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ORIGINAL PAPER

Confidential and legal access to abortion and contraception in the USA, 1960–2020

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Abstract
An expansive empirical literature estimates the causal effects of policies governing young women's confidential and legal access to contraception and abortion. I present a new review of changes in the historical policy environment in the USA that serve as the foundation of this literature. I consult primary sources, including annotated statutes, judicial rulings, attorney general opinions, and advisory articles in medical journals, as well as secondary sources including newspaper articles and snapshots of various policy environments prepared by scholars, advocates, and government organizations. Based on this review, I provide a suggested coding of the policy environment over the past 60 years. I also present and compare the legal coding schemes used in the empirical literature and where possible I resolve numerous and substantial discrepancies.

Keywords Abortion · Contraception · Policy

JEL Classification J13 · J16 · K38

1 Introduction

A prominent literature in economics exploits state-level variation in policies governing access to contraception and abortion to identify how access to reproductive technologies shaped family formation, human capital attainment, and labor market outcomes. Economists have exploited the staggered repeal and invalidation of Comstock laws in the 1960s that made it legal to prescribe and distribute the contraceptive pill to adult women (Bailey, 2010), as well as policies governing the right of young, unmarried women to consent to the pill in the 1960s and 1970s (Goldin and

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Katz 2002; Bailey 2006; Guldi 2008; Hock 2007; Ananat and Hungerman 2012; Steingrimsdottir 2010; Bailey et al. 2012; Zuppann 2012b; Myers 2017). Economists also have exploited the early repeal of abortion bans in certain states to estimate the effects of abortion legalization in the early 1970s (Angrist and Evans 1996; Gruber et al. 1999; Levine et al. 1999; Ananat et al. 2009), but only a few papers additionally consider whether young, unmarried women could consent to abortion services at the time those services were legalized (Hock 2007; Guldi et al. 2008; Myers 2017).

The internal validity of the difference-in-differences research designs used in these papers requires careful and comprehensive coding so that the policy environment is fully and accurately described. It is therefore dismaying to discover that there is a great deal of dissonance in the policy coding used by different researcher teams. For example, four papers in the "power of the pill" literature that exploits policies governing young women's legal confidential access to the pill in the sixties and seventies disagree on the year in which young women gained the right to consent to the pill for 35 of 51 states and the District of Columbia (Goldin and Katz 2002; Bailey 2006; Hock 2007; Guldi 2008). These discrepancies are neither limited to one set of authors nor are they small. Goldin and Katz (2002) and Bailey (2006) differ for 25 states by an average of 2.6 years, Goldin and Katz (2002) and Hock (2007) differ for 25 states by an average of 3.3 years, and Bailey (2006) and Hock (2007) differ for 23 states by an average of 4.0 years.[1] Similarly, the two empirical papers that had previously coded young women's confidential access to abortion in the 1970s differ on the year minors gained confidential access to abortion for 18 states (Hock 2007; Guldi 2008). These discrepancies have the potential to substantially impact empirical estimates. In Myers (2017) I revisit the results in Goldin and Katz (2002) and Bailey (2006) and demonstrate that errors and omissions in policy coding contributed to the earlier authors' overestimation of the effects of contraceptive policy and underestimation of the effects of abortion policy. Furthermore, in Myers (2017) I demonstrate that abortion legalization did not have homogeneous effects across states, but instead that the effect of legalization on young women's fertility was amplified when the policy environment permitted young unmarried women confidential access to abortion.

This current paper is written for scholars seeking to understand the complex history of policies that have shaped young women's legal access to contraception and abortion in the USA over the past 60 years and to code this policy environment accurately and comprehensively for their own empirical analyses.[2] I begin with a broad overview of the complicated interplay of common law precedents, state legislative actions, and state and federal judicial rulings that determine when and where

[1] These reported differences will be documented, summarized, and discussed later in this paper.

[2] My focus is exclusively on laws governing the legality of technologies and young women's legal rights to consent to related health care. This paper does not cover other policies governing access such as Medicaid eligibility and coverage for contraception and abortion, mandates that private insurers cover contraceptive services without co-pays, mandatory waiting periods for abortion, or so-called targeted regulations of abortion providers (TRAP laws). See Arnold (2022) in this issue for information about TRAP laws and their effects on abortions and births.

contraception and abortion are legal and young women can confidentially access to these services without involving a parent or judge. This review covers the invalidation and repeal of Comstock laws following the introduction of the pill in 1960 and continues through the reform and repeal of abortion laws and policies governing young unmarried women's confidential access to the pill and abortion through the late 1970s. I also consider the contemporary era of abortion policy, discussing and providing dates for "parental involvement laws" requiring parental notification or consent for minors' abortions enforced since 1980. I then provide recommended state-by-state coding of the years these policy changes occurred. Finally, I compare this suggested coding to policy coding schemes used by various authors in prior work, document differences across the schemes, and reconcile these differences wherever possible.

For readers interested in more state-specific details and documentation, a lengthy online appendix and Myers (2022a) provide a detailed state-by-state review with complete citations of the primary and secondary sources that underpin the state policy coding. These citations reflect an extensive review of primary sources that include annotated statutes, judicial rulings, and state attorney general opinions, and of historical newspapers and medical journals providing evidence of how policy changes were implemented. I also incorporate information from snapshots of the policy environment afforded by reports from the Council of State Governments (1972, 1973), U.S. Department of Health, Education, and Welfare (1974, 1978), the Center for Adolescent Health and the Law (2006), NARAL (1989–2014), and the Guttmacher Institute (2017a, 2017b), and by a series of scholarly papers published in *Family Planning Perspectives* (Pilpel and Wechsler 1969, 1971; Paul et al. 1974, 1976). In addition, I review and incorporate information from Merz et al. (1995), who review minors' access to abortion through the early 1990s, and from Bailey and Davido (2009), who provide information on the enforcement of state Comstock laws.

In doing so, I provide a thorough overview of policy changes based on primary sources, augment this with information from secondary sources, consolidate information from other reviews, and reconcile substantial disparities in previous policy codings. This exercise produces a set of unified policy codings, corrects previous errors, and clearly flags states where policy changes were ambiguous and reasonable scholars may disagree. As a result, this more clearly defined and unified set of variables will serve as a useful resource to other researchers. Scholars already have used this revised coding to explore the dynamics of state policy liberalism (Caughey and Warshaw 2016) and to estimate the effects of confidential access to contraception and abortion (Steingrimsdottir 2016; Myers 2017; Cragun 2019; Beauchamp and Pakaluk 2019; Jones and Pineda-Torres, 2021; Lindo et al. 2020; Myers and Ladd 2020; Rim 2021; Forsstrom, 2021; Farin et al., 2021). Readers who are interested in obtaining datasets with policy coding corresponding to this review can find them at Open Science Framework (Myers 2022b).[3]

[3] https://doi.org/10.17605/OSF.IO/H9CRA

2 Policies governing the legality and confidentiality of contraception and abortion access since 1960

The legal rights of young women to access contraception and abortion services have depended on an interplay of laws governing adults and laws specifically targeting the age of majority and the rights of minors to consent to health care. In this section I dive into this complicated policy history, describing how it came to pass that in the early 1970s, depending on where she lived and her age, an unmarried teenager might be able to consent to neither contraception or abortion, to both, or to one but not the other.[4]

I begin with an overview of the introduction of the birth control pill and policy changes in the 1960s that provided married adult women legal access to it (Sect. 2.1). I then describe the reform and repeal of abortion restrictions in the late 1960s and early 1970s, culminating in Roe v. Wade and the national legalization of abortion (Sect. 2.2). In Sect. 2.3 I turn my attention to laws specifically governing young women's rights to access both contraception and abortion through the end of the 1970s, when a series of U.S. Supreme Court Rulings reshaped minors' rights. Section 2.4 considers the contemporary era of minors' access to reproductive services.

2.1 The introduction of the birth control pill

The United States Food and Drug Administration (FDA) approved Enovid, the first oral contraceptive, for the treatment of menstrual disorders in 1957. Three years later half a million women were already "on the pill" when the FDA approved it for contraceptive purposes on June 23, 1960. By 1962 approximately 1.2 million married women were on the pill, and this grew to 6.5 million married women by 1965 (Tone 2002).[5]

The pill was not immediately legally available in all states. The federal Comstock Act, which had once prohibited the distribution of contraceptives across state lines, had been invalidated by the time that the pill was introduced. But many states continued to enforce their own "little Comstock" laws modeled on the Comstock Act that restricted the advertisement, sale, and/or use of contraceptives within those states. Throughout this paper, I follow convention in referring to these state laws as "Comstock laws." The U.S. Supreme court ruling in Griswold v. Connecticut (381 US 479, 1965) recognized the right of married people to use birth control without government interference. Seven years later in Eisenstadt v. Baird (405 US 438, 1972), the court struck down a Massachusetts law restricting access to birth control

[4] Contraception and abortion differ in that contraception prevents a pregnancy from occurring by interfering with ovulation, fertilization, or implantation whereas abortion ends an established pregnancy. In the United States, some forms of contraception such as condoms and emergency contraception are available over the counter, while others such as the contraceptive pill, intrauterine device, or contraceptive implant are available only with a prescription.

[5] Usage statistics for unmarried women are not available for this period.

for unmarried people, stating that unmarried people have the same right to privacy as married ones. The Court's recognition of a constitutional right to privacy in contraceptive decisions altered enforcement of and compliance with state Comstock laws, and in the years following these rulings many states repealed or substantially liberalized their anti-contraception laws. After 1965, new state laws regarding contraception were generally affirmative.[6]

2.2 The legalization of abortion

Abortion became legal nation-wide on January 22, 1973, when the Supreme Court ruled in Roe v. Wade (410 US 113, 1973) and Doe v. Bolton (410 US 179, 1973) that women have a fundamental constitutional right to privacy in choosing to abort a fetus. Prior to these rulings, five "repeal" states and the District of Columbia had legalized abortion.[7] In addition, thirteen "reform" states had adopted provisions resembling those set forth by the American Law Institute in the Model Penal Code (MPC). These reform laws made abortion legal if performed by a physician because of substantial risk that continuing the pregnancy would cause grave physical or mental impairment or death of the woman, or the fetus would be born with a grave physical or mental defect or in cases where the pregnancy resulted from rape or incest.[8] In the remaining states, abortion generally was prohibited except to save the life of the mother.

The Centers for Disease Control began collecting abortion surveillance data on legally induced abortions in 1969 (Smith and Bourne 1973). By the beginning of 1971, the CDC was receiving information from 17 state health departments and from one or more hospitals in 8 other states and the District of Columbia. The reported number of legally induced abortions and the abortion ratio (abortions per 1,000 live births) for these states are presented in Table 1. The variation in reported legal abortions among the reform states is notable; abortion ratios range from 13.7 in South Carolina to 277.1 in Kansas, the latter figure exceeding the abortion ratio in three repeal states. Some of the variation in legal abortion ratios among reform

[6] An obvious exception is Massachusetts which, in the wake of the Griswold decision regarding married people, amended its Comstock law to prohibit the sale of contraceptives to *unmarried* people. This is the law that was challenged and struck down in Eisenstadt v. Baird (405 US 438, 1972).

[7] These "repeal" states are Alaska (1970), California (1969), District of Columbia (1971), Hawaii (1970), New York (1970), and Washington (1970). California reformed its abortion laws in 1967, but a court ruling in late 1969 regarding the pre-1967 abortion law had the practical effect of legalizing abortion. Court rulings in Vermont and New Jersey in 1972 overturned anti-abortion statutes in those states, but for reasons described in detail in the profiles of these states in the appendix, I do not code them as repeal states in this paper because providers appear to have been uncertain about the effect of the legal rulings and did not begin routinely performing abortions.

[8] These "reform" states are Arkansas (1969), California (1967), Colorado (1967), Delaware (1969), Florida.

(1972), Georgia (1969), Kansas (1970), Maryland (1968), New Mexico (1969), North Carolina (1967), Oregon (1969), South Carolina (1970), and Virginia (1970). In addition, the District of Columbia had legalized abortions to preserve the life or health of the mother in 1901, and in 1944 the Massachusetts Supreme Court had interpreted that state's anti-abortion law to exempt abortions to preserve the woman's life or physical or mental health.

Table 1 Legal abortions in 24 states and the District of Columbia, 1971

	Abortions	Live Births	Abortions per 1,000 live births
Repeal States			
Alaska	1,145	7,176	159.6
California	116,749	339,113	344.3
District of Columbia[b]	17,619	25,048	703.4
Hawaii	4,135	15,857	260.8
New York	257,055	285,218	901.3
Upstate New York	49,305	153,308	321.6
New York City	207,750	131,910	1,574.9
Washington[a]	5,519	26,009	212.2
Reform States			
Arkansas	637	35,120	18.1
Colorado	4,168	41,373	100.7
Delaware	1,129	9,904	114.0
Georgia	1,579	95,287	16.6
Kansas	9,472	34,184	277.1
Maryland	8,306	57,363	144.8
New Mexico[b]	4,883	22,293	219.0
North Carolina	4,322	95,972	45.0
Oregon	6,997	33,999	205.8
South Carolina	727	53,131	13.7
Virginia[a]	1,919	40,126	47.8
Other reporting states			
Alabama[a,b]	494	66,386	7.4
Arizona[a,b]	380	19,161	19.8
Connecticut[b]	724	44,908	16.1
Massachusetts[b]	1570	90,415	17.4
Mississippi[a]	48	22,705	2.1
Pennsylvania[b]	4,839	181,134	26.7
Vermont	9	7,817	1.2
Wisconsin[b,c]	4,661	71,697	65.0

Number of abortions as reported by state health departments to the Centers for Disease Control, 1972. Source: Jack Smith and Judith Bourne, "Abortion Surveillance Program of the Center for Disease Control," *Health Services Reports* 88(3): 259–258, 1973

[a] January-June 1971

[b] Number of abortions is based on reports from one or more hospitals or clinics

[c] The status of Wisconsin's abortion prohibition statute was unclear in 1971, and an abortion clinic was operating in Madison for much of that year

states likely reflects differences in reporting requirements and accuracy as well as inter-state travel from neighboring states. It likely also reflects differences in how the subjective mental health standard was applied by physicians and therapeutic abortion committees. In Maryland, one of the reform states with a high abortion ratio, "mental health" was the indication for 96 percent of legal abortions performed in the first six months of 1971 (Melton et al. 1972). In Colorado, another reform state with a high abortion ratio, the Denver General Hospital Therapeutic Abortion Board approved 62 percent of applications for therapeutic abortions, the majority for mental health reasons (Thompson et al. 1970).

Sociologist Carole Joffe's (1996) summary of interviews with abortion providers from this era provides anecdotal evidence of substantial inter-state and even inter-hospital variation in the ease with which physicians could obtain approval to perform abortions under mental health standards. Victor Bladheck, a physician in California at the time that the state enacted abortion reforms, recalled that after abortion reforms "the floodgates were opened…. We found three of four sympathetic doctors in the area that agreed to see these patients immediately and always agreed that the patient needed an abortion. All had the same diagnosis: 'situational anxiety.' These were normal women, in my opinion, with no psychiatric problems" (As quoted in Joffe 1996, pp. 121). Other providers, however, indicated that dealing with abortion committees was frustrating, time-consuming, and that many boards were extremely reluctant to approve abortions. One physician stated that he was reluctant to perform even approved abortions because he feared a zealous anti-abortion activist might still try to push prosecution jeopardizing his medical license (Joffe 1996).

2.3 Confidential access to contraception and abortion, 1960–1979

Comstock laws and abortion reforms and repeal determined the legality of prescription contraception and abortion for adult women, but minor women are subject to additional regulations determining whether they can provide legal consent to medical services. If statutory or case law has not extended this right to minors, or if a statutory parental involvement law offers a valid restriction, then minors must involve a parent in their decision to obtain contraception or abortion. For this reason, I refer to environments in which minors can provide legal consent without involving a parent as ones granting "confidential" access.

Under the system of legal precedent known as "common law," informed consent is necessary for a physician to provide medical services, and minors are generally considered incapable of providing informed consent to medical care. Accordingly, at the time of the introduction of the birth control pill, unmarried women under the age of majority—21 in most states—who had not previously given birth generally could not provide legal consent to contraceptive services (Pilpel and Wechsler 1969).[9] Exceptions arose in states that had enacted medical consent statutes specifically granting minors capacity to consent to medical care, as well as in states in which

[9] See also the Harvard Law Review (1975). The anonymous author cites contemporary physicians' manuals that advise providers to obtain parental consent before providing services.

the legislature or courts had recognized a mature minor doctrine whereby a minor can consent to medical care if she is judged capable of understanding the nature and potential consequences of treatment. In addition, in some states minors attained majority upon marriage, emancipation, or giving birth, and presumably could consent to contraception under these circumstances.

By the mid-seventies, most states had lowered the age of majority to 18, permitting women aged 18 and over to consent to contraception and, once it was legalized, to abortion as well. Confidential access to contraception and abortion for women under the age of majority continued to depend on the presence of state mature minor doctrines or other laws granting minors the right to consent to medical care without involving a parent. By 1979, 29 states had medical consent laws and/or mature minor laws that affirmed minors' ability to access contraception legally and confidentially from any provider. Two additional states, Hawaii and Montana, had passed laws permitting minors to consent to contraceptive services, but these policies explicitly permitted physicians to choose to notify a minor's parents.

Minors also gained increasing access to contraception through federally funded family planning clinics. On December 24, 1970, Title X of the federal Public Health Service Act was signed into law, establishing a program of federally funded family planning clinics that were required to make contraceptive services available to "all persons desiring such services…without regard to religion, creed, age, sex, parity, or marital status" (*Public Health Service Act* 1970; 1978). Program regulations adopted in 1972 expressly protected the confidentiality of patients (Maradiegue 2003). In 1978, Congress, which was concerned that minors were not taking advantage of the services offered by these clinics, amended the Act to explicitly mandate Title X to provide confidential contraception services to adolescents (Reimer 1986; Boonstra and Nash 2000). In 1981, Title X was again amended to "encourage family participation" under the grants. Pursuant to that language and with the encouragement of the Reagan administration, the Department of Health and Human Services adopted regulations mandating that parents be notified with ten days of the prescription of contraceptives to their minor children at Title X clinics. This rule, commonly known as the "Squeal Rule" was challenged and struck down by the U.S. Court of Appeals (Planned Parenthood Fed. of America v. Heckler, 712 F.2d 650, 1983). Currently more than 1/3 of teenagers who visit reproductive health clinics obtain services at a Title X clinic (Jones and Boonstra 2004).

In contrast to this generally affirmative trend for contraception, legislation related to minors' access to abortion in the 1970s was more mixed. While some medical consent laws permitted minors to consent to abortion, many, particularly those passed after 1973, excluded abortion from the services to which a pregnant minor could consent. In the wake of Roe v. Wade (410 US 113, 1973), other states enacted parental notification and/or consent requirements which served to explicitly restrict minors' confidential access.

As a result of the timing of the introduction of the contraceptive pill, the legalization of abortion and of distinctions made in states laws between minors' ability to consent to each, in a given state in a given year between 1960 and 1976, a minor seeking reproductive services might be legally able to consent to neither contraception or abortion, to both, or to one and not the other. Three Supreme decision in the

late seventies—Planned Parenthood of Central Missouri v. Danforth (428 US 52, 1976), Carey v. Population Services International (431 US 678, 1977), and Bellotti v. Baird (443 US 622, 1979)—established guidelines about the types of restrictions that could be imposed on minors seeking reproductive services. These decisions also served to clarify minor'' ability to consent absent an enabling statute.

In Planned Parenthood of Central Missouri v. Danforth (428 US 52, 1976), the court ruled that a Missouri parental consent law for abortion was unconstitutional, stating that a state does not "have the constitutional authority to give a third party an absolute, and possibly arbitrary, veto over the decision of a physician and his patient to terminate the patient's pregnancy, regardless of the reason for withholding consent" (p. 94). This ruling established that states may not impose a blanket prohibition on minors seeking abortion, nor can they impose parental consent laws that do not have a bypass option. The ruling invalidated parental consent laws in several states that did not contain a judicial bypass option, although some of these states did not immediately cease enforcing them (DHEW 1978).

The following year in Carey v. Population Services International (431 US 678, 1977), the Supreme Court declared a New York State statute that prohibited the sale or distribution of contraceptives to minors under 16 unconstitutional with respect to non-prescription contraceptives. The court affirmed that, like adults, minors have a right to privacy in choosing whether to "bear of beget a child" (p. 678) and that, just as a state could not impose a blanket prohibition on minors seeking abortions, it similarly could not prohibit the distribution of contraception to minors. Although the ruling specifically regarded non-prescription contraceptives, which Population Services International manufactured, the Court's reasoning suggested that its conclusions would also apply to prescription contraceptives.

In Bellotti v. Baird (443 US 622, 1979) the court offered more detailed guidance on what types of parental involvement requirements could be imposed on minors seeking abortions. It clarified that a bypass procedure must allow the judge to rule in an immature minor's interest or to determine that a minor is mature enough to make her own decision in consultation with a physician.[10] The ruling invalidated parental consent laws enacted after Planned Parenthood v. Danforth that did not provide a confidential judicial bypass procedure that allowed a judge to determine that a minor was mature enough to make her own decision in consultation with a physician. Bellotti v. Baird also established that parental notification laws must meet similar requirements as parental consent laws, invalidating parental notification laws without judicial bypass options. The opinion written by Justice Powell for Bellotti v. Baird illustrates the Court's reasoning in extending the right to privacy in childbearing decisions to minors:

The abortion decision differs in important ways from other decisions that may be made during minority…. The pregnant minor's options are much different from those facing a minor in other situations, such as deciding whether to marry. A minor

[10] This decision is often referred to as Bellotti II because the Court had heard the case in 1976 and sent it back to the Massachusetts Supreme Court for a clearer interpretation. The state court's ruling was again appealed back to the U.S. Supreme Court, resulting in the 1979 opinion.

not permitted to marry before the age of majority is required simply to postpone her decision…. A pregnant adolescent, however, cannot preserve for long the possibility of aborting, which effectively expires in a matter of weeks from the onset of pregnancy (p. 623).

2.4 Confidential legal access to contraception and abortion, 1980–2020

By 1980, following the decisions in Planned Parenthood v. Danforth and Bellotti v. Baird, the rights of minors to consent to abortion absent a parental involvement law had been established. States could limit minors' confidential access by passing statutes requiring parental involvement, but such laws had to include a judicial bypass option whereby a judge could either declare a minor competent to consent or make a decision in the minor's best interest. At the beginning of 1980, only one state, Utah, had an enforceable parental involvement law on the books (Utah Code Ann. § 76–7-304, 1974), and that law had been ruled constitutional only as applied to immature minors (H.L. v. Matheson 450 US 398, 1981).

Over the following decade, several more states enacted parental involvement laws, and by the end of 1990, 13 states were actively enforcing them. However, the application of the judicial precedents established by Planned Parenthood v. Danforth and Bellotti v. Baird remained somewhat mixed, and legal challenges created a turbulent policy environment in some states. Abortion rights advocates frequently filed suit in response to each new parental involvement law, and it was and remains common for enforcement of a new law to be enjoined pending a judicial review process. Nevertheless, the number of states that were actively enforcing parental involvement laws grew, from a single state in 1980 to 20 by the end of 1991. The following year, the Supreme Court decision in Planned Parenthood of Southeastern Pennsylvania v. Casey (505 US 833, 1992) upheld several provisions of a Pennsylvania law, including a parental consent requirement. In this decision, the Supreme Court for the first time applied the "undue burden" standard to abortion regulations, which it defined as a law placing "a substantial obstacle in the path of a woman seeking an abortion before the fetus attains viability" (p. 837). In the wake of this ruling, the number of enforced parental involvement laws continued to grow, to 36 states at present in 2017.

In contrast to efforts to restrict minors' access to abortion, there have been few efforts to restrict minors' access to contraception since 1980. In 1983, Utah attempted to enact a parental notification requirement for minors seeking contraception (Utah Code Ann. § 76–7-325, 1983). Enforcement of the law was enjoined before it could go into effect, and it was stuck down by a district court in Planned Parenthood Association of Utah v. Matheson (582 F. Supp. 1001, 1983). The court tied its decision to judicial precedent regarding abortion:

The Court acknowledges that a decision concerning the use of contraceptives is not fraught with the time limitations inherent in a decision concerning termination of a pregnancy through abortion. Nonetheless, decision whether to accomplish or to prevent conception is among the most private and sensitive. Moreover, in

contrast to the decision to marry, a decision concerning the use of contraceptives is similar to the decision whether to have an abortion in that it cannot be delayed until the minor reaches the age of majority without posing the risk of serious harm to the minor. (p. 1008).

At present, no states have laws in place that explicitly restrict the ability of private providers to provide confidential contraceptive services to minors.[11] Twenty-one states and the District of Columbia have enacted laws granting *all* minors the capacity to consent to healthcare services in general and/or contraceptive services in particular, and all but four states have some type of confirmatory law stating the conditions under which a minor may consent (Guttmacher Institute 2017a). Absent a law explicitly authorizing a minor to consent, the decision to provide confidential contraceptive services rests with the provider. A provider may be encouraged to provide contraceptive services to minors by legal scholars who interpret the *Carey* decision as affirming minors' rights to consent to contraception.[12] The Center for Adolescent Health and the Law (2006) advises that the right of privacy extends "protection to contraceptive decisions by minors as well as adult women" (p. 7). In a report published by the same organization, English et al. (2010) advise that "even in the absence of a statute authorizing minors to consent for family planning services or contraceptive care, if there is no valid statute or case prohibiting them from doing so, it would be reasonable to conclude that minors may give their own consent for these services" (p. 8). But the American College of Obstetricians and Gynecologists (ACOG) adopts a more conservative attitude, advising that "adolescents' legal rights to confidential contraceptive services vary by state and change over time. Where allowed, obstetrician-gynecologists should provide adolescents the opportunity to discuss [contraceptive services] without a parent or guardian for at least part of the visit" (ACOG 2017, p. 3). The advisory opinion recommends referral to a Title X health clinic if the policy environment does not permit confidential counseling (ACOG 2017).

There is little empirical evidence on whether, in practice, providers typically choose to provide confidential contraceptive services in the absence of state laws expressly authorizing them to do so. A policy report from the Guttmacher Institute asserts that physicians "commonly provide medical care to a mature minor without parental consent" (Guttmacher Institute 2017a, p. 1), and a reference manual for school health officials advises providers that contraceptive services "are" provided in states without explicit consent laws and that most providers "will use every effort

[11] Two states, Texas and Utah, have laws that require parental consent for minors to obtain birth control at clinics receiving state funds. These laws do not apply to private providers receiving no public funds or to providers receiving federal Title X funds which require that confidential services be made available to adolescents. In 1998, McHenry County, Illinois began requiring parental consent for minors seeking contraception at a Title X-funded clinic (Zavodny 2004). Because this violates federal law, the county had to use its own funds to pay for services.

[12] Immediately following the *Carey* decision in 1977, publications in state medical journals began to advise that doctors could prescribe contraceptives to minors without parental involvement. See, e.g., Weinstock and Paul (1978). More recently, see Maradiegue (2003).

to resist providing information to a parent against the wishes of the minor patient" (Cohn et al. 2005, p. 238).

2.5 Emergency contraception (EC)

When the FDA approved the emergency contraceptive Plan B in 1999, it was initially available only as a prescription contraceptive and hence subject to the same policies (or lack thereof) governing minors' access as other prescription contraceptives. From this time until 2006, eight states chose to legislate over-the-counter access (Zuppann 2012a), and the relevant laws did not make mention of an age restriction.[13] In 2006 the FDA promulgated new rules approving Plan B for over-the-counter distribution for women aged 18 and older. In 2009, the FDA lowered the age at which Plan B could be provided without a prescription from 18 to 17. In 2013, this age restriction was lifted all together because of a court order (NARAL 2017).

2.6 Summary of dates of legal changes

In this paper I provide suggested policy coding for researchers who wish to demarcate the dates of important policy changes affecting young women's legal and confidential access to prescription contraception and abortion. These dates can be used to implement difference-in-differences research designs estimating the average treatment effect on the treated (ATT) of reproductive policies by comparing changes in outcomes following a policy change to changes in outcomes in states where the policy is not changing. Under assumptions underlying difference-in-differences estimation, such a comparison can credibly identify the causal effect of these reproductive policies for populations who were treated. This is distinct from estimating the causal effect of the existence of the reproductive technology (i.e., the invention of the birth control pill or existence of abortion), which is not varying with these policies.

I focus on two broad categories of policy: those governing the legal provision of prescription contraceptives and abortion to adult unmarried women, and those governing the age of majority and minors' legal rights to consent to services without a parent's involvement.[14] Below I will describe my criteria for coding these policy changes. Readers interested in a detailed state-by-state review with citations of statutes and legal rulings should consult the online appendix or Myers (2022a).

Table 2 provides a state-level summary of the years in which young, unmarried women gained legal and confidential access to prescription contraception over the

[13] These states are Alaska (2003), California (2002), Hawaii (2003), Maine (2004), Massachusetts (2005), New Hampshire (2006), New Mexico (2003), and Vermont (2006). These laws are described in the state-by-state appendix to this paper, and also documented by Zuppann (2012a).

[14] I do not focus on spousal consent requirements, which were present in several state regulatory statutes governing abortion in the years immediately following *Roe*, and in several cases apparently enforced for the 3-year period until *Danforth*. I do note the presence of these requirements so far as I am aware of them in the appendix.

period 1960 to 2020. By "legal" I mean that physicians and pharmacists were legally permitted to distribute contraceptives to unmarried women, and by "confidential" I mean that the law explicitly allowed women in each age range to consent to contraceptive services and hence avoid involving anyone beyond healthcare providers in her decision.

The period I consider begins with the FDA approval of Enovid for contraceptive purposes in 1960. In this year women aged 21 and older were legal adults in all states, and as such legally permitted to consent to medical services. However, extant Comstock laws prohibited physicians and pharmacists from distributing the birth control pill in several states.[15] In these states, married adult women gained legal access between 1960 and 1965, as Comstock laws were repealed, struck down, or invalidated by Griswold v. Connecticut in 1965.[16] I assume that unmarried adult women gained legal access to the pill at the same time as married adult women unless a state had a Comstock law that differentiated between married and unmarried persons.[17] It is likely that in practice unmarried women did not gain legal access at the same pace as married women. Indeed, whether the right to privacy in contraceptive choices extended to unmarried adult women as well seems to have been a gray area in the law, one not firmly established until Eisenstadt v. Baird (1972). Absent a legislative statute, judicial ruling, or attorney general's opinion explicitly denying or affirming the right of unmarried adult women to consent, however, I assume that the date that birth control became legally available to married adult women also demarcates the date at which it became more available to unmarried adult women, even if the rate of increase in access was lower during subsequent years.

Columns 3–4 of Table 2 indicate the year that a legal change extended confidential access to women aged 18–20 (who were defined as adults in most states after the lowering of the age of majority) and 15–17 (defined as minors in all states). Columns 5–6 report the type of policy that granted women in each of these ages ranges confidential access. In coding these columns, I assume that women under 21 gained legal confidential access to contraception as soon as those services were available to older unmarried women, and a regulatory change affirmed the right of women under age 21 to consent to contraceptive services. I interpret affirmative changes in the legal environment to include age of majority statutes (AOM), medical consent statutes specifically granting all minors capacity to consent to reproductive services

[15] Information about Comstock statutes is based on Bailey (2010) and Bailey and Davido (2009). The authors divide physician exemptions to Comstock laws into two broad categories: blanket exemptions, which they argue allowed for the dissemination of the birth control pill, and more ambiguous "legitimate business exemptions," which, in practice, did seem to limit the sale of the pill. I follow Bailey and Davido in treating a Comstock law as restrictive only if it did not include a blanket exemption.

[16] In assuming that married women in states with Comstock laws gained access with the 1965 *Griswold* decision, I follow the approach of Bailey (2010). Many states with restrictive Comstock laws in place did not immediately repeal them following *Griswold*, and they were not clearly unconstitutional under Griswold because it was applied narrowly to Connecticut's unique ban on the use (as opposed to the sale) of contraceptives. However, *Griswold* caused a dramatic erosion in compliance with and enforcement of Comstock laws, and Bailey points out that it is difficult to tell whether the repeal of Comstock laws after 1965 caused a change in enforcement or reflected changes that had already occurred in practice.

[17] Only two states, Massachusetts and Wisconsin, had such laws.

Table 2 Year unmarried women gained legal and confidential access to prescription contraception, 1960–2017

State	Year of legal change			Type of legal change	
	Ages 21 +	Ages 18–20	Ages 15–17	Ages 18–20	Ages 15–17
Alabama	1960	1971	1971	MCL	MCL
Alaska[a]	1960	1960	1974	AOM	MCL
Arizona	1962	1972	1977	AOM	AG
Arkansas	1960	1960	1973	AOM	MCL
California[b]	1963	1972	1976	AOM	MCL
Colorado	1961	1971	1971	MCL	MCL
Connecticut	1965	1971		MCL	
Delaware	1965	1971	1972	MCL	MCL
District of Columbia	1960	1971	1971	MCL	MCL
Florida	1960	1972	1972	HH	HH
Georgia	1960	1971	1972	MCL	MCL
Hawaii[c]	1960	1960		AOM	
Idaho	1960	1960	1974	AOM	LMM
Illinois	1960	1960	1969	AOM	HH
Indiana	1963	1973		AOM	
Iowa[d]	1960	1972	1999	AOM	MCL
Kansas	1963	1970	1970	JMM	JMM
Kentucky	1960	1965	1972	AOM	MCL
Louisiana	1960	1972		AOM	
Maine[e]	1960	1969	1973	AOM	HH
Maryland	1960	1971	1971	MCL	MCL
Massachusetts	1972	1974	1977	AOM	JMM
Michigan	1960	1972		AOM	
Minnesota	1960	1973	1976	AOM	MCL + J
Mississippi[f]	1965	1965	1965	LMM	LMM
Missouri	1965	1977		MCL	
Montana[g]	1960	1960		AOM	
Nebraska[h]	1965	1969		AOM	
Nevada	1960	1960	1975	AOM	LMM
New Hampshire	1960	1971	1971	LMM	LMM
New Jersey	1963	1973		AOM	
New Mexico	1960	1971	1973	AOM	MCL
New York[i]	1960	1971	1971	MCL	J
North Carolina	1960	1971	1977	AOM	MCL
North Dakota	1960	1960		AOM	
Ohio	1965	1965	1965	JMM	JMM
Oklahoma	1960	1960		AOM	
Oregon	1960	1971	1971	MCL	MCL
Pennsylvania	1960	1970	1997	MCL	
Rhode Island	1960	1972		AOM	
South Carolina[j]	1960	1972	1972	MCL	MCL
South Dakota	1960	1960		AOM	
Tennessee	1960	1971	1971	AOM	MCL

Table 2 (continued)

State	Year of legal change			Type of legal change	
	Ages 21 +	Ages 18–20	Ages 15–17	Ages 18–20	Ages 15–17
Texas	1960	1973		AOM	
Utah	1960	1960		AOM	
Vermont	1960	1971		AOM	
Virginia	1960	1971	1971	MCL	MCL
Washington	1960	1970	1991	MCL	MCL
West Virginia	1960	1972		AOM	
Wisconsin[k]	1974	1974		AOM	
Wyoming[l]	1960	1973		AOM	

Table 2 reports suggested coding for the earliest year young unmarried women gained "legal and confidential access" to the birth control pill. "Legal and confidential access" is defined as a policy environment in which all physicians and pharmacists could dispense the pill to women in the specified age range, and an affirmative policy environment permitted women in the specified age range to provide legal consent without involving a parent. "Legal" access is determined by FDA approval of the pill and 1960 and the enforcement of Comstock laws. For unmarried women under age 21, confidential access is determined by age-of-majority statutes (AOM), medical consent statutes (MCL), judicial or legislative recognition of a mature minor doctrine (JMM and LMM), medical consent law granting minors ability to consent if physician judges that failure to provide services would be hazardous to minor's health (HH), and Attorney General opinions (AG). Additional types of legal change affirming young women's access to abortion a are parental involvement law stating a minimum age to consent for an abortion that is below the age of majority (PIL) and a judicial ruling enjoining enforcement of restrictive law (J). See the text and state-by-state policy appendix for additional details

[a]In Alaska the age of majority was 19 in 1960. Women aged 18 gained access in 1974 with a medical consent law.

[b]California had a Comstock law in place that limited the distribution of prescription contraception. Based on accounts of the opening of family planning clinics, I have inferred that enforcement ceased in 1963.

[c]In Hawaii the age of majority was 20 when Enovid was introduced in 1960. Women aged 18-19 gained legal access in 1972 when the age of majority was lowered. A 1979 medical consent law permits minors aged 14 and older to consent to contraceptive services. Physicians may notify a minor's parent, but are not required to do so.

[d]The Iowa legislature lowered the age of majority from 21 to 19 in 1972 and from 19 to 18 in 1973.

[e]The Maine legislature lowered the age of majority from 21 to 20 in 1969 and from 20 to 18 in 1972.

[f]The Mississippi legislature codified a judicial precedent for a mature minor doctrine for minors seeking medical care in 1966. In 1972, the legislature passed a medical consent law permitting physicians to provide contraception to a minor who was married, a parent, had parental consent, or had been referred by certain persons. The medical consent law did not include a mature minor provision.

[g]The age of majority was 18 for females and 21 for males in Montana in 1960. In 1971, the legislature set the age of majority at 19 for both males and females; in 1973 the legislature lowered the age of majority to 18 for males and females. Montana enacted a medical consent law in 1969 that permits physicians to furnish contraception to minors, but the law permits physicians to notify the minor's parents.

[h]The Nebraska legislature lowered the age of majority from 21 to 20 in 1969 and from 20 to 19 in 1972.

[i]The New York legislature passed a law in 1971 prohibiting the sale of contraception to people under the age of 16. Enforcement was enjoined in 1975.

[j]South Carolina's medical consent law explicitly permitted minors aged 16 and older to consent to non-surgical medical services. A 1976 attorney general opinion stated that the law could be construed to permit physicians to provide contraceptive services to minors under age 16 as well.

[k]Wisconsin continued to enforce a Comstock law prohibiting the sale of contraceptives to unmarried people until it was enjoined by court order in 1974.

[l]The Wyoming legislature lowered the age of majority from 21 to 19 in 1973; it did not lower it to 18 until 1993.

(MCL), medical consent statutes granting providers permission to provide confidential services to minors if in the provider's opinion the failure to provide services would be hazardous to a minor's health (HH), legislative or judicial mature minor doctrines (LMM and JMM), affirmative attorney general opinions (AG), and judicial rulings that affirmed minors' rights to consent (J).

I do not code laws permitting minors to consent to contraception at state-funded public health clinics as granting broad access, because these legal changes likely did not affect as broad or representative a group of women as those that permitted all types of providers to supply confidential reproductive services to minors. This is a subjective choice, and researchers may wish to explore the robustness of their analyses to making the alternative decision. The online appendix (Myers 2022a) makes note of all such laws and the accompanying data sets (Myers 2022b) include the alternative policy coding. This results in a relatively small number of changes. When looking at laws granting access to women aged 18–20, the dates are different only for Georgia (1968 instead of 1971) and Wyoming (1969 instead of 1973), both of which permitted publicly funded clinics to provide confidential services to minors before they lowered the age of majority. I also do not code as affirmative confidential access laws in Hawaii and Montana that grant minors capacity to consent to contraceptive services, but explicitly grant physicians the right to inform a minor's parents.

For an illustrative example of the coding, consider the timing of affirmative legal changes in Iowa, which are described and documented in detail in the appendix (Myers, 2022a). Iowa did not have an extant Comstock law when Enovid was approved in 1960, and so the pill became legally available to unmarried women aged 21 and over at that time. In 1972, the Iowa legislature lowered the age of majority from 21 to 19, extending confidential legal access to women aged 19 to 20. The following year the legislature lowered the age of majority to 18, extending confidential legal access to this group. Iowa is unusual in enacting an affirmative policy governing minors' access after 1980. (Only two other states have done so.) In 1999 the Iowa legislature passed a bill related to HIV testing that also granted minors the legal right to consent to confidential services. This is the year that I code women aged 15–17 as gaining legal and confidential access. However, I again wish to emphasize that the post-1976 policy environment governing minors' right to consent to contraception is somewhat ambiguous in those states without affirmative laws, and many providers may choose to provide confidential services to minors.

Table 3 presents suggested policy coding for minors' legal and confidential access to abortion over the period 1969 to 1979. With respect to adults' legal access to abortion services, I code the earlier of the repeal of abortion restrictions or Roe v. Wade as the determining date.[18] As with the case of affirmative laws for contraception women under the age of 21 are coded as gaining confidential legal access due to the lowering of the age of majority, mature minor doctrines, and medical consent

[18] I code legal access beginning in 1974 in North Dakota. In the appendix, I present evidence that the North Dakota attorney general threatened to prosecute abortion providers in that state even after Roe. The North Dakota abortion prohibitions were then challenged and struck down by the state Supreme Court in 1974.

Table 3 Year women gained confidential and legal access to abortion, 1969–1979

State	Year of legal change			Type of legal change granting initial access	
	Ages 21 +	Ages 18–20	Ages 15–17	Ages 18–20	Ages 15–17
Alabama	1973	1973	1973	MCL	MCL
Alaska	1970	1970	1977	PIL	AG + MCL
Arizona	1973	1973		AOM	
Arkansas	1973	1973	1976	AOM	J
California	1969	1971	1971	J	J
Colorado	1973	1973	1975	MCL, PIL	J
Connecticut	1973	1973		AOM	
Delaware	1973	1973	1977	AOM	MCL + AG
District of Columbia	1971	1973	1973	J	J
Florida	1973	1973	1975	PIL, AOM	J
Georgia	1973	1973		AOM	
Hawaii	1970	1970		MCL	
Idaho	1973	1973		AOM	
Illinois	1973	1973	1973	AOM	MCL
Indiana	1973	1973	1975	AOM	J
Iowa	1973	1973	1976	AOM	AG
Kansas	1973	1973	1973	AOM	JMM + AG
Kentucky	1973	1973	1974	AOM	J
Louisiana[a]	1973	1973	1976	AOM	J
Maine	1973	1973	1979	AOM	J
Maryland[b]	1973	1973	1973	MCL	J + MCL
Massachusetts	1973	1974	1976	AOM	J
Michigan	1973	1973	1977	AOM	J
Minnesota	1973	1973	1973	MCL	MCL
Mississippi	1973	1973	1973	MCL	MCL
Missouri	1973	1974	1975	PIL	J
Montana[c]	1973	1973	1973	AOM	MCL
Nebraska[d]	1973	1973	1975	AOM	J
Nevada	1973	1973	1976	AOM	AG
New Hampshire	1973	1973	1973	AOM	LMM
New Jersey	1973	1973	1973	MCL	MCL
North Carolina[f]	1973	1973	1975	AOM	AG
North Dakota	1974	1974	1979	AOM	J
Ohio[g]	1973	1973	1973	JMM	JMM
Oklahoma	1973	1973		AOM	
Oregon	1973	1973	1973	AOM	J
Pennsylvania	1973	1973	1973	MCL	MCL + J
Rhode Island	1973	1973		AOM	
South Carolina[h]	1973	1974	1974	PIL	PIL
South Dakota	1973	1973		AOM	

Table 3 (continued)

State	Year of legal change			Type of legal change granting initial access	
	Ages 21 +	Ages 18–20	Ages 15–17	Ages 18–20	Ages 15–17
Tennessee	1973	1973	1979	AOM	AG + J
Texas	1973	1973		AOM	
Utah	1973	1973		AOM	
Vermont	1973	1973		AOM	
Virginia	1973	1973		AOM	
Washington	1970	1970	1975	MCL + PIL	J
West Virginia	1973	1973		AOM	
Wisconsin	1973	1973		AOM	
Wyoming	1973	1973[i]		AOM	

Table 3 reports suggested coding for the earliest year young unmarried women gained "legal and confidential access" to abortion. Women aged 21 + are coded as gaining legal access to abortion upon the earlier of the repeal or invalidation of a state prohibition or the U.S. Supreme Court's 1973 decision in Roe v. Wade. Women under age 21 are coded as gaining "confidential access" when a policy change recognizes a right to consent to abortion services without involving a parent. The authors exercise caution in interpreting the policy environment between 1976 and 1979 due to a series of important opinions issued by the Supreme Court. Legal changes conferring "confidential access" include age-of-majority statutes (AOM), medical consent statute granting all minors capacity to consent (MCL), judicial or legislative recognition of a mature minor doctrine (JMM and LMM), Attorney General opinions (AG), parental involvement law stating a minimum age to consent for an abortion that is below the age of majority (PIL) and a judicial ruling enjoining enforcement of restrictive law (J)

[a]A parental involvement law was later enforced in Louisiana from 1978 to 1980.

[b]The Maryland legislature enacted a parental involvement law in 1977 that appears to have been enforced through 1985.

[c]Montana enforced a parental involvement law for abortion from 1974 to 1976.

[d]Nebraska enforced parental involvement laws from 1973 to 1975 and 1977 to 1978.

[e]New York City hospitals performed abortions on minors aged 17 and older without parental consent.

[f]North Carolina enacted a parental consent law in 1977 that lacked a judicial bypass option and was presumably unenforceable.

[g]Ohio enforced a parental consent statute for women under 18 from 1974 to 1976.

[h]South Carolina enacted a parental consent law for minors under age 16 in 1974. This law was struck down in 1977.

[i]The Wyoming legislature lowered the age of majority from 21 to 19 in 1973; it did not lower it to 18 until 1993.

laws. It is noteworthy that in several states, medical consent laws enacted prior to Roe granted pregnant minors the right to consent to pregnancy-related medical care. Although these laws appear to have been intended to facilitate prenatal medical care, they had the probably unintended consequence of allowing pregnant minors to consent to abortion at the time it was legalized. In the wake of Roe, many states amended these laws to exclude abortion from the lists of services to which minors could consent, while others enacted parental involvement laws to explicitly restrict minors' confidential access to abortion. In this complex policy environment, I code

minors as gaining confidential legal access only if a state law explicitly granted this legal right, or if a state restriction was struck down by a court ruling. Such rulings were largely issued in the 1976–1979 policy period that I regard as ambiguous, and I caution researchers against an attempt to treat policy variation as clear or objectively defined in this span of years.

Table 4 covers the next three decades of abortion policy, summarizing minors' abilities to consent to abortion services from 1980 to 2020, an era in which a series of Supreme Court decisions had established minors' default right to consent to abortion services absent a valid state restriction. At the beginning of 1980, nearly all parental involvement statues for abortion had been invalidated by the Carey and Bellotti decisions. Within a few years, legislatures around the country had moved to enact new and valid parental involvement laws, though most did not take effect until after Casey was decided in 1992.[19] In this table, I indicate enforcement of a parental involvement law if a policy was being enforced that mandated parental notification or consent for all minors under a certain age (usually 18), and if the only bypass option involved consulting a judge, independent healthcare provider, or other adult family member. A handful of laws only recommended but did not require parental involvement, or explicitly permitted the providing physician to apply a mature minor standard. I do not regard these as sufficiently restrictive to indicate enforcement in Table 4, but they are noted in the footnotes to the table and discussed in the online appendix (Myers 2022a) for researchers who wish to make a different subjective decision.

The case of Kentucky offers an illustrative example of the shifting abortion policy environment by both Tables 3 and 4. As described in detail in the state-by-state policy appendix, in the wake of Roe, Kentucky enacted new legislation regulating the conditions under which women could seek abortions. The provisions included a spousal consent requirement for married women and a parental consent requirement for women under age 18, which was the legal age of majority. The law was challenged by two Kentucky physicians, and before it took effect a district court invalidated both consent requirements. In this ruling, the judge stated that although he was not issuing an injunction against enforcement, Kentucky would presumably "give full credence to this decision" (Wolfe v. Schroering 1974, p. 639). In Table 3, I code this as the date that minors under age 18 could legally and confidentially access abortion in Kentucky.

On August 18, 1976, six weeks after the Danforth ruling, the Sixth Circuit Court of Appeals ruled that both consent requirements in the Kentucky law were unconstitutional (Wolfe v. Schroering 1976). In January 1978, a bill was introduced in the Kentucky legislature to again implement a parental consent requirement, but the state assistant attorney general issued an advisory opinion that the provisions would not be enforceable under Danforth, and the bill died in session. In 1980, following the Supreme Court decision in Bellotti v. Baird clarifying the circumstances under which a parental involvement law might pass constitutional muster, two bills were introduced in the Kentucky legislature related to minors' abortion access. The first, requiring a

[19] There were almost no similar efforts with respect to minors' access to contraception, though I do note the handful of exceptions in the state-by-state policy appendix.

Table 4 Enforced state parental involvement laws, 1980–2020

State	Years	State	Years
Alabama	1987-present	Montana[e]	
Alaska	2010-present	Nebraska	1981–1983; 1991-present
Arizona	1982–1987; 2003-present	Nevada	
Arkansas	1989-present	New Hampshire	2012-present
California		New Jersey	
Colorado	2003-present	New Mexico	
Connecticut[a]		New York	
Delaware[b]		North Carolina	1995-present
District of Columbia		North Dakota	1981-present
Florida	2005-present	Ohio	1990-present
Georgia	1991-present	Oklahoma	2001–2002; 2004-present
Hawaii		Oregon	
Idaho	2000–2004; 2007- present	Pennsylvania	1994-present
Illinois	2013-present	Rhode Island	1982-present
Indiana	1982-present	South Carolina[f]	1990-present
Iowa	1997-present	South Dakota	1997-present
Kansas	1992-present	Tennessee	1992–1996; 2000-present
Kentucky	1989; 1994-present	Texas	2000-present
Louisiana	1981-present	Utah	1980-present
Maine[c]		Vermont	
Maryland[d]		Virginia	1997-present
Massachusetts	1981-present	Washington	
Michigan	1991-present	West Virginia[g]	1984-present
Minnesota	1981–1986; 1990-present	Wisconsin[h]	1992-present
Mississippi	1993-present	Wyoming	1989-present
Missouri	1985-present		

[a] A Connecticut law enforced from 1990 to present requires that minors receive counseling prior to an abortion to encourage them to discuss the decision with a parent, but does not require parental involvement

[b] A Delaware law enforced from 1995 to present requires parental notification for minors under age 16. Minors can also consult a licensed mental healthcare professional in lieu of a parent

[c] A Maine law enforced from 1989 to present requires parental consent unless the providing physician judges that the recipient meets a mature minor standard

[d] A Maryland law enforced from 1992 to present requires parental notification unless the providing physician judges that the recipient meets a mature minor standard or that notification is not in the minor's best interest

[e] Montana has enforced a parental notification law for minors under age 16 from January 2013 through February 2014 and from February 2015 to present

[f] South Carolina law applied to women under 17

[g] West Virginia law has a physician bypass option whereby an independent physician can determine that a minor is mature enough to consent or that an abortion would be in her best interest

[h] Wisconsin's 1985 law required providers to "strongly encourage" minor to consult a parent unless "the minor has a valid reason for not doing so." In 1992, the state passed a law requiring notification of a parent or other adult family member

court order before a minor could obtain an abortion did not pass the Kentucky House. The second passed the House but reached the Kentucky Senate too late for a vote. This bill was reintroduced and enacted in early 1982. Before it could take effect, however, the United States District Court for the Western District of Kentucky issued a temporary restraining order, and ultimately struck down the law on the grounds that it did not specify a period in which a decision must be made in the case of a judicial bypass (Eubanks v. Brown, 604 F. Supp. 141 (W.D. Ky.1984)). The Kentucky legislature amended the law in the following legislative session, and the new version was scheduled to go into effect in July 1986. However, the district court again issued a temporary restraining order, and then issued a ruling striking and amending language related to the notification of two parents. This revised version of the parental consent law took effect for nine months in 1989, before the Sixth Circuit Court of Appeals issued a three-paragraph order instructing the state to cease enforcement, and then remanded the case to the district court (Eubanks v. Wilkinson, 937 F.2d 1118 (6th Cir. 1991)). In the meantime, and in the wake of the 1992 Danforth decision, the Kentucky legislature drafted a new parental involvement law requiring the consent of only one parent. This law—K.R.S. § 311.732 (2010)—took effect on July 15, 1994, and is still enforced. In the appendix, I also note and cite newspaper articles covering these legal changes, which suggest that providers were responsive to the policy environment.

The sum effect of all this legal wrangling in Kentucky is reported in Tables 3 and 4. Table 3 indicates that women under age 18 gained confidential legal access to abortion in Kentucky in 1974. Table 4 indicates that for the 1980–2017 period, a parental involvement law was enforced in Kentucky in 1989, and from 1994 to present.

3 Comparison to previous coding

3.1 Coding of confidential and legal access to contraception, 1960–1976

To my knowledge, four previous teams of researchers have coded the date that a legal change first granted young unmarried women confidential access to prescription contraception and hence to the birth control pill: Goldin and Katz (2002), Bailey (2006), Hock (2007), and Guldi (2008). While the paper by Hock remains unpublished, the others are influential and widely cited.[20] Table 5 reproduces that year in which I have coded a legal change first granting women under age 20 confidential access to contraception and the years in which each of these four other research teams coded these events.[21] The last two rows of this table summarize the number and magnitudes of discrepancies relative to the suggested coding in this paper.

[20] As of January 3, 2022, Google Scholar reports 1,690 citations of Goldin and Katz (2002), 798 citations.
of Bailey (2006), 154 of Guldi (2008), and 76 of Hock (2007).

[21] Bailey and Hock published the reported years in their respective papers. Goldin and Katz supplied me with their coding. Guldi does not report the year in her published paper, but it is reproduced in Bailey et al.
(2011).

Table 5 Comparison of coding of laws granting teenagers confidential access to prescription contraception

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Alabama	1971	1971	1971	1971	1971	1971	
Alaska	1960	1965	1960	<1967	1960	1960	The age of majority was 19 in 1960. I have not found evidence of a relevant change in the legal environment in 1965
Arizona	1972	1972	1972	1972	1972	1972	
Arkansas	1960	1961	1960	<1967	1960	1973	The Arkansas legislature established the age of majority as 18 for females and 21 for males in 1873. I interpret this statute as permitting women aged 18 and older to consent to the pill when it was introduced in 1960. Goldin and Katz, Bailey, Guldi, and Hock appear to do the same. Bailey et al. (2011) state that the lower age of majority for women likely applied to marriage only, and code access beginning in 1973 when the state adopted a new medical consent law. They do not cite supporting evidence for the assertion that when the age of majority was set at different ages for men and women, this was for purposes of marriage only. The statutory language and judicial record suggest that this is not correct. The 1873 statute states that the age of majority applies to "all purposes," and in a 1910 ruling the Arkansas Supreme Court concluded that the statute "is broad enough to completely emancipate females at the age of 18 years," and subsequent judicial rulings applied the differential age of majority of a variety of rights
California	1972	1968	1972	1972	1972	1972	The age of majority was lowered from 21 to 18 in 1972. Goldin and Katz code access beginning in 1968. They appear to have coded access beginning with a 1968 law that permitted minors living apart from their parents to consent to medical care. Because this law related to emancipated minors only, it does not seem broadly applicable. In support of this conclusion, the California Supreme Court held in *Ballard v. Anderson* (1971) that the state legal code did not permit minors to consent to contraception

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Colorado	1971	1971	1971	1971	1971	1971	
Connecticut	1971	1971	1971*	1972	1971	1971	An October 1971 medical consent law permitted individuals age 18 + to consent to medical care. The age of majority was lowered in 1972
Delaware	1971	1972	1971*	1972	1972	1971	Delaware passed a medical consent law in 1971 permitting persons aged 18 and older to consent to medical care. The age of majority was lowered to 18 in 1972
District of Columbia	1971	1971	1971	1971	1974	1971	A 1971 law required the city's public clinics to provide contraception to minors and permitted (but did not require) all other providers to do the same. A 1974 medical consent law permitted minors of any age to consent to contraceptive services, effectively requiring all providers to provide confidential services to minors rather than permitting it at the provider's discretion
Florida	1972	1972	1973*	1973	1972	1973	A 1972 medical consent law granted minors capacity to consent to contraception if, in the opinion of the physician, failure to furnish contraception would likely be hazardous to the minor's health. The age of majority was lowered in July 1973. It is unclear whether the medical consent law, which continues to govern legal access to contraception in Florida, should be interpreted as permitting young women confidential access. I code it as doing so because it appears to permit the physician sufficient latitude to choose to prescribe contraceptives to a minor

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Georgia	1971	1968	1968	1968	1971	1968	A 1968 law required state-funded clinics to provide contraceptive services to minors. A 1971 medical consent law permitted women age 18 and older to consent to any medical care and women under age 18 to consent to care in connection with pregnancy and childbirth. I interpret the 1971 as granting broad access because it permitted young women to receive confidential services from any provider whereas the earlier law applied only to minors receiving services from public clinics
Hawaii	1972	1975	1970	1970	1975	1972	I code access beginning in 1972 when the age of majority was lowered from 20 to 18. Hock also codes access beginning when the age of majority was lowered, but differs on the year. In a coding appendix, Hock indicates that the date was not clear in the legal statutes, but that a Hawaii state archivist indicated to him that it occurred in 1975. However, a court case and published overview of age-of-majority legislation, both from 1973, indicate that the age of majority was lowered in 1972. It seems unlikely that a 1973 court case could erroneously claim that the age was lowered in 1972 rather than 1975, so I use the 1972 date. Bailey codes access beginning in 1970 with a mature minor doctrine. I have not found evidence of a mature minor doctrine in primary or other secondary sources, and Bailey et al. revise the date to 1972. Goldin and Katz code access beginning in 1975 and being granted to 18- and 19-year-olds, but do not indicate the source of the legal change

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Idaho	1960	1963	1963	< 1967	1960	1972	The age of majority was 18 for females and 21 for males in 1960. Goldin and Katz and Bailey codes access beginning in 1963 with what they indicate was a change in the age of majority, but this appears to be erroneous as there was no change in the relevant statute in that year. Bailey et al. revise the year to 1972, when the age of majority was equalized for men and women. They state that the previously lower age of majority for women likely applied to marriage only, but do not cite supporting evidence. I note that the language of the statute is broad and appears to apply to all rights of adulthood, and that the differential ages of majority were applied by Idaho courts to circumstances beyond marriage and including child support payments, wrongful death suits, and contracting
Illinois	1961	1971	1969**	1969	1961	1969	The age of majority was 18 for females and 21 for males in 1960. A Comstock law was repealed in 1961. A medical consent law passed in 1961 permitted pregnant minors to consent to medical care; this law was amended in 1969 to permit all persons age 18 and over to consent to medical care. Bailey, Guldi, and Bailey et al. interpret the 1969 law as granting 18-year-old women access. Myers and Hock do not because the age of majority statute had previously established the age of majority for women at 18 "for all purposes" and Illinois courts and the state attorney general accordingly had applied this statute to a variety of purposes
Indiana	1973	1973	1973	1973	1973	1973	

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Iowa	1972	1974	1972*	1972	1972	1972	Iowa lowered the age of majority to 19 effective July 1, 1972. Goldin and Katz code confidential access to contraception for as beginning in 1974 for teens aged 14 to 20. This does not take into account the lowering of the age of majority in 1972, which granted access to 19- and 20-year-olds. Goldin and Katz likely are referring to an amendment of statute 234.21 to permit the State Department of Social Services to provide family planning and birth control services to "every person who is an eligible applicant." Because this law only applied to women receiving public assistance, I have not coded it as granting broad access. DHEW (1978) also notes that it was not clear whether the statute dispensed with the requirement of parental consent
Kansas	1970	1973	1970	1970	1970	1970	Kansas recognized a mature minor doctrine in 1970 and lowered the age of majority in 1972. I have not found evidence of a relevant change in the legal environment in 1973
Kentucky	1965	1968	1968	1968	1965	1965/ 1968	Kentucky lowered the age of majority in 1965, but whether this applied to contraception was unclear until 1968 when the law was amended to clarify that the age of majority was 18 for all purposes except for the purchase of alcoholic beverages
Louisiana	1972	1974	1972	1972	1972	1972	Louisiana lowered the age of majority in 1972 and enacted a medical consent law for all minors in 1975. I have not found evidence of a relevant change in the legal environment in 1974
Maine	1972	1972	1971	1972	1972	1972	Maine lowered the age of majority from 20 to 19 in 1972. Bailey indicates that the age of majority was lowered in 1971. I have confirmed the 1972 date in the judicial record

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Maryland	1971	1971	1967	1967	1971	1971	Maryland passed a medical consent law in 1971 that permitted minors to consent to contraception. A 1967 law permitted pregnant minors to consent to pregnancy-related care
Massachusetts	1974	1974	1974	1974	1974	1974	
Michigan	1972	1971	1972	1972	1972	1972	Michigan lowered the age of majority in 1971, but the law was not effective until January 1, 1972
Minnesota	1973	1971	1973	1973	1973	1972/ 1976	Minnesota lowered the age of majority from 21 to 18 in 1973. I have not found evidence of a relevant change in the legal environment in 1971. Minnesota passed a medical consent law related to minor's ability to consent to pregnancy-related medical care in 1972, but its applicability to contraception remained in doubt until a 1976 court decision

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Mississippi	1965	1969	1966	< 1967	1970	1966	Mississippi's Comstock law was invalidated by the U.S. Supreme Court's 1965 ruling in *Griswold v. Connecticut*. Prior to that date, the state had recognized a judicial mature minor doctrine. The mature minor doctrine was codified by the legislature in 1966. The state legislature formally repealed the Comstock law in 1970. I code access beginning with the invalidation of the Comstock law under the then-existing judicial mature minor doctrine. Bailey and Bailey et al. code it as beginning with the legislative codification of the mature minor doctrine the following year. Goldin and Katz code it as beginning in 1969; though they do not indicate what legal change occurred in that year, they may base it on Pilpel and Wechsler (1969) which noted the existence of the mature minor doctrine in that year. Hock assumes that the Comstock law remained binding until its repeal in 1970, and that minors then gained access under the mature minor doctrine
Missouri	1977	> 1974	1976	1973	1977	1973/ 1977	The state Attorney General issued an opinion in 1973 indicating that no law prohibited physicians from prescribing contraception to minors. The effect of the issuance of this opinion is unclear. Missouri enacted a medical consent law in 1977 that permitted women aged 18 and older to consent to medical care
Montana	1960	1971	1971	1971	1960	1971	In Montana in 1960, the age of majority was 18 for females and 21 for males. In 1971, the state lowered the age of majority for men to 19, but this law actually had the effect of raising the age of majority by a year for women. Goldin and Katz, Bailey, Guldi, and Bailey et al. code access beginning in 1971
Nebraska	1972	1972	1972	1972	1972	1972	

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Nevada	1963	1961	1969	1969	1960	1973	In Nevada in 1960, the age of majority was 18 for females and 21 for males. In that year the state also had a Comstock law on the books that including an exemption permitting physicians to distribute contraception "in the legitimate practice of their profession." Hock codes access beginning in 1960, but I adopt a more conservative view of the Comstock law and code access beginning in 1963 when it was repealed. Goldin and Katz indicate that women aged 18–20 could first consent in 1961, but do not describe the relevant legal change. Bailey indicates that access was granted by a 1969 family planning law of which I have not found evidence. Bailey et al. do not treat the lower age of majority for women as governing access to contraception and instead code access beginning in 1973 when the age of majority was equalized for men and women. It seems unlikely to me that the earlier age of majority statute would not grant access to contraception. The original statute stated that that it applied to "all intents and purposes" and had been applied by Nevada courts to child support payments, the age at which women could administer oaths in court, and the tolling of disability. The Nevada legislature also set the drinking age at 21 in a separate statute, presumably because otherwise the drinking age for females would be 18
New Hampshire	1971	1971	1971	1971	1971	1971	
New Jersey	1973	1973	1973	1973	1973	1973	
New Mexico	1971	1971	1971	1971	1971	1971	

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
New York	1971	1971	1971	1971	1972	1971	New York enacted a law in 1971 that made it illegal to distribute contraceptives to minors under age 16. This law appears to have implicitly permitted older minors to consent. Hock codes ELA as beginning in 1972 with the passage of a medical consent law that reduced the age of consent for all medical services to 18
North Carolina	1971	1971	1971	1971	1971	1971	
North Dakota	1960	1971	1971*	1971	1960	1971	In North Dakota in 1960, the age of majority was 18 for females and 21 for males. The age of majority was lowered for men in 1971. Goldin and Katz, Bailey, Guldi, and Bailey et al. code access beginning in 1971 when the age of majority was equalized for men and women. Bailey et al. state that the previously lower age of majority for women was of doubtful applicability to contraception, but do not cite supporting evidence. Counter to this assertion, the state's courts had applied the differential age of majority to purposes including custody agreements and the legal age of consumption for alcohol, suggesting that the statute applied to all purposes unless otherwise prohibited in the code

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Ohio	1965	1974	1965	< 1967	1974	1960/ 1965	Ohio's Comstock law was invalidated by *Griswold* in 1965. Prior to that date, the state had recognized a judicial mature minor doctrine. Myers and Bailey code access beginning in 1965 under this doctrine. Goldin and Katz code access beginning in 1974 for minors aged 14–19. Though they do not indicate the source of the legal change, this may be based on Paul et al. (1974), which notes the mature minor doctrine, while Pilpel and Wechsler (1971) (erroneously) did not. Hock codes access beginning in 1974 because the age of majority was lowered in that year. It is not fully clear whether the mature minor doctrine granted minors confidential access. I note that an article in the 1974 *Ohio State Medical Journal* recommended caution in applying it to minors under age 18
Oklahoma	1960	1966	1966	< 1967	1960	1972	In Oklahoma in 1960, the age of majority was 18 for females and 21 for males. The age of majority was equalized in 1972. Bailey et al. state that the previously lower age of majority for women was of doubtful applicability to contraception, but do not cite supporting evidence
Oregon	1971	1971	1971	1971	1971	1971	

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Pennsylvania	1970	1970	1971	1971	1970	1970	A 1970 medical consent law gave minors age 18 and over capacity to consent to medical care. Bailey codes it as beginning with a 1971 mature minor doctrine. I have not been able to find evidence of a mature minor doctrine from 1971, but in a 1972 court case described in DHEW (1978), the court stated that it would be "anomalous to ignore the child in this situation when the preference of an intelligent child of sufficient maturity in determining custody has been considered."
Rhode Island	1972	1974	1972	1972	1972	1972	Rhode Island lowered the age of majority in 1972. I have not found evidence of a relevant change in the legal environment in 1974
South Carolina	1972	1972	1972	1972	1972	1972	
South Dakota	1960	1972	1972	1972	1972	1972	In South Dakota in 1960, the age of majority was 18 for females and 21 for males. South Dakota lowered the age of majority for males to 18 in 1972. Other authors code access beginning in 1972, when the age of majority was equalized. Note that Myers (2017) also erroneously used the 1972 date
Tennessee	1971	1971	1971	1971	1971	1971	
Texas	1973	1974	1973*	1973	1973	1973	Texas lowered the age of majority effective 1973. I have found no evidence of a relevant change in the legal environment in 1974

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Utah	1960	1961	1962	< 1967	1960	1975	In Utah in 1960, the age of majority was 18 for females and 21 for males. Goldin and Katz code access beginning in 1961, but I have not found evidence of a legal change in that year. Bailey codes access beginning with a 1962 family planning law. Bailey et al. code access beginning in 1975 when the age of majority was equalized for men and women. They state that the previously lower age of majority for women was of doubtful applicability to contraception, but do not cite supporting evidence
Vermont	1971	1971	1972	1971	1971	1971	Vermont lowered the age of majority in 1971. Bailey indicates that the age of majority was lowered in 1972 rather than 1971. I have confirmed the 1971 date in the notes of the statute and other secondary sources. A 1972 amendment clarified that in documents executed prior to the 1971 effective date "adult" should still be interpreted as 21
Virginia	1971	1972	1971	1971	1971	1971	A medical consent law became effective in 1971. The age of majority was lowered in 1972
Washington	1970	1971	1971	1971	1971	1968/ 1970	The legislature enacted in a law in 1970 stating that all persons were taken to be of full age and majority at age 18 for the purposes of consenting to medical care. The legislature lowered the age of majority for all purposes in 1971. The state health department adopted rules in 1968 permitting the provision of family planning services to minors, but it is unclear whether this applied to all categories of providers
West Virginia	1972	1972	1972	1972	1972	1972	

Table 5 (continued)

State	Year a legal change granted confidential access to prescription contraception to 19-year-olds						Notes on discrepancies
	This paper	Goldin and Katz (2002)	Bailey (2006)	Guldi (2008)	Hock (2008)	Bailey et al. (2011)	
Wisconsin	1974	1971	1973	1972	1974	1972	Wisconsin lowered the age of majority effective in 1972. However, the state continued to enforce a Comstock law prohibiting the sale of contraception to unmarried persons until the law was challenged and struck down in 1974. I have not found evidence of a relevant change in the legal environment in 1971 or 1973
Wyoming	1973	1972	1969	1969	1973	1969	A 1969 law authorized the state department of health to provide contraception to minors. Because this law did not permit all providers to do so, Hock and Myers adopt do not code it as granting broad confidential access. The age of majority was lowered in 1973. I have not found evidence of a relevant legal change in 1972
No. of Discrepancies	0	27	20	16	8	14	
Average Discrepancy	0	3.6	3.6	3.9	3.3	7.4	
Median Discrepancy	0	3	2.5	3	3	9	

*As described in Bailey et al. (2011), Bailey (2006) treated laws passed in the second half a calendar year as effective the following year. To facilitate comparison of Bailey (2006) with the other sources, all of which report the actual calendar year of the relevant legal change, I have subtracted a year from Bailey's original coding

**Bailey et al. (2011) indicate that the 1971 coding for Illinois reported in Bailey (2006) was a typo and that the year used was 1969

As reported in the introduction, the coding of the age at which unmarried teenage women could first consent to contraception is inconsistent for 35 of 51 states and the District of Columbia between Goldin and Katz (2002), Bailey (2006), Hock (2007), and Guldi (2008), all papers that used this coding to estimate causal effects of early legal access to the contraceptive pill on various outcomes. The last two rows in Table 5 summarize the number of discrepancies between each set of coding and the coding that I suggest in this paper, as well as the mean and median of the magnitude of the discrepancy. My own, independent, coding differs from that of Goldin and Katz for 27 states and by an average of 3.6 years; from Bailey for 20 states and by an average of 3.6 years, from Guldi for 16 states and by an average of 3.9 years, and from Hock for 8 states and by an average of 3.3 years. The differences cannot, for the most part, be attributed to different interpretations of the same law. Of the 20 states for which the coding differs from Bailey's, for example, I view only 5 (Florida, Georgia, Kentucky, Mississippi, and Wyoming) as the result of differences in interpretation of an ambiguous legal environment.

Shortly after the first draft of this paper became available, a research team whose members include Martha Bailey and Melanie Guldi, two authors who had previously published papers coding access to the pill, released a working paper that reviews the coding of state-level access to the pill (Bailey et al. 2011). Their suggested coding is reproduced in the last column of Table 5. Bailey et al. corrected several errors in the coding in Bailey (2006) and Guldi (2008), but 14 discrepancies remain between our two sets of independent coding. These discrepancies are quite large in magnitude: an average of 7.4 years. For 8 of these states (Arkansas, Idaho, Illinois, Montana, Nevada, North Dakota, Oklahoma, and Utah), the differences arise because these states had established the age of majority at 18 for women and 21 for men as of 1960. I interpret this as permitting women aged 18 and older to consent to the pill at the time that it was introduced. Bailey et al., on the other hand, assume that women under the age of 21 did not gain access to the pill in these states until either the age of majority was equalized for men and women, or another legal change granted minors access. Bailey et al. justify this decision by indicating, variously, that the age of majority statutes likely was only intended to apply to marriage or that the scope of the statute did not clearly apply to medical care. They do not cite supporting evidence for these assertions.

In the case of Stanton v. Stanton (1974; 1975), the Utah Supreme Court and United States Supreme Court offer a different perspective than Bailey et al. on the intent and effects of differential age of majority statutes. In this case, a plaintiff mother challenged a child support judgment that ended child support for her daughter at age 18 (the age of majority for females in Utah) but for her son at age 21 (the age of majority for males in Utah). The Utah Supreme Court affirmed a lower court's denial of the petition, explaining that.

> "[T]he belief held by many that generally it is the man's primary responsibility to provide a home and its essentials for the family; and that however many exceptions and whatever necessary and proper variations therefrom may exist in differing circumstances, it is a salutary thing for him to get a good education and/or training before he undertakes those responsibilities…. Perhaps

> more important than this, there is another widely accepted idea: that girls tend generally to mature physically, emotionally, and mentally before boys, and that they generally tend to marry earlier…. we do not regard it as our judicial function to pass upon the soundness or the unsoundness of the ideas just mentioned above. What we do note is our knowledge of their existence; and that they have played an essential role in the history of the development of the law as declared in the statute under attack" (Stanton v. Stanton, 517 P.2d 1010, pp. 1012–1013 (Utah 1974)).

This suggests that the lower age-of-majority for females was based on the idea that by age 18 they matured faster and were less needing of parental resources than were males. The plaintiff mother appealed, and the United States Supreme court struck down the Utah Court's decision on the grounds that it denied individuals aged 18–20 equal protection under the law. The Supreme Court's decision does not explicitly address the right to consent to medical services in Utah but cite other Utah statutes providing age thresholds to vote and hold office to illustrate that the age-of-majority statute's application to those rights not elsewhere specified was not rational (Stanton v. Stanton 1975).

The decision rule applied by Bailey et al. (2011) is that age-of-majority statutes with equal age cut-offs governed access to the pill, while those with unequal age cut-offs did not. It is not clear why this might have been the case. The Stanton v. Stanton ruling appears to imply that the scope of differential age-of-majority statutes was not limited to marriage, and the language of the statutes themselves does not suggest that such a narrow interpretation should be applied. For instance, the Arkansas legislature amended its age of majority statute in 1873 to read "Males of the age of twenty-one years, and females of the age of eighteen years, shall be considered of full age *for all purposes* [emphasis mine], and, until those ages are attained, they shall be considered minors."[22] Moreover, if, as Bailey et al. (2011) argue, an age-of-majority law did not govern the ability of 18-year-old women to consent to birth control prior to its amendment, it is not clear why it would have done so after its amendment, when no other language save for the numeric age changed.

In trying to ascertain the scope of these laws, I reviewed judicial rulings that cite age of majority statutes in states where the age of majority was set at different levels for males and females. I observe that courts in different states applied the different ages of majority to a variety of rights and purposes including the need to appoint guardian ad litem, the age at which child support payments could end, and the drinking age.[23] Consider the following examples:

- In a 1910 ruling related to the expiration of the statute of limitations, the Arkansas Supreme Court stated, "It is urged that the purpose of the lawmakers in passing the act of 1873 was to encourage early marriages by enabling females to contract marriage at an earlier age than twenty-one years without the con-

[22] Arkansas §3756 as cited in Brakes v. Sides (1910).

[23] I also note that a 1975 guide to women's legal rights indicates that for the remaining two states that had not yet equalized the age of majority (Arkansas and Utah), the differential ages applied to the right of contracting, which would include the right to consent to medical care. See(Alexander (1975).

sent of parents or guardians. That may have been a reason that appealed to the lawmakers, but there is nothing to show that this was the sole purpose of the act. The statute is broad enough to completely emancipate females at the age of 18 years" (Brakes v. Sides 1910). In subsequent rulings, the Arkansas Supreme Court applied the lower age of majority to women's ability to redeem lands sold during their minority (Gamble v. Phillips 1913), the need to appoint guardian ad litem to represent the interests of a female minor child (Federal Bank of St. Louis v. Cottrell 1939), and the age at which child support payments could cease for female children (Jerry v. Jerry 1962).

- In a 1973 opinion, the Illinois Attorney General indicated that where the term "minor" was used in any statute, it was defined as in The Probate Act setting the age of majority for that state (1973). The Illinois Attorney General observes that when the Illinois Liquor Control Act was passed in 1939 to prohibit serving alcohol to "minors," this meant women under age 18 and men under age 21. The Illinois legislature subsequently amended the Liquor Control Act in 1961 to replace "minor" with "person under 21" so that the legal drinking age would be equalized.[24]
- South Dakota courts applied the differential age of majority to the termination of child support (Comstock v. Comstock 1981) and the enforcement of contracts (Gruba v. Chapman 1915).

Contemporary authors summarizing state legal environments do not adopt Bailey et al.'s (2011) approach, but rather treat statutes with differential age cutoffs for men and women as governing the ability to consent to medical services, absent other statutory language explicitly addressing consent to medical care (Paul et al. 1974, 1976).

In sum, the language of the statutes, their applications by courts, and contemporary secondary sources all support the view that when the age of majority was lower for women than for men, these were the ages that governed the rights of each sex to consent to contraceptive services. This is the approach that I adopt in my suggested coding.

3.2 Coding of confidential access to legal abortion, 1970–1975

Two researchers have coded the date that a legal change first granted confidential access to abortion in the 1970s: Guldi (2008) and Hock (2007).[25] Table 6 compares the year in which I have coded a legal change first granting women under age 18 confidential access to legal abortion and the years in which Guldi (2008) and Hock (2007) coded these events. I report dates only for the 1970–1975 period because of uncertainty about the legal environment between the Supreme Court decisions in Planned Parenthood v. Danforth (1976) and Bellotti v. Baird (1979).

[24] Nevada and North Dakota similarly enacted separate laws to equalize the drinking age, presumably to prevent it being lower for women than for men.

[25] Neither Guldi nor Hock reports the coding in their published papers, but both graciously supplied me with their coding.

My coding differs from that of Guldi (2008) for 14 states and of Hock (2007) for 13 states. Four of the discrepancies between my coding and that of Guldi (2008) arise for states where the legal environment was ambiguous (Florida, Hawaii, New Jersey, and North Carolina), and the remaining differences appear to be errors. Hock (2007) and I have the same coding for 8 of these 10 states. Where my coding differs from that of Hock (2007), the most frequent explanation is that I (like Guldi) treat a court ruling that invalidated a parental involvement law as confirming minors' right to consent to abortion, whereas Hock, in general, does not. The snapshots of minors' ability to consent to abortion provided by Paul et al. (1974, 1976) support my interpretation that in the pre-Danforth period, a court ruling enjoining enforcement of a parental involvement law de facto granted minors confidential access to abortion unless there was some other restrictive statute or judicial precedent that was not addressed by the ruling. The language of many of these court rulings also appears to strongly suggest that minors could consent. For instance, in the Florida court ruling striking down a parental consent requirement in 1973, the three-judge panel indicates that "parents cannot look to the state to prosecute and punish the physician (or other participants) who performs an abortion" (Poe v. Gerstein 1973). However, providers may still have been reluctant to provide abortions to minors without parental consent in the absence of statutory language explicitly permitting them to do so. As described in the state-by-state review, providers in Florida and Massachusetts appear to have begun changing their policies only after multiple court rulings were issued regarding those states' respective consent requirements.

3.3 Coding of enforcement of parental involvement laws for abortion, 1980–2020

By 1980 judicial precedent established that minors can consent to abortion services absent a valid restriction. In the ensuing years, states began to pass parental involvement laws to limit minors' confidential access to abortion. In Table 7, I reproduce the year in which I code enforced parental involvement laws in place and compare them to the coding in Levine (2003) and New (2009), and the combined codings from Sabia and Rees (2013) and Sabia and Mark Anderson (2016). As in Tables 5 and 6, I summarize the number of discrepancies.

The bottom row summarizes the number of discrepancies, counting only those within the time periods that each set of authors intends to address. My coding and that in Levine (2003) differs for 18 states. Some of these differences are minor and likely explained by the lag between the dates that new legislation is enacted and takes effect. For several other states (Connecticut, Maine, Maryland, Utah, and Wisconsin) the differences are in interpretation of the restrictiveness of laws. Researchers using a quasi-experimental approach that relies on the coding of laws in these states should explore the sensitivity of their results to each set of coding. For several other states (Arizona, Arkansas, Delaware, Missouri, Montana, Nebraska, Ohio, and Tennessee), the coding differs by more than a year and appears to be explained by error. For instance, Levine (2003) codes Ohio as enforcing a parental involvement law from 1985 to present when in fact a court-issued injunction barred enforcement

Table 6 Comparison of coding of laws granting teenagers confidential access to abortion

State	Year that a legal change first granted confidential access to abortion to 17-year-olds, 1970–1975			Notes on discrepancies
	This paper	Guldi (2008)	Hock (2007)	
Alabama	1973	1973	1973	
Alaska		1975		Alaska enacted a medical consent law in August 1974 permitting minors to consent to the "diagnosis, prevention or treatment of pregnancy." However, this statute contained a qualifying clause indicating that the state's 1970 abortion statutes controlled for abortion services. Those statutes included a parental consent requirement
Arizona				
Arkansas				
California	1971	1971	1970	California enacted a law in 1953 that permitted minors to consent to medical care. When abortion became de facto legal in late 1969, the applicability of the medical consent law was ambiguous. In late 1970 the Court of Appeals ruled that minors could not consent under California law. The California Supreme Court reversed in 1971, explicitly affirming the right of minors to consent to abortion
Colorado	1975	1975		Colorado required parental consent for abortion until the law was challenged and enforcement was enjoined in 1975. Hock is more conservative in coding minors as still not having access because there was no law that specifically permitted them to consent to abortion
Connecticut		1974		I have not found evidence of a relevant legal change in 1974
Delaware	1977	1973*	1973	Hock indicates that a medical consent law granted access to abortion from 1973 to 1974, but Delaware also had a parental consent requirement on the books and a 1973 Attorney General Opinion indicated that the requirement was still enforceable following *Roe*. A court ruled in 1974 that the medical consent law superseded the parental consent law, and the legislature responded by amending the medical consent law to exclude abortion from the listed services to which a minor could consent
District of Columbia	1973	1974	1973	In 1973, a D.C. family court held that parental consent was not necessary for minors' abortions. A 1974 medical consent law explicitly included abortion as a service to which minors could consent
Florida	1975	1973		Florida required parental consent for abortion until the law was challenged and enforcement was enjoined in 1973. An appeals court upheld the ruling in 1975, and the state attorney general indicated in 1976 that the law appeared to be invalid under *Danforth*. Press accounts suggest that the legal environment was in doubt during much of this period, and that some providers required consent while others did not. I choose to code the date of legal change as 1975 based on press reports stating that some hospitals began providing abortions to minors without parental consent following the appeals court ruling that year
Georgia				

Table 6 (continued)

State	Year that a legal change first granted confidential access to abortion to 17-year-olds, 1970–1975			Notes on discrepancies
	This paper	Guldi (2008)	Hock (2007)	
Hawaii		1970	1970	Abortion was legalized in Hawaii in 1970. In that year, a medical consent law permitted pregnant minors aged 14 and older to consent to medical care, but physicians were required to notify the parents of any minor under age 18 of the pregnancy. Although this law appears to have permitted minors aged 14 and older to consent to abortion, I do not code it as "confidential access" because of the notification requirement
Idaho		1974		In 1974, the Idaho legislature amended an existing law regarding the sale of contraception to add an endorsement of a mature minor doctrine for the provision of contraception. This amendment referred to contraceptive services only; I have found no evidence of any other legal change in that year related to abortion
Illinois	1973	1973	1973	
Indiana	1975	1975		Indiana required parental consent for abortion until the law was challenged and enforcement was enjoined in 1975. Hock is more conservative in coding minors as still not having access because there was no law that specifically permitted them to consent to abortion
Iowa				
Kansas	1973	1973*	1973	
Kentucky	1974	1975		Kentucky required parental consent for abortion until the law was challenged and enforcement was enjoined in November 1974. I have not found evidence of a relevant legal change occurring in 1975. Hock is more conservative than am I in coding minors as still not having access because there was no law that specifically permitted them to consent to abortion
Louisiana				
Maine				
Maryland	1973	1973*	1973	
Massachusetts				
Michigan		1974		Michigan enacted a parental consent law in 1974. This law was challenged, and in 1976 a court declined to issue a restraining order barring its enforcement, observing that the state had not yet enforced the law. The law was struck down in 1977
Minnesota	1973	1973	1973	
Mississippi	1973	1973	1973	

Table 6 (continued)

State	Year that a legal change first granted confidential access to abortion to 17-year-olds, 1970–1975			Notes on discrepancies
	This paper	Guldi (2008)	Hock (2007)	
Missouri	1975	1975		Missouri required parental consent for abortions until the law was challenged and enforcement was enjoined in 1975. Hock is more conservative in coding minors as still not having access because there was no law that specifically permitted them to consent to abortion
Montana	1973		1973	At the time that abortion was legalized, Montana's medical consent law permitted minors to consent to medical care related to pregnancy. This law was amended the following year to exclude abortion from the list of services to which minors could consent. I code minors as unable to consent in 1974–1975
Nebraska	1975	1975		Nebraska required parental consent for abortions until the law was challenged and enforcement was enjoined in 1975. Hock is more conservative in coding minors as still not having access because there was no law that specifically permitted them to consent to abortion
Nevada				
New Hampshire	1973	1973	1973	
New Jersey	1973	1972	1972	Hock and Guldi code New Jersey as a repeal state in 1972 while I argue that it should not be treated as one because the state Attorney General announced that, pending appeal of a ruling striking down the state's abortion law, he would prosecute physicians who performed abortions. The New York Times reported that only one physician was publicly performing abortions that year, and he was arrested
New Mexico				
New York	1970	1970		The New York City Health and Hospitals Corporation directed in 1970 that municipal hospitals perform abortions on minors aged 17 or older without parental consent. I have not found evidence on policies of providers outside of New York City
North Carolina	1975		1975	In 1975, the Attorney General issued an opinion stating that it was impossible to "engraft any age requirement" on pregnant women seeking abortions. Contemporary sources differ on whether this opinion was used in practice to affirm minors' rights to consent to abortion
North Dakota				
Ohio	1973	1973		Hock does not regard Ohio's judicial mature minor precedent as clearly granting access to abortion. The state passed a binding parental consent law in 1974, so I code minors as able to consent in 1973 but not in 1974–1975
Oklahoma				
Oregon	1973	1973	1973	

Table 6 (continued)

State	Year that a legal change first granted confidential access to abortion to 17-year-olds, 1970–1975			Notes on discrepancies
	This paper	Guldi (2008)	Hock (2007)	
Pennsylvania	1973	1975	1973	Pennsylvania's 1970 Minors' Consent Act permitted pregnant minors to consent to medical care. The legislature passed a parental consent law in 1974, but the law never went into effect and ultimately was held to be unconstitutional in 1975. Newspaper accounts indicate that Pennsylvania did not require parental consent between 1973 and 1975
Rhode Island				
South Carolina	1974	1974	1973	South Carolina's 1969 abortion reform law included a parental consent requirement. This statute was declared unconstitutional in July 1973 with no comment on the parental consent requirement. A 1972 medical consent law permitted minors aged 16 or older to consent to medical care "unless such involves an operation which shall be performed only if such is essential to the health or life of such child in the opinion of the performing physician." In a 1972 opinion the state Attorney General indicated that this did not permit minors to consent to any type of operation. South Carolina enacted an abortion control law in 1974 that included a parental consent requirement for minors under age 16. This was ruled unconstitutional in 1977
South Dakota				
Tennessee				
Texas				
Utah		1974		Utah instituted a parental consent requirement in March of 1973. The statute was struck down in September 1973. The legislature enacted a replacement in April 1974 that required parental notification "if possible."
Vermont				
Virginia				
Washington	1975	1975	1975	
West Virginia				
Wisconsin				
Wyoming				
No. of Discrepancies	0	8	14	

*This is a reform state. Guldi's coding indicated the year in which minors could consent to abortions under the MPC provisions. To make her coding directly comparable with the other two columns, I have replaced that year with 1973, the first year that minors could consent to legal abortion under a broad set of circumstances

Table 7 Comparison of coding of dates of enforcement of parental involvement laws, 1980–2017

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Years covered	1980–2017	1980–2003	1981–2000	1987–2011	Notes on discrepancies
Alabama	1987-	1987-	1987-	1987-	
Alaska	2010-				This law was enacted after the periods considered by Levine and New. Alaska enacted a parental involvement law in 1997 that was immediately enjoined and never allowed to take effect. The state then enacted a parental involvement law via ballot measure that went into effect in December 2010. Sabia and Mark Anderson (2016) indicate that a law was enjoined from 1997 to 2011
Arizona	1982–1987; 2003-	1989-	1982–1985	2003-	A parental notice law was in place from 1982 to 1985, at which point enforcement was enjoined by court ruling. The state legislature amended and reinstated the law in 1986, and again amended it in 1987 to replace the notification requirement with a consent requirement. The law was challenged and struck down in 1987. In 1989, the legislature again amended the statute, but enforcement was enjoined before it could go into effect. The changes in this law in the 1980s took place before the period considered by Sabia, Rees, and Anderson
Arkansas	1989-		1989-	1989-	The state adopted a parental notification law in 1989. The statute was amended to require parental consent in 2005
California					
Colorado	2003-			2003-	The law was enacted after the period considered by Levine and New

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Connecticut		1990-	1990–1998		Connecticut's 1990 law suggests, but does not require, parental notification. I do not interpret this as sufficiently restrictive to code as a law requiring parental (or judicial) involvement
Delaware	1995-	1981-	1996-	1997-	Levine states that Delaware had a law in place from 1981 to present, but I have not found evidence of this law. An earlier parental consent law was unenforceable after *Danforth*. Naral state profiles from 1991 to 1994 confirm that the law was not being enforced. Delaware passed a new parental involvement law effective October 15, 1995. The state's profile in the 1996 Naral report indicates it was being enforced
District of Columbia					

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Florida	2005-				The Parental Notification of Abortion Act was effective July 1, 2005. This law permitted providers to notify a parent by telephone or minors to submit an un-notarized letter, requirements that some Florida legislators suggested were insufficient. In 2011, the legislature amended the law to strengthen the notification provisions and require notification via mail. In personal correspondence with the author, Joseph Sabia indicates that Sabia and Mark Anderson (2016) had chosen not to code the 2005 policy because it did not seem sufficiently binding. (The 2011 policy change fell outside the window of legal changes considered in their paper.) Myers and Ladd (2020) discuss this issue in some detail
Georgia	1991-	1991-	1991-	1991-	
Hawaii					

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Idaho	2000–2004; 2007-	2001-	1996-	1997–2004	It is not clear whether Idaho was enforcing a parental involvement law from 1996 to 1999. (See Appendix for a discussion.) In 2000, the legislature passed a new abortion control law that included a parental consent provision. Portions of the law were enjoined, but the parental consent provision remained intact. The law was amended in 2001 and struck down in its entirety in 2004, which is after the periods considered by Levine and New. The legislative record and Naral reports from this period indicate that a new law went into effect on March 27, 2007, and continues to be enforced
Illinois	2013-				The law was enacted after the periods considered by all three sets of prior authors
Indiana	1982-	1984-	1984-		A parental notification law was in effect from September 1, 1982, through August 26, 1983. A second law was enacted in 1984. The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes
Iowa	1997-	1996-	1997-	1997-	The law was passed in 1996, but it didn't actually go into effect until Jan 1 1997
Kansas	1992-	1992-	1992-	1992-	

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Kentucky	1989; 1994-present	1994-	1994-	1994-	As described in detail in the state-by-state policy review appendix, the policy environment was quite complex in Kentucky between 1982 and 1994 as the Kentucky legislature repeatedly attempted to enact a parental involvement law that would pass judicial muster. The judicial record, contemporary Naral reports, and newspaper accounts indicate that a parental consent law took effect in March 1989 and remained in effect for the remainder of that year until the Sixth Circuit Court of Appeals ordered Kentucky to cease enforcement
Louisiana	1981-	1981-	1981-		The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes
Maine		1989-	1989-		Maine's 1989 law allows the providing physician to judge that the minor is mature enough to consent without parental involvement. I do not interpret this as sufficiently restrictive to code as a law requiring parental (or judicial) involvement
Maryland		1992-	1992-		Maryland's 1992 law allows the providing physician to judge that the minor is mature enough to consent without parental involvement or that parental notification is not in the minor's best interests. I do not interpret this as sufficiently restrictive to code as a law requiring parental (or judicial) involvement

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Massachusetts	1981-	1979-	1981-		Massachusetts' enacted a parental consent law in 1974 that was held to be unconstitutional in a landmark U.S. Supreme Court decision in 1979. The legislature amended the law in 1980 and it went into effect in 1981. The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes
Michigan	1991-	1991-	1991-	1991-	
Minnesota	1981–1986; 1990-	1981–1986; 1990-	1981–1986; 1990-	1990-	The 1981–1986 law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes
Mississippi	1993-	1993-	1993–2000	1993-	
Missouri	1985-	1979-	1983; 1985-		Missouri enacted a parental consent law in 1979, but enforcement was immediately enjoined. The law was allowed to take effect from June through November of 1983, again enjoined, and then allowed to take effect again in 1985. The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Montana		1991-			Montana passed a parental notification law in 1974 that was presumably invalid under Danforth. Several secondary sources confirm that the law remained unenforced through 1993 when an enforcement effort resulted in a court challenge and the issue of a permanent injunction barring enforcement. I think that Levine may have shifted the Nebraska coding up one row to Montana. (See below.)
Nebraska	1981–1983; 1991-		1991-	1991-	Levine indicates that no law was in place for Nebraska. Given his coding for Montana, I suspect that he may have mistakenly shifted the Nebraska coding up to Montana in the table
Nevada					
New Hampshire	2012-				The law was enacted after the periods considered by all three sets of prior authors
New Jersey					
New Mexico					
New York					
North Carolina	1995-	1995-	1996-	1995-	A parental involvement law was effective October 1, 1995
North Dakota	1981-	1981-	1981-		The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Ohio	1990-	1985-	1990-	1990-	Ohio's legislature enacted a parental notification law in 1985, but enforcement was enjoined until the U.S. Supreme Court's 1990 decision in Ohio v. Akron upheld it
Oklahoma	2001–2002; 2004-present			2001; 2006-	In 2001, Oklahoma began enforcing a parental involvement law that is, to my knowledge, unique in that it made abortion providers financially liable for any complications stemming from an abortion performed on a minor without parental knowledge. The law did not include a judicial bypass provision. The judicial record shows that at least one of a handful of abortion providers in Oklahoma began requiring parental consent as a result of this law. The law was permanently enjoined in 2002, and the Oklahoma legislature passed a standard parental consent law with a judicial bypass option in 2005
Oregon					
Pennsylvania	1994-	1994-	1994-	1994-	
Rhode Island	1982-	1982-	1982-		The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes
South Carolina	1990-	1990-	1990-	1990-	
South Dakota	1997-	1997-	1998-	1998-	

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Tennessee	1992–1996; 2000-	1999-	1992–1996; 1999-	1992–1996; 1999-	The Tennessee legislature enacted a parental notification law in 1989, but the state Attorney General indicated that the law could not be enforced because it was similar to a 1979 law that had been held unconstitutional. In 1991, the Tennessee Supreme Court stated that the Attorney General's argument was invalid and that the issue was nonjusticiable in the absence of a formal challenge. The law was then challenged, upheld, and allowed to go into effect in November 1992. The law was replaced with a parental consent law in 1995, and this was struck down in 1996. The injunction was reversed in 1999, and the law again became effective in 2000. Naral profiles of Tennessee for 1992–1996 confirm that the state was enforcing a parental involvement law until 1996
Texas	2000-	1999-	2000-	2000-	A parental notification bill was passed in 1999, but it went into effect on Jan 1, 2000
Utah	1974-	1974-	1981-		Utah's 1974 parental involvement law was challenged and upheld by the state supreme court in 1981 with respect to unemancipated and immature minors only. I consider the coding of this policy ambiguous. Utah enacted a new parental involvement requirement in 2006 that is broadly applicable. The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes

Table 7 (continued)

Authors	Years Law Enforced				
	This paper	Levine (2003)	New (2009)	Sabia, Rees, & Anderson*	
Vermont					
Virginia	1997-	1997-	1998-	1997-	
Washington					
West Virginia	1984-	1984-	1984-		The enactment of this law was outside the periods considered by Sabia, Rees, and Anderson in their descriptions of legal changes
Wisconsin	1992-	1984-	1992-	1992-	A 1985 law "encouraged" but did not require parental notification, so I do not interest it as sufficiently restrictive to code as a law requiring parental (or judicial) involvement. A more restrictive law went into effect in 1992
Wyoming	1989-	1989-	1989-	1989-	
No. of Discrepancies	0	18	16	8	

*The "Sabia, Rees, and Anderson" column combines information from Sabia and Rees (2012) on changes in parental involvement laws between 1987 and 2003 and Sabia and Mark Anderson (2016) on changes in parental involvement laws between 1993 and 2011. These authors do not report pre-existing laws that did not change during these periods

of the law until it was held to be constitutional by the U.S. Supreme Court in Ohio v. Akron Center for Reproductive Health (1990).

Sabia and Rees (2013) and Sabia and Mark Anderson (2016) together cover policy changes over 1987 to 2011. Comparing my policy coding for this period, we are generally in agreement save for one substantial difference: I code Florida as enforcing a parental involvement law from 2005 to present, while these sets of authors do not.

This substantial difference in policy coding in a large state bears some examination. In 2005, the Florida legislature enacted the Parental Notification of Abortion Act, which required parents to be notified of a minor child's abortion but allowed this average notification to be provided via telephone. Subsequently Florida legislators became concerned that the law was easy to circumvent by having someone pose as a parent on the telephone. In 2011, a new bill was introduced and passed that added requirements that notification provided via telephone be confirmed by mail and that written waivers of notice from parents be notarized. Sabia and Rees (2013) and Sabia and Mark Anderson (2016) code parental notification in Florida beginning in 2011 with the amended version of the law, whereas I code it beginning in 2005 with the first notification requirement. Any choice is clearly subjective and empirical research may wish to explore the robustness of any results based on policy variation in Florida to these alternative choices.

4 Conclusion

State policies governing young women's legal and confidential access to abortion and prescription contraception have evolved for six decades, determined by a complex and varying interplay of U.S. Supreme Court rulings and state regulations. The resulting spatial and temporal variation young women's legal access to reproductive technologies affords an opportunity to implement difference-in-differences research designs estimating the causal effects of reproductive control on people's lives. It is not surprising that large and prominent literature in economics has taken advantage of these natural experiments, but the results are only as good as the policy coding used to generate them. To the extent that the coding is inaccurate due to random mistakes, estimates using incorrect policy coding are likely to suffer attenuation bias due to measurement error. Perhaps more concerning, to the extent that the policy coding does not fully reflect the legal availability of both contraception and abortion and distinguish between adult and minors' rights to access them, then correlations between these policy changes may cause researchers to conflate the effects of various policies.

This paper services a guide for researchers seeking to exploit variation in policies governing young women's access to reproductive technologies as a natural experiment, or simply control for these policies in pursuit of other empirical questions. I provide a broad overview of the historical context and sources of the policy variation, along with recommended policy coding and an associated supplemental dataset (Myers 2022b). I also describe and reconcile the differences between this suggested policy coding and that of earlier authors, largely by correcting prior mistakes.

Where subjective choices must be made, I provide interested readers with the tools and information to draw their own conclusions and implement robustness checks in their own analyses. The accompanying online state-by-state policy appendix (Myers 2022a) provides state-by-state documentation.

My own work (Myers 2017; Myers and Ladd 2020) has demonstrated the distinctions between policies governing abortion and contraception access made in this document are relevant. Myers (2017) demonstrates that when the entire range of governing policies—those determining the legality of contraception and abortion as well as those determining whether young unmarried women could even consent to them when they were legal—are considered, there is no evidence that contraceptive policies had a substantial impact on young women's family formation, whereas the legalization of abortion had substantial impacts that were amplified when minors could consent to abortion. This paper further demonstrates that results in earlier papers suggesting the contrary—that young unmarried women's confidential access to the pill drove demographic and economic changes—could not be replicated after correcting errors in their legal coding and/or adding correct and complete controls for abortion access. Myers and Ladd (2020) further demonstrate that policies governing minors' confidential access to abortion have continued to impact teen fertility through the present.

Going forward, researchers seeking to identify the effects of policies governing the legality of and rights of young women to consent to contraception and abortion in the modern era are advised to distinguish between the pre-1976 and post-1980 periods, and to avoid the 1977–1979 period all together because the legal rights of minors to consent to contraception and abortion were murky. When studying the 1960–1976 era, researchers should distinguish between policy environments in which physicians could not legally provide access to contraception and/or abortion, and environments in which contraception or contraception and abortion were both legal but the rights of young unmarried women to consent to each varied with age, state, and year. In the 1980–2020 era, both the pill and abortion are legal in all states and women aged 18 and older can consent to them. Researchers studying minors' access to reproductive technology in this contemporary era should consider whether a parental involvement law limiting confidential access to abortion is being enforced and may additionally wish to consider whether the law grants minors the explicit right to confidentially access contraception, though the on-the-ground salience of these latter policies remains unstudied.

The "credibility revolution" in economics—the marked shift toward a focus on experimental research designs that credibly isolate and measure causal effects—has afforded our field important new insights into the causal roles policy changes play in demographic and social outcomes. The responsible use of these powerful tools requires not only understanding econometric methodology, but also having a deep and nuanced understanding of the historical and policy context that generates identifying variation, and that the variation is accurately described. It is my hope that this paper provides that context and description for future inquiries into the role of reproductive policy in shaping people's lives.

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