

# *Humanae Vitae* at Fifty Years and the Economics of the Pill

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This article examines how economic analysis of the social consequences of the birth control pill dovetail with the predictions and pronouncements of Roman Catholic social teaching. Direct, equilibrium, and indirect consequences each, in turn, confirm that the advent of the pill has coincided with increased rates of divorce and out-of-wedlock births alongside increased participation of women in the formal labor market. These findings lead to the conclusion that Pope Paul VI's *Humanae Vitae* and other papal teachings on sex, marriage, and the family deserve to be revisited and reevaluated in light of this history.

## **Introduction**

Recent work in the social sciences lends support to the predictions made by Pope Paul VI, who, more than fifty years ago, foresaw the social consequences flowing from widespread adoption of the birth control pill. This research has focused first on how the technology shock of the pill changed the career trajectories of women. Second, it also examines the social, or indirect, consequences of the pill, essentially addressing how access to the pill changed interactions between men and women regarding sex and childbearing, including the widespread use of abortion as a means of fertility control. This article engages the insights of *Humanae Vitae*, by far the most controversial papal encyclical of the twentieth century, with these two dimensions of the social science literature assessing the effects of the oral contraceptive revolution. The two schools of thought—papal teaching and social science—address common problems but from different intellectual perspectives. Social science delivers a set of empirical insights but a more

limited set of theories as to why those phenomena arise. The magisterial tradition, especially as embodied in *Humanae Vitae*, offers a natural law lens with which to see the social nature of our sexual relationships and desires.

The large body of literature developed among economists examines whether and how the advent of oral contraceptives played a part in several social trends in the United States. The large-scale entrance of women into the labor market and the fall in married women's fertility were to an important degree consequences of access to the pill. Paradoxically, the rise in nonmarital pregnancies, and subsequent increases in both nonmarital births and abortions, were also facilitated by the pill's impact on marital and sexual norms.

*Humanae Vitae*, and subsequent Catholic teaching, also highlight important social questions that gave rise to demand for effective artificial contraceptives in the first place. Several of these questions endure today and center on how to achieve social goods without the collateral damage caused by the pill. How can the modern narrative about a necessary connection between female participation in the labor market and ready access to artificial contraception be reconciled with Paul VI's teachings? In the social realm, how can societies deal with the fracturing of the unitive and procreative dimensions of sexuality, given the enormous increase and normalization of nonmarital sexual activity facilitated by the contraceptive revolution? The solutions to these problems proposed by liberal modernity, including most social scientists, are improvements in technology. But Paul VI argued the responsibilities and obligations demanded by the institution of marriage are a means to deal with human nature and its attendant frailty, a frailty that technology alone can never remove. Instead, growth in virtues—both individual, including chastity and charity within and outside marriage—and social—notably respect and appreciation for the value of human life in all its myriad and inconvenient forms—constitute the only foundation for navigating human reproduction. Otherwise, Paul VI contended, the use of technology that drives a wedge between unitive and procreative<sup>1</sup> aspects of human sexuality only appears to solve the problem if we avert our gaze from the many people whose prospects for a stable family life depend on the human bonds of communion that technology has the power to destroy.

## The Direct Consequences of the Pill

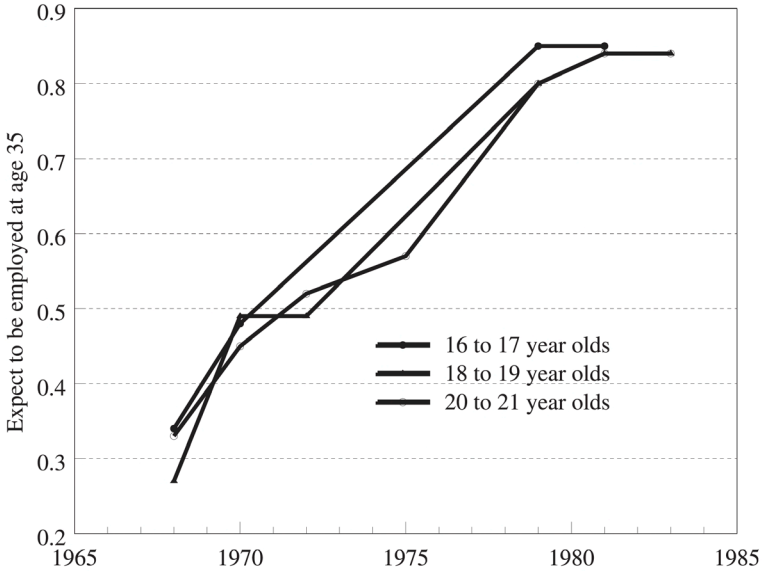
A large and evolving literature within economics documents the transformation of the labor market between the mid-twentieth century and today. By far, the most notable change in the labor market has been the large-scale participation of women. More specifically, there has been a higher level of female participa-

tion in what are often referred to as the “professions”: career tracks that require a substantial amount of postgraduate study. There has also been an increase in the fraction of women who continue to work after marriage and after childbearing. Integral dimensions of this story are changing family size, the timing of births, and the age at first marriage among the groups of women who now participate to such an increased extent in paid and professional work.

Harvard University’s Claudia Goldin is foremost among economists studying the labor market transformation.<sup>2</sup> Goldin’s keynote Ely Lecture at the 2006 meeting of the American Economic Association should be required reading for understanding the social history of the twentieth century. She argues that there are four distinct phases of the transformation. The first three phases are *evolutionary* in character while the fourth is marked by *revolution*, sparked in part by the advent of oral contraceptives. Generally, economists have argued that the pill has had two main effects. First, a number of economists, including Goldin, have argued that the pill provides a much more accurate planning horizon for making human capital investments than did previous methods of birth control. Second, the pill further distances the timing between sexual intercourse and marriage. These two effects combined to transform the labor market and educational attainment of women in the United States.

The process of evolutionary change began in the late nineteenth century and ran to the mid-1970s. The first phase stretched to the 1920s. Very few adult or married women participated in market work. As a result, when the economy grew over this time period, female earnings rose among those participating in the labor market, but there was not a sizeable increase in the labor force participation among women; labor supply was “inelastic.” During the second phase, from 1930 through 1950, female labor supply become more elastic, and the supply was substantially more sensitive to changes in wages and incomes. This set the stage for the third phase from 1950 through the mid-1970s. In the 1960s the postwar economy experienced a sustained period of economic growth, which meant the labor “demand raced over an elastic labor supply function.”<sup>3</sup> The result was a dramatic increase in female market work. However, many women newly eligible to participate had not trained for careers or extended periods of labor market activity. Instead, work for them often provided a fallback to deal with life contingencies. It is important to note that, despite much controversy over the effects of no-fault divorce laws, most of which were enacted in the 1970s, the US divorce rate began its historic climb in 1962.<sup>4</sup>

These trends set the stage for the “revolution”: the advent of the contraceptive pill, the increasing likelihood of divorce, and the increased labor market participation of older women. Goldin summarizes it well in both figure 1 and the quote below:



**Figure 1. Employment Expectations of Female Youth by Age: 1967–1984<sup>5</sup>**

Young women growing up in the 1960s could see that adult and married women had participation rates that were rapidly increasing. The young began to extrapolate to their own lives, possibly influenced by the resurgence of feminism that encouraged them to think independently. Two other important changes took place. One was the contraceptive innovation known as the pill. Aided by changes in state laws, the pill diffused to young, single women. The other was the enormous increase in divorce in the 1960s. The advent of the pill for young women allowed them to plan their careers before planning for their families and to be taken more seriously by their employers and advisors. A consequence of the pill was that the age at first marriage increased. Together with the rise in divorce, a far smaller fraction of a woman’s life would be spent married.<sup>6</sup>

Thus, in what many feminists argued was a fundamental advance for women, divorce and the contraceptive pill cannot be disentangled from the larger social trends in education and labor market advancement. The increased investment in

skill acquisition among young women beginning in the late 1960s and early 1970s was the result of (1) an increased acceptance of women within the professional world, (2) the ability of women to plan and limit childbearing, and (3) a response to the already increasing rates of divorce observed by these young women. One informative summary statistic combines all three of these influences: the probability that a young woman would expect to be working at age thirty-five. In 1968, 30 percent of young women expected to be working at age thirty-five. In 1985, 85 percent of young women had the same expectation.

Other researchers, notably Martha Bailey, have argued that access to the pill caused changes in female education, marriage, and labor market patterns; and they have dubbed the 1960s a contraceptive revolution.<sup>7</sup> Bailey's work develops and exploits plausibly random variation in access to the pill, some of which was triggered by "Comstock laws" passed in the late nineteenth century, which were part of a larger movement of "antiobscenity" laws aimed at improving public morality. The laws sometimes explicitly prohibited the sale of contraceptives; at other times the prohibition was implicit in a ban on "obscene" material. They remained on the books when the pill was first introduced around 1960. Only after a series of state-level legislative changes and a Supreme Court case were contraceptives made more available to married couples.

Bailey uses this legal history to examine behavioral patterns in states that did and did not have access to the pill, finding that the pill lowered the marital fertility rate between 1955 and 1966 by at least 40 percent, contributing greatly to the establishment of a two-child norm.<sup>8</sup> Bailey argues that pill access among younger women reduced birth rates, increased women's likelihood of participating in the labor market, and increased their hours worked. One of the most important features of Bailey's data concerns cohorts of women who had access to the pill as teenagers and the frequency with which they remained in the labor market upon entering their childbearing years. Indeed, it only took fifteen years between birth cohorts for the entire "fertility dip" to disappear in her figure 3.<sup>9</sup> Cohorts born in 1940 often worked as young women prior to marriage and childbearing, as did previous cohorts in the twentieth century. But after reaching their late twenties their participation rates dropped by ten to fifteen points. In contrast, women born in 1955 increased their participation rates by fifteen points at the same point in the life cycle. Bailey (2006) argues the main driver of this change was access to the pill early in the life cycle.

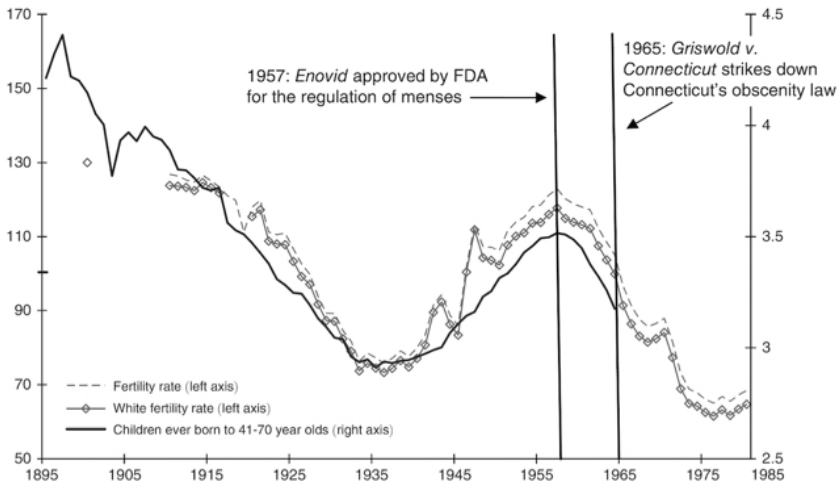


Figure 2. U.S. Fertility and Children Ever Born from 1895–1985<sup>10</sup>

This once-settled narrative has recently become a point of contention among researchers. Beginning as a working paper published in 2012, Caitlyn Knowles Myers’ “Power of the Pill or Power of Abortion? Re-Examining the Effects of Young Women’s Access to Reproductive Control,” was eventually published in the *Journal of Political Economy*.<sup>11</sup> Knowles Myers argues that prior results, which attributed so much of the delayed marriage and fertility discussed above to the birth control pill, rested on faulty legal coding. Instead, correcting for coding mistakes, she presents evidence that, while access to the pill likely fueled the sexual revolution, severing the link between sex and marriage, it was only access to abortion that significantly reduced fertility. An important point she raises is that sexual activity rates rose substantially among cohorts exposed to the pill, offsetting the contraceptive effects the birth control pill offered.

## Catholic Teaching and Mothers in the Public Sphere

The economic history of increased female labor market participation, so intertwined as it was with the technological advancement of the pill, raises important questions from a Catholic perspective. At the moral level, is it possible to analyze the contraceptive pill independently from abortion, marriage, and divorce? In terms of social analysis, the research suggests it is not. Pope Paul VI, who died in 1978, was just beginning to see the large-scale retreat from marriage, increase in divorce, and skyrocketing of abortion rates across the Western world.

At the same time, the natural law tradition from which he argued would not be surprised to find these human behaviors surrounding sex, marriage, and child-bearing to be intimately interwoven. The question naturally arises then: Could there have been an alternative revolution that would have propelled women into the public sphere and moved them toward a greater participation in social life, one that did not rely on the widespread availability of contraception, abortion, and divorce?

Writing in *Humanae Vitae*, Paul VI recognizes the empowerment of women and the use of artificial contraceptives as two distinct and not necessarily dependent social outcomes, the first of which is laudable. He wrote, “Also noteworthy is a new understanding of the dignity of woman and her place in society.”<sup>12</sup> He goes on to condemn the use of artificial contraceptives “even though the intention is to protect or promote the welfare of an individual, of a family or of society in general,”<sup>13</sup> leaving open the possibility of using appropriate means for the regulation and timing of births that might be required for women to participate more fully in society.

In his *Letter to Women*, Saint John Paul II built on this same line of reasoning in his support for women who participate in the labor market: “Thank you, *women who work!* You are present and active in every area of life—social, economic, cultural, artistic and political. In this way you make an indispensable contribution to the growth of a culture which unites reason and feeling, to a model of life ever open to the sense of ‘mystery,’ to the establishment of economic and political structures ever more worthy of humanity.”<sup>14</sup> John Paul II touched just briefly on the genuine social good and unique contribution that women offer when participating in one important dimension of the public sphere, namely the labor market. He argued that women offer a unique and humanizing contribution to public life, suggesting female politicians pursue policies that improve the overall quality of social life.

These ideas foreshadowed a recent social science literature: Both Baltruniate et al. and Besley et al. show that, in Italy and Sweden respectively, an increase in female representation in politics improved the quality and competence of the average politician. And using unique data from Brazil, Brollo and Troiano show female mayors were less likely to engage in corruption, hire temporary workers, and take campaign contributions than their male counterparts. Ferreira and Gyourko on the other hand found no difference in performance between female and male mayors in the United States.<sup>15</sup>

The magisterial tradition has largely supported the improved position of women in society as both just and contributing to the common good, but questions remain. As the economic literature on the pill highlights, a precondition

for female labor-force participation in important areas of the public sphere is a more accurate planning horizon for making human capital investments. Here the Catholic response to the use of the pill to achieve this stable planning horizon is complex, and it involves cultivating virtues both individual and social. This is an essential point. The Church's response to the fertility control technologies of the twentieth century is not a different technology *per se*, even though it does advocate for what it considers morally licit techniques for family planning. Those techniques, the larger social vision of childbearing, motherhood, and female labor-force participation are all rooted in the ground of virtue ethics.

At the personal level, the response has been a call for renewed efforts at growing in virtue, emphasized especially during the pontificate of John Paul II, with its focus on young people. There has been an emphasis on the exercise of temperance and the delay of enjoying the goods of sexual intimacy to facilitate the pursuit of education, training, and career experience with the goal of contributing to the public sphere. As John Paul II stated, "There can be no avoiding the duty to offer, especially to adolescents and young adults, an authentic education in sexuality and in love, an education which involves training in chastity as a virtue which fosters personal maturity and makes one capable of respecting the 'spousal' meaning of the body."<sup>16</sup>

Along these same lines, John Paul II's "Theology of the Body" has placed sexual love in a modern theological context, offering a constructive teaching on the role of sex, marriage, and the spiritual life. These teachings have given a deeper grounding for the use of Fertility Awareness Methods, often known as Natural Family Planning. These are methods of fertility control that require periodic abstinence, using modern knowledge of reproductive biology to allow much greater effectiveness at pregnancy avoidance (and achievement).<sup>17</sup>

However, it must be said here that the social implications of cheaper sex (i.e., pregnancy-free sex) pose a genuine challenge to the formation and development of the virtues and an education in love, both of which help deal with uncertainty surrounding childbearing. While the past fifty years have been marked by developments within papal teaching and among Catholic medical researchers, as Paul VI called for in *Humanae Vitae*,<sup>18</sup> in many ways the Catholic Church continues to struggle with the social fallout from the pill. Recent Pew polling data show only 4 percent of the general population view using contraceptives as morally wrong; among Catholics only 8 percent do; and among Catholics attending mass weekly, only 13 percent object to contraceptives on moral grounds.<sup>19</sup>

Also, at the social level, contemporary workplace culture often views childbearing as a form of medical illness instead of the most fundamental contribution to a society and its future. In contrast, Catholic thought and papal writings have



striven for the elevation of motherhood in the face of modernity's anti-natal attitudes. As John Paul II wrote,

And what shall we say of the obstacles which in so many parts of the world still keep women from being fully integrated into social, political and economic life? We need only think of how the gift of motherhood is often penalized rather than rewarded, even though humanity owes its very survival to this gift. Certainly, much remains to be done to prevent discrimination against those who have chosen to be wives and mothers.<sup>20</sup>

Thus, the contention has been that women should not need to sacrifice their social roles as mothers, for example, giving up time with newborns, in order to conform to a work culture hostile to accommodating them. Doing so amounts to an insidious form of discrimination. The response to such discrimination begins with a social, cultural, and legal recognition of the problem before concrete policies, such as mandatory maternity leaves, can be targeted at specific areas of difficulty.<sup>21</sup>

## **The Equilibrium Consequences of the Pill**

Another branch of economic analysis studying the sexual revolution focuses on the indirect or "equilibrium" consequences of the pill. Equilibrium describes the process by which economic actors respond to new incentives. Theoretical and empirical analysis by economists has demonstrated a number of economic consequences from the pill beyond the direct marital childbearing and labor market consequences. The most important of these effects centers on the pill's role in explaining another trend: the rise in nonmarital childbearing.

Economists do not usually study norms regarding sexual behavior, but 2001 Nobel Laureate George Akerlof authored an important paper with Janet Yellen and Michael Katz in 1996 entitled, "An Analysis of Out-of-Wedlock Childbearing in the United States."<sup>22</sup> This was a theoretical study centered on understanding the increase in nonmarital births between the early 1960s and the early 1990s. Akerlof, Yellen, and Katz (hereafter AYK) present an economic model that rationalizes why a technological innovation in fertility control such as the contraceptive pill (or abortion: the paper does not distinguish the source) can lead to the counterintuitive result that *nonmarital* births increase. They present descriptive evidence that the likelihood of marriage following a nonmarital conception ("shot-gun marriage") plummeted in the wake of the contraceptive revolution. Their work sheds light on how technology eroded the bonds of communion

between parents. They argue that, when a widely adopted technology can be used to prevent an unwanted conception (or birth), then men who do not want to raise children have very strong incentives to leave a pregnant partner and find a woman who does not want children—whether a woman who is willing to use abortion or contraception or simply a woman without children.

In the case of the pill, then, nonmarital sex need not require a promise to marry in the event of a pregnancy, since pregnancy is so unlikely. In the case of easily accessible abortion, if a woman has a child, it is her choice because she could have obtained an abortion. In such a case, a promise of marriage is again not the best strategic course for the father. AYK summarize this phenomenon clearly:

A second model illustrates another reason why the previous support system [shot-gun marriage] could have been eroded by the advent of female contraception and legal abortion. The fact that the birth of the baby is now the *choice* of the mother has implications for the decision of the father. The sexual revolution, by making the birth of the child the *physical* choice of the mother, makes marriage and child support a *social* choice of the father.<sup>23</sup>

Their primary theoretical contribution is demonstrating that if technological change means men have a choice over whether to support the mother, it can lead to a breakdown in the norm of shotgun marriage among all marriage market participants, including those who want to have children and marriage. The expectation of a prospective father's behavior is an equilibrium outcome. So women who would have formerly married following a nonmarital conception are left in a considerably worse bargaining position due to the presence of women who use the new technologies. These “un-empowered women” consequently become single mothers.

Akerlof followed up this article with the Harry G. Johnson Lecture, “Men Without Children,” which implicated the pill in much larger social changes. In the lecture, he posed and answered a fascinating question concerning

the impact on society of men neither marrying nor living with children. Between 1968 and 1993 the fraction of men 25 to 34 who are householders living with children declined from 66% to 40%. I shall model marriage according to its traditional and conventional meaning as a rite of passage—a sacrament that marks the transition from one stage of life to another. I shall discuss what difference it might make that men are increasingly delaying this rite of passage with the implication that they are also delaying the transition that it symbolises.<sup>24</sup>

This line of inquiry launched an entirely new subfield within economics focused on how identity changes and its implications for well-being.<sup>25</sup> The major contention of his lecture is that, when men do not embrace the role of father and husband, there is a resulting increase in a host of antisocial behavior. Crime rates, incarceration, drug use, and numerous measures of mortality all rise because men have more free time. Akerlof argues the main driver behind these trends was the change in marital norms that consisted of both increased nonmarital childbearing and the coincident movement of sexual relations to earlier within relationships. This change led directly to younger men remaining unmarried and being influenced primarily by peers. Those spheres of peer influence propelled the increase in antisocial behaviors. In support of this theory, Akerlof (1998) presents many descriptive statistics demonstrating staggering differences in pro- and antisocial behavior between married and never-married men within the same age group. Single men have higher rates than do married men of drug use, drinking, incarceration, unemployment, wages, and every cause of death. Single men are also substantially more likely to visit the opera, museums, and participate in literary groups, further evidence of differences in free time. This evidence on time-use differences is in addition to the long-standing evidence for a “marriage premium” found by economists: Married men earn roughly 10 percent more than otherwise observably equivalent men.

Another seminal article highlighting indirect consequences of the pill was written by Goldin and Katz.<sup>26</sup> They present a theoretical model of marriage that makes a simple point: If the pill causes some women to benefit from increased access to the labor market and higher education, this means other women will lose in the “marriage market.” The marriage market is the term economists use to describe the matching process between romantic partners. Key to their conclusion is that women are valued by men on at least two different dimensions: their labor market earnings and their “home production,” which can be interpreted as skill at nonmarket work. If these two dimensions are not perfectly correlated, the pill will allow women to enter the labor market who were formerly excluded, and these women will become more attractive to men. The result is that women who formerly were more attractive because of home-production suffer losses in partner quality, or perhaps fail to match at all. Women propelled into career success by the pill will also be able to attract better spouses. Since the number of those spouses has not changed, women who do not embark on a career path are left with lower-earning male partners.

An important dimension this literature has not fully explored is the heterogeneous effects of the pill for different women. Beauchamp and Pakaluk exploit the same random legal changes outlined above regarding access to the pill to

learn how the advent of the pill caused increases in nonmarital childbearing and how it did so in different ways for higher and lower socioeconomic groups. They find that the pill substantially increased nonmarital births, most likely because of the enormous increase in sexual activity following access to the pill.<sup>27</sup> As Knowles Myers points out, this increase offsets the improved efficacy of the pill.<sup>28</sup> This surprising finding means that despite the pill's ability to reduce fertility and regulate births for some couples, the norm of sex in more stable relationships was so dramatically undermined that the net effect was to increase nonmarital births.

Beauchamp and Pakaluk test for whether the increase in nonmarital births occurred because of decreased marriage (either shotgun marriage, marriage following a birth, or overall marriage) but find little evidence in favor of the theoretical explanation put forward by AYK. This may be in part because pill adoption was so widespread that there could be little competition for partners between women who adopt the pill and those who do not, as AYK postulated.<sup>29</sup> Beauchamp showed policy effects like those outlined in AYK when examining whether poor women had access to public abortion funding. He showed that, when public abortion funding was removed by state-level reforms, women who gave birth in those states were significantly more likely to continue their relationship with the child's biological father.<sup>30</sup>

## ***Humanae Vitae* and the Indirect Consequences of Contraception**

The recent work by economists implicating the pill in a number of social trends other than the reduction of family size and the spacing of births dovetails with the initial calls by Paul VI to reflect on the larger social consequences of the pill. He wrote, "Let them first consider how easily this course of action could open wide the way for marital infidelity and a general lowering of moral standards."<sup>31</sup> Children born outside marriage have increased from roughly 6 percent of children in the late 1960s to about 40 percent today. While this rise is notable, premarital sex was also not unheard of in the mid-twentieth century, before the widespread adoption of the pill. A significant number of children born inside marriage in the late 1960s were conceived outside of marriage.

In addition to the aggregate statistics, something much harder to quantify has also changed: the role and expectations of fathers. These include financial support, time with children, and co-residence with the family. Damage done to each of these dimensions of the father-child relationship could be viewed both as a "general lowering of moral standards" and as a form of marital infidelity.<sup>32</sup> John

Paul II highlights the link between fatherhood and responsibility while reaffirming the theme of responsible parenthood so prominent in *Humanae Vitae*:

[R]esponsible fatherhood and motherhood directly concern the moment in which a man and woman, uniting themselves “in one flesh,” can become parents. This is a moment of special value both for their interpersonal relationship and for their service to life: They can become parents—father and mother—by communicating life to a new human being. The two dimensions of conjugal union, the unitive and the procreative, cannot be artificially separated without damaging the deepest truth of the conjugal act itself.<sup>33</sup>

It is clear the separation of fathers and mothers contravenes the unitive and procreative dimensions that *Humanae Vitae* reaffirmed. Indeed, the common concern in 1968 among many advocates of the acceptance of the pill was stated in the encyclical itself (no. 3): “Could it not be admitted, in other words, that procreative finality applies to the totality of married life rather than each single act?”

There was a popular notion that married couples could experience the unitive aspects of sexual relationships without the procreative. The response from the Magisterium was that the two are inseparable. The intervening fifty years of social history show now that for many couples it is the reverse problem that appears within their sexual relationships. Many children are conceived (often in openness to procreation) but experience a family life devoid of unity. The pill facilitated dramatically more nonmarital sex and correspondingly increased pregnancies, while undermining the unitive aspects of sex so often missing between sexual partners today, a point most clearly seen in the decrease in marriage following conception. As Burke and Pakaluk argue, an increase in contraceptive efficacy will increase sex dramatically more among unmarried than married couples. This then ultimately led to more procreation and less unity between parents.<sup>34</sup>

At the same time, the migration of sex from closer to, and within, marriage towards much less committed relationships would by most accounts fit under the same heading as a “general lowering of moral standards,” since it degrades the reciprocal obligations parents are called to demonstrate toward their children, even if conceived unintentionally. Indeed, Paul VI foreshadowed much of the subsequent *economic* analysis of the pill’s social consequences when he wrote from within the natural law tradition: “Not much experience is needed to be fully aware of human weakness and to understand that human beings—and especially the young, who are so exposed to temptation—need incentives to keep the moral law and it is an evil thing to make it easy for them to break the law.”<sup>35</sup>

The economic explanation for the changes in nonmarital childbearing, marriage, and sexual activity are all derivative of a simple point: The pill dramatically lowered the costs, or incentives, for having sexual intercourse. This point is taken up in recent work by sociologist Mark Regnerus in his book *Cheap Sex: The Transformation of Men, Marriage, and Monogamy*. He argues that the pill, the advent of internet pornography, and online-dating all combined to create a culture where the “price” of sex is nearly zero in terms of the social and relationship obligations expected. Indeed, he reports from 2014 survey data that the *modal* response for when a couple had sex was *before* the relationship began.<sup>36</sup> Low-cost sex then, in the Catholic perspective, explains exactly the lack of participation in, and attachment to, family life among men, described by Akerlof. This is because the natural law tradition is “gendered” in the sense of believing men and women participate in sexual relationships in distinct ways, and women bear much of the physical, psychological, and emotional toll from sexual relationships. In her article in *Christian Bioethics*, Erika Bachiochi makes the case that use of the pill along with other “efforts to suppress or reject biological difference [between genders] have not relieved women of the consequences of sex and the vulnerabilities of pregnancy, even as they have further relieved men.”<sup>37</sup> The concern about the degree to which artificial contraceptives would destroy a natural set of humane and complementary responsibilities was present in the original document when Paul VI wrote, “Another effect that gives cause for alarm is that a man who grows accustomed to the use of contraceptive methods may forget the reverence due to a woman, and, disregarding her physical and emotional equilibrium, reduce her to being a mere instrument for the satisfaction of his own desires, no longer considering her as his partner whom he should surround with care and affection.”<sup>38</sup>

The duty for men to support women with “care and affection,” particularly considering an unanticipated or unwanted pregnancy, especially if that pregnancy is outside of marriage, and for which that man is directly responsible, is precisely the social norm which, the economics literature argues, the pill has undermined.

*Humanae Vitae* also makes direct reference to the pill falling into the hands of the powerful. The original point was focused on governments interested in forcibly regulating population. However, the social history of the pill in the United States reveals another relevant division of power: the finding that women from higher educated and white families obtained much of the material gains from the pill, including increased education and professional success. This is because all the negative consequences—increased rates of single motherhood and a decrease in the likelihood of graduating high school—affected women

from lower socioeconomic status families. This arose because the pill, while eliminating marriage-contingent sex as the norm, also worked dramatically differently for the rich and poor. Among unmarried women under age thirty, using data from the Guttmacher Institute, Fu et al. show that in 1995 the fraction of women experiencing a pregnancy while using the pill was roughly 7 percent for women above 200 percent of the poverty level but 12 percent for women below 200 percent of the poverty level.<sup>39</sup> One economic explanation for this is that poorer women have much less to lose from a nonmarital birth, and so may be less vigilant in use. Education regarding use may also be a driver for this split. Nonetheless, coupling this income divide in error rate with the elimination of normative duties of the father, the net result of the pill has been to dramatically increase the nonmarital birth and abortion rates of single poor women.

## Conclusion

The social science literature examining how the contraceptive revolution affected several social outcomes has developed substantially in the recent past. At the same time, papal writings and Catholic social thought have addressed similar questions, with greater or lesser degrees of influence. The foundational teachings promulgated by Paul VI in *Humanae Vitae* have largely remained intact, and the major themes he addressed—the increased role of women in the public sphere, responsible parenthood, and the social problems flowing from artificial contraceptives—have remained central concerns.

In certain areas, such as some of the negative social consequences flowing from widespread pill use, the magisterial tradition and social science research point to similar facets of reality. In other areas, notably the desire to use the pill to provide more stable planning horizons for education and work, the argument of the past fifty years has not substantially changed. Most social scientists view the pill as the rest of society does, as a boon to women. The Church, speaking to a shrinking audience, struggles to articulate an alternate path to greater female participation in public life through the cultivation of individual and social virtue. However, some recent research by economists has countered the narrative that the pill enabled widespread female participation in the labor market by allowing better fertility timing and limiting family size. These studies suggest that the primary impact of the pill was to increase nonmarital sexual activity dramatically, resulting in large increases in nonmarital conceptions, and that ultimately it was only widespread access to legalized abortion that has provided the stability to time births and control family size.

In light of these findings, what might a Catholic answer to these enduring questions be today? One helpful approach is the language for thinking through social interactions on offer in economist Luigino Bruni's book *The Wound and the Blessing*. Bruni foregrounds two important root words in Latin: *communitas* (the root of community) and *immunitas* (the root of immunity) and argues that much of social life today is structured, often through the logic of contract, to avoid the wounds that come from human interaction, to provide a sort of immunity from other people. In reflecting on Genesis's account of Jacob's struggle with the angel, Bruni writes,

Sooner or later every person has an experience that marks the coming to full maturity: we understand in the depths of body and soul that to experience the blessing which is bound up in a relationship with another, we must accept its wound as well. We come to understand that we cannot enjoy life without going through the dark and dangerous territory of the other; any attempt to escape this agonizing struggle inevitable leads to a joyless human condition.<sup>40</sup>

Applying this language to the questions distilled in *Humanae Vitae*, the issue can be reframed. Natural methods of fertility control, although effective, do not provide the same immunity from children as the pill (or other artificial methods). So what wounds and blessings follow from their use? While that question extends beyond the scope of this article, we can begin to see the outlines of an answer. For couples, wounds may involve enduring extended periods of sexual abstinence, being open to welcoming children at inconvenient times, or cutting back on consumer expenditures to provide support for larger families. In other social arenas, these wounds likely include extended leaves of absence to care for sick children, greater accommodation in education to support parents in school, and more financial support through improved parental leave policies. Ultimately though, the willingness to bear more uncertainty in the childbearing process, individually and socially, is viewed as allowing a much greater blessing to flourish: that of welcoming, nurturing, and supporting life and greater bonds of communion within families that was at the center of Paul VI's teaching in *Humanae Vitae*.



## Notes

1. Paul VI's discussion of the "unitive" and "procreative" aspects of human sexuality is discussed in detail in the fourth section of this article. Briefly summarized, Paul VI argues all sexual activity should be open to both the unitive (bonding) and procreative (reproductive) ends of sexuality. This does not mean all sex should result in children but that rather than frustrate the procreative dimension of the act through technological intervention (i.e., the pill), couples should refrain from sexual activity when facing a grave reason for avoiding having children. *Humanae Vitae* bundled its prohibition on artificial contraception with a call for improvements in understanding human biology so couples can more accurately time their periods of abstinence (often referred to as natural family planning). See Pope Paul VI, Encyclical Letter *Humanae Vitae* (1968), no. 12, [http://w2.vatican.va/content/paul-vi/en/encyclicals/documents/hf\\_p-vi\\_enc\\_25071968\\_humanae-vitae.html](http://w2.vatican.va/content/paul-vi/en/encyclicals/documents/hf_p-vi_enc_25071968_humanae-vitae.html).
2. Claudia Goldin, "The Quiet Revolution that Transformed Women's Employment, Education, and Family," *American Economic Review* 96, no. 2 (May 2006): 1–21.
3. Goldin, "Quiet Revolution," 18.
4. Leora Friedberg, "Did Unilateral Divorce Raise Divorce Rates? Evidence from Panel Data," *American Economic Review* 88, no. 3 (June 1998): 608–27.
5. From Goldin, "Quiet Revolution." Used with permission.
6. Goldin, "Quiet Revolution," 18.
7. Martha J. Bailey, "More Power to the Pill: The Impact of Contraceptive Freedom on Women's Life Cycle Labor Supply," *Quarterly Journal of Economics* 121, no. 1 (February 2006): 289–320; Bailey, "'Momma's Got the Pill': How Anthony Comstock and Griswold v. Connecticut Shaped US Childbearing," *American Economic Review* 100, no. 1 (March 2010): 98–129.
8. Bailey, "Momma's Got the Pill."
9. Bailey shows the age twenty-five labor-force participation rate was roughly 40 percent in 1940, and jumped to 68 percent by 1955. The fertility dip refers to the drop in labor-force participation commonly found among women born before 1950 during their childbearing years. See Bailey, "More Power to the Pill."
10. Bailey, "Momma's Got the Pill." Used with permission.
11. Caitlin Knowles Myers, "The Power of Abortion Policy: Reexamining the Effects of Young Women's Access to Reproductive Control," *Journal of Political Economy* 125, no. 6 (December 2017): 2178–2224. The earlier draft is available as Caitlin Knowles Myers, "Power of the Pill or Power of Abortion? Re-Examining the Effects of Young Women's Access to Reproductive Control," *IZA DP* 6661 (June 2012).

12. Paul VI, *Humanae Vitae*, no. 2.
13. Paul VI, *Humanae Vitae*, no. 14.
14. Pope John Paul II, *Letter to Women* (1995), no 2.
15. See Timothy Besley et al., “Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden,” *American Economic Review* 107, no. 8 (August 2017): 2204–42; Audinga Baltrunaite et al., “Gender Quotas and the Quality of Politicians,” *Journal of Public Economics* 118 (October 2014): 62–74; Fernanda Brollo and Ugo Troiano, “What Happens When a Woman Wins an Election? Evidence from Close Races in Brazil,” *Journal of Development Economics* 122 (September 2016): 28–45; Fernando Ferreira and Joseph Gyourko, “Does Gender Matter for Political Leadership? The Case of U.S. Mayors,” *Journal of Public Economics* 112 (April 2014): 24–39.
16. Pope John Paul II, Encyclical Letter *Evangelium Vitae* (1995), no. 97.
17. Fehring, Lawrence, and Philpot show use effective rates of 98 percent for one method. Richard Fehring, J. Donna Lawrence, and Connie Philpot, “Use Effectiveness of the Creighton Model Ovulation Method of Natural Family Planning,” *Journal of Obstetric, Gynecologic & Neonatal Nursing* 23, no. 4 (May 1994): 303–9.
18. Paul VI, *Humanae Vitae*, no. 24.
19. Pew Research Center, “Where the Public Stands on Religious Liberty vs. Non-discrimination,” *Pew Research Center* (September 2016), 25–27, <https://www.pewforum.org/2016/09/28/4-very-few-americans-see-contraception-as-morally-wrong/>.
20. John Paul II, *Letter to Women*, no. 4.
21. Pope Francis, “Address to the Christian Union of Business Executives (UCID),” October 31, 2015, [http://www.vatican.va/content/francesco/en/speeches/2015/october/documents/papa-francesco\\_20151031\\_ucid.html](http://www.vatican.va/content/francesco/en/speeches/2015/october/documents/papa-francesco_20151031_ucid.html).
22. George A. Akerlof, Janet L. Yellen, and Michael L. Katz, “An Analysis of Out-of-Wedlock Childbearing in the United States,” *Quarterly Journal of Economics* 111, no. 2 (May 1996): 277–317.
23. Akerlof, Yellen, and Katz, “An Analysis of Out-of-Wedlock Childbearing,” 281, emphasis original.
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25. George A. Akerlof and Rachel E. Kranton, *Identity Economics: How Our Identities Shape Our Work, Wages, and Well-Being* (Princeton: Princeton University Press, 2010).

26. Claudia Goldin and Lawrence F. Katz, “The Power of the Pill: Oral Contraceptives and Women’s Career and Marriage Decisions,” *Journal of Political Economy* 110, no. 4 (August 2002): 730–70.
27. Andrew Beauchamp and Catherine R. Pakaluk, “The Paradox of the Pill: Heterogeneous Effects of Oral Contraceptives,” *Economic Inquiry* 57, no. 2 (Spring 2019): 813–31.
28. Knowles Myers, “Power of Abortion Policy.”
29. Beauchamp and Pakaluk, “Paradox of the Pill.”
30. Andrew Beauchamp, “Abortion Costs, Separation, and Nonmarital Childbearing” *Journal of Family and Economic Issues* 37, no. 2 (June 2016): 182–96.
31. Paul VI, *Humanae Vitae*, no. 17.
32. Indeed, Myers has shown that among low-income, unmarried fathers, the definition of responsible fatherhood did not include primary caregiving or breadwinning. See Monika J. U. Myers, “A Big Brother: New Findings on How Low-Income Fathers Define Responsible Fatherhood,” *Journal of Family and Economic Issues* 34, no. 3 (2013): 253–64.
33. Pope John Paul II, *Letter to Families* (1994), no. 1<sup>2</sup>.
34. Joseph Burke and Catherine R. Pakaluk, “The Contraceptive Revolution Revisited: A Neo-Classical Model of Sex and Fertility” (December 21, 2017), <https://ssrn.com/abstract=2178778>.
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37. Erika Bachiochi, “Women, Sexual Asymmetry, and Catholic Teaching,” *Christian Bioethics: Non-Ecumenical Studies in Medical Morality* 19, no. 2 (August 2013): 150–71.
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40. Luigino Bruni, *The Wound and the Blessing* (Hyde Park, NY: New City Press, 2017), xx–xxi.