

No. 21-1369

**UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT**

PLANNED PARENTHOOD SOUTH ATLANTIC; GREENVILLE WOMEN’S CLINIC;
TERRY L. BUFFKIN, *Plaintiffs-Appellees*,

v.

ALAN WILSON, in his official capacity as Attorney General of South Carolina;
WILLIAM WALTER WILKINS III, in his official capacity as Solicitor for South
Carolina’s 13th Judicial Circuit, *Defendants-Appellants*.

and

HENRY MCMASTER, in his official capacity as Governor of the State of South
Carolina; JAMES H. LUCAS, in his official capacity as Speaker of the South Carolina
House of Representatives, *Intervenors-Appellants*,

and

ANNE G. COOK, et al., *Defendants*.

On Appeal from the United States District Court
for the District of South Carolina, Case No. 21-cv-00508

**BRIEF OF AMICI CURIAE AMERICAN COLLEGE OF OBSTETRICIANS
AND GYNECOLOGISTS, AMERICAN MEDICAL ASSOCIATION,
AMERICAN ACADEMY OF FAMILY PHYSICIANS, AMERICAN
ACADEMY OF NURSING, AMERICAN ACADEMY OF PEDIATRICS,
AMERICAN COLLEGE OF NURSE-MIDWIVES, AMERICAN COLLEGE
OF PHYSICIANS, AMERICAN GYNECOLOGICAL AND OBSTETRICAL
SOCIETY, AMERICAN PSYCHIATRIC SOCIETY, AMERICAN SOCIETY
FOR REPRODUCTIVE MEDICINE, NURSE PRACTITIONERS IN
WOMEN’S HEALTH, SOCIETY OF FAMILY PLANNING, SOCIETY OF
GYNECOLOGIC ONCOLOGY, SOCIETY FOR MATERNAL-FETAL
MEDICINE, AND SOCIETY OF OB/GYN HOSPITALISTS IN SUPPORT
OF PLAINTIFFS-APPELLEES AND IN SUPPORT OF AFFIRMANCE**

September 8, 2021

COUNSEL LISTING ON INSIDE COVER

ALAN E. SCHOENFELD
WILMER CUTLER PICKERING
HALE AND DORR LLP
7 World Trade Center
New York, NY 10007
(212) 937-7518

HANNAH E. GELBORT
WILMER CUTLER PICKERING
HALE AND DORR LLP
60 State Street
Boston, MA 02109
(617) 526-6000

KIMBERLY A. PARKER
ALEKSANDR SVERDLIK
WILMER CUTLER PICKERING
HALE AND DORR LLP
1875 Pennsylvania Ave., N.W.
Washington, D.C. 20006
(202) 663-6000

Counsel for Amici Curiae

CERTIFICATE OF INTERESTED PERSONS

Pursuant to Federal Rule of Appellate Procedure 26.1 and Fourth Circuit Rule 26.1A, American College of Obstetricians and Gynecologists, American Medical Association, American Academy of Nursing, American Academy of Family Physicians, American Academy of Pediatrics, American College of Nurse-Midwives, American College of Physicians, American Gynecological and Obstetrical Society, American Psychiatric Association, American Society for Reproductive Medicine, Nurse Practitioners in Women's Health, Society of Family Planning, Society of Gynecologic Oncology, Society for Maternal-Fetal Medicine, and Society of OB/GYN Hospitalists state that they are nonprofit organizations with no parent corporations or publicly traded stock.

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<i>Stenberg v. Carhart</i> , 530 U.S. 914 (2000).....	1
<i>Stuart v. Camnitz</i> , 774 F.3d 238 (4th Cir. 2014)	20

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§ 44-41-640.....	20
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§ 44-41-680.....	18, 21, 22
Senate Bill 1, South Carolina Fetal Heartbeat and Protection from Abortion Act, 124th Sess. (S.C. 2021)	
§ 3	8, 14, 18, 21, 22, 26
S.C. Code Reg. 61-12, § 101(T)	25

OTHER AUTHORITIES

<p>AAP Committee on Adolescence, Policy Statement, <i>The Adolescent’s Right to Confidential Care When Considering Abortion</i>, 139 Pediatrics 1 (Feb. 1, 2017).....</p>	17
<p>ACOG, Statement of Policy, <i>Abortion Policy</i> (revised and approved Nov. 2014, reaff’d Nov. 2020), https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2020/abortion-policy</p>	25
<p>ACOG, <i>Code of Professional Ethics</i> (Dec. 2018), https://www.acog.org/-/media/project/acog/acogorg/files/pdfs/acog-policies/code-of-professional-ethics-of-the-american-college-of-obstetricians-and-gynecologists.pdf?la=en&hash=CC213370E1EFDCD3E81242D8384BE4AB.....</p>	18
<p>ACOG, <i>Committee Opinion No. 390, Ethical Decision Making in Obstetrics and Gynecology</i> (Dec. 2007, re-aff’d 2016), https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2007/12/ethical-decision-making-in-obstetrics-and-gynecology.....</p>	21
<p>ACOG, <i>Committee Opinion No. 815, Increasing Access to Abortion</i> (Dec. 2020), https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2020/12/increasing-access-to-abortion.....</p>	12
<p>ACOG, <i>Committee Opinion No. 819, Informed Consent and Shared Decisions Making in Obstetrics and Gynecology</i> (Feb. 2021), https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2021/02/informed-consent-and-shared-decision-making-in-obstetrics-and-gynecology</p>	23
<p>ACOG, <i>Practice Bulletin No. 175, Ultrasound in Pregnancy</i> (Dec. 2016), https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2016/12/ultrasound-in-pregnancy</p>	26

ACOG, <i>Statement of Policy, Legislative Interference with Patient Care, Medical Decisions, and the Patient-Physician Relationship</i> (May 2013, reaff'd July 2016), https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2019/legislative-interference-with-patient-care-medical-decisions-and-the-patient-physician-relationship	18
AMA, <i>Informed Consent, Code of Medical Ethics Opinion 2.1.1</i> , https://www.ama-assn.org/delivering-care/ethics/informed-consent (visited Sept. 8, 2021).....	23
AMA <i>Statement on Supreme Court Ruling in Louisiana Abortion Case</i> (June 29, 2020), https://www.ama-assn.org/press-center/ama-statements/ama-statement-supreme-court-ruling-louisiana-abortion-case	19
American Institute of Ultrasound in Medicine, <i>Practice Guideline for Ultrasonography in Reproductive Medicine</i> (2008)	26
Bae, Jinju, et al., <i>Factors Associated with Menstrual Cycle Irregularity and Menopause</i> , 18 BMC Women's Health 1 (2018).....	9
Biggs, M. Antonia, et al., <i>Does Abortion Reduce Self-Esteem and Life Satisfaction?</i> , 23 Quality of Life Research 2505 (Apr. 17, 2014)	13
Biggs, M. Antonia, et al., <i>Mental Health Diagnoses 3 Years After Receiving or Being Denied an Abortion in the United States</i> , 105 Am. J. Pub. Health 2257 (Dec. 2015).....	13
Biggs, M. Antonia, et al., <i>Women's Mental Health and Well-Being 5 Years After Receiving or Being Denied an Abortion</i> , JAMA Psychiatry 169. 172 (Dec. 14, 2016, corrected Jan. 18, 2017).....	12
Boondra, Heather D., et al., Guttmacher Institute, <i>Abortion in Women's Lives</i> (May, 2006).....	9
Charles, Vignetta E., et al., <i>Abortion and Long-Term Mental Health Outcomes: A Systematic Review of the Evidence</i> , 78 Contraception 436 (July 2008)	13

Cortes-Hernandez, J., et al., <i>Clinical Predictors of Fetal and Maternal Outcome in Systemic Lupus Erythematosus: A Prospective Study of 103 Pregnancies</i> , 41(6) <i>Rheumatology</i> 643 (2002).....	15
DeVilbiss, Elizabeth A., et al., <i>Prediction of Pregnancy Loss by Early First Trimester Ultrasound Characteristics</i> , <i>Am. J. Obstet. Gynecol.</i> 223 (Aug. 2020).....	28
Drey, Eleanor A., et al., <i>Risk Factors Associated With Presenting for Abortion in the Second Trimester</i> , 107 <i>Obstet. & Gynecol.</i> 128 (Jan. 2006).....	10
Frates, Mary C., et al., <i>Pregnancy Outcome After a First Trimester Sonogram Demonstrating Fetal Cardiac Activity</i> , 12 <i>J. Ultrasound Med.</i> 383 (Jul. 1993).....	28
Gadsby, Roger, et al., <i>A Prospective Study of Nausea and Vomiting During Pregnancy</i> , 43 <i>Brit. J. of Gen. Prac.</i> 245 (June 1993).....	10
Glenza, Jessica, <i>Doctor’s Organization: Fetal Heartbeat Bills Language Is Misleading</i> , <i>The Guardian</i> (June 7, 2019), https://www.theguardian.com/world/2019/jun/05/abortion-doctors-fetal-heartbeat-bills-language-misleading	26
Greene, Michael F., M.D. & Jeffrey L. Ecker, M.D., <i>Abortion, Health and the Law</i> , 350 <i>New Eng. J. Med.</i> 184 (Jan. 8, 2004)	15
Grossman, D., et al., <i>Tex. Pol’y Eval. Proj. Res., Knowledge, Opinion and Experience Related to Abortion Self-Induction in Texas</i> (Nov. 17, 2015), https://liberalarts.utexas.edu/txpep/_files/pdf/TxPEP-Research-Brief-KnowledgeOpinionExperience.pdf	12
Guttmacher Institute, <i>Fact Sheet, Unintended Pregnancy in the United States</i> (Jan. 2019).....	9
Guttmacher Institute, <i>Parental Involvement in Minors’ Abortions</i> (Sept. 1, 2021), https://www.guttmacher.org/state-policy/explore/parental-involvement-minors-abortions	17
Heaney, Katie, <i>Embryos Don’t Have Hearts</i> , <i>The Cut</i> (May 24, 2019), https://www.thecut.com/2019/05/embryos-dont-have-hearts.html	27

Heller, Rebecca & Sharon Cameron, <i>Termination of Pregnancy at Very Early Gestation Without Visible Yolk Sac on Ultrasound</i> , 41 J. Fam. Plann. Reprod. Health Care 90 (2015).....	11
Huntleigh Healthcare Ltd., <i>High Sensitivity Pocket Dopplers Service Manual</i> (2009), https://cdn.shopify.com/s/files/1/1046/1086/files/Huntleigh-High-Sensitivity-Pocket-Dopplers-Service-Manual.pdf	27
Jerman, Jenna, et al., Guttmacher Institute, <i>Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008</i> (May 2016), https://www.guttmacher.org/report/characteristics-us-abortion-patients-2014	16
Jones, Rachel K., et al., Guttmacher Institute, <i>Abortion Incidence and Service Availability in the United States, 2017</i> (Sept. 2019), https://www.guttmacher.org/report/abortion-incidence-service-availability-us-2017	11
Jun Tan, Cheryl Mei, et al., <i>The Transitional Heart: From Early Embryonic and Fetal Development to Neonatal Life</i> , 47 Fetal Diagn. Ther. 373 (Sept. 18, 2019).....	28
Kiely, David G., et al., <i>Pregnancy and Pulmonary Hypertension; A Practical Approach to Management</i> , 6 Obstetric Med. 144 (2013).....	15
Laufer, Marc R., et al., <i>Pregnancy Outcome Following Ultrasound-Detected Fetal Cardiac Activity in Women With a History of Multiple Spontaneous Abortions</i> , 1 J. Soc. Gynecol. Invest. (Apr.-June 1994).....	28
Leiva, M.C., et al, <i>Fetal Cardiac Development and Hemodynamics in the First Trimester</i> , 14 Ultrasound Obstet. Gynecol. 169 (Sept. 1999)	8
Mangla, Kimberly, et al., <i>Maternal Self-Harm Deaths: An Unrecognized and Preventable Outcome</i> , 221 Am. J. Obstet. & Gynecol. 295 (2019).....	15
Matsuo, Koji, et al., <i>Alport Syndrome and Pregnancy</i> , 109 Obstet. & Gynecol. 531 (Feb. 2007).....	15

National Academies of Sciences, Engineering, Medicine, <i>The Safety and Quality of Abortion Care in the United States</i> (2018).....	12
Rogers, Adam, <i>'Heartbeat' Bills Get the Science of Fetal Heartbeats All Wrong</i> , Wired (May 14, 2019), https://www.wired.com/story/heartbeat-bills-get-the-science-of-fetal-heartbeats-all-wrong/	26, 27, 28
S.C. Maternal Morbidity and Mortality Rev. Comm., Legislative Brief (Mar. 2020), https://www.scstatehouse.gov/reports/DHEC/mmmr-2020-Final.pdf	16
Sinkovskaya et al., <i>Fetal Cardiac Axis and Congenital Heart Defects in Early Gestation</i> , 125 <i>Obstet. & Gynecol.</i> 453 (Feb. 2015).....	26
SMFM, Position Statement, <i>Access to Abortion Services</i> (Dec. 2017, re-aff'd June 2020), https://s3.amazonaws.com/cdn.smfm.org/media/2418/Access_to_Abortion_Services_(2020).pdf	22
SMFM, <i>Reproductive services for women at high risk for maternal mortality</i> (Apr. 2020), https://www.smfm.org/publications/286-reproductive-services-for-women-at-high-risk-for-maternal-mortality-a-report-of-the-workshop	23
Stout, Karen K. & Catherine M. Otto, <i>Pregnancy in Women with Valvular Heart Disease</i> , 93 <i>Heart</i> 552 (May 2007)	15
Upadhyay, Ushma D., et al., <i>Denial of Abortion Because of Provider Gestational Age Limits in the United States</i> , 104 <i>Am. J. Pub. Health</i> 1687 (Sept. 2014).....	10

STATEMENT OF INTEREST OF AMICI CURIAE

The American College of Obstetricians and Gynecologists (“ACOG”)¹ is the nation’s leading group of physicians providing healthcare for women. With more than 62,000 members, ACOG advocates for quality healthcare 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 healthcare. ACOG is committed to ensuring access to the full spectrum of evidence-based quality reproductive healthcare, including abortion care. ACOG has been cited frequently by the Supreme Court and other federal courts seeking authoritative medical data regarding childbirth and abortion.²

¹ Pursuant to Federal Rule of Appellate Procedure 29, the parties have consented to the filing of this brief and undersigned counsel for amici curiae certify that: (1) no counsel for a party authored this brief in whole or in part; (2) no party or party’s counsel contributed money that was intended to fund the preparation or submission of this brief; and (3) no person or entity—other than amici, their members, and their counsel—contributed money intended to fund the preparation or submission of this brief.

² See, e.g., *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); *Greenville Women’s*

The American Medical Association (“AMA”) is the largest professional association of physicians, residents, and medical students in the United States. Substantially all U.S. physicians, residents, and medical students are represented in the AMA’s policy-making process. AMA promotes the science and art of medicine and the betterment of public health. AMA members practice in all fields of medical specialization and in every state, including South Carolina.

American Academy of Family Physicians (“AAFP”) is the national medical specialty society representing family physicians. Founded in 1947, its 133,500 members are physicians and medical students from all 50 states. AAFP seeks to improve the health of patients, families, and communities by advocating for the health of the public.

American Academy of Nursing (“AAN”) serves the public by advancing health policy through the generation, synthesis, and dissemination of nursing knowledge. Its 2,800 Fellows, inducted into the organization for their extraordinary contributions to improve health locally and globally, represent nursing’s most accomplished leaders in policy, research, administration, practice, and academia.

Clinic v. Bryant, 222 F.3d 157, 168 (4th Cir. 2000) (extensively discussing ACOG’s guidelines and describing those guidelines as “commonly used and relied upon by obstetricians and gynecologists nationwide to determine the standard and the appropriate level of care for their patients”).

American Academy of Pediatrics (“AAP”) is a professional organization founded in 1930 dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults. Its membership is composed of 67,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists. AAP is a powerful voice for child and adolescent health through education, research, advocacy, and the provision of expert advice. AAP has worked with the federal and state governments, health care providers, and parents on behalf of America’s families to ensure the availability of safe and effective reproductive health services.

American College of Nurse-Midwives (“ACNM”) advances the practice of midwifery to achieve optimal health for women through their lifespan, with expertise in women’s health and gynecologic care. Its members include approximately 7,000 certified nurse midwives and certified midwives who provide primary and maternity care services to help women and their newborns attain, regain, and maintain health. ACNM advocates on behalf of women and families, its members, and the midwifery profession to eliminate health disparities and increase access to evidence-based, quality care.

American College of Physicians (“ACP”) is the largest medical specialty organization in the U.S. and has members in more than 145 countries worldwide.

ACP membership includes 159,000 internal medicine physicians, related subspecialists, and medical students.

American Gynecological and Obstetrical Society (“AGOS”) is the premier national organization composed of leading experts in Obstetrics and Gynecology. For over a century it has championed the highest quality of care for women and the science needed to improve women’s health.

American Psychiatric Association (“APA”) represents over 38,800 physicians who specialize in the practice of psychiatry. APA members engage in research into and education about diagnosis and treatment of mental health and substance use disorders and treat patients who experience mental health and/or substance use disorders.

American Society for Reproductive Medicine (“ASRM”) is dedicated to the advancement of the science and practice of reproductive medicine. Its members include approximately 8,000 professionals. ASRM pursues excellence in education and research and advocates on behalf of patients, physicians, and affiliated healthcare providers.

Nurse Practitioners in Women’s Health (“NPWH”) works to ensure the provision of quality primary and specialty health care to women by focused nurse practitioners. Its mission includes protecting and promoting a woman’s right to make her own choices regarding her health within the context of her personal,

religious, cultural, and family beliefs. Since its inception in 1980, NPWH has been a trusted source of information on nurse practitioner education, practice, and women's health issues.

Society of Family Planning ("SFP") represents approximately 800 scholars and academic clinicians united by a shared interest in advancing the science and clinical care of family planning. It builds and supports a community of scholars and partners who focus on the science and clinical care of family planning; supports the production of research primed for impact; advances the delivery of clinical care based on the best available evidence; and drives the uptake of family planning evidence into policy and practice.

Society of Gynecologic Oncology ("SGO") is the premier medical specialty society for health care professionals trained in the comprehensive management of gynecologic cancers. With 2,000 members representing the entire gynecologic oncology team in the United States and abroad, SGO contributes to the advancement of women's cancer care by encouraging research, providing education, raising standards of practice, advocating for patients and members and collaborating with other domestic and international organizations. In that mission, SGO strives to ensure access to women's health care as part of an overall prevention strategy for gynecologic cancer.

Society for Maternal-Fetal Medicine (“SMFM”) is the medical professional society for obstetricians trained in high-risk, complicated pregnancies.

Representing over 5,000 members, SMFM supports the clinical practice of maternal-fetal medicine by providing education, promoting research, and engaging in advocacy to reduce disparities and optimize the health of high-risk pregnant people and their babies.

Society of OB/GYN Hospitalists (“SOGH”) represents physicians, midwives, nurses and others in the health care field who support the OB/GYN Hospitalist model. SOGH is dedicated to improving outcomes for hospitalized women.

SUMMARY OF ARGUMENT

South Carolina’s attempt to ban nearly all abortions after six weeks gestation is fundamentally at odds with the provision of safe and essential health care, medical ethics, and well-settled constitutional law. There is no medical or scientific justification for the South Carolina Fetal Heartbeat and Protection from Abortion Act (“the Act”). Instead, it threatens patients’ health by arbitrarily barring their access to a safe and essential component of health care. In particular, patients of color, patients with limited socioeconomic means, and patients living in rural communities would be most severely harmed by the Act.

The Act impermissibly intrudes into the patient-physician relationship by limiting a physician's ability to provide health care that the patient and physician decide is best for the patient's particular life circumstances and medical needs. Moreover, the Act undermines longstanding principles of medical ethics and places physicians in the untenable position of choosing between providing care consistent with their best medical judgment and ethical obligations or risking criminal sanction, fines, and loss of their medical licenses. By prohibiting patients from making certain informed medical decisions, it infringes physicians' ability to honor patient autonomy.

The Act threatens to impose these harms in a plainly unconstitutional manner—by banning abortion *months* before the medically justifiable viability line that the Supreme Court has drawn and long honored. The Act's framing of the detection of cardiac electrical activity as a developmental turning point and signifier of fetal viability lacks any medical or scientific foundation. While the existence of fetal cardiac electrical impulses at around six weeks gestation is one of many steps in early fetal development, it has no bearing on eventual fetal viability, the medically and legally meaningful developmental demarcation that occurs approximately 18 weeks later. The South Carolina legislature's judgment to the contrary does not comport with any known medical science or the current practice of health care.

For these reasons and those discussed below, amici—major medical organizations representing physicians and other clinicians who serve patients in South Carolina and nationwide—urge the Court to affirm the district court’s injunction.

ARGUMENT

I. THE BAN WILL HARM WOMEN’S HEALTH

The Act bars abortions in South Carolina upon detection of embryonic or fetal “cardiac activity”—which may occur as early as five or six weeks of pregnancy³—with narrowly-defined exceptions for medical emergencies and severe fetal abnormalities. SB 1, § 3 (adding S.C. Code Ann. § 44-41-610(3)). Physicians could be convicted of a felony, fined \$10,000, and imprisoned for two years for providing an abortion in contravention of the Act. *Id.* This six-week ban—an unconstitutional pre-viability abortion restriction (*see* Appellees Br. 16-19)—would cause severe physical and psychological health harms to pregnant patients.

³ See Leiva et al, *Fetal Cardiac Development and Hemodynamics in the First Trimester*, 14 *Ultrasound Obstet. Gynecol.* 169 (Sept.1999) (measuring fetal cardiac activity via transvaginal ultrasound as early as five weeks gestation).

A. The Ban Will Endanger Women’s Physical And Psychological Health

The Act takes the drastic step of banning abortion as early as six weeks gestational age—when detection of embryonic or fetal cardiac activity may be possible. Given that more than 45% of pregnancies in the United States are unplanned and many medical conditions, including irregular periods, may mask a pregnancy, many women may not even discover they are pregnant before this cutoff.⁴ Most patients—particularly those who are not planning a pregnancy—have no reason to suspect they are pregnant until they miss a period. Because a pregnancy may be dated from the first day of the last menstrual period, six weeks into pregnancy is only two weeks after a missed period. Moreover, while a menstrual cycle is on average four weeks long, many women experience irregular cycles (due to stress, obesity, thyroid dysfunction, and premature ovarian failure, etc.) and adolescents may have cycles that are six weeks or longer in early menstrual life.⁵ Furthermore, because nearly half of pregnancies are unplanned,

⁴ Guttmacher Inst., *Fact Sheet, Unintended Pregnancy in the United States* (Jan. 2019); Boondra et al., Guttmacher Inst., *Abortion in Women’s Lives* 29 (May 2006).

⁵ Bae et al., *Factors Associated with Menstrual Cycle Irregularity and Menopause*, 18 *BMC Women’s Health* 1, 1 (2018); AAP Comm. on Adolescence & ACOG Comm. on Adolescent Health Care, *Menstruation in Girls and Adolescents: Using the Menstrual Cycle as a Vital Sign*, 118 *Pediatrics* 2245, 2246-2247 (Nov. 2006).

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.⁶

Even if women become aware of pregnancies before six weeks, 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 and organizing funds, transportation, accommodation, childcare, and time off from work. Women who have later abortions often “have had difficulty finding an abortion provider” and “arranging transportation,” “live farther from the clinic,” are “less educated,” are “unsure of their last menstrual period,” and “experience fewer pregnancy symptoms.”⁷ One recent study found that women obtaining first-trimester abortions were delayed in doing so for a variety of reasons: 36.5% due to travel and procedure costs, 37.8% due to not recognizing the pregnancy, 20.3% due to insurance problems, and 19.9% due to not knowing where to find abortion care.⁸ Even greater proportions of women

⁶ Gadsby et al., *A Prospective Study of Nausea and Vomiting During Pregnancy*, 43 *Brit. J. of Gen. Prac.* 245, 246 (June 1993).

⁷ Drey et al., *Risk Factors Associated With Presenting for Abortion in the Second Trimester*, 107 *Obstet. & Gynecol.* 128, 130 (Jan. 2006).

⁸ 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).

obtaining second-trimester abortions faced these obstacles.⁹ Moreover, before six weeks gestation, physicians cannot always confirm an intrauterine pregnancy via ultrasound and therefore cannot offer abortion care until later in the pregnancy.¹⁰

For these reasons, the vast majority of abortions provided in South Carolina by Planned Parenthood South Atlantic and Greenville Women’s Clinic—which operate the only three abortion clinics in the State—are performed at or after six weeks. JA 20, 43. The Act therefore criminalizes the vast majority of abortions sought in South Carolina because most patients will be unable to terminate their pregnancies before its six-week cutoff.

South Carolina’s pre-viability abortion ban will force some women to have abortions later in pregnancy as a result of needing to travel outside the state and others to attempt unsafe self-induced abortions through harmful methods or to forego a needed abortion and carry an unwanted pregnancy to term.¹¹ Each of these outcomes may cause harm to women’s physical and psychological health that

⁹ *Id.*

¹⁰ 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).

¹¹ See, e.g., Jones et al., *Abortion Incidence and Service Availability in the United States, 2017*, at 3, 8 (May 2019) (noting rise in patients who attempted to self-manage an abortion, with highest proportions in the South and Midwest).

could be avoided if abortion services were available.¹² For instance, though the risk of abortion complications overall remains exceedingly low, increasing gestational age results in increased chance of major complications—a risk increased further still by continuing a pregnancy to term.¹³ Women are more likely to self-induce abortions where they face barriers to reproductive services, and self-induction outside safe medical abortion (abortion by pill) may rely on harmful methods such as herbal or homeopathic remedies, intentional trauma to the abdomen, abusing alcohol or illicit drugs, or misusing hormonal pills.¹⁴ Finally, evidence suggests that women are more likely to experience psychological issues such as anxiety when *denied* a needed abortion.¹⁵ Accordingly, the ban threatens women’s physical and psychological health.¹⁶

¹² See, e.g., ACOG, *Committee Opinion No. 815, Increasing Access to Abortion* (Dec. 2020).

¹³ Upadhyay et al., 88 *Contraception* at 181.

¹⁴ Grossman et al., *Tex. Pol’y Eval. Proj. Res., Knowledge, Opinion and Experience Related to Abortion Self-Induction in Texas* 3 (Nov. 17, 2015).

¹⁵ Biggs et al., *Women’s Mental Health and Well-Being 5 Years After Receiving or Being Denied an Abortion*, *JAMA Psychiatry* 169, 172 (Dec. 14, 2016, corrected Jan. 18, 2017).

¹⁶ See also National Academies of Sciences, Engineering, Medicine, *The Safety and Quality of Abortion Care in the United States* 76-77 (2018) (noting that greatest threats to the safety of abortion are unnecessary regulations that restrict access to abortion).

B. There Is No Health Justification For The Ban

The State's unsupported assertion (at 7) that the Act "promotes" interests in "the health of the pregnant woman" is neither credible nor persuasive. The State advances no argument that women's physical health is threatened by abortion after six weeks gestation. The Act purports to protect women by lessening their risk of psychological harms that might result from terminating a pregnancy after six weeks gestation. State Br. 2, 8-9. But that concern is unfounded, as the "highest-quality research available does not support the hypothesis that abortion leads to long-term mental health problems."¹⁷ In the context of unplanned pregnancies, recent studies have found no difference in the risk of depression or other mental health problems between women who have abortions and women who carry their pregnancy to term.¹⁸ In fact, there is evidence that abortion bans can actually lead to *detrimental* effects on women's mental health.¹⁹ In short, contrary to the State's

¹⁷ Charles et al., *Abortion and Long-Term Mental Health Outcomes: A Systematic Review of the Evidence*, 78 *Contraception* 436, 448-449 (July 2008); see also Biggs et al., *Mental Health Diagnoses 3 Years After Receiving or Being Denied an Abortion in the United States*, 105 *Am. J. Pub. Health* 2257, 2561 (Dec. 2015) (obtaining abortion does not correlate with higher rates of mental health disorders).

¹⁸ Biggs et al., *Women's Mental Health*, *supra* note 15, at 177.

¹⁹ *Id.* at 172; Biggs et al., *Does Abortion Reduce Self-Esteem and Life Satisfaction?*, 23 *Quality of Life Research* 2505 (Apr. 17, 2014); Biggs et al., *Women's Mental Health*, *supra* note 15, at 177.

claim, the Ban will not advance women's health; rather, it is very likely to cause physical and psychological harm for pregnant women.

C. The Narrow “Medical Emergency” Exception Does Not Adequately Protect Women’s Health

Under the Act, a physician may perform an abortion after six weeks only in cases involving rape, incest, fetal anomaly, or “medical emergencies.” SB 1, § 3 (adding S.C. Code Ann. §§ 44-41-650 & 44-41-660). The Act narrowly defines a “medical emergency” as a condition that necessitates an “immediate” abortion to “avert the death of the pregnant woman” or a “serious risk of substantial and irreversible physical impairment of a major bodily function of the pregnant woman.” *Id.* (adding S.C. Code Ann. § 44-41-610(8)). Physicians may perform an abortion after six weeks only once a medical condition has so compromised a patient’s health that she requires an “immediate” abortion to avert death or “substantial and irreversible physical impairment of a major bodily function.” It forecloses abortions for women who face serious medical complications that, while posing grave risks, are not yet urgent enough to fall within the Act’s exception.

There are many serious medical conditions that would not qualify as a “medical emergency” under the Act but would nevertheless jeopardize a patient’s health. These include, but are not limited to: Alport syndrome (form of kidney inflammation), valvular heart disease (abnormal leakage or partial closure of a heart valve that can occur in patients with no history of cardiac symptoms), lupus

(autoimmune disorder 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 may worsen to the point of causing blindness as a result of pregnancy).²⁰ The Act makes no exception for women who have experienced conditions constituting a “medical emergency” in previous pregnancies and now wish to terminate a subsequent unplanned pregnancy to avoid future life-threatening complications. Moreover, the exception does not cover mental health issues that might threaten a woman's health if the pregnancy is not terminated.²¹

Women should not be forced to wait until a condition deteriorates to the point of a “serious risk of a substantial and irreversible impairment” before accessing potentially life-saving care. Nor should physicians be put in the impossible position of either letting a patient deteriorate until an “immediate”

²⁰ See Matsuo et al., *Alport Syndrome and Pregnancy*, 109 *Obstet. & Gynecol.* 531, 531 (Feb. 2007); Stout & Otto, *Pregnancy in Women with Valvular Heart Disease*, 93 *Heart* 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 (Jan. 8, 2004).

²¹ SB 1, § 3 (“medical emergency” defined as “not including psychological or emotional conditions”); see generally, Mangla et al., *Maternal Self-Harm Deaths: An Unrecognized and Preventable Outcome*, 221 *Am. J. Obstet. & Gynecol.* 295 (2019).

abortion is necessary because death is imminent or facing possible criminal prosecution for performing an abortion. By putting physicians to this choice between potential prosecution and the practice of scientific, ethical, high quality health care, the State challenges the very core of the Hippocratic Oath—“do no harm”—and indefensibly jeopardizes patients’ health.

D. The Ban Will Hit Marginalized Populations The Hardest

The Act also disproportionately impacts people of color, those living in rural areas, and those with limited economic resources. The six-week ban will effectively bar all abortions in South Carolina.²² Because the majority of women seeking abortions identify as Black, Hispanic, Asian, or Pacific Islander, and 75% of those seeking abortion are living at or below 200% of the federal poverty level, these individuals will bear the brunt of the ban.²³

The inequities continue after abortion is denied. Because women of color in South Carolina are 2.6 times more likely to die from pregnancy-related causes than white women, carrying an unwanted pregnancy to term is disproportionately dangerous for them.²⁴ Similarly, traveling out of state for medical care is more

²² *Supra* pp. 9-11.

²³ Jerman et al., Guttmacher Inst., *Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008* (May 2016).

²⁴ S.C. Maternal Morbidity and Mortality Rev. Comm., Legislative Brief (Mar. 2020).

difficult, if not impossible, for patients with limited means or geographic remoteness. South Carolina already imposes a host of other hurdles on patients seeking abortions: it bars the coverage of most abortions through its Medicaid program and in plans offered on its Affordable Care Act exchange; it requires pregnant patients to wait 24 hours after receiving written materials about fetal development and alternatives to abortion before having an abortion performed; and if an ultrasound is performed, the pregnant patient must wait an hour after the ultrasound to receive the abortion. S.C. Code Ann. § 44-41-330. Unemancipated minors under seventeen must also either have a parent or guardian certify receipt of those materials before an abortion or obtain judicial bypass, a time-consuming process that is likely to significantly delay access to abortion.²⁵ The Act thus exacerbates inequities in women's health and health care, harming the most vulnerable South Carolinians.

II. THE ACT IS CONTRARY TO CORE PRINCIPLES OF MEDICAL ETHICS AND PLACES PHYSICIANS IN ETHICALLY COMPROMISED POSITIONS

The Act violates long-established—and widely accepted—principles of medical ethics and intrudes upon the foundation of the patient-physician relationship: honest, open communication. It requires physicians to violate the

²⁵ AAP Committee on Adolescence, Policy Statement, *The Adolescent's Right to Confidential Care When Considering Abortion*, 139 Pediatrics 1, 5 (Feb. 1, 2017); Guttmacher Inst., *Parental Involvement in Minors' Abortions* (Sept. 1, 2021).

age-old principles of beneficence, non-maleficence, and respect for patient autonomy to avoid being charged with a felony, facing fines, or having their licenses to practice medicine suspended or canceled. SB 1, § 3 (adding S.C. Code Ann. §§ 44-41-680(D); 44-41-650(B)).

A. The Act Undermines The Patient-Physician Relationship

Patient safety is of paramount importance to amici. While some regulation of medical practice is necessary to protect patients, legislation that substitutes a political agenda for physicians' expert medical judgment impermissibly interferes with the patient-physician relationship. ACOG's Code of Professional Ethics provides that "the welfare of the patient must form the basis of all medical judgments" and obstetrician-gynecologists should "exercise all reasonable means to ensure that the most appropriate care is provided to the patient."²⁶

The patient-physician relationship is critical for safe and quality medical care.²⁷ At the core of this relationship is the ability to speak frankly and confidentially about important issues and concerns; this exchange of information

²⁶ ACOG, *Code of Professional Ethics 2* (Dec. 2018); see also AMA, *Patient-Physician Relationships, Code of Medical Ethics Opinion 1.1.1* (discussing physicians' "ethical responsibility to place patients' welfare above the physician's own self-interest or obligations to others").

²⁷ ACOG, *Statement of Policy, Legislative Interference with Patient Care, Medical Decisions, and the Patient-Physician Relationship* (May 2013, reaff'd July 2016) ("ACOG, *Legis. Policy Statement*").

ensures that the physician's recommendations are made in the patient's best medical interests with the best available scientific evidence.²⁸ Amici oppose laws that threaten the patient-physician relationship absent a justifiable health reason.²⁹ Government should not interfere with the ability of physicians to determine the appropriate courses of treatment and to discuss those options with their patients openly, honestly, and confidentially.

By criminalizing pre-viability abortions, the Act wrongfully intrudes on the patient-physician relationship. The ban may prohibit a physician from fulfilling her duty of discussing when an abortion is medically necessary and in the best interest of the patient based on a politically, rather than medically, determined gestational limitation.³⁰ For example, if a patient's health were compromised, but the fetus was at approximately six weeks gestation, the ban would only allow a physician to perform an abortion if the threat to the patient's health rose to a legislatively defined "medical emergency," regardless of the overall medical advisability of the procedure. SB 1, § 3 (adding S.C. Code Ann. § 44-41-660(A)).

²⁸ 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.").

²⁹ See ACOG, *Legis. Policy Statement*, *supra* note 27.

³⁰ See *AMA Statement on Supreme Court Ruling in Louisiana Abortion Case*, (June 29, 2020).

The Act defines a “medical emergency” as only one that “necessitates the immediate abortion of [a] pregnancy to avert [the patient’s] death [or] serious risk of a substantial and irreversible physical impairment of a major bodily function, not including psychological or emotional conditions.” *Id.* (adding § 44-41-610(8)). A physician and patient may conclude that an abortion is in the patient’s best medical interests even though continuing the pregnancy does not immediately threaten the patient’s life or risk substantial and irreversible physical impairment of a major bodily function. The Act would force such a physician to choose between the ethical practice of medicine and obeying the law.

Furthermore, the Act’s requirements that a physician perform a potentially medically unnecessary ultrasound, prolong it by unnecessarily searching for fetal cardiac activity, inform the patient that the cardiac activity may be audible, and ask if she would like to hear it, SB 1, § 3 (adding S.C. Code Ann. §§ 44-41-630; 44-41-640), intrude on the physician-patient relationship by demanding that the physician perform medically unnecessary tests and provide information that the patient may not want or need. *See Stuart v. Camnitz*, 774 F.3d 238, 243, 250 (4th Cir. 2014) (statute requiring physician to perform ultrasound, display sonogram for patient, and allow patient to hear cardiac activity “interferes with the physician’s right to free speech beyond the extent permitted for reasonable regulation of the medical profession, while simultaneously threatening harm to the patient’s

psychological health, interfering with the physician’s professional judgment, and compromising the doctor-patient relationship”).

Finally, the Act’s requirement that physicians acting under the rape exception “report the allegation of rape ... to the sheriff” and “include the name and contact information of the pregnant woman making the allegation” damages the patient-physician relationship by requiring physicians to disclose private information to law enforcement, potentially against the patients’ wishes and regardless of whether the provider has already complied with applicable mandatory-reporting laws. SB 1, § 3 (adding S.C. Code Ann. § 44-41-680(B) & (C)). This may dissuade women from disclosing a rape to their doctors and obtaining the medical and psychological care they require. It may also force physicians to endanger patients by reporting a rape to law enforcement against the patient’s wishes.

B. The Act Violates The Principles Of Beneficence And Non-maleficence

Beneficence, the obligation to promote the well-being of others, and non-maleficence, the obligation to do no harm and cause no injury unless the harm is justified by concomitant benefits, have been the cornerstones of the medical profession since the Hippocratic traditions nearly 2500 years ago.³¹ Both

³¹ ACOG, *Committee Opinion No. 390, Ethical Decision Making in Obstetrics and Gynecology*, at 3–4 (Dec. 2007, re-aff’d 2016).

principles arise from the foundation of medical ethics which requires that the welfare of the patient forms the basis of all medical decision-making.³²

Abortion caregivers respect these ethical duties by engaging in patient-centered counseling, providing patients with enough information about risks, benefits, and pregnancy options, and ultimately allowing the patients to make a decision fully informed by both medical science and their individual lived experiences.³³

The Act compromises these principles by pitting physicians' interests against those of their patients. It makes it a felony to perform an abortion after about six weeks gestation, conviction for which "must" result in a fine of ten thousand dollars, imprisonment for up to two years, or both. SB 1, § 3 (adding S.C. Code Ann. §§ 44-41-680(D); 44-41-650(B)). Such convictions may result in further fines and cancellation of the physician's medical license. *See id.* (adding § 40-47-110).

If a physician concludes that an abortion is medically advisable, the principles of beneficence and non-maleficence require the physician to recommend that course of treatment. But the Act either forces physicians to deny their patients

³² ACOG, *Code of Professional Ethics*, *supra* note 26, at 2; ACOG, *Committee Opinion No. 390*, *supra* note 31, at 3-5; *see also* AMA, *Opinion 1.1.1*

³³ *See* SMFM, Position Statement, *Access to Abortion Services 2* (Dec. 2017, re-aff'd June 2020).

an abortion after six weeks gestation or otherwise exposes physicians to penalties. It subjects physicians to the ethical dilemma of choosing between providing the best available medical care for their patients and risking substantial penalties or protecting themselves.

C. The Act Violates The Ethical Principle Of Respect For Patient Autonomy

Another core principle of medical ethics is patient autonomy—the recognition that patients have ultimate control over their bodies and a right to a meaningful choice when making medical decisions.³⁴ Physicians must respect the right of individual patients to make their own choices about their health care.³⁵ 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.³⁶

The Act violates patient autonomy by denying patients the right to make their own choices about health care if they decide they need, for example, to seek a

³⁴ ACOG, *Code of Professional Ethics*, *supra* note 26, at 1 (“respect for the right of individual patients to make their own choices about their health care (autonomy) is fundamental”).

³⁵ *Id.*; see also SMFM, *Reproductive services for women at high risk for maternal mortality*, at B9 (Apr. 2020).

³⁶ ACOG, *Committee Opinion No. 819, Informed Consent and Shared Decision Making in Obstetrics and Gynecology*, at e35-e36 (Feb. 2021); AMA, *Informed Consent, Code of Medical Ethics Opinion 2.1.1*.

pre-viability abortion after the fetus has reached six weeks gestation. Similarly, the medically unnecessary ultrasound requirements, *supra* pp. 20-21, undermine the principle of patient autonomy by subjecting the patient to images, questions, and information even if she affirmatively indicates that she does not want them.

Amici oppose laws that cause such grave ethical dilemmas and incentivize physicians to prioritize their own security over the welfare of their patients through the provision of medical care that falls short of the accepted clinical standards.

III. THE ACT VIOLATES *CASEY*'S MEDICALLY APPROPRIATE VIABILITY LINE

The Supreme Court has long recognized viability as the critical point of fetal development at which the state's interest in protecting potential fetal life may outweigh a woman's privacy and autonomy interests in terminating her pregnancy. In *Planned Parenthood of Southeastern Pennsylvania v. Casey*, the Court reaffirmed *Roe*'s holding that viability is where "the line should be drawn" and "the point at which the balance of interests tips." 505 U.S. 833, 861, 870 (1992). It explained that viability "is the time at which there is a realistic possibility of maintaining and nourishing a life outside the womb, so that the independent existence of the second life can in reason and all fairness be the object of state protection that now overrides the rights of the woman" and accordingly "there is no line other than viability which is more workable." *Id.* at 870.

The viability line corresponds to the medical reality that before viability, the fetus's continued existence depends entirely on the pregnant woman; medical support alone could not support it.³⁷ After viability, however, the fetus has developed sufficiently such that it may be sustained through medical support alone.

There is an undisputed medical consensus that six weeks gestation is months before fetal viability. South Carolina law itself has long contained a "legal presumption" that "viability occurs no sooner than the twenty-fourth week of pregnancy," S.C. Code Ann. § 44-41-10(1)(l); *see also* S.C. Code Reg. 61-12, § 101(T). The Act therefore bans abortions long before constitutionally permissible under the medically justifiable viability framework set forth in *Roe* and *Casey*. *See Casey*, 505 U.S. at 860.

South Carolina impermissibly and groundlessly attempts to substitute the detection of a "fetal heartbeat" which, as defined by the Act, occurs around six weeks gestation, for viability. The Act arbitrarily and unscientifically assigns critical importance to the presence of electrical flickering of a portion of the fetal tissue, which is but one of many early fetal developmental steps and occurs months before a fetus may reach viability.

³⁷ ACOG, Statement of Policy, *Abortion Policy* (revised and approved Nov. 2014, reaff'd Nov. 2020) ("Viability is the capacity of the fetus for sustained survival outside the woman's uterus. Whether or not this capacity exists is a medical determination.").

The Act's terminology, definitions, and medical finding sections are scientifically flawed. First, the Act defines a "fetal heartbeat" as "cardiac activity, or the steady or repetitive rhythmic contraction of the fetal heart, within the gestational sac." SB 1, § 3 (adding S.C. Code Ann. § 44-41-610(3)). This terminology and definition are medically inaccurate and misleading. While contemporary ultrasound can detect an electrically induced flickering of a portion of the fetal tissue at about six weeks gestation, structurally and in function, a fetus' heart develops over the entire course of the pregnancy and does not complete development or function fully until after delivery.³⁸ Early screening for signs of developing congenital heart disease in fetuses does not even occur until around eleven to fourteen weeks gestation.³⁹ The "electrically induced flickering" detectable at six weeks gestation cannot reasonably be termed a "heartbeat," given that the valves and chambers that create the actual sound have yet to form.⁴⁰ The

³⁸ Glenza, *Doctor's Organization: Fetal Heartbeat Bills Language Is Misleading*, The Guardian (June 7, 2019); Rogers, *'Heartbeat' Bills Get the Science of Fetal Heartbeats All Wrong*, Wired (May 14, 2019) (citing Dr. Janet Rossant, senior scientist and chief of research emeritus at the Hospital for Sick Children in Toronto).

³⁹ See Sinkovskaya et al., *Fetal Cardiac Axis and Congenital Heart Defects in Early Gestation*, 125 *Obstetrics & Gynecology* 453, 458-460 (Feb. 2015).

⁴⁰ See *ACOG Practice Bulletin No. 175, Ultrasound in Pregnancy* 3 (Dec. 2016) (referring to embryonic "cardiac activity" and "cardiac motion" rather than a heartbeat in the context of first-trimester ultrasound); American Institute of Ultrasound in Medicine, *Practice Guideline for Ultrasonography in Reproductive Medicine* 4 (2008) (same); Glenza, *supra* note 38 (quoting Dr. Ted Anderson,

sound that the Act would force a physician to ask a patient to listen to is actually a manufactured, artificial sound, not a biological one.⁴¹

Additionally, the Act's medical "[f]indings" that "a fetal heartbeat is a key medical predictor" that a fetus "will reach live birth" and that "a fetal heartbeat begins at a biologically identifiable moment in time, normally when the fetal heart is formed in the gestational sac" are scientifically flawed and misleading. Section 2(5)-(6). Again, these "[f]indings" dramatically misstate the science of fetal development. A "fetal heartbeat" does *not* occur "when the fetal heart is formed in the gestational sac." Rather, electrical activity occurs in "a group of cells" that is "in no way ... any kind of cardiovascular system."⁴² A functioning heart has *not* been "formed" by six weeks.⁴³ The presence of electrical flickering is simply "a sign that there is a pregnancy developing"; it is "a prerequisite for future viability

President of ACOG); Heaney, *Embryos Don't Have Hearts*, The Cut (May 24, 2019) (citing Dr. Robyn Schickler, an OB/GYN with Physicians for Reproductive Health, and Dr. Jennifer Kerns, an OB/GYN and professor at the University of California, San Francisco, explaining that although "pulsing cells can be detected in embryos as early as six weeks, this rhythm—detected by a doctor, via ultrasound—cannot be called a "heartbeat," because embryos don't have hearts. What *is* detectable at or around six weeks can more accurately be called 'cardiac activity.'").

⁴¹ See, e.g., Huntleigh Healthcare Ltd., *High Sensitivity Pocket Dopplers Service Manual* 17 (2009).

⁴² Rogers, *supra* note 38.

⁴³ Heaney, *supra* note 40 ("'Heartbeat' conjures an organ which expands and contracts, but a six-week embryo has yet to develop that structure.").

but not sufficient alone.”⁴⁴ Many pregnancies in which such electrical flickering is detected never reach viability.⁴⁵

CONCLUSION

For the foregoing reasons, amici urge the Court to affirm the district court’s grant of a preliminary injunction.

Respectfully submitted,

ALAN E. SCHOENFELD
WILMER CUTLER PICKERING
HALE AND DORR LLP
7 World Trade Center
New York, NY 10007
(212) 937-7518

/s/ Kimberly A. Parker
KIMBERLY A. PARKER
ALEKSANDR SVERDLIK
WILMER CUTLER PICKERING
HALE AND DORR LLP
1875 Pennsylvania Ave., N.W.
Washington, D.C. 20006
(202) 663-6000

⁴⁴ Jun Tan et al., *The Transitional Heart: From Early Embryonic and Fetal Development to Neonatal Life*, 47 *Fetal Diagn. Ther.* 373, 379 (Sept. 18, 2019) (“Cardiopulmonary adaptation at birth involves an intricate series of timely biochemical and structural modifications that are required for a successful cardiopulmonary transition from the fetal to neonatal circulation”); Rogers, *‘Heartbeat’ Bills Get the Science of Fetal Heartbeats All Wrong*.

⁴⁵ DeVilbiss et al., *Prediction of pregnancy loss by early first trimester ultrasound characteristics*, *Am. J. Obstet. Gynecol.* 223, 224 (Aug. 2020) (10.4% of women studied with ultrasound detected fetal cardiac activity experienced clinical pregnancy loss following that ultrasound); Frates et al., *Pregnancy Outcome After a First Trimester Sonogram Demonstrating Fetal Cardiac Activity*, 12 *J. Ultrasound Med.* 383, 383 (July 1993) (9.4% of pregnancies with fetal cardiac activity detected during first trimester resulted in miscarriage); Laufer et al., *Pregnancy Outcome Following Ultrasound-Detected Fetal Cardiac Activity in Women With a History of Multiple Spontaneous Abortions*, 1 *J. Soc. Gynecol. Invest.*, 138, 139 (Apr.-June 1994) (22.7% of women studied with multiple previous miscarriages miscarried following detection of fetal cardiac activity at 5-6 weeks gestation).

HANNAH E. GELBORT
WILMER CUTLER PICKERING
HALE AND DORR LLP
60 State Street
Boston, MA 02109
(617) 526-6000

September 8, 2021

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/s/ Kimberly A. Parker

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I hereby certify that, on September 8, 2021, I electronically filed the foregoing Brief of Amici Curiae American College of Obstetricians and Gynecologists and others in Support of Plaintiffs-Appellees and In Support of Affirmance with the Clerk of Court by using the CM/ECF system, which will send a notice of electronic filing to counsel for the parties and amici curiae.

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KIMBERLY A. PARKER

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Kimberly A. Parker
Name (printed or typed)

(202) 663-6000
Voice Phone

WilmerHale
Firm Name (if applicable)

Fax Number

1875 Pennsylvania Ave., NW

Washington, D.C. 20006
Address

kimberly.parker@wilmerhale.com
E-mail address (print or type)

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