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AN IMMODEST PROPOSAL FOR BIRTH REGISTRATION IN DONOR-ASSISTED REPRODUCTION, IN THE INTEREST OF SCIENCE AND HUMAN RIGHTS

Elizabeth J. Samuels*

*The gene is, and is not, the determiner of our identity. It behooves us to accept this paradox and understand it.*¹

INTRODUCTION

Increasingly, an individual or a couple raising a newborn child may not be biologically related to the child. The child may be conceived with donated² gametes—a donated egg or sperm or both. A donated egg may even combine genetic material from two women.³ One member of a couple or a surrogate may gestate the child.⁴ The couple may be heterosexual or same-sex. Although we are well aware of these developments, we are failing to collect information about them, information important for promoting human rights as well as for conducting medical, public health, and social science research.

The vital statistics drawn from birth records are crucial tools for research, but they are becoming less accurate and less useful as parents not biologically related

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1. James Gleick, *The Inheritance*, N.Y. TIMES, May 15, 2016, at BR1.

2. The conventional term “donor” is used throughout to refer to those who contribute gametes, although “[e]gg and sperm are typically bought and sold,” *not* donated. NAOMI R. CAHN, TEST TUBE FAMILIES: WHY THE FERTILITY MARKET NEEDS LEGAL REGULATION 10 (2009).

3. The egg may contain one woman’s nuclear DNA, with its 23 chromosomes, and another woman’s mitochondrial DNA, which is located outside of the nucleus of the egg cell and inherited by a child only from the mother. *Understanding DNA*, FAMILY TREE DNA, <https://www.familytreedna.com/understanding-dna.aspx> (last visited Apr. 21, 2018). See, e.g., Cathy Herbrand, *Mitochondrial Replacement Techniques: Who are the Potential Users and Will They Benefit?*, 31 BIOETHICS 46, 46 (2017); S. Matthew Liao, *Do Mitochondrial Replacement Techniques Affect Qualitative or Numerical Identity*, 31 BIOETHICS 20, 20–21 (2017); Amy B. Leisner, *Parentage Disputes in The Age of Mitochondrial Replacement Therapy*, 104 GEO. L. J. 413, 414 (2016); I. Glenn Cohen et al., *Transatlantic Lessons in Regulation of Mitochondrial Replacement Therapy*, 348 SCIENCE 178, 179 (2015).

4. “Gestational surrogacy, where the surrogate is not genetically related to the embryo, has become more the norm. Without the genetic link to the embryo, the concept of ‘mother giving up child’ does not ring the same, either legally or morally.” Terry J. Price, *The Future of Compensated Surrogacy in Washington State: Anytime Soon?*, 89 WASH. L. REV. 1311, 1311 (2014).

to their children succeed in having their names listed as the child's parents.⁵ This provides the child with an original birth certificate that is consistent with the child's legal and social parentage and allows the child's biological origins to remain confidential when the child presents the certificate in daily life. In contrast, in the case of adoption, a new birth certificate is issued to replace the child's original birth certificate, which is sealed.⁶ The new certificate states, similarly falsely, that the child was born to the adoptive parents. And it achieves the same aims of both matching the child's legal and social parentage and allowing the adoption to remain confidential.

Although securing intended parents' names on the certificate achieves those desirable aims, it is part of a system that represents a serious loss both to the children and the society. Whether or not the intended parents' names appear on the certificates, the certificates fail to provide the children with a full account of their biological origins and their legal and social status. All of the information that states include on an individual's birth certificate is taken from a lengthier "certificate of live birth," which is filled out by birth attendants. As currently designed, the "certificate of live birth" is failing to fully fulfill its traditional function of advancing medical and social science and the public health. The "certificate of live birth" includes specific social and medical information about the parents, the pregnancy, the birth, and the baby. The information is forwarded to the National Center for Health Statistics where it is compiled and used for conducting research by qualified researchers. Such vital statistics are, as a founder of epidemiology noted in the nineteenth century, "the language in which public-health questions [can] be asked and answered—and, crucially, changed."⁷ As a public health school dean said recently, it is with the vital statistics found in birth records that "[y]ou can do something that can shift the whole health of a population and measure whether or not it's working."⁸ But on the "certificates of live birth," for births that have involved donated gametes, who are the mothers and fathers about whom information is reported? The genetic mother or mothers? The social mother? The gestational mother? The genetic father? The social father? The gestational mother's husband? As a physician said of birth records today, "they may increasingly be works of fiction."⁹

This article makes an immodest proposal to rethink the way we document biological parentage, genetic and gestational, on the one hand, and social and legal parentage on the other. The proposal is consistent with and would promote a society that, first, respects and supports families, however formed or re-formed over time, so that all families can to the greatest extent possible enhance the lives of their adult

5. See *infra* text accompanying notes 98–139.

6. Elizabeth J. Samuels, *The Idea of Adoption: An Inquiry into the History of Adult Adoptee Access to Birth Records*, 53 RUTGERS L. REV. 367, 376–79 (2001).

7. Kathryn Schultz, *Final Forms: What Death Certificates Can Tell Us, and What They Can't*, THE NEW YORKER, Apr. 7, 2004, at 32, 34 (writing about epidemiologist William Farr).

8. Lia Kvatum, *100 Things that have had an Impact on Public Health, For Better and for Worse*, WASH. POST, Sept. 13, 2016, at E5 (quoting Joshua Sharfstein, Assoc. Dean of Public Health Prac. & Training at the Bloomberg School, Johns Hopkins Univ.).

9. Interview with Dr. Jeffrey Moscow, Children's Miracle Network Professor of Pediatrics, Univ. of Ky., in Cambridge, Mass. (Sept. 28, 2013) (notes on file with the author).

members and nurture the development of their children. Second, this society recognizes every person as a complex product of biological and environmental factors—of both nature and nurture. In light of that recognition, the society does not essentialize or valorize any single factor. It does not accord superior social status to families in which biological and social parentage has coincided. It does not drive families in which biological and social parentage has not coincided to seek an artificial equivalence in order to avoid stigma and inequality. Finally, this society does not participate in concealing from adults the facts of their biological origins.

In this society, “certificates of live birth” and documents based upon them could honestly include information about a child’s parentage, biological and social. (The genetic information could be confirmed with DNA testing,¹⁰ with possible waivers and with results available upon request.) Then the medical and social information about the parents on the “certificates of live birth” would be, in the majority of cases, accurately linked to the different persons it concerns. A certificate of *parentage*, as determined by state law, could identify the child’s social parent or parents,¹¹ including more than two parents in states that have chosen to make that possible.¹² This certificate¹³ would include the key facts such as the date and place of birth. It would replace the birth certificate as the document used for identification in daily life. It would be accurate and truthful, and it would preserve the individual’s privacy without an odd pretense that, for example, a child was *born* to two women

10. June Carbone & Naomi Cahn, *Which Ties Bind? Redefining the Parent-Child Relationship In An Age of Genetic Certainty*, 11 WM. & MARY BILL RTS. J. 1011, 1012 (2003) (“[T]esting for biological certainty ought to be made a routine part of the birth process” with “some ability to waive testing. . . .”).

11. Other proposals have been made for including biological or biological and social information on birth certificates. Wendy Kramer, founder of the Donor Sibling Registry and mother of a donor-conceived child, argues for a “birth certificate that portrays accurate biological background as well as . . . legal parentage.” Wendy Kramer & Kristi Lado, *Biology and Birth Certificates: Our Right to Accuracy*, DONOR SIBLING REGISTRY (Oct. 14, 2014), <https://www.donorsiblingregistry.com/blog/?p=618>; see also Rebecca Steinfeld, *The Politics of Birth Certificates* (Oct. 18, 2016), <http://www.rebeccasteinfeld.com/2016/10/the-politics-of-birth-certificates.html>. Other proposals are to include notations on birth certificates that direct offspring to other sources of information. Naomi Cahn discusses ways of recording and making information available, concluding that “the easiest would simply be a notation on the certificate [which lists the intended, legal parents] that more information is available.” Naomi Cahn, *Do Tell! The Rights of Donor-Conceived Offspring*, 48 HOFTSTRA L. REV. 1077, 1105 (2014). Of course, that information must then be recorded, retained for a long period, and accessible to offspring, which is not the case in the United States. A group of scholars in the United Kingdom recommends a system under which copies of birth certificates, when issued to donor offspring, would include a notation that the Human Fertilisation and Embryology Authority Register contains information about that person. Eric Blyth et al., *The Role of Birth Certificates in Relation to Access to Biographical and Genetic History in Donor Conception*, 17 INT’L J. CHILD. RTS. 225 (2009). A proposal made by an Australian scholar would allow up to four parents to be named by agreement on a child’s birth certificate, such as when a lesbian couple has arranged for a known sperm donor who will be a third parent and when a lesbian and a gay couple jointly form a family. Paula Gerber & Phoebe Irving Lindner, *Modern Families: Should Children Be Able to Have More Than Two Parents Recorded on Their Birth Certificates?*, 5 VICTORIA L. & JUST. J. 34, 35–36 (2015).

12. E.g., CAL. FAM. CODE § 7601 (West 2013).

13. Another proposal for revising current practices is to offer a “Voluntary Acknowledgement of Parentage” or “something similar . . . to all parents to establish intentional parenthood at birth.” Melanie B. Jacobs, *Parental Parity: Intentional Parenthood’s Promise*, 64 BUFF. L. REV. 465, 497 (2016).

or two men¹⁴ or to the person or persons who adopted him or her.¹⁵ It would not need to assign racial identity by noting, as the birth certificate typically has done, the race of the parents. It could be amended over time if needed, including for example at the behest of individuals who may wish to alter their sexual identity or who believe that identity was mischaracterized on the original parentage certificate.¹⁶ The state would retain the record, available to the adult individual, of all the persons involved in the individual's conception and gestation.

For individuals, the more complete information maintained by the state would enable them to learn about their origins, and for society the information about all the parties would facilitate medical, public health, and social science research. The more complete records would provide the kind of information woefully lacking today in the United States, where assisted reproduction is largely unregulated¹⁷ and where providers of assisted reproduction services report only very limited information.¹⁸

There is increasing support in the U.S. and internationally for preserving records and for establishing access for donor-conceived adults to identifying information about their genetic origins.¹⁹ In eight countries, donor offspring now have a right to access their donors' identities.²⁰ This access respects the expressed wishes of growing numbers of donor-conceived individuals;²¹ alleviates their fears of "accidental incest," or "inadvertent consanguinity,"²² and may enable them to exchange important medical information with genetic relatives.²³ This access to information complements the already widespread support in the practice of assisted reproduction for disclosing to children the facts of their conceptions.²⁴ Disclosure is believed to create honesty and trust within the family and avoid the often destructive effects of late discovery.²⁵ Eliminating lifelong secrecy by assuring access to identifying information also would focus attention on the long-term consequences of

14. Cf., Darren Rosenblum, *Unsex Mothering: Toward a New Culture of Parenting*, 35 HARV. J. L. & GENDER 57, 68–71 (2012) (proposing "unsexing" mothering, fathering, and parenting).

15. See *supra* note 6 and accompanying text; *infra* notes 97, 106, 114–117 and accompanying text.

16. This would in some ways address the concerns of scholar Annette R. Appell about how birth certificates create "identity categories" that "can be sticky and difficult to modify." Annette R. Appell, *Certifying Identity*, 42 CAP. U. L. REV. 361, 378 (2014). Tracking race "enshrines race as a meaningful identity category." *Id.* at 381. And assigning only male or female "affords the impression that sexual apparatus is binary, salient, fixed, and unambiguous." *Id.* at 149; see also Lisa Mottet, *Modernizing State Vital Statistics Statutes and Policies To Ensure Accurate Gender Markers on Birth Certificates: A Good Government Approach To Recognizing the Lives of Transgender People*, 19 MICH. J. WOMEN & L. 373, 379–82 (2013); Laura Nixon, *The Right To (Trans) Parent: A Reproductive Justice Approach To Reproductive Rights, Fertility, and Family-Building Issues Facing Transgender People*, 20 WM. & MARY J. WOMEN & L. 73, 83–92 (2013).

17. See *infra* notes 34–37 and accompanying text.

18. E.g., *infra* notes 60–63 and accompanying text.

19. See *infra* notes 254–281 and accompanying text.

20. See *infra* note 264 and accompanying text.

21. See *infra* notes 236–253 and accompanying text.

22. See Naomi Cahn, *Accidental Incest: Drawing the Line—Or The Curtain—for Reproductive Technology*, 32 HARV. J.L. & GENDER 59, 59–61 (2009).

23. See *infra* notes 190–195 and accompanying text.

24. See *infra* notes 257–261 and accompanying text.

25. See *infra* notes 169–173 and accompanying text.

donor-assisted conception for the descendants of both donors and recipients. It would focus attention specifically on the need to regulate the number of any single donor's offspring and more generally on the need to ensure that reproductive services are provided in an ethical manner.

In opposition, it is argued that providing access to identifying information to donor-conceived adults not only usurps parental authority and risks shortages of donated sperm and eggs, but also promotes "genetic essentialism," an overly determinist view of human development. The denial of genetic factors' significance, however, may in the end itself over-emphasize the role of nature. If denial is necessary to make a family equal to a traditionally formed family, is the family as it was actually formed *not* equally entitled to recognition, respect, and support? Experience so far with donor offspring access suggests that when offspring have information about or have contact with donors, they often report increased appreciation for the crucial role of *nurture* in their lives, as well as great satisfaction in observing what are sometimes small details in which *nature* has played a part.²⁶

Fully implementing this proposal would be very difficult. It would require extensive complementary federal and state statutes and regulations for preserving and transmitting information from assisted reproduction providers and intended parents to maternity service providers, and from the providers to the states. But the nature of the concerns the proposal successfully addresses reveals how important the concerns are in light of the scope and significance of social, technological, and legal changes taking place in family formation. This article does not engage in the ongoing debates about the legal treatment of parentage in non-traditional families, a debate that has occasioned a large volume of legal scholarship.²⁷ Nor does this article enter far into the thicket of state laws about determining legal parentage in births involving assisted reproduction.²⁸ But its proposal to disentangle the documentation of biological and social parentage points a way forward into a future that may hold changes we can now barely imagine, such as cloning a single parent or genetically enabling a child to have two male or two female parents.

The article thus explores not the mechanics of the proposal but the needs for it and the benefits it would bestow. First, the article charts the ongoing evolution of family formation that is the impetus for the proposal. Second, the article details current birth certificate practices and considers medical and public health uses of birth statistics, which could be significantly improved with the kind of birth

26. See, e.g., *infra* notes 335–341 and accompanying text. Another example appears in the documentary film *Donor Unknown* sequence, in which a large number of half-siblings of a common donor enjoy comparing the similar shape and size of their big toes and their habit of brushing their hair back behind their ears. DONOR UNKNOWN (PBS Independent Lens 2010).

27. E.g., Joanna L. Grossman, *Parentage Without Gender*, 17 CARDOZO J. CONFLICT RESOL. 717 (2016); Jacobs, *supra* note 13; Doron Dorfman, *Surrogate Parenthood: Between Genetics and Intent*, 3 J. L. & BIOSCIENCES 404 (2016); Jessica Feinberg, *Consideration of Genetic Connection in Child Custody Disputes Between Same-Sex Parents: Fair or Foul?*, 81 MISSOURI L. REV. 331 (2016); Lynda Wray Black, *The Birth of a Parent: Defining Parentage for Lenders of Genetic Material*, 92 NEB. L. REV. 799 (2014); Yehezkel Margalit et. al., *The New Frontier of Advanced Reproductive Technology: Reevaluating Modern Legal Parenthood*, 37 HARV. J. L. & GENDER 107 (2014); Mary Patricia Byrn & Lisa Giddings, *An Empirical Analysis of the Use of the Intent Test to Determine Parentage in Assisted Reproductive Technology Cases*, 50 HOUSTON L. REV. 1295 (2013).

28. See *infra* notes 100–118 and accompanying text.

registration system proposed here. Third, the article focuses on the desires and needs of many donor-conceived adults for information about their genetic origins—which would be met by the proposal—and on a corresponding right to information, which would be recognized with the kind of birth registration proposed here.

FAMILY FORMATION

We do not track and we do not know how many births in the United States each year involve one or more donated gametes—that is donated sperm, a donated egg (or ovum²⁹), or both donated sperm and egg (separately or as a donated fertilized embryo). But the number is increasing steadily with the technological advances in, and increased use of, assisted reproduction as well as with social changes in family composition.³⁰ An assisted reproduction industry arose in the 1980s “in which fertility clinics offer[ed] a growing array of assisted reproduction services, including IVF using donor sperm or donor eggs, ovarian stimulation, surrogacy, and embryo donation.”³¹ “Americans quickly learned to consider themselves consumers in this market, in which they shopped not only for gametes but for wombs, conception rates, and doctors willing to treat them regardless of many of the criteria fertility specialists had formerly used to screen out patients: marital status, sexual orientation, physical disability, and age.”³² This created “a new dimension of life-giving for people who either cannot or do not choose to have children by the traditional method of sexual relations,” a dimension that now includes at least 13 different possible combinations of intended parents, donors, and surrogates.³³ The choices individuals make among those possible combinations are essentially unregulated by the federal government and the states.³⁴ The fertility industry in the United States is commonly described as a “Wild West” compared to other countries.³⁵ “There’s essentially no sheriff in town. There’s virtually no regulation in this area, which has become quite large, quite lucrative and is literally involved in the most intimate area of people’s lives.”³⁶ In this country, the Artificial Reproductive Technology (ART) industry has successfully opposed the kinds of regulations other countries have adopted.³⁷

29. This article uses the term egg. Both “egg” and “ovum” refer to the female gamete or reproductive cell that is capable of developing into a new individual after fertilization by male sperm. *Egg* and *ovum*, OXFORD ENGLISH DICTIONARY (3d ed. 2005).

30. See *infra* notes 31–88 and accompanying text.

31. KARA W. SWANSON, *BANKING THE BODY* 229 (2014).

32. *Id.*

33. CHARLES P. KINDREGAN, JR. & MAUREEN MCBRIEN, *ASSISTED REPRODUCTIVE TECHNOLOGY: A LAWYER’S GUIDE TO EMERGING LAW AND SCIENCE* 10–11 (2d ed. 2011).

34. *Id.* at 96. Beyond regulating tissue handling, “as a practical matter, the federal government has made little attempt to provide true regulations of assisted reproductive technology in the United States,” *id.* at 220–21, and “[t]he majority of American states have not attempted to regulate the practice of assisted reproductive technology (ART) services, or its marketing or insurance coverage.” *Id.* at 217.

35. Michael Ollove, *Fertility Answers Raise New Questions*, WASH. POST, Mar. 14, 2015, at E2.

36. Ron Claiborne, *Babies Born From Donor Sperm Still Big Business*, ABC NEWS (Nov. 6, 2013) (quoting Deborah Spar, author of *THE BABY BUSINESS*), <http://abcnews.go.com/Health/babies-born-from-donor-sperm-still-big-business/blogEntry?id=20809319>.

37. Guido Pennings et al., *Internal Regulations and Cross-Country Comparisons in REGULATING REPRODUCTIVE DONATION* 39, 44 (Susan Golombok et al. eds. 2016). Assisted Reproductive Technology (ART) is defined by the Center for Disease Control as “fertility treatments in which both eggs and sperm

With respect to the use of artificial insemination by sperm donor (AID), data is extremely limited. The U.S. Congress Office of Technology, on the basis of a 1987 survey, estimated that 30,000 births occurred during the one-year period from 1986 to 1987.³⁸ Since then, the only available data, discussed below, is an estimate from a survey that in the years 2006 to 2010, 714,000 women used artificial insemination.³⁹ “[N]either the fertility industry nor any other entity is required to collect data or reports statistics . . . in stark contrast with cattle insemination, which is much more tightly regulated and surveyed.”⁴⁰ It is known, however, that both the recipients of donated sperm and the system for obtaining donors have changed from 1986. Then, most of the recipients were married while today married couples make up a small minority (excepting lesbian couple). In 1986 most of the donors were recruited by fertility doctors while today most are recruited by sperm banks.⁴¹ In addition, today more unmarried women and married lesbian women enter into informal arrangements in which they use known donors and avoid medical assistance.⁴²

Supplying sperm to consumers has become a big business, with no enforceable limits on the number of offspring created with the sperm of a single donor.⁴³ As long ago as 2007, Forbes reported that “every month California Cryobank, one of the world’s largest sperm banks, ships 2,500 vials of sperm – each costing between \$250 and \$400 – throughout the U.S. and 28 countries.” The information for purchasers in this bank’s online donor catalogue includes “everything from the donor’s hair color to his profession.” For an extra \$70, parents can buy a “‘combination package’ including the donor’s baby photo, a long medical history, an audio interview, a Keirse personality report and a ‘facial features report’ to help parents picture what their child will look like as an adult.”⁴⁴ One sperm bank has a service that purchasers can use to match their own photos to facial

are handled.” *What is Assisted Reproductive Technology?*, CTR. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/art/whatis.html> (last visited Apr. 2, 2018).

38. U.S. CONG., OFFICE TECH. ASSESSMENT, ARTIFICIAL INSEMINATION: PRACTICE IN THE UNITED STATES; SUMMARY OF A 1987 SURVEY—BACKGROUND PAPER, OTA-13P-BA-48 3 (1988).

39. See *infra* note 75 and accompanying text.

40. Wendy Kramer, *A Call by the Donor Sibling Registry to Stop Using the Figures of 30,000–60,000 US Sperm Donor Births*, BIONEW 655 (May 8, 2012), http://www.bionews.org.uk/page_142926.asp.

41. *Id.*

42. Allison Yarrow, *How to Get Pregnant With a Racquetball: The DIY Crowd is Revolutionizing Artificial Insemination*, THE NEW REPUBLIC (Dec. 11, 2014), <https://newrepublic.com/article/120536/fertility-treatment-home-meet-women-who-are-diying-pregnancy>; see also Susan Frelich Appleton, *Between the Binaries: Exploring the Legal Boundaries of Nonanonymous Sperm Donation*, 49 FAM. L. Q. 93 (2015).

43. The American Society of Reproductive Medicine voluntary guidelines merely note, “It has been suggested that in a population of 800,000, limiting a single donor to no more than 25 births would avoid any significant increased risk of inadvertent consanguineous conception.” Prac. Comm., Am. Soc. for Reprod. Med., *Recommendations for Gamete and Embryo Donation: A Committee Opinion*, 99 FERTILITY AND STERILITY 47, 53 (2013). See *infra* notes 247–248 and accompanying text for a report of very large numbers of births from single donors.

44. Mary Crane, *Sperm for Sale*, FORBES (Feb. 9, 2007), http://www.forbes.com/2007/02/09/spermbank-fertility-fda-ent-manage-cx_mc_0209bizoflovesperm.html.

characteristics of potential donors.⁴⁵ In 2013 ABC News reported the expected revenue of the more than 300 U.S. sperm banks: more than \$330 million.⁴⁶

In 2015, another one of the largest sperm banks in the world, Cryos International, was sending vials of sperm to “80 countries and more than 27,000 babies [had] been born from [Cryos International’s] donors.”⁴⁷ The company’s website offers “the widest range of either Anonymous or Non-anonymous donors with either Basic or Extended profiles.” The profiles differ by amount and types of information, which may include audio clips, handwriting samples, emotional intelligence tests, and impressions of bank staff members.⁴⁸

Somewhat more information is available about what is termed Assisted Reproduction Technology (ART), which is defined by the Center for Disease Control (CDC) as “fertility treatments in which both eggs and embryos are handled.”⁴⁹ (This article uses the term “assisted reproduction services” to refer generally to all kinds of intervention, including drugs to stimulate ovulation, artificial insemination, and the use of surrogates, as well as ART.) ART generally entails in vitro fertilization (IVF), and related procedures that involve “surgically removing eggs from a woman’s ovaries, combining them with sperm in the laboratory, and returning them to the woman’s body or donating them to another woman.”⁵⁰ The use of ART accounted for 1.76 % of all the babies born in the U.S. in 2014 (70,354),⁵¹ more than three times as many as in 1996.⁵²

Since the first baby conceived with ART was born in the U.S. in 1981, the use of technologies to overcome infertility and the number of fertility clinics have steadily increased.⁵³ In 2014, when 458 U.S. clinics providing ART were reporting to the CDC,⁵⁴ the number of live births from ART had increased almost one and a half times since 2005;⁵⁵ the number of ART attempts involving either donated

45. Tamar Abrams, *Just the Two of Us*, WASHINGTONIAN, Aug. 12, 2013, at 109.

46. Claiborne, *supra* note 36.

47. Alanna Petroff, *Sperm Specialist: How One Clinic is Satisfying Global Demand*, CNN MONEY (Oct. 21, 2015, 8:53 AM), <http://money.cnn.com/2015/10/21/smallbusiness/sperm-bank-shortage-cryos-denmark/>.

48. *Why Choose Cryos*, CRYOS USA, <https://usa.cryosinternational.com/about-us/why-choose-cryos> (last visited Apr. 2, 2017).

49. CTR. FOR DISEASE CONTROL & PREVENTION (CDC), *supra* note 37.

50. *Id.*

51. CTR. FOR DISEASE CONTROL & PREVENTION, BIRTHS: FINAL DATA FOR 2014, at 4 (2015), https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_12_tables.pdf; CTR. FOR DISEASE CONTROL & PREVENTION, FIGURES FROM THE 2014 ASSISTED REPRODUCTIVE TECHNOLOGY NATIONAL SUMMARY REPORT 2, https://www.cdc.gov/art/pdf/2014-national-summary-slides/art_2014_graphs_and_charts.pdf (last visited Apr. 2, 2018).

52. SASWATI SUNDERAM ET AL., CTR. FOR DISEASE CONTROL & PREVENTION, ASSISTED REPRODUCTIVE TECHNOLOGY SURVEILLANCE—UNITED STATES, 2012, at 1, 11 (2015), <https://www.cdc.gov/mmwr/pdf/ss/ss6406.pdf>.

53. SASWATI SUNDERAM ET AL., CTR. FOR DISEASE CONTROL & PREVENTION, ASSISTED REPRODUCTIVE TECHNOLOGY SURVEILLANCE—UNITED STATES, 2013, at 1 (2015), <https://www.cdc.gov/mmwr/pdf/ss/ss6411.pdf>.

54. CTR. FOR DISEASE CONTROL & PREVENTION, 2014 ASSISTED REPRODUCTIVE TECHNOLOGY NATIONAL SUMMARY REPORT 3 (2016), <https://www.cdc.gov/art/pdf/2014-report/art-2014-national-summary-report.pdf>.

55. *Id.* at 49.

embryos or donor eggs (with the partner's sperm or donated sperm) had increased almost 27 percent;⁵⁶ and the number of embryos transferred to surrogates had almost doubled.⁵⁷ Internationally, it was estimated in 2013 that since the first ART birth in 1978, more than 5 million babies have been born through ART, with half born in the previous 6 years.⁵⁸ The American Society for Reproduction Medicine (ASRM) describes that total number as “about the same as the population of a U.S. state such as Colorado, or a country such as Lebanon or Ireland. This is a great medical success story.”⁵⁹

In 1996, the CDC began data collection from ART providers as mandated by Congress.⁶⁰ However, the kind of data the CDC collects is only for assessing success and safety, important concerns of ART consumers. It does not track the use of donated gametes. The CDC's published data does include which “cycles”⁶¹—that is, which single attempts at IVF—use a donated egg rather than the patient's egg,⁶² but it does not include whether the patient recipient is the intended mother or a gestational surrogate, nor whether the sperm used is the intended father's or a donor's.⁶³ Approximately 10 percent of the cycles reported in 2014 involved donated eggs or donated embryos, and 43 percent of those cycles resulted in live births, that is, “singleton” or multiple births.⁶⁴ For cycles that did not involve donated eggs that year, 27 percent of cycles using fresh non-donor eggs or embryos (with the woman's own egg)⁶⁵ and approximately 40 percent of cycles using frozen non-donor embryos

56. *Id.* at 51.

57. *Id.* at 52.

58. Press Release, Am. Soc. Reproductive Med., Five Million Babies Born with Help of Assisted Reproductive Technologies (Oct. 14, 2013), http://c.ymcdn.com/sites/www.iffis-reproduction.org/resource/resmgr/Five_Million_Babies_Born_wit.pdf.

59. *Id.*

60. Fertility Clinic Success Rate and Certification Act of 1992, 42 U.S.C. §§ 263a–1 to 263a–7 (2012).

In 1996, CDC initiated data collection regarding ART procedures performed in the United States, as mandated by the Fertility Clinic Success Rate and Certification Act of 1992 (FCSRCA) (Public Law 102-493 [Oct. 24, 1992]). Beginning with 2004, CDC has contracted with a statistical survey research organization, Westat, Inc., to obtain data from ART medical centers in the United States. Westat, Inc., maintains CDC's web-based data collection system called the National ART Surveillance System (NASS).

Victoria Clay Wright et al., *Assisted Reproductive Technology Surveillance—United States, 2005*, 57 MORBIDITY & MORTALITY WKLY REP. (MMWR) (2008), <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5705a1.htm>.

61. A cycle begins with stimulation of the ovaries and, if the cycle is successfully completed, it proceeds through egg retrieval, fertilization, transfer, implantation, pregnancy, and live birth. CTR. FOR DISEASE CONTROL & PREVENTION, 2011 ASSISTED REPRODUCTIVE TECHNOLOGY NATIONAL SUMMARY REPORT 10 (2013), https://www.cdc.gov/art/art2011/pdfs/art_2011_national_summary_report.pdf.

62. ART procedures are classified into four groups according to whether the ART cycle involved the retrieval and fertilization of eggs (fresh cycle) or the thawing of previously frozen embryos (frozen cycle), and whether the eggs or embryos were those of the intended mother or were from a donor. Because both live-birth rates and multiple-birth risk vary substantially among these four treatment groups, data are presented separately for each type. Wright et al., *supra* note 60.

63. *See id.*

64. CTR. FOR DISEASE CONTROL & PREVENTION, *supra* note 54, at 5.

65. *Id.* at 14.

(with the woman's own egg) resulted in live births.⁶⁶ Of the clinics providing ART, 97 percent served single women, 87 percent allowed the use of gestational carriers, 93 percent allowed the use of donor eggs, and 72 percent allowed the use of donor embryos.⁶⁷

Two other CDC programs have collected data on the use of infertility treatment, but neither tracks the use of donated gametes. One program estimated that from 2004 to 2011 the annual percent of women who had used fertility treatments, among all women who had recently given birth, hovered around 5.5%.⁶⁸ The program uses a Pregnancy Risk Assessment Monitoring System (PRAMS) questionnaire⁶⁹ to collect data for researchers. States administer the questionnaire to samples of women who have recently given birth. The data collected is “for state health officials to use to improve the health of mothers and infants.”⁷⁰ In every state, the woman is asked simply whether she took “any fertility drugs or receive[d] any medical procedures from a doctor, nurse, or other health care worker to help [her] get pregnant with [her] *new* baby?”⁷¹ In 10 states she is also asked about whether sperm was collected and inserted in her body and whether ART was used, but she is not asked whether the sperm was the intended father's or a donor's nor whether ART involved a donated egg or sperm.⁷²

The second data collection program is the CDC's National Survey of Family Growth (NSFG). The NSFG, which conducted interviews from 2006 to 2010, presents “a benchmark from which to gauge the prevalence and potential demand for specific infertility services in the United States.”⁷³ For the years 2006–2010, the program estimated that 17% (6.9 million) of women aged 25 to 44 had used some type of infertility medical service.⁷⁴ Artificial insemination was reported by 1.7

66. *Id.* at 43.

67. *Id.* at 5.

68. Among the participating states with adequate response rates, the percentage during the years 2004 to 2011 hovered around 5.5%. See *Explore PRAMS Data by Topic*, CTR. FOR DISEASE CONTROL & PREVENTION (follow “Class: Family Planning,” and “Topic: Assisted Reproduction”), https://nccd.cdc.gov/PRAMStat/rdPage.aspx?rdReport=DRH_PRAMS.ExploreByTopic&isClassId=CLA4&isTopicId=TOP50&go=GO (last visited Apr. 2, 2018).

69. The PRAMS sample of women who have had a recent live birth is drawn from the state's birth certificate file. Each participating state samples between 1,300 and 3,400 women per year. Women from some groups are sampled at a higher rate to ensure adequate data are available in smaller but higher risk populations. Selected women are first contacted by mail. If there is no response to repeated mailings, women are contacted and interviewed by telephone. Data collection procedures and instruments are standardized to allow comparisons between states. *Methodology*, CTR. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/prams/methodology.htm> (last visited Apr. 2, 2018).

70. *About PRAMS*, CTR. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/prams/aboutprams.htm> (last visited Apr. 2, 2018).

71. CTR. FOR DISEASE CONTROL & PREVENTION, PHASE 8 STANDARD QUESTIONS (2016), <https://www.cdc.gov/prams/pdf/questionnaire/Phase-8-Standard-Core-Questions-508.pdf>.

72. *Id.*

73. A. CHANDRA ET AL., NAT'L HEALTH STAT., INFERTILITY SERVICE USE IN THE UNITED STATES: DATA FROM THE NATIONAL SURVEY OF FAMILY GROWTH, 1982–2010, at 9 (2014).

74. *Id.* at 5. Infertility services or “[a]ny medical help to have a baby” included medical help to get pregnant or to prevent miscarriage. Women could report both types of medical help. *Id.*

percent of women aged 25–44 (about 714,000 women). ART was reported by 0.7% (about 275,000).⁷⁵

The increasing use of donor eggs is likely occurring in part because of the increasing age of women giving birth for the first time. From 2000 to 2012, first birth rates for women 35–39 years of age rose 24 percent and rose 35 percent for women aged 40–44.⁷⁶ In 2012 there were nine times more first births to women 35 and older than there had been in 1972, 40 years earlier.⁷⁷ The older first-time birthmothers are generally better educated and wealthier than younger women⁷⁸ so they have more resources for accessing ART,⁷⁹ but their chances of successful ART cycles with their own eggs are less than the chances of younger women.⁸⁰ “A woman’s age is the most important factor affecting the chance of a live birth when her eggs are used,” with percentages declining “steadily among women in their mid-30s onward.”⁸¹ Among attempted ART cycles in 2011, 97 percent of women younger than age 35 used their own eggs,⁸² whereas only 63 percent of women aged 40–44 and only 31 percent of women older than age 44 used their own eggs.⁸³ The fact that “older eggs” are less productive is also related to the current trend of younger women freezing their eggs for their own later use.⁸⁴

Use of donor gametes is also increasing because of the increase in the number of families headed by gay or lesbian parents. While 63,000 same-sex couples were raising children in 2000, the figure today is more than 110,000.⁸⁵ According to Census 2010, same-sex couples are raising nearly 170,000 biological, step, or adopted children.⁸⁶ Same-sex couples have sought and taken advantage of the availability in many states of “second parent adoptions,” in which a same-sex parent, like a married step-parent, can become a legal parent of his or her partner’s biological

75. *Id.* at 7.

76. T.J. MATHEWS & B.E. HAMILTON, CTR. FOR DISEASE CONTROL & PREVENTION, FIRST BIRTHS TO OLDER WOMEN CONTINUE TO RISE 6 (2014), <https://www.cdc.gov/nchs/data/databriefs/db152.pdf>.

77. *Id.*

78. *Id.* at 1.

79. CTR. FOR DISEASE CONTROL & PREVENTION, *supra* note 61, at 18.

80. *Id.* at 42.

81. *Id.* at 18.

82. *Id.* at 8.

83. CTR. FOR DISEASE CONTROL & PREVENTION, *supra* note 61, at 8. A related trend is the use of “egg banking,” which has become technically feasible and available. It allows younger women to have eggs extracted and frozen for possible future use. In 2014, 35,406 (17%) of the total 208,604 ART cycles were for banking eggs.

CTR. FOR DISEASE CONTROL & PREVENTION, *supra* note 54, at 3.

84. Charlotte Alter, *The Truth About Freezing Your Eggs*, TIME (Jul. 16, 2015), <http://time.com/3960528/the-truth-about-freezing-your-eggs/>.

85. Press Release, Williams Inst., UCLA Sch. of Law, As Overall Percentage Of Same-Sex Couples Raising Children Declines, Those Adopting Almost Doubles—Significant Diversity Among Lesbian and Gay Families, (Jan. 25, 2012), <http://williamsinstitute.law.ucla.edu/press/press-releases/as-overall-percentage-of-same-sex-couples-raising-children-declines-those-adopting-almost-doubles-significant-diversity-among-lesbian-and-gay-families/>.

86. GARY J. GATES, THE WILLIAMS INSTITUTE, LGBT PARENTING IN THE UNITES STATES 1 (2013), <http://williamsinstitute.law.ucla.edu/wp-content/uploads/LGBT-Parenting.pdf>.

or adopted child.⁸⁷ And states were moving to and now have been directed by the U.S. Supreme Court to designate as a parent the female wife of a woman who gives birth.⁸⁸

BIRTH REGISTRATION

“Certificates of live birth” serve multiple purposes. They provide the basic information used to issue birth certificates, but they also record crucial information for medical, public health, and social science research and policy making.⁸⁹ “State laws require birth certificates to be completed for all births,” as the Center for Disease Control (CDC) explains, and “[f]ederal law mandates national collection and publication of births and other vital statistics data.”⁹⁰ The states forward information to the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention (CDC). The NCHS compiles the information, publishes statistics, and makes raw data available, without personally identifying information, to qualified researchers.⁹¹ All states coordinate their information collection with the information requirements of the U.S. Standard Certificate of Live Birth. The latest revision of that certificate, in 2003, added greater specificity about parents’ races and education; more detailed information about the mother’s cigarette smoking history; information about the mother’s socioeconomic status (via (1) information about receipt of the Woman, Infant, and Children (WIC)⁹² food program and (2) the means of payment for delivery); and some information about infertility treatment.⁹³

The information required by the U.S. Standard Certificate of Live Birth includes the basic information states place on individuals’ birth certificates, which is generally at least the child’s and the parents’ names; the place, date, and time of birth; and the sex of the child. Many other items of information that the U.S. standard certificate requires can be found in the certificate’s sections labeled “INFORMATION FOR ADMINISTRATIVE USE” and “INFORMATION FOR

87. See, e.g., *Second Parent Adoption*, HUMAN RIGHTS CAMPAIGN, http://www.hrc.org/resources/second-parent-adoption?gclid=Cj0KEQjw9b6-BRCq7YP34tvW_uUBEiQAKK3svdY1H_t6VDFzoF4UfhPKj2R8KC89zdaQccGX47Djz7waAr0-8P8HAQ (last visited Apr. 2, 2018); Ivan Espinoza-Madrigal, *Lambda Legal Condemns Ruling Denying Second-Parent Adoption in Puerto Rico* (Feb. 21, 2013), <http://www.lambdalegal.org/blog/lambda-legal-condemns-ruling-denying-second-parent-adoption-to-lesbian-couple-in-puerto-rico> (last visited Apr. 2, 2018).

88. *Pavan v. Smith*, 137 S. Ct. 2075, 2079 (2017).

89. Paula Gerber & Phoebe Irving Lindner, *Birth Certificates for Children With Same-Sex Parents: A reflection of Biology or Something More?*, 18 N.Y.U.J. LEGIS. & PUB. POL’Y 225, 233–34 (2015).

90. *Birth Data*, CTR. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/nchs/births.htm> (last visited Apr. 2, 2018).

91. *Id.*

92. “The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides Federal grants to States for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.” *Women, Infants, and Children (WIC)*, U.S. DEPT. OF AGRIC., FOOD & NUTRITION SERV., <http://www.fns.usda.gov/wic/women-infants-and-children-wic> (last visited Apr. 2, 2018).

93. DIV. OF VITAL STAT. NAT’L CTR FOR HEALTH STAT., REPORT OF THE PANEL TO EVALUATE THE U.S. STANDARD CERTIFICATES 97–98, 102–103, 110–111 (2001), https://www.cdc.gov/nchs/data/dvs/panelreport_acc.pdf; CTR. FOR DISEASE CONTROL & PREVENTION, U.S. STANDARD CERTIFICATE OF LIVE BIRTH (2003), <https://www.cdc.gov/nchs/data/dvs/birth11-03final-ACC.pdf>.

MEDICAL AND HEALTH PURPOSES ONLY.”⁹⁴ The items there include social and medical information about both the parents and the child. Information about the baby includes an estimate of gestation, birth weight, “abnormal conditions,” and “congenital anomalies.” Information about both parents includes level of education, whether they are of Hispanic origin, and race. For the mother, the information includes marital status; height and weight; prenatal care; complications associated with the labor and delivery; number and result of previous pregnancies; history of cigarette smoking; whether she has had diabetes, hypertension, a sexually transmitted disease, or either hepatitis B or C; whether the pregnancy resulted from infertility treatment, and if so, whether she had either (1) “Fertility-enhancing drugs, artificial insemination or Intrauterine insemination” or (2) “Assisted reproductive technology (e.g., in vitro fertilization (IVF))”⁹⁵ in which the fertilized egg is introduced into the uterus, or “gamete intrafallopian transfer (GIFT)”⁹⁶ in which the fertilized egg is inserted in a fallopian tube”). The U.S. standard certificate does not require information on the use of donated gametes, and its very limited infertility treatment items were only added in the 2003 revision of the certificate. The form does not indicate whether the listed father and mother are genetic parents, social parents, or, in the mother’s case, whether she is a gestational carrier for the intended parent or parents.⁹⁷ In contrast, the registration system proposed here would identify and collect relevant information about all the men and women involved biologically and socially in the child’s birth.

Parents’ Names on the Birth Certificate

The issue of whose names will appear as parents on the birth certificate arises in a number of different situations. One situation is where the woman giving birth is a surrogate bearing a child for either a gay male couple or a heterosexual couple. With respect to *paternity* and a gay male couple in this situation, the child will be genetically related to only one or, with donated sperm, to neither of the male parents. With respect to paternity and a heterosexual couple, the child will be genetically related either to the intended father or to a sperm donor. In either situation, however, if all the parties are in agreement, one of the gay male parents or the intended father in the heterosexual couple can simply acknowledge paternity—whether it be genetic and social or simply social—unless the surrogate is married

94. CTR. FOR DISEASE CONTROL & PREVENTION, *supra* note 93.

95. *In vitro fertilization*, MERRIAM-WEBSTER ONLINE DICTIONARY, <http://www.merriam-webster.com/dictionary/in%20vitro%20fertilization> (“[F]ertilization of an egg in a laboratory dish or test tube; *specifically*: mixture usually in a laboratory dish of sperm with eggs which have been obtained from an ovary that is followed by introduction of one or more of the resulting fertilized eggs into a female’s uterus—abbreviation *IVF*.”).

96. *Gamete intra-fallopian transfer*, MERRIAM-WEBSTER ONLINE DICTIONARY, <http://www.merriam-webster.com/dictionary/gamete%20intrafallopian%20transfer> (“[A] method of assisting reproduction in cases of infertility in which eggs are obtained from an ovary, mixed with sperm, and inserted into a fallopian tube by a laparoscope—abbreviation *GIFT*; called also *gamete intrafallopian tube transfer*. . .”).

97. See CTR. FOR DISEASE CONTROL & PREVENTION, *supra* note 93.

and the state requires that her husband's name be placed on the certificate.⁹⁸ If the man seeking to be recognized as the father is not married to the woman who gave birth, he may be required to sign the state's voluntary acknowledgement of paternity form in order to be listed on the birth certificate.⁹⁹ Similarly, if the intended mother is the woman who gives birth to a child conceived with a donated egg, donated sperm, or both, she as the birth mother and her spouse or her unmarried male partner may agree for him to acknowledge paternity.

With a surrogate, the child may be genetically related to the surrogate, to the intended mother, or to a woman who has donated an egg (or part of an egg). To allow parents to list on the birth certificate the name of the intended mother, some states, whether by statute or case law, require pre-birth orders, some require post-birth orders, and some require both pre-birth and post-birth orders.¹⁰⁰ (Provisions for intended parents to be treated as the parents at birth are included in the American Bar Association's Model Act Governing Assisted Reproductive Technology¹⁰¹ and in both the Uniform Parentage Act¹⁰² and the Uniform Probate Code.¹⁰³) In the States of Illinois¹⁰⁴ and Washington¹⁰⁵ no court order is required if all statutory requirements for surrogacy are met. At the other extreme, a small number of states will not recognize a non-gestational, non-genetic mother as a parent,¹⁰⁶ in which case the intended parents must seek, if available to them, a second-parent adoption, which will entail the state issuing a new, amended birth certificate. Similarly, when the intended second parent of the child born to the surrogate is a second male partner or

98. See, e.g., MICH. COMP. LAWS ANN. § 333.2824 (West 2001) ("The name of the husband at the time of conception or, if none, the husband at birth shall be registered as the father of the child.")

99. Establishment of paternity, 45 C.F.R. § 303.5 (2017).

100. Michelle A. Keeyes, *ART in the Courts: Establishing Parentage of ART Conceived Children (Part 2)*, 15 WHITTIER J. CHILD & FAM. ADVOC. 189, 191–193 (2016). In California, for example, courts have issued pre-birth orders under which intended parents are then listed on the birth certificate. Otherwise, a post-birth amended certificate must be issued. KINDREGAN, JR., & MCBRIEN, *supra* note 33, at 164. Examples of court orders include *Culliton v. Beth Israel Deaconess Medical Center*, 756 N.E.2d 1133 (Mass. 2001) and *St. Mary v. Damon*, 309 P.3d 1027, 1030 (Nev. 2013). Maryland courts also issue parentage orders in surrogacy cases. See Diane S. Hinson & Linda C. ReVeal, *Gestational Surrogacy in Maryland Alive and Well after Roberto d.B.*, FAMILY LAW NEWS, <http://docplayer.net/18193562-Gestational-surrogacy-in-maryland-alive-and-well-after-roberto-d-b.html> (last visited Apr. 21, 2018). In *In re Roberto d.B.*, 923 A.2d 115 (Md. 2007), the Maryland Court of Appeals ordered the gestational surrogate's name to be removed from a birth certificate, leaving only the name of the single father who had inseminated a donated egg with his sperm. In Utah, a federal trial court held that Utah must allow intended parents' names on the birth certificate if they prove that they are the *genetic* parents of a child carried by a gestational surrogate. *J.R. v. Utah*, 261 F. Supp. 2d 1268, 1293 (D. Utah 2002). The Supreme Court of New Jersey declined to order an intended mother's name to be placed on the birth certificate when she was not the genetic mother. In the Matter of the Parentage of a Child by T.J.S. and A.L.S., h/w, 419 N. J. Super. 46 (2011), *aff'd*, 212 N.J. 334 (2012).

101. AMERICAN BAR ASSOCIATION MODEL ACT GOVERNING ASSISTED REPRODUCTIVE TECHNOLOGY, ALTERNATIVE A, § 701, ALTERNATIVE B, § 701 (2008).

102. UNIF. PARENTAGE ACT, §§ 801–18 (NAT'L CONF. OF COMM'RS ON UNIF. ST. LAWS 2017).

103. UNIFORM PROBATE CODE, §§ 2-120 to -121 (NAT'L CONF. OF COMM'RS ON UNIF. ST. LAWS 2010).

104. Gestational Surrogacy Act, 750 ILL. COMP. STAT. ANN. §§ 47-1 to 47-75 (West 2005); Illinois Parentage Act of 1984, 750 ILL. COMP. STAT. ANN. § 47-35 (West 2005).

105. WASH. REV. CODE ANN. § 26.26.740 (West 2012).

106. Keeyes, *supra* note 100, at 193.

an unmarried female—either of whom may or may not be genetically related to the child—neither can be named on the birth certificate without enabling state statutory or case law. If the state does not provide a means for placing these intended parents' names on the birth certificate, these parents will also have to turn to adoption law.¹⁰⁷

In a recent survey of states' evolving laws, which was prepared for prospective parents contemplating surrogacy, seven fully “green light” states and the District of Columbia are identified in which compensated “surrogacy is permitted, pre-birth orders are granted throughout the state, and both [intended] parents will be named on the birth certificate.”¹⁰⁸ Twenty-nine partially “green light” states are identified in which “[s]urrogacy is permitted but results may be dependent on various factors or venue; OR only a post-birth parentage order is available.”¹⁰⁹ Nine other states are classified as states in which “[s]urrogacy is practiced, but there are potential legal hurdles; or results may be inconsistent,”¹¹⁰ and 5 others are classified as “red light” states in which compensated surrogacy is prohibited or a birth certificate naming both parents is not available.¹¹¹

Instead of listing the intended parents on the original birth certificate, some states seal the original certificate and issue a new, substitute certificate with the intended parents' names. Florida, for example, provides that if there is a legally binding surrogacy agreement and at least one of the intended parents is a genetic parent of the child, the intended parents may file a petition within three days of the birth and obtain a new birth certificate.¹¹² Similarly under a gestational surrogacy agreement in Connecticut, “the intended parent or parents . . . shall be named as the parent or parents” on a replacement certificate.¹¹³

A different situation exists when one member of a married lesbian couple gives birth via conception with donated sperm and her own egg, her wife's egg, or a donated egg. The Supreme Court in June 2017 held that when a state allows married parents to list the husband's name, regardless of his biological relationship to the child, then it “may not, consistent with *Obergefell*,^[114] deny married same-sex couples that recognition.”¹¹⁵ Before then, a number of states had chosen to, or were ordered by their courts to, place the birth mother's wife's name on the birth certificate. Maryland, for example, by action of its Department of Health and Mental Hygiene, directed that a woman can be named as a parent of the child born to her same-sex spouse.¹¹⁶ In Iowa, litigation led the Iowa Supreme Court to order the state

107. See, e.g., *Parent-Child Relationships*, MARRIAGE EQUALITY FACTS, <https://marriageequalityfacts.org/topic/parentage/> (last visited Apr. 21, 2018).

108. *Gestational Surrogacy Las Across the Unites States*, CREATIVE FAMILY CONNECTIONS LLC, <http://www.creativefamilyconnections.com/us-surrogacy-law-map> (last visited April 21, 2018) (Calif., Conn., Del., D.C., Me., N.H., Nev., R.I.).

109. *Id.* (Ak., Ala., Ark., Col., Fla., Ga., Hi., Ill., Kan., Ky., Mass., Md., Minn., Mo., Mont., N.C., N.D., N.M., Ohio, Okl., Ore., Penn., S.C., S.D., Tex., Utah, Vt., Wisc., W.V.).

110. *Id.* (Az., Idaho, Iowa, Ind., Miss., Neb., Tenn., Va., Wy.).

111. *Id.* (La., Minn., N.J., N.Y., Wa.).

112. FLA. STAT. ANN. § 742.16 (West 2017).

113. CONN. GEN. STAT. ANN. § 7-48a (West 2016)

114. *Obergefell v. Hodges*, 576 U.S. 135 (2015).

115. *Pavan v. Smith*, 582 U.S. 137 (2017).

116. Advocate.com Editors, *MD OK's Two Moms on Birth Certificate*, ADVOCATE, Feb. 14, 2011, <https://www.advocate.com/news/daily-news/2011/02/14/md-oks-two-moms-birth-certificates>.

to treat children of lesbian couples as having two parents at birth.¹¹⁷ Similarly, federal district courts in Indiana and Utah required a birth mother's female spouses to be accorded the same right as male spouses to be listed on the birth certificate.¹¹⁸

Regardless of whether the state allows birth certificates to list the names of the intended parents in these and some other situations (such as when a husband and wife arrange to have the wife carry a donated embryo) the birth certificate does not provide accurate information about all of the child's genetic, biological, and social connections. And the information that was recorded on the "certificate of live birth" for medical and health purposes did not indicate whether it concerned gestational, genetic, or social parents. The lack of more complete and accurate information on the birth certificate, such as the gestational mother's name, has created, in the words of legal scholar David Smolin, a legal regime "that distorts the very concept of a birth certificate."¹¹⁹

Medical, Public Health, Social Science Uses of Birth Statistics

When the highest Massachusetts court ordered intended and genetic parents' names rather than the gestational surrogate's name to be placed on a birth certificate, the court recognized the importance for public health of complete information for "monitor[ing] maternal and infant health and mortality, as well as conduct[ing] research on birth from assisted reproductive technology." The court said its decision did not "relieve the hospital's reporters of the duty to supply the department or registrar with the confidential information concerning the identity of the woman who delivered the child" even though that information would not appear on the birth certificate.¹²⁰ Similarly, a spokesperson for the Connecticut Department of Health raised related concerns in response to a legislative proposal to place intended parents' names on birth certificates. With both surrogacy and artificial insemination by donor births, "the Department often does not receive information regarding the genetic parents, thereby creating inaccuracies in our birth records and the data contained within, as well as the research that relies upon this data for surveilling maternal and infant health and mortality." An additional problem arising from the absence of genetic parents on birth certificates is "the registrant's inability to use these records to learn about one's family ancestry, or to gather vital information about one's genetic health history."¹²¹

117. *Gartner v. Iowa Dep't of Pub. Health*, 830 N.W.2d 335 (Iowa 2013).

118. *Henderson v. Adams*, No. 1:15-cv-00220-TWP-MJD, 2016 WL 7492478 (S.D. Ind. Dec. 30, 2016); *Roe v. Patton*, No. 2:15-CV-00253-DB, 2015 WL 4476734 (D. Utah July 22, 2015). A court in Oregon held in 2015 that a woman's unmarried female partner was a parent under a statute because she consented to the insemination and the couple would have chosen to marry if that choice had been available to them. *See also* *In re Madrone*, 350 P.3d 495 (Or. Ct. App. 2015).

119. David M. Smolin, *Surrogacy as the Sale of Children: Applying Lessons Learned from Adoption to the Regulation of the Surrogacy Industry's Global Marketing of Children*, 43 PEPP. L. REV. 265, 338 (2016).

120. *Culliton v. Beth Israel Deaconess Med. Ctr.*, 756 N.E.2d 1133, 1140-41 (Mass. 2001).

121. MEG HOOPER, RESPONSE FROM DEPT. OF HEALTH TO JUDICIARY COMM., JOINT FAVORABLE REPORT ON SB-1137: AN ACT CONCERNING BIRTH CERTIFICATES (2009), <https://www.cga.ct.gov/2009/JFR/S/2009SB-01137-R00JUD-JFR.htm>.

Vital statistics compiled from “certificates of live birth” are an important resource for medical, public health, and social science population-based research.¹²² “Birth registration is one of the foundations of public health,” according to medical researchers writing in the *Journal of Perinatology*.¹²³ The statistics they record are “an important source of data for perinatal and obstetric epidemiologic research,” although some limitations of the data may make them “unsuitable for research intended to directly evaluate or guide clinical practice.”¹²⁴ The statistics “contribute to analysis of relationships between demographic factors and pregnancy outcomes such as preterm birth and infant mortality, including delineation of inequalities in those outcomes.”¹²⁵ A brief Internet search for recent papers using birth statistics reveals a wide range of topics. To cite a few examples, papers were published about changing patterns of nonmarital childbearing;¹²⁶ racial and ethnic disparities in infant mortality rates;¹²⁷ and differences by race and ethnicity with respect to maternal age and parity-associated preterm birth risks.¹²⁸ With respect to maternal factors, researchers studied smoking in pregnancy and birth defects;¹²⁹ marital status and birth outcomes;¹³⁰ the effects of maternal age, birth order, and race on birth weight;¹³¹ maternal age and stillbirth risk;¹³² and adverse outcomes in teenage pregnancy.¹³³ One paper looked at paternal factors and low birth weight.¹³⁴ Examples of other

122. See Sally Northam & Thomas Knapp, *The Reliability and Validity of Birth Certificate*, 35 J. OF OBSTETRIC, GYNECOLOGIC, & NEONATAL NURSING 3 (2006). See also Joyce A. Martin et al., *Assessing the Quality of Medical and Health Data From the 2003 Birth Certificate Revision: Results From Two States*, 62 NAT'L VITAL STATISTICS REPORTS 1 (2013). The value of the data is of course related to its accuracy. A 2006 review of literature on the reliability of the data concluded that the reliability varies “considerably by item” and recommended that nurses both improve data quality and spread the word about its importance. See *id.*

123. HL Brumberg et al., *History of the Birth Certificate: From Inception to the Future of Electronic Data*, 32 J. OF PERINATOLOGY 407, 407 (2012).

124. Kenneth C. Schoendorf & Amy M. Branum, *The Use of United States Vital Statistics in Perinatal and Obstetric Research*, 194 AMERICAN J. OBSTETRICS & GYNECOLOGY 911, 914 (2006).

125. *Id.*

126. See, e.g., STEPHANIE J. VENTURA, CHANGING PATTERNS OF NONMARITAL CHILDBEARING IN THE UNITED STATES (2009), <https://www.cdc.gov/nchs/data/databriefs/db18.pdf>.

127. MARIAN F. MACDORMAN & T.J. MATHEWS, UNDERSTANDING RACIAL AND ETHNIC DISPARITIES IN THE U.S. INFANT MORTALITY RATES (2011), <https://www.cdc.gov/nchs/data/databriefs/db74.pdf>.

128. Ashley H. Schempf et al., *Maternal Age and Parity-Associated Risks of Preterm Birth: Differences by Race/Ethnicity*, 21 PEDIATRIC AND PERINATAL EPIDEMIOLOGY 34, 34–43 (2007).

129. Allan Hackshaw et al., *Maternal Smoking in Pregnancy and Birth Defects: A Systematic Review Based on 173,687 Malformed Cases and 11.7 Million Controls*, 17 HUMAN REPRODUCTION UPDATE 589 (2011).

130. Prakesh Shah et al., *Maternal Marital Status and Birth Outcomes: A Systematic Review and Meta-Analyses*, 15 MATERNAL & CHILD HEALTH J. 1097 (2011).

131. Geeta K. Swamy et al., *Maternal Age, Birth Order, and Race: Differential Effects on Birthweight*, 66 J. OF EPIDEMIOLOGY & COMMUNITY HEALTH 136 (2012).

132. U.M. Reddy et al., *Maternal Age and the Risk of Stillbirth Throughout Pregnancy in the United States*, 195 AM. J. OBSTETRICS & GYNECOLOGY 764 (2006).

133. X.K. Chen et al., *Teenage Pregnancy and Adverse Birth Outcomes: A Large Population Based Retrospective Cohort Study*, 36 INTERNAT'L J. EPIDEMIOLOGY 363 (2007).

134. Prakesh Shah, *Paternal Factors and Low Birthweight, Preterm, and Small for Gestational Age Births: A Systematic Review*, AM. J. OBSTETRICS & GYNECOLOGY 103 (2010).

topics are maternal and newborn morbidity at different birth facilities,¹³⁵ epidural and spinal anesthesia during labor,¹³⁶ spina bifida and anencephalus trends,¹³⁷ and differences in birth weight and gestational ages.¹³⁸

Many medical and public health topics, however, cannot be explored at all because it is not possible from birth records, or other data sources, to extract information about births involving surrogates, donated eggs,¹³⁹ donated sperm, separately donated both eggs and sperm, or donated embryos. Among the topics that cannot be studied are relationships among the facts of surrogacy, artificial insemination, egg donation combined with a father's or donor's sperm, and embryo donation, with information about the pregnancy, birth, the mother (genetic or social or both), the father (genetic or social or both), and the infant. In the social sciences, the ability of researchers to follow and analyze trends in family formation is similarly handicapped by a lack of population-wide information.

BIOLOGICAL AND SOCIAL IDENTITY

There is an emerging trend worldwide toward recognizing adult donor offspring's desire for and a right to access identifying information about the donors whose genes are, undeniably, a significant factor in the offspring's development.¹⁴⁰ Although debate continues about the significance of nature and nurture, and about justifications for and objections to access, access to identifying information in government records¹⁴¹ is increasingly being viewed as a basic right of adult donor offspring as well as adult adoptees.¹⁴² Among donor offspring, there has developed an international movement seeking access to information about their genetic origins as well as access to information about those with whom they share a gamete donor.¹⁴³ In the United States, however, donor offspring have no guarantee that records

135. Joseph R. Wax et al., *Maternal and Newborn Morbidity by Birth Facility Among Selected United States 2006 Low-Risk Births*, 202 AM. J. OBSTETRICS & GYNECOLOGY 152 (2010).

136. Michelle J.K. Osterman & Joyce A. Martin, *Epidural and Spinal Anesthesia Use During Labor: 27-State Reporting Area, 2008*, 59 NAT'L VITAL STAT. REP. 1 (2011).

137. T.J. MATTHEWS, NAT'L CTR FOR HEALTH STAT., TRENDS IN SPINA BIFIDA AND ANENCEPHALUS IN THE UNITED STATES, 1991–2005 (2009), https://www.cdc.gov/nchs/data/hestat/spine_anen/spine_anen.pdf.

138. William M. Callaghan & Patricia M. Dietz, *Differences in Birth Weight for Gestational Age Distributions According to the Measures Used to Assign Gestational Age*, 171 AM. J. EPIDEMIOLOGY 826 (2010).

139. As discussed above there is some data available about donated eggs, but it is not linked to birth records. See *supra* notes 62–67 and accompanying text.

140. See *infra* notes 236–281 and accompanying text.

141. In situations in which the husband or male partner of a woman giving birth either does not know that the pregnancy was the result of an affair, or knows and with the woman wishes to conceal that fact, the birth registration would be inaccurate in the absence of a state program to conduct routine DNA testing. Thus a state might accept, and researchers in the analysis of data might adjust for, a certain percentage of inaccurate paternity. The child's ability to obtain accurate information would be foiled in those cases by private actions. "A couple of recent studies from Western Europe suggest that somewhere between 0.6 and 0.9 percent of men are unknowingly raising another man's child." Barry Starr, *New DNA Studies Debunk Misconceptions About Paternal Relationships*, KQED SCIENCE (Nov. 25, 2013), <https://ww2.kqed.org/science/2013/11/25/new-dna-studies-debunk-misconceptions-about-paternal-relationships/>.

142. See *infra* notes 257–281 and accompanying text.

143. See *infra* notes 236–253 and accompanying text.

containing the identity of their donor or donors even exist. Federal regulations require clinics to preserve records for only 10 years.¹⁴⁴ Donor offspring and their parents have taken matters into their own hands with the private Donor Sibling Registry (DSR), which was founded in 2000. The DSR “assist[s] individuals conceived as a result of sperm, egg or embryo donation [who] are seeking to make mutually desired contact with others with whom they share genetic ties.”¹⁴⁵ The DSR has facilitated thousands of sibling matches,¹⁴⁶ and has connected offspring and their parents with donors, both through comparisons of donor offspring’s available information and through DNA testing.¹⁴⁷

Nature and Nurture

The common understanding and the scientific consensus is that genetic endowment plays a significant role in the complex process of human development, although its importance relative to environmental factors is a continuing subject of debate. It is hardly surprising therefore that donor offspring might seek information about their genetic forbearers. And given that couples use assisted reproduction, as Professor Naomi Cahn points out, to “establish a genetic attachment between one of them and a child, it should not be surprising that children would want to know about other aspects of their genetic heritage.”¹⁴⁸ Or as a donor conceived adult blogged, “So you want a biologically related child because it’s important to you, but we are not allowed to feel grief that one or both of our biological parents are not raising us?”¹⁴⁹ The significance prospective parents attach to genetics is also suggested by the extensive information about egg and sperm donors that banks make available to prospective parents (e.g., baby and current photos, medical history, personality and intelligence tests, audio clips, etc.).¹⁵⁰ And, with respect to the health of donor-conceived offspring, as will be discussed below, it will continue for the foreseeable future to be advantageous to know and have up-to-date information about genetic relatives’ medical histories.¹⁵¹

The relative role of nature and nurture in an individual’s development has long been a subject of debate, with a pendulous swing between an emphasis on nature in the early 20th Century to an emphasis on nurture beginning in the mid 20th

144. Fertility Clinic Success Rate & Certification Act of 1992, 42 USC §§ 263a, 263a-2d (2017); Human Cells, Tissues, and Cellular and Tissue-Based Product, 21 C.F.R. §§ 1271.3(d), 1271.55; Implementation of the Fertility Clinic Success Rate and Certification Act of 1992—A Model Program for the Certification of Embryo Laboratories, 64 Fed. Reg. 39374-01 (July, 21, 1999).

145. *Our History and Mission*, THE DONOR SIBLING REGISTRY, <https://donorsiblingregistry.com/about-dsr/history-and-mission> (last visited Apr. 21, 2018).

146. *Success Stories*, THE DONOR SIBLING REGISTRY, <https://donorsiblingregistry.com/success-stories> (last visited Apr. 21, 2018).

147. *Id.*

148. CAHN, *supra* note 2, at 219. Scholar David M. Smolin, in critiquing the assisted reproduction industry, notes that it seeks “to provide an ‘as if’ exclusivist two-parent family to its clients, the intended parents. Hence, the surrogacy industry imposes a distorted legal form of the traditionalist nuclear family upon family constellations which are far more complex.” Smolin, *supra* note 119, at 338.

149. Lindsay M. Greenawalt, *All You Need Is . . . Love??*, CONFESSIONS OF A CRYOKID (Mar. 15, 2008, 5:20 PM), http://cryokidconfessions.blogspot.com/2008/03/all-you-need-islove_15.html.

150. See *supra* notes 44–48 and accompanying text.

151. See *infra* notes 189–195.

Century.¹⁵² But the scientific consensus is that both nature and nurture, however one precisely defines either, are essential parts of human development that interact with one another in complex ways, from conception to the end of an individual's life. The predominant thinking of the past few decades is that "[n]ature and nurture are now known to *always* interact during development. . . . [They] are both *essential* to the development of [an individual's] characteristics. . . ."¹⁵³ The characteristics—or to use the technical term, phenotypes¹⁵⁴—are physical, intellectual, and behavioral ones.¹⁵⁵ As one scientist argues, “to the extent that our interest is in what makes us what we are, it is useless to proceed by trying to separate nature from nurture and looking at how they interact. The causal effects of nature and nurture on development are simply not separable.”¹⁵⁶ More precisely, there are “master-regulatory genes” that do have a strong binary effect, such as genes that determine male versus female anatomy or short versus average stature. But most genes “lie in lower rungs of cascades of information” and only determine propensities, propensities that are affected by chance and environment.¹⁵⁷

Justifications for and Arguments Against Access to Information

The arguments about donor offspring's access to information, information both about their conception and about their donors, are philosophical and instrumental. Philosophically, it is argued in favor of access that the interest in individuals' autonomy requires access to identifying information by donor offspring. Instrumentally, it is argued in favor of access that providing information avoids a catalog of harms: to family relationships due to continual deception, to offspring who learn through third parties or late in life about their conception, to offspring's medical and psychological needs, and to offspring's ability to avoid incestuous relations.¹⁵⁸ In opposition, it is argued that that access to information decreases the availability of donated gametes to the detriment of children who therefore would not be born, is difficult to implement, could lead to legal battles that would cause emotional distress,

152. Davis S. Moore, *Current Thinking About Nature and Nurture*, THE PHILOSOPHY OF BIOLOGY: A COMPANION FOR EDUCATORS, HISTORY, PHILOSOPHY AND THEORY OF THE LIFE SCIENCES 629, 631–32 (K. Kampourakis ed., 2013); Samuels, *supra* note 6, at 404.

153. Moore, *supra* note 152, at 629, 633.

154. A definition of phenotype is, “The set of an individual's biological, physical, and intellectual traits, such as skin color or eye color. Phenotypes can also include complex traits, such as temperament or personality. Phenotypes are determined by genes, epigenetic alterations, environments, and random chance.” SIDDHARTHA MUKHERJEE, *THE GENE: AN INTIMATE HISTORY* 500 (Scribner 2016).

155. A recent study, for example, uncovered “links between the activity of specific genes and parenting differences across species.” Peter Reuell, *Mom, Dad Set in Their Ways? Maybe it's Not Their Fault*, HARVARD GAZETTE (Apr. 20, 2017) <http://news.harvard.edu/gazette/story/2017/04/harvard-team-leads-breakthrough-on-the-genetics-of-parenting/>.

156. EVELYN FOX KELLER, *THE MIRAGE OF A SPACE BETWEEN NATURE AND NURTURE* 81 (2010).

157. MUKHERJEE, *supra* note 154, at 387.

158. See, e.g., RICHARD J. BLAUWHOFF, *FOUNDATIONAL FACT, RELATIVE TRUTHS: A COMPARATIVE LAW STUDY ON CHILDREN'S RIGHT TO KNOW THEIR GENETIC ORIGINS* 7, 15–23 (Int'l Specialized Book Servs. 2009); Glenn McGee et al., *Gamete Donation and Anonymity: Disclosure to Children Conceived with Donor Gametes Should Not be Optional*, 16 HUM. REPROD. 2033 (2001), <https://academic.oup.com/humrep/article/16/10/2033/2913330/Gamete-donation-and-anonymity-Disclosure-to-CAHN>, *supra* note 2, at 216–17.

and intrudes upon parents' decision-making authority "in a situation for which there is no firm evidence of irreparable harm arising from nondisclosure."¹⁵⁹ In addition, mandating access is seen as reinforcing a "genetic essentialism" that harms children in non-traditional families.

Philosophical Issue

The philosophical interest in individuals' autonomy that is offered in support of access is based on the Kantian ideas that autonomous individuals should never use one another as means to an end and that they have interests both in not deceiving and not being deceived.¹⁶⁰ Nondisclosure subordinates a child's right to autonomy to the parent's wish for privacy.¹⁶¹ Parental secret-keeping, under which a child assumes both of his parents are genetic parents, is a deception abetted by a governmental failure to maintain and provide individuals access to accurate information about biological as well as social identities. And secrecy generally, as ethicist Sissela Bok warns, when it gives freedom of choice to one person but "limits or destroys that of others . . . affects not only [that person's] own claim to respect for identity, plans, action, and property, but [the others' as well]."¹⁶² "The power of such secrecy can be immense."¹⁶³

It is argued that individuals' right to know their genetic origins is based on their autonomy to decide at different times in their lives what their genetic origins mean to them.¹⁶⁴ Individuals' identities and their connections to their families are "complex, culturally dependent, highly subjective, and dependent on a variety of particular circumstances."¹⁶⁵ Some individuals need to have knowledge of genetic origins while others do not.¹⁶⁶ "Acknowledging a right to this knowledge is to acknowledge the diversity and the richness of the human experience."¹⁶⁷ Philosopher Charlotte Witt makes this case in more general terms, noting that personal identity "is not directly and simply constituted by any of our properties, whether they are necessary and genetic, or contingent and social. Which properties are most important to a person's self-understanding can vary from person to person."¹⁶⁸

159. Pasquale Patrizio et al., *Gamete Donation and Anonymity: Disclosure to Children Conceived with Donor Gametes Should be Optional*, 16 HUMAN REPRODUCTION 2036, 2038 (2001).

160. BLAUWHOFF, *supra* note 158, at 23.

161. McGee, *supra* note 158, at 2034 (citations omitted).

162. SISSELA BOK, SECRETS: ON THE ETHICS OF CONCEALMENT AND REVELATION 26 (2011).

163. *Id.*

164. Vardit Ravitsky, *Autonomous Choice and the Right to Know One's Genetic Origins*, 44 HASTINGS CENTER REPORT 36, 36-37 (2014).

165. *Id.*

166. *Id.*

167. *Id.*

168. Charlotte Witt, *Family Resemblances and Personal Identity*, in ADOPTION MATTERS, PHILOSOPHICAL AND FEMINIST ESSAYS 141 (Sally Haslanger and Charlotte Witt, eds., 2005).

Instrumental Issues

Psychological Issues

Support for disclosing to offspring at least the fact of assisted conception focuses both on the desires of donor offspring and on the effects on children and their families of not disclosing the facts of conception. These effects include the tendency of family secrets to detrimentally affect children by the inevitable tensions involved in keeping secrets and the related shunning responses provoked by certain topics of conversation.¹⁶⁹ In addition, there is always a danger of harmful inadvertent revelations by a parent or a third party, which can be traumatic for offspring at any age.¹⁷⁰ Scottish researcher John Triseliotis, for example, in 1973 found that “every adopted adult . . . who learned of their adoption late in life or through third parties was resentful and upset, and the betrayal of trust caused irreparable damage to family relationships.”¹⁷¹ A 2000 study of adult children conceived with donor gametes reported similarly that when they were finally told about their donor-assisted conception, they felt distrust toward their parents.¹⁷² A 2012 review of 13 earlier studies of donor-conceived offspring reported that “[i]n most studies, participants who were told later in life or who discovered their donor origins in other ways . . . often reported the information coming as an unwelcome shock. . . . For many participants, the discovery of the inherent secrecy and deception that had characterized this aspect of their relationship with their parents had generated anger and mistrust. . . .”¹⁷³

Academic studies of donor offspring suggest that at least a significant percent and perhaps a majority of offspring want information about the identity of their donor. Of necessity, academic studies of donor offspring have been limited in number and in sample size, as well by a lack of randomness because they can only include offspring aware of the nature of their conception,¹⁷⁴ which offspring in the past have been less likely to be.¹⁷⁵ No studies have analyzed long-term psychological effects on adult donor offspring of having, versus not having, access to identifying information about their donors. In a 2010 study of 85 individuals recruited from Internet-based groups, the subjects reported that their feelings about not knowing

169. McGee, *supra* note 158, at 2034 (citations omitted).

170. *Id.*

171. *Id.* (citing JOHN TRISELIOTIS, *IN SEARCH OF ORIGINS* (1973)).

172. *Id.* (citing A.J. Turner & A. Coyle, *What Does it Mean to be a Donor Offspring? The Identity Experiences of Adults Conceived by Donor Insemination and the Implications for Counselling and Therapy*, 15 *HUM. REPROD.* 2033, 2041 (2000)).

173. Eric Blyth et al., *Donor-Conceived People's View and Experience of Their Genetic Origins: A Critical Analysis of the Research Evidence*, 19 *J. OF LAW & MED.* 769, 782 (2012); see also Turner & Coyle, *supra* note 172, at 2041.

174. Andrea Mechanick Braverman, *How the Internet Is Reshaping Assisted Reproduction: From Donor Offspring Registries to Direct-to-Consumer Genetic Testing*, 11 *MINN. J.L. SCI. & TECH.* 477, 487 (2010).

The major drawback of the recent research is that it has been limited to internet based surveys, and it is questionable whether such surveys are truly a representative voice of donor conceived persons. Nonetheless, the studies described valid experiences and opinions of one part of the donor conceived community. Regardless of how representative the research is, the data clearly present a legitimate group of donor conceived persons and their views and issues.

175. See *infra* note 256 and accompanying text.

genetic origins and medical histories were being neglected.¹⁷⁶ They discussed “knowing that part of their identity is locked in an office filing cabinet – or worse yet, destroyed.”¹⁷⁷ Although a majority of them had positive relationships with both parents, they also had a strong desire to find their donors and half-siblings.¹⁷⁸ Fifty-seven percent of them said sperm donation should only be practiced if the offspring will at some time have access to identifying information about the donor, while another 24.7 percent said the practice is acceptable with the provision of in-depth, non-identifying information.¹⁷⁹ Nevertheless, a majority said they would neither conceive using sperm donation nor donate their eggs or sperm.¹⁸⁰ The participants in a 2000 British study, recruited internationally from support groups, similarly reported a need to know their genetic origins and a desire to find their donors.¹⁸¹

A 2012 review of 13 earlier studies, however, reported those studies’ more varied results. The rates of offspring interest in having information ranged from a relative low in a group of U.S. teenagers with lesbian parents in which “19 of the 48 participants with a ‘currently unknown’ . . . donor were unconcerned about not knowing the donor’s identity, 18 had no opinion, while 11 regretted not having this information,” to a relative high in a group of 29 offspring who “had the opportunity to learn their donor’s identity when they reached 18” and all but one of whom “indicated they were likely to do so.”¹⁸² Most of the 13 studies reported that a least some of the subjects wanted to know the identity of and have contact with their donors in order to satisfy their curiosity, as well as to have information about ancestry and medical history and to better understand their own identity.¹⁸³ Actual requests for information were tracked in a 2017 study. That study looked at the ten year period during which members of a group of offspring with “identity release” donors turned 18, the age at which they could request identifying information. During that period, a substantial minority of donor offspring sought information, 33.2 percent from the 256 eligible families (40 percent from the estimated number of eligible families in which the offspring knew about their donor origins).¹⁸⁴

A study published in 2015 found donor offspring more opposed to donor anonymity than either donors or parents who used donated gametes,¹⁸⁵ with greater opposition among some offspring as they aged and became parents and with less opposition among offspring who have had contact with donor siblings.¹⁸⁶ Forty-six

176. Patricia P. Mahlstedt et al., *The Views of Adult Offspring of Sperm Donation: Essential Feedback for the Development of Ethical Guidelines Within the Practice of Assisted Reproductive Technology in the United States*, 93 FERTILITY & STERILITY 2236, 2243 (2010).

177. *Id.*

178. *Id.* at 2243.

179. *Id.* at 2244.

180. *Id.* at 2243.

181. Turner & Coyle, *supra* note 172, at 2049.

182. Blyth, *supra* note 173, at 783–84.

183. *Id.* at 784.

184. Joanna E. Scheib et al., *Who Requests Their Sperm Donor’s Identity? The First Ten Years of Information Released to Adults with Open-Identity Donors*, 107 FERTILITY & STERILITY 483, 486–87 (2017).

185. Margaret K. Nelson et al., *Gamete Donor Anonymity and Limits on Numbers of Offspring: The Views of Three Stakeholders*, 3 J. OF L. & BIOSCIENCES 39, 39 (2015).

186. *See id.* at 65.

percent of the offspring strongly agreed or agreed that donors should not be anonymous while 21 percent disagreed or strongly disagreed.¹⁸⁷ The authors found substantial proportions of neutrality about anonymity among all three groups, and they speculated that offspring as a whole may be less opposed to anonymity in the future as an increasing proportion are born to single parents or in families with gay or lesbian parents, situations in which anonymity is never related to parental secrecy about the existence of a donor.¹⁸⁸

Medical Issues

With the price for sequencing an individual's genome dropping steadily¹⁸⁹ it is not pure fantasy to foresee a future in which our toilets analyze our waste, catching diseases at inception, and our doctors provide individualized care tailored to our specific genetic make-up.¹⁹⁰ Whether and when this future may become a reality is impossible to predict.¹⁹¹ In the meantime, individuals benefit significantly from having knowledge of their progenitors' and their progenies' health histories. The U.S. Surgeon General, focusing attention on the importance of family history, began a national public health campaign, the Surgeon General's Family History Initiative, to encourage Americans to learn more about their family health histories. The campaign explains that "[t]racing the illnesses suffered by your parents, grandparents, and other blood relative can help your doctor predict the disorder to which you may be at risk, and help you take action to keep you and your family healthy."¹⁹² Its website includes a computerized tool for creating a picture of a family's health.¹⁹³ For donor offspring, having the donor's medical history at just one point in time, as it may have been provided to intended parents, is no substitute for having at least a chance to acquire more and more up-to-date information.¹⁹⁴ With identifying information, there is a possibility over subsequent decades that donor offspring, their donors, and the children of each will be able to exchange useful medical information.¹⁹⁵

187. *Id.* at 48.

188. *Id.* at 65.

189. *DNA Sequencing Costs: Data*, NAT'L HUM. GENOME RES. INST., <https://www.genome.gov/sequencingcostsdata/> (last visited Apr. 23, 2018).

190. See, e.g., Ajai Raj, *Soon, It Will Cost Less To Sequence A Genome Than To Flush A Toilet—And That Will Change Medicine Forever*, BUSINESS INSIDER (Oct. 2, 2014, 3:27 PM), <http://www.businessinsider.com/super-cheap-genome-sequencing-by-2020-2014-10>.

191. See, e.g., Meg Tirrell, *Personalized Medicine, Unlocking my Genome: Was it Worth it?*, CNBC (Dec. 10, 2015, 6:50 a.m.), <http://www.cnbc.com/2015/12/10/unlocking-my-genome-was-it-worth-it.html>.

192. *About the Surgeon General's Family Health History Initiative*, U.S. DEP'T OF HEALTH & HUMAN SERVICES, <https://www.hhs.gov/programs/prevention-and-wellness/family-health-history/about-family-health-history/index.html> (last visited Apr. 21, 2018); see, e.g., Julie L. Lauzon, *The Health Benefits to Children of Having their Genetic Information, The Importance of Constructing Family Trees*, in *THE RIGHT TO KNOW ONE'S ORIGINS: ASSISTED HUMAN REPRODUCTION AND THE BEST INTERESTS OF CHILDREN* (Juliet R. Guichon et al. eds., 2012).

193. *My Family Health Portrait Tool*, U.S. DEP'T OF HEALTH & HUMAN SERVICES, <https://www.hhs.gov/programs/prevention-and-wellness/family-health-history/family-health-portrait-tool/index.html> (last visited Apr. 21, 2018).

194. U.S. DEP'T OF HEALTH & HUMAN SERVICES, *supra* note 192.

195. See BLAUWHOFF, *supra* note 158, at 22.

Parental Authority Issue

Supporters of access, while acknowledging opponents' concern about interfering with parental authority, argue simply that this is outweighed by children's needs and rights. In the words of a British Association of Social Workers project, "human rights of donor-conceived and surrogate born children should be paramount, trumping parents['] rights."¹⁹⁶ A shifting balance of rights over time is envisioned by scholar Naomi Cahn: the child's identity interests should begin to predominate over the parents' and the donor's as the child matures; when the child is of age, the child may need to know the identity of the donor in order to successfully construct his or her own identity.¹⁹⁷ Information should remain private among the parties, however.¹⁹⁸ As discussed above, philosophical and instrumental arguments for outweighing parental rights include both an intrinsic interest in autonomy and an instrumental concern with the ill effects of late discovery by donor offspring.¹⁹⁹ Other observers question the very existence of a countervailing parental interest that is on a par with the offspring's interest.²⁰⁰

Genetic Determinism Issue

Some commentators oppose access, or at least express unease, on the ground that the basis for outlawing anonymity is an undesirable biological or genetic determinism, a "bio-normativity" or "heteronormativity" that reinforces traditional gender roles and traditional families and that therefore harms non-traditional families.²⁰¹ The claim is that when a society elevates the importance of genetic connections—by, for example, giving donor offspring access to identifying information—the society undermines the legitimacy of "a variety of non-heteronormative parenting practices, including same-sex parenting, single parenthood by choice, surrogacy, and sperm donation."²⁰² Philosopher Kimberly Leighton argues even more strongly that an idea that individuals are harmed by not knowing their genetic origins actually creates harm: "My primary argument here is that rather than addressing the feelings of those who are distraught over what they do not know about their genetic relatives in a way that might resolve those feelings, the diagnosis 'genetic bewilderment' is itself generative of the very conditions of such suffering."²⁰³ And she argues that diagnosing adoptees as genealogically

196. Steinfeld, *supra* note 11.

197. CAHN *supra* note 2, at 232.

198. *Id.* at 116.

199. *See supra* notes 160–197 and accompanying text.

200. *See, e.g.*, Steinfeld, *supra* note 11.

201. *See, e.g.*, Max D. Siegel, *The Future of Family*, 23 GEO. MASON U. C.R. L. J. 177, 182 (2013) (normatively appealing conceptualization of family unfairly benefits heterosexual majority); *see also* A. Ravelingien et al., *Donor-Conceived Children Looking For Their Sperm Donor: What Do They Want to Know?*, 5 FVV IN OBGYN, 257, 263 (2013) ("[Banishing anonymity] risks advancing uncritical attitudes towards the importance of genetic ties.").

202. *See, e.g.*, Katharine K. Baker, *Legitimate Families and Equal Protection*, 56 B.C. L. REV. 1647, 1651 (2015).

203. Kimberly Leighton, *Addressing The Harms of Not Knowing One's Heredity: Lessons From Genealogical Bewilderment*, 3 ADOPTION & CULTURE: THE INTERDISC. J. OF THE ALLIANCE FOR THE STUDY OF ADOPTION & CULTURE 63, 66 (2012).

bewildered because they do not know the identity of their genetic parents represents “a racially-based, [heteronormative] understanding of identity and a prejudicial view of” their non-traditional families.²⁰⁴

Critics in Europe have argued, according to Dutch scholar Richard Blauwhoff, that the “genetic essentialism and conservatism, . . . implicit in the right to know,” reinforce “not only cultural stereotypes, but also convey[] a reductionist idea about human identity.”²⁰⁵ As examples, he quotes a French scholar’s suggestion that “the recognition of such a right in Germany originates in a racist and eugenic concept of identity” and a French philosopher’s view that “liken[s] the resurgence of interest in biological ties with a ‘butcher’s concept of humanity.’”²⁰⁶ A Danish medical ethics scholar makes a somewhat different claim that while family history is significant for identity formation, the history need not be of one’s biological ancestors. “Upbringing may not just be sufficiently identity-forming, but it may be so exactly in virtue of . . . family resemblances to one’s intentional parents and siblings which result from common upbringing, habits, values. At the same time, biological resemblances may not result in anything significant enough to be identity-forming.”²⁰⁷

Taking a kind of intermediate view, American philosopher Sally Haslanger argues that given the current predominance of the nuclear family, it is reasonable to give children who need it information about or contact with genetic relatives. But, she argues, in the long run “if we are to avoid harming our children, then rather than enshrining a schema that most families fail to exemplify and which is used to stigmatize and alienate families that are (yes!) as good as their biological counterparts, we should instead make every effort to disrupt the hegemony of the schema.”²⁰⁸

One may ask, in response to such concerns, why eliminating stigma and shame, and fully accepting all types of families, is inconsistent rather than consistent with openness and access to information about the genetic contributions that do play a role in children’s development and that have made it possible for the families to exist. As many access proponents maintain, allowing donor offspring to choose to obtain information does not pathologize their families and is not incompatible with recognizing many different family forms as equally favorable for the development of their children.²⁰⁹

204. *Id.* at 70; see also Michael Boucai, *Is Assisted Procreation an LGBT Right?*, 2016 WIS. L. REV. 1065 (“[Invocation of the right] threatens to entrench biogenetic bias.”).

205. BLAUWHOFF, *supra* note 158, at 7.

206. *Id.* (The “butcher’s concept” is a reduction of humanity to the level of other animals. It may also, like the previous quotation, imply a kinship with Hitler’s eugenic ideology.); see also Heather Draper, *Why There is No Right to Know One’s Genetic Origins*, in PHILOSOPHICAL REFLECTIONS ON MEDICAL ETHICS (Nafsika Athanassoulis ed. 2005).

207. Ezio Di Nucci, *IVF, Same-Sex Couples and the Value of Biological Ties*, 42 J. MED. ETHICS 784, 785–86 (2016).

208. Sally Haslanger, *Family, Ancestry and Self: What is the Moral Significance of Biological Ties?*, 2 ADOPTION & CULTURE 91, 115 (2009).

209. See, e.g., Ravitsky, *supra* note 164, at 36, 37; see also Smolin, *supra* note 119, at 338 (noting the irony in the fact that although the surrogacy industry “may put itself forward as representing a break with the traditional family forms of the past, the industry is seeking to provide an ‘as if’ exclusivist two-parent

The experiences of adult donor offspring who are aware of their conception reveal a range of ways in which individuals can understand the significance of their genetic and social origins. Some choose not to seek identifying information while others seek information only or both information and contact.²¹⁰ A small qualitative study of a group of donor offspring illustrates ways in which they can draw upon both their genetic and non-genetic inheritances to meaningfully construct their identities and extend their kinship networks.²¹¹ The participants had discovered the identity of their two different donors and the identity of some of the other participants as half-siblings.²¹² The study concluded that “far from being enslaved to, or unreconstructed apologists for genetic essentialism, or of being insufficiently appreciative of the parents who raised them, donor-conceived individuals very clearly display their agency in determining what it is about their genetic and social histories and relationships that matters to them.”²¹³ For example, a respondent “described with regret their mother’s request to keep from their father their knowledge about their conception: ‘I wish so much it had not been necessary as I loved him dearly and wished he could have known how irrelevant the DNA was to my affection.’”²¹⁴ A respondent described how he now defines himself:

I feel as if I belong to a clan, that I am connected to the past on both sides of my family, my mother’s as well as my two fathers’. I now find myself in a comfortable place and being the offspring of a known donor has become an integral part of the way that I define myself, though of course it is only one of many facets that make up who ‘I’ am.²¹⁵

Commenting on “genealogical aspects” of nurture, another participant explained,

I stumbled upon my dad’s mother’s (unpublished) autobiography. . . . What struck me . . . was how much her life and her attitudes had influenced [my dad] and therefore had influenced me indirectly. . . . It made me realize that even though I don’t have my father’s genes or resemble him physically in any way, I am very much his daughter and his mother’s granddaughter.²¹⁶

Supply of Gametes Issue

Opponents of prohibiting anonymity argue that it causes some individuals who would have donated gametes not to do so and therefore it reduces the number of donors. This then, in their view, negates any argument for prohibiting anonymity

family” and “imposes a distorted legal form of the traditionalist nuclear family upon family constellations which are far more complex”).

210. See *supra* notes 176–188 and accompanying text.

211. Eric Blyth, *Genes R Us? Making Sense of Genetic and Non-Genetic Relationships Following Anonymous Donor Insemination*, 24 REPROD. BIOMED. ONLINE 719, 719 (2012).

212. *Id.* at 720.

213. *Id.* at 724.

214. *Id.* at 721.

215. *Id.* at 723.

216. *Id.*

that is based on harm to resulting children because the “regulation would ‘protect’ these particular children out of existence, and there is no plausible argument that these children would have a life not worth living.”²¹⁷ Supporters of prohibiting anonymity, when they consider the issue of donor supply, disagree about what the actual effects of prohibiting anonymity have been in jurisdictions that have done so and about what the effects will be in additional jurisdictions that do so in the future.²¹⁸

Among scholars who express concern about supply effects, legal scholar Gaia Bernstein examined data about sperm donation from Sweden and the Australian State of Victoria and about sperm and egg donation in the United Kingdom. In Sweden, she reported, among children born via sperm donation, the number of new donors decreased from 200 to 30 in the first three years, although then, from 1989 to 1993, there was a 65 percent increase in the number of new donors.²¹⁹ In Victoria, Australia, she reported a decline of from 35 to 40 new donors per year to only 10 to 38 per year, but interestingly also reported a sharp decline during the preceding 20 years.²²⁰ She found no decrease in the United Kingdom in the numbers of new sperm or egg donors, but a decrease in donations of excess eggs by women undergoing IVF with their own eggs.²²¹ She noted the existence of reports by the media and various commentators about gamete shortages in Sweden and the United Kingdom.²²² With respect to anonymity and the cost of sperm, a study published in 2013 of an Internet sample of 393 males concluded it would cost approximately \$31 more per sample to require a donor to be identified.²²³ The same authors published a study in 2016 of a sample at a large U.S. sperm bank of active and inactive donors, including 90 anonymous donors. It concluded that approximately 28 percent of donors would refuse to participate if anonymity were prohibited and that those who would continue to participate would demand a premium of between \$40 and \$102.²²⁴

A leading proponent of prohibiting anonymity, scholar Naomi Cahn, discounts the predictions of serious long-term effects on supply and predicts that new recruitment efforts may be developed and banks may be able to recruit donors less concerned about money and more concerned about helping create families.²²⁵ She argues that the prohibition may further parental interests, such as interests in the integrity of their families and in meeting the needs of their children, because of the possibilities for contact with related offspring and even donors.²²⁶ While “[e]nsuring a supply of donors is critical to a medical model of donor families . . . the issue is

217. I. Glenn Cohen, *Response: Rethinking Sperm-Donor Anonymity: Of Changed Selves, Nonidentity, and One-Night Stands*, 100 GEO. L.J. 431, 436 (2012).

218. See *infra* notes 225–235 and accompanying text.

219. Gaia Bernstein, *Regulating Reproductive Technologies: Timing, Uncertainty, and Donor Anonymity*, 90 B.U. L. REV. 1189, 1207–08 (2010).

220. *Id.* at 1209–10.

221. *Id.* at 1211–12.

222. *Id.* at 1208, 1210, 1212.

223. I. Glenn Cohen & Travis G. Coan, *Can You Buy Sperm Donor Identification? An Experiment*, 10 J. OF EMPIRICAL LEGAL STUDIES 715, 736 (2013).

224. Glenn Cohen et al., *Sperm Donor Anonymity and Compensation: An Experiment with American Sperm Donors*, 3 J. OF L. & BIOSCIENCES 468, 488 (2016).

225. Naomi Cahn, *The New Kinship*, 100 GEO. L.J. 367, 420–21 (2012).

226. *Id.* at 425.

less germane once the relational concerns of family law become a significant factor.”²²⁷

In any event, many different factors affect supply and demand and make it impossible to have great confidence in conclusions that are based simply on either decreased numbers of new donors²²⁸ or surveys of donors and potential donors. Supply of sperm, for example, may be significantly affected by the facts that (1) only a small percentage of willing donors survive the current extensive screening processes,²²⁹ (2) only approximately 10 percent of donors’ sperm can survive freezing and storage,²³⁰ and (3) potential donors may be scared off in the first place when they learn about the time commitment, which can include twice a week visits, and related rules, which can require abstinence from sex, smoking, and drugs.²³¹ It is likely that the demand for gametes increases and decreases as a result of changes in social attitudes and advances in medical technology. And even in the absence of prohibitions on anonymity, donors may and should understand that the detailed information about them now provided to gamete recipients,²³² as well as today’s

227. *Id.*

228. I. Glenn Cohen, *Sperm and Egg Donor Anonymity: Legal and Ethical Issues*, in OXFORD HANDBOOK OF REPRODUCTIVE ETHICS, 504 (Leslie Francis ed., 2017). As legal scholar I. Glenn Cohen explains:

Observational studies such as these are useful, but they can only incompletely inform our understanding of the policy choice that governments face. First, like most observational designs, these studies have difficulty separating coincidence from causation, especially since none of these studies has a comparison state that can be used to evaluate the results. In particular, one might worry about preexisting secular time trends in donor participation in the countries that adopted donor identification laws and also the possibility of reverse causation in that adoption of these laws may be driven by these trends in donation and not vice versa. There may also be omitted variables that affect both the rate of donation and the propensity to pass legislation, such as anti-commercialization forces. Second, as Bernstein has noted, during the relevant periods of these observational studies, changes in infertility technology and practices—for example, the introduction of more effective procedures such as IVF and intracytoplasmic sperm injection (ICSI)—make it more difficult to determine whether the data show changes in the supply side alone or also changes in the demand side, which could have reduced the need for sperm donors.

Id.

229. *Sperm Donor Requirements, Basic Requirements for CCB Sperm Donors*, CALIF. CRYOBANK, <https://www.spermbank.com/how-it-works/sperm-donor-requirements> (last visited Apr. 14, 2018). The California Cryobank, on its website alerts potential donors at the outset that they must be “At least 5’9” tall; Between 19 and 39 years old; Sexual partners are exclusively female; Currently attending a four-year university, or already hold a bachelors or advance degree; Are in Good health; Are Legally allowed to work in the US.” *Id.* In addition the company provides, “As a top sperm bank, California Cryobank’s qualification process is extensive; potential donors should expect to submit to physical examinations that include screening for infectious disease, genetic screening, examination of family history, and further evaluations.” *Id.*

230. Petroff, *supra* note 47.

231. *Id.*

232. Braverman, *supra* note 174, at 486–87 (“Today donors’ backgrounds or other sensitive information are very likely to be a part of the readily accessible information on the Internet by participating in Facebook, MySpace, and Twitter. Donor profiles that detail education, activities, and family member characteristics, among other factors, continually challenge the idea of a fortress of anonymity. Additionally, many sperm banks and ovum donor recruiters have childhood and other pictures posted, further shattering the pretense that anonymity is preserved.”).

steadily enlarging DNA databases, make guarantees of anonymity illusory.²³³ Court orders in individual cases and new laws in all cases also could override guarantees.²³⁴ As Donor Sibling Registry (DSR) founder Wendy Kramer blogged: “here’s my advice for prospective sperm (and egg) donors: if you don’t want to be known to your offspring, just don’t become a donor.” The reason is that even if a donor has not submitted his or her DNA to a database, one of his or her relatives may have. That was the case for Ms. Kramer’s son, who quickly found his donor by participating in a DNA database, Google searching, and examining public records.²³⁵

Donor Offspring Action and Advocacy

Donor offspring are speaking for themselves individually—in numerous blogs, Facebook groups, and other online forums—and collectively through organizations that provide support for searchers, facilitate connections with genetic relatives, and advocate for reform of reproductive services and the laws that govern them. The perceptions of donor offspring initially were neglected in the practice of donor conception, but in recent years their interest in having access to the donor’s identify has become increasingly prominent.²³⁶ Non-profit multi-national organizations include Scandinavian Seed Siblings, Tangled Webs UK, Donor Offspring Europe, Are You Donor Conceived?, the International Donor Offspring Alliance, and the Donor Sibling Registry (DSR).²³⁷ Commercial Internet sites include Donor Connections, Donor Children, and the California Cryobank Sibling Registry.²³⁸ Tangled Web UK, for example, supports “the rights of donor-conceived people in the UK and across the world.”²³⁹ Donor Offspring Europe’s aims are to “protect the interest of donor conceived persons: In particular the right to information about your ancestry.”²⁴⁰ The International Donor Offspring Alliance “assert[s] that people have a moral right to know the truth about their personal history. Where the

233. See, e.g., I. Glenn Cohen, *supra* note 228, at 508 (“The internet has enabled significant advances in finding one’s donor, even when anonymity is enforced by the sperm bank.”) Inquiring searches need not match with a donor him or herself in a database. Matching with a relative of the donor, such as a second cousin, can lead a searcher to the donor.

234. As an ethical matter, it would seem incumbent upon sperm and egg bankers to make potential donors aware of all these possibilities.

235. Wendy Kramer, *Sperm Donors Who Wish to Remain Anonymous Just Shouldn’t Donate*, THE BLOG, HUFFINGTON POST (Jul. 28, 2015 11:48 a.m., updated Jul. 28, 2016), http://www.huffingtonpost.com/wendy-kramer/sperm-donors-who-wish-to-_b_7878688.html.

236. Vardit Ravitsky, *Donor Conception: the Debate Surrounding the Right to Know One’s Origins*, PUBLIC DEBATES, CRE NEWS (Sept. 22, 2014), <http://www.lecre.umontreal.ca/donor-conception-the-debate-surrounding-the-right-to-know-ones-origins/>.

237. SCANDINAVIAN SEED SIBLINGS, <http://www.seedsibling.org/english/about/> (last visited Apr. 1, 2018); TANGLEDWEBS UK, <http://www.tangledwebs.org.uk/tw/> (last visited Apr. 1, 2018); DONOR OFFSPRING EUROPE, <http://donoroffspring.eu/> (last visited Apr. 1, 2018); ARE YOU DONOR CONCEIVED?, <http://www.areyoudonorconceived.org/> (last visited Apr. 1, 2018); INTERNATIONAL DONOR OFFSPRING ALLIANCE, <http://www.idoalliance.org/> (last visited Apr. 1, 2018); DONOR SIBLING REGISTRY, <https://www.donorsiblingregistry.com/> (last visited Apr. 1, 2018).

238. DONOR CONNECTIONS, https://www.donorconnections.com/clinic_partnerships (last visited Apr. 1, 2018); DONORCHILDREN, <http://www.donorchildren.com/> (last visited Apr. 1, 2018); *Sibling Registry*, CALIFORNIA CRYOBANK, <https://cryobank.com/services/sibling-registry/> (last visited Apr. 1, 2018).

239. TANGLEDWEBS UK, <http://www.tangledwebs.org.uk/tw/> (last visited Apr. 1, 2018).

240. DONOR OFFSPRING EUROPE, *supra* note 237.

state has custody of relevant information it has a duty not to collude in deceiving or depriving individuals of such information.”²⁴¹

The U.S.-based DSR was founded in 2000 to help donor offspring who seek to have contact with genetic relatives, half siblings, and donors, who are similarly interested in contact.²⁴² By April 2018 it had more than 58,400 members and had made more than 15,300 matches.²⁴³ The organization’s “core value is honesty, with the conviction that people have the fundamental right to information about their biological origins and identities.”²⁴⁴ It engages in advocacy for society both to accept that right and to accept and value all types of families.²⁴⁵ When individuals who have joined the registry want to make themselves open for mutual consent contact, they post that desire with the service. The average wait for a match is 189 days, but 71.2 percent of posts yield matches and 80.1 percent of members who matched, matched instantly.²⁴⁶ Many large half-sibling groups with between 100 and 200 members have been identified through the registry.²⁴⁷ But DSR founder Wendy Kramer estimates “that these groups are actually much larger in size, as not everyone is interested in connecting. Additionally, when these groups get too big, we see people removing their posts, so it’s hard to know exactly how large many of the groups actually are.”²⁴⁸

There are also many blogs and Internet-based discussion groups,²⁴⁹ including ones open only to donor conceived individuals.²⁵⁰ The blogger at “Donated Generation” characterizes his blog as thoughts about donor conception from a donor-conceived individual whose views changed when he had children. He is on “a quest to find [his] true identity, heritage, family health history and genetic relations (both donor and siblings), for [himself] and for [his] children.”²⁵¹ Blogger “Life of a Wayist Mormon” wrote recently, “I am not bitter or angry about being donor conceived. Am I upset that I do not know half of my biology? Yes. Do I wish that the laws were not so very convoluted and backwards . . . ? Yes. Will I work to change

241. INTERNATIONAL DONOR OFFSPRING ALLIANCE, <http://www.idoalliance.org/> (last visited Apr. 1, 2018).

242. *Our History and Mission*, DONOR SIBLING REGISTRY, <https://www.donorsiblingregistry.com/about-dsr/history-and-mission> (last visited Apr. 1, 2018).

243. *Donor Sibling Registry*, DONOR SIBLING REGISTRY, <https://www.donorsiblingregistry.com/> (last visited Apr. 1, 2018).

244. DONOR SIBLING REGISTRY, *supra* note 242.

245. *Id.*

246. *Our Members*, DONOR SIBLING REGISTRY, <https://www.donorsiblingregistry.com/about-dsr/our-members> (last visited Apr. 1, 2018).

247. Jacqueline Mroz, *Why it’s Crucial We Regulate Sperm Donors*, N.Y. POST (June 3, 2017, 10:34 a.m.), <http://nypost.com/2017/06/03/why-its-crucial-we-regulate-sperm-donors/>.

248. *Id.*

249. For lists of Facebook groups and blogs, *see, e.g.*, WE ARE DONOR CONCEIVED, <https://www.waredonorconceived.com/resources/#facebookgroups> (last visited Apr. 1, 2018); DONOR CHILDREN, <http://www.donorchildren.com/resources> (last visited Apr. 1, 2018).

250. *People Conceived Via Donor Insemination*, YAHOO GROUP, <https://groups.yahoo.com/neo/groups/PCVAI/info> (last visited Apr. 1, 2018) (“This is a group for people conceived by donor insemination. We get together here to share our ideas, frustrations, and hopes. We restrict our group to donor-conceived people.”).

251. Damian H. Adams, *Donated Generation*, DONATED GENERATION, <http://donatedgeneration.blogspot.com/> (last visited Apr. 1, 2018).

those laws? Yes.”²⁵² In a remarkable blog “Conception of Self, My story of reclaiming my roots,” the author is detailing the steps in her unfolding story, from discovering through DNA testing that she was donor conceived, through successfully bringing the fact out into the open in her family, to searching for genetic relatives.²⁵³

The Emerging Trend toward Openness

Attitudes have changed dramatically in recent years both about disclosure to donor conceived children of the facts of their conception and about permanent anonymity for donors. As a practical matter, donor anonymity cannot be guaranteed in an era of detailed donor profiles for gamete consumers and of low-cost, increasingly popular DNA databases.²⁵⁴ These realities have led a guide for lawyers to concede that it is “questionable” whether a sperm donor can be guaranteed anonymity.²⁵⁵ In the past, shame about donor conception was prevalent, as well as legal uncertainty about the legitimacy of offspring and the legal status of donors. Secrecy was the standard practice with respect to the fact of donation and the identity of the donor.²⁵⁶ Now the trend in the U.S., as in other countries,²⁵⁷ is to disclose the facts of their conception to offspring.²⁵⁸ This is supported by the position of the Ethics Committee of the American Society for Reproductive Medicine (ASRM), a United States-based international physicians’ organization that develops standards and advocates for its members in the field of reproductive medicine.²⁵⁹ The Committee in 2001 encouraged parents to disclose the use of donor gametes,²⁶⁰ and in 2013 took the position that “disclosure to donor-conceived persons of the use of donor gametes or embryos in this conception is strongly encouraged.”²⁶¹ With respect to recordkeeping, the ASRM recommends that clinics “maintain permanent records of donor screening and selection data, donor examination, and clinical outcomes as a future medical source for offspring.”²⁶² The American Medical

252. Breannen McEnany, *DC Post: Battling Negativity*, LIFE OF A WAYIST MORMON (Apr. 6, 2017, 10:45 P.M.), <http://wayistmormonlife.blogspot.com/2017/04/dc-post-battling-negativity.html>.

253. Anonymous, *Conception of Self*, MY STORY OF RECLAIMING MY ROOTS, <http://www.conceptionofself.com/> (last visited Apr. 1, 2018).

254. See *supra* notes 232–235 and accompanying text.

255. KINDREGAN, JR., & MCBRIEN, *supra* note 33, at 57.

256. See, e.g., SWANSON, *supra* note 31; Braverman, *supra* note 174, at 482 (“Historically, parents were discouraged from disclosing donor conception to their children; these parents were told to ‘go home and forget all about it’”); CAHN, *supra* note 2, at 115–18.

257. K. Daniels & L. Meadows, *Sharing Information With Adults Conceived as a Result of Donor Insemination*, 9 HUM. FERTILITY 93, 93 (2006).

258. “Although whether to reveal the fact of donor conception to offspring has long been the subject of debate, more recently a strong trend in favor of encouraging disclosure has emerged.” Ethics Comm., AM. SOC. REPROD. MED., *Informing Offspring of Their Conception by Gamete or Embryo Donation: A Committee Opinion*, 100 FERTILITY AND STERILITY 45, 45 (2013); see also Mahlstedt, *supra* note 176.

259. See, e.g., *Vision of ASRM*, AM. SOC. REPROD. MED., <http://www.asrm.org/about-us/vision-of-asrm/> (last visited Apr. 1, 2018).

260. Ethics Comm. of Am. Soc. for Reprod. Med., *Informing Offspring of Their Conception by Gamete Donation*, 81 FERTILITY & STERILITY 527, 527 (2004).

261. Ethics Comm. of Am. Soc. for Reprod. Med., *Informing Offspring of Their Conception by Gamete or Embryo Donation: A Committee Opinion*, 100 FERTILITY & STERILITY 45, 45 (2013).

262. *Id.* at 47.

Association Code of Ethics provides only that physicians, unless required by law to keep a record longer, should rely on medical considerations to decide, such as whether a physician seeing the patient in the future would want to see the record.²⁶³

With respect to donor anonymity, the trend internationally is away from permanent anonymity. In an increasing number of countries, anonymous donation is no longer permitted. In Austria, Finland, Germany, Iceland, the Netherlands, Norway, New Zealand, Sweden, Switzerland, and the United Kingdom, donor offspring are now able to access their donor's identity.²⁶⁴ In Australia, some of the states have passed laws prohibiting anonymous donation and in every state clinics can be accredited to use donated gametes only if the donors consent to the release of identifying information to offspring conceived with the gametes.²⁶⁵ The United Kingdom's position, for example, evolved over time from authorities in 1982 supporting disclosure to children of the facts of their conception—"it is wrong to deceive children about their origins"²⁶⁶—to in 2004 passing a law allowing "donor-conceived children to access the identity of their sperm, eggs or embryo donor upon reaching the age of 18."²⁶⁷

International instruments also reflect this trend. The existence of a child's right to know his or her genetic parentage, although not an absolute right, "has gained broad recognition internationally" through interpretations and applications of Article 8 of the European Convention on Human Rights, which protects a person's "right to respect for his private and family life"²⁶⁸ and Article 7(1) of the United Nations Convention on the Rights of the Child,²⁶⁹ which provides that the "child shall be registered immediately after birth and shall have the right from birth to a name, the right to acquire a nationality and, as far as possible, the right to know and be cared

263. *AMA Code of Med. Ethics*, AM. MED. ASSOC., <https://www.ama-assn.org/delivering-care/ama-code-medical-ethics>.

264. Theresa Glennon, *Legal Regulation of Family Creation Through Gamete Donation*, in *REGULATING REPRODUCTIVE DONATION* 72 (Susan Golombok et al., eds., 2016); *Court Grants Kids Right to Know Donor Father*, THE LOCAL: GERMANY'S NEWS IN ENGLISH (May 31, 2017), <https://www.thelocal.de/20150129/sperm-donors-rights-germany-fertility-courts-identity>; Eric Blyth & Lucy Firth, *Donor-Conceived People's Access to Genetic and Biographical History: An Analysis of Provisions in Different Jurisdictions Permitting Disclosure of Donor Identity*, 23 INT'L J. L., POL'Y & FAM. 174, 175 (2009); I. Glenn Cohen, *Regulating Reproduction*, 96 MINN. L. REV. 423, 462 (2011).

265. Anonymous donation is now prohibited and adult donor offspring now have access to identifying information in Victoria, Western Australia, New South Wales, and South Australia. *State and Territory Laws*, HEALTH L. CENT. INFO., EDUC., RES. & POL'Y (May 31, 2017), <http://www.healthlawcentral.com/donorconception/access-information-australia/>.

266. Blyth, *supra* note 11, at 208 (quoting DEPARTMENT OF HEALTH AND SOCIAL SECURITY, REPORT OF THE COMMITTEE OF INQUIRY INTO HUMAN FERTILISATION AND EMBRYOLOGY (THE WARNOCK REPORT), Cm. 9314 (1984)).

267. *Human Fertilisation & Embryology Authority*, CHANGES TO LEGISLATION 1991–2004 (Feb. 7, 2017), <http://hfearchive.uksouth.cloudapp.azure.com/www.hfea.gov.uk/2221.html>.

268. European Convention for the Protection of Human Rights and Fundamental Freedoms, art. 8, Nov. 4, 1950, 213 U.N.T.S. 221, 230. A recent report of the United Nations General Assembly's Special Rapporteur on the sale and sexual exploitation of children concluded, for example, that proper regulation of commercial surrogacy includes protection for children "of rights of origin and access to identity." U.N. Human Rights Council, *Report of the Special Rapporteur on the sale and sexual exploitation of children*, ¶ 73, U.N. Doc. A/HRC/37/60 (January 15, 2018).

269. United Nations Convention on the Rights of the Child, art. 7(1), Nov. 20, 1989, 1577 U.N.T.S. 3, 47.

for by his or her parents.”²⁷⁰ For example, the European Court of Human Rights stated in *Odièvre v. France* that “people have a right to know their origins, the right being derived from a wide interpretation of the scope of the notion of private life.”²⁷¹ The Court, however, accorded France a “margin of appreciation” and upheld its right for mothers to give birth anonymously,²⁷² “notwithstanding the clearly anomalous position of French law vis-à-vis the vast majority of European states.”²⁷³ Swiss law professor Samantha Besson agrees that the right to know has been guaranteed by international human right law, while arguing that the right should be balanced with competing rights in individual cases.²⁷⁴ The recognition in international law of the significance of knowing one’s genetic origins also is reflected in the bans in most of Western Europe on surrogacy.²⁷⁵ One of the rationales underlying those bans is that “‘the human being is [made of] memory— affective memory, genetic memory, epigenetic memory, historical memory.’ To conceive a child ‘on demand’ is to ‘knowingly deprive a human being of what makes them human—genealogy.’”²⁷⁶

In the United States a trend away from anonymity is reflected in an increasing number of donor insemination programs that offer open-identity donation, that is, donation in which the donor is willing to be identified before or by the time offspring are 18 years old. More than a third of U.S. donor insemination programs now offer this kind of donation, and the proportion of those programs’ open-identity donors has increased over time.²⁷⁷ The California Cryobank, for example, offers for a higher fee its Open Donor Program in which offspring at age 18 may contact their donors.²⁷⁸ A 2006 New York Times article described “identity-release” donors as “a growing and extremely popular category of sperm donors.”²⁷⁹ For all donations, the ASRM Ethics Committee advises all parties involved in donor-assisted conception to agree in advance about how reproductive products and services providers will release information to recipients about donors. It also emphasizes, however, that they should be warned that enforcement of any agreement may be affected by changes in the law.²⁸⁰ One U.S. state, Washington, has moved toward openness by making non-

270. BLAUWHOFF, *supra* note 158, at 95–97.

271. *Odièvre v. France*, App. No. 42326/98, 38 Eur. H.R.Rep. 43, 25 (2003).

272. *Id.*

273. BLAUWHOFF, *supra* note 158, at 83.

274. Samantha Besson, *Enforcing the Child’s Right to Know Her Origins: Contrasting Approaches Under the Convention on the Rights of the Child and The European Convention on Human Rights*, 21 INT’L J. L. POL’Y & FAM. 137, 139 (2007).

275. Anna Momigliano, *When Left-Wing Feminists and Conservative Catholics Unite*, THE ATLANTIC (Mar. 28, 2017), <https://www.theatlantic.com/international/archive/2017/03/left-wing-feminists-conservative-catholics-unite/520968/>.

276. *Id.* (quoting novelist Susann Tamarro).

277. Scheib, *supra* note 184, at 483. Similarly, according to a 2007 study, the “ratio of open-identity to anonymous donors at a program increases the longer that a program has offered open-identity donation.” Joanna E. Scheib et al., *Open-Identity Donor Insemination in the United States: Is It On the Rise?*, 88 FERTILITY & STERILITY 231, 232 (2007).

278. *Open Donor Program*, CALIFORNIA CRYOBANK, <https://cryobank.com/How-It-Works/Choosing-Your-Donor/Open-Donor-Program/> (last visited Apr. 2, 2018).

279. Jennifer Egan, *Wanted: A Few Good Sperm*, N.Y. TIMES (Mar. 19, 2006), <https://www.nytimes.com/2006/03/19/magazine/wanted-a-few-good-sperm.html>.

280. Ethics Comm. of Am. Soc. Reprod. Med., *Informing Offspring of Their Conception by Gamete or Embryo Donation: A Committee Opinion*, 100 FERTILITY & STERILITY 45, 45 (2013) (emphasis added).

anonymous donation the default. Children at age 18 are entitled to identifying information unless the donors signed an affidavit with the fertility clinic stating that they were to remain anonymous.²⁸¹

The trend toward disclosure of donors' identity follows in the footsteps of a similar trend in adoption.²⁸² By the turn of this century, many nations' laws as well as many multi-nation agreements had incorporated in various ways the idea it can be beneficial to have post-adoption access to information about biological connections.²⁸³ In many countries today, most adult adoptees have access to identifying information, including in Australia,²⁸⁴ Belgium, more than half the provinces in Canada,²⁸⁵ Denmark, Finland, Germany, Iceland, Israel, New Zealand, The Netherlands, Norway, Sweden, Taiwan, and the United Kingdom.²⁸⁶ In the United States, adult adoptees in Alaska and Kansas have always had unrestricted access to their original birth certificates, but in the other states access was gradually foreclosed during the period from the late 1930s to 1990.²⁸⁷ However, a movement to restore access in the states in which it had been foreclosed began in the 1960s and became widespread in the 1970s. Since 1999 the movement has been increasingly successful, with original birth certificates now available for all adoptees in 9 states,

281. WASH. REV. CODE ANN. § 26.26.750 (West 2016).

282. Smolin, *supra* note 119, at 339–40 (“[A]s adoptees increasingly win the right to information about their parental and family heritage, these rights should apply to children born through surrogacy and ART. The increased capacities to create children in more complex and artificial ways should be accompanied by the increased rights of those children to learn, at least by adulthood, the facts about their creation.”); see also Naomi Cahn & Evan B. Donaldson Adoption Institute, *Old Lessons for a New World: Applying Adoption Research and Experience to ART*, 24 J. AM. ACAD. MATRIM. L. 1, 27 (2011). Philosopher Kimberly Leighton, who is an adoptee, argues, to the contrary, that adoptees and donor offspring are not similarly situated with respect to a “right to know.” *Analogies to Adoption in Arguments Against Anonymous Gamete Donation, Geneticizing the Desire to Know*, in FAMILY-MAKING: CONTEMPORARY ETHICAL CHALLENGES (Françoise Baylis & Carolyn McLeod, eds., 2014).

283. D. Marianne Brower Blair, *The Impact of Family Paradigms, Domestic Constitutions, and International Conventions on Disclosure of An Adopted Person's Identities and Heritage: A Comparative Examination*, 22 MICH. J. INT'L L. 587, 588 (2001).

284. Miriam Kathleen Mandryk, *Adopted Persons' Access to and Use of their Original Birth Certificates: An Analysis of Australian Policy and Legislation*, 4 AUSTL. J. OF ADOPTION, 33, 35 (2012).

In some [Australian] States vetoes on contact or the release of information can be applied. Victoria does not have a veto system and New South Wales no longer has any vetoes. In the Australian Capital Territory, a veto preventing contact between the parties is available. In South Australia and Western Australia a veto on information release can be placed, but only for adoptions finalized before certain dates. A veto in Queensland can not prevent information release, but before receiving the information the applicant must give an undertaking not to attempt to contact the other person . . . The number of vetoes lodged has fallen in recent years. Less than one veto is lodged for every 35 requests for information. Most vetoes were lodged by adopted people rather than their natural parents. . . . [In New Zealand, the] right is not unconditional, however, and the law enables natural parents to place a veto on the certificate thus forbidding its release.

Id. at 34, 36.

285. *Open Records in Canada: Status Report*, ORIGINS CANADA, <https://www.originscanada.org/adoptionrecords/national-status-report/> (last visited Apr. 2, 2018).

286. EVAN B. DONALDSON ADOPTION INST., FOR THE RECORDS II: AN EXAMINATION OF THE HISTORY AND IMPACT OF ADULT ADOPTEE ACCESS TO ORIGINAL BIRTH CERTIFICATES 34 (2010), http://www.adoptioninstitute.org/old/publications/7_14_2010_ForTheRecordsII.pdf.

287. Samuels, *supra* note 6, at 373–85.

7 states having restored this access,²⁸⁸ and for almost all adoptees in 11 other states, which have restored access with some restrictions.²⁸⁹ Legislative efforts to restore access continue in other states.²⁹⁰

CONCLUSION

In donor-assisted conception, as in so many other areas of human activity, the law has not kept pace with the fact and effects of rapidly evolving technology. As shown by this article's arguments for its immodest reform proposal, the current birth registration system is neither meeting our need for data for medical, public health, and social science research nor enabling us to meet the needs and respect the rights of the likely millions of donor offspring who will be born in the United States in this century. Birth registration could better serve those aims with full and accurate documentation of biological and social parentage, separate documentation of social and legal parentage in parentage certificates, and retention of the more complete information for individuals who are the subject of the registration. Given the difficulty of such sweeping reform, however, we should pursue the less comprehensive and perhaps more attainable measures critics have proposed. A national registry for donors and offspring would help them communicate with one another and would help half-sibling donor offspring connect with one another.²⁹¹ Increased regulation of the assisted reproduction industry could replace industry "standards and guidelines" with enforceable rules that could, for example, limit the number of offspring conceived from the gametes of any one donor, ensure that records be kept indefinitely, and require access for donor offspring to information in the records.²⁹² In addition, the federal government could require reporting of more complete information by reproductive services providers. The industry today concentrates on meeting the desires of its adult customers. The industry, and the laws that govern it, should serve equally well the children it creates and, through the generations, all of the children's genetic connections.

288. Alabama, Colorado, Hawaii, Maine, New Hampshire, Oregon, and Rhode Island. Summaries of the laws are available at *State Adoption Legislation*, AMERICAN ADOPTION CONGRESS, <https://www.americanadoptioncongress.org/state.php> (last visited Apr. 2, 2018).

289. Arkansas, Delaware, Illinois, Indiana, New Jersey, Missouri, Ohio, Pennsylvania, Tennessee, and Washington. These states allow birth parents some opportunities to block release of information. *Id.*

290. *See, e.g.*, S. 434, 119th Reg. Sess. (Fla. 2017); S. 5169, Reg. Sess. (N.Y. 2017–18); S. 329, 85th Sess. (Tex. 2017).

291. *See, e.g.*, CAHN, *supra* note 2, at 262–63. The ABA Model Act Governing Assisted Reproductive Technology (Feb. 2008) provides for registries within the jurisdiction for the purpose of "maintaining contact, medical, and psychosocial information about donors, gestational carriers, and children born as a result of ART," with procedures to disclose identifying information only with mutual consent and with the requirement to retain records until the "resulting child" has reached age 40. AMERICAN BAR ASSOCIATION MODEL ACT GOVERNING ASSISTED REPRODUCTIVE TECHNOLOGY § 1002(1) (AM. BAR ASSOC. 2008).

292. *See, e.g.*, CAHN, *supra* note 2, at 263.