This paper is part of a series of papers from the Handbook on the Effects of Contraception by the Marriage and Religion Research Institute. Since 2015 MARRI has been carefully reviewing the empirical findings on the effects of contraception across major dimensions of wellbeing to create an in-depth synthesis of the existing research literature on contraception to better inform health practitioners, educators, and women seeking to meet their fertility goals in a safe and effective manner.

# **Demographic Trends in Contraception Use**

Patrick Fagan, Ph.D. and Maria Archer, M.A.

# I- Prevalence of Contraceptive Use

The latest figures from the United Nations Population Division show a decline in global fertility from 3.2 live births per woman in 1990 to 2.5 in 2019.<sup>1</sup>



Source: United Nations Department of Economic and Social Affairs, Population Division (2019a). World Population Prospects 2019.

A consistent downward trend is visible in almost all geographic areas: In sub-Saharan Africa total fertility fell from 6.3 births in 1990 to 4.6 in 2019, in Central and Southern Asia fertility fell from 4.3 to 2.4, in Eastern and South-Eastern Asia fertility fell from 2.5

<sup>&</sup>lt;sup>1</sup>United Nations Department of Economic and Social Affairs Population Division, "World Fertility and Family Planning 2020 Highlights," (New York: United Nations, 2020),

https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/202 0/Aug/un\_2020\_worldfertilityfamilyplanning\_highlights.pdf.

to 1.8, in Latin America and the Caribbean fertility fell from 3.3 to 2.0, and in Oceania fertility fell from 4.5 to 3.4.<sup>2</sup> The only regions that have not experienced *large* decreases in fertility rates are regions that already had fertility rates below 2.0 births per woman: Women in Australia and New Zealand (1.8 births) and Europe and Northern America (1.7).<sup>3</sup>

The COVID pandemic has further exacerbated declines in global fertility, including in areas that already had low fertility rate, such as the US, Italy, Japan, France and Belgium.<sup>4</sup> Prior to the pandemic fertility rates in the United States had declined for five consecutive years, new provisional data estimates that the US birth rate dropped an additional 4% in 2020.<sup>5</sup>



## U.S. fertility hit all-time low in 2019 and 2006

Note: Completed fertility data available from 1976 to 2018 only. All values based upon live births.

Source: Data for general fertility rate from National Center for Health Statistics, National Vital Statistics System; for completed fertility, U.S. Census Bureau, Current Population Survey June Supplement.

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The global decrease in births is largely attributed to increased contraceptive use around the world. Global use of contraception increased from 42 percent in 1990 to 49 percent in 2019 among women of reproductive age (922 million women). <sup>6</sup> In the United States, nearly all women of reproductive age who have been sexually active have used at least one method of contraception in their lifetime (99%, or 53 million women).<sup>7</sup> It is estimated that 65% of women (72 million women) in the United States currently use

<sup>&</sup>lt;sup>2</sup> United Nations Department of Economic and Social Affairs Population Division, "World Fertility."

<sup>&</sup>lt;sup>3</sup>United Nations Department of Economic and Social Affairs Population Division, "World Fertility."

<sup>&</sup>lt;sup>4</sup>Amanda Barroso, "With a Potential 'Baby Bust' on the Horizon, Key Facts about Fertility in the U.S. Before the Pandemic," *Pew Research Center*, May 7, 2021. https://www.pewresearch.org/fact-tank/2021/05/07/with-a-potential-baby-bust-on-the-horizon-key-facts-about-fertility-in-the-u-s-before-the-pandemic/.

<sup>&</sup>lt;sup>5</sup>Barroso, "Potential 'Baby Bust.""

<sup>&</sup>lt;sup>6</sup>United Nations Department of Economic and Social Affairs Population Division, "World Fertility."

<sup>&</sup>lt;sup>7</sup> Kimberly Daniels and Jo Jones, *Contraceptive methods women have ever used: United States, 1982-2010.* No. 62. US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2013.

contraception.<sup>8</sup> The most common contraceptive methods currently used by American women include: Female sterilization (18%), oral contraceptive pills (14%), LARCs (10%), and male condoms (8%).<sup>9</sup>

# **Demographic Profile of Contraceptive Users**

Contraceptive patterns in the United States differ by age, race, educational attainment, religiosity, income level, health insurance, and marital status.<sup>10</sup>





<sup>1</sup>Additional categories of nonusers, such as nonsurgical sterility, are shown in the accompanying data table.

NOTES: Percentages may not add to 100 due to rounding. Women currently using more than one method are classifed according to the most effective method they are using. Long-acting reversible contraceptives include contraceptive implants and intrauterine devices. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db388-tables-508.pdf#2.

SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017-2019.

Kimberly Daniels, and Joyce C. Abma, "Current contraceptive status among women aged 15–49: United States, 2017–2019," *NCHS Data Brief*, no 388. CDC. Hyattsville, MD: National Center for Health Statistics. 2020. fig. 2. https://www.cdc.gov/nchs/products/databriefs/db388.htm.

Contraceptive use is highest among non-Hispanic white women, who are older than 40, are married or have been married, who have high educational attainment, high income levels, and health insurance.<sup>11</sup> This segment of the population does not have the highest

<sup>&</sup>lt;sup>2</sup>Other methods grouped in this category are shown in the accompanying data table.

<sup>&</sup>lt;sup>8</sup> Kimberly Daniels and Joyce C. Abma, "Current contraceptive status among women aged 15–49: United States, 2017–2019," *NCHS Data Brief*, no 388. Hyattsville, MD: National Center for Health Statistics. 2020. https://www.cdc.gov/nchs/products/databriefs/db388.htm

<sup>&</sup>lt;sup>9</sup> Daniels and Abma, "United States 2017-2019."

<sup>&</sup>lt;sup>10</sup> Daniels and Abma, "United States 2017-2019."

<sup>&</sup>lt;sup>11</sup> Daniels and Abma, "United States 2017-2019."

rates of use for all contraceptive methods. What follows describes the distribution of contraceptive use across demographic factors.



Figure 1. Percentage of women currently using any contraceptive method among all women aged 15–49 and by age group, Hispanic origin and race, and education: United States, 2017–2019

<sup>1</sup>Includes persons of other and multiple race and origin groups, not shown separately.

<sup>2</sup>Significant linear trend across all four age groups.
<sup>3</sup>Significantly different from non-Hispanic black women and Hispanic women.

NOTES: The population size referenced for women aged 15–49 is 72.7 million. Analyses of education are limited to women aged 22–49 at the time of interview. Less than high school is no high school diploma or GED. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/databriefs/db388-tables-508.pdf#1. SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017–2019.

Kimberly Daniels, and Joyce C. Abma, "Current contraceptive status among women aged 15–49: United States, 2017–2019." NCHS Data Brief, no 388. CDC. Hyattsville, MD: National Center for Health Statistics. 2020. fig. 1. https://www.cdc.gov/nchs/products/databriefs/db388.htm.

### Age

For the most part, frequency of contraceptive use and method of choice, is ordered by women's reproductive life course.

Contraceptive use increases with age: While 37.2% of women aged 15-19 use contraception, 73.7% among women aged 40-49 use a method.<sup>12</sup>

Method of choice changes as women age: Pill and condom use decrease with age (54% of women under 20 currently use the pill versus 11% of women aged 40-44) and sterilization increases with age (sterilization increases 50% at the age of 40- 44). <sup>13,14</sup>

<sup>&</sup>lt;sup>12</sup> Kimberly Daniels and Joyce C. Abma, "Current contraceptive status among women aged 15–49: United States, 2015–2017," *NCHS Data Brief*, no 327. Hyattsville, MD: National Center for Health Statistics. 2018.

<sup>&</sup>lt;sup>13</sup> William D. Mosher, and Jo Jones, "Use of contraception in the United States: 1982–2008," National Center for Health Statistics. *Vital Health Stat* 23, no. 29 (2010): 9.



Mean Lifetime Partners of High Schoolers Who Have Had Sex, by Grade, 1991 - 2019

Charles Fain Lehman, "Fewer American High Schoolers Having Sex Than Ever Before," Institute for Family Studies, September 1, 2020. fig. 3. <u>https://ifstudies.org/blog/fewer-american-high-</u> <u>schoolers-having-sex-than-ever-before</u>. Referencing Center for Disease Control and Prevention. "The Youth Risk Behavior Survey (YRBS)," 2019.

last modified October, 27, 2020, https://www.cdc.gov/healthyyouth/data/yrbs/index.htm.

Few young women engage in sex soon after they begin menarch. Their rate of sexual activity and contraceptive use remains low throughout high school. Only 27.4% of teenage girls report being sexually active and only 8.8% report that they use contraception.<sup>15</sup>

When young women enter late adolescence and young adulthood they begin to employ contraceptive methods at higher rates but their use is mostly limited to contraceptive pills. Nearly 40% of women aged 15-29 use the pill for contraception, while only 10.9% of those aged 30–39 and 6.5% of women aged 40–49 use contraceptive pills.<sup>16</sup>

<sup>&</sup>lt;sup>14</sup>Casey E. Copen, "Condom use during sexual intercourse among women and men aged 15–44 in the United States: 2011–2015 National Survey of Family Growth." *National health statistics reports*; no. 105. Hyattsville, MD: National Center for Health Statistics, 2017.

<sup>&</sup>lt;sup>15</sup>Center for Disease Control and Prevention, "The Youth Risk Behavior Survey (YRBS)," 2019; last modified October, 27, 2020, https://www.cdc.gov/healthyyouth/data/yrbs/index.htm.

<sup>&</sup>lt;sup>16</sup> Daniels and Abma, "United States 2017-2019."



Methods of Birth Control Used by High Schoolers At Last Sexual Encounter 1991 - 2019

Charles Fain Lehman, "Fewer American High Schoolers Having Sex Than Ever Before," Institute for Family Studies, September 1, 2020. fig. 4. <u>https://ifstudies.org/blog/fewer-american-high-</u> <u>schoolers-having-sex-than-ever-before</u>. Referencing: Center for Disease Control and Prevention. "The Youth Risk Behavior Survey (YRBS)," 2019. last modified October, 27, 2020, https://www.cdc.gov/healthyyouth/data/yrbs/index.htm.

During women's prime reproductive years women continue to use the birth control pill at high rates (21.6% of women aged 20–29 use contraceptive pills) but they also expand their use to other temporary contraceptive methods, like FABMs, condoms, and invasive methods, like LARC (Long Acting Reversible Contraception).<sup>17</sup>

- About 20% of women aged 20- 39 use condoms.<sup>18</sup> In contrast, only 5% of women aged 15-19 and 6.5% of women aged 40-49 use condoms.<sup>19</sup>
- Out of 3.4% of American women who report using a FABM method, the majority are aged 25 to 34.<sup>20</sup>
- While nearly 26% of women aged 20- 39 employ LARC methods, few women in late adolescence or in their forties use IUDs or Implants (5.8%, 6.6%).<sup>21</sup>

<sup>&</sup>lt;sup>17</sup> Daniels and Abma, "United States 2017-2019."

<sup>&</sup>lt;sup>18</sup> Daniels and Abma, "United States 2017-2019."

<sup>&</sup>lt;sup>19</sup> Daniels and Abma, "United States 2017-2019."

<sup>&</sup>lt;sup>20</sup> Mackenzie Brewer and Lindsay Stevens, "Use of Fertility Awareness-Based Methods of Contraception: Evidence from the National Survey of Family Growth, 2013-17." *Contraception* (2021). https://pubmed.ncbi.nlm.nih.gov/33762172/.

<sup>&</sup>lt;sup>21</sup> Daniels and Abma, "United States 2017-2019."

It must be noted that the increased use of LARC methods is a fairly new development. LARC use increased nearly fivefold between 2002 and 2013 among all women of reproductive age (15-44).<sup>22</sup> LARC use rose more than eightfold between 2002 and 2011- 2013 among users aged 15-24; and nearly doubled among users aged 25- 34 from 2006-2010 to 2011-2013.<sup>23</sup>

When women enter their 40s their fortified desire to prevent pregnancy becomes evident in their increased use of highly effective, non-reversible methods, like sterilization.<sup>24</sup>

While only 1 in 20 women aged 20-29 have been sterilized (4.2%), nearly 2 in 5 • women aged 40–49 have sought sterilization (39.4%).<sup>25</sup>



Figure 3. Percentage of all women aged 15-49 who were currently using female sterilization, oral contraceptive pill, male condom, or long-acting reversible contraceptives, by age group: United States, 2015-2017

+ No cases of female sterilization were found among those aged 15-19.

<sup>2</sup>Percentages for age groups 20–29 and 30–39 are significantly different from that for 15–19. Percentages for age groups 20–29 and 30–39 are significantly different from that for 40–49. Percentages for age groups 15–19 and 40–49 are significantly different from that for 20–29. Percentage for age group 30–39 is significantly different from that

for 40-49 NOTES: Women currently using more than one method are classified according to the most effective method they are using. Long-acting reversible contraceptives include contraceptive implants and intrauterine devices. Access data table for Figure 3 at: https://www.cdc.gov/nchs db327 tables-508.pdf#3 SOURCE: NCHS, National Survey of Family Growth, 2015-2017.

Kimberly Daniels and Joyce C. Abma, "Current contraceptive status among women aged 15–49: United States, 2015-2017," NCHS Data Brief, no 327. Hyattsville, MD: National Center for Health Statistics. 2018.

Significant linear trend.

<sup>&</sup>lt;sup>22</sup>Amy M. Branum and Jo Jones, "Trends in long-acting reversible contraception use among U.S. women aged 15-44," NCHS data brief, no 188. Hyattsville, MD: National Center for Health Statistics. 2015.

<sup>&</sup>lt;sup>23</sup> Branum and Jones, "Long-acting reversible contraception."

<sup>&</sup>lt;sup>24</sup> Mosher and Jones, "United States: 1982–2008."

<sup>&</sup>lt;sup>25</sup>Daniels and Abma, "United States 2015-2017."

# Race

Overall contraceptive rates are not vastly different across racial groups.<sup>26</sup> While non-Hispanic white women use contraceptives at a higher rate than all other racial groups (67%), overall contraceptive rates among non-Hispanic black women and Hispanic women are not considerably lower (59.9%, 64%).<sup>27</sup>

However, there is differentiation in the predominant methods employed by racial groups and the methods used at the time of first intercourse by young women of different races.

The rate of contraceptive pill use among non-Hispanic white women (17.8%) is nearly double that of Hispanic (7.9%) and non-Hispanic black (8.1%) women.<sup>28</sup>

Rates of condom use are highest among non-hispanic black women (11%) and hispanic women (10.5%).<sup>29</sup> Although overall condom use is low, non-Hispanic black women aged 15-44 are more likely to have used a condom every time they had intercourse in the past 12 months.<sup>30</sup>

FABM use is equal among all racial groups except for non-Hispanic black women, who have the lowest rates of FABM use.<sup>31</sup>

Use of Long Acting Reversible Methods (LARC) has increased considerably across all racial groups in the last two decades. Between 2002 and 2006–2010, LARC use tripled among non-Hispanic white women and quadrupled among non-Hispanic black women.<sup>32</sup> Between 2006–2010 to 2011–2013, LARC use continued to increase exponentially. LARC use increased 129% among Hispanic women, 128% among non-Hispanic white women, and 30% among non-Hispanic black women.<sup>33</sup> Despite these disparate escalations in use, overall LARC use does not differ significantly across racial groups; 10% to 11% of women use LARC.<sup>34</sup>

<sup>&</sup>lt;sup>26</sup>Daniels and Abma, "United States 2017-2019."

<sup>&</sup>lt;sup>27</sup> Daniels and Abma, "United States 2015-2017."

<sup>&</sup>lt;sup>28</sup> Daniels and Abma, "United States 2015-2017."

<sup>&</sup>lt;sup>29</sup> Daniels and Abma, "United States 2015-2017."

<sup>&</sup>lt;sup>30</sup> Copen, "Condom use."

<sup>&</sup>lt;sup>31</sup> Brewer and Stevens, "Fertility Awareness-Based Methods."

<sup>&</sup>lt;sup>32</sup> Branum and Jones, "Long-acting reversible contraception."

<sup>&</sup>lt;sup>33</sup> Branum and Jones, "Long-acting reversible contraception."

<sup>&</sup>lt;sup>34</sup> Daniels and Abma, "United States 2015-2017."

#### Synthesis of Demographics of Contraceptive Use.



SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017–2019.

Daniels, Kimberly, and Joyce C. Abma. "Current contraceptive status among women aged 15–49: United States, 2017–2019." NCHS Data Brief, no 388. Hyattsville, MD: National Center for Health Statistics, 2020. fig. 4. https://www.cdc.gov/nchs/products/databriefs/db388.htm.

Rates of female sterilization also remain similar across racial groups. As seen in the figure above, female sterilization ranges from 17.6% to 19.9% among American women, with the highest rates among women of Hispanic origin.<sup>35</sup>

At the time of first intercourse, non-Hispanic white teenagers had the highest rates of contraceptive use (87.2%) and non-Hispanic black teens had the lowest rates of contraceptive use (62.2%).<sup>36</sup> While condom and pill use at the time of first intercourse followed similar patterns, non-Hispanic black teenagers (7.4%) used implants, injectables, the patch, ring, and emergency contraception, at greater rates than non-Hispanic white (2.7%) and Hispanic (1.8%) teenagers, at first intercourse.<sup>37</sup>

## **Educational Attainment and Achievement**

Sexual practices and contraceptive use diverges considerably between women who have been able to attain high levels of education and those who have not.

<sup>&</sup>lt;sup>35</sup> Daniels and Abma, "United States 2015–2017."

<sup>&</sup>lt;sup>36</sup> Joyce C. Abma and Gladys M. Martinez, "Sexual activity and contraceptive use among teenagers in the United States, 2011–2015," *National health statistics reports*; no 104. Hyattsville, MD: National Center for Health Statistics, 2017.

<sup>&</sup>lt;sup>37</sup>Abma and Martinez, "Contraceptive use among teenagers."

Highly educated women, are more likely to receive contraceptive services,<sup>38</sup> and are more likely to avoid engaging in risky sex practices.<sup>39</sup>

In part, the former explains why women aged 22- 49, with at least a bachelor's degree, use *temporary, non-invasive* methods, like FAMB<sup>40</sup> or birth control pills,<sup>41</sup> at greater rates than women without a high school diploma or GED (18.1% vs. 5.7% for pill use).

Similarly, to a smaller degree, educated women's preference for non permanent methods, explains why women with some college education (12.5%) and women with at least a bachelor's degree (13.1%), employ temporary invasive contraceptive methods, such as LARC methods, at higher rates than women with a high school diploma or GED (7.9%).<sup>42</sup>

Figure 5. Percentage of all women aged 22–49 who were currently using female sterilization, oral contraceptive pills, the male condom, or long-acting reversible contraceptives, by educational attainment: United States, 2017–2019



<sup>1</sup>Significant linear trend.

<sup>2</sup>Percentages for some college, no bachelor's degree and bachelor's degree or higher are significantly different from that for high school diploma or GED. NOTES: Women currently using more than one method are classifed according to the most effective method they are using. Long-acting reversible contraceptives include contraceptive implants and intrauterine devices. Access date table for Figure 5 at: https://www.cdc.gov/nchs/data/databriefs/db388-tables-508.pdf#5.

SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017–2019.

Kimberly Daniels, and Joyce C. Abma. "Current contraceptive status among women aged

<sup>&</sup>lt;sup>38</sup> J. Potter, J. Trussell and C. Moreau, "Trends and determinants of reproductive health service use among young women in the USA." *Human Reproduction* 24, no. 12 (December 2009): 3010-3015.

<sup>&</sup>lt;sup>39</sup> John O.G. Billy, William R. Grady, and Morgan E. Sill, "Sexual Risk-Taking Among Adult Dating Couples In the United States," *Perspectives on Sexual and Reproductive Health* 41, no. 2 (June 2009): 74-83.

<sup>&</sup>lt;sup>40</sup> Brewer, and Stevens, "Fertility Awareness-Based Methods."

<sup>&</sup>lt;sup>41</sup> Daniels and Abma, "United States 2017–2019."

<sup>&</sup>lt;sup>42</sup> Daniels and Abma, "United States 2017–2019."

15–49: United States, 2017–2019." NCHS Data Brief, no 388. Hyattsville, MD: National Center for Health Statistics, 2020. fig. 5. <u>https://www.cdc.gov/nchs/products/databriefs/db388.htm</u>.

In contrast, women with little education, that is without a high school diploma or GED, undergo sterilization at higher rates than other groups, even during young adulthood (39.9%).<sup>43</sup>

Condom use has become relatively low and consistent across all education groups, about 9% of women in each educational level use male condoms.<sup>44</sup>

Overall, the divide in contraceptive methods employed by educational levels highlights differences in women's willingness to undergo invasive procedures that rob them of their ability to have children and in women's access to information about safe temporary options to avoid pregnancy.

First, unlike women with a high school diploma or GED, CDC researchers found that women with greater levels of education are less likely to undergo permanent methods themselves, but are more likely to rely on their partner receiving a vasectomy (15% vs. 7.8%).<sup>45</sup>

Second, as Potter and others noted, women who attain more education, also receive more contraceptive services<sup>46</sup> and so more information about contraceptive methods. This explains why NFP or FABM methods are highest among highly educated women who are not satisfied with artificial contraceptive methods.<sup>47</sup>

# **Insurance Coverage**

Patterns of contraceptive use by health insurance are largely divided by insurance status. Women who have health care coverage have higher levels of contraceptive use (65%) than women who are not insured (59%).<sup>48,49</sup> Women who do not have health insurance have higher odds of nonuse.<sup>50</sup> Moreover, women with health insurance have higher rates

<sup>49</sup>W. Mosher, J. Jones, and J. Abma, "Nonuse of contraception among women at risk of

unintended pregnancy in the United States," Contraception (2015); 92:170-176.

<sup>&</sup>lt;sup>43</sup> Daniels and Abma, "United States 2017–2019."

<sup>44</sup> Daniels and Abma, "United States 2017-2019."

<sup>&</sup>lt;sup>45</sup> Kimberly Daniels, Jill Daugherty, Jo Jones, and William Mosher, "Current contraceptive use and variation by selected characteristics among women aged 15–44: United States, 2011–2013," *National health statistics reports*; no 86. Hyattsville, MD: National Center for Health Statistics. 2015. https://www.cdc.gov/nchs/data/nhsr/nhsr086.pdf.

<sup>&</sup>lt;sup>46</sup> Potter, Trussell and Moreau, "Reproductive health service use."

<sup>&</sup>lt;sup>47</sup> Brewer and Stevens, "Fertility Awareness-Based Methods."

<sup>&</sup>lt;sup>48</sup> Megan L. Kavanaugh, Ayana Douglas-Hall, and Sean M. Finn, "Health insurance coverage and contraceptive use at the state level: findings from the 2017 Behavioral Risk Factor Surveillance System," *Contraception: X* 2 (2020): 100014. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7286150/.

<sup>&</sup>lt;sup>50</sup> Mosher, Jones, and Abma, "Nonuse of contraception."

of more effective contraceptive use  $(43\%)^{51}$ , such as higher odds of oral contraception use.<sup>5253</sup>



#### Fig. 1

Differences in contraceptive use, overall and most/moderately effective method use, among women ages 18-44 at risk of pregnancy across 42 US jurisdictions, by health insurance coverage and income level, BRFSS 2017.

Source: Kavanaugh, Megan L., Ayana Douglas-Hall, and Sean M. Finn. "Health insurance coverage and contraceptive use at the state level: findings from the 2017 Behavioral Risk Factor Surveillance System." Contraception: X 2 (2020):

The passing of the Affordable Care Act's (ACA's) contraceptive mandate, which requires that health plans cover FDA-approved contraception with no cost sharing, has exacerbated these trends.

A 2018 study analyzing medical and prescription claims from a large national insurer found the mandate increased the total use of any prescription contraceptive method by 2.95 percentage points among privately insured women.<sup>54</sup> Specifically, the mandate has increased insurance claims for short-term contraceptive methods by 4.8% (e.g., the pill, the patch, the ring, injectables, diaphragms/cervical caps, and prescription emergency contraception), increased the initiation of long-term methods by 15.8% (intrauterine

<sup>52</sup> Katherine M. Krings, Kristen A. Matteson, Jennifer E. Allsworth, Erin Mathias and Jeffrey F. Peipert, "Contraceptive Choice: How Do Oral Contraceptive Users Differ from Condom Users and Women Who Use No Contraception?" *American Journal of Obstetrics and Gynecology* 198, no. 5 (2008): E46.

<sup>&</sup>lt;sup>51</sup> Kavanaugh, Douglas-Hall, and Finn, "Health insurance coverage."

<sup>&</sup>lt;sup>53</sup>Colleen McNicholas, Qiuhong Zhao, Gina Secura, Jenifer E. Allsworth, Tessa Madden, and Jeffrey F. Peipert, "Contraceptive Failures in Overweight and Obese Combined Hormonal Contraceptive Users," *Obstetrics & Gynecology* 121, no. 3 (March 2013): 585-592.

<sup>&</sup>lt;sup>54</sup> Nora V. Becker, "The Impact of Insurance Coverage on Utilization of Prescription Contraceptives: Evidence from the Affordable Care Act." *Journal of Policy Analysis and Management* 37, no. 3 (2018): 571–601. https://doi.org/10.1002/pam.22064.

devices, implant, or sterilization), and sharply decreased out-of-pocket costs for all reversible contraceptives.<sup>55</sup>

Unfortunately women's greater access to contraception is not conducive to better health outcomes. Thus, while women may devote less funds for reproductive health at the present moment, they may spend more on their physical and psychological health in the future. A danger that can be especially detrimental to women who already lack financial or social support.

## **Income and Employment Status**

Contraceptive use increases as income increases, and conversely, decreases as income decreases.<sup>56</sup> These trends are both the result of differentiation in the cost of contraceptive methods by zip code and the dominant value systems of socio-economic groups.<sup>57</sup>

Evidence from the US,<sup>58</sup> Canada,<sup>59</sup> Ireland,<sup>60</sup> and Australia,<sup>61</sup> show that contraceptive use is highest among high income women and lower among low income women. Likewise, higher income women use more efficacious methods, like oral contraception, at higher rates than low income women, who use male condoms more frequently.<sup>62,63,64</sup>

<sup>&</sup>lt;sup>55</sup> Becker, "Impact of Insurance Coverage;" A. H. Snyder, C. S. Weisman, G. Liu, D. Leslie, and C. H. Chuang, "The impact of the Affordable Care Act on contraceptive use and costs among privately insured women," *Women's Health Issues* 28 no. 3 (2018):219-223.

<sup>&</sup>lt;sup>56</sup> Elizabeth Nethery, Laura Schummers, K. Suzanne Maginley, Sheila Dunn, and Wendy V. Norman, "Household income and contraceptive methods among female youth: a cross-sectional study using the Canadian Community Health Survey (2009–2010 and 2013–2014)." *CMAJ open* 7, no. 4 (2019): E646. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6944121/.

<sup>&</sup>lt;sup>57</sup> A. Barry, N. Zite, and L. Wallace, "Costs of Contraceptives Vary by Income," *Presented at American Congress of Obstetricians and Gynecologists Annual Meeting*, (2013): 2.

<sup>&</sup>lt;sup>58</sup> Guttmacher Institute, "Contraceptive Use in the United States Fact Sheet." *Guttmacher Institute*, April 2020, https://www.guttmacher.org/fact-sheet/contraceptive-use-united-states#.

<sup>&</sup>lt;sup>59</sup> Nethery, Schummers, Maginley, Dunn, and Norman, "Income and contraceptive methods."

<sup>&</sup>lt;sup>60</sup> Gerard J. Molloy, Leigh-Ann Sweeney, Molly Byrne et al. "Prescription contraception use: A crosssectional population study of psychosocial determinants," *BMJ Open* 2015.

<sup>5:</sup>e007794.doi:10.1136/bmjopen-2015-007794.

<sup>&</sup>lt;sup>61</sup> Margaret Kelaher, David Dunt, and Sarity Dodson, "Unemployment, contraceptive behavior, and reproductive outcomes among young Australian women," *Health Policy* 82, no. 1 (2007): 95–101. https://doi.org/10.1016/j.healthpol.2006.08.002.

<sup>&</sup>lt;sup>62</sup>Adejoke B. Ayoola, Gail L. Zandee, Emily Johnson, and Kendra Pennings, "Contraceptive use among low-income women living in medically underserved neighborhoods," *JOGNN*43, no. 4 (2014): 455–64. https://doi.org/10.1111/1552-6909.12462."

<sup>&</sup>lt;sup>63</sup>Daniels, Daugherty, Jones, and Mosher, "Current contraceptive use and variation by selected characteristics among women aged 15–44: United States, 2011–2013."

<sup>&</sup>lt;sup>64</sup> Kelaher, Dunt, and Dodson, "Unemployment, contraceptive behavior."

The contrasting patterns of contraceptive use by income level are in large part due to inconsistent prices of contraceptives in high and low income zip codes, with higher prices for almost every prescription contraceptive in low-income zip codes.<sup>65</sup>



Figure 5. Percentage of contraceptors aged 15–44 years who were using female or male sterilization or the pill, by poverty level income: United States, 2006–2010

Jo Jones, William Mosher, and Kimberly Daniels, "Current contraceptive use in the United States, 2006–2010, and changes in patterns of use since 1995," *National health statistics reports*; no 60. Hyattsville, MD: National Center for Health Statistics. 2012. fig. 5. https://www.cdc.gov/nchs/data/nhsr/nhsr060.pdf.

Additionally, there are discrepancies in contraceptive use by income level due to the value systems of each socioeconomic group. Middle class women firmly desire to postpone childbearing to pursue academic and professional aspirations, working class women are torn between desires for academic achievement and family formation.<sup>66</sup> Thus women with lower incomes exercise less caution in avoiding pregnancy and are less likely to wait for a committed partner to have a family.<sup>67</sup> Furthermore, distadvantaged women are more likely to consider that abortion is immoral, are more likely to see

<sup>65</sup> Barry, Zite, and Wallace, "Costs of Contraceptives;"Also see: Nikki B. Zite, Audrey D. Barry, and Lorraine S. Wallace. "Variation in prescription contraceptive pricing across Florida ZIP code income groups." *Contraception* 89, no. 1 (2014): 54-56, https://doi.org/10.1016/j.contraception.2013.10.006.
<sup>66</sup>Amber Lapp, "How Class Influences Pregnancy Ambivalence," *Institute for Family Studies*, April, 27, 2015. 2015. URL 2015. Contraception and Contraception across Florida Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. 2015. Contraception across Florida Class Influences Pregnancy Ambivalence, Studies Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 27, 2015. Contraception Class Influences Pregnancy Ambivalence, Studies, April, 2015. Contraception Class Influences Pregnancy Pre

 $2015.\ 20\ https://if studies.org/blog/how-class-influences-pregnancy-ambivalence/.$ 

<sup>&</sup>lt;sup>67</sup> Lapp, "How Class Influences."

pregnancy as something that will make their partner mature and commit, and are more likely to attribute greater meaning to motherhood.<sup>68</sup>

Taking into account the increased cost of contraception in low income areas, the considerable cost of the medical side effects of contraceptive use, and the value systems of low income women, natural methods, like FABM, may be optimal for low-income women who need to postpone pregnancy.<sup>69</sup> It is essential that contraceptive services include accurate, in-depth information about women's cycle and the various FABMs.<sup>70</sup>

# **Marital Status**

National and global data show that contraceptive use is high among married women and low among unmarried women (this includes FABM use).<sup>71,72,73</sup>

The United Nations estimates that the number of married women who use contraception around the world is more than five times that of never-married women (779 million, 143 million).<sup>74</sup> Married women tend to rely on long-acting and permanent methods (26% have been sterilized and 20% use IUDs), followed by the birth control pill and the male condom (15%, 18%).<sup>75</sup> In contrast, few unmarried women rely on long-acting and permanent methods (13% have been sterilized and 6% use IUDs), and the majority use temporary or less efficacious methods like the pill (26%) and the male condom (33%).<sup>76</sup>

<sup>&</sup>lt;sup>68</sup> Dr. Kathryn Edin and Dr. Maria Kefalas, *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*,3rd ed. (Berkeley, CA: University of California Press), 2011; Meg T. McDonnell, "In the Debate Over Abortion, Let's Talk to the Poor," *Institute for Family Studies*, January 30, 2017, https://ifstudies.org/blog/in-the-debate-over-abortion-lets-talk-to-the-poor.

<sup>&</sup>lt;sup>69</sup>William V. Williams, Joel Brind, Laura Haynes, Michael D. Manhart, Hanna Klaus, Angela Lanfranchi, Gerard Migeon, Mike Gaskins, Elvis I. Seman, Lester Ruppersberger, and Kathleen M. Raviele, "Hormonally Active Contraceptives Part I: Risks Acknowledged and Unacknowledged," *The Linacre Quarterly* 88, no. 2 (2021): 126-148,

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<sup>&</sup>lt;sup>70</sup> Jacki Witt, Kimberly McEvers, and Patricia J. Kelly, "Knowledge and experiences of low-income patients with natural family planning," *The Journal for Nurse Practitioners* 9, no. 2 (2013): 99-104, https://doi.org/10.1016/j.nurpra.2012.06.010.

<sup>&</sup>lt;sup>71</sup> Guttmacher Institute, "Fact Sheet

<sup>&</sup>lt;sup>72</sup>United Nations Department of Economic and Social Affairs, "Contraception Use by Method 2019," (2019), *Contraceptive Use by Method 2019: Data Booklet (ST/ESA/SER.A/435)*,

https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/202 0/Jan/un\_2019\_contraceptiveusebymethod\_databooklet.pdf.

<sup>&</sup>lt;sup>73</sup>Brewer and Stevens, "Fertility Awareness-Based Methods."

<sup>74</sup> Guttmacher Institute, "Fact Sheet."

<sup>&</sup>lt;sup>75</sup>United Nations Department of Economic and Social Affairs, *Contraceptive Use by Method* (New York: United Nations, 2019),

https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/202 0/Jan/un\_2019\_contraceptiveusebymethod\_databooklet.pdf

<sup>&</sup>lt;sup>76</sup>United Nations Department of Economic and Social Affairs, *Contraceptive Use by Method*.



#### United Nations Department of Economic and Social Affairs. Contraceptive Use by Method (New York: United Nations, 2019). fig. 10. <u>https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/document</u> <u>s/2020/Jan/un\_2019\_contraceptiveusebymethod\_databooklet.pdf</u>. Referencing United Nations, Department of Economic and Social Affairs, Population Division, "World contraceptive use 2019," (2019).

In the United States, the share of married women who use contraception is nearly double of that of never-married women (77% vs. 42%).<sup>77</sup> Although the higher rates of contraceptive use among married women is in large part due to their sexual status (sexually active), contraceptive use is higher among sexually active married women<sup>78</sup> than sexually active cohabiting or never married women (93%, 90%, 83%).<sup>79</sup>

National rates of contraceptive use by marital status resemble international patterns of use. Sterilization is the most common method employed by American women who are married (30%) and formerly married (56%).<sup>8081</sup> Unmarried women are less likely to use a contraceptive method, and when they do they tend to use the birth control pill (47% never married, 32% cohabiting), the male condom (63% never-married men, 34% non-cohabiting formerly married men), or a LARC method (14.5% not cohabiting, 13.5%

<sup>77</sup> Guttmacher Institute, "Fact Sheet."

<sup>&</sup>lt;sup>78</sup> Note that *effective* contraceptive use is higher among White cohabiting women than White married women (Anyawie et al. 2019).

<sup>&</sup>lt;sup>79</sup>Guttmacher Institute, "Fact Sheet."

<sup>&</sup>lt;sup>80</sup>Anjani Chandra, Department of Health and Human Services, National Center for Health Statistics, "Fertility, family planning, and reproductive health of U.S. women: Data from the 2002 National Survey of Family Growth," *Vital and Health Statistics* 23 no. 25 (2005), 20.

<sup>&</sup>lt;sup>81</sup>Jo Jones, William Mosher, and Kimberly Daniels, "Current contraceptive use in the United States, 2006–2010, and changes in patterns of use since 1995," *National health statistics reports*; no 60. Hyattsville, MD: National Center for Health Statistics. 2012. https://www.cdc.gov/nchs/data/nhsr/nhsr060.pdf.

cohabiting, 12.8% married or formerly married).<sup>82</sup> African American cohabiting women are least likely to use effective contraceptive methods, which contributes to black women's higher odds of having a child out of wedlock.<sup>83</sup>



Figure 3. Percentage of contraceptors aged 15–44 years who were using female sterilization, the pill, or other hormonal methods, by marital status: United States, 2006–2010

Jo Jones, William Mosher, and Kimberly Daniels. "Current contraceptive use in the United States, 2006–2010, and changes in patterns of use since 1995." National health statistics reports; no 60. Hyattsville, MD: National Center for Health Statistics. 2012. fig. 3. https://www.cdc.gov/nchs/data/nhsr/nhsr060.pdf.

# Religiosity

Earlier research about the influence of religion on fertility patterns indicates that religious doctrines affect the reproductive behaviors of adherents.<sup>84,85</sup> Specifically, research from the 1960s, 1980s, 1990s, and 2000s, found that religious groups who do not have moral

<sup>&</sup>lt;sup>82</sup> Mosher and Jones, "United States: 1982–2008;" G. M. Martinez, A. Chandra, J. C. Abma, J. Jones, and W.D. Mosher, "Fertility, contraception, and fatherhood: Data on men and women from Cycle 6 (2002) of the National Survey of Family Growth," *Vital Health Statistics* 23 no. 26 (2006): 20.

<sup>&</sup>lt;sup>83</sup> Anyawie, Maurice, and Wendy Manning. "Cohabitation and contraceptive use in the United States: A focus on race and ethnicity." *Population Research and Policy Review* 38, no. 3 (2019): 307-325.

<sup>&</sup>lt;sup>84</sup> Li Zhang, "Religious affiliation, religiosity, and male and female fertility," *Demographic Research* 18 (2008): 233-262, DOI: 10.4054/DemRes.2008.18.8.

<sup>&</sup>lt;sup>85</sup>William D. Mosher, Linda B. Williams, and David P. Johnson, "Religion and fertility in the United States: New patterns." *Demography* 29, no. 2 (1992): 199-214, https://www.researchgate.net/profile/Lindy-Williams-

<sup>2/</sup>publication/21548781\_Religion\_and\_Fertility\_in\_the\_United\_States\_New\_Patterns/links/5c793656a6fdc c4715a5b037/Religion-and-Fertility-in-the-United-States-New-Patterns.pdf.

objections to contraception, such as mainstream Protestants and Jews, have higher levels of contraceptive use and lower rates of fertility, than religious groups who have moral objections with contraception and abortion, such as fundamentalist Protestants and Catholics.<sup>86</sup>

Although contraception is more frequent among women of all religious groups, patterns of contraceptive use by religious women differ by professed affiliation, frequency of worship, and professed moral objections.

Assessments measuring contraceptive use by religious affiliation alone determine higher rates of contraceptive use among groups who do not approve of mechanisms that *prevent* (rather than avoid) pregnancy. For instance, The Guttmacher Institute's 2020 update of contraceptive use in the United States, states that women of all religious affiliations report using contraception.<sup>87</sup> According to the article, 89% of sexually active Catholics and 90% of sexually active Protestants, who do not want to become pregnant, use a method of contraception.<sup>88</sup> Likewise, as the figure below shows, national estimates of contraceptive use by religious affiliation with trusted data sources, also yield inflated results.

	All women	Catholic	Protestant		Other	None
			Mainline	Evangelical		
Highly effective methods	69	68	73	74	60	62
Sterilization	33	32	34	41	23	26
Pill or other hormonal	31	31	35	28	31	30
IUD	5	5	4	4	6	6
Condom	14	15	13	10	25	17
Natural family planning	1	2	1	1	1	1
Other	5	4	4	6	5	7
No method	11	11	10	9	9	14

Supplementary table to Figure 3. Current contraceptive use among women at risk of unintended pregnancy,\* by religious affiliation, 2006–2008 NSFG

\*Refers to sexually active women who are not pregnant, postpartum or trying to get pregnant.

Jones, Rachel K., and Joerg Dreweke. "Countering conventional wisdom: New evidence on religion and contraceptive use." Guttmacher Institute. New York. 2011. Supplementary table to fig. 3. https://www.guttmacher.org/sites/default/files/report\_pdf/religion-and-contraceptive-use.pdf

When the importance of religious beliefs is integrated into analyses, as in Zhang's 2008 national assessment, which also uses NSFG data, importance of religious beliefs has a substantial positive effect on fertility trends.<sup>89</sup> For instance, in 2009 Hayford et al. found that women who consider religion important have both higher intended fertility and

<sup>&</sup>lt;sup>86</sup> Zhang, "Religious affiliation;" Mosher, Williams, and Johnson, "Religion and fertility."

<sup>&</sup>lt;sup>87</sup>Guttmacher Institute, "Fact Sheet."

<sup>88</sup> Guttmacher Institute, "Fact Sheet."

<sup>89</sup> Zhang, "Religious affiliation."

higher fertility.<sup>90</sup> The greater the importance of religion, the greater the intended family size (those who consider religion somewhat important intend 0.31 additional children and those who consider religion very important intend 0.69 additional children).<sup>91</sup> Women's accompanying attitudes about family formation and sexuality further augment the differences in fertility between religious and nonreligious women.<sup>92</sup> Thus the importance of religion has concrete implications on the contraceptive behavior of religious women. As Ohlendorf et al. found in 2007, women who stated that their religion was very important were 164% more likely to have ever used natural family planning, 21% less likely to have ever used the pill, and were 50% less likely to have ever used a male condom.<sup>93</sup> Additionally, Roman Catholic women who were orthodox to Roman Catholic sexual ethics and held their faith as very important were 91% more likely to have ever used natural family planning and 26% less likely to have ever used the pill.<sup>94</sup>

Table 2

Wantadaasa and Timing of Dirtha Dy Importance of Daligion

	Ву			
	Very important	Somewhat important	Not important/ no religion	All women
Total fertility rate (children/woman)	2.3	2.1	1.8	2.2
Number of births	1472	782	466	2720
Proportion of births unwanted	0.13	0.13	0.20	0.14
Proportion of births unplanned	0.48	0.52	0.61	0.51
Mean age at first birth (years)	25.6	25.5	25.3	25.5
Mean age at second birth (years)	28.2	27.6	27.0	27.9

Notes: Authors' calculations, 2002 NSFG. Births to women age 15-39 between January 1997 and December 2001. Means and proportions weighted using sample weights.

Source: Hayford, S. R., & Morgan, S. P. (2008). Religiosity and Fertility in the United States: The Role of Fertility Intentions. Social forces; a scientific medium of social study and interpretation, 86(3), 1163–1188. https://doi.org/10.1353/sof.o.0000

Furthermore, examinations that also include frequency of church attendance also find contraceptive use is lower among religious women who actively practice their professed faith. A 2007 study using data from the 2002 National Survey of Family Growth (NSFG) found that women with high church attendance were 188% more likely to have used natural family planning, were 51% more likely to have a male partner who has had a

<sup>&</sup>lt;sup>90</sup> Sarah R. Hayford and S. Philip Morgan, "Religiosity and Fertility in the United States: The Role of Fertility Intentions," *Social forces; a scientific medium of social study and interpretation* 86 no. 3, (2008): 1163–1188. https://doi.org/10.1353/sof.0.0000.

<sup>91</sup> Hayford and Morgan, "Role of Fertility Intentions."

<sup>92</sup> Hayford, and Morgan,"Role of Fertility Intentions."

<sup>&</sup>lt;sup>93</sup> Jennifer Ohlendorf, and Richard J. Fehring, "The Influence of Religiosity on Contraceptive Use among Roman Catholic Women in the United States," *The Linacre Quarterly* 74 No. 2 (2007): 141.

<sup>&</sup>lt;sup>94</sup>Ohlendorf, and Fehring, "Use among Roman Catholic," 141.

vasectomy, 38% more likely to be sterilized, and were 48% less likely to have ever used a condom, compared to women with low church attendance.<sup>95</sup>

Parallel trends are observable in the majority of research about religious adolescents. While large evaluations of contraceptive use among religious youth have found that religious youth are less likely to avoid contraception, when teenagers' adherence *to religious doctrine* about contraception and sexuality are clarified, rates of contraceptive use differ within affiliated religious adolescents.<sup>96,97</sup> In both 2004 and 2010 National Center for Health Statistics Reports, the main reason teenagers who adhere to religious doctrine gave for not having had sexual intercourse was religious or moral reasons.<sup>98,99</sup> Additionally, Wilcox and others, found that religious youth, especially young Catholics and fundamental Protestants, as well as youth who attend religious services frequently, delay sexual debut and are less likely to use contraception at first intercourse.<sup>100</sup>

Finally, it must be noted that although FAMB use is relatively studied, the latest estimates of FABM use with NSFG data indicate that 3.4% of American women used a FABM method between 2015 and 2017.<sup>101</sup> FAMB use is highest among women who are married and identify as Catholic.<sup>102</sup> FABM users have lower odds of ever using the pill, higher odds of discontinuing pill due to dissatisfaction, and higher odds of intending to have more children than users of other contraceptive methods.<sup>103</sup>

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<sup>95</sup>Ohlendorf, and Fehring, "Use among Roman Catholic," 141.

<sup>&</sup>lt;sup>96</sup>Michael R. Kramer, Carol J. Rowland Hogue and Laura M. D. Gaydos, "Noncontracepting Behavior in Women at Risk for Unintended Pregnancy: What's Religion Got to Do with It?" *Annals of Epidemiology* 17, no. 5 (2007): 330;

<sup>&</sup>lt;sup>97</sup>Patrick F. Fagan, and Paul Sullins, "Female intercourse under age 18 by family structure and frequency of religious attendance." MARRI. (2012). http://marri.us/wp-content/uploads/MA-96.pdf.

<sup>&</sup>lt;sup>98</sup> Joyce C. Abma, Gladys M. Martinez, and Casey E. Copen, "Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, National Survey of Family Growth 2006–2008," *National Center for Health Statistics. Vital Health Stat* 23(30). 2010.

<sup>&</sup>lt;sup>99</sup>Joyce C. Abma, Gladys M. Martinez, William D. Mosher, and Brittany S. Dawson, "Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2002." *National Center for Health Statistics. Vital Health Stat* 23, no. 24 (2004): 2.

<sup>&</sup>lt;sup>100</sup> Barbara Dafoe Whitehead, Brian L. Wilcox, Sharon S. Rostosky, Brandy Randall, and Margaret L. C. Wright, "Keeping the Faith: The Role of Religion and Faith Communities in Preventing Teen Pregnancy." *National Campaign to Prevent Teen Pregnancy* 

<sup>(2001).</sup> https://www.researchgate.net/publication/239586794\_Keeping\_the\_faith\_The\_role\_of\_religion\_an d\_faith\_communities\_in\_preventing\_teen\_pregnancy.

<sup>&</sup>lt;sup>101</sup> Brewer and Stevens, "Fertility Awareness-Based Methods."

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Appendix



### Figure 1: Total Fertility Rates by Region. (See Page 1 of Part 3 of this report).

Source: United Nations Department of Economic and Social Affairs, Population Division (2019a). World Population Prospects 2019. Sour ce: United Nations Department of Economic and Social Affairs Population Division, "World Fertility and Family Planning 2020 Highlights," (New York: United Nations, 2020): fig. 2. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/202

0/Aug/un 2020 worldfertilityfamilyplanning highlights.pdf.

Figure 2: Decline in U.S. Fertility (See Page 2 of Part 3 of this report).



### U.S. fertility hit all-time low in 2019 and 2006

Note: Completed fertility data available from 1976 to 2018 only. All values based upon live births.

Source: Data for general fertility rate from National Center for Health Statistics, National Vital Statistics System; for completed fertility, U.S. Census Bureau, Current Population Survey June Supplement.

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Source: National Center for Health Statistics, "National Vital Statistics System, for completed fertility," U.S. Census Bureau, *Current Population Survey June Supplement*. Quoted in Amanda Barroso, "With a Potential 'Baby Bust' on the Horizon, Key Facts about Fertility in the

U.S. Before the Pandemic," Pew Research Center. May 7, 2021. <u>https://www.pewresearch.org/fact-tank/2021/05/07/with-a-potential-baby-bust-on-the-horizon-key-facts-about-fertility-in-the-u-s-before-the-pandemic/</u>.

Figure 3: Current Contraceptive Status United States, 2017-2019. (See Page 3 of Part 3 of this report).



Figure 2. Percent distribution of women aged 15–49, by current contraceptive status: United States, 2017–2019

<sup>1</sup>Additional categories of nonusers, such as nonsurgical sterility, are shown in the accompanying data table.

<sup>2</sup>Other methods grouped in this category are shown in the accompanying data table.

NOTES: Percentages may not add to 100 due to rounding. Women currently using more than one method are classifed according to the most effective method they are using. Long-acting reversible contraceptives include contraceptive implants and intrauterine devices. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db388-tables-508.pdf#2.

SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017–2019.

Source: Kimberly Daniels, and Joyce C. Abma, "Current contraceptive status among women aged 15–49: United States, 2017–2019," *NCHS Data Brief*, no 388. CDC. Hyattsville, MD: National Center for Health Statistics. (2020): fig. 2. https://www.cdc.gov/nchs/products/databriefs/db388.htm.

**Figure 4: Contraceptive Use by Age, Race, and Education.** (See Page 4 of Part 3 of this report).





<sup>1</sup>Includes persons of other and multiple race and origin groups, not shown separately.

Significantly different from non-hispanic black women and Hispanic women. NOTES: The population size referenced for women aged 15–49 is 72.7 million. Analyses of education are limited to women aged 22–49 at the time of interview. Less than high school is no high school diploma or GED. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/data/nefs/db388-tables-508.pdf#1. SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017-2019.

Source: Kimberly Daniels, and Joyce C. Abma, "Current contraceptive status among women aged 15-49: United States, 2017-2019," NCHS Data Brief, no 388. CDC. Hyattsville, MD: National Center for Health Statistics. (2020): fig. 1. https://www.cdc.gov/nchs/products/databriefs/db388.htm.

Figure 5: Lifetime Partners of High School Students Who Have Had Sex, 1991-2019. (See Page 5 of Part 3 of this report).

<sup>&</sup>lt;sup>2</sup>Significant linear trend across all four age groups.



Mean Lifetime Partners of High Schoolers Who Have Had Sex, by Grade, 1991 - 2019

Source: Center for Disease Control and Prevention, "The Youth Risk Behavior Survey (YRBS)," 2019. last modified October, 27, 2020, <u>https://www.cdc.gov/healthyyouth/data/yrbs/index.htm</u>. Quoted in: Charles Fain Lehman, "Fewer American High Schoolers Having Sex Than Ever Before," Institute for Family Studies, (September 1, 2020): fig. 3. <u>https://ifstudies.org/blog/fewer-american-high-schoolers-having-sex-than-ever-before</u>.

Figure 6: Contraceptive Use among High School Students at Last Sexual Encounter, 1991-2019. (See Page 6 of Part 3 of this report).



Methods of Birth Control Used by High Schoolers At Last Sexual Encounter 1991 - 2019

Source: Center for Disease Control and Prevention, "The Youth Risk Behavior Survey (YRBS)," 2019. last modified October, 27, 2020, <u>https://www.cdc.gov/healthyyouth/data/yrbs/index.htm</u>. Quoted in: Charles Fain Lehman, "Fewer American High Schoolers Having Sex Than Ever Before," Institute for Family Studies, (September 1, 2020): fig. 4. <u>https://ifstudies.org/blog/fewer-american-high-schoolers-having-sex-than-ever-before</u>.

Figure 7: US Contraceptive Use by Age, 2015-2017. (See Page 7 of Part 3 of this report).



Figure 3. Percentage of all women aged 15–49 who were currently using female sterilization, oral contraceptive pill, male condom, or long-acting reversible contraceptives, by age group: United States, 2015–2017

† No cases of female sterilization were found among those aged 15–19. 'Significant linear trend.

Percentages for age groups 20–29 and 30–39 are significantly different from that for 15–19. Percentages for age groups 20–29 and 30–39 are significantly different from that for 40–49.

<sup>3</sup>Percentages for age groups 15–19 and 40–49 are significantly different from that for 20–29. Percentage for age group 30–39 is significantly different from that for 40–49.

NOTES: Women currently using more than one method are classified according to the most effective method they are using. Long-acting reversible contraceptives include contraceptive implants and intrauterine devices. Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db327\_tables-508.pdf#3. SOURCE: NCHS, National Survey of Family Growth, 2015–2017.

Kimberly Daniels and Joyce C. Abma, "Current contraceptive status among women aged 15–49: United States, 2015–2017," *NCHS Data Brief*, no 327. Hyattsville, MD: National Center for Health Statistics. (2018): fig. 3.

Figure 8: US Contraceptive Use by Race, 2017-2019. (See page 9 of Part 3 of this report).

#### Synthesis of Demographics of Contraceptive Use.



https://www.cdc.gov/nchs/data/databriefs/db388-tables-508.pdf#4. SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017–2019.

Source: Kimberly Daniels, and Joyce C. Abma, "Current contraceptive status among women aged 15-49: United States, 2017-2019," NCHS Data Brief, no 388. CDC. Hyattsville, MD: National Center for Health Statistics. (2020): fig. 4. https://www.cdc.gov/nchs/products/databriefs/db388.htm.

Figure 9: US Contraceptive Use by Educational Level, 2017-2019. (See Page 10 of Part 3 of this report).

Figure 5. Percentage of all women aged 22-49 who were currently using female sterilization, oral contraceptive pills, the male condom, or long-acting reversible contraceptives, by educational attainment: United States, 2017–2019



<sup>1</sup>Significant linear trend. <sup>2</sup>Percentages for some college, no bachelor's degree and bachelor's degree or higher are significantly different from that for high school diploma or GED. NOTES: Women currently using more than one method are classifed according to the most effective method they are using. Long-acting reversible contraceptives include contraceptive implants and intrauterine devices. Access date table for Figure 5 at: https://www.cdc.gov/nchs/data/databriefs/db388-tables-508.pdf#5.

SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2017–2019.

Source: Kimberly Daniels, and Joyce C. Abma. "Current contraceptive status among women aged 15-49: United States, 2017-2019." NCHS Data Brief, no 388. Hyattsville, MD: National Center for Health Statistics, (2020): fig. 5. https://www.cdc.gov/nchs/products/databriefs/db388.htm.

Figure 10: Contraceptive Use by Health Insurance Coverage and Income Level. (See Page 12 of Part 3 of this report).



Source: Megan L. Kavanaugh, Ayana Douglas-Hall, and Sean M Finn, "Health Insurance Coverage and Contraceptive Use at the State Level: Findings from the 2017 Behavioral Risk Factor Surveillance System," *Contraception: X,* 2, 100014, no. 2020 (November 15, 2019): fig. 1. https://doi.org/https://doi.org/10.1016/j.conx.2019.100014.

**Figure 11: Sterilization and Pill Use by Poverty Level.** (See Page 14 of Part 3 of this report).



# Figure 5. Percentage of contraceptors aged 15–44 years who were using female or male sterilization or the pill, by poverty level income: United States, 2006–2010

Source: Jo Jones, William Mosher, and Kimberly Daniels, "Current contraceptive use in the United States, 2006–2010, and changes in patterns of use since 1995," *National health statistics reports*; no 60. Hyattsville, MD: National Center for Health Statistics. (2012): fig. 5. https://www.cdc.gov/nchs/data/nhsr/nhsr060.pdf.

**Figure 12: Global Contraceptive Use by Marital Status, 2019.** (See Page 16 of Part 3 of this report).



Data source: Calculations are based on the data compilation World Contraceptive Use 2019, additional tabulations derived from microdata sets and survey reports and estimates of contraceptive prevalence for 2019 from Estimates and Projections of Family Planning Indicators 2019. Population-weighted aggregates.

United Nations, Department of Economic and Social Affairs, Population Division, "World contraceptive use 2019," (2019). Quoted in: United Nations Department of Economic and Social Affairs. Contraceptive Use by Method (New York: United Nations, 2019): fig. 10. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/202\_0/Jan/un\_2019\_contraceptiveusebymethod\_databooklet.pdf.

Figure 13: US Contraceptive Use by Marital Status, 2006-2010. (Page 17 of Part 3 of this report).



Figure 3. Percentage of contraceptors aged 15–44 years who were using female sterilization, the pill, or other hormonal methods, by marital status: United States, 2006–2010

Source: Jo Jones, William Mosher, and Kimberly Daniels, "Current contraceptive use in the United States, 2006–2010, and changes in patterns of use since 1995," National health statistics reports; no 60. Hyattsville, MD: National Center for Health Statistics. (2012): fig. 3. https://www.cdc.gov/nchs/data/nhsr/nhsr060.pdf.

**Figure 14: US Contraceptive Use by Religious Affiliation, 2006- 2008.** (See Page 18 of Part 3 of this report).

	All women	Catholic	Protestant		Other	None
			Mainline	Evangelical		
Highly effective methods	69	68	73	74	60	62
Sterilization	33	32	34	41	23	26
Pill or other hormonal	31	31	35	28	31	30
IUD	5	5	4	4	6	6
Condom	14	15	13	10	25	17
Natural family planning	1	2	1	1	1	1
Other	5	4	4	6	5	7
No method	11	11	10	9	9	14

# Supplementary table to Figure 3. Current contraceptive use among women at risk of unintended pregnancy,\* by religious affiliation, 2006–2008 NSFG

\*Refers to sexually active women who are not pregnant, postpartum or trying to get pregnant.

Source: Jones, Rachel K., and Joerg Dreweke. "Countering conventional wisdom: New evidence on religion and contraceptive use." Guttmacher Institute. New York. (2011): Supplementary table to fig. 3. https://www.guttmacher.org/sites/default/files/report\_pdf/religion-and-contraceptive-use.pdf

**Figure 15: Timing of Births By Importance of Religion.** (See Page 19 of Part 3 of this report).

	Table 2
Wantedness and Timing of Births,	By Importance of Religion

	By			
	Very important	Somewhat important	Not important/ no religion	All women
Total fertility rate (children/woman)	2.3	2.1	1.8	2.2
Number of births	1472	782	466	2720
Proportion of births unwanted	0.13	0.13	0.20	0.14
Proportion of births unplanned	0.48	0.52	0.61	0.51
Mean age at first birth (years)	25.6	25.5	25.3	25.5
Mean age at second birth (years)	28.2	27.6	27.0	27.9

Notes: Authors' calculations, 2002 NSFG. Births to women age 15–39 between January 1997 and December 2001. Means and proportions weighted using sample weights.

Source: Hayford, S. R., & Morgan, S. P. (2008). Religiosity and Fertility in the United States: The Role of Fertility Intentions. Social forces; a scientific medium of social study and interpretation, 86(3), 1163–1188. https://doi.org/10.1353/sof.o.0000

Source: Sarah R. Hayford, and S. Philip Morgan, "Religiosity and Fertility in the United States: The Role of Fertility Intentions," *Social Forces: a scientific medium of social study and interpretation* 86, no. 3 (2008): table 2. https://doi.org/10.1353/sof.0.0000.