

THE FALL OF FERTILITY¹: HOW SAME-SEX MARRIAGE WILL FURTHER DECLINING BIRTHRATES IN THE UNITED STATES

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INTRODUCTION

The current debate over the definition of marriage is typically portrayed as a decision to “expand” or “extend” the boundaries of marriage to include same-sex couples. This argument, however, rests on the assumption that the basic nature of marriage will remain largely unchanged by granting marriage status to same-sex partnerships and that all this policy change will do is absorb same-sex partnerships within the existing boundaries of marriage and extend the benefits of marriage to a wider segment of society. Indeed, the very term “same-sex marriage” implies that same-sex couples in committed relationships are *already* a type of marriage that should be appropriately recognized and labeled as such. But this understanding, which led to the recent legalization of same-sex marriage by the United States Supreme Court, is flawed in that it fails to recognize how defining same-sex partnerships as marriages signifies a fundamental change in how marriage will be collectively understood and the primary social purposes for which it exists.

In a formal statement prior to the Supreme Court’s decision, seventy prominent academics from all relevant disciplines expressed “deeper concerns about the institutional consequences of same-sex marriage for marriage itself,” concluding that “[s]ame-sex marriage would further undercut the idea that procreation is intrinsically connected to marriage” and “undermine the idea

1. This article is adapted from the authors’ Brief of Amici Curiae by the Scholars of Fertility and Marriage in Support of the Respondents and Affirmance in *Obergefell v. Hodges* filed April 3, 2015 and from their article, *The Fall of Fertility*, portions of which was published April 22, 2015 with PUBLIC DISCOURSE, an online publication of the Witherspoon Institute, which can be found at <http://www.thepublicdiscourse.com>. THE WITHERSPOON INST., MARRIAGE AND THE PUBLIC GOOD: TEN PRINCIPLES 18 (2006).

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that children need both a mother and a father.”[†] Further, as described in the Brief *Amici Curiae* of Scholars of Marriage² one-hundred prominent scholars asserted that a genderless redefinition of marriage would undermine the critical social norms of marriage, including the norm linking marriage with procreation—thus weakening the institution of marriage as a whole, with significant implications for our society.

Building off of these statements, this article provides an overview of our Brief *Amici Curiae* of Scholars of Fertility and Marriage and provides further analysis of this “procreative norm” associated with the man-woman definition of marriage. We concur with these other scholars who have raised concerns about weakening that link and the potentially profound impact it will have on the United States’ declining and already below-replacement level fertility rate, increasing the likelihood of bringing within our borders the socioeconomic problems experienced by countries abroad with sustained, extremely low fertility rates.

I. THE PROCREATIVE NORM OF MARRIAGE

The legal institution of marriage has the expressive effect of socially recognizing, promoting and dignifying the nature of the relationships that the law deems eligible for marriage. The expressive effect of legal marriage is the crux of the marriage debate: which rival conception of marriage should harness the law’s expressive effect and be reinforced by the law’s coercive and pedagogical powers?³ Judges and scholars have oft expressed a view that the

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2. Brief of Scholars of Fertility and Marriage, as Amici Curiae in Support of Respondents & Affirmance at 3, *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015) (Nos. 14-556, 14-562, 14-571, 14-574) [hereinafter Brief of Scholars of Fertility and Marriage].

3. See Martha Nussbaum, *A Right to Marry? Same-sex Marriage and Constitutional Law*, DISSENT (Summer 2009), <http://www.dissentmagazine.org/article/a-right-to-marry-same-sex-marriage-and-constitutional-law>; cf. Adam Haslett, *Love Supreme*, THE NEW YORKER (May 31, 2004) <http://www.newyorker.com/magazine/2004/05/31/love-supreme> (“As a political and cultural matter, [same-sex marriage cases] are contests over something less easy to codify: the official recognition of love. . . . The state is being asked not only to distribute benefits equally but to legitimate gay people’s love and affection for their partners. The gay couples now marrying in Massachusetts want not only the same protections that straight people enjoy but the social status that goes along with the state’s recognition of a romantic relationship.”); William C. Duncan, *Marriage and the Utopian Temptation*, 59 RUTGERS L. REV. 265, 272 (2007).

law can play a powerful “teaching” function.⁴ For example, in his concurrence in *University of Alabama v. Garrett*, Justice Kennedy noted the democratically enacted disability law’s power to “teach” society the norm of treating persons with disabilities as full-fledged citizens.⁵ It is this “expressive effect” or “teaching power” that will serve either to reinforce or to undermine the stabilizing social norms associated exclusively with opposite-sex marriage.

After all, the more effectively the law defines marriage, and “teaches the truth about marriage, the more likely people are to enter into marriage and abide by its norms.”⁶ And the more people form marriages and respect marital norms, the more likely it is that children will result, perpetuating both the norms and the society itself, throughout generations. If the law does not effectively define marriage to promote these norms, a contrary result can be expected. Thus, preserving the nature of marriage in law, with an eye towards these norms, is crucial for maintaining not only the great flow of social benefits produced by marriage as an institution, but ultimately the survival of the society itself.

The essence of the procreative norm is that marriage is intrinsically and inextricably linked with procreation, and therefore can and must only occur between one man and one woman. The most basic message conveyed by the institution of marriage across virtually all societies is that where procreation occurs, *this* is the arrangement in which society prefers it to occur. Although sex and procreation may occur in other settings, marriage marks the boundaries of procreation that is socially commended.⁷ Although marriage benefits its adult participants in countless ways, it is “*designed* around procreation.”⁸ The

4. See generally ERIC A. POSNER, *LAW AND SOCIAL NORMS* (2000); see, e.g., Alan J. Hawkins & Jason S. Carroll, *Beyond the Expansion Framework: How Same-Sex Marriage Changes the Institutional Meaning of Marriage and Heterosexual Men’s Conception of Marriage*, 13 AVE MARIA L. REV. 219 (2015); see also, e.g., Robert Cooter, *Expressive Law and Economics*, 27 J. LEGAL STUD. 585 (1998); see Lawrence Lessig, *Social Meaning and Social Norms*, 144 U. PA. L. REV. 2181 (1996); Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903 (1996); Cass R. Sunstein, *On the Expressive Function of Law*, 144 U. PA. L. REV. 2021 (1996).

5. Bd. of Trustees of Univ. of Alabama v. Garrett, 531 U.S. 356, 375 (2001) (Kennedy, J., concurring).

6. Sherif Girgis, Robert P. George & Ryan T. Anderson, *What is Marriage?*, 34 HARV. J.L. & PUB. POL’Y 245, 269 (2011).

7. JOHN CORVINO & MAGGIE GALLAGHER, *DEBATING SAME-SEX MARRIAGE* 96 (2012); SHERIF GERGIS, ROBERT P. GEORGE & RYAN T. ANDERSON, *WHAT IS MARRIAGE? MAN AND WOMAN: A DEFENSE* 38 (2012); Amy L. Wax, *The Family Law Doctrine of Equivalence*, 107 MICH. L. REV. 999, 1012 (2009).

8. Douglas W. Allen, *An Economic Assessment of Same-Sex Marriage Laws*, 29 HARV. J.L. & PUB. POL’Y 949, 950, 954 (2006) (emphasis added).

man-woman definition conveys and reinforces that marriage is centered primarily on procreation and children, which man-woman couples are uniquely capable of producing naturally.⁹

The recent redefining of marriage in genderless terms breaks the critical conceptual link between marriage and procreation by implicitly endorsing an adult-centric model of marriage, and diluting the implicit encouragement the institution of marriage provides for procreation by married couples. It ignores the inherently generative nature of heterosexual marriages, and sends a powerful message that marriage-based procreation is not a valued societal priority. Consistent with the actual experience of states and nations that have adopted this redefinition, such a change will erode the role of marriage in our society, likely leading to fewer marriages and fewer births.

As Professor Helen Alvaré has explained, this shuffling of values deemphasizes the procreative aspects of marriage that until recently have been recognized as essential, and paints a picture of marriage closely associated with a “retreat from marriage” in the United States:

The notion of marriage that same-sex advocates are describing . . . resembles the adult-centric view of marriage associated with the “retreat from marriage” among . . . Americans. It would intrinsically and overtly separate sex and children from marriage, for every marriage and every couple and every child. It promotes a meaning of marriage that empties it of the procreative interests understood and embraced by this Court (and every prior generation).¹⁰

Further, she points to evidence that this trend away from linking procreation and marriage is becoming characteristic of the “millennial generation” as well:¹¹

9. See JOHN LOCKE, SECOND TREATISE OF CIVIL GOVERNMENT §§ 78-79 (1690); 1 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND *422, *434; THE ROYAL ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, NOTES AND QUERIES ON ANTHROPOLOGY 71 (6th ed. 1951); JAMES Q. WILSON, THE MARRIAGE PROBLEM 23–24 (2002); W. BRADFORD WILCOX, WHEN MARRIAGE DISAPPEARS: THE NEW MIDDLE AMERICA 85 (2010), <http://stateofourunions.org/2010/SOOU2010.pdf>; Kingsley Davis, *The Meaning and Significance of Marriage in Contemporary Society*, CONTEMPORARY MARRIAGE 1, 7–8 (Kingsley Davis & Amyra Grossbard-Shechtman eds., 1986); Girgis, George & Anderson, *supra* note 6, at 246, 262; Wax, *supra* note 7, at 1000.

10. Brief for Helen M. Alvaré, as Amici Curiae Supporting Hollingsworth and Bipartisan Legal Advisory Group at 3, 34, *Hollingsworth v. Perry*, 133 S. Ct. 2652 (2013) (Nos. 12-144, 12-307) [hereinafter Brief for Helen M. Alvaré].

11. Wendy Wang & Paul Taylor, *For Millennials, Parenthood Trumps Marriage*, PEW RES. CTR. (Mar. 9, 2011), <http://www.pewsocialtrends.org/2011/03/09/for-millennials-parenthood-trumps-marriage>

Professor Cherlin confirms that among young adults who are not necessarily poor, the idea of “soulmate” marriage is spreading. Never-married Millennial report at a rate of 94% that “when you marry, your [sic] want your spouse to be your soul mate, first and foremost.” They hope for a “super relationship,” an “intensely private, spiritualized union, combining sexual fidelity, romantic love, emotional intimacy, and togetherness.”¹²

Thus, marriage becomes merely a “reparation, a symbolic capstone, and a personal reward, not a gateway to adult responsibilities,”¹³ such as childbearing. This is an especially alarming transformation from a demographic standpoint, because people who do not appreciate the social value of creating and rearing children are simply less likely to do so. And that view poses grave risks to a state’s ability to maintain its population.¹⁴

Undoubtedly the state also values adults’ interests in marriage, such as happiness, mutual commitment, increased stability, and social esteem. Yet a view of marriage that focuses solely on these adult-centric interests is incomplete, negates the Court’s decisions affirming the states’ interests in procreation, and poses a risk to society at large. However compelling such a definition might be, it is fatally defective if its adoption brings about conditions such that our society fails to maintain an adequate fertility rate.

As the marriage scholars have carefully laid out, compelling states to recognize same-sex marriage will, in time, adversely alter the institution of marriage *as a whole* by undermining the social norms that are tied to the man-woman understanding of marriage. Those norms guide the procreative tendencies of both homosexual *and* heterosexual individuals. Weakening the social norm that favors reproduction presents grave risks to aggregate fertility, and even greater long-term risks to society as a whole.¹⁵ As Professor Allen

(identifying an increase in out-of-wedlock births, from thirty-nine percent in 1997 to fifty-one percent in 2008, among Generation Xers and Millennials respectively).

12. Brief for Helen M. Alvaré, *supra* note 10, at 29; see Andrew J. Cherlin, *The Deinstitutionalization of American Marriage*, 66 J. OF MARRIAGE & FAM. 848, 856 (2004).

13. Brief for Helen M. Alvaré, *supra* note 10, at 34.

14. Lynn D. Wardle, “Multiply and Replenish”: *Considering Same-Sex Marriage in Light of State Interests in Marital Procreation*, 24 HARV. J. L. & PUB. POL’Y. 771, 782 (2001).

15. Junfu Zhang & Xue Song, *Fertility Differences Between Married and Cohabiting Couples: A Switching Regression Analysis* 20, 22 (INST. FOR THE STUDY OF LABOR (IZA), Discussion Paper No. 3245, 2007), <http://ssrn.com/abstract=1136407>; Elizabeth Brown & Alfred Dittgen, *Fertility of Married and Unmarried Couples in Europe*, 8, 10 (2000), http://www.unece.org/fileadmin/DAM/pau/_docs/ffs/

has noted, “[s]ocieties incapable of replicating themselves in numbers and quality relative to competing societies simply die out . . . ,” and “[p]oorly designed laws”—including laws that undermine long-standing social norms—can “lead to . . . unsuccessful marriages, which in turn lead to low fertility . . . and ultimately a decline in the society.”¹⁶ That is precisely what the recent redefinition of marriage threatens to do, by weakening several norms currently associated with that institution.

Critics of the procreative norm are quick to point out that not only are many viable parenting arrangements not “intrinsically generative,” but also that many opposite-sex marriages cannot or do not beget children, as if these circumstances render this norm meaningless. These exceptions do not swallow the norm. While homosexual adoptive and foster parenting arrangements are certainly viable and valuable, they do not render such arrangements generative. The possibility of Assisted Reproductive Technology also does not make homosexual relationships generative. While contraception or infertility may lower the odds of a heterosexual couple reproducing, it does not alter the fact that heterosexual relationships are intrinsically generative.

It is by setting apart these intrinsically generative relationships, and no other kind of relationships, as “marriages,” that the benefits of the procreative norm will be manifest and perpetuated in our broader culture. Because of the critical role opposite-sex marriage plays in perpetuating and maintaining the vital conceptual link between marriage and procreation, it warrants the exclusive recognition, promotion, and protection of the state. Judge Perez-Gimenez was thus correct in concluding recently that, “[t]raditional marriage”—that is, man-woman marriage—“is the fundamental unit of the political order. And ultimately the very survival of the political order depends upon the procreative potential embodied in traditional marriage.”¹⁷

II. DECISIONS OF U.S. STATE AND FEDERAL COURTS

The link between marriage and procreation is not mere scholarly theory. Our social interest in ensuring reproduction within marriage is a theme of

FFS_2000_FFConf_ContriBrown-Dittgen.pdf (Paper presented at United Nations Economic Commission for Europe Conference in Brussels, Belgium); Joyce A. Martin, et al., *Births: Final Data for 2012*, 62 NAT'L VITAL STAT. REP. 9, tbl.12 (2013), http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_09.pdf; Wardle, *supra* note 14 at 784–86.

16. Allen, *supra* note 8, at 956.

17. Conde-Vidal v. Garcia-Padilla, 54 F. Supp. 3d 157, 167 (D.P.R. 2014).

marriage jurisprudence reflected in the decisions of U.S. state and federal courts from 2000 to the present that deal with same-sex unions. Since 2000, all eleven judicial decisions have specifically upheld the traditional definition of civil marriage, accepted with approval the defendants' appeal to the legitimate state interest in procreation.¹⁸

Further, the marriage and procreation link is consistent with the Supreme Court's marriage jurisprudence dating from the early nineteenth century. As Professor Helen Alvaré has summarized previously,¹⁹ "Supreme Court decisions from the early nineteenth to the late twentieth century have repeatedly recognized, with approval, states' interests in the procreative features of marriage as an essential building block of a healthy, stable democratic society."²⁰ "Even in cases where *only* marriage or childbearing was at issue, but not both, the Court has referred to 'marriage and childbirth' together in the same phrase, nearly axiomatically."²¹ The following are illustrative:

- In *Reynolds v. United States*, refusing to allow polygamy on the grounds of the Free Exercise Clause, this Court explained states' interests in regulating marriage with the simple declaration: "Upon [marriage] society may be said to be built."²²

18. See *Morrison v. Sadler*, 821 N.E.2d 15 (Ind. Ct. App. 2005); *Wilson v. Ake*, 354 F. Supp. 2d 1298 (D. Fla. 2005); *Standhardt v. Superior Court ex rel. Cnty. of Maricopa*, 77 P.3d 451 (Ariz. Ct. App. 2003), *reh'g denied*, (2004); *In re Kandu*, 315 B.R. 123 (Bankr. W.D. Wash. 2004); *Conaway v. Deane*, 932 A.2d 571 (Md. 2007) *abrogated by* *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015); *Hernandez v. Robles*, 855 N.E.2d 1 (N.Y. 2006), *abrogated by* *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015); *Andersen v. King County*, 138 P.3d 963 (Wash. 2006) (en banc), *abrogated by* *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015); *Citizens for Equal Protection v. Bruning*, 455 F.3d 859 (8th Cir. 2006), *abrogated by* *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015); *Conde-Vidal v. Garcia-Padilla*, 54 F. Supp. 3d 157 (D.P.R. 2014), *abrogated by* *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015).

19. Brief for Helen M. Alvaré, *supra* note 10, at 9–10.

20. *Id.* at 9.

21. *Id.* at 10.

22. *Reynolds v. United States*, 98 U.S. 145, 165 (1879). Indeed, a study of the *Reynolds* case and the history of the entry of Utah into the Union leads to the ironic result that this Court forced traditional marriage onto Utah but now essentially has labeled supporters of traditional marriage as having animus in their hearts, *see, e.g.*, *United States v. Windsor*, No. 12-307, slip op. (June 26, 2013). In *Windsor*, the Court stated: "In determining whether a law is motivated by an improper animus or purpose, '[d]iscriminations of an unusual character' especially require careful consideration." (quoting *Romer v. Evans*, 517 U.S. 620 (1996)). DOMA cannot survive under these principles." *Windsor*, Slip Op. at 20. The *Windsor* opinion is replete with references to such animus in the hearts of supporters of traditional marriage. *Amici* respectfully urge this court to completely avoid any such labeling when considering the present case and the arguments within this brief in support of traditional marriage. Further, the Court in *Windsor* cited numerous reasons for its decision to strike down DOMA including federalism, equal protection, due process and "animus," leaving

- In *Murphy v. Ramsey*, this Court reiterated the relationship between marriage and childrearing for the benefit of a functioning democracy, opining:

For certainly no legislation can be supposed more wholesome and necessary in the founding of a free, self-governing commonwealth . . . than that which seeks to establish it on the basis of the idea of the family, as consisting in and springing from the union for life of one man and one woman . . . the sure foundation of all that is stable and noble in our civilization; the best guaranty of that reverent morality which is the source of all beneficent progress in social and political improvement.²³

- In *Meyer v. Nebraska*, which vindicated parents’ constitutional right to have their children instructed in a foreign language, this Court referred not merely to parents’ rights to care for children but to citizens’ rights “to marry, establish a home and bring up children.”²⁴
- In *Skinner v. Oklahoma ex rel. Williamson*, concerning a law punishing certain classifications of felons with forced sterilization, the Court opined: “Marriage and procreation are fundamental to the very existence and survival of the race.”²⁵
- In *Loving v. Virginia*, striking down a state’s anti-miscegenation law, the Court referred to marriage as “fundamental to our very existence and survival,” necessarily endorsing the role of marriage in propagating society through childbearing.²⁶
- In *Zablocki v. Redhail*, which struck down a Wisconsin law restricting marriage for certain child support debtors, the Court wrote: “[I]t would make little sense to recognize a right of privacy with respect to other matters of family life and not with respect to the decision to enter the relationship that is the foundation of the family in our society.”²⁷ As in *Loving*, *Zablocki* reiterated that marriage is “fundamental to our very existence and survival,”²⁸ and

readers unclear as to the actual basis for the decision. *Amici* urge this Court, if it does redefine marriage, to clearly articulate its power and constitutional basis for the decision in a more clear manner than it did in *Windsor*, including expressly addressing the *Reynolds* precedent and whether that decision is overturned.

23. *Murphy v. Ramsey*, 114 U.S. 15, 45 (1885).

24. *Meyer v. Nebraska*, 262 U.S. 390, 397–99 (1923).

25. *Skinner v. State of Oklahoma ex rel. Williamson*, 361 U.S. 535, 536, 541 (1942).

26. *Loving v. Virginia*, 388 U.S. 1, 12 (1967) (citing *Skinner v. State of Okla. ex rel. Williamson*, 361 U.S. 535, 541 (1942)).

27. *Zablocki v. Redhail*, 434 U.S. 374, 386 (1978).

28. *Id.* at 383 (quoting *Loving v. Virginia*, 388 U.S. 1, 12 (1967)).

recognized, additionally the right to “deci[de] to marry and raise the child in a traditional family setting.”²⁹

- In *Moore v. City of East Cleveland*, announcing a blood-and-marriage-related family’s constitutional right to co-reside, nonetheless referenced the procreative aspect of family life stating: “the institution of the family is deeply rooted in this Nation’s history and tradition. It is through the family that we inculcate and pass down many of our most cherished values, moral and cultural.”³⁰

- In *Lehr v. Robertson*, which involved the parental rights of single fathers, the Court referenced explicitly the states’ legitimate interest in maintaining the link between marriage and procreation. Refusing to treat an unmarried father identically to a married father with respect to rights concerning the child, the Court wrote: “marriage has played a critical role . . . in developing the decentralized structure of our democratic society. In recognition of that role, and as part of their general overarching concern for serving the best interests of children, state laws almost universally express an appropriate preference for the formal family.”³¹

In summary, it is fair to conclude, upon a review of the Supreme Court’s marriage jurisprudence, that states’ interests in the procreational aspects of marriage have been both recognized by the Supreme Court and affirmed to be not only legitimate, but essential.

III. A CORRELATION BETWEEN SAME-SEX MARRIAGE AND LOWERED FERTILITY RATES

To the extent a genderless marriage definition deemphasizes and deprioritizes procreation, it will almost certainly reduce fertility rates.³² While there is a notable absence of scholarly investigation focusing directly on the correlation between same-sex marriage and fertility rates in the United States, some helpful related data is available.

29. *Id.* at 386.

30. *Moore v. City of East Cleveland*, 431 U.S. 494, 503–04 (1977).

31. *Lehr v. Robertson*, 463 U.S. 248, 256–57 (1983).

32. We focus here on the fertility rate measure (the number of children born to a woman during her lifetime), rather than the crude birthrate (the number of births per 1000 of a population during a year), because the total fertility rate is generally a better indicator of current birth demographics. Unlike the birth rate measure, fertility rates are not affected by the age distribution of a population.

A. *Corrected Prior Studies*

Much has been made of a 2009 study by Laura Langbein and Mark Yost, claiming to prove beyond a doubt that there is virtually no adverse impact on societal outcomes specifically related to “traditional family values,” and thus no economic rationale for government to regulate or ban those choices.³³ However, as Professor Walter Schumm points out,³⁴ the Langbein and Yost study had serious limitations. Those limitations are shared by later, similar analyses of state data, such as the oft-cited “Dillender study,” which argued that there is no evidence same-sex marriage reduces the opposite-sex marriage rate.³⁵ Remarkably, neither of these studies took into account the number of years since same-sex marriage had become legal in a state, nor did they examine fertility rates. They seem to share the fallacious assumption that the impact of redefining marriage would show up in measurable and statistically meaningful ways *immediately* after a redefinition. Experts on marriage have frequently and correctly noted that such major social changes operate with a “cultural lag” that often requires several years—sometimes a generation or two—to be fully realized.³⁶

Professor Schumm analyzed state data sets similar to those used by the Langbein and Dillender studies, but additionally considered the effect of new variables, including the number of years since a state had legalized same-sex marriage, on fertility rates. His analysis revealed that the legalization of same-sex marriage had a direct, negative impact on fertility rates. These results suggest that fertility rates are influenced by changes in same-sex marriage law *over time*. Thus, simply because a state has legalized same-sex marriage does not mean that fertility rates will change immediately; such changes will take several years to be statistically manifest.³⁷

This is consistent with other research suggesting that the effects of same-sex marriage laws within a greater society manifest themselves over time,

33. Laura Langbein & Mark A. Yost, Jr., *Same-Sex Marriage and Negative Externalities*, 90(2) SOC. SCI. Q. 292, 292–308 (2009).

34. Walter R. Schumm, *Same Sex Marriage and Negative Externalities Revisited* (forthcoming, available upon request).

35. See Marcus Dillender, *The Death of Marriage? The Effects of New Forms of Legal Recognition on Marriage Rates in the United States*, 51(2) DEMOGRAPHY 563–85 (2014); Alexis Dinno & Chelsea Whitney, *Same-Sex Marriage and the Perceived Assault on Opposite Sex Marriage*, PLOS ONE, 8(6): e65730 (2013), in Schumm, *Id.*

36. ANDREW J. CHERLIN, *THE MARRIAGE-GO-ROUND* 142–43 (2010).

37. Schumm, *supra* note 40, at 6.

rather than right away.³⁸ Mircea Trandafir analyzed data from the Netherlands, which formally adopted same-sex marriage in 2001, but had adopted all of its elements by 1998.³⁹ His analysis has more statistical credibility than Langbein's or Dillender's because it examined the effect of a marriage redefinition over a longer period.

B. *U.S. State Marriage Rate and Fertility Rate Data*

National Vital Statistics Reports show a noteworthy correlation between same-sex marriage and decreasing fertility rates. As of 2010, five of the seven States (including Washington, D.C.) with the lowest fertility rates *all* permitted same-sex marriage (or civil union equivalents).⁴⁰ In contrast, *none* of the nine States with the highest fertility rates allowed it before 2010.⁴¹ And while the fertility rates in both groups of States decreased between 2005 and 2010, the percentage decline was almost *twice* as large in the states that allowed same-sex marriage or its equivalent.⁴²

The technical analysis contained in Appendix B to the Marriage Scholars Brief substantiates this correlation, using marriage rates as a predictor of fertility rates.⁴³ Their analysis demonstrates a marked decrease in *opposite-sex* marriage rates—among the states that kept such data⁴⁴—in the several years

38. MIRCEA TRANDAFIR, UNIVERSITÉ DE SHERBROOKE AND GREDI, THE EFFECT OF SAME-SEX MARRIAGE LAWS ON DIFFERENT-SEX MARRIAGE: EVIDENCE FROM THE NETHERLANDS 7, 28 (2009).

39. *Id.*

40. Brief of Scholars of Fertility and Marriage, *supra* note 2 at 28; see *Comparison of State Fertility Rates: States at or Above "Replacement" Rate Versus New England States & the District of Columbia*, [http://law2.byu.edu/files/marriage_family/US_fertility_rates_in_sel_states-2000-2005-2010\(2\).pdf](http://law2.byu.edu/files/marriage_family/US_fertility_rates_in_sel_states-2000-2005-2010(2).pdf) (citing CTR. FOR DISEASE CONTROL & PREVENTION, 61 NATIONAL VITAL STATISTICS REPORTS 1 (2012)) (including Connecticut, New Hampshire, Massachusetts, Vermont, and Washington, D.C.) [hereinafter *Comparison of State Fertility Rates*]; see also Martin, et. al., *supra* note 15 (including the District of Columbia); cf. *Fertility Statistics*, tbl. 1, EUROSTAT (2015), http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Total_fertility_rate,_1960%E2%80%932013_%28live_births_per_woman%29_YB15.png (showing that, as of 2010, only three European Union countries—Iceland, Ireland and Turkey—had fertility rates above 2.1, thus opposing the EU nations' trend toward recognizing same-sex marriages; the remaining EU nations had fertility rates below replacement levels).

41. Brief of Scholars of Fertility and Marriage, *supra* note 2 at 28–29; see *Comparison of State Fertility Rates*, *supra* note 40 (including Utah, Alaska, South Dakota, Idaho, Texas, Kansas, Hawaii, Nebraska, and Oklahoma).

42. *Comparison of State Fertility Rates*, *supra* note 40.

43. Brief of Scholars of Fertility and Marriage, *supra* note 2 at 29.

44. See Martin, et. al., *supra* note 15 (showing states with decreasing rates: Vermont (49), Connecticut (45), and Massachusetts (48). Iowa (14) also kept such data, and is included in the analysis); TRANDAFIR, *supra* note 38.

immediately following the adoption of same-sex marriage, and uses data from the Netherlands study to produce an estimated impact on fertility. The logic is simple and intuitive: Fewer opposite-sex marriages means more unmarried women, which in turn means fewer children born.

As explained in their analysis, *every* state that has adopted same-sex marriage and kept the relevant data has *in time* seen a substantial decline in the rate of opposite-sex marriages—ranging from 5.1% to nearly nine percent.⁴⁵ Using the lower end of that range, a five percent reduction in long-run marriage rates in the United States, and assuming only half of that reduction would be due to marriage forgone rather than marriage delayed, that data demonstrates that additional 1.3 million women would likely forego marriage over the next fertility cycle (thirty years). Under conservative assumptions and over the next thirty years, this would lead to nearly two million fewer births over just one fertility cycle, using the following calculation:

The average number of children born to a woman *ever* married during her childbearing years (15-44) is 1.84.⁴⁶ By contrast, a woman never married during those years averages 0.46 children. Multiplying the latter number by the 1.275 million unmarried women who would have been married but for nationwide same-sex marriage leads to the conclusion that, over a 30-year fertility cycle, we would expect to see 586,500 children born to unmarried mothers—nearly the population of Washington, D.C.⁴⁷ Given the difference between lifetime fertility rates of married versus never-married women (1.84 versus 0.46), the above analysis implies that there will be as many as 1.75 million children who *would* have been born, but will not.⁴⁸ This number is larger than the population of Philadelphia.⁴⁹

A reduction so significant in the number of births would have a profound, continuing impact on fertility rates in the United States. At a minimum, this data strongly suggests that abandoning a heterosexual marriage definition will create or increase the *risk* of such a decline.

45. Brief of Scholars of Fertility and Marriage, *supra* note 2 at App. B.

46. *Id.*

47. *Id.*

48. *Id.*

49. *Id.*

C. *The Risks of Sustained Below-Replacement Fertility Rates*

The wisdom of recognizing the states' interests in procreation is today more apparent than ever. In the United States, the link between marriage and procreation has already weakened considerably in both law and culture, with repercussions for adults, children, and society as a whole.⁵⁰ The harmful consequences of this diminished and adult-centered understanding of marriage will likely continue to manifest themselves in terms of declining fertility rates.

Though there have been a number of explanations for the worldwide decline in fertility rates, and the entire explanation may be a combination of different factors, the recent adoption of same-sex marriage is likely to contribute to such a decline in any state, given the demonstrated effect (discussed in Section IIB, *infra*) that the adoption of same-sex marriage policies has on fertility rates.

One need not look far to observe the correlation between a society's fertility rates and its long-term ability to support a strong economy.⁵¹ The economic crises created from sub-replacement fertility rates over time result in a reduced demand for goods and services and an aging work force, which results in fewer available workers to support social programs.

Sub-replacement fertility occurs when a country's Total Fertility Rate (TFR), expressed in the number of children born per one woman, drops to a rate where each successive generation will be less populous than the one previous. In developed countries, sub-replacement fertility is any rate below 2.1.⁵² Fertility is projected to be the most influential component in population trajectories over the next 100 years.⁵³

As of 2013, about 48% of the world population lives in nations with sub-replacement fertility.⁵⁴ Most nations of Europe, along with Australia, Russia,

50. See Section IIB, *supra*.

51. See, e.g., *How Declining Birth Rates Hurt Global Economies*, NPR (Oct. 3, 2011), <http://www.npr.org/2011/10/03/141000410/how-declining-birth-rates-hurt-global-economies>; PHILLIP LONGMAN, *THE EMPTY CRADLE: HOW FALLING BIRTHRATES THREATEN WORLD PROSPERITY AND WHAT TO DO ABOUT IT* (2004); JONATHAN V. LAST, *WHAT TO EXPECT WHEN NO ONE'S EXPECTING: AMERICA'S COMING DEMOGRAPHIC DISASTER* (2014).

52. Thomas J. Espenshade, Juan Carlos Guzman & Charles F. Westoff, *The Surprising Global Variation in Replacement Fertility*, 22 *POPULATION RES. AND POL'Y REV.* 575, 580 tbl.1 (2003) (noting the replacement threshold can be as high as 3.4 in some developing countries due to higher mortality rates).

53. POPULATION DIV., DEP'T OF ECON. AND SOC. AFFAIRS, *FERTILITY LEVELS AND TRENDS AS ASSESSED IN THE 2012 REVISION OF WORLD POPULATION PROSPECTS 18* (2013), http://www.un.org/en/development/desa/population/publications/pdf/fertility/Fertility-levels-and-trends_WPP2012.pdf.

54. *Id.* at 11.

and China, are included in this group.⁵⁵ Many of these countries still have growing populations, but this growth is due to external factors, such as immigration and increased life expectancy, rather than births. Some countries have low enough or have sustained sub-replacement fertility levels over a long enough period that population decline has resulted. Importantly, population momentum can become negative if fertility rates remain under replacement-level for long enough, bringing to bear significant, destabilizing economic and social issues.⁵⁶ This is currently manifest or forecast for most of the countries of Europe and East Asia.⁵⁷

Several of these destabilizing effects on society are worth mentioning explicitly:

D. *Increase in the dependency ratio*

Sustained sub-replacement fertility leads to “top-heavy” populations, wherein the number of retired citizens drawing public pensions rises in relation to the number of workers.⁵⁸ As the workforce ages and retires, more people claim pension benefits and fewer people work and pay income taxes. This has major implications for public pension systems, which have become integral to all advanced democratic nations and the citizens they support.

The preservation of public pension systems requires a continuous supply of sufficiently large young generations of workers. Persistently low fertility rates endanger this supply, and therefore the public pension systems they support, creating a risk of increased tax rates on the remaining workforce. It

55. *Id.*

56. Matthew B. O’Brien, *Why Liberal Neutrality Prohibits Same-Sex Marriage: Rawls, Political Liberalism, and the Family*, 1 BR. J. AM. LEG. STUDIES 411, 430 (2012) (Such destabilization has occurred before in Western European social history; famously, during the late Roman period when imperial officials constantly tried unsuccessfully to encourage the Roman governing classes to have enough children to sustain their population levels).

57. See EUROPEAN COMMISSION, EUROPE’S DEMOGRAPHIC FUTURE: FACTS AND FIGURES ON CHALLENGES AND OPPORTUNITIES (2007), ec.europa.eu/social/BlobServlet?docId=1540&langId=en; European Parliament Resolution of 21 February 2008 on the Demographic Future of Europe, 2007/2156 (INI), <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0066+0+DOC+XML+V0//EN>; Nicholas Eberstadt, *Demographic Trends in Northeast Asia: Changing the Realm of the Possible*, AMERICAN ENTERPRISE INST. (May 1, 2007, 12:00 AM), <https://www.aei.org/publication/demographic-trends-in-northeast-asia/print>.

58. Robert D. Retherford & Naohiro Ogawa, *Japan’s Baby Bust: Causes, Implications, and Policy Responses* 20, EAST-WEST CENTER, Working Paper No. 118 (2005), <http://www.eastwestcenter.org/fileadmin/stored/pdfs/POPwp118.pdf>.

is also worth noting that benefits reductions or system collapse has a disparate impact upon the retired, disabled, and poor who principally depend upon the support of such systems. Western Europe appears to face just this threat since its average birth rate has dropped well below replacement levels and at present there is no indication of a significant reversal. Asia is threatened by the same prospect.⁵⁹

1. Increased government spending on health care and pensions

Retirees generally pay lower income taxes because they are not working. This combination of higher spending commitments and lower tax revenue presents concern for any government, but especially those with existing debt issues and unfunded pension schemes.

2. Increased taxes on remaining workforce

As the dependency ratio increases, more workers are drawing on retirement and fewer workers are left to pay income taxes. In order to make up the shortfall and pay the increased costs of health and entitlement programs, taxes on the remaining workers must increase. This creates disincentives to work and disincentives for firms to invest, bringing about a fall in productivity and growth.

3. Worker shortage

As a majority of a population ages into retirement, there is created a dearth of productive workers.⁶⁰ Such a worker shortage can push up wages, causing wage inflation.

4. Reduced capital investment

If workers place a higher percentage of income into pension funds, the amount of savings available for more productive investment is reduced, leading to lower rates of economic growth.

59. EUROPEAN COMMISSION, *supra* note 57, *passim*; Eberstadt, *supra* note 57, *passim*.

60. Retherford & Ogawa, *supra* note 58, at 25.

5. Immigration

Governments may attempt to compensate for low fertility by encouraging immigration. However, immigration is not a reliable solution to a country's population or fertility decline.⁶¹ First, the number of possible immigrants is finite and subject to a number of social and political factors. Second, it is difficult to assert meaningful control over whether, when, or how many persons will immigrate.

6. Diminishing international influence

Demographic trends create powerful pressures for world affairs.⁶² If a country experiences a loss in fertility, that country's share of world economic output and international economic influence should be expected to decline as well, perhaps considerably. That country's military influence is likely to trend similarly, necessitating a heavy reliance on international alliances to protect its national security.

7. Familial recomposition

If fertility rates are sustained below replacement level, average family composition changes, such that each tends to have only one or two children. This reduces a child's number of siblings, aunts, uncles, and other extended family members.

Faced with these prospects, many countries have advanced pro-natalist policies to encourage higher fertility. Such policies range from reduced support for contraception, to monthly allowances for couples with children, to paid maternal and paternal leave, as well as free or subsidized daycare.⁶³ It is

61. POPULATION DIV., DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, REPLACEMENT MIGRATION: IS IT A SOLUTION TO DECLINING AND AGEING POPULATIONS? 24–25 (2001), <http://www.un.org/esa/population/publications/migration/migration.htm>.

62. Nicholas Eberstadt, *Japan Shrinks*, WILSON QUARTERLY (Spring 2012), <http://wilsonquarterly.com/quarterly/spring-2012-the-age-of-connection/japan-shrinks-2>.

63. David E. Bloom & David Canning, *Europe's Looming Population Bust*, ENTRE NOUS THE EUROPEAN MAGAZINE FOR SEXUAL AND REPRODUCTIVE HEALTH 14–15 (2006), http://www.euro.who.int/_data/assets/pdf_file/0010/73954/EN63.pdf.

worth noting that, to date, every European country that has adopted same-sex marriage has also had to implement some form of pro-natalist policy.⁶⁴

These programs, while arguably effective in some cases, themselves come at a great cost. The example of Japan is illustrative here. Thanks in part to its approach to financing programs to combat its fertility crisis, Japan already has the highest ratio of gross public debt to gross domestic product (well over 200%) of the developed nations.⁶⁵ Projections by researchers at the Bank for International Settlements imply that this ratio could rise to a mind-boggling 600% by 2040. (Greece's public debt, by contrast, amounted to about 130% of its gross domestic product (GDP) at the start of its current default drama). While Japan might well be able to service such a mountain of debt without risk of sovereign default (assuming the country's low-interest-rate environment continues to hold), it is hard to see how a recipe for rapid or even moderate economic growth could be cooked up with these ingredients.

In sum, the consequences of sustained, below-replacement fertility rates are real and significant. The recent adoption of same-sex marriage in the United States now exposes states to the additional risk that same-sex marriage poses to fertility rates. Only time will tell how significant these risks will be over time for the rising generations.

64. Gustavo De Santis, *Pronatalist Policy in Industrialized Nations*, DEMOGRAPHY: ANALYSIS AND SYNTHESIS; A TREATISE IN POPULATION STUDIES 137, 144 (Guillaume Wunsch, Graziella Caselli & Jacques Vallin eds., 2006) (including the Netherlands, Belgium, Spain, Norway, Sweden, Portugal, Iceland, Denmark, France, United Kingdom, Luxembourg, and Finland).

65. Eberstadt, *supra* note 62, at 14.