I. INTRODUCTION

Determination of parentage is critically important in many areas of the law, from disposing of estates to assigning obligations for child support. For centuries, the law has developed and relied on certain presumptions to establish the legal parents of children. For example, when a married woman gave birth to a child, common law presumed her husband to be the father. These presumptions reflect, in large part, the natural birth process, starting with an act of sexual intercourse and ending with a birth nine months later.

Modern reproductive technology challenges these traditional presumptions. A woman may give birth with no act of sexual intercourse, with no genetic relationship to the baby, and with no intent to raise the child. The increasing use of reproductive technology has forced some courts to reconsider what parentage means — whether one defines it by genetics, by the intent of the parents, or by the act of giving birth.

In most states, the legislature has been slow in resolving the conflicts between old laws and new reproductive technologies. Courts in many of these states have attempted to find a set of rules for determining parentage of children born through new technology, using statutes adopted at a time when legislatures could not have anticipated such births.

The Massachusetts Supreme Judicial Court (SJC), during its 2001-2002 term, took a different approach in deciding two cases that involved reproductive technology. The first of these cases addressed the question of who are the...

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2. Id. In many states, statutes essentially codify the common law. See Mass. Gen. Laws ch. 209C, § 6 (2000) (a man is presumed to be the father of a child born to his wife during the marriage or within 300 days after it ends).
3. See Unif. Status of Children of Assisted Conception Act (amended 1988), 9B U.L.A. 154 (Supp. 1994) (USCACA). The USCACA, which deals with many of these issues, was originally developed in 1973, but has been adopted by only two states, North Dakota and Virginia. Id.
legal parents of a child born to a surrogate mother. The second addressed the question of whether a child conceived after the death of her genetic father, using frozen sperm, may inherit from him under Massachusetts laws of intestacy. In both of these decisions, the SJC found that existing statutes did not dictate a particular determination of who the legal parents are; instead, lower courts could use their powers in equity to determine parentage based on the facts of the case and the intentions of the parties. These Massachusetts decisions went beyond what other state supreme courts have done to date to support new reproductive technology. At the same time, the SJC made it clear that under different facts, the resolution of some legal problems with assisted births will require specific legislation.

This note briefly reviews the reproductive technologies involved in the two Massachusetts cases. It discusses each case in turn, examining the court’s analysis in the context of existing law, and identifies potential legal issues that are not yet resolved by the decisions. The note then examines common issues and approaches in the cases, and discusses potential approaches to resolving remaining questions.

II. ADVANCES IN REPRODUCTIVE TECHNOLOGY — TERMS AND CONCEPTS

Reproductive technology includes a wide range of medical techniques to assist the process of conceiving or carrying a fetus to term. These techniques often involve married couples who have not been able to conceive or bear a child as a result of medical problems with one party or both parties. Increasingly, this technology is being used in non-traditional family circumstances, such as by lesbian couples, and recent advances in technology allow medically assisted conception to reduce the chance of passing on certain genetic defects to succeeding generations.

Medically assisted conception is not new: practitioners of animal husbandry

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5. Culliton, 756 N.E.2d at 1135.
7. Woodward, 760 N.E.2d at 270; Culliton, 756 N.E.2d at 1138.
8. See Woodward, 760 N.E.2d at 272 (stating that Culliton and Woodward cases presented “novel questions”).
9. See Culliton, 756 N.E.2d at 1139 (stating that Legislature is the proper forum for resolving questions arising from assisted conception); Woodward, 760 N.E.2d at 272 (“[c]omplex moral, legal, social, and ethical questions” require comprehensive approach).
11. See Shapo, supra note 1, at 1093 (discussing prevalence of artificial conception).
13. See Denise Grady, Baby Spared Mother’s Fate by Genetic Tests as Embryo, N.Y. TIMES, Feb. 27, 2002. In the case reported by the TIMES, doctors tested fertilized eggs to find a genetic defect, and implanted only embryos that lacked the defective gene that would have doomed the baby to early Alzheimer’s disease by the time he or she reached the age of 40.
have used artificial insemination for hundreds of years. The earliest known use of this technique in humans dates to 1770. New technology available to doctors — particularly advances in cryogenics — has increased the rate of success and the variety of techniques available to prospective parents. The following section summarizes various terms and concepts included that are used in this note.

Artificial insemination

With this method of assisted reproduction, a doctor or other practitioner inserts sperm into the vagina or uterus of the woman by syringe or other instrument. The husband of the recipient may provide the sperm; this might occur when natural conception has been unsuccessful because of a low sperm concentration or other reproductive problems. An unrelated donor, who usually remains anonymous, may be the source of the sperm. Donor sperm provide an option when the husband is completely infertile, or for single women who wish to bear children. Artificial insemination is relatively simple and affordable and is in common use: a federal survey in the late 1980s indicated that 65,000 children are born in the United States per year using artificial insemination.

Artificial insemination, user donor sperm, creates a situation where there are three people with a potential parental interest in the child: the mother, the genetic father (the sperm donor), and the husband of the mother. Most states have resolved this potential conflict by removing any parental rights or responsibilities from those who contribute gametes to a medical facility or sperm bank.
and assigning those rights and responsibilities to the consenting husband of the impregnated woman.\textsuperscript{23}

\textit{In-vitro fertilization (IVF)}

With this process, the male’s sperm fertilizes the female’s ovum (egg) in a laboratory dish.\textsuperscript{24} The fertilized ovum (now a zygote or pre-embryo) is then placed in the mother’s uterus or fallopian tubes with a catheter.\textsuperscript{25} This process is considerably more difficult and technologically challenging than artificial insemination.\textsuperscript{26} A doctor must harvest the ova through a surgical procedure or needle aspiration, often after medicating the donor to increase ovulation and improve the chances of success.\textsuperscript{27} The first successful use of the IVF procedure in humans occurred in 1978,\textsuperscript{28} and accounts for more than 45,000 births in the United States since 1981.\textsuperscript{29} With IVF, donors may provide both ova and sperm, so there are potentially four people with parental interests: the genetic father (sperm donor), the genetic mother (egg donor), the gestational mother, and the husband of the gestational mother.\textsuperscript{30} A closely related procedure is a gamete-intrafallopian-transfer (GIFT), a procedure in which the sperm and egg are introduced into a fallopian tube of the gestational mother, and fertilization takes place in the fallopian tube.\textsuperscript{31}

\textit{Cryopreservation}

Advances in the technology of freezing and restoring gametes (sperm or ova) and pre-embryo have had a significant impact on reproductive technology.\textsuperscript{32} Sperm banks routinely freeze sperm for six months or more in order to test donors for sexually transmitted diseases, and thus improve the confidence that women or couples have in using these services.\textsuperscript{33} Freezing of embryos or

\begin{footnotesize}
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\item See, e.g., \textsc{Mass. Gen. Laws} ch. 46, \S 4B (2000) ("Artificial Insemination: Any child born to a married woman as a result of artificial insemination with the consent of her husband, shall be considered the legitimate child of the mother and such husband."). The Uniform Parentage Act of 1973, \S 5, has a similar provision. \textsc{Unif. Parentage Act} \S 5, 9B U.L.A. 301 (1973). Congress revised the UPA in 2000, but the 1973 version had been more widely adopted in 2002. \textit{See also} Shapo, supra note 1, at 1108-11 (discussing early cases leading to statutory treatment of parentage in the case of artificial insemination).
\item \textsc{American Society for Reproductive Medicine}, \textit{Frequently Asked Questions About Infertility}, at \url{http://www.asrm.org/Patients/faqs.html} (last visited Mar. 30, 2002) [hereinafter \textsc{ASRM FAQs}].
\item \textit{Id.} If the pre-embryo is introduced into the fallopian tube, it is sometimes called a zygote-intrafallopian-transfer (ZIFT). \textit{See} Banks, supra note 22, at 271-72.
\item \textit{See} Shapo, supra note 1, at 1129. The cost of an IVF treatment averaged $7,800 in 1993. \textsc{American Society of Reproductive Medicine, Fact Sheet: In Vitro Fertilization (IVF)}, 1996, \textit{available at} \url{http://www.asrm.org/Patients/FactSheets/invitro.html} (last visited Nov. 30, 2002). [hereinafter \textsc{ASRM IVF}].
\item \textit{See} \textsc{ASRM Guide for Patients}, supra note 17, at 6.
\item McAllister, supra note 19, at 60.
\item \textsc{ASRM IVF}, supra note 26.
\item \textit{See} Djalleta, supra note 22, at 338.
\item Shah, supra note 10, at 551.
\item McAllister, supra note 19, at 62.
\item \textit{See} \textsc{ASRM Guide for Patients}, supra note 17, at 11.
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gametes provides extended options for women receiving in vitro fertilization or similar procedures. These women may also attempt a second implantation, in the event that the first try is unsuccessful, without having to undergo another ovum harvesting procedure.

Cryopreserved sperm and pre-embryos can survive for many years; the success rate with frozen ova is poor. It is possible to use frozen sperm to conceive a child long after the genetic father has died (posthumous conception), or after his divorce from the mother. It is also possible that a surrogate mother could implant a frozen embryo after one or both genetic parents have died.

**Surrogate motherhood**

Surrogacy generally involves an agreement between an infertile couple and a woman (the “gestational” or “surrogate” mother) who is willing to bear a child that the infertile couple intend to raise. The gestational mother generally has her expenses paid and a stipend provided by the couple, although she may agree to do it as an act of love for a relative or friend. The surrogate mother may become pregnant by artificial insemination, in which case she is also the genetic mother. She may alternatively become pregnant through in vitro fertilization or a similar method using ova and sperm from the contracting couple or from anonymous donors. There may be up to six potential parents involved in this arrangement: the two genetic parents (gamete donors), the gestational (surrogate) mother, the surrogate mother’s husband, and the two parents who contracted for the birth and who intend to raise the child.

Reproductive technology has the potential to create parent-child relationships that would be impossible with natural conception. Common law or statutory law that defines the rights and responsibilities of the parties in the case of natural conception may not provide clear guidance or desirable results when applied to births resulting from artificial assistance. While some of these reproductive technologies have been addressed by state law, few states

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34. See McAllister, *supra* note 19, at 62.
35. *Id.*
36. *Id.*
37. See Djalleta, *supra* note 22, at 335 (sperm can be frozen up to ten years, pre-embryos up to 600 years). *ASRM Guide for Patients, supra* note 17, at 17 (“At present, eggs cannot be cryopreserved.”).
39. See *ASRM Guide for Patients, supra* note 17, at 14. This arrangement is referred to as “traditional” surrogacy. *Id.*
40. Where the surrogate mother is not the genetic mother of child, the arrangement is called “gestational” surrogacy. *See id.* at 13.
41. Family law in most states is based on the principle that a child should have, at most, two legal parents (one of each sex), requiring courts to choose between birth mothers and adopting mothers, for example. *See generally* Shapo, *supra* note 1, at 1194-1207 (discussing the problems of multiple parenthood).
have anticipated the range of issues raised by new technology.

III. POSTHUMOUS CONCEPTION

Posthumous conception challenges many of the concepts of parenthood that support inheritance rights, or inclusion of a person in a class of beneficiaries of an estate or trust. Common law dating back centuries held that heirs are ascertained at the time of the decedent’s death. Common law treated children who were in gestation at the time of the decedent’s death and later born alive as if they had been alive when the decedent died. Children born out of wedlock (including those born to a widow more than nine months after the death of her husband) were illegitimate, and did not inherit from their genetic father. Strict application of the common law, then, would leave a posthumously conceived child with no inheritance rights from his father. Statutes dealing with probate and parentage that give children born out of wedlock rights to receive support from their legal parents have largely replaced the common law treatment. With few exceptions, these statutes do not specifically anticipate posthumously conceived children.

The Woodward Case

In Woodward v. Commissioner of Social Security, the Massachusetts Supreme Judicial Court (SJC) addressed the inheritance rights of children conceived long after the death of their father. Newspaper reports heralded this case as the first time that the highest court of any state had addressed the question of inheritance rights of posthumously conceived children. The SJC decided that, applying “sound public policy” in a manner “entirely consistent with our laws,” such children could inherit from their fathers under some circum-

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42. See id. at 1167-71.
44. Id.
46. The Supreme Court has held in a number of cases, that equal protection requires that illegitimate children not be denied rights based on the marital status of their parents, subject to reasonable state regulations. See Gomez v. Perez, 409 U.S. 535 (1973) (holding illegitimate children may seek support from their natural fathers); Stanley v. Illinois, 405 U.S. 645 (1972) (ruling children born out of wedlock may not be taken from father without hearing); Trimble v. Gordon, 430 U.S. 762 (1977) (holding state may not disinherit or place unreasonable barriers to illegitimate children seeking inheritance). But see Lalli v. Lalli, 439 U.S. 259 (1978) (finding state interest in prevention of fraud supports requirement that paternity action be brought within lifetime of putative father).
47. See discussion infra of states’ treatment of posthumous conception.
49. Id. at 259.
 Lauren and Warren Woodward learned in January 1993 that Warren had leukemia, and that the recommended treatment for his condition might leave him unable to father children. The couple then arranged to preserve some of Warren’s sperm before he underwent a bone marrow transplant. More than a year after Warren’s death, his widow was artificially inseminated with his sperm, and she gave birth to twin daughters in October 1995.

In 1996, Lauren obtained a Probate Court judgment of paternity and an order to have her deceased husband listed as the father on the birth certificate of each of the girls. Her attempts to collect survivor benefits from the Social Security Administration were unsuccessful. A U.S. administrative law judge found that the children were not eligible to collect Social Security benefits because, under Massachusetts intestacy and paternity laws, they would not be able to inherit from Warren, the person insured under Social Security. Lauren appealed, and the U.S. District Court for the District of Massachusetts certified to the Massachusetts Supreme Judicial Court the question of whether the twins could inherit from their father under Massachusetts law.

The SJC answered the certified question in the affirmative, subject to certain conditions; in particular, children conceived after the death of their father are eligible to inherit from him under Massachusetts intestacy laws if the decedent consented to the posthumous conception and to the support of the resulting child. The court based this ruling on an inclusive interpretation of Massachusetts statutes dealing with inheritance and paternity. The court found that the Massachusetts intestacy law includes posthumous children as heirs, and that the statute did not specifically restrict such posthumous children to those conceived during the marriage. The court also found that the statute superseded the common law rule that heirs are ascertained at the date of the decedent’s death.

Lauren Woodward conceived her children after the marriage had ended (by

51. Woodward, 760 N.E.2d at 270.
52. Id. at 260.
54. Id.
55. Id.
56. Id.
57. Id. at 261. The Social Security Act provides benefits to dependent children of parents who are insured under the act, 42 U.S.C. § 402(d)(1) (2000), and to the widow of an insured person if she has care of a child entitled to children’s benefits, 42 U.S.C. § 402(g)(1) (2000).
58. Woodward, 760 N.E.2d at 261.
60. Id. at 259.
61. See id. at 270.
62. Id. at 264.
63. Id. at 266.
the death of Warren), and the law treats these children as born outside of marriage, according to the court. In such cases, a court must determine paternity by formal judgment. The interests of the state in preventing fraud require the court making such a judgment to determine that the father unequivocally expressed his intent to use his sperm to conceive a child after his death, and that he intended to support such a child. The SJC did not determine whether the record in the Woodward case supported such a finding of intent by Warren Woodward to father children posthumously; instead, it left that question to the U.S. District Court to determine at trial in Lauren Woodward’s case.

**Status of the law affecting posthumous conception**

Artificial insemination has been commonly available for many years, and most states have addressed parental rights through statutes or court decisions. Massachusetts has adopted a statute that explicitly makes a child born to a married woman, through artificial insemination, with her husband’s consent, a legitimate child of the marriage. Such a child would have all of the rights, including inheritance rights, of any other natural child of the marriage. Similarly, in Massachusetts as in most other states, someone who anonymously provides sperm to a medical facility for use in artificial insemination gives up any parental claims or responsibilities for children who may result from that process.

The artificial insemination law treats a child born through this technology, to a married woman and her willing husband, like any other legitimate child of the marriage. The Massachusetts SJC, however, found that this law provides little guidance in the case of posthumous conception because the mother is no longer married when she conceives or bears the child. This court in Woodward looked instead to laws for determining parentage of children born outside of marriage.

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65. Id. Parentage of non-marital children could also be determined where the father acknowledges paternity during his lifetime. MASS. GEN. LAWS ANN. ch. 209C, §§ 5, 11 (West 2001). Although Mrs. Woodward had obtained a court order from the Probate Court adjudging Warren Woodward as the father, the U.S. District Court determined that the Social Security Administration was not bound by that order, and would make its own determination of paternity. Woodward, 760 N.E.2d at 261.
68. See Shapo, supra note 1, at 1102 (more than half the states now have artificial insemination statutes); UNIF. PARENTAGE ACT § 5 (amended 1973), 9B U.L.A. 301 (1987).
70. MASS. GEN. LAWS ch. 190, § 1 (2000) (“issue” inherit share of estate of person who dies without a will).
71. See R.R. v. M.H., 689 N.E.2d 790, 795 (Mass. 1988) (stating MASS. GEN. LAWS ch. 46, § 4B implies that donor has no parental rights or responsibilities). This presumably also holds true for other reproductive technology procedures and holds for women who provide ova for these procedures. See Woodward, 760 N.E.2d at 267 (finding that the Constitution and state law require equal treatment of maternity and paternity).
72. In posthumous conception cases, it is usually only paternity that is in question; however, it is possible
riage, which might guide the court when such children seek to inherit from their parents under the laws of intestacy.\textsuperscript{73}

Only one other court has directly addressed the question of the inheritance rights of posthumously conceived children.\textsuperscript{74} In 2000, a New Jersey court dealt with a case, \textit{Estate of Kolacy}, with almost identical facts to the Woodward case.\textsuperscript{76} In this case, Mariantonia Kolacy sought a declaratory judgment that twin girls conceived using her late husband’s sperm were his legal heirs.\textsuperscript{77} Mrs. Kolacy planned to use this judgment to support her application for Social Security benefits for the girls.\textsuperscript{78} The Superior Court judge in \textit{Kolacy} found that the posthumously conceived girls were heirs of their father,\textsuperscript{79} even though New Jersey intestacy law anticipated only children conceived before their father’s death.\textsuperscript{80} Rather than interpreting the statute as limiting inheritance only to those conceived before the decedent’s death, the court found that the statute was “part of that traditional recognition of exceptions” to the common law rule that heirs are ascertained as of the time of decedent’s death.\textsuperscript{81} The court would “routinely” grant the posthumously conceived child the legal status of an heir, at least where there are no adversely affected parties.\textsuperscript{82}

In a 1993 California case, \textit{Hecht v. Superior Court},\textsuperscript{83} a lower court discussed the issue of the eligibility of a posthumously conceived child to inherit, concluding that it is “unlikely” that such children could inherit based on California statutes that control the inheritance rights of children born outside of a marriage.\textsuperscript{84} California law allowed a court to determine paternity where no presumption of paternity exists, only if it entered the decree during the father’s lifetime or where the father had “openly and notoriously held out the child to be his own.”\textsuperscript{85} This case involved a dispute over the ownership of the decedent’s

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\textsuperscript{73} See id. at 264 (discussion of applicable law).
\textsuperscript{74} Other courts have discussed the issue. See, e.g., Hecht v. Superior Ct., 20 Cal. Rptr. 2d 275 (Cal. App. Ct. 1993) (discussing possible inheritance rights of future children using sperm of deceased); Banks, supra note 22, at 251-56 (discussing unpublished Hart case in Louisiana, where law required heirs to be in existence at time of death).
\textsuperscript{76} Twin girls were born to Mariantonia Kolacy 18 months after the death of their father. They were conceived using sperm that William Kolacy had preserved after being diagnosed with leukemia. Id. at 1258.
\textsuperscript{77} Id.
\textsuperscript{78} Id. at 1259.
\textsuperscript{79} Id. at 1264.
\textsuperscript{80} N.J. STAT. ANN. § 3B:5-8 (West 2001): “Relatives of the decedent conceived before his death but born thereafter inherit as if they had been born in the lifetime of the decedent.”
\textsuperscript{81} Kolacy, 753 A.2d at 1261.
\textsuperscript{82} Id. at 1262.
\textsuperscript{84} Id. at 290. Plaintiff Deborah Hecht had never been married to the decedent, so there was no presumption of paternity. Id.
\textsuperscript{85} CAL. PROB. CODE § 6408 (repealed 1993). See CAL. PROB. CODE § 6453 (West 1993) (allowing court to declare paternity where father could not hold child out to be his own).
sperm. There was no child or conception at the time of the trial, and the court discussed the inheritance rights issue as a public policy question as part of a finding that posthumous conceptions did not violate public policy.

Only a few states have adopted statutes that deal directly with posthumous conception. The Uniform Status of Children of Assisted Conception Act (USCACA), adopted by only two states, would deal directly with the Woodward and Kolacy cases by stating that the decedent is not a parent to children conceived after his death. North Dakota has incorporated one alternate provision that declares that the decedent is not the parent in a posthumous conception case. Virginia, in contrast, provides exceptions, so that the decedent would be considered the father if he specifically consented, in writing, to being a parent of the resulting child. Apparently in response to a Social Security dispute similar to that in Woodward and Kolacy, Louisiana passed a statute in 2001, apparently in response to a Social Security dispute similar to that in Woodward and Kolacy, that specifically includes posthumously conceived children as children of their deceased biological parent, provided the decedent specifically indicated his consent, and the child is born within two years of the death of the parent.

Implications of the Woodward decision

The Woodward decision encompassed only an element of the children’s eligibility for Social Security benefits. The decision, however, may have implications for other cases where the rights of posthumously conceived children are in question. If such children seek to inherit from their father’s estate, one potential problem is the one-year statutory time limit for claims against the estate, and for paternity claims against the deceased by children born out of wedlock. The mother may bring a claim while she is pregnant, although the court may not issue a final judgment until the child is born. To meet these deadlines, the

86. Hecht, 20 Cal. Rptr. 2d at 276.
87. Id.
88. The USCACA has been adopted by North Dakota, N.D. CENT. CODE §§ 14-18-01 to -07 (West 2001), and Virginia, VA. CODE ANN. §§ 20-156 to -165 (Michie 2001).
89. UNIF. STATUS OF CHILDREN OF ASSISTED CONCEPTION ACT §4 (amended 1988), 9B U.L.A. 154 (Supp. 1994) (“An individual who dies before implantation of an embryo, or before a child is conceived other than through sexual intercourse, using the individual’s egg or sperm, is not a parent of the resulting child.”).
90. N.D. CENT. CODE § 14-18-04 (“A person who dies before a conception using that person’s sperm or egg is not a parent of any resulting child born of the conception.”)
91. VA. CODE ANN. § 20-158 (Michie 2001). See also Djalleta, supra note 22, at 346.
93. MASS. GEN. LAWS ch. 190, § 7 (2000) (paternity claims must be brought within time frame established in ch. 197, § 9), MASS. GEN. LAWS ch. 197, § 9 (2000) (establishing one-year limit for claims against the estate). The Woodward court recognized this problem, but did not provide the answer, because Social Security rules explicitly disregarded such time limits when determining eligibility. Woodward, 760 N.E.2d at 267-68.
94. MASS. GEN. LAWS ch. 209C, § 14 (2000) (action to establish paternity may be instituted during the pregnancy of the mother).
widow would have to conceive a child using her husband’s sperm within a year of his death, and immediately seek a paternity determination and submit a claim against the estate.95

The Kolacy court provided an extended discussion of this question, suggesting that, in the absence of legislation setting a clear time limit, courts could establish a reasonable time limit after considering the interests of other heirs.96 The Woodward court required a clear statement or indication of the father’s intent to provide for his posthumous offspring.97 The father’s will could provide this indication of intent, in which case there may be only limited opportunities to test the laws of intestacy in regard to the donor parent’s estate.98 Other circumstances, such as the ability to inherit from a grandparent, may occur long after the death of the parent. In such cases, the court may have to address the question of how long after the death of a parent could a posthumously conceived child initiate a parentage determination.

IV. SURROGACY ARRANGEMENTS

Surrogacy arrangements create some unique legal complications beyond those encountered in other forms of reproductive technology. There is at least one additional party (the gestational mother) with a potential claim to parental rights.99 There are also public policy questions over whether, and under what conditions, the law should permit a woman to contract away her parental rights when she agrees to become a surrogate mother.100

Determining who are the legal parents is of central importance in a surrogacy arrangement. The purpose of the agreement, in most cases, is to create a parent-child relationship between the couple arranging the surrogacy (the “intended parents”) and the child that results from the assisted conception. Without enforcement of a surrogacy agreement, the gestational mother would be the legal mother of the child, and her husband (if she is married) would be presumed its legal father.101 These parents would have to voluntarily waive their

95. Artificial insemination may require several cycles for a successful pregnancy. See ASRM GUIDE FOR PATIENTS, supra note 17, at 12 (stating success rates for artificial insemination using frozen sperm eight to fifteen percent per menstrual cycle attempted). This may require the widow to begin the artificial insemination process within a few months of her husband’s death. Id.
97. The prospective parent must “clearly and unequivocally consent not only to posthumous reproduction but also to the support of any resulting child.” Woodward v. Comm’r of Soc. Sec., 760 N.E.2d 257, 269 (Mass. 2002).
98. There may be an error with the will, however, that calls the laws of intestacy into play.
99. In some cases, the husband of the surrogate mother may be involved. See R.R. v. M.H., 689 N.E.2d 790, 791 (Mass. 1998) (discussing consent of surrogate’s husband).
100. A number of states have refused to enforce any surrogacy contracts, permit enforcement only if the surrogate mother is uncompensated, or place other restrictions, such as advance judicial approval, on such contracts. See R.R., 689 N.E.2d at 793-94 (discussing restriction of surrogacy in eleven other jurisdictions).
101. But see R.R. 689 N.E.2d at 795 (discussing possible application of artificial insemination statute to husband of surrogate, stating that legislature did not intend it to apply to this situation).
parental rights so that the intended parents could adopt the child, with the approval of the court.\textsuperscript{102} Such an agreement may run afoul of laws prohibiting the compensation of mothers (beyond pregnancy expenses) to give up their children for adoption.\textsuperscript{103}

\textit{The Culliton Case}

In \textit{Culliton v. Beth Israel Deaconess Medical Center},\textsuperscript{104} the Massachusetts Supreme Judicial Court reviewed a surrogacy agreement between Marla and Steven Culliton, the intended parents, and Melissa Carroll, the gestational carrier.\textsuperscript{105} The gestational mother was pregnant with twins,\textsuperscript{106} the result of the implantation of embryos created by the in vitro fertilization of eggs harvested from Marla Culliton with sperm provided by Steven Culliton.\textsuperscript{107} The Cullitons compensated Ms. Carroll, who was not married, for living expenses and lost wages, in addition to medical and other expenses, to carry the Culliton's child.\textsuperscript{108} These expenses were not conditioned on her giving up any parental rights.\textsuperscript{109}

The Cullitons sought a declaratory judgment to require the hospital to list them, and not the gestational mother, as the parents of the twins.\textsuperscript{110} Under Massachusetts statutes, the Probate Court can determine the legal parents of a child, but may not issue such order until after the birth of the child.\textsuperscript{111} The court could issue an order declaring adoptive parents the legal parents only if the birth mother consented in a written instrument executed no sooner than the fourth day after the birth.\textsuperscript{112} The Supreme Judicial Court, however, found these statutes to be inapplicable to the \textit{Culliton} case.\textsuperscript{113} Remarkably, the court found that Cullitons, a married couple, had conceived the twins, who were therefore children of the marriage, and not of the gestational mother. The Supreme Judicial Court refused to apply the paternity and adoption statutes to limit the ability of the Probate Court, as a court of general equity, to authorize the listing of the

\begin{thebibliography}{113}
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\bibitem{102} See \textit{R.R.}, 689 N.E.2d at 796.
\bibitem{103} Id.
\bibitem{104} \textit{Culliton v. Beth Israel Deaconess Medical Center}, 756 N.E.2d 1133 (Mass. 2001).
\bibitem{105} Id. at 1135.
\bibitem{106} The rate of multiple births with reproductive technology is higher than for natural conception. See \textit{ASRM IVF, supra} note 26 (twenty-four percent of pregnancies resulting from in-vitro fertilization are twins, five percent are triplets, and fifty percent are single children, with the remaining twenty-two percent not resulting in a live birth).
\bibitem{107} \textit{Culliton}, 756 N.E.2d at 1135. The intended parents were both fertile, but Mrs. Culliton was incapable of carrying a child to term without serious risk to her health. Id.
\bibitem{108} Id.
\bibitem{109} Id.
\bibitem{110} Id. at 1136.
\bibitem{113} \textit{Culliton v. Beth Israel Deaconess Medical Center}, 756 N.E.2d 1133, 1137 (Mass. 2001).
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genetic parents on the birth certificate.\textsuperscript{114}

The genetic identity of the child was a key factor that distinguished \textit{Culliton} from a previous case, \textit{R.R. v. M.H.},\textsuperscript{115} where the Supreme Judicial Court declined to enforce a surrogacy agreement.\textsuperscript{116} In \textit{R.R.}, the gestational mother was also the genetic mother, having been artificially inseminated with sperm from the intended father. The woman, who had agreed to be a surrogate mother, changed her mind after she became pregnant. The court relied on the adoption statute and refused to enforce the terms of the surrogacy agreement to force her to give up her parental rights.\textsuperscript{117} A year after it decided \textit{R.R.}, the Massachusetts SJC left in place a lower court decision relying on a surrogacy agreement to establish the intended couple — who were the genetic parents — as the legal parents, without resorting to adoption.\textsuperscript{118}

\textbf{Implications of the Culliton decision}

The Massachusetts Supreme Judicial Court provided direction for determining the legal parents under some, but not all, surrogacy parenting arrangements. In cases where the gestational carrier is also the genetic mother, she retains her parental rights, which she must waive no sooner than the fourth day after the birth of the child before the intended parents may adopt that child.\textsuperscript{119} The court will not enforce any surrogacy agreement whereby the birth mother purports to waive these rights in advance.\textsuperscript{120} In a case where the gestational carrier is not the genetic mother, she may not retain any parental rights if the intended parents are both the genetic parents and married to each other.\textsuperscript{121} The court will consider the child a legitimate child of the marriage of the intended/genetic parents, and the child’s birth certificate may show the genetic parents as the parents.

This result would likely be different if the gestational mother were impregnated with a pre-embryo that was produced with donor gametes; that is, neither

\begin{footnotesize}
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\item \textsuperscript{114} \textit{Id.} at 1138. See \textit{Mass. Gen. Laws} ch. 215, § 6 (2000) (probate and family court have general equity jurisdiction).
\item \textsuperscript{115} \textit{R.R. v. M.H.}, 689 N.E.2d 790 (Mass. 1998).
\item \textsuperscript{116} \textit{Id.} at 796.
\item \textsuperscript{117} To avoid conflicts with the Massachusetts adoption statute, the gestational carrier in \textit{R.R.} did not waive her parental rights in the agreement. Instead, the agreement provided financial penalties in the event that she did not waive these rights after the child was born. \textit{Id.} at 792. The court did not regard this difference as material. \textit{Id.} at 796. As noted above, in \textit{Culliton}, the court found the adoption statute not to apply, as the gestational carrier was not the genetic mother of the child she carried. \textit{Culliton}, 756 N.E.2d at 1137.
\item \textsuperscript{118} See Smith v. Brown, 718 N.E.2d 844, 846 (Mass. 1999). Unlike \textit{R.R.}, \textit{Smith} involved an unpaid gestational surrogate (the sister of the wife of the contracting couple), intended parents who were the genetic parents, and no dispute between the parties (the couple wanted an order to place their names on the birth certificate). \textit{Id.} at 845.
\item \textsuperscript{119} \textit{See R.R.}, 689 N.E.2d at 797.
\item \textsuperscript{120} \textit{Id.}
\item \textsuperscript{121} \textit{See Culliton v. Beth Israel Deaconess Medical Center}, 756 N.E.2d 1133, 1137 (Mass. 2001) (holding where children in surrogacy arrangement are genetically children of married couple, they should be presumed to be the children of the marriage).
\end{itemize}
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the gestational carrier nor the intended parents are the source of the child’s genetic material.\textsuperscript{122} The \textit{Culliton} court suggested that the results would be different in a case where unrelated donors provided the gametes or embryo.\textsuperscript{123} The state’s artificial insemination statute would indicate that the birth mother is the legal mother of such a child If her husband consents to the procedure, he is the legal father.\textsuperscript{124} Furthermore, the contracting parents would have no greater claim to parentage than the gestational mother. Any attempt by the gestational mother to waive these rights in advance would probably not be enforceable under the reasoning of \textit{R.R.}\textsuperscript{125}

If the embryo implanted in the gestational carrier includes genetic material from only one of the intended parents (and not from the gestational carrier), the outcome is less clear. If the egg originates from the intended mother, and the sperm originates from a donor, then the child may be considered a child of the marriage of the intended parents. This situation is similar to that envisioned under the state artificial insemination statute,\textsuperscript{126} where a child born of a woman artificially inseminated with the consent of her husband is a child of the marriage. The anonymous sperm donor has no parental rights or responsibilities.\textsuperscript{127} If the intended father contributed the sperm, with a donated egg, he would be the genetic father and could presumably seek a judgment of paternity under the statutes dealing with children born out of wedlock.\textsuperscript{128} The SJC, however, has expressed its aversion to applying these statutes to resolve issues of reproductive technology not specifically anticipated by the legislature when it created the statutes.\textsuperscript{129} In the case of the donated egg and the husband’s sperm, neither statutes nor the SJC decisions determine if any the wife of the intended couple has any rights.\textsuperscript{130} The parental rights and responsibilities, if any, of the husband of the gestational carrier are also unresolved in cases where the intended par-

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\bibitem{122} One of the purposes of using a surrogate mother, rather than adopting a child, is to have a child with a genetic relationship to at least one of the contracting couple. There are, however, examples of surrogate agreements using egg and sperm both from anonymous donors. \textit{See} \textit{Jaycee B. v. Superior Ct.}, 49 Cal. Rptr. 2d 694 (Cal. Ct. App. 1996) (awarding custody to contracting wife and ordering contracting husband to pay child support, where couple separated before birth of child to surrogate).
\bibitem{123} \textit{Culliton}, 756 N.E.2d at 1137-38.
\bibitem{124} \textit{Mass. Gen. Laws} ch. 46, § 4B (2000) (A child born of a married woman with the consent of her husband is a legitimate child of the mother and her husband.).
\bibitem{125} \textit{See R.R.}, 689 N.E.2d at 797 (mother may not make binding determination concerning custody of child in advance by private agreement).
\bibitem{126} \textit{Id.}
\bibitem{127} \textit{See R.R.}, 689 N.E.2d at 795
\bibitem{129} \textit{See Culliton v. Beth Israel Deaconess Medical Center}, 756 N.E.2d 1133, 1137-38 (Mass. 2001) (finding that children-born-outside-of-marriage, adoption and artificial insemination statutes do not apply in surrogate parent cases).
\bibitem{130} States with surrogacy statutes treat the intended parents as the natural parents provided that at least one of them contributed gametes, and the gestational mother is not the genetic mother of the child. \textit{See, e.g.,} \textit{Fla. Stat. Ann.} § 742.16(7) (West 2001) (In the case of gestational surrogacy, “When at least one member of the commissioning couple is the genetic parent of the child, the commissioning couple shall be presumed to be the natural parents of the child.”).
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ents are not also the genetic parents.\textsuperscript{131}

\textit{Status of intended parents in other states}

Several state courts have decided questions of legal parenthood of children born to surrogate mothers. The California Supreme Court decided one of the pioneering cases in this area, \textit{Johnson v. Calvert},\textsuperscript{132} in 1993. This case involved a woman (Johnson) who agreed to be the gestational carrier for the Calverts, in return for a fee of $10,000 and a life insurance policy. The Calverts were the genetic parents; the embryo implanted in Ms. Johnson came from an egg harvested from Mrs. Calvert and sperm produced by Mr. Calvert. The relationship between Johnson and Calverts soured and the courts were asked to resolve the question of who were the child’s parents. The California court relied heavily on state paternity and maternity statutes to find that Mr. Calvert was the father, and that Mrs. Calvert (the genetic mother) and Ms. Johnson (the birth mother) each had a claim to be the legal mother under the law.\textsuperscript{133} The court then looked to the intent of the parties, deciding that the party whose deliberate actions resulted in the conception of the child, and who intended to raise the child, should be the legal mother.\textsuperscript{134}

An Ohio court rejected this “intent” analysis in \textit{Belsito v. Clark},\textsuperscript{135} decided in 1994. This court placed a primary emphasis on the rights of the genetic parents. Unless the genetic parents waive their parental rights (as donors to a sperm bank might), those parents are the natural parents of the child. The court would presume the birth mother to be the legal mother only in cases where the gamete donors waived their parental rights or did not intend to raise the child.\textsuperscript{136}

A New York court, in \textit{Perry-Rogers v. Fassano},\textsuperscript{137} determined that the genetic parents were the natural parents in an accidental surrogacy case. Mrs. Fassano, who was undergoing an in vitro fertilization procedure, was inadvertently implanted with the embryo of another couple, and later gave birth to two children. One of the children was genetically hers, the other (of a different race) was the genetic child of the Rogers. The court, comparing this to a mix-up of infants at the nursery, found that the Rogers were the legal and natural parents of the child who was genetically theirs, and denied the Fassanos any visitation rights.\textsuperscript{138}

In contrast to the above-cited cases, a New Jersey court in 2000 declined to

\textsuperscript{131} The court in \textit{Culliton} noted that “problems would have arisen” if the gestational carrier were married, and if they had not found the genetic parents to be the legal parents. \textit{Culliton}, 756 N.E.2d at 1137.

\textsuperscript{132} \textit{Johnson v. Calvert}, 851 P.2d 776 (Cal. 1993).

\textsuperscript{133} \textit{Id.} at 781.

\textsuperscript{134} \textit{Id.} at 782.

\textsuperscript{135} \textit{Belsito v. Clark}, 644 N.E.2d 760 (Ohio Ct. of Com. Pleas 1994).

\textsuperscript{136} \textit{Id.} at 767.


\textsuperscript{138} \textit{Id.} at 25. The court acknowledged that there are some circumstances where the birth mother may continue to assert some parental rights, even where she is not the genetic mother. \textit{Id.}
recognize the genetic parents as the natural parents of a child resulting from a surrogacy agreement, and denied the parents’ request for a pre-birth order to name them as the parents on the birth certificate.\footnote{A.H.W. v. G.H.B., 772 A.2d 948, 954 (N.J. Super. Ct. Ch. Div. 2000).} The court found that the gestational carrier (who was the sister of the genetic mother) could relinquish her parental rights, if any, only after waiting the three days after the child’s birth that is required by the adoption statute.\footnote{Id.} If she did so before the birth certificate was due from the attending physician (five days after birth), the certificate could list the genetic parents as the legal parents.\footnote{Id.}

Only a few states have determined by statute the parentage issue in surrogacy arrangement.\footnote{See VA. CODE ANN. § 20-158 (Michie 2001); N.H. REV. STAT. ANN. § 168-B:17(II) (1994); FLA. STAT. ch. 742.15 (1995); ARK. CODE ANN. § 9-10-201b (Michie 1993).} Alone in adopting the USCACA’s model language for surrogacy,\footnote{Unif. Status of Children of Assisted Conception Act (1988), § 5. North Dakota, the only other state to adopt the USCACA, enacted alternative language that outlaws all surrogacy agreements. N.D. CEN T. CODE § 14-18-05 (1991).} Virginia provides that the intended parents are the legal parents of the child born to the gestational carrier if either of the intended parents is a genetic parent; otherwise, the gestational carrier is the legal parent.\footnote{VA. CODE ANN. § 20-158 (Michie 2001).} Similarly, Arkansas statutes create a presumption that the intended parents are the legal parents.\footnote{ARK. CODE ANN. § 9-10-201b (Michie 1993).}

In Arizona, the state’s highest court declared unconstitutional a statute\footnote{ARIZ. REV. STAT. § 25-218 (1991).} that the (non-genetic) surrogate mother is the legal mother of the child she gives birth to.\footnote{Soos v. Superior Ct., 897 P.2d 1356, 1357 (Ariz. Ct. App. 1995).} The statute, according to the court, violated the equal protection clause because it allowed a father to rebut the presumption of paternity (through genetic testing, for example), but failed to provide the genetic mother the same opportunity.\footnote{Id. at 1361.}

V. CONCLUSION

The legal problems posed by reproductive technology, such as determination of parental and inheritance rights, have been apparent for many years, but state legislatures have been slow to adopt comprehensive statutory schemes to resolve these issues.\footnote{The call for comprehensive legislation is a frequent theme of the academic literature on the legal implications of reproductive technology, and of the decisions of the courts that have decided these issues. See Shapo, supra note 1, at 1102 (“typical response” to this technology has been a call for legislation to determine parentage).} This reluctance to legislate may be due in large part to fundamental moral or public policy disagreements on whether certain repro-
ductive technologies should be permitted at all. Meanwhile, thousands of children are being born each year using these technologies, and medical research is developing new or refined technologies.

The Massachusetts Supreme Judicial Court in several recent decisions has attempted to fill in the voids in Massachusetts law that determines parental rights in reproductive technology cases. The court found existing probate and family law to be inadequate, but the decisions in Culliton and Woodward relied in large part on the principles embodied in those laws to protect the best interests of the children involved. These cases indicated that, where there are willing and responsible parents who wish to use reproductive technology to assist in the creation of families, the court will not interpret existing law in a way that would frustrate those efforts. These were cases, however, where all of the prospective parents agreed on who should have the parental rights, and were restricted to the facts presented in those cases. These cases provide little guidance on how the court would decide a heavily contested case, with different parties asserting or denying parental roles.

The Massachusetts Supreme Judicial Court, like courts in other states, has appealed to the legislature for more comprehensive guidance on the rights of the parties in reproductive technology cases. At the same time, the nearing prospect of human cloning and gene splicing may fuel growing controversies and debates over reproductive technology. This controversy may make it even more difficult for legislatures to develop constructive solutions to the problems faced by the courts. Without a legislative solution, the equitable approach staked out by the SJC in the Woodward and Culliton cases provides the most reasonable means to resolve parentage issues for children born using new technology.

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