



## Commentary

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The existing world of work and women's biology are on a collision course. Women who wait to have children—and who invest in themselves—enjoy better prospects for having it all—husband, career, and the resources to invest in children—than those who give birth at younger ages. Yet, every year women delay beyond their late twenties which increases the risk of infertility.

Egg freezing appears to offer a solution to the problem. It presents the illusion of empowering women so that they can invest in their careers without worrying about the biological clock. For the first time, women can lead the same lives as men. Now that Facebook and Apple (and other companies that have been too embarrassed to admit they do this) are offering to subsidize egg freezing, the question is whether this will become the new normal. If you are going to freeze your eggs, better to do it at 25 than 35, and even better to do it with an insurance subsidy. If women routinely freeze their eggs at 25, they will, in turn, generate more eggs than they are likely to use, creating a greater supply for others. But, like all new reproductive technologies, egg freezing creates both promises and pitfalls. The technology is largely untested. We don't know what the long-term risks are of exposing women to the hormones necessary to produce the eggs, and there's no guarantee that thawed eggs will result in a pregnancy. The security egg freezing produces may prove to be illusory. We also don't know how egg freezing will impact the workplace and women's careers in the long term.

John Robertson eloquently identifies both the possibilities of empowerment and the perils of maternalism and exploitation in his piece and then suggests the importance of further regulations to ensure safety and prevent exploitation. We largely agree with his analysis, and we second his recommendations for further regulation of the technology.

Instead, we want to comment on how egg freezing is likely to increase existing class stratification in an increasingly unequal economic system. First, we describe the current winner-take-all economic system. The most successful women find that cutting back on long hours comes at a steep price in terms of careers and income. At the same time, the

women at the bottom of the economic ladder enjoy little job or family stability. The result produces divergent family patterns, as the average age of childbearing continues to rise for the elite and levels off for everyone else.

Second, we consider how egg freezing may affect the accessibility of assisted reproductive technology (ART). Today, women who delay childbearing may find that use of donor gametes is the only way to reproduce. Sperm are readily available, but eggs are not. If young women begin to freeze their eggs on a routine basis, they are also likely to find that they have many leftover eggs. The result ought to be to increase supply and lower price, making donor eggs more accessible. Yet, the availability of eggs could lead potential donors to become pickier about the eggs they are willing to use. We may be at the cusp of an era in which genetic selection becomes an ever more commonplace as part of reproduction, with even greater distinctions between those who carefully pick their reproductive partners (inside and outside the lab) and those who leave such matters to chance.

Finally, we consider how these developments may affect the combination of work and family in the future. Those who give birth at 45 will still need flextime, parental leave, and child care. Those who believe that they are unlikely to find the right man or the right job won't wait, and will have children at a younger age. Egg freezing is almost certain to increase societal stratification, contributing to diverging social systems in which different groups do not share common assumptions about child rearing.

We conclude that whatever happens with egg freezing, it will be important not to lose sight of what should be shared goals of reform: (1) designing appropriate regulations, from public and private sources, to safeguard all women's health; (2) strengthening support for child rearing across the economic spectrum; and (3) rethinking the pathways back into the workplaces for all of those who take on care-taking responsibilities.

## REPRODUCTIVE STRATIFICATION

The reproductive patterns of the elite and the rest of society are diverging, and they are doing so to a greater degree in the United States than in other developed countries.<sup>1</sup> In *Red Families v. Blue Families*, we attributed the changes to what we termed the new 'blue' strategy for entry into the upper-middle class. This strategy involves investing in women's as well as men's earning capacity, treating emotional maturity, and financial independence as markers of adulthood and readiness for family formation, managing sexuality through contraception and abortion, and redefining marriage as an institution premised on partnership between two parties who retain the capacity for independence and carry their own weight within the relationship.<sup>2</sup> The new strategy pays off handsomely in increasing marriage prospects, family income, and the ability to invest in children,<sup>3</sup> but it is at odds with religious teachings about sexuality to the extent it

<sup>1</sup> Ron J. Lesthaeghe & Lisa Neidert, *The Second Demographic Transition in the United States: Exception or Textbook Example?*, 32 *POPUL. DEV. REV.* 669 (2006).

<sup>2</sup> NAOMI CAHN & JUNE CARBONE, *RED FAMILIES V. BLUE FAMILIES: LEGAL POLARIZATION & THE CREATION OF CULTURE* (2010).

<sup>3</sup> JUNE CARBONE & NAOMI CAHN, *MARRIAGE MARKETS: HOW INEQUALITY IS REMAKING THE AMERICAN FAMILY* (2014).

relies on contraception and abortion,<sup>4</sup> and it is effectively beyond the reach of increasing portions of the population.<sup>5</sup> The combination of the new middle class strategy, political polarization, and growing inequality contributes to growing class stratification along these lines.

- (i) Age of first birth: for college graduates in the United States, the age of first birth has steadily increased and now exceeds 30.<sup>6</sup> In the meantime, the average of first birth for those who do not graduate from college, which increased between 1970 and 1990, leveled off after 1990.<sup>7</sup>
- (ii) Marriage rates: the only group whose marriage rates have increased since 1970 have been the top 5% of women by income, with the top 10% constituting the only group whose marriage rates have not declined during that period.<sup>8</sup>
- (iii) Non-marital births: college graduates continue to give birth overwhelmingly within marriage while non-marital births are becoming the norm for others. In 2011, only 9% of births to college graduates were non-marital in comparison with 42% of births to those who had attended college but not graduated and more than half of the births to women who did not attend college at all.<sup>9</sup>

These trends reflect two different family formation strategies. College graduates as a group (though they are certainly not all alike) still overwhelmingly bear children within marriage. The most successful men and women have become much more likely to marry each other, and investment in a career—with a corresponding delay in marriage and childbearing—pays off in terms of both income and marriage prospects.<sup>10</sup> This group still believes in commitment, but carefully selects those to whom they make a commitment, whether to bear a child or to share one's life.

Those who do not attend college are increasingly giving up on marriage, at least as a prerequisite to childbearing. Both men and women view stable male employment as a prerequisite for marriage, and blue-collar men find such employment increasingly hard

<sup>4</sup> CAHN & CARBONE, *supra* note 2, at 116.

<sup>5</sup> CARBONE & CAHN, *supra* note 3, at 70–80.

<sup>6</sup> Eleanor Barkhorn, Getting Married Later is Great for College—Educated Women, *THE ATLANTIC*, Mar. 15, 2013, <http://www.theatlantic.com/sexes/archive/2013/03/getting-married-later-is-great-for-college-educated-women/274040/> (last accessed Dec 11, 2014).

<sup>7</sup> Kay Hymowitz et al., *The Great Crossover* (2013), <http://twentysomethingmarriage.org/the-great-crossover/> (last accessed Dec 11, 2014). For those with less than a high school education, the average age of first birth is 20; for those with some college but without a diploma, it is 24. See *Id.*, fig. 11.

<sup>8</sup> Adam Looney & Michael Greenstone, *The Marriage Gap: The Impact of Economic and Technical Change in Marriage Rates* (2012), <http://www.hamiltonproject.org/papers/the-marriage-gap-the-impact-of-economic-and-technological-change-on-ma/> (last accessed Dec 11, 2014).

<sup>9</sup> Gretchen Livingston & D'Vera Cohen, *Record Share of New Mothers are College-Educated* (2013), <http://www.pewsocialtrends.org/2013/05/10/record-share-of-new-mothers-are-college-educated/> (last accessed Dec 11, 2014).

<sup>10</sup> Christine R. Schwartz, *Earnings Inequality and the Changing Association between Spouses' Earnings*, 115 *AM. J. SOC.* 1524 (2010); Knot Yet, I Do, but Later, Figs 7 and 8, <http://twentysomethingmarriage.org/i-do-but-later/> (last accessed Dec 11, 2014).

to secure.<sup>11</sup> As that has happened, the number of ‘marriageable’ men has fallen, and gender distrust has increased.<sup>12</sup> While intended pregnancies have declined substantially for elite women, they have increased since the 1990s for poorer women.<sup>13</sup> These women see little reason to defer childbearing. They are not necessarily careful in the choice of a man who will father their children. They are also more likely than elite women (or blue-collar men) to complete their educations after the birth of a child. And with weaker employment prospects and less access to flexible workplaces, they are more likely to cut back on employment after the birth of a child and return to work later in life.<sup>14</sup> As a result, the relationship between marriage, work, and family is substantially different, producing different understandings about the appropriate time for childbearing.

### THE PROMISES OF EGG FREEZING

Professor Robertson celebrates the promise egg freezing offers to empower women by giving them greater choices and acknowledges the risk that it will reinforce maternalism, that is, the identification of the value of women’s lives with their role as mothers. Robertson, in his evaluation of egg freezing at its time of inception, does a superb job of considering the initial phase of implementation, identifying the unknowns, the possible health risks, and the potential impact of the new technology as it becomes more routine. Going forward will require considering these developments in light of a more dynamic analysis: How will egg freezing change women’s understandings of the process of reproduction?<sup>15</sup> Two factors, in particular, the timing of egg freezing and the market that develops for the transfer of leftover eggs, will play a particularly important role in shaping that dynamic.

When a woman chooses to extract eggs for freezing will depend in part on her motive. The least controversial use of egg freezing is to preserve the fertility of a woman undergoing chemotherapy or other treatment that may destroy her eggs.<sup>16</sup> In such a case, there is no question about timing: a patient facing fertility threatening treatments typically has only a short window in which to make a decision.<sup>17</sup> Women who wish to reset their biological clocks face more of a dilemma. Researchers cannot tell them exactly when their fertility will begin to decline. Fertility, however, is variable: one woman will have trouble reproducing at 29, while another has no difficulty with childbirth at 44.

<sup>11</sup> ANDREW J. CHERLIN, *LABOR’S LOVE LOST: THE RISE AND FALL OF THE WORKING-CLASS FAMILY IN AMERICA* (2014).

<sup>12</sup> CARBONE & CAHN, *supra* note 3, at 75–79.

<sup>13</sup> See Hymowitz et al., *supra* note 7, at 27; Marriage Markets, *supra* note 3, at 173. See also Lawrence B. Finer & Mia R. Zolna, Unintended Pregnancy in the United States: Incidence and Disparities, 2006, 84 *CONTRACEPTION*, 478 (2011).

<sup>14</sup> See Jacqueline E. King, *Gender Equity in Higher Education: 2010*, (2010), <http://www.latimes.com/science/sciencenow/la-op-males13–2008jul13-story.html> (last accessed Dec 11, 2014).

<sup>15</sup> For an example or dynamic analysis, see François Moreau, *The Role of the State in Evolutionary Economics*, 28 *CAMBRIDGE J. ECON.* 847, 851 (2004).

<sup>16</sup> Robertson, noting that in some cases exposure to the hormones involved in egg extraction may pose added risks, particularly to women experiencing hormone-sensitive cancers or women whose illness is so severe that even the short delay in the treatment necessary to permit egg harvesting may worsen their chances of survival.

<sup>17</sup> Same thing is true for women undergoing *in vitro* fertilization who, for ethical or religious reasons, wish to freeze eggs for later use to avoid creating extra embryos. See Robertson, *supra* note 16, at 116–117.

Today, the average woman who chooses to freeze her eggs to extend her fertility is already over 37.<sup>18</sup> As Robertson notes, however, the odds of reproducing with those eggs is comparatively small. If a woman is going to rely on egg freezing, she should do it earlier; the ideal time is probably in the mid-twenties. The specter of 30 something women finding that they produce too few eggs to be useful or that the eggs they were able to produce proved insufficient may prompt earlier egg freezing.

We can imagine several factors that may encourage younger women to freeze their eggs. First is insurance coverage. If employers such as Apple and Google cover the procedure, young women should take advantage of it as soon as they can. If the practice spreads, the technology is likely to mature faster, with prices decreasing even further.

Second is the role of prospective grandparents. We can imagine marketing campaigns designed to persuade parents that freezing their daughters' eggs is the perfect college or graduate school graduation present. Egg freezing could become another luxury good associated with the rise of the plutonomy.<sup>19</sup>

Third is the value of the eggs themselves. Egg prices are unregulated. Clinics have attempted to hold the line on prices, particularly those based on individual characteristics such as race, height of SAT scores, but it is easy to find clinics offering to pay \$10,000 for egg donors, a substantial part of the cost of egg freezing.<sup>20</sup> Egg sharing options already exist where women who need donor eggs offer to pay a portion of the cost of *in vitro* fertilization for women who agree to extract more eggs than they need for themselves and share the extras.<sup>21</sup> Women who are considering egg freezing may find either that they can finance the process by engaging in an egg sharing arrangement or that, if they freeze their eggs, they will literally have money in the bank as they can later sell the eggs<sup>22</sup> if they find that they do not need them. While prices may eventually fall with a greater supply of extra eggs, the current value of donor eggs could help the process become more routine, ultimately persuading young women to freeze eggs for their own use.

When they do need donor eggs, however, recipients might have increased choices, leading to even more pickiness about which eggs they would accept. As a practical matter, this might mean that only some women with eggs in the freezer would be able to transfer them to someone else.

These changes may (and should) prompt more regulation—not just of egg freezing but also of gamete donation. The prospect of a highly differentiated gamete market, with prices varying by race and by SAT scores, raises the specter of genetic engineering.

<sup>18</sup> Emma Rosenblum, Later, Baby: Will Freezing Your Eggs Free your Career? *BUSINESSWEEK*, Apr. 17, 2014, <http://www.businessweek.com/articles/2014-04-17/new-egg-freezing-technology-eases-womens-career-family-angst#p1> (last accessed Dec 11, 2014).

<sup>19</sup> The Citigroup Plutonomy Memos: Two bombshell documents that Citigroup's lawyers try to suppress describing in detail the rule of the 1%. See eg <http://politicalgates.blogspot.com/2011/12/citigroup-plutonomy-memos-two-bombshell.html> (last accessed Dec 11, 2014).

<sup>20</sup> See, eg How Much do Egg Donors Get Paid?, <http://www.assistedfertilityblog.com/how-much-do-egg-donors-get-paid/> (last accessed Dec 11, 2014).

<sup>21</sup> See eg Egg Sharing at Care Fertility (2014), <http://www.carefertility.com/donation-programme-sc3/egg-sharing-sj1/> (last accessed Dec 11, 2014).

<sup>22</sup> For some of the complexities involved in selling eggs, see Naomi Cahn & Jennifer Collins, Fully Informed Consent for Egg Donors, 16 *VIRTUAL MENTOR* 49 (2014), <http://virtualmentor.ama-assn.org/2014/01/hlaw2-1401.html> (last accessed Dec 11, 2014).

Although some limited ‘shopping’ for such traits already exists, relatively few people use both donor eggs and donor sperm, in part because most people prefer to have a child to which at least one of the parents is genetically related. While that is likely to continue, a more general delay in the age of reproduction is likely to produce greater infertility, and greater acceptance of gays and lesbians may produce more same-sex couples in search of donor gametes. In addition, the existence of more frozen eggs may facilitate donation to research.

Robertson’s analysis provides little guidance to the development of a mature market. We propose consideration of regulations to address issues of price, genetic screening of egg donors, informed consent form egg donors, counseling for both donors and recipients, and disclosure issues.<sup>23</sup>

### REPRODUCTION AND EMPLOYMENT REVISITED

At a time of increasing class stratification more generally and increased competition for the most lucrative positions, egg freezing, if it becomes routine for the most ambitious women, is likely to change the relationship between work and family. The model for the most competitive forms of employment is a male one. It involves completing education, proving one’s worth during the peak childbearing years (the late twenties through the early forties), and awarding more perks and greater employment flexibility for the successful who earn tenure, make partner, or rise in the executive ranks. The model is one that corresponds to male reproductive patterns and, as Joan Williams has observed, assumes that ambitious men can perform an ideal worker role because of a partner who will take care of family responsibilities for him.

Egg freezing may make it possible for women to come closer to a male lifestyle. They, too, will be able to devote their twenties and early thirties to proving themselves in the workplace, and defer childbearing until after they reach more secure and valued positions likely to provide paid family leave, greater flexibility in structuring hours, and enough income to afford high-quality child care and other domestic help. We doubt, however, that egg freezing will usher in a new era of equality between men and women, and we suspect that it will increase the differences between those who reproduce at younger and older ages.

First, the most lucrative positions in the economy no longer cut senior employees as much slack. While some entrepreneurs make their first billion by 30 and relax after that, it may take decades to scale the senior executive ranks in many industries, and most sectors of the economy experience too much competition to allow their senior employees to relax. We think that the ticking of the biological clock, even if the alarm is moved into the forties or fifties, will still disproportionately affect women’s careers.

Second, the relationship between gender, high income, and long hours has a number of reinforcing loops that egg freezing is unlikely to change. For elite women, the gendered gap in wages has increased, and it has done so in part because family cannot combine two jobs demanding long hours with children at any age. In the financial sector, for example, disproportionately high-pay increases, more steeply hierarchical

<sup>23</sup> Id.; Susan L. Crockin & Judith Daar, Letter to the Editor, 16 *VIRTUAL MENTOR* 302 (2014), <http://virtualmentor.ama-assn.org/2014/04/corr1-1404.html> (last accessed Dec 11, 2014).

bonus systems, competition based on long hours, and greater male concentration in these positions have tended to reinforce each other.<sup>24</sup>

Accordingly, while we could imagine egg freezing making it easier for women to get into more senior positions by delaying childbearing, we have little expectation that it will create or even meaningfully contribute to real equality in the workplace. In a winner-take-all world with disproportionately high rewards for the top few, competition is likely to continue to be based on the willingness to put the job and long hours ahead of family concerns. As long as this is true, women will remain more likely than men to drop back or drop out entirely.<sup>25</sup> A few more women, with eggs safely in the freezer, may stay in the hunt for the top jobs a bit longer, but nothing suggests that these women will then find an ideal time to have children later. Egg freezing is a response to world of greater inequality among women and among men, and there is no reason to believe that it will contribute to either family friendly workplaces or to curbing the disproportionate awards that go to the favored few.

Routine egg freezing thus becomes likely to increase class stratification. Women who delay childbearing may not achieve equality with men, but they are likely to have more resources to invest in children when they do have them than women who give birth earlier. Class-based inequality among children is therefore likely to grow.

In addition, egg freezing may ironically contribute to more single-parent families among elite women. Today, women who postpone childbearing hoping to find Mr Right often run out of time for it before they ultimately give up on finding an acceptable partner. With eggs in the freezer, women will at least enjoy a longer period to decide that they do want to have children and can afford them on their own. If so, age, rather than marriage, may become the distinguishing feature of the increasing class divide in reproduction.

## CONCLUSION

If we were philosopher queens, we would wave our magic wands and create environments more supportive of child rearing for women (and men) in their twenties. In today's world, where our children who are already in their thirties wonder when (and if) they will ever be able to combine children with employment; we wonder if they should have already frozen their eggs.

Egg freezing, if it proves effective rather than illusory, may in fact trigger far-reaching changes in reproduction. Professor Robertson's account is a rigorous analysis of the current state of egg freezing. We suspect, however, that the changes that accompany it will ultimately be farther reaching, harder to predict, and ultimately disappointing for reasons that go beyond today's measures of safety and efficacy.

We do predict that someday we may look back on these developments the same way we now regard the replacement of breast feeding with formula: it's great for those who need it, but it is really hard to improve on nature.

<sup>24</sup> See CLAUDIA GOLDIN & LAWRENCE F. KATZ, *DYNAMICS OF THE GENDER GAP FOR YOUNG PROFESSIONALS IN THE FINANCIAL AND CORPORATE SECTORS* (2008), <http://fairmodel.econ.yale.edu/ec483/katz.pdf> (last accessed Dec 11, 2014).

<sup>25</sup> See Joni Hersh, *Opting Out Among Women with Elite Education*, 111 *REV. ECON. HOUSEHOLD* 496 (2013).