucky* (June 2022).

[69] United States Census Bureau, *2019 Poverty Rate in the United States* (Sept. 17, 2020).

[70] CDC, *Racial and Ethnic Disparities Continue in Pregnancy-Related Deaths* (Sept. 5, 2019) (3.2 times); MacDorman et al., *Racial and Ethnic Disparities in Maternal Mortality in the United States Using Enhanced Vital Records, 2016-2017*, 11 Am. J. Pub. Health 1673, 1676-1677 (Sept. 22, 2021) (3.55 times).

[71] KY Dept. for Pub. Health, *Annual Report 2021, Public Health Maternal Mortality Review, A Report of Data from Years 2013-2019*, at 5 (Nov. 2020), https://chfs.ky.gov/agencies/dph/dmch/Documents/MMRAnnualReport.pdf.

patients and medical professionals; (2) asking medical professionals to violate the age-old principles of beneficence and non-maleficence; and (3) requiring medical professionals to ignore the ethical principle of respect for patient autonomy.

A. *The Bans Undermine the Patient-Physician Relationship by Substituting Flawed Legislative Judgment for a Physician's Individualized Patient-Centered Counseling and by Creating Conflicts of Interest Between Physicians and their Patients*

The patient-physician relationship is critical for the provision of safe and quality medical care.[72] At the core of this relationship is the ability to counsel frankly and confidentially about important issues and concerns based on patients' best medical interests, and with the best available scientific evidence.[73] ACOG's Code of Professional Ethics states that "the welfare of the patient must form the basis of all medical judgments" and that obstetrician-gynecologists should "exercise all reasonable means to ensure that the most appropriate care is provided to the patient."[74] Likewise, the AMA Code of Medical Ethics places on physicians the "ethical responsibility to place patients' welfare above the physician's own self-interest or obligations to others."[75]

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[72] ACOG, *Statement of Policy: Legislative Interference with Patient Care, Medical Decisions, and the Patient-Physician Relationship* (May 2013, reaff'd and amended Aug. 2021) ("ACOG, *Legis. Policy Statement*").

[73] AMA, *Patient-Physician Relationships, Code of Medical Ethics Opinion 1.1.1* ("The relationship between a patient and a physician is based on trust, which gives rise to physicians' ethical responsibility to place patients' welfare above the physician's own self-interest or obligations to others, to use sound medical judgment on patients' behalf, and to advocate for their patients' welfare.").

[74] ACOG, *Code of Professional Ethics* 2 (Dec. 2018).

[75] AMA, *Patient-Physician Relationships, Code of Medical Ethics Opinion* 1.1.1.

The Bans, however, force physicians to supplant their own medical judgments—and their patients' judgments—regarding what is in the patients' best interests with the legislature's non-expert decision regarding whether and when physicians may provide abortions.

As described above, abortions are safe, routine, and for many patients the best medical choice available for their specific health circumstances. There is no rational or legitimate basis for interfering with a physician's ability to provide an abortion where both the physician and patient conclude that is the medically appropriate course. Laws that have the effect of banning abortion—including, but not limited to, those that ban abortion (i) before patients are even able to know they are pregnant, and (ii) without exceptions for circumstances like mental health of the pregnant patient and cases of rape and incest—are out of touch with the reality of contemporary medical practice and have no grounding in science or medicine.

The Bans also create inherent conflicts of interest. Physicians need to be able to offer appropriate treatment options based on patients' individualized interests without regard for the physicians' own self interests.[76] Here, however, by prohibiting physicians from performing abortions, the Kentucky Bans profoundly intrude upon the patient-physician relationship. For example, if a patient's health were compromised, the Bans would only allow an abortion in the face of death or substantial and irreversible physical impairment of a major bodily function, regardless of the overall medical advisability of the procedure or the desire of the patient. A physician and patient together may conclude that an abortion was in the patient's best medical interests even though the risk posed by continuing the pregnancy does not rise to the standard set forth in the Bans' exceptions. The Bans thus force physicians to choose between the ethical

[76] *See* ACOG, *Legis. Policy Statement*, *supra* note 72.

practice of medicine—counseling and acting in their patients' best interest—and obeying the law.[77]

B. *The Bans Violate the Principles of Beneficence and Non-Maleficence*

Beneficence, the obligation to promote the wellbeing of others, and non-maleficence, the obligation to do no harm and cause no injury, have been the cornerstones of the medical profession since the Hippocratic traditions nearly 2,500 years ago.[78] Both of these principles arise from the foundation of medical ethics which requires that the welfare of the patient forms the basis of all medical decision-making.[79]

Obstetricians, gynecologists, and other clinicians providing abortion care respect these ethical duties by engaging in patient-centered counseling, providing patients with information about risks, benefits, and pregnancy options, and ultimately empowering patients to make a decision informed by both medical science and their individual lived experiences.[80]

The Kentucky Bans pit physicians' interest against those of their patients. If a clinician concludes that an abortion is medically advisable, the principles of beneficence and non-maleficence require the physician to recommend that course of treatment. And if a patient decides that an abortion is the best course of action, those principles require the physician to provide, or refer the patient for, that care. But the Bans, with their narrow medical exceptions,

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[77] *Cf.* AMA, *Patient Rights, Code of Medical Ethics Opinion 1.1.3* ("Patients should be able to expect that their physicians will provide guidance about what they consider the optimal course of action for the patient based on the physician's objective professional judgment.").

[78] AMA, *Principles of Medical Ethics* (rev. June 2001); ACOG, Committee Opinion No. 390, *Ethical Decision Making in Obstetrics and Gynecology* 1, 3 (Dec. 2007, reaff'd 2016).

[79] *See supra* notes 72-75 and accompanying text.

[80] ACOG, Practice Bulletin No. 162: *Prenatal Diagnostic Testing for Genetic Disorders*, 127 Obstetrics & Gynecology e108 (May 2016).

prohibit physicians from providing that treatment and expose physicians to significant penalties if they do so. The Bans therefore place physicians in the ethical impasse of choosing between providing the best available medical care and risking substantial penalties or protecting themselves personally. This dilemma challenges the very core of the Hippocratic Oath: "Do no harm."

C. *The Bans Violate the Ethical Principle of Respect for Patient Autonomy*

Finally, a core principle of medical practice is patient autonomy—the respect for patients' ultimate control over their bodies and right to a meaningful choice when making medical decisions.[81] Patient autonomy revolves around self-determination, which, in turn, is safeguarded by the ethical concept of informed consent and its rigorous application to a patient's medical decisions.[82] The Kentucky Bans would deny patients the right to make their own choices about health care if they decide they need to seek an abortion.

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[81] ACOG, *Code of Professional Ethics*, *supra* note 74 at 1 ("respect for the right of individual patients to make their own choices about their health care (autonomy) is fundamental").

[82] ACOG, Committee Opinion No. 819, *Informed Consent and Shared Decision Making in Obstetrics and Gynecology* (Feb. 2021); AMA, *Code of Medical Ethics Opinion 2.1.1.*

CONCLUSION

For the foregoing reasons, this Court should enjoin enforcement of the Trigger Ban and the Six-Week Ban.

DATE: July 18, 2022

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CERTIFICATE OF SERVICE

I certify that on July 18, 2022, I served a copy of the foregoing through the Court's electronic filing system which effectuates service upon all counsel of record.

/s/ Michael P. Abate

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