The Rise and Fall of Legal Abortion in the United States

Response to the NAS Report on Abortion Care
Introduction and Trends/Demographics (1-5 to 1-17)

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I. Introduction

The Committee on Reproductive Health Services ("the Committee") of the National Academies of Sciences, Engineering and Medicine has recently published a report on the safety and quality of abortion care in the United States ("the Report") (Committee on Reproductive Health Services, National Academies of Sciences, Engineering and Medicine, 2018). The present chapter addresses the discussion of abortion regulations, trends and demographics (1-5 to 1-17) presented in the Introduction of the Report. In this section, the authors argue that regulations to ensure the safety of abortion clinics and the due deliberation of abortion decisions have resulted in fewer abortions than would be desirable, the former by making clinics less accessible and the latter by making the process of obtaining an abortion more burdensome for women (S-4, I-10, I-15). In the later section, they make the related argument that deliberation about whether to have an abortion or a child for up to three days results in delayed procedures and thereby increases risks to women's health (S-10, 2-26 to 2-27). No attention is given to the well-publicized recurrence of abusive clinical practices that have resulted in serious medical harm to women (Joffe, 2010; Press, 2014).

To support these arguments, the authors rely extensively, and sometimes exclusively, on arguments and research derived from policy agencies funded and founded by abortion providers.[1] Treatment of questions that bear on controversial public health issues of abortion policy thus tend to be one-sided and incomplete, and the authors do not fairly consider, indeed often do not even acknowledge, evidence and arguments that may weigh against their conclusions. The purpose of this responding document is to present some of the evidence and reasoning on the other side of these questions, so as to further balanced, reasoned debate and objective, fair-minded management of the practice of obtaining abortions in a context of significant national diversity and disagreement about such matters.

In the Trends and Demographics section (I-9 to I-14), the main trend chronicled is a rapid rise in the abortion rate, almost doubling in the first decade after its 1973 national legalization, followed by a steady reduction over the next three decades to a point, by 2014, below its 1973 level. This central section is preceded by a detailed presentation, including a list running to three pages, of state regulations on abortion (1-5 to 1-9) and followed by data and graphics on the number and dispersion of abortion clinics (1-15 to 1-17), which have also declined greatly since the 1980s.

The main demographic point made by the authors is that women of lower income are disproportionately represented among those who obtain abortions. Because abortions directly affect fertility, this concentration may have unforeseen population effects. This issue is addressed in the Appendix, Section A.

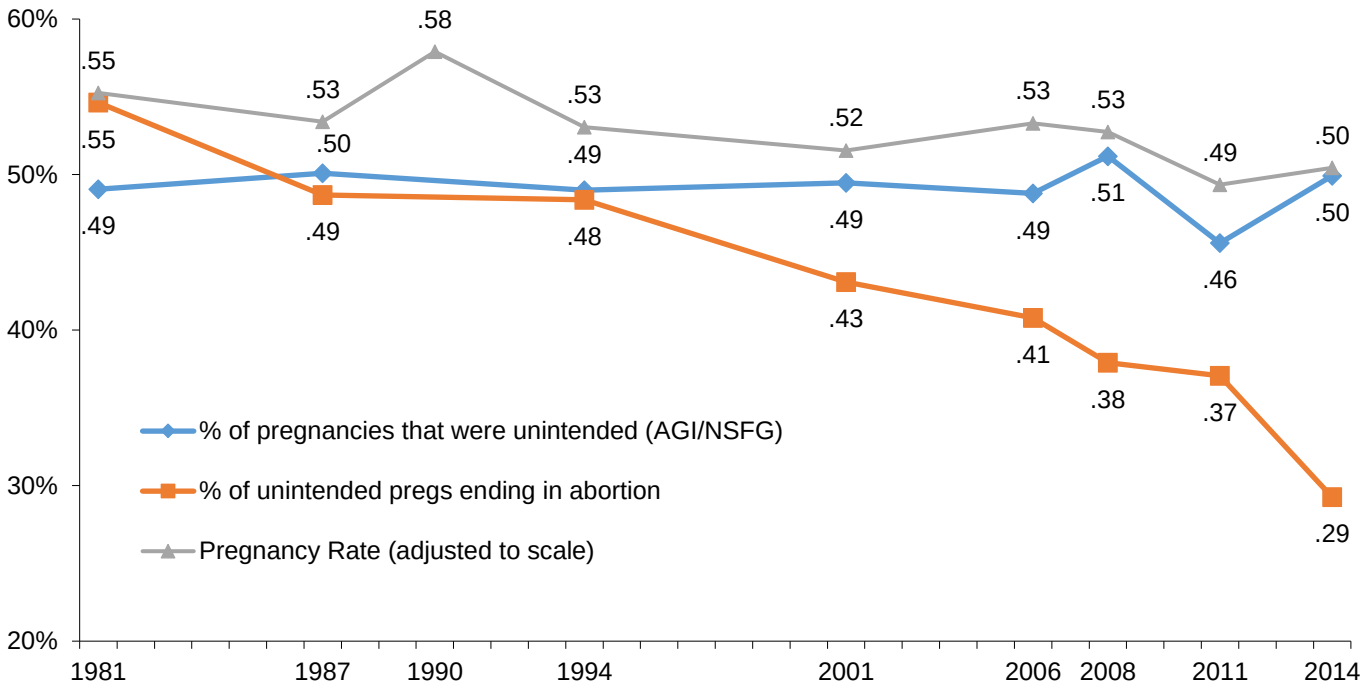
The trends presented in the Report serve to support the Committee's repeated argument that growing state regulations have impeded women's access to abortion, principally by forcing clinics to close, with the result that women have a harder time finding a local provider. As I will show below, this claim, which imagines the widespread denial of abortions to women who want them, is contradicted by multiple sources of evidence and is rejected even by the abortion provider studies which the Committee cites in support of it. Reductions in abortion providers, moreover, are in line with similar reductions in rural medical providers and consolidation in other obstetric services unrelated to abortion. To the extent the decline is specific to abortion care, clinic closures are the result, not a cause, of reduced demand for abortion, which has declined for other reasons. In order to understand more clearly why this is the case, we must examine the causes and scope of the 30-year decline in abortions in somewhat more detail than the brief presentation in the Report.

II. Trends

A. The Long-term Decline in Abortions: Components and Causes

As the Committee notes, the number and rate of abortions in America have declined dramatically in the past 25 years. From a peak of 1,609,000 million abortions in 1990, the Guttmacher Institute ("Guttmacher") reported just 926,200 abortions nationwide in 2014, a decline of 42%.[2] The abortion rate, defined as the number of abortions per 1,000 women of childbearing age, fell by a third (33%), from 29.3 to 19.6, over the 30 years from 1981-2011, and by a quarter (25.5%) from 1990-2011. Excluding uncommon anomalies,[3] a drop in the abortion rate can only occur as a result of one or more of three trends: fewer women are getting pregnant; fewer pregnancies are unintended; or fewer unintended pregnancies end in abortion. Of these three possibilities, the Committee mentions only the second one, citing increased use and effectiveness of contraception, which has contributed to reduced unintended pregnancy. In fact, reduced unintended pregnancies have had the smallest effect of the three, as a review of the evidence for all three trends shows in Figure 1 below.

Figure 1
The three component trends comprising the decline in abortions, United States 1981-2011



Source: Guttmacher Institute and CDC Abortion Surveillance. See Footnote 4 for details.

Figure 1 presents the trends, showing the pregnancy rate, the percent of pregnancies that were unintended, and the percent of unintended pregnancies that ended in abortion from 1981-2014. The latter two trends are shown as percentages, not rates, to distinguish them from the separate effect of the pregnancy rate, using data provided by the CDC and the Guttmacher Institute (GI).[4]

1. Small Decline in Pregnancy

As Figure 1 makes clear, one reason that proportionately fewer women were having abortions after 1980 is simply that proportionately fewer women were getting pregnant. The U.S. pregnancy rate, which is the number of pregnancies for every 1,000 women of childbearing age, dropped throughout the period, rising from 110.5 in 1980 to 115.8 in 1990, when the number of

abortions also peaked, to a low of 98.7 in 2011 (the latest year with available data), a 1990-2011 reduction of 15%. To facilitate comparison, the pregnancy rate, shown by the grey line in Figure 1, is divided by 200 to conform to the scale of the chart. The peak and valley years of the trend (1990 and 2011) represent respectively the highest and lowest levels of the pregnancy rate since the 1973 legalization of abortion. The 26% drop in the abortion rate during this time occurred during a 15% drop in the pregnancy rate; thus roughly three-fifths of the drop in abortions can be attributed to a decline in overall pregnancies.

2. Stability in Unintended Pregnancy

A context of long-term decline in the pregnancy rates also means that considering the rate, not the percent, of unintended pregnancies and abortions tends to overstate any reduction, and can even falsely suggest a decline in the outcome examined when all that has declined is the overall pregnancy rate. This appears to be the case regarding the proportion of pregnancies that were unintended since the 1980s, misleading the Committee into thinking that there have been "historic declines in unintended pregnancy" (1-9) over the period. Although the unintended pregnancy *rate* has dropped since the 1980s due to the drop in the overall pregnancy rate, as the blue line in Figure 1 shows, the proportion of pregnancies that were unintended has remained flat over almost the entire period. From 1981 through the mid-2000s the percent of unintended pregnancies did not change at all, followed by a short period of fluctuation from 2008-2011, which likely reflects the economic recession during those years.[5] Over the longer term, little if any of the decline in the abortion rate can be attributed to a decline in unintended pregnancy, since the percentage of pregnancies that were unintended has hardly changed over three decades.

3. Large Decline in Abortion Propensity

By contrast to unintended pregnancies, the proportion of unintended pregnancies ending in abortion (indicated by the orange line in Figure 1), also known as the "abortion propensity"

(Vandenbroucke & Zhu, 2018), dropped by almost half (47%) over the period under consideration, from a high of 55% in 1981 to a low of 29% in 2014. Of the three components of the declining abortion rate, the drop in unintended pregnancies ending in abortion is the largest, by a wide margin, and thus appears to have had the greatest effect on the reduction in abortions over the past three decades.

A. Drop in Risky Sexual Behavior

This long-term change in women's behavior regarding unintended pregnancies was not focused on abortion, but occurred in concert with a multi-faceted generational trend regarding sex, pregnancy and children in women's lives. The increase in abortion during the late 1970s reflected (at least) three trends: young unmarried women, and especially teenagers, were increasingly becoming sexually active; more effective means of contraception, such as the pill or IUD, were displaced to some extent by less effective methods, such as spermicidal foam or withdrawal; and resulting pregnancies became less likely to be resolved by marriage in favor of abortion. (Hofferth, Kahn, & Baldwin, 1987; "Teenage Childbearing and Abortion Patterns, 1976," 1978; Zelnik & Kantner, 1980)

All three trends stabilized or reversed by the early 1980s, moderating the rapid increase in abortions. As historians commonly observe, this was a time of growing social conservatism in reaction to the perceived excesses of the 1970s, exemplified in rise of the Moral Majority and the presidency of Ronald Reagan (Allitt, 2010, p. 220; Gillon & Matson, 2012, pp. 1221–1223). Shields places the decline in abortions in the context of "moral crusades" against "drunk driving, pornography, abortion, and animal cruelty" (Shields, 2014, p. 103). Scholars at the time also began to detect growing guilt feelings about casual sexual expression in younger cohorts of women. (Gerrard, 1980; Mosher, 1979) This "relative sexual conservatism" (Gerrard, 1987, p. 975) did not signal a return to stricter sexual mores but a retrenchment in the complex of attitudes and behaviors

that were implicated in the resolution of unintended pregnancies by abortion. The growing reservations suppressed risky sexual activity, but also inhibited effective contraceptive use; and reservations about casual sexual expression were significantly higher in abortion patients (Gerrard, 1977, 1982).

A variety of social factors played a role in the decline of risky sexual behavior. The deadly AIDS crisis highlighted the dangers of unprotected sex and multiple partners, stimulating greater awareness of the importance of contraception (Brooks-Gunn & Furstenberg Jr, 1990; Fortney, 1990) and double-digit increases in condom use (Santelli, Lindberg, Abma, McNeely, & Resnick, 2000). Rising premarital cohabitation increased the prospect of marriage rather than abortion with unintended pregnancy (Tanfer, 1987). Three-dimensional sonography, which by "demonstrating the "humanity" of the fetus can encourage maternal-fetal bonding" (Campbell, 2013, p. 227) **,** was invented in 1986 and widely available by the mid-1990s (Baba, 2004). Although legal, procuring an abortion remained stigmatized for most Americans, fostering concealment among patients (Major & Gramzow, 1999; Weidner & Griffitt, 1984) and avoidance among doctors (Kolata, 1990). All of these factors may have had an effect on the decline of abortion rates.

What is undeniable is that empirical indicators of risky sexual expression had turned a corner. Teen pregnancy rose sharply through the 1970s, moderated in the 1980s and then began to drop in the 1990s. At the same time, the age of sexual onset began to rise and the numbers of sex partners began to fall (Abma & Sonenstein, 2001; Santelli et al., 2000). Multiple sources have documented a modest but real decline in risky sexual behavior beginning in the 1990s. A 2006 report on the topic from the National Opinion Research Center (NORC) presents multiple indicators, with the authors concluding that in the early 1990s "the level of premarital and adolescent sexual activity reached a peak and then declined" (Smith, 2006, p. 3). Data from the Youth Risk Behavior Survey confirms this trend, showing that from 1991 to 2013 the percentage of teens (both male and

female) who had ever had sexual intercourse (sexually experienced) dropped from 54.1 to 41.2, a statistically significant drop of 24%. (Centers for Disease Control and Prevention, 2016). According to the National Survey of Family Growth (NSFG), between 1988 and 2015, the percentage of teenage boys (15-19) who had ever had sex fell from 60 percent to 44 percent, and the percentage of teenage girls (15-19) who had ever had sex fell from 51 to 42 percent (Abma & Martinez, 2017, p. 4). The NORC study authors also reported findings from the General Social Survey (GSS), an NSF-funded biennial survey of American opinion and behavior, which shows a small but significant decline from 1988 to 2004 in adult Americans' mean number of sex partners in the past 12 months, from 1.49 to 1.28. (Smith, 2006) Examination of subsequent GSS data reveals that this trend continued through 2014, to a low of 1.20.[6] Sexual frequency also dropped over the same period, with the greatest age-adjusted decline occurring among the youngest cohort of Americans (Twenge, Sherman, & Wells, 2017).

B. Drop in Approval of Abortion

The CDC's Working Group on Unintended Pregnancy advises that abortion decisions "are driven not only by pregnancy wantedness, but also by the extent to which a woman accepts or rejects abortion as a way of resolving an unwanted pregnancy."(Santelli, Rochat, Hatfield-Timajchy, & Gilbert, 2003, p. 97) Concurrent with the turn toward less risky sexual behavior, the attitudes of American women since 1980 have grown markedly less approving of the idea of having an abortion (Wilcox & Carr, 2010). The recognition of this fact is key to understanding the gradual decline in the rate of abortions. This has not been a narrow, temporary shift in attitudes, but a broad cultural decline over the past three decades (Green, 2015) .

This is not the same as saying that principled ethical support for legal abortion has waned. In fact, since 1973 the structure of Americans' ethical views on legally available abortion has remained virtually unchanged: a little less than a third of Americans have held that abortions should

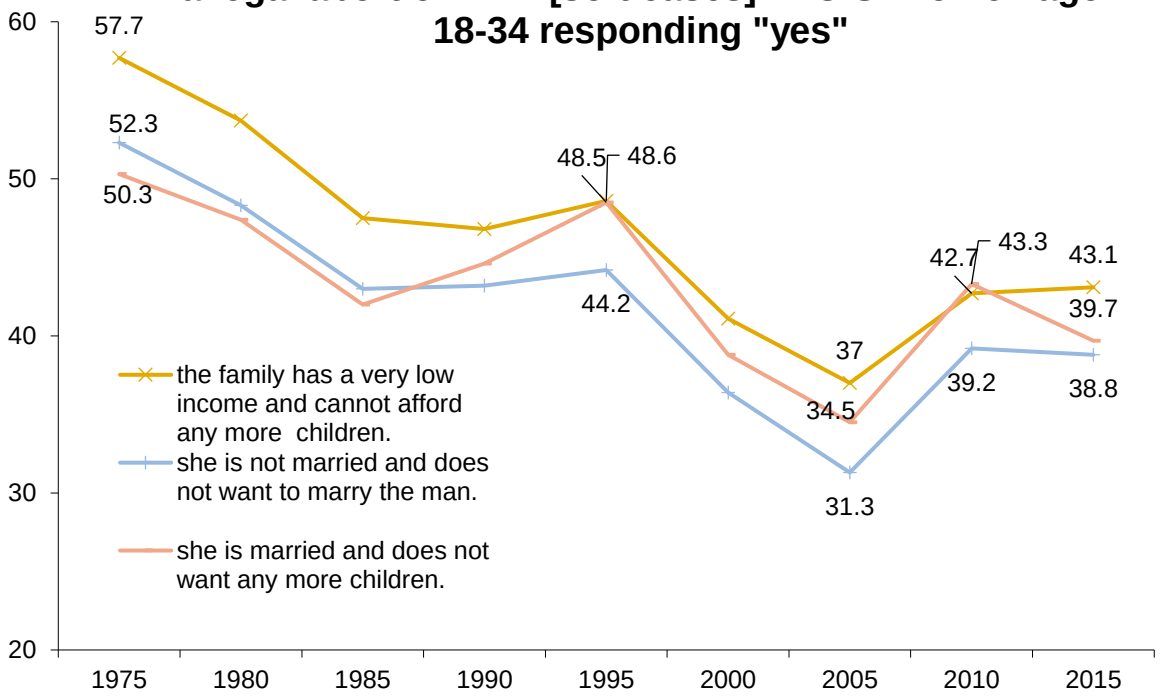
be freely available with no or few restrictions; a little less than a fifth have held, with few or no exceptions, that abortion should not be legally available at all; and the remainder, comprising about half of Americans, have taken a pragmatic approach, holding that abortion is justifiable in some concrete circumstances but not in others (Fiorina, Abrams, & Pope, 2011; Ladd, 1997). It is among this latter, non-ideological plurality that approval has steadily declined, as the circumstances for which they would approve a woman obtaining an abortion have declined in number and increased in seriousness (Pew Research Center, 2009) .

The clearest data on this trend come from the General Social Survey (GSS), a statistically representative biennial opinion survey of the U.S. population administered since the early 1970s by the National Opinion Research Center at the University of Chicago, with principal funding from the National Science Foundation (Smith, Davern, Hout, & Freese, 2018). Since 1973 the GSS has included a set of questions asking "whether it should be possible for a woman to obtain a legal abortion" in six typical cases: "the family has a very low income and cannot afford any more children"; "she is not married and does not want to marry the man"; "she is married and does not want any more children"—these three are collectively known as the "soft cases", then there are three "hard cases"—"there is a strong chance of serious defect in the baby"; the woman's own health is seriously endangered by the pregnancy"; "she became pregnant as a result of rape." Americans are about twice as approving of an abortion for the hard cases than for the soft cases,[7] but approval for every case has dropped over the past three decades.

Previous analyses of GSS data have found that circumstantial approval for obtaining an abortion has dropped more among younger cohorts of Americans than among their elders, signaling a generational trend, and it has dropped equally among women as among men *(Ladd & Wilcox, 2011; New, 2018; Wilcox & Carr, 2010)*. Consequently, younger women of childbearing age, the portion of the population most at risk for the circumstances identified, have grown notably more opposed to considering an abortion as a result of them. Figures 2,3 and 4 present the evidence, showing the 40-year trend in approval of abortion for U.S. women aged 18-34. Consistent with the above-noted fact that most Americans are in the pragmatic middle on these questions, studies have found that the responses to situationally framed questions such as those on the GSS correlate more closely with the woman's own decision attitudes than with a principled moral stance such as pro-life or pro-choice *(Adamczyk, 2008; Hans & Kimberly, 2014)*. The correlation is not perfect, of course, but trends in the two sets of attitudes are likely to be very similar. As Figures 2-4 show, approval for obtaining an abortion by successive cohorts of women in their early childbearing years has dropped since the 1970s for every circumstance presented. As Figure 4 shows, approval in the soft cases has dropped by 21%, but even in the hard cases, for which a large majority of women support access to abortion, approval has dropped by an average of 12% since the 1970s. This evidence indicates a broad-based secular decline in women's approval of abortion.

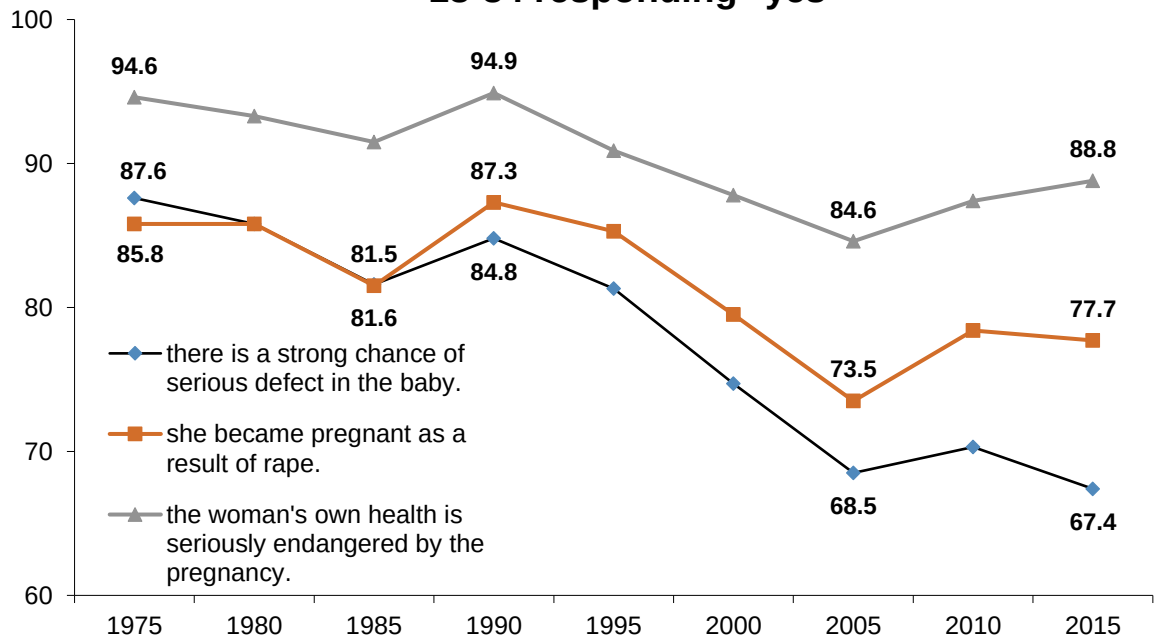
There are many other factors that may have contributed to women's decreasing approval of abortion. Although the cohort of women whose lives straddled legalization welcomed the right to abortion as a liberation, subsequent cohorts of women have become much more conflicted about abortion (Green, 2015). Few women are proud of having obtained one, as the high rate of

Figure 2
"It should be possible for a pregnant woman to obtain a legal abortion if..." [soft cases] --- U.S. women age 18-34 responding "yes"



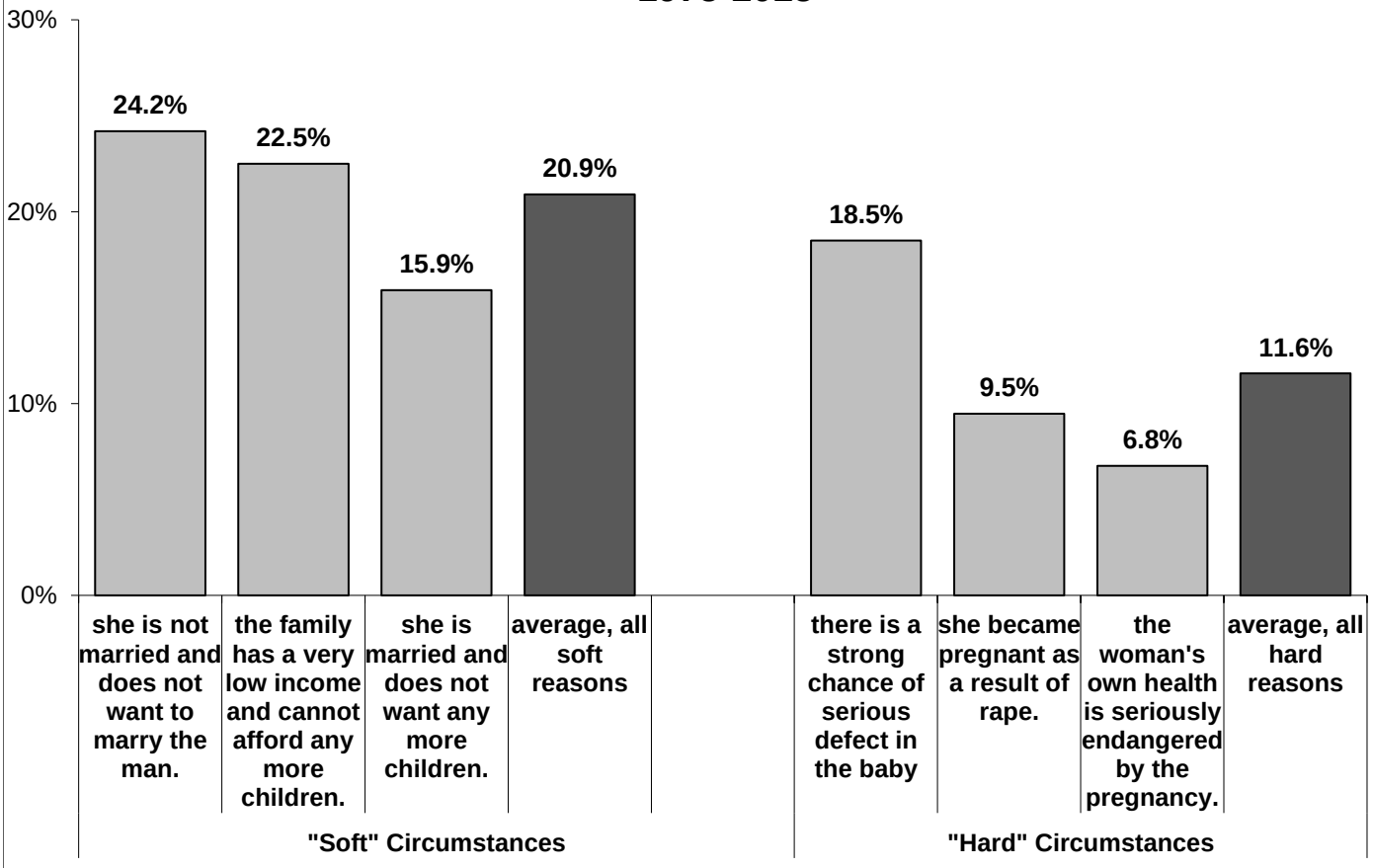
Source: General Social Survey, National Opinion Research Center. The sample is statistically representative of the U.S. population. Data points show 5-year combined data. All 1975-2015 contrasts are significant at .05 or higher.

Figure 3
"It should be possible for a pregnant woman to obtain a legal abortion if..." [hard cases] --- U.S. women age 18-34 responding "yes"



Source: General Social Survey, National Opinion Research Center. The sample is statistically representative of the U.S. population. Data points show 5-year combined data. All 1975-2015 contrasts are significant at .05 or higher.

Figure 4
Drop in abortion approval among U.S. women aged 18-34, 1975-2015



Source: General Social Survey, National Opinion Research Center. The sample is statistically representative of the U.S. population.

concealment of abortion on anonymous surveys attests *(Major & Gramzow, 1999)*. The envisioned improvement in well-being that abortion was supposed to bring demonstrably failed to materialize; although research varies in how much and what type of psychological distress is found following abortion, no study has found evidence that women experience robust long-term psychological benefits from abortion *(Fergusson, Horwood, & Boden, 2013; Sullins, 2016)*.

In an analysis very similar to the one presented here, a recent economic study published by the Federal Reserve Bank of St. Louis decomposed the drop in teen abortions since the 1970s into changes in the teen pregnancy rate (ignoring pregnancy intention) and the percentage of pregnancies ending in abortion, which the authors term "abortion propensity"*(Vandenbroucke & Zhu, 2018)*. Figure 5 summarizes the results. In the 1970s a very high abortion propensity accounted for most of the teen abortion rate, but beginning in 1980 abortion propensity among teens began to drop, slowly during the 1980s, then very rapidly during the 1990s, and continuing to the most recent available data year. The teen abortion rate (unlike for older women) has also been reduced by a sizable drop in the teen pregnancy rate. Consistent with the present study, the authors suggest that this drop is due to more effective contraception and "a decline in the sexual activities of teenagers"*(Vandenbroucke & Zhu, 2018)*.

Figure 5

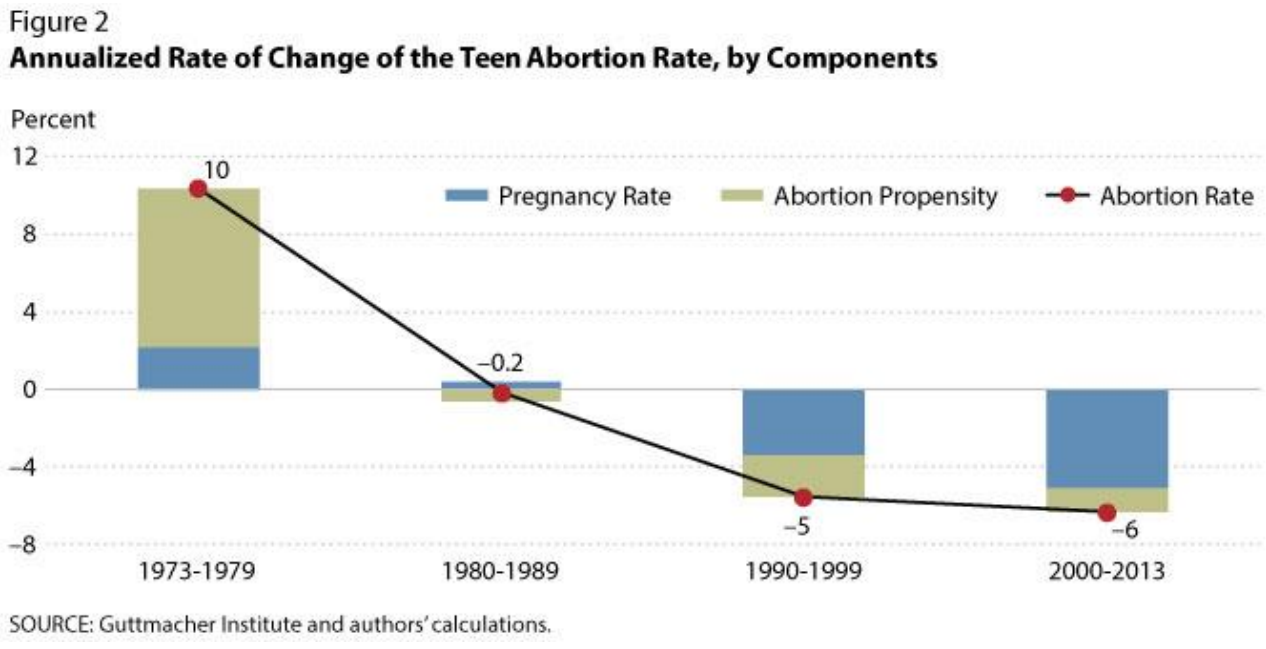


Image from Vandenbroucke and Zhu, 2018. See reference in text.

In a 2015 analysis in the Atlantic, Green articulates aspects of the current complexity regarding abortion in women's experience that is reflected in the declining approval rates:

> Although today's twenty- and thirty-somethings grew up in a time when abortion was more common than ever before, they're not choosing to have abortions themselves. … Meanwhile, in the lives of regular people, the choice to have an abortion or not is complicated, and intensely personal. … Access to abortion is becoming more difficult, but that doesn't necessarily explain why women aren't getting the procedure. Birth control is more affordable, but women aren't necessarily using it. Attitudes toward sex are changing broadly, but not attitudes toward unintended pregnancy. … in their lived-out lives, Americans are moving away from embracing abortion, not toward it. (Green, 2015)

Whatever the contributing factors, it is unarguable that since the 1980s, successive cohorts of children who grew up in these decades have chosen to have fewer abortions than their parents; and there is no indication that the trend has yet ended. Remarkably, the authors of the Report indicate no awareness of this broad social trend, which has largely driven the reduction in the abortion rate. Instead, they offer superficial technocratic explanations, which are not only unsupported by the evidence, but are also, as the passage just cited suggests, out of touch with the concrete experiences of women.

B. The (Non)Role of Regulations

1. Supply Side Regulations

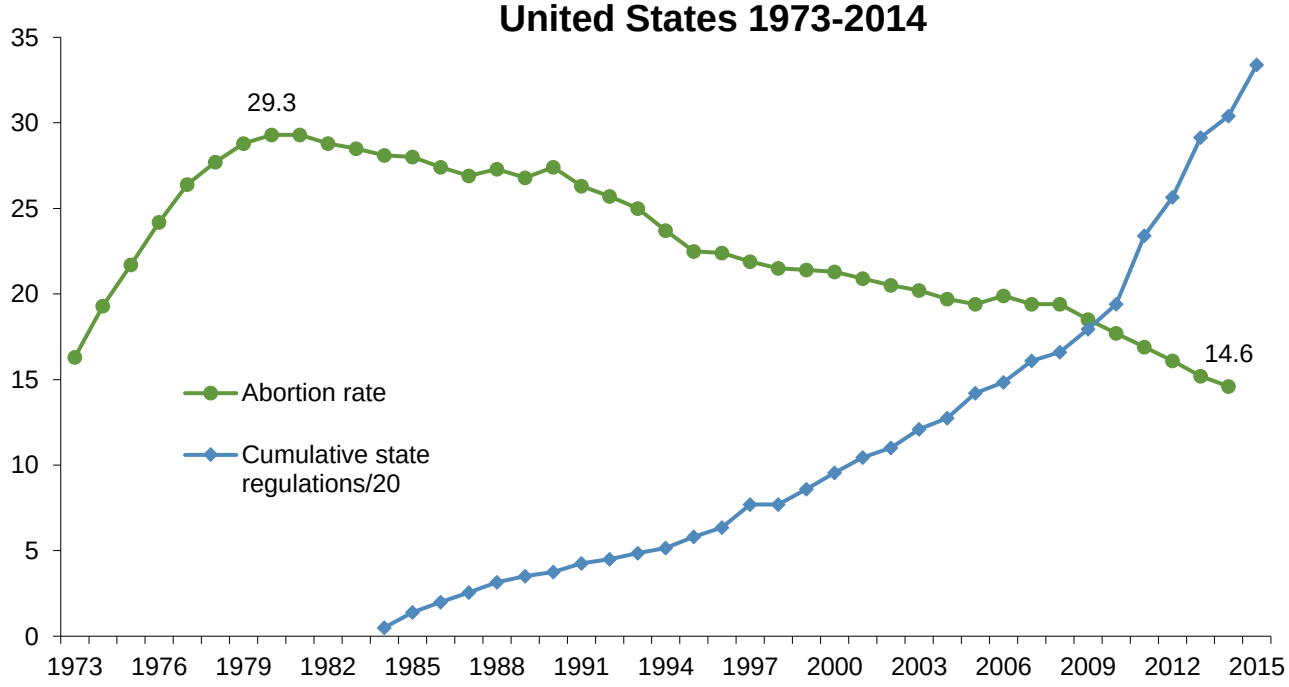
According to the Committee, the steep decline in the abortion rate since the 1980s is due, in part, to "increasing numbers of state regulations resulting in limited access to abortion services" (1-10). These regulations, consisting of what economists call "supply side" restrictions because they are imposed on abortion providers but not patients, include state rules about "providers having an abortion license, being a state certified OB/GYN, physical/administrative requirements (such as those in VAand TX), locating within a certain physical distance from hospitals, and maintaining admission or emergency agreements with local hospitals" (Beauchamp, 2015, p. 964). Such rules, the Committee contends, have reduced access to abortion by forcing clinics to close or doctors to stop doing abortions, making it more difficult to find a local abortion provider and forcing more women to travel further to have an abortion. The Report's authors extend this argument to include

regulations requiring multiple clinic visits, which also make abortions less conveniently available. These regulations, however, are designed to have a more direct effect on abortion demand, not supply, by requiring informed consent, counseling, or a waiting period, and will be addressed separately in the next section. The authors of the Report suggest that all these restrictions have impeded women desirous of an abortion from access to one (1-10, 1-15).

The authors offer no evidence to support these claims other than the fact that abortions have declined overall. However, the pace of the declining abortion rate is not consistent with the rise in regulations. Figure 6 overlays the two trends for inspection. (Guttmacher Institute, 2018) The abortion rate slowed and then began to drop after 1980, when there were only a handful of state regulations. Although the number of regulations mounted during the 1990s and 2000s, and have shot up sharply since 2010, the abortion rate continued to decline at about the same pace. If regulations were having a material effect on access to abortion such as the authors of the Report

claim, we would expect the pace of the abortion decline to increase as larger numbers of regulations took effect; but that is clearly not the case.

Figure 6
Abortion rate by cumulative state regulations, United States 1973-2014



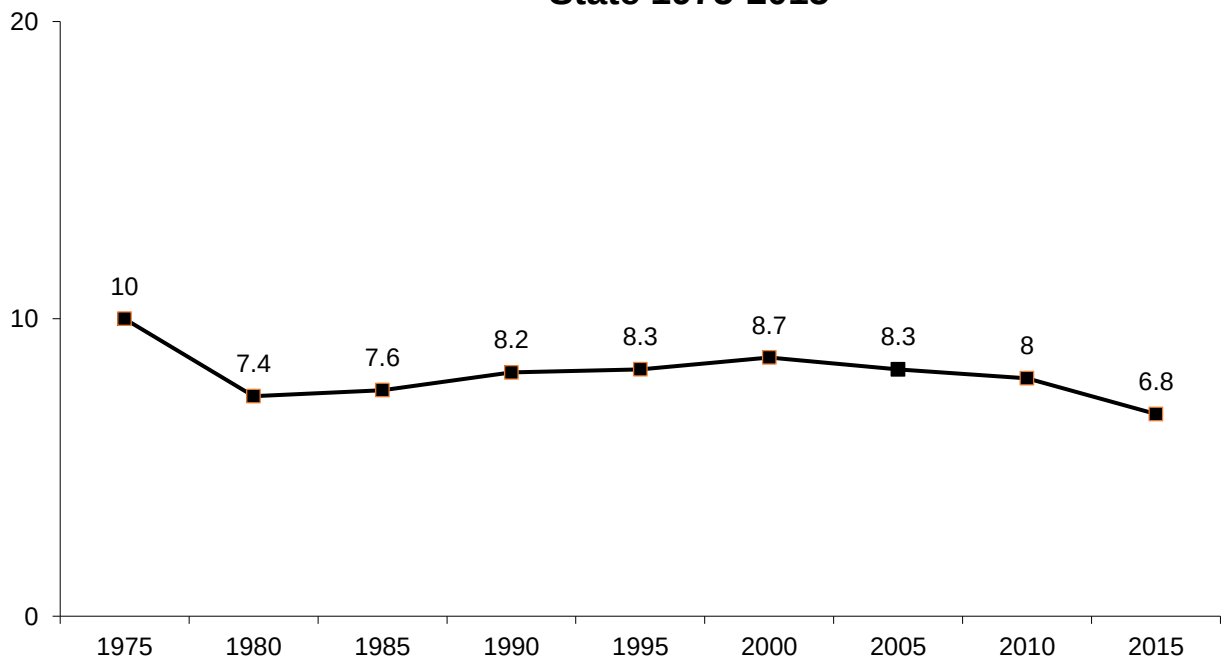
Source: Guttmacher Institute

A standard measure of the availability of local abortion providers has been the percentage of abortions obtained in a woman's home state. Authors of a 2003 medical review of abortion history, for example, reported one of the benefits of legalization to be abortions "closer to home: More than 90% of legal abortion services after 1973 occurred in the woman's home state in 1980-99, compared with 56% in 1972."(Cates, Grimes, & Schulz, 2003, p. 25) Increasing state regulations since 1999 have not altered this positive assessment in the slightest. As Figure 7 shows, reporting data from CDC abortion surveillance,[8] the percentage of abortions occurring in a woman's home state has remained well above 90% during the entire era of legalized abortion. Contradicting the claims made

in the Report, since 2000, as clinic regulations increased more rapidly, out-of-state state abortions have *decreased.* By 2015, out-of-state abortions were at the lowest level on record.

Another way to test the Committee's claim that regulations have limited abortion access is to compare the experience of different states. As shown in the report (Table 1-1), regulations vary greatly from state to state. Some states have many restrictions on abortion providers and the abortion process, while others have no abortion-specific regulations at all. If state regulations have inhibited abortions, states with more regulations should show greater declines in the abortion rate than states with few or no regulations.

Figure 7
Percent of Abortions Not Obtained in the Woman's Home State 1975-2015



Source: CDC Abortion Surveillance/Morbidity and Mortality Reports, by Year

In 2015 the Associated Press (AP) investigated state-specific declines in abortions following the enactment of a spate of new regulations by some states during the previous five years. During this period abortions had decreased nationwide by 12%. The AP reported:

> Several of the states that have been most aggressive in passing anti-abortion laws — including Indiana, Missouri, Ohio, and Oklahoma — have seen their abortion numbers drop by more than 15 percent since 2010. But more liberal states such as New York, Washington and Oregon also had declines of that magnitude, even as they maintained unrestricted access to abortion.
>
> Five of the six states with the biggest declines — Hawaii at 30 percent, New Mexico at 24 percent, Nevada and Rhode Island at 22 percent, Connecticut at 21 percent — have passed no recent laws to restrict abortion clinics or providers. (David Crary, 2015)

In short, the AP found no association between aggressive state regulation and a decline in abortions.

The very research cited in support of a regulation effect by the Committee explicitly concludes that there is no such effect. Guttmacher's 2014 enumeration of abortion clinics, which is the Report's primary source for its statistics on clinic reductions, advises: "Abortion restrictions were associated with a decrease in the number of abortion and nonspecialized clinics, but fluctuations in clinic numbers—whether decreases or increases—were not clearly associated with abortion rates."(Jones & Jerman, 2017, p. 23) The abortion rate declined in 8 of the 10 states with the largest increases in abortion clinics, while the two states with the largest reductions in clinics did not experience an above-average decline in abortions. In Missouri, which lost a third of its clinics from 2011-2014, abortions increased (Jones & Jerman, 2017). The authors of the corresponding report for 2011, after examining the question in detail, likewise concluded: ".. no evidence was found that the overall drop in abortion incidence was related to the decrease in providers or to restrictions implemented between 2008 and 2011."

Further Guttmacher analysis argues strongly against concluding from its research precisely what the Committee mistakenly concludes. Drewecke, commenting for Guttmacher on Finer and Zolna's (2016) study showing a 2008-2011 drop in the abortion rate (which the Committee cites), writes that these findings "bolster the case that restrictions were not a main factor in the abortion decline. The mechanism by which restrictions would lead to fewer abortions is to force or otherwise compel women to carry an unwanted pregnancy to term. If that were the case, one would expect to

see fewer women who experience an unintended pregnancy having abortions. One would also expect an increase in births, and in unplanned births in particular. Neither of these happened during 2008–2011."(Dreweke, 2016, p. 17) Rather, the author attributes the drop in abortions to decreases in unintended pregnancy—a welcome development—as does Finer and Zolna (2016).

To suggest that a problem exists, the Committee cites selectively from research studies in a manner that exaggerates the decline in U.S. abortion providers. To illustrate the decline and alleged sparseness of abortion providers, for example, the Committee cites a recent study of spatial disparities in the distance to an abortion provider (1-15), and presents a map showing the dispersion of abortion clinics in the United States in 2014 (1-17). The Committee does not report that the authors of the cited study concluded: "Our findings showed spatial disparities that were broadly unchanged in the period of 2011–14, despite several abortion restrictions being enacted during this period." (Bearak, Burke, & Jones, 2017, p. 498). Although distances increased in some states over this period, they reduced in others. Kansas and Maine, both of which enacted substantial regulations, including required counseling, waiting periods, and clinician licensing, saw the largest reductions in distance in the country. The study authors also concluded that spatial disparities in abortion providers in the United States are comparable to those in other high-income industrialized nations.

The Report authors also misquote the Guttmacher research to claim that 90% of U.S. counties in 2014 did not have an abortion provider (1-15); the correct statistic is that 90% of counties did not have an abortion *clinic* (Jones & Jerman, 2017).[9] Abortion clinics comprise less than half of all abortion providers. Although the Committee correctly cites (1-15) the statistic that 39% of women of childbearing age resided in a county without an abortion clinic in 2014, (Jones & Jerman, 2017), it does not report that in that year only 34% of women of childbearing age lived in a county without any kind of abortion provider, and that this proportion was *lower* than a decade

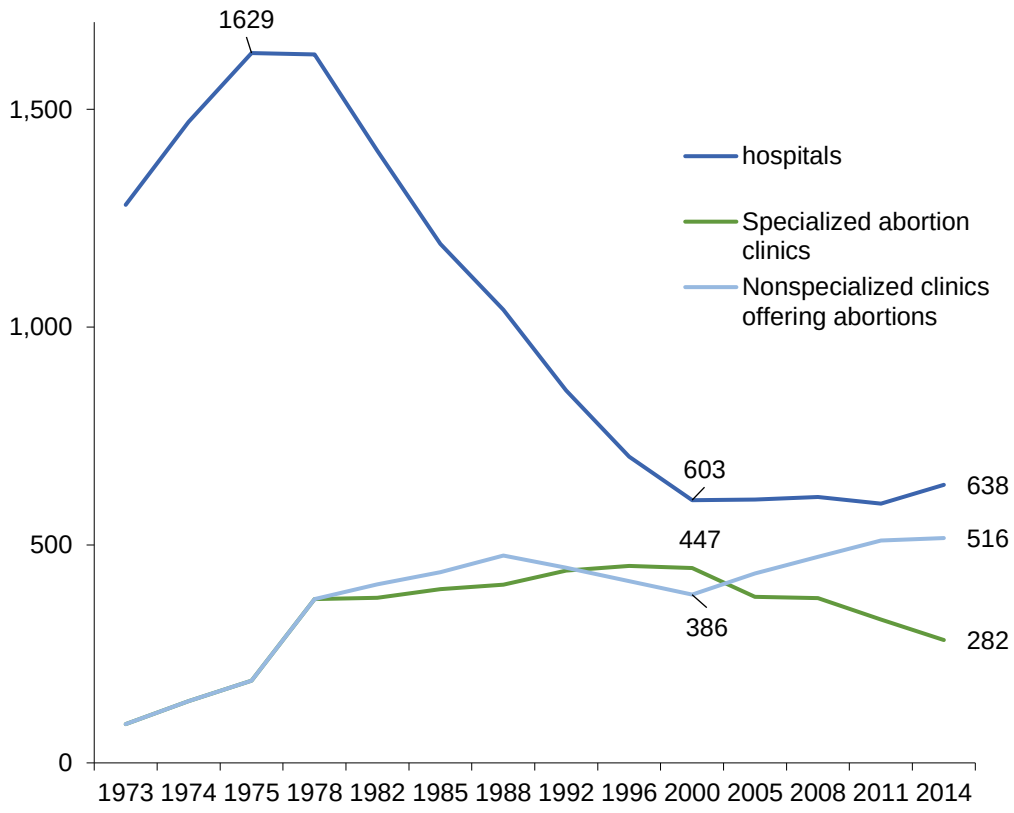
earlier (2005), when it was 35% (Jones, Zolna, Henshaw, & Finer, 2008). In 2000 the reported proportion was also 34% (Finer & Henshaw, 2003), contradicting the Committee's claim of a reduction in access.

The Committee further states, misleadingly: "The overall number of nonhospital facilities providing abortions—especially specialty abortion clinics—is declining. … In 2014, there were 272 abortion clinics in the United States, 17 percent fewer than in 2011" (1-15), citing the respective Guttmacher counts of abortion providers (Jones & Jerman, 2017). But "specialty abortion clinics", which only provide abortion services, are only one of four types of abortion providers covered in the reports. During the same period, nonspecialized clinics—which offer abortions as well as a range of other medical services--*increased*, as did the number of hospitals performing abortions(Jones & Jerman, 2017; Jones et al., 2008) . Together these two other types of providers offset the decline in specialty abortion clinics: the total changed hardly at all, from 1434 in 2011 to 1436 in 2014. Including physician's offices, which provide relatively few abortions, the overall drop in providers was 3%. What these numbers suggest is not a departure of service so much as a reshuffling among the types of facilities that provide abortions.

Figure 8[10] shows the larger trend of the alignment of abortion providers from 1973 to 2014. As the Figure shows, following the legalization of abortion, the number of abortion clinics, both specialized and nonspecialized, ramped up rapidly during the 1970s, then grew more slowly during the 1980s and early 1990s. During this time clinic caseloads grew larger, as the number of hospitals that provided abortions dropped precipitously, from 1629 in 1974 to just 603 by the year 2000. As the number of abortions began to drop after 1990, the number of specialized clinics stopped increasing, then began to decline as well, dropping from 447 in 2000 to 282 in 2014. This decline was offset, however, by a corresponding rise in the number of nonspecialized clinics that offered abortion, which increased from 386 to 516 over the same period. In 2000 the long decline in

hospitals providers also ended, with the numbers stabilizing in the first decade and then increasing slightly in the second decade of the new century. The net result of these changes in provider types since 2000 has been stability, not decline, in the total number of abortion providers, which was the same (1436) in both 2000 and 2014.

Figure 8
Trends in U.S. Abortion Providers, by type, 1973-2014



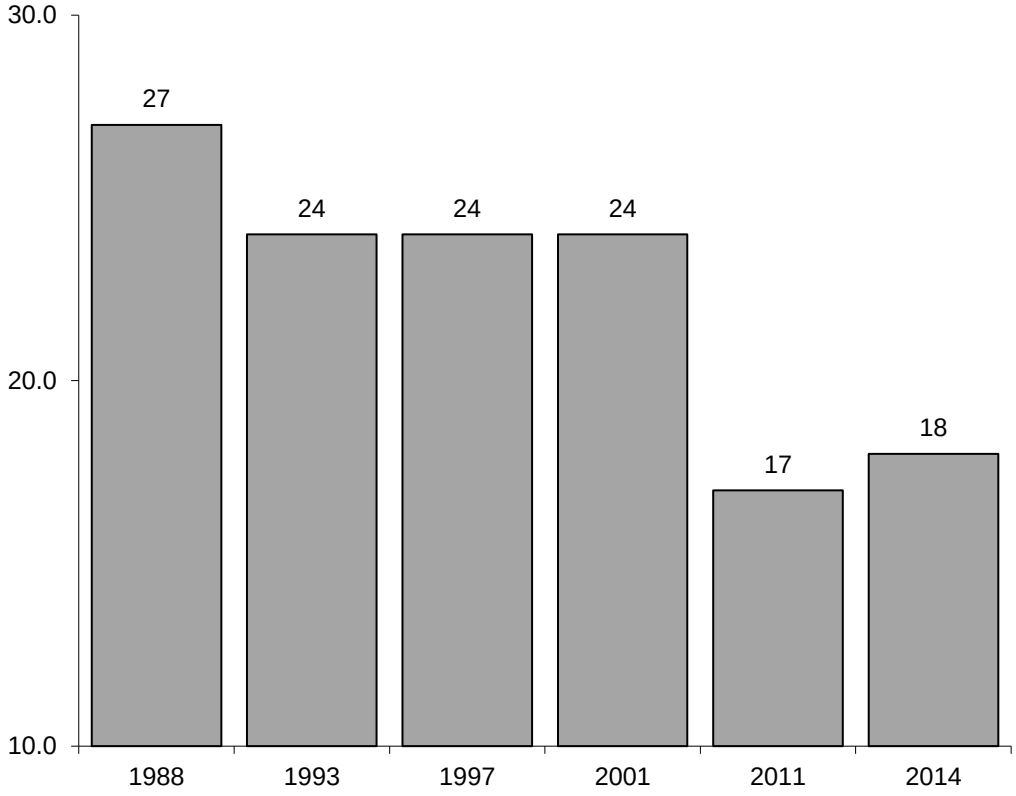
Source: Guttmacher Institute. See reference in text at first mention of the Figure.
Doctor's offices are excluded.

Although the Committee attempts to attribute the drop in specialized clinics to abortion-specific opposition, the closure of abortion clinics is in line with a larger trend of consolidation and urban concentration in specialized services in many medical areas in the United States (Brown,

Werling, Walker, Burgdorfer, & Shields, 2012; Dranove & Lindrooth, 2003; Robinson, 2004). The Report authors do not address this larger context, which may help to interpret its findings. The economic forces of market concentration, abetted by the growing shortage of physicians and the growth of regulation in all areas of medicine, (American Association of Medical Colleges, 2017; Fulton, 2017) have led to the consolidation of medical care in urban settings to the detriment of the rural health care system. In 2016, 90% of urban areas (U.S. Census Metropolitan Statistical Areas) were highly concentrated for hospitals, (Fulton, 2017, p. 1530), while 80 rural hospitals had closed in the previous five years. (Ellison, 2016)

Consolidation has been particularly acute for obstetrics and maternity care. The key driving force is demographic: as rural populations age and rural young people move to urban areas where jobs and opportunities are more plentiful, rural health providers need to put more energy into health services for a predominantly older population (Henning-Smith, Kozhimannil, & Prasad, 2017), which can take away from resources for maternity care. Practicing family physicians and hospitals offering obstetrics services are declining in rural areas even faster than the overall decline in hospitals (Kozhimannil, Hung, Henning-Smith, Casey, & Prasad, 2018). To be sure, such reductions raise concerns for health safety and quality (Kozhimannil et al., 2018), but these problems are not unique to abortion care; indeed, in many respects they are lower. Although childbirth is about three times more common than abortion, for example, as of 2017, 55% of U.S. counties did not have a hospital offering obstetrics services, a reduction of ten percent points in just a decade (Hung, Henning-Smith, Casey, & Kozhimannil, 2017; Johnson, 2017) . By this measure, contradicting the Committee's claims of abortion targeted reductions, availability of medical care for abortion has declined in recent years much less than medical care for childbirth in the United States.

Figure 9
Percent of women who traveled 50 miles or more for an abortion 1988-2014



Source: Guttmacher Institute. For detailed references see note in text.

Unlike other areas of reproductive medicine, where demand has held relatively constant, the secular decline in abortions since 1991 has been accompanied by a reduction in very large providers, which has *increased* geographic access to abortion. From 1988 to 2014, while total abortion providers dropped by 35%, the largest facilities, those performing 5,000 or more abortions per year, dropped by 56%, from 43 in 1998 to only 19 by 2014. During the same period the smallest providers, offering fewer than 30 abortions per year, actually increased by 15% (Henshaw & Van Vort, 1990; Jones & Jerman, 2017). The Committee acknowledges that increased use of medical

abortion, which requires less health care infrastructure, means that smaller providers such as family physicians "may now represent an increased share of abortion providers." (3-10) Guttmacher research suggests that this may have had the effect of "increasing access to abortion and reversing the trend of services' being concentrated in clinics and larger providers" (Jones et al., 2008, p. 6). Whatever the cause, Guttmacher census information confirms that the rise of smaller providers, often in rural areas, has improved geographic access to abortion in recent years. Figure 9[11] reports the numbers. Since the late 1980s the proportion of women traveling 50 miles or more for an abortion has dropped, from 27% in 1988 to just 18% in 2014. Most of the decline has occurred since 2001, possibly reflecting increased use of medication abortion.

Beauchamp's (2015) econometric study of the concentration and increasing regulation of the U.S. market for abortions confirms the analysis presented here. Analyzing the equilibrium effect of clinic regulations, the author concluded: "Although supply-aimed abortion regulations played an important role in generating the observed market structure, there is no evidence that their more recent imposition has changed the market. Rather preexisting trends in the decline of provision and abortion at the state level are correlated with the introduction of these more recent measures, so that policy effects are small and insignificant when conditioning on these trends" (Beauchamp, 2015, p. 992) . Furthermore, the author demonstrated that the initial lenient regulations on abortion providers resulted in more expensive abortions, thus restricting their availability: "if a strict set of regulations were put in place early in the history of nationalized legal abortion in the United States, simulations indicate the result would be a net increase in the number of abortions … mainly because high-cost providers never enter the market in significant numbers" (Beauchamp, 2015, p. 992).

2. Demand Side Regulations

In contrast to rules on clinics and physicians, "demand side" regulations affect the process and conditions for deciding to have an abortion, such as parental consent laws for minors, exclusion

of public funding, required counseling, informed consent notification, and waiting periods (Beauchamp, 2015). Robust research indicates that such regulations are indeed associated with reduced abortions, but not by reducing supply or restricting access. Rather, they tend to discourage demand for abortion, in concert with the above-noted long-term trends in attitudes and behavior (Bitler & Zavodny, 2001; Haas-Wilson, 1996; Levine, Trainor, & Zimmerman, 1996; for a review, see Medoff, 2007).

Studies have consistently found that abortion demand is directly affected by the restriction or provision of Medicaid funding, though the effect is small (Blank, George, & London, 1996; Joyce, Kaestner, & Kwan, 1998; Levine et al., 1996; Zavodny & Bitler, 2010). An analysis of subsidies to new mothers, furthermore, found "*robust* evidence" (emphasis in original) that prospective state income support to low-income *mothers* reduces the abortion rate, finding that "low-income, low-skilled childless pregnant single women choosing abortion may change their minds if offered [state income support after birth]" (Snarr & Edwards, 2009, p. 596). Studies of parental consent laws (Joyce, Kaestner, & Colman, 2006; New, 2011; Rogers, Boruch, Stoms, & DeMoya, 1991) have found significant reductions in teenage abortions, although generally not abortions overall, since teenage pregnancies comprise less than a tenth (9.4%) of all pregnancies (Finer & Zolna, 2016).

In-person counseling, informed consent notification, and waiting period regulations often occur together, complicating attempts to identify separate effects. A Guttmacher review of research on regulations requiring in-person counseling or informed consent and waiting periods revealed that abortion rates fell when both were required, but not when only counseling but not a waiting period was required (Joyce, Henshaw, Dennis, Finer, & Blanchard, 2009). An economic analysis using pooled time-series data to estimate the effect of abortion restriction laws on the demand for abortion over a 20-year period demonstrated that parental involvement laws did reduce demand, but that "a state waiting period and a mandatory counseling law have no statistically significant impact on

abortion demand" (Medoff, 2008, p. 329). In this study, increase in travel and time costs associated with waiting periods and counseling reduced abortion demand; but: "…increases in abortion costs not only reduce the number of abortions, but also reduce the number of pregnancies by altering women's sexual/contraceptive practices" (Medoff, 2008, p. 329). On this thesis, increased restrictions that are associated with reduced numbers of abortions may do so by means of contributing to declines in unintended pregnancy, not by denying an abortion to a woman who otherwise would want one. New, in a regression model that included all states with informed consent laws, found that the passage of an informed consent law reduced the abortion rate by about 7% (New, 2011).

Recent studies have found that following the introduction of Utah's 72-hour waiting period 8% of women decided not to proceed with an abortion, (S. C. M. Roberts, Turok, Belusa, & Combellick, 2016; Sarah C. M. Roberts, Belusa, Turok, & Combellick, 2017). When asked why they had not had the abortion, 71% of the non-proceeders responded that they had changed their mind, and 38% that others opposed the procedure (respondents could give multiple reasons). Open-ended descriptions of their experience revealed that, for some women, the waiting period was key to the reconsideration. One woman reported: "About two days after the [information] appointment, I canceled the [abortion] appointment. I couldn't do it. … I had my reasons that I thought were good reasons, and then I re-reasoned myself out of it." Another reported: "I talked with my family more about it, and they support me and they are willing to help me." Another put more simply: "My boyfriend got his s**t together." (S. C. M. Roberts et al., 2016, p. 183)

Demand side regulations on abortion have broad public support. In Gallup surveys since 1992, about seven in ten (69%-78%) Americans have supported laws requiring a waiting period; almost nine in ten have supported laws requiring women to be informed about possible risks of abortion (87%) and alternatives to abortion (88%) (Gallup Inc, 2018; Saad, 2011). Although, as

already noted, a majority of Americans has consistently expressed the view that abortion should be legal in at least some cases, a larger majority has also consistently said that reducing the number of abortions is desirable (Pew Research Center, 2009) In 2009, two-thirds (65%) of all Americans, including over half of those who thought abortion should be legal in all circumstances without restriction, agreed that it would be good to reduce the number of abortions in the United States. Unlike the Committee, most Americans thus favor laws that ensure some reflection and consultation before a woman finalizes her decision. Furthermore, the Pew Research Center reported, "Americans overwhelmingly support requiring women under age 18 to get the consent of at least one parent before having an abortion (76%), a figure that is largely unchanged in recent years. … Even among those who say abortion should be legal in most or all cases, 71% favor requiring parental consent" (Pew Research Center, 2009, p. 9).

C. Regulations and Safety

Beyond the numerical reduction in abortions, the Committee also claims that growing state regulations have imperiled "the safety and quality of abortion care" (I-5) by "delay[ing] the abortion" (2-27), since the riskiness and complications of the procedure increase with the length of of gestation, and regulations in some states require pre-abortion counseling before the date of the abortion and/or a waiting period of up to 72 hours. This claim, for which the Committee provides no evidence, is questionable on multiple grounds, and appears to be exaggerated for purposes of political ideology (to oppose state restrictions). The claim that a brief waiting period could dangerously increase abortion risk contradicts the Committee's repeated claim that abortions are robustly safe even into the later months of pregnancy. It also contradicts the recommendation of the National Abortion Federation, which advises: "Preabortion options counseling is designed to determine whether a woman is fully comfortable with her abortion decision, and if she is not, she is encouraged to wait until she has had a chance to consider her options more fully" (Dudley, 2003).

Moreover, the Committee approves the growing use of medical abortions, which have a nontrivial failure rate, requiring later completion by surgical abortion, thereby delaying what may have been an earlier procedure. In the U.S. clinical trial for the FDA-approved regimen for medical abortion, 12.2% of patients required a subsequent surgical abortion; after 8 weeks-gestation over a fifth (22.5%) of women required later surgical follow up (Winikoff, Ellertson, Elul, Sivin, & Group, 1998). If first trimester risk is so sensitive to delay, as the Committee suggests in its complaint about regulations, then why are they not also opposed to medical abortions, which entail much greater risk of delay, on the same grounds? In fact, in its presentations on abortion safety the Committee makes no distinction in safety by gestation before the 13th week, thus rendering highly implausible the suggestion that a brief delay, whether due to restrictions or to failed medical abortion, would materially increase risk during this period.

The idea that restrictions are delaying abortions at all is contradicted by the Committee's own data showing that abortions are increasingly occurring at earlier gestations. Research on the question, moreover, has revealed that restrictions have no significant effect on the timing of abortions. An analysis of state restrictions by RAND corporation economists found, as the Committee also observes, that "adoption of parental involvement laws for minors or enforcement of mandatory waiting periods is positively associated with the post-first-trimester percentage of abortions" (Bitler & Zavodny, 2001, p. 1011). A before and after study by abortion provider staff of 2013 Texas regulations requiring abortion providers to have hospital admitting privileges also found a statistically significant increase in second trimester abortions, although the effect was slight: from 13.5% to 13.9% (Grossman et al., 2014) . This study, like the Committee, presents such a percentage increase in later abortions as evidence of delay, but this conclusion is superficial. The RAND economists measured the proportion of actual delay in scheduled procedures, continuing: "However, autocorrelation-corrected specifications indicate that enforced parental involvement laws

increase the share of later-term abortions by lowering the first trimester abortion rate rather than by delaying abortions" (Bitler & Zavodny, 2001, p. 1011). In other words, the restrictions did not delay earlier abortions, but reduced their number, with the result that earlier abortions comprised a smaller percentage (and thus later abortions a larger percentage) of the total. Another before and after survey study of women whose nearest clinic had closed following the same 2013 Texas regulations confirmed this result: while more women reported that it was somewhat or very hard to reach the clinic, "there were no statistically significant differences in … scheduling an abortion later than her preference, or the gestational age of the pregnancy." (Berglas et al., 2018, p. 15; Gerdts et al., 2016)

The Committee's objections to such regulations are not consistent with its stated goal of quality abortion care. Despite stipulating that patient "education, counseling, and informed consent" is an evidence-based clinical competency "essential to providing high-quality abortion services" for all abortions, the Committee objects to state regulations ensuring these very services as "burdensome" and "barriers" to safety (S-11, 5-6). More broadly, the Committee advises that its assessment of the quality of abortion care was guided by the six dimensions of health care quality described in the 2001 IOM report *Crossing the Quality Chasm: A New Health System for the 21st Century* (Hurtado, Swift, & Corrigan, 2001). (S-3) The 2001 document set forth ten "general principles … to inform efforts to redesign the health care system" in accord with the six dimensions (Hurtado et al., 2001, p. 3). One of the ten principles states, in pertinent part: "*The patient is the source of control*. Patients should be given the necessary information and opportunity to exercise the degree of control they choose over health care decisions that affect them" (emphasis in original) (Hurtado et al., 2001, p. 4).

The Committee's objections to patient counseling prior to a woman's clinic appointment to have the abortion is not consistent with this goal, nor with the exercise of patient control and

autonomy over the important and irreversible decision to terminate a healthy pregnancy. In the absence of any recognition of potential value for patients in such measures on the grounds that the clinical procedures involved are technically safe and effective, the Committee may inadvertently exemplify the well-documented tendency for clinicians to isolate the procedural aspects of medical care from empathy with the perspective of the patient (Kelm, Womer, Walter, & Feudtner, 2014; Morse, Edwardsen, & Gordon, 2008). This may be exacerbated by the concentration of abortion provision in large urban clinics with crowded procedure schedules (Beauchamp, 2015; Jones & Jerman, 2017); served by specialist clinicians for whom, unlike their patients, abortion is an everyday occurrence (Ofri, 2017); and the fact that the patients are all women, disproportionately minority, while the large majority of the clinicians are men, disproportionately white (O'Rourke, 2014). By further objecting to prior procedure counseling on grounds that they reduce the number of abortions, the Committee exposes an ideological preference for more abortions rather than fewer. To the extent these attitudes reflect those of abortion clinicians, the Committee ironically illustrates the need for regulation to encourage counseling and time to consider the abortion decision above that which may be offered by the abortion clinic at the scheduled time of the abortion.

The Committee's focus on increased abortions at the expense of patient safety is also evident in its failure to consider or credit the fact that if a woman decides not to have an abortion as a result of the waiting period or counseling, her risk of harm from the procedure is eliminated entirely. By reducing the number of unnecessary abortions, counseling and waiting period regulations result in a net improvement in women's safety. A similar misunderstanding appears in the Report's repeated argument that abortion is safer than childbirth (S-10, 2-24, 4-19, 5-5). This claim misleadingly compares an elective procedure during pregnancy with the entire natural process of pregnancy resulting in childbirth. Since first-trimester birth is not possible, it is not dispositive to compare the

safety of first-trimester abortion to that of childbirth; the pertinent comparison would be between abortion during the first trimester or continuing the pregnancy.[12] At any gestational age, continuing the pregnancy naturally is safer than having an abortion. After about 22 weeks, the mortality risk of abortion exceeds that of childbirth (Bartlett et al., 2004). In sum, the (gestational) age-adjusted medical risk of the natural progression of pregnancy through childbirth is lower than that of abortion at any point.

D. The Discovery of Unsafe Clinics

The Committee makes no mention of the most prominent feature of the history of legal abortion that has led to a rise in state regulations: the repeated discovery of substandard and dangerous abortion clinics. This omission is striking, because it goes to the heart of abortion safety and quality. Abortion clinics initially were not highly regulated for either quality of care or patient service (Henshaw & Finer, 2003). In the 1975 report on abortion and public health by the Institute of Medicine (IOM), the predecessor to the current Report, the issue is not even mentioned (Committee on Reproductive Health Services, National Academies of Sciences, Engineering and Medicine, 2018). Although abortion provider groups such as Planned Parenthood or the National Abortion Federation (NAF) developed programs to review clinic standards, compliance was optional and requirements were not strict, by current standards (Press, 2014). It was not until 1996, two decades after the legalization of abortion, that the NAF published the first clinical policy guidelines for abortion care (National Abortion Federation, 2018). In 1981, following rapid proliferation in the late 1970s, fully one-third of abortion clinics were unlicensed by anyone (Henshaw & Finer, 2003).

Despite the possibility of many safe clinics with high medical standards, unscrupulous abortion clinicians have been able to operate for years, sometimes on a large scale, without effective regulatory restraint. The sociologist Joffe (2010) has written about the periodic discovery of "rogue

clinics" that "surface in the news, usually after the injury or, more rarely, the death of a patient. These clinics—or, in some case, individual doctors—typically prey on women in low-income immigrant communities. These facilities have inadequate medical standards and often egregious ethical practices as well." (Joffe, 2010, pp. 119–120)

In 2011, according to a New Yorker expose, "a filth-strewn, blood-spattered clinic in inner-city Philadelphia, run for decades by a doctor named Kermit B. Gosnell" made national news, as a grand jury reported gruesome practices, including "severing the spines of viable fetuses with scissors, maiming women doped up on drugs" which had "continued even though Pennsylvania officials had received many complaints about his clinic". Following Gosnell's 2012 murder conviction, "legislators in Ohio, North Carolina, and Texas [] passed new restrictions, some requiring that abortions be done in a surgical ambulatory facility, others stipulating that a doctor performing surgery at a clinic must secure local hospital admission privileges, even if he or she is flying in from another part of the country" (Press, 2014). Dr. Stephen Brigham ran an even larger operation, with abortion clinics in four states, which persisted (and still persist) despite numerous reports of unsanitary conditions, lack of anesthesia, deceptive pricing, and much worse complications than normal. Dr. Brigham evaded regulation and revocation of his license by operating as a "consultant" to geriatric licensed doctors, re-incorporating in his mother's name, and ferrying women across state lines to jurisdictions with more lax restrictions. The Pennsylvania Department of Health censured his clinics for "a chronic inability … to comply with the most fundamental statutory and regulatory requirements" (Press, 2014).

After a woman almost died at a Maryland clinic run by Dr. Brigham, and police found undisposed remains of illegal late-term abortions, officials implemented the state's "first system of licensing and inspecting [abortion] clinics" to improve patient safeguards (Eckholm, 2013). Subsequent inspections uncovered serious deficiencies, including untrained staff and inoperative

equipment, which had led to at least one patient death, at four more clinics associated with Dr. Brigham (Associated Press, 2013). The Maryland regulations, hailed as exemplary by abortion provider research (Sarah C. M. Roberts, Fuentes, Berglas, & Dennis, 2017, p. 1879) and approved by the Committee, did not require on-site emergency care, only an emergency evacuation plan, nor local admitting privileges for clinic physicians. Notably, these measures were unsuccessful in improving patient care. Despite revoking their licenses, Dr. Brigham's safety-impaired clinics soon re-opened under transferred legal ownership or other technicalities, and are in operation to this day (Sullenger, 2015).

Brigham and Gosnell may well be a rogue minority among abortion providers; however, because they deal in abortions, the forces of licensing and disclosure, that may have inhibited their ability to take advantage of patients in other areas of medicine, were complicated by political and ideological considerations. Physicians in area hospitals and other clinics, who were aware of the violations, reportedly hesitated to report them out of concern, as one clinic director put it, that the "anti-choice community will manipulate" the information "to paint the entire abortion-care community with the same brush" (Press, 2014). Brigham's court defense against license revocation painted the charges against him as part of a nationwide assault on abortion physicians (Press, 2014) . In Gosnell's case, the political sensitivity of abortion inhibited regulators from stricter investigation and enforcement (Tavernise, 2011) and resulted in sparse media coverage of horrific violations including the deaths of multiple born-alive fetuses and two abortion patients (Powers, 2013). The grand jury indictment of Gosnell reports that, after ignoring multiple violations, "the Pennsylvania Department of Health decided, for political reasons, to stop inspecting abortion clinics at all …" (Friedersdorf, 2013). Abortion provider medical associations also turned a blind eye to the appalling violations of patient care and safety. Planned Parenthood inspected and rejected Brigham's clinics for their network (Press, 2014), as did the National Abortion Federation for

Gosnell's clinic, where the evaluator concluded "it was the worst abortion clinic she had ever inspected" (Friedersdorf, 2013). Neither agency alerted anyone in authority about any of the problems observed.

The conflicted nature of abortion, moreover, makes unsafe clinics more likely to begin with. Whatever one's position on the ethical issues involved, stigma, protests, and violence have had the effect of reducing the quality of physicians engaged in abortions. Dr. Leroy Carhart, a prominent provider of late-term abortions with decades of experience, says of the conflicts: "They have made it so the good physicians don't really want to get involved." As a result, "now you have two types of doctors doing abortions—the doctors who are totally committed to women's health … and the people that just to take advantage … and milk everything they can out of [the situation]" (Press, 2014).

In any area of medicine, an unfortunate dynamic can occur whereby medical professionals are reluctant to reveal errors or a pattern of substandard care so as not to degrade the general reputation of medical care. When the internal regulation of medicine fails in this way, external regulation to protect the public must step in. Responsible abortion providers, who should be the first and the loudest to denounce unsafe clinics, have been notably silent about the problem. On this point, the Committee provides a prime example. By sanitizing these unwelcome facts from its history of abortion care, the Committee's treatment of clinic regulations fails to acknowledge and address a serious barrier to abortion safety.

As the authors of the Report note in connection with trend surveillance, to this day there are no laws requiring the reporting of abortions on a national level, and many states do not require clinics to report them to the state. About a third of abortions estimated by the Guttmacher Institute are unreported to the CDC (Donovan & Sullivan, 2012, fig. 1; Jatlaoui, 2017), and it is impossible to know how many are unreported to Guttmacher. Consequently, four decades after legalization,

attempts to improve policy regarding abortion care are still impeded by a lack of reliable data, even (as acknowledged in the Report) for so basic a fact as the precise number of abortions performed each year.

V. Conclusion

In its discussion of trends in abortion practice, the Committee that produced NAS Report on the quality and safety of abortion has presented a distinctly supply-side perspective, driven by a narrow use of abortion provider research, which goes beyond concern for abortion safety to promote greater use of abortion. In response, this paper has presented a wider range of evidence and analyses both to defend this critique and to promote a more comprehensive, patient-centered, consideration of abortion safety.

The main task of any examination of abortion trends is to account for the 35-year decline in the rate of abortions. The Committee does not examine the strong evidence that the primary driver of this decline is not the rate of pregnancy or unintended pregnancy (though these contribute) but a dramatic drop in abortion propensity for unintended pregnancy. American women over time have grown less positive and more conflicted about having an abortion, increasingly choosing to carry unexpected pregnancies to term. This demand drop, which results in the need to reduce an oversupply of providers, is unrecognized by the Committee, who in analyzing declining abortions of unanticipated pregnancies perceive only pent-up demand stifled by restrictive regulations.

Regulations to ensure safe clinics and qualified physicians are presented as onerous barriers to greater abortion use, ignoring abundant evidence to the contrary, even from abortion provider research. Regulations that encourage greater deliberation of abortion decisions, the Committee maintains, reduce abortion safety by sometimes delaying an abortion for several days, a position that strains credulity, contradicts the evidence, and impugns patient autonomy in favor of increased

abortions. The possibility that such deliberation may appropriately reduce abortions and increase women's safety by eliminating unwise or unnecessary abortions is not considered.

Amid arguments against perceived over-regulation, the Committee is unconscionably silent about the persistence and regulatory toleration of substandard and unsafe abortion clinics which prey on low-income minority women, a matter that has brought real harm, even death, to patients who trusted the medical system to keep them safe—and that continues to the present day. The lack of any consideration of such problem providers, even if a small minority, is inexcusable in a report devoted to the quality and safety of U.S. abortion care. Until those entrusted with oversight and influence are willing to acknowledge and address this problem, the main medical benefit of legalized abortion—the elimination of medically unsafe, substandard abortions—will not be fully realized.

The Committee's silence on rogue clinics is consistent with its objections to clinic safety regulations, its opposition to counseling that may obviate the need for an abortion, its denial of dropping abortion demand, and its concern over reduced providers. In all of these positions, the Committee exemplifies a concern for the interest and reputation of abortion providers at the expense of the safety and well-being of women. This perspective, on the part of an agency which should put a priority on patient concerns, illustrates clearly why external regulation of the management of abortion practice is important for the benefit of women who consider and procure abortions in the United States.

Appendix

A. Demographic Considerations

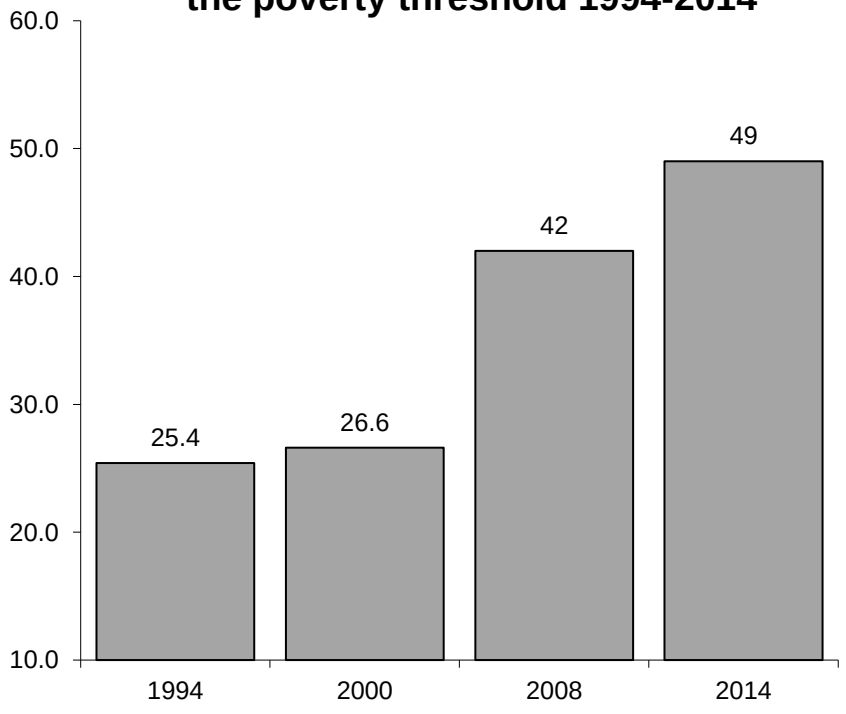
The Report briefly addresses the sociodemographic characteristics of abortion patients, which are largely unrelated to questions of clinical safety. A more extended consideration of these issues may be in order, however, because abortion aims primarily to address a social, not a medical, problem. Unlike any other medical procedure, an abortion does not cure any disease or correct any bodily malfunction. On the contrary, apart from rare exceptions, an abortion terminates a normal, healthy biological process, not for reasons of physical compulsion, but to address anticipated personal or social difficulties.

Whatever one's ethical opinion on the matter, it is unarguable that an abortion terminates a developing human life, what the Supreme Court has delicately termed "the fetus that may become a child" (O'Connor, 1992, p. 846). The intent and purpose of most women who procure an abortion is not to improve their own health, but to prevent the perceived personal and relational effects that the arrival of that life would likely require (Finer, Frohwirth, Dauphinee, Singh, & Moore, 2005, 2007). In GI's surveys of abortion patients asking their reasons for having the abortion (Finer et al., 2005), the most common reason, reported by three-quarters of the patients (74% in 2004, 78% in 1987), was "having a baby would dramatically change my life". Almost as many (73% in 2004, 69% in 1987) responded with some variation of "can't afford a baby now"; and half (48% in 2004, 52% in 1987) cited relationship problems or the fear that they would end up raising the child by themselves. In other research, a third of abortion patients reported that their partner was the reason for abortion. All of these are social and relational concerns; none are concerns about personal health.

As a social act, engaged in for social reasons, abortions both reflect and affect social conditions to an extent that is unique for a medical intervention. The potential for unforeseen causes and unintended consequences is high (Major et al., 2009). An abortion that does not resolve the

personal or social problems it was intended to resolve is a failed abortion, even if the procedure was clinically safe. Because they may affect rates of childbirth, abortions in the aggregate can also reflect or affect dynamics at a population level. This is not true for almost any other medical practice and examination of the social and population changes associated with the social practice of abortion is central to understanding the benefits and deficits of abortion.

Figure 10
Percent of abortion patients with income below the poverty threshold 1994-2014



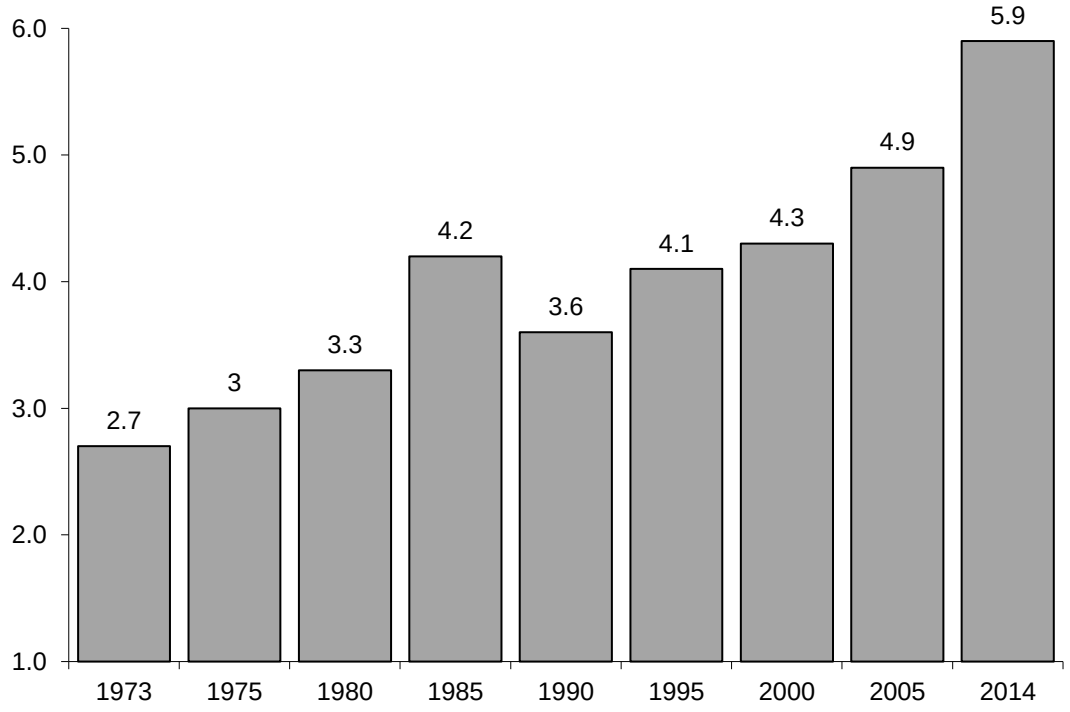
Source: Guttmacher Institute. For detailed references see note in text.

Data from Guttmacher's 2014 abortion clinic survey showing that unmarried low-income minority women are disproportionately likely to procure an abortion are provided in the Report. (1-12 to 1-13) These disparities reflect the troubling aspect of abortion as a social problem associated with urban poverty, racial inequality and unwanted conceptions out of wedlock. The Committee

does not observe, perhaps as beyond its scope, that all of these negative social correlations with abortion procurement have grown worse in recent years.

As the Report's authors note, half (49%) of abortion patients in 2014 were poor, with a reported income below the federal poverty threshold. They do not note that this percentage is the highest proportion reported since abortion was legalized. As Figure 10[13] shows, the proportion of abortion patients in poverty has grown dramatically, almost doubling in the past twenty years. According to Guttmacher research, in 1994 a quarter of women obtaining abortions (25.4%) were below the poverty line; by 2014 almost half (49%) were.

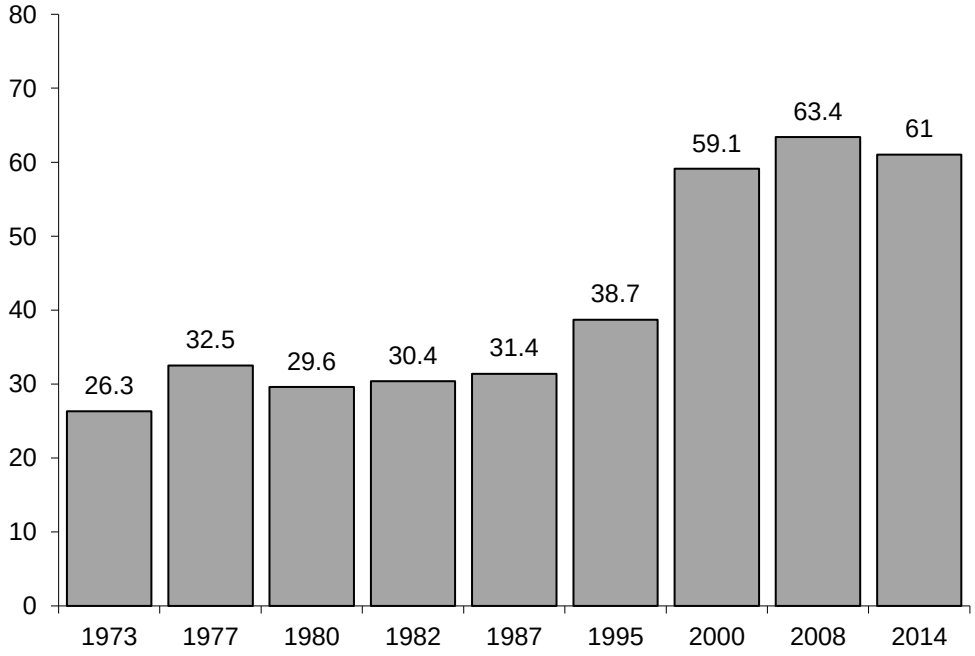
Figure 11
Ratio of unmarried to married abortions 1973-2014



Source: CDC, Guttmacher Institute, IOM. See reference in text at first mention of the figure.

Similarly, the Committee notes that 86% of abortion patients in 2014 were unmarried. (1-13). The significance of this fact, however, is that this percentage was at its highest point since 1973, since which time it has been steadily growing. Figure 11[14] documents the trend, reporting the ratio of unmarried to married women among abortion patients. In 1973, according to the CDC, fewer than 3 unmarried women obtained abortions for every married woman who did so. The 1975 IOM report on abortion reported a ratio of 3 to 1 (Committee on Reproductive Health Services, National Academies of Sciences, Engineering and Medicine, 2018). By 2014 that ratio had doubled, with almost 6 unmarried woman abortions for every married women abortion. This increase is associated with the set of social trends over the same period that increasingly uncoupled natality

Figure 12
Percent of abortions obtained by nonwhite women
1973-2014

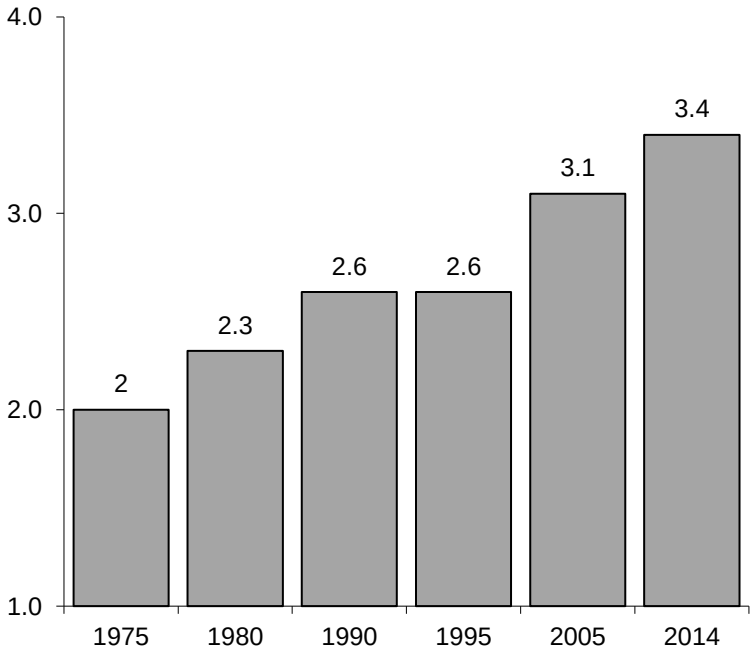


Source: Guttmacher Institute. See reference in text at first mention of the figure.

from marriage: delayed age at marriage, rising premarital cohabitation and divorce, and nonmarital single parenting.

Like poverty and husbandlessness, abortion has also increasingly become concentrated among women of color. Figure 12[15] shows the trend, which lies behind the Committee's observation that the proportion of abortions procured by women of color in 2014 was 61%. That proportion is much higher than it was in 1973, and has grown substantially since the 1980s.

Figure 13
Ratio of Black to White abortion rate
1975-2014



Source: CDC, Guttmacher Institute, IOM. See reference in text at first mention of the figure.

The concentration of abortion among Black women is even more pronounced. The Committee notes only that 25% of abortion patients in 2014 were black. (1-13). To clarify the significance of this percentage and the corresponding trend, Figure 13[16] presents the ratio of the black to white abortion rate since the legalization of abortion. In 1975 the IOM reported that the

rate of abortion for Black women was twice that of White women. Since that time, as with poverty and marriagelessness, the ratio of the Black to White abortion rate has grown steadily, attaining its highest level by 2014, when the rate of abortion was over three times higher for Black women than for White women. The Committee suggests that this difference is attributable to lower income, since the proportions of Black (25%) and Hispanic (25%) women obtaining abortions is "similar to the racial and ethnic distribution of women with household income below 200 percent of the [federal poverty line]". (1-13) The form of this argument—correlation is causation—does not meet the standards of modern science, since it is so often mistaken. In this case, a simple cross tabulation is sufficient to establish that the similarity the Committee puts forth as dispositive is merely coincidental: almost a quarter (24%) of Black abortion patients and a fifth (19%) of Hispanic abortion patients had incomes above 200% of the poverty level.[17] Contrary to the Report, Guttmacher research concludes: "At every income level, black women have higher abortion rates than whites ….", and higher than Hispanic women at every income level above poverty.(Cohen, 2008, p. 3) Guttmacher misleadingly attributes the difference to higher rates of unintended pregnancy, without acknowledging similarly higher rates of pregnancy overall, in the manner already examined above. No doubt much of the difference is comorbid with other social and cultural difficulties, although what exactly these are, and the extent to which abortion may contribute to them, is not fully known. If access is a factor in abortion usage, it may also contribute to this disparity, since larger, less expensive abortion clinics tend to be concentrated in areas with large Black populations.

Whatever the reasons, the large and persistent disparity in Black abortions has had a troubling demographic effect for this minority race, resulting in a large reduction in the growth of the Black population. Figure 14 presents CDC data showing comparative abortion, pregnancy and birth rates by race since 1990. As the data make clear, the disparity in the Black or Hispanic and the

White abortion rates have offset a numerically larger disparity in pregnancy rates. Even though Black women, and to a lesser extent Hispanic women, have higher abortion rates than White

Figure 14

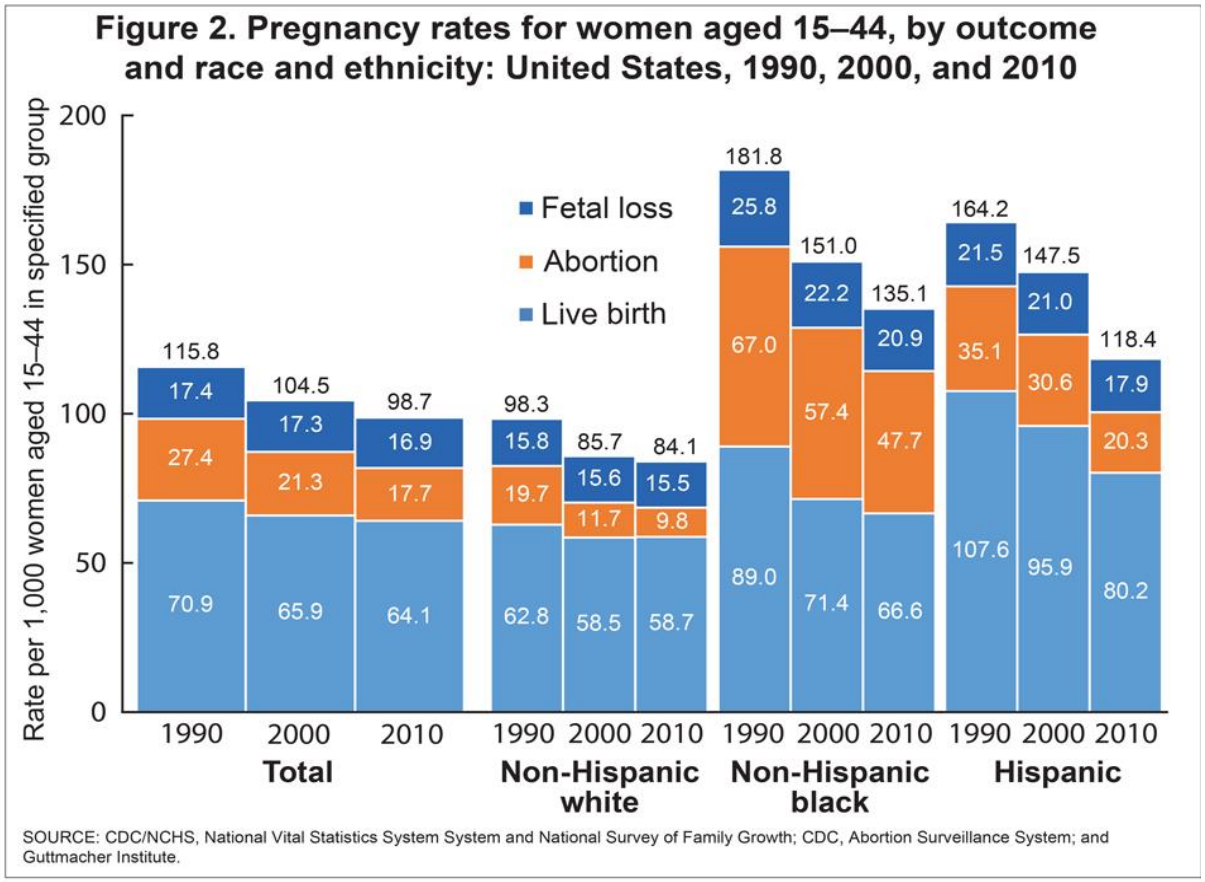
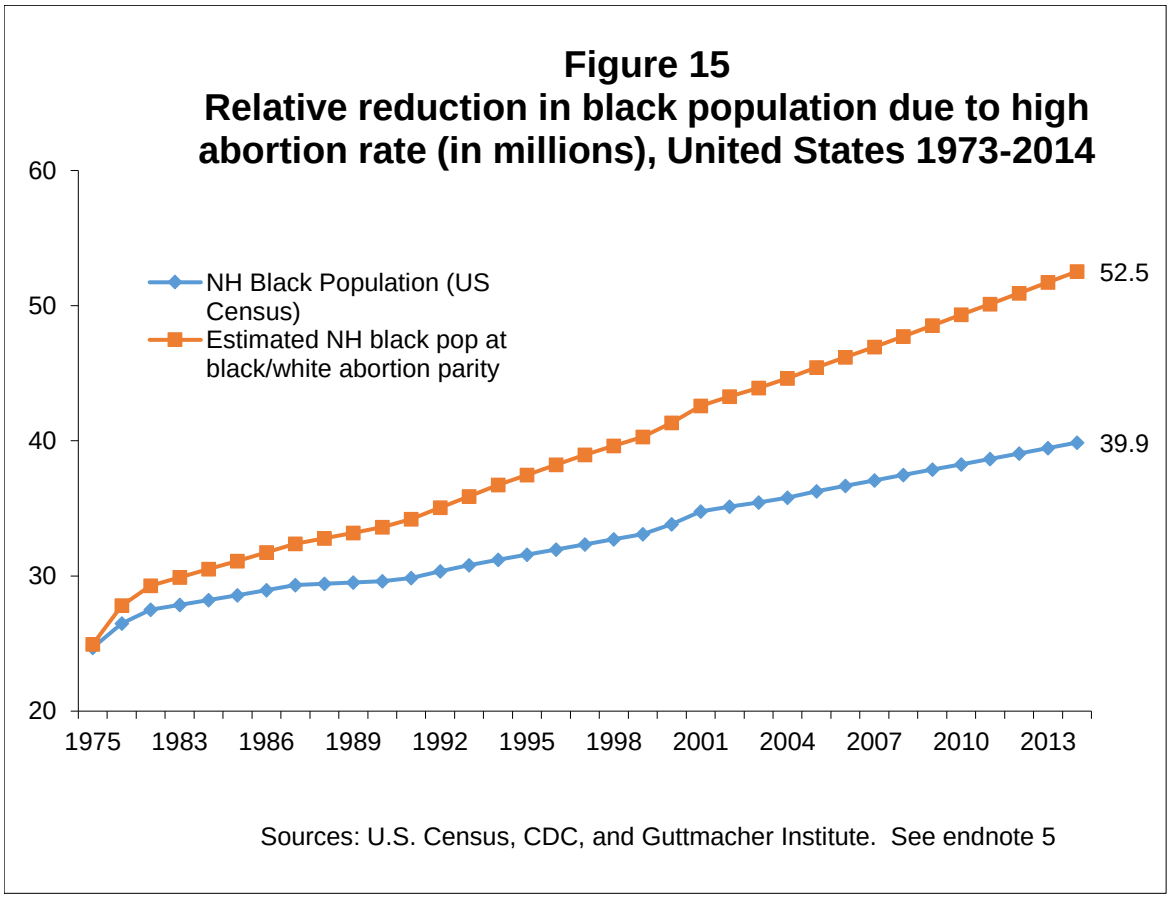


Image Source: Curtin (CDC), 2016

women, they also have higher birth rates due to their much higher pregnancy fertility relative to White women. Since 2010 the pregnancy rate for Black women was 61% higher than for White women; for Hispanic women, the difference was 41%. Much higher rates of abortion among Black women, however, has negated their fertility advantage over Hispanic women since 1990. Since 2010, the Black pregnancy rate (after fetal losses) was 14% higher, but the birth rate was 17% lower, compared to Hispanic women, due to an abortion rate that was a sizable 135% higher among Black women. Compared to White women, Black women today are almost five times more likely to terminate a pregnancy by abortion.

Figure 15[18] illustrates the actual growth of the non-Hispanic Black population since 1973 with the estimated growth that would have occurred if the Black and White abortion rates had been the same. If the Black and White abortion rates had been at parity, by 2014 non-Hispanic Black



Americans would have numbered 52.5 million persons, an increase of 12.6 million, or 32%, above their actual number of 39.9 million in that year. In 1973 Blacks were the largest minority in the United States. By 2065, according to Pew Research Center projections (see Figure 16) (Pew Research Center, 2015), Blacks will become the fourth largest American minority group, as the rapidly-growing Asian population, with the lowest minority group abortion rate, becomes more numerous than Blacks.

As abortions have become fewer, the social disparities associated with them have become much more pronounced. This relation is consistent with the evidence presented above showing a

declining percentage of unintended pregnancies ending in abortion and increasing disapproval of abortions among American women. As women who find the ability to do so increasingly reject the

Figure 16

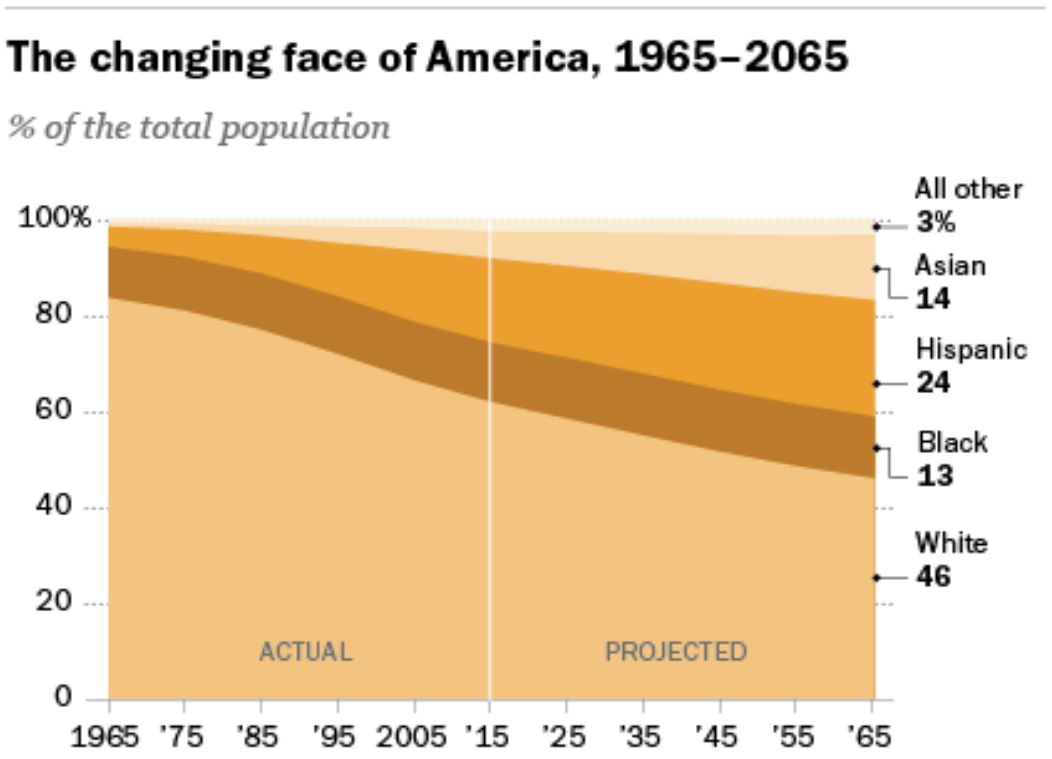


Image source: Cohn and Caumont (Washington Post), 2016

option of aborting their pregnancies, the remainder who choose an abortion would increasingly be comprised of those with fewer resources in finances and partner support.

Because of its uniquely social character, abortion interacts with—both reflecting and affecting—other social forces related to family formation, childbearing and population change in the United States. A full consideration of the quality and safety of abortion must take into account, not only the clinical outcomes of a medical procedure, but also the social and demographic effects of

choices that may perpetuate social inequities and reshape population destiny in unintended and unexpected ways.

B. On the Report's Use of Abortion Provider Research

The Report makes extensive use of research funded or supplied by abortion providers, especially the Guttmacher Institute ("Guttmacher"), a think tank whose stated aim is to support and promote legal abortion rights. Guttmacher was founded by and receives substantial funding from Planned Parenthood, American's largest abortion provider, and is named after a prominent early president of Planned Parenthood. Guttmacher's research can provide valuable information, particularly when it reports data that are unavailable elsewhere, such as institutional counts of abortions, abortion providers, and the characteristics of abortion clinic patients. But Guttmacher research also comes with a distinct bias and limitation, in line with its role in promoting abortion, which has been uncritically adopted by the Report.

A provider bias is evident in subtle changes in methodology and lack of continuity with earlier findings. Some examples have already been noted above. Earlier Guttmacher research often reported the percentage of unintended pregnancies ending in abortion, but at some point this was dropped in favor of focusing on the rate of unintended pregnancy. As argued above, this subtle change neutralizes the effect of fertility on unintended pregnancy, effectively presenting all groups or time periods being compared as having equal rates of pregnancy. This can easily lead to overstating the relative effect of unintended pregnancy. Simple comparisons of Black and White rates of unintended pregnancy, for example, can be quite misleading when the underlying pregnancy rate can be as much as 80% higher for Blacks than for Whites.

To illustrate the sparseness of abortion providers, in the 1970s Guttmacher research began reporting the percentage of U.S. counties without an abortion provider (Henshaw, Forrest, Sullivan, & Tietze, 1981; Henshaw & Van Vort, 1990). As abortion providers became more numerous, at

some point around the year 2000, Guttmacher reports changed to reporting the percentage of counties without an abortion *clinic*. Since less than half of abortion providers are clinics, the effect of this change was to make the availability of abortion providers appear more sparse than it had previously. Guttmacher research has not acknowledged the change (to my knowledge), and recent studies reporting the newer metric make no attempt to reconcile it with the former one, which can confuse users into concluding that abortion provider availability has declined, when in fact it has been pretty constant since 1980. Indeed as noted above, the Committee makes this error.

In a similar way, the rates and percentages reported by Guttmacher can vary widely and confusingly across studies. Henshaw reported in 1998: "Between 1987 and 1994, the unintended pregnancy rate declined … from 54 to 45 per 1,000 women of reproductive age." But in 2007 Finer and Henshaw reported that the 1994 unintended pregnancy rate was 51 (not 45). (Finer & Henshaw, 2007, Table 1) Then in Tamales and Finer's 2015 "Unintended pregnancy and the changing demography of American women, 1987-2008" (Demographic Research 33:1257-1270), the authors reported, in the first sentence: "In 1987, the U.S. unintended pregnancy rate was 59 per 1,000 women ages 15-44; ...", instead of the 54 per 1,000 reported by Henshaw (Henshaw, 1998b), a rate which is also used in Finer and Zolna (Finer & Zolna, 2016, p. 843). Beyond noting that they "updated the rates of unintended pregnancy for 1981, 1987, 2001, and 2008 — years that the NSFG was fielded — to take into account updated population estimates and recent improvements in our analytic approach" Finer and Zolna (2016, p. 845) provided no explanation or justification for the revisions or the diversity of earlier reported findings. Revising the earlier rates upward permits Finer and Zolna to report the "historic decline in unintended pregnancy" noted in the Report, "from 54 per 1,000 in 2008 to 45 per 1,000 in 2011"(Finer & Zolna, 2016, p. 843), which is identical to the decline reported by Henshaw 18 years earlier. The precise methodological term to characterize such a stream of research is unreliable.

Consistent with the name of its founding organization, Guttmacher operates from a theoretical perspective that all children should result from pregnancies that are planned (Hardin, 1970), a goal which can be achieved by terminating those that are unplanned. Guttmacher research thus characteristically acknowledges only two kinds of pregnancy—planned and unplanned—on the corollary that the latter are eligible to be terminated by abortion. Such an approach may reflect a genuine technocratic ideal that couples should rationally plan and fully control the achievement of every pregnancy, but it is also indistinguishable from asserting the widest possible market for abortion services. Studies originating with Guttmacher have in the past explicitly adopted marketing terminology, referring to unplanned or unintended pregnancies as "unmet need for abortion" (Cates & Rochat, 1976; Forrest, Tietze, & Sullivan, 1978; Henshaw et al., 1981); more recently researchers at the Bixby Center for Reproductive Health, another abortion provider, have adopted the term (Foster, 2016). Guttmacher discussions of the costs of an abortion in terms of money and time; regulations and distance as "barriers" that may dissuade women from procuring an abortion; the unavailability of convenient clinics in many areas; even its reports on comparative state abortion rates and the reasons why women choose an abortion; are all, not coincidentally, standard features of marketing research (Benzo, Mohsen, & Fourali, 2017; Bradley, 2013). An early analysis by a University of Miami business professor offered many marketing suggestions for abortion providers which appear in later Guttmacher publications and efforts, such as a national map showing the "Unmet Need for Abortion", lobbying for the reinstatement of Medicaid payments for abortion, consumer education about abortion, research on contraception and repeat abortions, and a variety of abortion clinic promotional techniques (Gitlow, 1978).

The Committee cannot be faulted for using abortion provider research; as I have noted, it is often the only available source for important data about abortion practice. But the Report's authors adopt the research uncritically, with no discernible challenge, review or scrutiny, and with the same

selectivity that ignores contrary points of view that are displayed in the Guttmacher research. Such a lack of critical distance from the perspective of the providers of the very medical procedure being evaluated in the Report is not consistent with the level of scientific objectivity and absence of institutional interests that should characterize such a Report. Not surprisingly, it also leads at points, as we have seen, to a preference for the interests of the medical supplier over those of the patient.

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Notes

[1] Of the 85 citations in the Report's discussion of regulations and demographics (I-5 to I-17), 58 (68%) are of reports written by staff of the Guttmacher Institute ("Guttmacher"), a research agency founded by Planned Parenthood. The six tables and charts in this section are all copied or closely adapted from Guttmacher publications.

[2] These counts are based on numbers reported by abortion providers to the Guttmacher about every three years. The CDC also aggregates annual abortion counts from state health departments, usually resulting in smaller totals. Compliance is voluntary for both efforts, and neither is comprehensive. At least three state health departments regularly do not report total abortions to the CDC, and in the latest Guttmacher survey only 58% of known probably abortion providers reported numbers to Guttmacher (Jones & Jerman, 2017, p. 9). Guttmacher used health department reports to interpolate the missing reports, and the CDC likewise often supplements its surveillance numbers with information from the Guttmacher counts. By the CDC count, total U.S. abortions dropped from 1,429,577 million in 1990 to 652,639 in 2014, a decline of 54%. However, California, a large state with many annual abortions, stopped reporting abortions during this time, which may exaggerate the decline. The Report discusses the limitations of both sets of numbers (1-9), and uses each of them at various points (1-10), as will this response. Trends in the two counts are closely similar, correlated at above .8 (New, 2011) , and lead to similar observations about abortion trends overall.

[3] A small portion of pregnancies end in outcomes other than birth or induced abortion, such as miscarriage or stillbirth, and a small portion of intended pregnancies end in abortion. Adjusting for these small and counteracting complications on the percentages and rates of abortions have a negligible effect on trends over time. One or both of them are ignored in most CDC and

Guttmacher research on abortion, and for the sake of simplicity will be ignored in this analysis as well.

[4] The percentage of pregnancies that were unintended reported in Figure 1 were calculated using the Guttmacher-reported unintended pregnancy and abortion rates and the CDC-reported pregnancy rate. Sources for the unintended pregnancy rates were: 1981, 1987, 1994 (Henshaw, 1998b); 2001 (Finer & Henshaw, 2007); 2006 (Finer & Zolna, 2011); 2008, 2011 (Finer & Zolna, 2016). This procedure produced percent unintended metrics that were very similar (either identical or differing by only one percentage point) to those reported by the cited studies for all years except one. The exception was 1994, where the resulting percent unintended pregnancies was .42, a notably low outlier. Finer and Zolna (2016) noted that there are measurement questions about the 1994 findings. For this year both Henshaw (1998) and Finer and Henshaw (2007) reported a higher number for percent unintended pregnancies (.49). By 2016 Finer and Zolna (2016) updated the low 1994 unintended pregnancy rate reported by Henshaw (1998) from 45 to about 59, which would result in a much higher estimate of percent unintended pregnancies (.56). Finer (2016) reports a stable trend at that higher rate, however, and interpolating the 1994 value results in the same estimate (.49) provided by Henshaw (1998) and Finer and Henshaw (2007). Figure 1 therefore used that proportion (.49) to replace the outlier rate-estimated percentage for that year, also resulting in a stable trend, though at a lower level. The percentage of unintended pregnancies for 2014 was derived directly from the 2013-2015 NSFG using the same procedure employed by Finer and Zolna (2016) to obtain the 2011 percentage from the 2011-2013 NSFG.

After obtaining these numbers, the percent of unintended pregnancies ending in abortion was then computed by dividing the GI-estimated abortion rate into the CDC pregnancy rate to obtain the numerator, with the percent of pregnancies that were unintended as the denominator. By reporting the percentage of CDC-enumerated pregnancies that were unintended, Figure 1 thus makes use of a

more accurate and reliable metric, which is independent both of the pregnancy rate and the abortion rate.

[5] Finer and Zolna's (2016) report that "after a long period of minimal change, the rate of unintended pregnancy declined substantially between 2008 and 2011" from 54 to 45 is misleading regarding the secular trend in unintended pregnancy. In an article two years earlier, the same authors reported an *increase* in unintended pregnancies from 2001 to 2008, rising from 49 to 54 per 1,000 women of childbearing age. (Finer & Zolna, 2014) The magnitude of this 2001-2008 rise, two-thirds as great as the 2008-2011 decline, is not reported in the 2016 article, which only characterizes the 2001-2008 pregnancy rate as "increasing slightly" (Finer & Zolna, 2016, p. 844). Taken together, these two studies observe a net 11-year drop of 4 points in the rate of unintended pregnancy, from 49 to 45, during which time the pregnancy rate also dropped by 4 points, from 103 to 99, thus confirming the long-term trend of stability in the percentage of pregnancies that were unintended.

The authors attribute the 2008 rise to the economy: "the United States experienced an economic recession beginning in 2007 that has affected women's reported pregnancy intentions, with many women indicating that because of the economy, they would like to delay pregnancy"(Finer & Zolna, 2014, p. 43). Any such attribution, of course, is speculative, and they also discuss other possible reasons. If the economy had the effect they describe, however, it would also yield a subsequent drop due to pent-up desire for pregnancy, before returning to the normal population rate, consistent with the oscillation observed in Figure 1.

[6] Analysis by the author. The data files through 2016 are available at http://sda.berkeley.edu/archive.htm.

[7] Results from Gallup polling are similar, but have not been fielded long enough to capture the trends. See Gallup (2018).

[8] Guttmacher research, using different measures, confirms that the percent of women who traveled out of state to obtain an abortion had dropped to 7% by 1979 and 6% by 1980. (Henshaw & O'Reilly, 1983)

[9] This error was abetted by the fact that Guttmacher subtly changed the statistic. Whereas in former censuses they had reported the percent of counties without an abortion *provider*, in 2014 they reported the percent of counties without an abortion *clinic* (Jones & Jerman, 2017), which are more sparse. However, Bearak's Guttmacher-funded study of the same data included all abortion providers by block group, improving the precision of distance estimates over prior Guttmacher research reports.

[10] Sources for the counts reported in Table 8 are: 1973, 1974 (Weinstock, Tietze, Jaffe, & Dryfoos, 1976); 1975, 1978 (Forrest, Sullivan, & Tietze, 1979); 1982, 1985 (Henshaw, Forrest, & Van Vort, 1987); 1988 (Henshaw & Van Vort, 1990); 1992, 1996 (Henshaw, 1998a); 2000, 2005 (Jones, Zolna, Henshaw, & Finer, 2008); 2008 (Jones & Kooistra, 2011); 2014 (Jones & Jerman, 2017)

[11] Sources for the percentages reported in Figure 9 are: For 1988, (Henshaw, 1991); 1993, 1997, 2001 (Finer & Henshaw, 2003). Percentages for 2011 and 2014 were estimated from Bearak et al. The authors reported the median and 80th percentile distances to an abortion provider, and that the distribution was highly right-skewed. The reported miles for median and 80th percentile confirm the skew. A linear increase in distance above the 80th percentile, therefore, will likely understate the skew, resulting in a conservative estimate of the corresponding percent who traveled 50 or more miles. The values in the Figure were estimated accordingly. The reported 80th percentiles, meaning that 20% of women traveled this far or farther to obtain an abortion, were 40.3 miles for 2011 and 42.5 miles for for 2014.

[12] I am indebted to Rebecca Oas of the Center for Family and Human Rights for this argument.

[13] Sources for the percentages reported in Figure 10 are: 1994, (Jones, Darroch, & Henshaw, 2002); 2000, (Jones et al., 2002), 2008, (Jones, Jerman, & Onda, 2016); 2014, (Jones et al., 2016).

[14] Sources for the ratios reported in Figure 11 are: 1975, (Committee on Reproductive Health Services, National Academies of Sciences, Engineering and Medicine, 2018); 1973, 1980-2005, respective annual Abortion Surveillance, Morbidity and Mortality Weekly Reports, Centers for Disease Control; 2014, (Jones & Jerman, 2017).

[15] Sources for the percentages reported in Figure 12 are: 1973, 1977 (Henshaw, Forrest, Sullivan, & Tietze, 1981) ; 1980 (Henshaw & O'Reilly, 1983); 1982 (Henshaw, 1987); 1987 (Henshaw & Silverman, 1988) ; 1995 (Henshaw & Kost, 1996); 2000 (Jones et al., 2002); 2008 (Jones et al., 2016); 2014 (Jones & Jerman, 2017). These are all Guttmacher reports. It appears that between 1995 and 2000 Guttmacher reports began disaggregating "Hispanic" from the race categories, effectively changing "white" to "nonHispanic white" (though this is not specified). If so, this change would account for much, though not all, of the disparity in magnitude in the percentages reported before and after the late 1990s.

[16] Sources for the ratios reported in Figure 13 are: 1975 (Committee on Reproductive Health Services, National Academies of Sciences, Engineering and Medicine, 2018); 1980 (Henshaw & O'Reilly, 1983); 1990, 1995, 2005, 2014, respective annual Abortion Surveillance, Morbidity and Mortality Weekly Reports, Centers for Disease Control.

[17] Analysis by the author. This analysis, and the Guttmacher conclusion cited in this context, report on the 2008 Guttmacher abortion patient survey, whose demographic distribution is very similar, but not identical, to that of the 2014 survey, the data for which are not publicly available.

[18] For Figure 15, the numbers of women of childbearing age were derived from the US Census' historical census and intercensal population estimates, at https://www2.census.gov/programs-surveys/popest/datasets/; abortion rates by race from Abma et al. (2000); numbers of abortions as

reported by the Guttmacher; and birth rates from Child Trends' summary report on Fertility and Birth Rates (Child Trends, 2016).