
ALTRUISM OR COMMERCIALISM? EVALUATING THE FEDERAL BAN ON COMPENSATION FOR BONE MARROW DONORS

NICOLETTE YOUNG*

I. INTRODUCTION.....	1206
II. MEDICAL BACKGROUND OF BONE MARROW DONATION.....	1208
A. THE BASICS OF BONE MARROW DONATION.....	1208
1. The Medical Basics.....	1208
2. Becoming a Donor.....	1212
3. The Bone Marrow Donation Process.....	1213
B. TECHNOLOGICAL ADVANCES IN BONE MARROW DONATION	1216
III. THE LAW: COMPENSATING A DONOR.....	1219
IV. ETHICAL IMPLICATIONS OF COMPENSATION FOR BONE MARROW DONATION	1223
A. COMMODIFICATION AND OBJECTIFICATION IMPLICATIONS ...	1223
B. EXPLOITATION IMPLICATIONS	1225
C. RACIAL IMPLICATIONS	1228
D. OTHER MORAL IMPLICATIONS.....	1229
E. DISTINGUISHING BONE MARROW DONATION ON MORAL GROUNDS	1230
V. THE REALITY AND PRACTICALITY OF COMPENSATION FOR BONE MARROW DONATION	1232

* Class of 2011, University of Southern California Gould School of Law; B.A. Art History and Italian 2007, University of California, Los Angeles. I would like to thank Professor Michael H. Shapiro for his valuable guidance and comments throughout the writing of this Note, as well as the editors and staff of the *Southern California Law Review* for their diligent work and assistance. I also owe thanks to my family and friends, especially my parents, for their unwavering support, and a special thanks to Josh for putting up with me through it all.

A. NONECONOMIC ATTEMPTS AT INCENTIVIZATION	1232
B. FORMS OF PAYMENT AND THEIR MORAL IMPLICATIONS	1233
C. WOULD COMPENSATION INCREASE SUPPLY?.....	1235
VI. CONSTITUTIONAL ARGUMENTS AGAINST NOTA’S BAN ON COMPENSATION FOR BONE MARROW	1236
A. EQUAL PROTECTION	1236
1. What is the Classification?	1237
2. What is the Appropriate Level of Scrutiny?	1238
B. SUBSTANTIVE DUE PROCESS	1242
1. Is There a Fundamental Right?.....	1243
2. Is the Constitutional Right Infringed?	1248
VII. CONCLUSION	1249

I. INTRODUCTION

Voluntary, altruistic bone marrow donation is currently the only way for a patient to receive a bone marrow transplant. Unfortunately, bone marrow supply from altruism falls far short of demand, making our current system insufficient.

Although scholars have proposed numerous avenues for change in the organ donation system, no change has occurred. One popular proposal is to remove the ban on compensation for organ donors, a proposition that implicates many ethical and moral concerns. These moral concerns include the commodification of the human body, the exploitation of poor and ethnic minority populations, and the general repugnance that some feel toward the idea of selling one’s body.

If compensation for bone marrow donation were allowed, we may be able to overcome these moral and ethical concerns both conceptually and constitutionally. For example, the ethical dilemmas that surround bone marrow donation are somewhat abated by the rise of new technologies that have made bone marrow donation much less intrusive.

Recently, a case was filed in the United States District Court for the Central District of California challenging the National Organ Transplant Act¹ (“NOTA”) ban on compensation for bone marrow donation.² The plaintiffs’ goal is to implement a pilot program which offers “strategic financial incentives” to bone marrow donors.³ The case, *Flynn v. Holder*,

1. 42 U.S.C. § 274 (2006).

2. Complaint at 48–50, *Flynn v. Holder*, CV09 07772 (C.D. Cal. Oct. 26, 2009) [hereinafter *Flynn Complaint*].

3. *Id.* at 27.

makes several constitutional challenges in its attempt to allow indirect financial incentives to donors.⁴

The seven plaintiffs include the following: a single, working mother of three children who need bone marrow transplants;⁵ a doctor who specializes in bone marrow transplants and who claims that at least 20 percent of his patients have died because they were unable to find a matching donor;⁶ a father of a son who is an ethnic minority and needs a bone marrow transplant;⁷ a father whose two sons are of mixed race and need bone marrow transplants;⁸ a black man who has had an autologous bone marrow transplant but may someday need another one;⁹ a former pastor who had an autologous bone marrow transplant;¹⁰ and MoreMarrowDonors.org, a nonprofit corporation that intends to carry out the logistical concerns of the pilot program, if approved by the court.¹¹ The claims made by each individual plaintiff implicate different ethical and legal issues that will be discussed in this Note.

In challenging NOTA, the plaintiffs raise two constitutional arguments under the Due Process Clause of the Fifth Amendment. The plaintiffs' first argument is that NOTA denies equal protection because it "arbitrarily and irrationally treats dissimilar things similarly" by categorizing renewable bone marrow cells as nonrenewable solid organs.¹² In claiming bone marrow's dissimilarity to solid organs, the plaintiffs distinguish bone marrow cells on two grounds. They distinguish bone marrow as a continuously regenerative cell substance that is fundamentally different from solid organs such as kidneys. They also distinguish Peripheral Blood Stem Cell ("PBSC") donation as a new and innovative process that is fundamentally different from the surgery required to harvest and donate solid organs.

4. *Id.* These indirect incentives would include \$3000 of compensation in three indirect forms: (1) a school scholarship, (2) a housing allowance, or (3) an award to a charity of the donor's choice.

5. *Id.* at 5.

6. *Id.* at 5–7.

7. *Id.* at 8–9.

8. *Id.* at 9–10.

9. *Id.* at 10–12.

10. *Id.* at 12–13.

11. *Id.* at 13.

12. *Id.* at 48. Note that the Fifth Amendment does not have an Equal Protection Clause. U.S. CONST. amend. V. The Supreme Court, however, has established the use of an equality standard within the Fifth Amendment—a doctrine known as reverse incorporation. *See* *Bolling v. Sharpe*, 347 U.S. 497, 498–500 (1954); *Korematsu v. United States*, 323 U.S. 214, 234–35 (1944). This doctrine holds that the Equal Protection Clause of the Fourteenth Amendment applies to the federal government through the Due Process Clause of the Fifth Amendment. *Bolling*, 347 U.S. at 498–99.

The plaintiffs' second constitutional argument is that the government is violating a substantive due process right by infringing on a fundamental liberty interest—the right “to participate in safe, non-experimental, lifesaving medical treatment.”¹³

This Note seeks to address the legal and ethical implications of the ban on compensation for bone marrow, as well as the ramifications of lifting that ban. In Part II of this Note, I will explore the medical background of bone marrow donation and the technological developments that may persuade us to reconsider the inclusion of bone marrow in NOTA. Part III provides an overview of the current statutes that constitute the ban on compensation for bone marrow. Part IV discusses the current ethical limitations and possible moral repercussions of allowing compensation for bone marrow. Part V explores the logistical and financial concerns of a compensatory system and evaluates whether it would actually increase supply. Part VI then addresses how a constitutional challenge to NOTA might be formulated using the Equal Protection Clause as well as the Due Process Clauses of the Fourteenth and Fifth Amendments, and evaluates whether these constitutional challenges would be effective. Part VII concludes that the constitutional challenges to NOTA are fundamentally weak, and that it will be ultimately necessary for Congress to reevaluate the legislation.

II. MEDICAL BACKGROUND OF BONE MARROW DONATION

A. THE BASICS OF BONE MARROW DONATION

1. The Medical Basics

Bone marrow is a spongy material found between the spaces within bones and is comprised of bone marrow cells. Bone marrow stem cells have the ability to either: (1) divide into more bone marrow cells; or (2) mature into red blood cells, white blood cells, or platelets. Healthy stem cells are crucial to survival because they create the cells responsible for transporting oxygen throughout the body, providing immunity to disease

13. Flynn Complaint, *supra* note 2, at 49. It is important to be aware that there could possibly be more expansive formulations of the right that also encompass experimental treatments, risky treatments, and nonlifesaving treatments. Characterizing the right at issue is critical because the scope of the right will likely affect the outcome of the case. See *Michael H. v. Gerald D.*, 491 U.S. 110, 127 n.6 (1989) (discussing whether to characterize the right of a natural father in terms of the right of an adulterous natural father, a position adopted by the majority, or a more general parental right, a position advocated by the dissent).

and allowing the clotting of blood.¹⁴ Many patients need new bone marrow stem cells if they have a blood disease or cancer. In any given year, about 10,000 people in the United States need a bone marrow transplant from an unrelated donor.¹⁵

Bone marrow is entirely regenerative—the cells return to their normal levels within four to six weeks of a bone marrow donation.¹⁶ Arguably, this distinguishes bone marrow from other types of organs and tissues in NOTA. In fact, the plaintiffs in *Flynn* assert this argument—that because bone marrow is regenerative, the ethical concerns associated with other irreplaceable body parts are minimized because there is no permanent loss.¹⁷

A bone marrow transplant can be lifesaving for people with many different diseases such as leukemia, lymphoma, aplastic or Fanconi's anemia, glioma, medulloblastomas, and certain types of solid tumors. In fact, the incredibly high survival rate of patients after a bone marrow transplant for certain diseases reinforces the gravity of the issue.¹⁸ A bone marrow transplant can also be necessary for cancer patients whose marrow is destroyed as a result of cancer treatments such as high-dose chemotherapy or radiation.¹⁹

There are three types of bone marrow transplants, each requiring a different type of donor: (1) autologous, (2) allogeneic, and (3) syngeneic.²⁰ Autologous bone marrow transplants occur when the source of the bone marrow cells for the transplant is the patient himself.²¹ This is possible when the patient's disease does not directly affect the bone marrow and

14. Michelle M. Bishop et al., *Blood and Marrow Transplantation*, in *BIOPSYCHOSOCIAL PERSPECTIVES ON TRANSPLANTATION* 19, 20 (James R. Rodrigue ed., 2001).

15. *Bone Marrow and Cord Blood Donation and Transplantation*, U.S. DEP'T OF HEALTH AND HUMAN SERVS., http://bloodcell.transplant.hrsa.gov/DONOR/Need_for_Donors/index.html (last updated May 18, 2011).

16. *Steps of Bone Marrow or PBSC Donation*, NAT'L MARROW DONOR PROGRAM, http://www.marlow.org/DONOR/When_You_re_Asked_to_Donate_fo/Steps_of_Donation/index.html (last visited July 24, 2011) [hereinafter *Steps of Donation*, NAT'L MARROW DONOR PROGRAM].

17. *Flynn* Complaint, *supra* note 2, at 33.

18. Gérard Socié et al., *Long-Term Survival and Late Deaths After Allogeneic Bone Marrow Transplantation*, 341 *NEW ENG. J. MED.* 14, 19–20 (1999) (finding that the survival rate is about 90 percent for patients who were disease free two years after transplantations—so while mortality rates remain higher for these patients than the general population, the probability of cure is high).

19. *Bone Marrow and Stem Cell Transplants to Treat Lymphoma*, LYMPHOMAINFO.NET, <http://www.lymphomainfo.net/therapy/transplants/bmt.html> (last visited July 24, 2011). Often, high doses of chemotherapy and radiation destroy a cancer patient's bone marrow. *Id.*

20. Bishop et al., *supra* note 14, at 21.

21. *Id.*

doctors can remove the healthy bone marrow before destroying the remaining marrow.²² Allogeneic transplants occur when the donor is a different person—either a family member or a volunteer donor.²³ Finally, syngeneic transplants occur when patients receive bone marrow cells from their identical twin.²⁴

In an allogeneic transplant, the patient must receive a transplant from a donor who has the same human leukocyte antigen (“HLA”) tissue type. HLAs are proteins found on most cells in the body.²⁵ The HLA system contains a group of genes that the immune system uses to identify foreign cells in one’s body, differentiating “self cells” from “non-self cells” through protein markers on the HLAs.²⁶ HLA types are extremely unique—while there are only eight blood types, there are about twenty million HLA types.²⁷ If a transplant is done using a donor who does not match the recipient’s HLA tissue type, the transplanted cells will identify the host’s tissues as foreign and reject them, a process known as graft-versus-host disease.²⁸ A patient is most likely to match a sibling’s HLA tissue type and thus many bone marrow donations—about 30 percent—are from family members.²⁹

Unfortunately, the other 70 percent of patients do not have a matching

22. *Id.* Even though the complete destruction of the healthy marrow (known as bone marrow ablation or myeloablation) is not intended to eradicate the disease itself (as it would be in marrow-related diseases), it is still necessary to suppress immune reactions once the marrow is reintroduced into the body. See William I. Bensinger & Ricardo Spielberger, *Preparative Regimens and Modification of Regimen-Related Toxicities*, in THOMAS’ HEMATOPOIETIC CELL TRANSPLANTATION 158, 158 (Karl G. Blume et al. eds., 3d ed. 2004).

23. Bishop et al., *supra* note 14, at 21. Because allogeneic transplants can be from family members or volunteers, they are labeled either related or unrelated. *Bone Marrow Transplantation and Peripheral Blood Stem Cell Transplantation*, CANCER.GOV, <http://www.cancer.gov/cancertopics/factsheet/Therapy/bone-marrow-transplant> (last visited July 24, 2011).

24. Bishop et al., *supra* note 14, at 21.

25. CLINICAL BONE MARROW AND BLOOD STEM CELL TRANSPLANTATION 101 (Kerry Atkinson et al. eds., 3d ed. 2004).

26. See Bishop et al., *supra* note 14, at 21.

27. Theodore C. Bergstrom, Rodney J. Garratt & Damien Sheehan-Connor, *One Chance in a Million: Altruism and the Bone Marrow Registry*, 99 AM. ECON. REV. 1310, 1311 (2009).

28. Bishop et al., *supra* note 14, at 22. Graft-versus-host disease is a potential serious complication of a bone marrow transplant. The disease refers to both the “immunologic insult” as well as the symptoms and consequences to the patient. Noah S. Scheinfeld & Melanie K. Kuechle, *Dermatologic Manifestations of Graft Versus Host Disease*, MEDSCAPE REFERENCES, <http://emedicine.medscape.com/article/1050580-overview> (last updated Sept. 19, 2010). Common symptoms of graft-versus-host disease can include abdominal pains, fever, skin rash, vomiting, dry eyes, hair loss, and lung and digestive tract disorders. *Graft-Versus-Host Disease*, U.S. NAT’L LIBRARY OF MED., <http://www.nlm.nih.gov/medlineplus/ency/article/001309.htm> (last updated June 2, 2010).

29. Bishop et al., *supra* note 14, at 22.

donor in their family. The patient's doctor will then search the National Marrow Donor Program ("NMDP") Registry (also called the "Be The Match Registry") in order to find a donor. Currently, there are about nine million bone marrow donors registered with the NMDP,³⁰ making it the largest bone marrow registry in the world.³¹ Additionally, the NMDP is connected to Bone Marrow Donors Worldwide ("BMDW"), an international database that compiles a list of about eighteen million potential donors from sixty-six registries from forty-seven different countries.³² Despite these large numbers of potential donors, in 2008, only 4300 out of 10,000 patients who needed a bone marrow transplant received one.³³ About 1,000 people die each year because they cannot find a matching bone marrow donor.³⁴

For white patients, there is a nearly 90 percent chance of finding a donor through the NMDP registry.³⁵ However, it can be particularly

30. *Key Messages, Facts & Figures*, NAT'L MARROW DONOR PROGRAM 1, http://www.marrow.org/NEWS/MEDIA/Facts_and_Figures/Facts_%26_Figures%20%28PDF%29.pdf (last updated Dec. 2010).

31. *Id.* Germany's registry, the second largest, contains about 4.2 million donors. *Number of Donors/CBU's Per Registry in BMDW*, BONE MARROW DONORS WORLDWIDE, <http://www.bmdw.org/index.php?id=statistics> (last updated June 27, 2011) [hereinafter BMDW Database]. Note that while NMDP reports that the registry has about nine million donors, the Bone Marrow Donors Worldwide (BMDW) website reports there are 6,171,023 donors on the NMDP registry. *Id.* (last updated June 23, 2011).

32. BMDW Database, *supra* note 31. Note, however, that most of the international registries linked to the NMDP are European. *Cooperative Registries*, NAT'L MARROW DONOR PROGRAM, http://www.marrow.org/ABOUT/Who_We_Are/NMDP_Network/Cooperative_Registries/coop_registry.pl (last visited July 24, 2011). For two groups that often have trouble finding a match, blacks and Hispanics, the prospect of finding a match through an international registry is slim. There is only one African country listed as a cooperative registry—South Africa—and only two Latin countries—Argentina and Brazil. *Id.* Because a matching HLA type requires that the donor be the same race as the patient, it can be particularly difficult for different races to find a match. *See infra* notes 37–39 and accompanying text. The NMDP Registry has also developed cooperative agreements with registries internationally, and these are often a source for American bone marrow recipients. Press Release, National Marrow Donor Program, Cooperative Agreement Approved for U.S., Chinese Marrow Registries (Jan. 22, 2007), http://www.marrow.org/NEWS/News_Releases/2007/cmdp_nmdp_01232007.ht.html ("Approximately 40 percent of transplants facilitated by the NMDP involve either a U.S. patient receiving cells from an international donor or an international patient receiving cells from a U.S. donor.").

33. *Facts and Figures*, NAT'L MARROW DONOR PROGRAM, http://www.marrow.org/NEWS/MEDIA/Facts_and_Figures/FactFigures2009.pdf (last updated Dec. 2008).

34. *Bone Marrow Statistics*, INST. OF JUSTICE, http://www.ij.org/index.php?option=com_content&task=view&id=2903&Itemid=165 (last visited July 24, 2011).

35. These numbers are much lower for black, Asian, and Hispanic patients and are often close to zero for mixed race patients. *See infra* note 39 and accompanying text. It is unclear how many potential donors would need to sign up for the donor list to create matches 100 percent of the time. A 1989 study by Japanese researchers found that it varies by race. The researchers found that a registry of only 50,000 people in Japan would provide an 80 percent match rate, whereas a similar match rate among American

difficult to find a donor for nonwhite patients. The majority of the donors listed in the NMDP registry are white, and the number of donors of other races is not proportionate to their representation in the population.³⁶ This disproportionate representation has been attributed to the lack of awareness of marrow donation among minorities, distrust of the medical system, and language and cultural barriers.³⁷ Additionally, because of the rarity of the HLA types associated with minority groups, it is much harder for someone of another race to be matched with a donor.³⁸ White patients find a donor from the registry who is willing to donate 65 percent of the time; however, Hispanic patients find a donor 45 percent of the time, Asian patients find a donor 40 percent of the time, and black patients find a donor only 34 percent of the time.³⁹ Furthermore, it is more difficult, and often impossible, for a person of mixed race to find a bone marrow donor match⁴⁰—the more diverse a patient's racial and genetic background, the more difficult it is to find someone who is an exact match. Thus, registries in the United States have the relentless problem of trying to find donor matches for ethnic or mixed-race patients.

2. Becoming a Donor

The process of becoming a donor is relatively simple. First, the prospective donor joins the Be The Match Registry either online or at a

Caucasians would require at least 400,000 people. See K. Takahashi et al., *Determination of an Appropriate Size of Unrelated Donor Pool to be Registered for HLA-Matched Bone Marrow Transplantation*, 29 TRANSFUSION 311, 313 (1989).

36. *Bone Marrow and Cord Blood Donation and Transplantation*, U.S. DEP'T OF HEALTH AND HUMAN SERVS., http://bloodcell.transplant.hrsa.gov/RESEARCH/Registry_Data/index.html (last visited July 24, 2011). For example, the NMDP registry currently has 8 percent blacks while the total United States population is about 12 percent black. Elizabeth Cohen, *Tuskegee's Ghosts: Fear Hinders Black Marrow Donation*, CNN.COM (Feb. 26, 2007, 1:12 PM), <http://www.cnn.com/2007/HEALTH/02/07/bone.marrow/index.html>.

37. OFFICE OF THE INSPECTOR GEN., DEP'T OF HEALTH & HUMAN SERVS., NO. OEI-01-95-00120, NAT'L MARROW DONOR PROGRAM: PROGRESS IN MINORITY RECRUITMENT 9-11 (1996). Often, things like mistrust of the medical system and fear of doctors prevent minorities from donating. For example, memories of an experiment conducted by Tuskegee University in Alabama in which doctors purposely withheld treatment for syphilis from blacks interfere with willingness to donate. Cohen, *supra* note 36.

38. See *Resources*, MOREMARROWDONORS.ORG, http://moremarrowdonors.org/?page_id=87 (last visited July 24, 2011) [hereinafter *Resources*, MOREMARROWDONORS.ORG] (discussing the difficulty ethnic groups face in finding a potential donor).

39. *Id.* This is partly due to the fact that the Asian and African populations in the United States are more genetically diverse than the white populations. See Bergstrom, Garratt & Sheehan-Connor, *supra* note 27, at 1310.

40. Juliana Barbassa, *Mixed-Race Patients Struggle to Find Marrow Donors*, PHYSORG.COM (May 27, 2009), <http://www.physorg.com/news162659550.html>.

donor registry drive. In order to join the registry, a prospective donor must be within the ages of eighteen and sixty. Furthermore, there are many health limitations on becoming a prospective bone marrow donor on the registry.⁴¹ The NMDP registry limits prospective donors based on whether they have the HIV/AIDS virus; severe allergies; arthritis; asthma; autoimmune diseases; serious back, neck, or spine injuries; bleeding problems; high blood pressure; breathing problems; cancer; heart disease; hepatitis B or C; serious kidney problems; or serious liver disease.⁴²

When joining the registry, potential donors must fill out a health questionnaire and sign a consent form, which states that “they understand what it means to be registered as a bone marrow donor.”⁴³ Once the donors have filled out this paperwork, they must be tested in order to record their HLA type on the registry, allowing doctors to include them in a search for a match for a patient.⁴⁴

Additionally, donors must sometimes pay to register.⁴⁵ Testing and administrative costs associated with adding a new member to the registry are about \$100.⁴⁶ While the Be The Match registry attempts to cover these expenses through donations and federal funding, they also sometimes ask people to pay to join.

A potential donor can easily refuse to donate when asked, although the Be The Match registry encourages people to join the registry only if they are serious about donating in the future. Furthermore, a donor can easily be taken off the donor list at any point with a simple request.

3. The Bone Marrow Donation Process

An adult donor can donate bone marrow in one of two ways:

41. *Medical Guidelines for Joining the Registry*, NAT'L MARROW DONOR PROGRAM, http://www.marrow.org/JOIN/Med_Guidelines_Join/index.html (last visited July 24, 2011).

42. *Id.* Some of these health limitations may not be clear all-or-nothing indicators for rejecting a donation. There is debate as to whether excluding donations from these sources is better than accepting some of them and taking the higher risks, given the overall shortage of compatible bone marrow, and given that a failure to secure a match may be fatal far sooner than getting a nonideal donation. Although some of these health limitations are entirely necessary—such as the limitation on those with the HIV/AIDS virus—some may be overly cautious. Telephone Interview with Gary Schiller, Dir., Bone Marrow/Stem Cell Transplant Program, UCLA. Med. Ctr. (Mar. 28, 2010).

43. *Donating Bone Marrow*, CANCER.NET, <http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Features/Treatments%2C+Tests%2C+and+Procedures/Donating+Bone+Marrow> (last updated June 8, 2007).

44. This test consists of a simple cheek swab. *Id.*

45. *FAQs About Joining the Registry*, NAT'L MARROW DONOR PROGRAM, http://www.marrow.org/JOIN/FAQs_about_Joining_the_Registry/index.html (last visited July 24, 2011).

46. *Id.*

(1) surgical bone marrow donation or (2) peripheral blood stem cell (“PBSC”) donation. For an effective donation from either traditional surgical donation or PBSC donation, the patient only needs about 5 percent or less of a donor’s total bone marrow.⁴⁷

The first method, surgical bone marrow donation, is a procedure in which the liquid marrow (comprised of marrow cells) is withdrawn from a donor’s pelvic bone. The major side effects from surgical bone marrow donation are mostly pain-related from the multiple needle injections at the collection site; however, there is an infrequent risk of death from the anesthesia.⁴⁸ The second method, PBSC donation, is a process by which blood is extracted from the donor’s arm and passed through an apheresis machine, which separates out the marrow stem cells and returns the filtered blood cells to the donor’s other arm.⁴⁹ PBSC donation usually requires the apheresis machine to filter an amount of blood equal to two times the donor’s total blood volume.⁵⁰

PBSC’s advantage over the surgical method is that PBSC allows donors to avoid the dangers of surgery and anesthesia.⁵¹ PBSC, however, requires donors to receive injections of filgrastim, a drug that stimulates PBSC production prior to donation.⁵² The major side effects from PBSC are a result of the filgrastim injections and include mild pain; however, most patients say these side effects go away as soon as they stop receiving injections of filgrastim.⁵³

Currently, doctors use the surgical method about 30 percent of the

47. *Myths & Facts About Bone Marrow Donation*, NAT’L MARROW DONOR PROGRAM, http://www.marrows.org/JOIN/Myths_&_Facts_about_Marrow_Don/index.html (last visited July 24, 2011). The total amount of marrow and blood needed is usually about 500 to 1000 milliliters. SUSAN EZZONE & KIM SCHMIT-POKORNY, *BLOOD AND MARROW STEM CELL TRANSPLANTATION: PRINCIPLES, PRACTICE, AND NURSING INSIGHTS* 95 (3d ed. 2007).

48. See Scott D. Rowley et al., *Experiences of Donors Enrolled in a Randomized Study of Allogeneic Bone Marrow or Peripheral Blood Stem Cell Transplantation*, 97 *BLOOD* 2541, 2547 (2001).

49. NAT’L CANCER INST., *FACT SHEET: BONE MARROW TRANSPLANTATION AND PERIPHERAL BLOOD STEM CELL TRANSPLANTATION* 3 (2010). This is similar to the donation of blood platelets. *Donating Bone Marrow*, PUGET SOUND BLOOD CTR., <http://www.psb.org/programs/marrow.htm> (last visited Aug. 9, 2011).

50. Paolo Anderlini et al., *Allogeneic Blood Stem Cell Transplantation: Considerations for Donors*, 90 *BLOOD* 903, 904 (1997).

51. Paolo Anderlini et al., *Peripheral Blood Stem Cell Donation: An Analysis From the International Bone Marrow Transplant Registry (IBMTR) and European Group for Blood and Marrow Transplant (EBMT) Databases*, 27 *BONE MARROW TRANSPLANTATION* 689, 689 (2001).

52. Rowley, *supra* note 48, at 2541–42.

53. *Id.* at 2547.

time and the PBSC method about 70 percent of the time.⁵⁴ While a donor's bone marrow is completely replaced within four to six weeks, in either method there is a donor recovery period of about three weeks.⁵⁵ Overall, the symptoms experienced by donors have been similar for both methods.⁵⁶ Yet, in a study comparing standard bone marrow donation with PBSC donation, 100 percent of the participating PBSC donors reported "good physical status" after only fourteen days, whereas only 79 percent of surgical donors reported the same status.⁵⁷ Thus, while the symptoms are similar for both methods, the PBSC donors' symptoms are resolved much more quickly.

For the most part, donors using either method have no long-term adverse health effects, and most donors are able to return to normal activities within one to seven days.⁵⁸ Still, life-threatening complications have arisen for both donation procedures. Less than 1 percent of PBSC donors experience a serious side effect from the donation process, while 1.34 percent of surgical donors experience a complication due to anesthesia, or damage to the bone, nerve, or muscle in the hip area.⁵⁹ Most of these complications, however, can be treated with antibiotics, and a severe reaction to the anesthesia is rare; in a report by the National Institutes of Health, there were only thirteen complications reported in 4800 bone marrow donations, only a fraction of which were anesthesia related.⁶⁰

In order to receive a bone marrow transplant, recipients must first undergo chemotherapy and high doses of radiation treatment in order to

54. See *Resources*, MOREMARROWDONORS.ORG, *supra* note 38; D. Confer & P. Robinett, *The U.S. National Marrow Donor Program Role in Unrelated Donor Hematopoietic Cell Transplantation*, 42 BONE MARROW TRANSPLANTATION S3, S3 (2008).

55. This recovery period can last anywhere from a couple of days to several months in a minority of cases. In a study conducted comparing the effects of PBSC donation with surgical marrow donation, it was found that "significantly more bone marrow donors experienc[ed] localized pain at the donation site compared to PBSC donors." G.A. Kennedy et al., *Impact of Stem Cell Donation Modality on Normal Donor Quality of Life: A Prospective Randomized Study*, 31 BONE MARROW TRANSPLANTATION 1033, 1034 (2003).

56. See Rowley, *supra* note 48, at 2541.

57. *Id.*

58. *Steps of Donation*, NAT'L MARROW DONOR PROGRAM, *supra* note 16.

59. *PBSC Donation: Risks*, HEALTH RES. & SERVS. ADMIN., http://answers.hrsa.gov/cgi-bin/hrsa.cfg/php/enduser/std_adp.php?p_faqid=1106&p_created=1196965562&p_topview=1 (last visited July 24, 2011); *Donating FAQs*, NAT'L MARROW DONOR PROGRAM, http://www.marrows.org/DONOR/When_You_re_Asked_to_Donate_fo/Donation_FAQs/index.html (last visited Aug. 9, 2011).

60. *Donor Registries for Bone Marrow Transplantation: Technology Assessment*, NAT'L INST. OF HEALTH (May 13–15, 1985), <http://www.ncbi.nlm.nih.gov/books/NBK15170/>.

eliminate the diseased bone marrow.⁶¹ This minimizes the chance that the patient's immune system will reject the transplant.⁶² Once the diseased marrow is removed from the patient's body, the donor's bone marrow must be transplanted immediately.⁶³ The donor's bone marrow is given to the recipient through a central line inserted into a large vein in the chest. The marrow cells then move throughout the bloodstream and into the bone cavities where they create new marrow.⁶⁴

B. TECHNOLOGICAL ADVANCES IN BONE MARROW DONATION

The general advancement of medicine and biotechnology can lead to profound benefits; however, it also generates risks and implicates complex legal issues. With the advancement of technology, there must also be "technological" developments in the law.⁶⁵ In the case of bone marrow, the advance and prevalence of the PBSC method implicates different moral and legal issues than the traditional surgical method, and these issues must inevitably be addressed.⁶⁶

PBSC donation was not used for donating bone marrow cells until the early 1990s.⁶⁷ It was not until the late 1990s, however, that PBSC became a pervasive method of donation.⁶⁸ If all bone marrow donation could be done through PBSC donation, a method similar to blood platelet donation, the restraints on compensation for bone marrow donation might be unfounded.⁶⁹ If bone marrow was included as an "organ" in NOTA because

61. Bishop, *supra* note 14, at 27.

62. *Id.*

63. *Id.*

64. *Learning About Bone Marrow or Cord Blood Transplants*, NAT'L MARROW DONOR PROGRAM, http://www.marlow.org/PATIENT/Undrstnd_Disease_Treat/Undrstnd_Treat_Opt/Lrn_BMT_Cord/ (last visited July 24, 2011).

65. Alvin E. Roth, *Repugnance as a Constraint on Markets*, 21 J. ECON. PERSP. 37, 53 (2007).

66. See Julia D. Mahoney, *The Market for Human Tissue*, 86 VA. L. REV. 163, 168, 222-23 (2000).

67. In 1994, only 2 percent of allogeneic transplants were from PBSC grafts. See Anderlini et al., *supra* note 51, at 690.

68. In 1998, the number of PBSC donations rose to about 26 percent. *Id.*

69. See *supra* text accompanying notes 51-57 (describing PBSC donation). Scholars have proposed many justifications as to why organs should or should not be for sale. One scholar has asked whether the appropriate distinction between body parts involves an inquiry as to whether the body parts are "easy to obtain" through a noninvasive and nonsurgical process or whether the parts are "easy to replenish by the donor." See Mark F. Anderson, *Encouraging Bone Marrow Transplants from Unrelated Donors: Some Proposed Solutions to a Pressing Social Problem*, 54 U. PITT. L. REV. 477, 491 n.55 (1993) ("Because the process for obtaining bone marrow is much more complicated and intrusive than for obtaining blood or sperm, bone marrow is not the kind of tissue, according to this rationale, that should be for sale."). But see Andrew Wancata, Note, *No Value for a Pound of Flesh: Extending Market-Inalienability of the Human Body*, 18 J.L. & HEALTH 199, 223 (2003) ("Additionally,

of the invasiveness of the procedure,⁷⁰ then the technological advancement of PBSC donation would require a serious reconsideration of the law.⁷¹ The ethical concerns associated with compensation for organ donation are largely based on the invasiveness of the procedure and the concern that a person will be left without part of their body. When both of these aspects are removed, the ethical concerns appear to be strained.⁷²

Consequently, there is a potential slippery slope concern about whether the influence of technological advances on bone marrow donation would force a more serious consideration of compensation for other living donor markets.⁷³ The gravity of the slippery slope problem depends on the vulnerability of the slope and the severity of the problem at the bottom of the slope.⁷⁴

Medical advances of kidney donation present one possible slippery

there may be an intuitive difference between body ‘parts’ (organs) and body ‘products’ (gametes and blood.”). Bone marrow poses a particular concern because it bears similarities to both blood, in that it is regenerative, as well as to solid organs, because of the invasiveness of the surgical process. *See* DAVID PRICE, LEGAL AND ETHICAL ASPECTS OF ORGAN TRANSPLANTATION 382 (2000); Galen E. Switzer, Mary Amanda Dew & Robert K. Twillman, *Psychosocial Issues in Living Organ Donation, in THE TRANSPLANT PATIENT: BIOLOGICAL, PSYCHIATRIC, AND ETHICAL ISSUES IN ORGAN TRANSPLANTATION* 42, 45 (Paula T. Trzepacz & Andrea F. DiMartini eds., 2000). Furthermore, the idea that PBSC donation may make compensation restrictions less controversial assumes the lesser risk and overall superiority of PBSC donation. This is complicated by the fact that the nature of the risk is similar for both methods, although adversities are resolved sooner for a higher proportion of PBSC patients. *See supra* text accompanying note 57.

70. Note that, although the legislative history is not entirely clear why bone marrow was included, the invasiveness of the procedure may not have been the primary consideration.

71. *See* PRICE, *supra* note 69, at 2 (“The ‘technological imperative’ to keep pushing back the barriers can place enormous strains on our legal and ethical institutions and frameworks of analysis.”); David I. Flamholz, Note and Comment, *A Penny for Your Organs: Revising New York’s Policy on Offering Financial Incentives for Organ Donation*, 14 J.L. & POL’Y 329, 338 (2006); Wancata, *supra* note 69, at 223–24 (“[T]he ‘blurry line drawn in the sand’ between regenerative and non-regenerative body parts has arguably begun to disappear with unprecedented advances in medical technology.”). Advancing technologies that promote these opinions include the ability to “split” livers to allow two different donees to receive the same liver; the ability to keep a patient alive longer without functioning organs; the potential for stem cell development of organs; and xenotransplantation, the transplantation of animal parts. *Id.*

72. This does not, however, leave the ethical concerns completely moot. Although the lessened intrusiveness and the regeneration of organs and tissue may diminish the ethical issues, they are not eliminated. There are still issues about reconciling a system of compensation with access by those with limited resources, problems of undue influence and monetary coercion, risk of the reduction of human beings to commodities or objects, and the “mere use” of people as means rather than as ends in themselves. *See infra* Part IV.B and accompanying text.

73. *See* Radhika Rao, *Property, Privacy, and the Human Body*, 80 B.U. L. REV. 359, 406–07 (2000) (discussing the proposition that technological advances may “further enhance the market value of the human body”).

74. MICHAEL H. SHAPIRO ET AL., *BIOETHICS AND THE LAW* 51 (2d ed. 2003).

slope issue—would technological advances make kidney donation conceptually more similar to bone marrow donation?⁷⁵ It is possible that a change in the bone marrow compensation law would not be subject to this particular slippery slope because of the fundamental differences between a solid organ and bone marrow.⁷⁶ On the other hand, people may become inured to the ethical and moral conceptions about compensation for body parts in general.⁷⁷ The possibility of a slippery slope, however, cannot always be dispositive.⁷⁸

In the past, the Supreme Court has often reflected on current and future technological innovations when making decisions.⁷⁹ Furthermore, scholars often advocate for the reevaluation of laws due to technological and scientific advances.⁸⁰ A major concern is that if a court applies a deferential standard of review, it cannot evaluate technological advances in considering whether a law violates a person's constitutional rights.⁸¹

75. Technological advances in kidney donation have already made the procedure much less invasive. See Gary S. Becker & Julio Jorge Elías, *Introducing Incentives in the Market for Live and Cadaveric Organ Donations*, 21 J. ECON. PERSP. 3, 4 (2007).

76. See *Steps of Donation*, NAT'L MARROW DONOR PROGRAM, *supra* note 16. Slipping from the sale of bone marrow to the sale of kidneys could certainly be conceivable. Currently, some scholars fully advocate for payment to living donors for kidneys. See Steve P. Calandrillo, *Cash for Kidneys? Utilizing Incentives to End America's Organ Shortage*, 13 GEO. MASON L. REV. 69, 105–06 (2004); Michael B. Gill & Robert M. Sade, *Paying for Kidneys: The Case Against Prohibition*, 12 KENNEDY INST. ETHICS J. 17, 17 (2002). In slipping from bone marrow to kidney sales, many people may simply move past the solid organ versus bone marrow distinction and concentrate on the shared element of payment.

77. This desensitization is what Eugene Volokh would call an "attitude-altering slippery slope," a slippery slope that "rel[ies] on people's underlying attitudes' [sic] being shifted." Eugene Volokh, *The Mechanisms of the Slippery Slope*, 116 HARV. L. REV. 1026, 1077 (2003).

78. Not only should slippery slopes not always be dispositive, but courts should also be wary of the possibility of not reaching one decision in order to prevent a later decision from occurring. This is what Volokh calls the "slippery slope inefficiency." See *id.* at 1036, 1047, 1086–87.

79. See, e.g., *Kyllo v. United States*, 533 U.S. 27, 36 (2001) (acknowledging that under the Fourth Amendment, the degree of privacy that citizens enjoy has been affected by advancing technologies and that the Court "must take account of more sophisticated systems that are already in use or in development"). This issue has also been addressed in the medical context. In *Cruzan v. Director, Missouri Department of Health*, 497 U.S. 261 (1990), the Court acknowledged that the development of technology had effectively blurred the line between life and death and thus had a direct effect on the Court's consideration. See *id.* at 270.

80. See, e.g., Michael H. Shapiro, *Constitutional Adjudication and Standards of Review Under Pressure from Biological Technologies*, 11 HEALTH MATRIX 351, 486 (2001) (concluding that because technology can introduce ideas and concepts that "do not fully cohere with long-held assumptions about the properties of life," it is necessary to "refine and even revise some of our main tools of constitutional decision making—our standards of review").

81. If a deferential standard of review were to be used, courts must allow the legislature to consider the technological advances in determining the law; however, this deference can also be a double-edged sword in allowing the violation of constitutional rights. See *id.* at 418. A court could find a constitutional right important enough to require nondeferential review, which would allow the court to

III. THE LAW: COMPENSATING A DONOR

Two major pieces of legislation are responsible for the ban on compensation for bone marrow. In 1968, The Uniform Anatomical Gift Act (“UAGA”) was the first attempt to define the legal platform surrounding organ procurement.⁸² Formulated by the National Conference of Commissioners on Uniform State Laws, the legislation was intended to increase organ supply through donation.⁸³ The UAGA was intended as a guideline for the states, and every state adopted a version of it by 1973.⁸⁴ Although the Act provided uniform regulations for donating anatomical gifts, the UAGA did not proscribe, or even address, compensation for organs.

In 1984, Congress passed NOTA.⁸⁵ Congress’s intentions in enacting NOTA were to increase available organ supply, to address concerns of allocation, and to prevent the formation of markets for organs.⁸⁶ Most significantly for this Note, § 274e of NOTA explicitly makes it “unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if

consider the technological advances. *See infra* Part VI.B (discussing whether a court might find a fundamental right for bone marrow donation).

82. UNIF. ANATOMICAL GIFT ACT OF 1968 §§1–11, 8A U.L.A. 63–93 (1993) (superseded by UNIF. ANATOMICAL GIFT ACT OF 1987 §§1–17, 8A U.L.A. 29–62 (1993)).

83. *See* DAVID L. KASERMAN & A.H. BARNETT, *THE U.S. ORGAN PROCUREMENT SYSTEM: A PRESCRIPTION FOR REFORM* 11 (2002).

84. *Id.*; Calandrillo, *supra* note 76, at 78.

85. National Organ Transplant Act, 42 U.S.C. § 274e (2006). The relevant sections of the law in its current form:

(a) Prohibition

It shall be unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce. The preceding sentence does not apply with respect to human organ paired donation.

(b) Penalties

Any person who violates subsection (a) of this section shall be fined not more than \$50,000 or imprisoned not more than five years, or both.

(c) Definitions

For purposes of subsection (a) of this section:

(1) The term “human organ” means the human (including fetal) kidney, liver, heart, lung, pancreas, bone marrow, cornea, eye, bone, and skin or any subpart thereof and any other human organ (or any subpart thereof, including that derived from a fetus) specified by the Secretary of Health and Human Services by regulation.

(2) The term “valuable consideration” does not include the reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality control, and storage of a human organ or the expenses of travel, housing, and lost wages incurred by the donor of a human organ in connection with the donation of the organ.

86. KASERMAN & BARNETT, *supra* note 83, at 11–12. NOTA’s implications are mostly logistical, authorizing financial support for certain organizations and creating the Organ Procurement and Transplantation Network and registry in order to match donors with patients. 42 U.S.C § 274(a)–(b).

the transfer affects interstate commerce.”⁸⁷ In defining “valuable consideration,” the Act plainly states that “reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality control, and storage” of an organ are exempt.⁸⁸ Thus, while a donor may not receive compensation, other individuals involved at all other stages of the transplant can be compensated for their services.⁸⁹

NOTA expressly includes bone marrow as part of its definition of organs. Thus, under NOTA, it is illegal for a donor to be compensated for his or her bone marrow, and any violation carries with it a penalty of up to \$50,000 or imprisonment of up to five years, or both.⁹⁰ Finally, in the wake of NOTA, the UAGA was amended in 1987, specifically proscribing organ purchases and sales.⁹¹

By regulating donations and proscribing compensation in different contexts, NOTA and the UAGA essentially create three different regimes of organ and tissue donation: (1) organs, (2) blood, and (3) egg and sperm. These regimes historically developed independently of one another and thus the current regulation of each body part is largely based on this fragmented system.

The regime of blood donation is only somewhat regulated and monitored, mostly through organizations such as the American Red Cross, hospitals, and other community blood banks. The blood market was commercialized after it was found that a pure altruistic donation system was ineffective in meeting demand. This commercialization occurred

87. 42 U.S.C. § 274e(a). The prohibition on compensation for organ donation under NOTA only applies to interstate commerce because that is the basis for the exercise of federal power in this form. *See* U.S. CONST. art. I, § 8, cl. 3. The basis for this provision of NOTA derives from the Commerce Clause, which states that Congress has the power to regulate commerce “among the several States.” *Id.* The Supreme Court has defined these powers to allow Congress to regulate the “channels,” “instrumentalities,” and things that have “a substantial relation to interstate commerce.” *United States v. Lopez*, 514 U.S. 549, 558–59 (1995). The UAGA, however, which has been adopted in some form in all fifty states, also governs the ability of people to donate their organs as gifts and recommends the prohibition of the sale of organs for “valuable consideration.” UNIF. ANATOMICAL GIFT ACT § 10, 8A U.L.A. 58 (1993).

88. 42 U.S.C. § 274e(c)(2).

89. The observation that compensation at all other stages of the transplantation process is allowed is often raised with scholars who propose a market in organs. *See infra* note 110 and accompanying text. Still, there is a fundamental difference between compensation for services and paying for organs or bone marrow.

90. 42 U.S.C. § 274e(b).

91. UNIF. ANATOMICAL GIFT ACT § 10, 8A U.L.A. 58 (1993). Most of the amendments attempted to increase organ supply by requiring hospitals to make a “routine inquiry” as to whether a patient was an organ donor and requiring law enforcement to conduct a diligent search for victims’ donor cards. *Id.*

despite much criticism of compensation for blood donation.⁹² These concerns were certainly well founded since many of the commercial blood banks distributed infected blood;⁹³ however, now that screening blood for diseases is routine, these concerns are less meaningful.⁹⁴

Egg and sperm donation is largely unregulated and largely privatized. Neither the sale of sperm nor the sale of eggs is prohibited by federal law, although it is somewhat regulated. Although the sale of eggs and sperm is technically allowed, most egg and sperm banks claim that the payment is compensation for the time and inconvenience.⁹⁵ The screening process conducted on donated sperm and gametes is widely varied, and there is a push for more regulation—for regular screening for infection and for genetic anomalies.⁹⁶

In allowing compensation for bone marrow donation, bone marrow would be placed in a category similar to blood, sperm, and eggs.⁹⁷ It is debatable whether the regimes regulating blood, sperm, and eggs are currently effective in terms of ensuring adequate supply of acceptable quality while also satisfying ethical concerns. Likewise, it is unclear whether the placement of bone marrow in any of these regimes would have a positive outcome.⁹⁸ For instance, a chief consideration is whether it would increase supply while not implicating the chief ethical and logistical

92. See, e.g., RICHARD TITMUS, *THE GIFT RELATIONSHIP: FROM HUMAN BLOOD TO SOCIAL POLICY* 245–46 (1971) (describing potential problems with payment for blood donation such as a reduction in altruistic donors and a decrease in quality of donated blood).

93. See Curtis E. Harris & Stephen P. Alcorn, *To Solve a Deadly Shortage: Economic Incentives for Human Organ Donation*, 16 *ISSUES L. & MED.* 213, 216–17 (2001).

94. These concerns, however, are still valid. Since screening is not 100 percent effective and because commerce creates incentives for infected people to donate when they should not, the issue is still legitimate. Still, from 1999 to 2007, there were only four cases of transfusion-related HIV out of more than 112 million units of blood. See Editorial, *Keep Our Blood Supply Safe*, *L.A. TIMES* (Mar. 22, 2010), <http://articles.latimes.com/2010/mar/22/opinion/la-ed-blood22-2010mar22> (stating that although tests on donated blood are “extremely effective . . . they’re not perfect”).

95. See, e.g., *Egg Donor Compensation*, *CONCEIVEABILITIES.COM*, http://www.conceiveabilities.com/donor_pg_4a.htm (last visited July 24, 2011) (“The fee paid to you as an egg donor is for the time, effort and inconvenience you will incur during the cycle.”).

96. Charles A. Sims et al., *Genetic Testing of Sperm Donors: Survey of Current Practices*, 94 *FERTILITY & STERILITY* 126, 126 (2010); Wendy Kramer, *The Case for Comprehensive Medical Testing of Gamete Donors*, *BIONEWS.ORG.UK* (May 26, 2009), <http://donorsiblingregistry.com/bionews10.pdf>.

97. See Harris & Alcorn, *supra* note 93, at 229–30 (discussing the implications of a living donor organ market and how it would likely be similar to the market in blood, sperm, oocytes, and body tissue, all of which compensation is legal for).

98. It also needs to be determined what a positive outcome would be. Certainly, a central goal is to increase the supply of bone marrow; however, there are other concerns with respect to safety and other ethical issues. See *infra* Part IV (discussing the ethical implications of allowing compensation for bone marrow donation).

concerns. Furthermore, logistical concerns are also implicated pertaining to the supply and distribution of bone marrow.⁹⁹

Scholars have indicated that the vagueness of the laws in some states gives the impression that organ sales may not be proscribed in those states.¹⁰⁰ In fact, many states have attempted to increase organ supply by implementing minor financial incentive programs. In 1994, Pennsylvania enacted the Organ Donation Awareness Trust Fund to offer donors reimbursements for donation-related food and lodging expenses.¹⁰¹ The program originally allowed compensation up to \$3000; however, the law was limited in 2002 to only allow reimbursement up to \$300.¹⁰² Despite this reduction, the program has had relative success: nineteen donors or donor families signed up for the benefit within the first six months.¹⁰³ Wisconsin also passed a bill allowing for tax deductions to cover reasonable expenses associated with organ donations.¹⁰⁴ Following the lead of states like Pennsylvania and Wisconsin, nineteen other states have enacted legislation allowing for either tax credits or paid leaves of absence from work for living organ donors.¹⁰⁵

99. Many logistical concerns would need to be addressed, including the following: compatibility of donors and donees, when and where the procedures would be done, and how a donee would be selected if there were multiple donee matches. A major logistical concern would be how a designated donation would be processed. A specified donation to a relative could not be prohibited. On the other hand, a donation that specifically excludes certain people may be prohibited. For example, in 1990, a father of a Ku Klux Klan sympathizer who had been shot and killed by a black teenager specified that his son's organs could be used only for white recipients, provoking intense reactions on both sides of the issue. Currently, most organ donation statutes allow a donor to specify a family member or friend as a recipient but prohibit discrimination on the basis of race, religion, sex, national origin, handicaps, health status, or economic status. *See* SUSAN E. LEDERER, *FLESH AND BLOOD: ORGAN TRANSPLANTATION AND BLOOD TRANSFUSION IN TWENTIETH-CENTURY AMERICA* 180 (2008).

100. *See, e.g.*, KASERMAN & BARNETT, *supra* note 83, at 14–15.

101. *See* The Governor Robert P. Casey Memorial Organ and Tissue Donation Awareness Trust Fund, 20 PA. CONS. STAT. § 8622 (2000) (allowing reimbursement for donor's "reasonable hospital and other medical expenses, funeral expenses and incidental expenses incurred by the donor or donor's family . . . and shall only be made directly to the funeral home, hospital or other service provider related to the donation").

102. *See id.* § 8622(b)(1). *See also* Ovetta Wiggins, *Pa. Organ Donors Get \$300 Boost: It Pays for Food or Lodging for Them or Their Family. A Bigger Plan's Rejection Rankles Some*, PHILA. INQUIRER, May 27, 2002, available at 2002 WLNR 2868522; Christopher Snowbeck, *Organ Donor Funeral Aid Scrapped: Health Department Fears Conflict With Federal Law*, PITTSBURGH POST-GAZETTE, Feb. 1, 2002, available at 2002 WLNR 4104921.

103. *See also* Wiggins, *supra* note 102.

104. *See* Jo Napolitano, *Wisconsin Senate Approves Tax Deduction for Organ Donors*, N.Y. TIMES, Jan. 23, 2004, at A12. Arguably, these laws do not provide financial incentives for donation—they merely remove financial disincentives.

105. *Financial Aspects: State Tax Deductions and Donor Leave Laws*, TRANSPLANTLIVING.ORG, <http://www.transplantliving.org/livingdonation/financialaspects/statetax.aspx> (last visited July 24, 2011) (listing twenty states, including Wisconsin, which have passed legislation related to living organ

IV. ETHICAL IMPLICATIONS OF COMPENSATION FOR BONE MARROW DONATION

There are many concerns relevant to a market in bone marrow. Generally, these implications only arise when monetization and other economic incentives are involved—thus, they often do not exist in a purely altruistic market.¹⁰⁶ The most important ethical issues include the risks of commodification, exploitation of the poor, and a general aversion toward the idea of selling one’s body.

A. COMMODIFICATION AND OBJECTIFICATION IMPLICATIONS

There is widespread concern over the commodification of the human body. Some argue that if compensation is allowed in exchange for organs, people themselves—not just their dispensable parts—might be seen as market commodities, which also may negatively pervade other areas of the law.¹⁰⁷ An additional concern is that this commodification of the human body would lead to an amputation of our “personhood.”¹⁰⁸ This slippery slope argument automatically presumes that the noncommodified version of something is more morally ideal than the commodified version.¹⁰⁹ The Senate Report on NOTA stated the concern that “human body parts should not be viewed as commodities.”¹¹⁰

Arguably, there is already commercialization of the market for bone marrow, due to the fact that monetary compensation is required for all other stages of the transplant process.¹¹¹ There is certainly commercialization of

donation).

106. Roth, *supra* note 65, at 44–45. Alvin Roth highlights three implications of monetization of repugnant transactions: (1) the concern of objectification, (2) the concern that payments can be coercive and exploitative, and (3) the concern that monetization might lead us down the slippery slope to “genuinely repugnant transactions.” *Id.*

107. For example, because commodities inevitably implicate a property right, it is possible that these arguments could be extended to other areas such as prostitution. See Margaret Jane Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849, 1912–14 (1987).

108. See *id.* at 1885.

109. See *id.* at 1912–13.

110. S. REP. NO. 98-382, at 17 (1984), reprinted in 1984 U.S.C.C.A.N. 3975, 3982.

111. See Richard J. Howard, *Organ Donation: Social Policy, Ethical, and Legislative Issues*, in BIOPSYCHOSOCIAL PERSPECTIVES ON TRANSPLANTATION, *supra* note 14, at 52–53; LESLEY A. SHARP, STRANGE HARVEST: ORGAN TRANSPLANT, DENATURED BODIES, AND THE TRANSFORMED SELF 50 (2006) (“There is a national trade in transplantable human organs in the United States and, once procured, organs are most certainly transformed into precious commodities.”); A.S. Daar, *Paid Organ Donation – The Grey Basket Concept*, 24 J. MED. ETHICS 365, 366 (1998); Julia D. Mahoney, *Altruism, Markets, and Organ Procurement*, 72 L. & CONTEMP. PROB. 17, 20–21 (2009) (indicating that because hospitals can charge a patient for the procedure of organ transplantation, by prohibiting compensation to the donor, NOTA only prohibits “the most-obvious commerce in organs”).

the body in the market for blood and reproductive tissues.¹¹² Thus, the human body is already “partly-commodified.”¹¹³

Furthermore, objectification is concerned with avoiding the violation of the Kantian proscription against the mere use of persons as means.¹¹⁴ People who sell bone marrow, however, would not be “objects” *tout simple*—they are not kidnapped, impressed into service, and discarded.¹¹⁵ Moreover, the donor-patient arrangement implicates moral and emotional benefits for both the donee and donor.¹¹⁶

The concept of objectification also alludes to property rights. Historically, the body has not been considered “property” in the traditional sense.¹¹⁷ The standard legal definition of property refers to a collection of rights—the right to exclude others from it, to use the property, and to exercise control over it.¹¹⁸ Certain property rights have been recognized in regard to some parts of the body, such as with blood and sperm, and several lower court cases have classified certain parts of the human body, particularly blood, as tangible property.¹¹⁹ This property right, however, has been sharply limited.¹²⁰

Conversely, one could argue that, at least in terms of human organs,

112. See Howard, *supra* note 111, at 52; Gill & Sade, *supra* note 76, at 20; Becker & Elfas, *supra* note 75, at 21.

113. Radin, *supra* note 107, at 1917–21 (discussing incomplete, or partial, commodification).

114. IMMANUEL KANT, *FUNDAMENTAL PRINCIPLES OF THE METAPHYSIC OF MORALS* 48–50 (Thomas Kingsmill Abbott trans., Forgotten Books 2008) (1785).

115. This fear has inspired several movies. See, e.g., *COMA* (Metro-Goldwyn-Mayer 1978); *DIRTY PRETTY THINGS* (BBC Films 2002).

116. The implication of both economic and emotional benefits is akin to how Margaret Radin discusses the partial commodification of work—although our jobs have economic benefits, they also are “a part of ourselves,” and there is a “personal importance we attach to it.” Radin, *supra* note 107, at 1849, 1918.

117. See *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479, 489 (Cal. 1990). *But see id.* at 501 (Broussard, J., concurring in part and dissenting in part). Additionally, the lower court did find a property right, saying that “The essence of a property interest—the ultimate right of control—therefore exists with regard to one’s own human body.” *Moore v. Regents of the Univ. of Cal.*, 249 Cal. Rptr. 494, 506 (Ct. App. 1988).

118. 63c AM. JUR. 2D *Property* § 1 (2009).

119. See *Green v. Comm’r of Internal Revenue*, 74 T.C. 1229, 1234, 1237 (1980) (finding petitioner’s blood to be a “product” similar to “hen’s eggs, bee’s honey, cow’s milk, or sheep’s wool” for tax purposes). This can be a conceptual error that leads scholars to consider the similarities but not the differences. See Michael H. Shapiro, *Is Bioethics Broke?: On the Idea of Ethics and Law “Catching Up” with Technology*, 33 IND. L. REV. 17, 46 (1999) [hereinafter Shapiro, *Is Bioethics Broke?*].

120. Note that certain commentators have argued that there is a type of property right that applies to human organs because of the ability to donate them. PRICE, *supra* note 69, at 388; Roy Hardiman, Comment, *Toward the Right of Commerciality: Recognizing Property Rights in the Commercial Value of Human Tissue*, 34 UCLA L. REV. 207, 221 (1986).

the use of the term “property” is misleading. Classifying things into property or not property makes sense in various contexts; however, in this instance, it makes less sense, or no sense at all.

What exactly are the problems with commodification? Commodification of the human body may not be definitively wrong, particularly when it may have compelling benefits.¹²¹ Balancing the benefits of commodification—saving lives—against the moral objections suggests that perhaps not all forms of objectification are intolerable. Further, the fear of commodification is arguably much more pronounced than the resulting objectification.¹²²

B. EXPLOITATION IMPLICATIONS

An additional concern is that allowing compensation for human organ donation may create a market in which the rich could exploit the poor.¹²³ This argument generally has two concerns. First, there is the coercion concern—that offering a financial incentive is inherently coercive and the poor would be the most likely group to be coerced. Congress heard this argument during the original congressional hearings in drafting NOTA.¹²⁴ The usual solution for such exploitation of the poor, if that is what it is, is to deprive them of any choice in the matter at all, on the theory that their choice is tainted. Secondly, there is the allocation concern—that allowing compensation will drive the prices up so that only the rich will be able to afford bone marrow transplants.¹²⁵ Generally, scholars and lay people have an aversion to allowing “rich people to purchase [organs] that poor people cannot afford.”¹²⁶ Of course, a system for compensation for bone marrow

121. Michael H. Shapiro, *Illicit Reasons and Means for Reproduction: On Excessive Choice and Categorical and Technological Imperatives*, 47 HASTINGS L.J. 1081, 1185 (1996) (“Objectification is frequently taken simply as absolutely wrong, not something that might be justifiable, permissible, or desirable in context. But just why is this so?”).

122. See Shapiro, *Is Bioethics Broke?*, *supra* note 119, at 35–36.

123. This argument is not without factual basis. In 1999, a man put his kidney up for auction on eBay with an opening bid of \$25,000. The price reached \$5,750,100 before eBay ended the auction based on its policy forbidding the sale of human organs. See Amy Harmon, *Auction for a Kidney Pops Up on Ebay’s Site*, N.Y. TIMES, Sept. 3, 1999, available at <http://www.nytimes.com/1999/09/03/us/auction-for-a-kidney-pops-up-on-ebay-s-site.html?scp=1&sq=ebay%20kidney&st=cse>.

124. *Organ Transplants: Hearings Before the Subcomm. on Investigations and Oversight of the H. Comm. on Science and Technology*, 98th Cong. 338–39 (1983) (statement of Robert M. Veatch).

125. See KASERMAN & BARNETT, *supra* note 83, at 78. The allocation concern can certainly be addressed by other methods such as a regulated market with a set price.

126. Lloyd Cohen, *Increasing the Supply of Transplant Organs: The Virtues of a Futures Market*, 58 GEO. WASH. L. REV. 1, 26 (1989). See also Flamholz, *supra* note 71, at 352 (“The fear is that the wealthiest individuals will have the greatest access to organs by virtue of their wealth.”). Some scholars have argued that this inequity already exists because the current organ procurement process requires a

could be established in a way that disengages supply from distribution. For instance, bone marrow could be sold to a government agency that distributes it with little or no regard for ability to pay.

Exploitation is not always wrong. Alan Wertheimer argues that “exploitation is a *moralized* concept.”¹²⁷ Accordingly, he argues, “a transaction is exploitative only if it is *unfair*.”¹²⁸ Furthermore, a transaction can be beneficial to both parties, and thus, to some extent, both parties are exploited to their advantage.¹²⁹ Wertheimer also argues that an exploitative transaction can be consensual between the exploited parties.¹³⁰ Thus, arguably, “targeting the poor and exploiting them are not synonymous.”¹³¹

Also, an element of distributive justice already partially exists in the present system through the rich’s access to better hospitals, insurance (assuming it is available for the treatment needed), and their ability to pay for media attention.¹³² Furthermore, the cost of a transplant and people’s willingness to pay for it already dramatically distributes organs based on this “ability to pay” concept.¹³³ Also, scholars have argued that there is already exploitation of the body and coercion of the poor in allowing people to work in dangerous professions, such as coal mining, in exchange for compensation that reflects a “risk premium” for their efforts.¹³⁴ For

recipient to pay the cost of the transplant procedure. See, e.g., John A. Sten, *Rethinking the National Organ Transplant Program: When Push Comes to Shove*, 11 J. CONTEMP. HEALTH L. & POL’Y 197, 199–200 (1994).

127. ALAN WERTHEIMER, EXPLOITATION 6 (1996).

128. *Id.*

129. This is what Wertheimer designates as “mutually advantageous exploitation.” *Id.* at 14.

130. *Id.* at 14–15.

131. See Phyllis Coleman, “*Brother, Can You Spare a Liver?*”: Five Ways to Increase Organ Donation, 31 VAL. U.L. REV. 1, 16 (1996). Poor bone marrow donors would not necessarily be “targeted.” Yet, with the possibility of the implementation of the trial program proposed by *Flynn v. Holder*, the goal of increasing the number of minority donors on the donor list would likely have the direct effect of targeting the poor. See *Flynn Complaint*, *supra* note 2, at 29.

132. See Susan Hankin Denise, Note, *Regulating the Sale of Human Organs*, 71 VA. L. REV. 1015, 1019–20 (1985). Currently, it is somewhat unclear that rich patients truly have access to better treatment or priorities for organs; however, in 1985 it was reported that surgeons were offering preferential “queue-jumping” treatment for wealthy patients in exchange for a high charge. See PRICE, *supra* note 69, at 370 (citing S. Porter, *Organ Transplants: Questions and Controversy*, 80 THE NEW ETHICS 33, 37 (1984)).

133. Arthur L. Caplan, *Obtaining and Allocating Organs for Transplantation*, in HUMAN ORGAN TRANSPLANTATION: SOCIETAL, MEDICAL-LEGAL, REGULATORY, AND REIMBURSEMENT ISSUES 5, 6 (Dale H. Cowen et al. eds., 1987); Calandrillo, *supra* note 76, at 99–100.

134. See Becker & Elías, *supra* note 75, at 21 (“In general, our workplace lets many workers take on jobs that involve higher pay as compensation for some physical risk.”); Jesse Dukeminier, Jr., *Supplying Organs for Transplantation*, 68 MICH. L. REV. 811, 858 (1970). It is debatable whether the practice of paying people a risk premium to work in dangerous professions could be considered exploitative at all. In the moral and cultural surroundings of a free enterprise system, this opportunity

example, “Firemen, policemen, and members of the military all take significant risks to their health on a daily basis, and are compensated for it with enhanced wages that reflect the ‘risk premium’ they are voluntarily bearing in the interests of saving other people’s lives.”¹³⁵ Consequently, it may be no more morally distinct to allow compensation for bone marrow.¹³⁶

Arguably, it is within a market for living donor organs in which this type of exploitation would most likely take place.¹³⁷ This concern, however, could likely be alleviated with mere regulation rather than a complete ban.¹³⁸ Regulations could include price controls or insurance subsidies for the poor.¹³⁹ Additionally, it is possible that if economic incentives increased supply to the extent that supply would equal demand, then a price equilibrium could be reached.¹⁴⁰

Restrictions on donor compensation were enacted in part to prevent a true market in organs,¹⁴¹ and thus to prevent the supposed evils of having

for exchange might not be “unfair” at all. See WERTHEIMER, *supra* note 127, at 207–46.

135. Calandrillo, *supra* note 76, at 103 (noting that the argument that it is wrong to receive money in exchange for taking a risk to one’s life “ignores the reality that we already sanction this practice every day”).

136. See KASERMAN & BARNETT, *supra* note 83, at 76. Of course, with riskier professions, the alternative solutions are more difficult to conceptualize. Alternative solutions, such as forbidding dangerous lines of work or leaving the poor without an earned income opportunity, are unrealistic and impracticable.

137. See Jennifer M. Smith, “Dirty Pretty Things” and the Law: Curing the Organ Shortage & Health Care Crises in America, 12 CHAP. L. REV. 361, 368 (2008) (arguing that “living donors are subject to the greatest amount of coercion, fraud, and abuse”). Also note that contracts concerning transfers effective at death still require dealing with live persons, poor or rich.

138. See Denise, *supra* note 132, at 1016 (“[A] properly regulated organ market, rather than the wholesale prohibition of organ sales, may be a better solution to the problem of scarcity.”); Radin, *supra* note 107, at 1937 (discussing the benefits of “incomplete commodification”); Eugene Volokh, *Medical Self-Defense, Prohibited Experimental Therapies, and Payment for Organs*, 120 HARV. L. REV. 1813, 1838–43 (2007) (arguing that regulation of compensation for organ donation, such as instituting a maximum amount that insurance providers would pay, could achieve similar ethical results to total prohibition).

139. There could also be other forms of regulation, such as payment made by the government or insurance companies; allocation of [organs or bone marrow] by a predefined algorithm so that every candidate has an opportunity for a transplant; full donor evaluation; informed consent; oversight; long term follow-up; treatment of the donor with dignity and appreciation for providing a lifesaving gift; and illegality of any other commercialisation.

Arthur J. Matas, *Should We Pay Donors to Increase the Supply of Organs for Transplantation?*, 336 BRITISH MED. J. 1342, 1342 (2008).

140. See Howard, *supra* note 111, at 53. Note that any price equilibrium would still be unaffordable to people below a certain income or wealth level.

141. In fact, one of the motivating factors for legislators in passing the NOTA through Congress was a doctor named H. Barry Jacobs who, in 1983, began a business called the International Kidney Exchange. The company intended to recruit sellers, pay them up to \$10,000 for a kidney, and keep a

such a market. Although some scholars have proposed auction-type markets,¹⁴² allowing a market in which the highest bidder wins would implicate many ethical concerns such as exploitation of the poor.¹⁴³ The plaintiffs in *Flynn v. Holder* argue that an open market for bone marrow would be nearly impossible due to the difficulty in matching HLA type.¹⁴⁴

Another leading concern is that a financial market would drive out altruistic donors, and would thus decrease supply and quality.¹⁴⁵ This argument relies on the assumption that, “from the recipient’s perspective, it is said that knowing one is dependent on others’ altruism rather than on one’s own wealth creates solidarity and interdependence, and that this knowledge of dependence better preserves and expresses the ideal of sanctity of life.”¹⁴⁶ Scholars, however, rebut this view as unfounded and speculative, particularly in terms of bone marrow donation.¹⁴⁷ Additionally, it has been suggested that “[t]here seems to be no reason why altruistic and financial motivations should not co-exist.”¹⁴⁸

C. RACIAL IMPLICATIONS

Related to the exploitation concern is the concern that racial minorities will be more willing to offer their bone marrow in exchange for compensation. This apprehension was first voiced by Richard Titmuss, who claimed that a market in blood would exploit minorities’ financial status.¹⁴⁹ Other scholars have dramatically likened compensation for organs to

“brokerage-fee” for each kidney. This complete open market was alarming to many people, and NOTA was rushed through Congress in order to prevent the formation of the International Kidney Exchange as well as further similar situations. See PRICE, *supra* note 69, at 376–77; Denise, *supra* note 132, at 1021–24; Harris & Alcorn, *supra* note 93, at 232.

142. Jack Kevorkian, *A Controlled Auction Market is a Practical Solution to the Shortage of Transplantable Organs*, 11 MED. & L. 47, 49 (1992).

143. Also, when there are direct cash transactions in a market, the allegations of objectification of the human body are arguably more powerful. On the other hand, there are also scholars who argue that indirect compensation equally implicates objectification concerns. See *infra* note 191 and accompanying text (discussing how an indirect market might not be ethically different from an open market system).

144. Flynn Complaint, *supra* note 2, at 33.

145. TITMUSS, *supra* note 92, at 245–46.

146. Radin, *supra* note 107, at 1913–14.

147. See Mahoney, *supra* note 111, at 24–26; Note, *The Sale of Human Body Parts*, 72 MICH. L. REV. 1182, 1224 (1974) (rejecting Titmuss’s theory that compensation would decrease altruistic donations because “[t]he ‘spirit of altruism’ may be enough to encourage blood donations, but arguably a stronger incentive—money—is required to obtain body parts”).

148. See PRICE, *supra* note 69, at 397.

149. TITMUSS, *supra* note 92, at 111–19, 151–52.

slavery.¹⁵⁰ This comparison, however, has been emphatically discredited.¹⁵¹ In fact, using race politics as a reason to prevent a market in bone marrow arguably “undermine[s] free choice” and “individual autonomy.”¹⁵²

Currently, it is much more difficult for a nonwhite individual to find a bone marrow donor.¹⁵³ While white patients are able to find a donor 65 percent of the time, patients of other ethnicities are only able to find a donor 34 to 45 percent of the time.¹⁵⁴ This has been attributed to ethnic minorities’ distrust of the medical community, language and cultural barriers, and a lack of awareness of the need for bone marrow donation.¹⁵⁵ Furthermore, blacks have expressed aversion to the idea that their organs could be harvested for a white patient, showing the ultimate racial divide.¹⁵⁶ Yet, even if there were some aspect of exploitation in a system of compensation for bone marrow, without such a system, ethnic minorities are the ones who are most disadvantaged by the current altruistic system.

There is increased emphasis on recruitment of ethnic minority populations in order to amplify the number of minority donors.¹⁵⁷ This emphasis has been somewhat successful; in 2007, almost half of the new donors on the NMDP list were ethnic minorities. The program proposed in *Flynn* is directed toward minority races in an effort to encourage donation from less-represented minority groups.¹⁵⁸

D. OTHER MORAL IMPLICATIONS

Many people have an instinctual revulsion toward the idea of selling body parts,¹⁵⁹ a revulsion which has a glaring effect in limiting the market

150. Michele Goodwin, *The Body Market: Race Politics and Private Ordering*, 49 ARIZ. L. REV. 599, 606 (2007).

151. *Id.* at 606–07.

152. *Id.* at 608.

153. See text accompanying notes 35–40.

154. *Id.*

155. See OFFICE OF THE INSPECTOR GEN., *supra* note 37, at 9–11.

156. LEDERER, *supra* note 99, at 175.

157. Confer & Robinett, *supra* note 54, at S3.

158. Flynn Complaint, *supra* note 2, at 29.

159. See Cohen, *supra* note 126, at 24 (stating that the restrictions on donor compensation arose from “a widely felt repugnance to the notion of trafficking in human flesh”); Leon R. Kass, *Organs for Sale? Propriety, Property, and the Price of Progress*, 107 NAT’L AFF. 65, 81 (1992) (“The idea of commodification of human flesh repels us, quite properly I would say, because we sense that the human body especially belongs in that category of things that defy or resist commensuration—like love or friendship or life itself.”). These arguments, however, are rarely elaborated on. Furthermore, this revulsion may be more a matter of cultural learning that creates feelings that may appear to be like biological instinct.

in bone marrow.¹⁶⁰ In order to address the issue, we must ask what exactly provokes this revulsion.¹⁶¹ Some argue that “the human body is simply too unique and too personal to be treated as an object for sale.”¹⁶² People who do not want to be organ donors have often cited the following reasons: “(1) A fear that their death would be hastened by overeager doctors; (2) aesthetic or religious objections to being dismembered; and (3) an unwillingness to think about their own mortality.”¹⁶³ Cases involving compensation for body parts inevitably consider some aspect of the instinctual revulsion that people have with the practice.¹⁶⁴

Is it worth the cost to allow these feelings of repugnance to constrain the law and to proscribe something that could save lives?¹⁶⁵ Perhaps more than feelings of disgust should be considered in making a lifesaving act illegal.¹⁶⁶ Courts should at least be watchful of the foundations of these feelings in crafting a solution to laws proscribing compensation for bone marrow.¹⁶⁷

E. DISTINGUISHING BONE MARROW DONATION ON MORAL GROUNDS

Many of these moral implications may not be an issue with bone marrow donation. Bone marrow is relatively distinct from other forms of transplantation—both because it is regenerative and because the development of the PBSC technology makes a bone marrow donation less intrusive than a surgical donation of a solid organ. These distinctions do not “mute” but rather blunt some of the ethical objections associated with solid organ transplantation.

160. See Roth, *supra* note 65, at 38 (“[W]e have often found that distaste for certain kinds of transactions can be a real constraint on markets . . .”).

161. This question has been asked repeatedly in regard to organ donation. See, e.g., SHAPIRO ET AL., *supra* note 74, at 1300.

162. Hardiman, *supra* note 120, at 240.

163. Cohen, *supra* note 126, at 9. See also Flamholz, *supra* note 71, at 337.

164. See, e.g., Moore v. Regents of the Univ. of Cal., 793 P.2d 479, 481 (Cal. 1990) (Arabian, J., concurring) (stating that “to recognize and enforce a right to sell one’s own body tissue *for profit*” is asking the Court “to commingle the sacred with the profane”).

165. See Gill & Sade, *supra* note 76, at 39.

166. This idea has been explored by the International Forum of Transplant Ethics:

The weakness of the familiar arguments suggests that they are attempts to justify the deep feelings of repugnance which are the real driving force of prohibition, and feelings of repugnance among the rich and healthy, no matter how strongly felt, cannot justify removing the only hope for the destitute and dying.

J. Radcliffe-Richards et al., *The Case for Allowing Kidney Sales*, 351 LANCET 1950, 1951 (1998).

167. See Roth, *supra* note 65, at 38–54 (detailing how “distaste for certain kinds of transactions” can constrain markets and urging “economists and other proponents of kidney sales” to pay careful attention to the “sources of repugnance” in crafting solutions).

The impact of a market system in bone marrow may be less pronounced in regard to concerns of exploitation and objectification. The moral and social pressures regarding commodification and objectification would arguably not exist in regard to compensation for bone marrow due to the need for an extremely close match.¹⁶⁸ A bidding war for bone marrow would be extremely unlikely because the chances of a patient finding multiple donor matches would be slim.¹⁶⁹ This could, however, also lead to a more dangerous situation in which there is only one donor who demands an exorbitant price from a patient who has no choice. Effectively, because there would be no market—or because there would be a market monopoly—traditional market economy forces of supply and demand would not regulate the prices. Thus, allowing a market in bone marrow would likely require strict governmental regulation to create a controlled market in order to avoid a naturally monopolized situation.¹⁷⁰

Furthermore, there have been many studies evidencing psychological benefits for living donors.¹⁷¹ Additionally, courts have often cited positive psychological benefits for living donors in considering donations by minors and mentally incompetent adults.¹⁷² Most scientific research committees have concluded that the potential benefits generally outweigh the risk of harm, at least anecdotally.¹⁷³

168. Note, however, that there would likely be a great deal of nonfinancial pressure on family members to donate, particularly where the match is close.

169. The plaintiffs in *Flynn* claim that an open market for bone marrow would be “impossible” because of the close genetic match that is required. *Flynn* Complaint, *supra* note 2, at 33.

170. See *Harris & Alcorn*, *supra* note 93, at 232 (arguing that a market in kidneys or bone marrow would be similar to a controlled market such as radio or television and that this would ease many of the ethical objections and fears).

171. Although most of these studies have involved kidney donors, it is generally assumed that the same psychological benefits occur in bone marrow donors. See James R. Rodrigue, Valerie Bonk & Shannon Jackson, *Psychological Considerations of Living Organ Donation*, in *BIOPSYCHOSOCIAL PERSPECTIVES ON TRANSPLANTATION*, *supra* note 14, at 59, 63; Switzer, Dew & Twillman, *supra* note 69, at 60–61. These benefits include higher self-esteem and increased happiness. *Id.* at 64.

172. See *Little v. Little*, 576 S.W.2d 493, 500 (Tex. Civ. App. 1979) (“[T]here is strong evidence to the effect that [the donor] will receive substantial psychological benefits from such [participating in the kidney donation].”); *Strunk v. Strunk*, 445 S.W.2d 145, 146 (Ky. 1969).

173. Researchers often base their conclusions about the psychological benefits of sibling bone marrow donation on personal stories of “bone siblings,” where both feel a deep bond to one another, showing that the benefits far outweigh the potential harms. A classic example of this story is the case of the Ayalas, a family that conceived a child in 1989 in order to save the life of their older daughter. Years later, the health and psychological closeness of the two sisters is an example of how a bone marrow transplant can actually benefit both children. See, e.g., Cindy McMenamin, *Sisters to the Bone; 9 Years After Marrow Transplant, Anissa and Marissa Ayala Share Special Bond*, L.A. DAILY NEWS, Apr. 12, 1999.

V. THE REALITY AND PRACTICALITY OF COMPENSATION FOR BONE MARROW DONATION

A. NONECONOMIC ATTEMPTS AT INCENTIVIZATION

The current system of procuring bone marrow is based entirely on altruism—the unselfish donation of bone marrow out of the concern for others’ benefit.¹⁷⁴ Altruistic bone marrow donation can be based on a variety of factors, including a feeling of social responsibility, potential psychological benefits, empathy for the patient, and past life experiences.¹⁷⁵ Unfortunately, supply through the altruistic system has fallen far short of demand.

Registries have made attempts to incentivize nonrelatives to join a donor list. For example, the Be The Match Registry has recently changed its name (formerly the National Marrow Donor Program Registry), essentially “re-branding” the cause in order to make donating more appealing.¹⁷⁶ Additionally, the Be The Match Registry, as well as private organizations, hold public awareness campaigns and bone marrow recruitment drives in order to increase the number of potential donors.¹⁷⁷ Individual patients also make an effort to recruit people to join the donor registry, particularly through efforts such as creating web pages devoted to their condition and urging people to join the registry.¹⁷⁸

There are also attempts at creating an incentive to donate through a reciprocal agreement. For example, Lifesharers is an organization whose members join in a reciprocal agreement to donate their organs upon death

174. Note, however, that some have argued that calling the system entirely “altruistic” in the traditional definition is inappropriate because, in the case of living donors, the donor often receives a significant psychological benefit. Furthermore, since many donations are to close family members, “altruism” is often not the exact motivation. Namely, there is a reciprocity in kinship that does not exist among strangers. Thus, the theory that altruism is the sole motivating factor fails when one considers other factors such as family pressure as well as the anticipated benefit of saving a family member. See Howard, *supra* note 111, at 51.

175. Galen Switzer and others conducted a specific study on the motivations of 343 unrelated NMDP bone marrow donors in 1997. Galen E. Switzer et al., *Understanding Donors’ Motivations: A Study of Unrelated Bone Marrow Donors*, 45 SOC. SCI. & MED. 137, 137 (1997). This study revealed that people were mostly motivated by ideas of exchange, morals and altruism, the prospect of positive feelings, empathy, and past experiences. *Id.* at 144.

176. Canada has also done this, changing its name from the Unrelated Bone Marrow Donor Registry to OneMatch Stem Cell and Marrow Network. *Canadian Blood Services Re-Brands Bone Marrow Cause to Address Critical Shortage of Ethnic Registrants*, MED. NEWS TODAY (Oct. 25, 2007), <http://www.medicalnewstoday.com/releases/86578.php>.

177. CANCER.NET, *supra* note 43.

178. See, e.g., *John Needs Your Bone Marrow!*, http://web.cecs.pdx.edu/~mperkows/==MAIN_WWW_PAGE/john-marrow.html (last visited July 30, 2011).

to other members.¹⁷⁹ This allows people to receive a potential benefit in return for donation while minimizing direct economic incentives.¹⁸⁰ Furthermore, there is evidence that this type of reciprocal agreement works as an incentive, as suggested by consistent significant increases in membership of the Lifesharers organization.¹⁸¹

Another method of creating incentive to donate is publicity. Publicity can take several forms—newspaper advertisements, billboards, or even personalized webpages.¹⁸² But public media discussion can have negative implications for the patients and their families since it makes private information extremely public.¹⁸³ Also, individual publicity for bone marrow is unlikely to result in a donor signing up for the registry who matches the advertiser's HLA type.

B. FORMS OF PAYMENT AND THEIR MORAL IMPLICATIONS

Some scholars have advocated offering “modest and indirect” compensation¹⁸⁴ to donors as a potential way to increase supply.¹⁸⁵ These indirect incentives could include health insurance coverage, college tuition, or tax deductions.¹⁸⁶

179. *Expert Opinion*, LIFESHARERS.ORG, <http://www.lifesharers.org/expertopinion.aspx> (last visited July 30, 2011) (“The idea that organs should be given first to people who have agreed to donate their own organs has a long and distinguished history.”).

180. Jennifer L. Hurley, *Cashing in on the Transplant List: An Argument Against Offering Valuable Consideration for the Donation of Organs*, 4 J. HIGH TECH. L. 117, 136 (2004) (“[Lifesharers] appears to have the potential to thrive by providing the important incentive for individuals to act within their own self-interests without offering economic incentives to promote donation.”). Arguably, a reciprocal organ-donating agreement is an economic incentive.

181. LifeSharers increased its membership by 5 percent between June 2010 and June 2011; it now has 14,673 members. LifeSharers Members Newsletter, LIFESHARERS.ORG (July 2011), <http://www.lifesharers.org/newsletter.aspx>.

182. See Melissa Healy, *The Changing Rules of Organ Donation; Billboards, Websites, and Financial Incentives Are Pushing the Ethical Boundaries*, L.A. TIMES, Nov. 1, 2004, <http://articles.latimes.com/2004/nov/01/health/he-transplant1> (describing cases in which billboards were bought for as much as \$9,000 to advertise the need for a kidney).

183. Denise, *supra* note 132, at 1019.

184. This is also called a “non-cash incentive.” Smith, *supra* note 137, at 383. The sources of these incentives are unclear. In *Flynn v. Holder*, plaintiff MoreMarrowDonors.org proposes a system in which the nonprofit organization would provide payments from private donations. Flynn Complaint, *supra* note 2, at 27–28. Financially, the reality of this system is vague.

185. See Flamholz, *supra* note 71, at 332 (stating that “the method of offering modest and indirect financial incentives to prospective donors is one potentially effective way of increasing the supply of organs while still retaining ethical responsibility and moral sensitivity”).

186. Arthur J. Matas, *A Gift of Life Deserves Compensation: How to Increase Living Kidney Donation with Realistic Incentives*, CATO INST. POL’Y ANALYSIS No. 604, Nov. 7, 2007, at 1, 4. In implementing a program with indirect incentives, potential regulatory restrictions must be considered. The possibility of using regulations to cap payments has been considered for a futures market in organ

Indirect financial incentives may ease some ethical concerns. First, they may create incentives to donate with lesser concern for commodification.¹⁸⁷ Yet, from a purely economic standpoint, there may be no difference between cash payments and indirect financial incentives.¹⁸⁸

Many scholars have proposed indirect financial incentives within the organ market, arguing that they would lessen the moral and logistical concerns.¹⁸⁹ Nonetheless, there are different ethical issues that arise in a system of indirect compensation. For one, governing the method in which compensation is “spent” is paternalistic. Providing indirect financial incentives may not “exploit” donors, but it does treat donors as only a marginally competent person who cannot be trusted to make proper use of their money for themselves and their family.¹⁹⁰ Also, placing constraints on recipients’ uses of compensation may reduce the incentive to provide bone marrow.

Furthermore, this type of indirect system has also been criticized as being “immorally deceptive.”¹⁹¹ Essentially, some scholars argue, offering indirect financial compensation is just as unethical as direct compensation and still involves issues of bodily commodification. Thus, it is unclear whether indirect payments would be preferable, either for purposes of social policy or individual benefit, to giving direct monetary compensation.

Additionally, indirect compensation is not without logistical

donation. See Gregory S. Crespi, *Overcoming the Legal Obstacles to the Creation of a Futures Market in Bodily Organs*, 55 OHIO ST. L.J. 1, 29 (1994).

187. Flamholz, *supra* note 71, at 355 (arguing that indirect financial incentives reduce the “traditional concerns that exist with organ commodification and organ markets, such as discrimination against the poor, the potential for coercion of those desperate for food and money, and the concern about unethical offers”). On the other hand, indirect payments also involve different ethical concerns such as paternalism. For example, if donors are desperate for food, an indirect subsidy for education or housing may not provide a realistic choice and, thus, no incentive.

188. See PRICE, *supra* note 69, at 398 (“However, although these [indirect payments] are often viewed as less objectionable than direct cash payments, it is submitted that there is no intrinsic difference between money and payments in kind.”).

189. See Smith, *supra* note 137, at 381 (“The promise of life-long comprehensive health care in exchange for organ donation is a potential solution that will ensure that organ donors will not be exploited to their detriment.”).

190. Note that certain types of indirect financial compensation, such as solely providing health insurance, can be exceptionally supervisory. If a donee is desperate for food and housing, it does not necessarily help them to provide health insurance, especially if they are young and healthy.

191. Robert V. Veatch, *Why Liberals Should Accept Financial Incentives for Organ Procurement*, 13 KENNEDY INST. ETHICS J. 19, 22–24 (2003) (“[I]ndirect [financial] incentives . . . are immorally deceptive in the pretense that there is no payment of cash to the decision maker when, in effect, there is.”).

concerns.¹⁹² The chief logistical concerns would likely be the source of the compensation, the distribution of compensation, and how the compensation would be regulated and monitored.¹⁹³

C. WOULD COMPENSATION INCREASE SUPPLY?

There is much debate about whether a paid program would be effective or not. In most economic markets, setting a price control on any product decreases supply.¹⁹⁴ Some claim that allowing compensation would drastically increase the number of donors on the registry.¹⁹⁵ Yet, many others endorse the view that if compensation is introduced into an altruistic donor system, it would decrease overall supply by tending to decrease the incentive for purely voluntary donation.¹⁹⁶

Because there are historical examples of moving from an altruistic to a compensatory donation system—with blood in the United States and with kidneys in other countries—it is possible to base these assumptions in actual data.¹⁹⁷

Opponents of compensation also argue that the quality of organs would decrease because the compensatory system would tend to attract

192. See Mahoney, *supra* note 111, at 32 (“What considerations will determine what the recipients of compensation may spend the money on? What measures will organizations charged with administering payment programs take to ensure that funds are not diverted to unapproved uses? What remedies will be invoked if recipients of funds fail to comply with conditions?”).

193. These logistical concerns also raise issues of paternalism in establishing to what extent the methods of compensation should be supervised.

194. Volokh, *supra* note 138, at 1833 (“Price controls diminish supply. Setting the price at zero diminishes supply dramatically.”).

195. See Anderson, *supra* note 69, at 489–90 (“For the right price, enough people could be added to the registry in a very short time. A registry that NMDP has labored for years to create could be doubled or tripled almost overnight.”).

196. See, e.g., TITMUS, *supra* note 92, at 225 (“[T]he ways in which society organizes and structures its social institutions—and particularly its health and welfare systems—can encourage or discourage the altruistic in man; such systems can foster integration or alienation . . .”). The defendant in *Flynn v. Holder* argues that it is “speculative, at best,” to argue that providing financial incentives to bone marrow donors would increase the supply of bone marrow for patients in need. Motion to Dismiss at 9, *Flynn v. Holder*, No. CV09 07772 (C.D. Cal. Jan. 19, 2010) [hereinafter *Flynn Motion to Dismiss*].

197. See Harris & Alcorn, *supra* note 93, at 213–14 (inferring from the fact that “[w]here gaps in the law prohibiting the sale of human tissue have been left or allowed, a thriving market exists, meeting the needs of Americans for blood, tissue, and human reproductive cells,” compensation for the donation of other bodily tissue would also increase supply). See also Flamholz, *supra* note 71, at 357 (“Internationally, financial incentives for living kidney providers have increased the supply of kidneys, and small payments for burial expenses to the families of cadaveric donors have increased the supply of organs in European countries.”) (citing John Zen Jackson, *When it Comes to Transplant Organs, Demand Far Exceeds Supply*, 170 N.J. L.J. 910 (2002)).

poor and middle class sellers who would not be in the best health.¹⁹⁸ This concern comes from an analogy to the history of the blood market. When compensation was deemed legal for blood, the poor and lower middle class people who donated often had infected blood, and the screening process for blood was minimal. Thus, the donated blood supply saw a large increase of diseases such as hemophilia. Yet, analogizing this effect to bone marrow—as well as solid organs—is weak due to the vast developments in screening and testing. Furthermore, some scholars argue that these concerns could be completely eliminated with certain regulations.¹⁹⁹

Ultimately, in order to determine whether compensation would actually increase supply, it would be necessary to conduct a trial over a period of time.²⁰⁰ A pilot program would track the results of compensation in order to determine whether compensation is effective in lessening the shortage of bone marrow donors. The pilot program advanced in *Flynn* suggests that the effectiveness of compensation should be closely followed in order to determine whether a large-scale program would be successful.²⁰¹

VI. CONSTITUTIONAL ARGUMENTS AGAINST NOTA'S BAN ON COMPENSATION FOR BONE MARROW

Unfortunately, the statutory language proscribing compensation for bone marrow donation is clearly prohibitive. Thus, in order to modify the existing statutory framework to permit compensation for bone marrow, it would be necessary to either challenge the statute's constitutional framework in the judiciary or implement a legislative challenge to NOTA.²⁰² A court may accept the constitutional arguments outlined below in order to find a market in bone marrow.

A. EQUAL PROTECTION

The Equal Protection Clause of the Fourteenth Amendment asserts that “no state shall . . . deny to any person within its jurisdiction the equal

198. See Ronald E. Domen, *Paid-Versus-Volunteer Blood Donation in the United States: A Historical Review*, 9 *TRANSFUSION MED. REVS.* 53, 53 (1995).

199. Volokh, *supra* note 138, at 1833 n.94.

200. See Matas, *supra* note 186, at 5, 15.

201. Kevin B. O'Reilly, *Ban on Paying Bone Marrow Donors Challenged in Court*, AMEDNEWS.COM (Dec. 21, 2009), <http://www0.ama-assn.org/amednews/2009/12/21/prsa1221.htm>. See also *Flynn* Complaint, *supra* note 2, at 27–30.

202. Note that even if NOTA were revised, state legislatures would still have to enact their own laws, absent constitutional challenges under the United States and state constitutions.

protection of the laws.”²⁰³ This means that an individual should be treated in the same manner as others similarly situated.²⁰⁴ Essentially, if the government makes a discriminatory classification, either on the face of the law or through discriminatory impact, the Court will either uphold or invalidate the law based on the level of scrutiny applied. Generally, legislation by Congress is presumed to be valid and will be upheld if it is rationally related to a legitimate state interest.²⁰⁵ The Court will only subject the legislation to strict scrutiny if it involves a suspect classification—namely, race or national origin.²⁰⁶ Laws subject to strict scrutiny will only be upheld if they are narrowly tailored to achieve a compelling state interest.²⁰⁷ Furthermore, the Court also employs a heightened scrutiny—often referred to as intermediate scrutiny—when encountering legislative classifications based on gender.²⁰⁸ Legislative action reviewed under intermediate scrutiny will only be upheld if it is substantially related to an important governmental interest.

1. What is the Classification?

The plaintiffs in *Flynn* argue that NOTA denies equal protection because it “arbitrarily and irrationally treats dissimilar things similarly” by classifying renewable bone marrow cells as nonrenewable solid organs.²⁰⁹ Scientifically, the plaintiffs attempt to distinguish bone marrow as a fundamentally different substance than solid organs such as kidneys because it is regenerative, and because bone marrow cells are not technically tissues and thus cannot be considered “organs by definition.”²¹⁰

203. U.S. CONST. amend. XIV, § 1. The Fourteenth Amendment has been held to apply against the federal government through the Due Process Clause of the Fifth Amendment. *See supra* note 12.

204. *See Plyler v. Doe*, 457 U.S. 202, 248 (1982). In evaluating an equal protection claim, the Court usually looks at whether people are either treated equally or whether people are able to achieve equal results. *See Sheila Foster, Difference and Equality: A Critical Assessment of the Concept of “Diversity,”* 1993 WISC. L. REV. 105, 148–50 (1993); Michel Rosenfeld, *Decoding Richmond: Affirmative Action and the Elusive Meaning of Constitutional Equality*, 87 MICH. L. REV. 1729, 1735–37 (1989).

205. *Williamson v. Lee Optical of Okla.*, 348 U.S. 483, 486–87 (1955); *United States v. Carolene Prods. Co.*, 304 U.S. 144, 152 (1938).

206. *Carolene Prods. Co.*, 304 U.S. at 153 n.4 (establishing circumstances under which strict scrutiny should be applied). Note that alienage sometimes also draws strict scrutiny and sometimes minimal scrutiny if related to alien participation in state government (usually in the context of denying aliens the right to vote, hold political office, or serve on juries.) *See Ambach v. Norwick*, 441 U.S. 68, 72–81 (1979); *Foley v. Connelie*, 435 U.S. 291, 296 (1978); *Sugarman v. Dougall*, 413 U.S. 634, 647–49 (1973); *Perkins v. Smith*, 370 F. Supp. 134, 136–38 (D.C. Md. 1974).

207. *Palmore v. Sidoti*, 466 U.S. 429, 432 (1984).

208. *Craig v. Boren*, 429 U.S. 190, 218 (1976).

209. *Flynn Complaint*, *supra* note 2, at 48.

210. Scientifically, the plaintiffs claim that “[m]arrow cells are not tissues because they lack any

Furthermore, the plaintiffs attempt to distinguish PBSC donation as a process that is fundamentally different from surgical organ donations.²¹¹

The plaintiffs claim that categorizing bone marrow as a solid organ is arbitrary. Essentially, the claim is that bone marrow was included in the definition of “organ” under NOTA by mistake.²¹² Furthermore, Congress did not intend replenishable tissues to be included in the definition of “human organ.”²¹³

Arguing that the classification of bone marrow as an organ is arbitrary is vulnerable in terms of precedent. Litigants in the 1970s and 1980s made similar arguments about marijuana, claiming it was misclassified as a narcotic under the Narcotic Control Act of 1956.²¹⁴ In the contexts of these cases, the arbitrariness argument was utterly immaterial. The courts found that mislabeling a “psychedelic” or hallucinogenic as a narcotic was constitutional under the rational basis analysis. Furthermore, the Court has not applied equal protection to cells or body parts; it is applied to groups of people. Thus, in evaluating congressional action in regard to the classification of bone marrow, the Court is likely to be deferential to congressional judgment.

2. What is the Appropriate Level of Scrutiny?

The classification of bone marrow as an organ is not the type of classification that the Court would deem to be “inherently suspect,” a label reserved for classifications based on race and gender. Thus, the claim that NOTA violates the Equal Protection Clause would likely be reviewed under no more than rational basis review, an extremely deferential standard. Under rational basis review, the Court would only need to find

degree of structural organization.” *Id.* at 36.

211. In distinguishing bone marrow donation as a process, the plaintiffs focus on the fact that 70 percent of bone marrow donation is now done through the PBSC donation method rather than the surgical method, which is much more like the surgical removal of a solid organ such as a kidney. *Id.* at 17–19.

212. *Id.* at 32. The plaintiffs claim that in the legislative history there is minimal discussion of bone marrow and no substantive discussion rationalizing the grouping of bone marrow as a “human organ.” *Id.*

213. H.R. Rep. No. 98-1127, at 16 (1984), reprinted in 1984 U.S.C.C.A.N. 3989, 3992 (stating that the prohibition on organ sales was not “meant to include blood and blood derivatives, which can be replenished and whose donation does not compromise the health of the donor”); H.R. Rep. No. 98-1127, at 16 (1984) (Conf. Rep.) (“The term ‘human organ’ is not intended to include replenishable tissues such as blood or sperm.”).

214. See *United States v. Fogarty*, 692 F.2d 542, 547–48 (8th Cir. 1982); *Nat’l Org. for the Reform of Marijuana Laws v. Bell*, 488 F. Supp. 123, 135–39 (D.C. Cir. 1980); *United States v. LaFroschia*, 485 F.2d 457, 458 (2d Cir. 1973).

some rational reason why Congress could have prohibited compensation for the donation of bone marrow. The defendant in *Flynn* cites many rational reasons why Congress could have prohibited compensation for the donation of bone marrow: to prevent a bone marrow market, the “fear that individuals, particularly the poor, will be coerced by financial pressure into selling their organs,” the advantage the rich would have over the poor, and the likelihood that paid donation would decrease the incentives for donors to provide accurate medical history.²¹⁵ It is likely that the Court would accept any of these as a rational reason why Congress chose to proscribe compensation for bone marrow.

There is a slight possibility that the Court could evaluate the Equal Protection argument under a heightened form of rational basis. The decisions in *City of Cleburne v. Cleburne Living Center*,²¹⁶ *Romer v. Evans*,²¹⁷ and *Department of Agriculture v. Moreno*²¹⁸ all invalidated laws on a standard that some have called “active” or “second order” rational basis review.²¹⁹ Essentially, this is a more scrutinizing form of rational basis review that is not as deferential to the government action. In fact, it appears to be a form of intermediate scrutiny that has the potential to invalidate laws, since the government actions in the applicable cases did not survive.

In *City of Cleburne*, the Court invalidated a city ordinance that required a special permit for a group home for the mentally disabled. The Court claimed to be using the rational basis test—whether the ordinance was rationally related to a legitimate government purpose.²²⁰ Yet, the Court found that none of the purported state interests were rationally related and that the real reason behind the legislation was an “irrational prejudice.”²²¹ Justice Marshall’s dissent called attention to the fact that the majority had

215. *Flynn* Motion to Dismiss, *supra* note 196, at 16–17. Also see Part IV for other potential ethical concerns, including the compelling interest of preventing objectification.

216. *City of Cleburne v. Cleburne Living Ctr., Inc.*, 473 U.S. 432 (1985).

217. *Romer v. Evans*, 517 U.S. 620, 635 (1996).

218. *Dep’t of Agric. v. Moreno*, 413 U.S. 528 (1973).

219. See *Romer*, 517 U.S. at 639–40 (Scalia, J., dissenting); *City of Cleburne*, 473 U.S. at 458 (Marshall, J., concurring in part and dissenting in part); *Moreno*, 413 U.S. at 534–38. See also William M. Wilson, Note, *Romer v. Evans: “Terminal Silliness,” or Enlightened Jurisprudence?*, 75 N.C. L. REV. 1891, 1931 (1997).

220. *City of Cleburne*, 473 U.S. at 446. Justice White, writing for the majority, rejected the notion that the majority was using heightened scrutiny. *Id.* at 442 (holding that the court of appeals erred in “calling for a more exacting standard of judicial review”). The ordinance, however, was “invalidated only after being subjected to precisely the sort of probing inquiry associated with heightened scrutiny.” *Id.* at 458 (Marshall, J., concurring in part and dissenting in part).

221. *Id.* at 448–50.

not used a completely deferential form of rational basis review, but used a more heightened scrutiny in this “second-order” rational basis review, writing that “Cleburne’s ordinance surely would be valid under the traditional rational basis test.”²²²

Similarly, in *Moreno*, the Court struck down a provision of the Food Stamp Act which excluded households from participation if the household included members who were unrelated to one another. Although the government set forth several purported government interests, the Court found that the exclusion did not promote the statute’s goals.²²³ Again, the dissenting justice, Justice Rehnquist, emphasized that a rational basis for the Act would be to “deny food stamps to members of households which have been formed solely for the purpose of taking advantage of the food stamp program.”²²⁴ Thus, Justice Rehnquist suggested that if the majority had been using deferential rational basis review, the provision should have been upheld.

Additionally, in *Romer*, the Court struck down an amendment to the Colorado State Constitution that would have prevented municipal governments from acting to protect homosexuals’ status.²²⁵ In claiming to use rational basis analysis, the Court again rejected the government’s asserted rationales, finding that the purported justifications could be outweighed if the law inflicts “immediate, continuing, and real injuries.”²²⁶ Justice Scalia, in his dissent, accused the majority of submitting to their emotions and sidestepping the traditional, deferential rational basis test.²²⁷

In these three cases, the Court rejected the government’s proffered justifications for the laws at issue, and in striking down the laws, found that they all arose from the desire to harm a group that is politically unpopular

222. *Id.* at 456 (Marshall, J. concurring in part and dissenting in part) (“In my view, it is important to articulate, as the Court does not, the facts and principles that justify subjecting this zoning ordinance to the searching review—the heightened scrutiny—that actually leads to its invalidation.”).

223. *Moreno*, 413 U.S. at 534 (finding the statute “clearly irrelevant to the stated purposes of the Act”). Furthermore, the Court examined the legislative history trying to find an actual governmental purpose that would fit the Act and rejected all hypothetical purposes set forth by the government, a distinctive characteristic of heightened scrutiny, both strict and intermediate. *Id.* at 534–36.

224. *Id.* at 547 (Rehnquist, J., dissenting). Justice Rehnquist further emphasized that the Court’s “role is limited to the determination of whether there is any rational basis on which Congress could decide that public funds made available under the food stamp program should not go to a household containing an individual who is unrelated to any other member of the household.” *Id.* at 545–46.

225. *Romer v. Evans*, 517 U.S. 620, 623–24, 626–27 (1996).

226. *Id.* at 635.

227. *Id.* at 640 (Scalia, J., dissenting) (“The Court’s entire novel theory rests on the proposition that there is something *special*—something that cannot be justified by normal ‘rational basis’ analysis—in making a disadvantaged group (or a nonpreferred group) resort to a higher decisionmaking level.”).

but that does not quite constitute a “semi-suspect class.”²²⁸ Despite these decisions, however, the Court has not expressly acknowledged that this form of heightened rational basis review exists.²²⁹ Although some of the Justices have acknowledged the Court’s use of this heightened form of rational basis review,²³⁰ others have expressly denied it.²³¹

This line of cases may create a precedent for applying a more heightened review in instances that traditionally would have only warranted deferential rational basis review. Because the Court has not expressly recognized this form of scrutiny, however, and has not enumerated the types of cases that would be evaluated under “active” rational basis review, it is unlikely that the Court would apply this heightened standard in assessing a bone marrow challenge to NOTA. Furthermore, because the preceding cases all involved politically disfavored groups of people,²³² applying this heightened form of rational basis to the ban on bone marrow is dubious.²³³ Fundamentally, the heightened rational basis cases appear to be sufficiently distinct from the bone marrow situation to make it unlikely for this “second order” scrutiny to be applied to the ban on compensation for bone marrow donations.

If the Court did apply a heightened scrutiny, the government would have to put forth an important or compelling government interest—likely many of the moral implications discussed in Part IV. It is likely that these moral implications would fail to meet heightened scrutiny; compelling

228. See *id.* at 634 (citing *Moreno*, 413 U.S. at 534).

229. The Court has even expressly repudiated the existence of a form of heightened rational basis review. See *Heller v. Doe*, 509 U.S. 312, 321 (1993). Note, however, that some lower courts have specifically acknowledged the use of “active” rational basis review. See, e.g., *United States v. Then*, 56 F.3d 464, 468 (2d Cir. 1995) (Calabresi, J., concurring) (“Judges and commentators have noted that the usually deferential ‘rational basis’ test has been applied with greater rigor in some contexts, particularly those in which courts have had reason to be concerned about possible discrimination.”).

230. *Lawrence v. Texas*, 539 U.S. 558, 582–83 (2003) (O’Connor, J., concurring) (“Moral disapproval of [homosexual couples], like a bare desire to harm the group, is an interest that is insufficient to satisfy rational basis review under the Equal Protection Clause.”).

231. *Id.* at 599–600 (Scalia, J., dissenting). Scholars have additionally rejected the idea that the Court used a heightened form of review, instead attributing the invalidation of the laws to the Court’s finding of political animus behind the laws. See Cass R. Sunstein, Foreword, *Leaving Things Undecided*, 110 HARV. L. REV. 4, 59–61 (1996).

232. The Court has said that this standard may be applied in cases where a law makes it “more difficult for one group of citizens than for all others to seek aid.” *Romer*, 517 U.S. at 633. This requirement appears to include politically disfavored groups because it is expected that it will be more difficult for them to obtain help.

233. Note, however, that some of the arguments in *Flynn* emphasize that there is a racial minority, and thus a politically disadvantaged group, being disadvantaged. See *Flynn Complaint*, *supra* note 2, at 24.

interests that are sufficient to justify an intrusion need to be more concrete.

B. SUBSTANTIVE DUE PROCESS

The Fourteenth Amendment provides that no state shall “deprive any person of life, liberty, or property without due process of law.”²³⁴ Additionally, the Due Process Clause of the Fifth Amendment has been held to provide the same protection against the federal government.²³⁵ Thus, these clauses bestow “heightened protection against government interference with certain fundamental rights and liberty interests.”²³⁶ Over the past fifty years, the Court has recognized that these liberty interests enumerated in the Fourteenth Amendment have substantive components that protect many fundamental privacy rights that do not appear in the plain text of the Constitution.²³⁷ These rights, as recognized by the Court, have included the right to marriage,²³⁸ to have children,²³⁹ to direct the education and upbringing of one’s children,²⁴⁰ to marital privacy,²⁴¹ to use contraceptives,²⁴² to bodily integrity,²⁴³ to refuse lifesaving medical treatment,²⁴⁴ and to abortion.²⁴⁵ In order to determine whether there has been a violation of a substantive due process right, the Court must determine that (1) the right that is asserted is fundamental and that (2) the right was infringed.

234. U.S. CONST. amend. XIV, § 1.

235. U.S. CONST. amend. V. *See supra* note 12 (explaining how the Due Process Clause has been found to apply to the federal government).

236. *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997).

237. Many have argued that calling these rights “privacy” rights is an inappropriate use of the term “privacy”; what is being protected is some form of autonomy. Specifically, what is private about these rights is unclear in some cases and has not been fully articulated, and thus, the designation can be misleading. *See* Patricia Boling, *Privacy as Autonomy vs. Privacy as Familial Attachment: A Conceptual Approach to Right to Privacy Cases*, 13 POL’Y STUDIES REV. 91, 91, 105–07 (1994); Louis Henkin, *Privacy and Autonomy*, 74 COLUM. L. REV. 1410, 1427–28 (1974) (arguing that adhering to the substantive due process arguments rather than privacy arguments would have made our recent constitutional history “more coherent”). Despite these sentiments, “privacy” is the reigning language.

238. *Loving v. Virginia*, 388 U.S. 1, 12 (1967).

239. *Skinner v. Oklahoma ex rel. Williamson*, 316 U.S. 535, 541 (1942).

240. *Pierce v. Soc’y of Sisters of the Holy Names of Jesus and Mary*, 268 U.S. 510, 534–35 (1925); *Meyer v. Nebraska*, 262 U.S. 390, 399–400 (1923).

241. *Griswold v. Connecticut*, 381 U.S. 479, 485–86 (1965).

242. *Id.*; *Eisenstadt v. Baird*, 405 U.S. 438, 453–54 (1972).

243. *Washington v. Harper*, 494 U.S. 210, 221–22 (1990); *Rochin v. California*, 342 U.S. 165, 209–10 (1952).

244. *Cruzan v. Dir., Mo. Dep’t of Health*, 497 U.S. 261, 271 (1990).

245. *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 846 (1992); *Roe v. Wade*, 410 U.S. 113, 153 (1973).

1. Is There a Fundamental Right?

Because most fundamental rights recognized by the Court are not enumerated in the Constitution, the Court has continuously cautioned against the creation of new rights.²⁴⁶ Many of the justices follow the standard that, without a societal tradition of recognizing that right, the Court cannot recognize the right as a liberty interest,²⁴⁷ while others see the tradition of the Constitution as “a living thing.”²⁴⁸

Despite its cautious approach, the Court has continually expanded individuals’ fundamental rights. In creating new fundamental rights, the Court has followed a two-step inquiry into the nature of the right.²⁴⁹ First, the Court asks whether the right is “deeply rooted in this Nation’s history and tradition” and “implicit in the concept of ordered liberty,” such that “neither liberty nor justice would exist if they were sacrificed.”²⁵⁰ Second, the Court “require[s] a careful description of the asserted fundamental liberty interest.”²⁵¹

It is possible that NOTA’s proscription on compensation for bone marrow donation could be challenged on a substantive due process right theory. The plaintiffs in *Flynn* claim a liberty interest that is currently unrecognized by the Court: the “right to participate in safe, accepted, lifesaving medical treatment.”²⁵² Currently, the plaintiffs are not denied the

246. There is essentially a presumption against finding new fundamental rights. *See* *Washington v. Glucksberg*, 521 U.S. 702, 727 (1997) (“That many of the rights and liberties protected by the Due Process Clause sound in personal autonomy does not warrant the sweeping conclusion that any and all important, intimate, and personal decisions are so protected.”) (citation omitted); *Collins v. City of Harker Heights*, 503 U.S. 115, 125 (1992) (when evaluating whether to create a new liberty interest the Court must “exercise the utmost care whenever we are asked to break new ground”).

247. *See infra* note 280 and accompanying text.

248. *Glucksberg*, 521 U.S. at 765 (Souter, J., dissenting) (citing *Poe v. Ullman*, 367 U.S. 497, 542 (1961) (Harlan, J., dissenting on jurisdictional grounds)). Note, however, that these views are not polar opposites. Traditions can change—start, grow, develop—as is shown in the Eighth Amendment jurisprudence. *See infra* notes 275 and accompanying text.

249. *Glucksberg*, 521 U.S. at 720–21.

250. *Id.* at 721 (internal quotation marks omitted) (citing *Moore v. City of E. Cleveland*, 431 U.S. 494, 503 (1977); *Palko v. Connecticut*, 302 U.S. 319, 325–26 (1937)).

251. *Glucksberg*, 521 U.S. at 720–21 (internal quotation marks omitted) (citing *Reno v. Flores*, 507 U.S. 292, 302 (1993)).

252. *Flynn* Complaint, *supra* note 2, at 3. Note, also, that another right that could be asserted is the right of medical professionals to practice medicine without arbitrary interference by the government—a right that was asserted in *Roe v. Wade*, 410 U.S. 113, 125–27 (1973). Note, however, that the doctor in *Roe* was asserting a right—however one characterizes it—derivative from the patients’ rights and that ultimately the doctor’s claim was dismissed by the Court. *Id.* at 127. Even if it is plausible to fashion and recognize a physician-individualized right, such as the right to save a patient’s life, courts would still not characterize this as a “primary” right.

right to participate in bone marrow donation and transplantation—both processes are legal and encouraged by both the medical community and the government. Thus, the plaintiffs must argue that a ban on compensation for the donation of bone marrow constitutes a substantial ban on their right to lifesaving medical treatment.²⁵³ The right to medical treatment could possibly be placed within the line of cases that recognize a fundamental right to privacy in medical decisions—a right that has been recognized, albeit in other contexts.²⁵⁴

Note that, “[t]he more abstractly one states the already-protected right, the more likely it becomes that the claimed right will fall within its protection.”²⁵⁵ The characterization of the right is particularly important in the bone marrow context when considering the differences between PBSC donation and traditional surgical donation. It is possible that a court could find that this liberty interest is confined to certain kinds of well-established and nonrisky therapies, such as PBSC donation.

The right to privacy in medical decisions arose from the common law right to bodily integrity.²⁵⁶ At least one court has cautiously recognized that “[e]very human being of adult years and sound mind has a right to

253. This argument has been recognized as legitimate by scholars who advocate the right to medical self-defense. See *infra* text accompanying notes 269–274. Eugene Volokh argues that any ban on compensating organ donors constitutes a substantial burden since it prevents donors from donating organs to patients, and thus prevents patients from receiving this lifesaving treatment. Volokh, *supra* note 138, at 1836–37.

254. See *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 846 (1992); *Cruzan v. Director, Mo. Dep’t of Health*, 497 U.S. 261, 278 (1990); *Roe*, 410 U.S. at 113. Note that the Supreme Court has concluded that medical treatment decisions implicate the Fourteenth Amendment liberty interest rather than a privacy right. See *Cruzan*, 497 U.S. at 279 n.7. The right could also be characterized differently, which could determine the outcome of the case. See *supra* note 13.

255. Laurence H. Tribe & Michael C. Dorf, *Levels of Generality in the Definition of Rights*, 57 U. CHI. L. REV. 1057, 1058 (1990).

256. The right to bodily integrity is a fundamental right that reaches back to English law. See WILLIAM BLACKSTONE, COMMENTARIES ABRIDGED 27, 29 (William C. Sprague ed., 9th ed. 1915) (“The right of personal security consists in a person’s legal and uninterrupted enjoyment of his life, his limbs, his body, his health, [] his reputation .”). See also *Washington v. Harper*, 494 U.S. 210, 237 (1990) (Stevens, J., concurring in part and dissenting in part) (“[There are] several dimensions of [] liberty. They are both physical and intellectual. Every violation of a person’s bodily integrity is an invasion of his or her liberty.”); *Cruzan*, 497 U.S. at 287 (O’Connor, J., concurring) (finding that “our notions of liberty are inextricably entwined with our idea of physical freedom and self-determination”). This concept has also been addressed in a nonmedical context of treating and restraining mentally incompetent patients. See *Harper*, 494 U.S. at 221–22 (“We have no doubt that . . . respondent possesses a significant liberty interest in avoiding the unwanted administration of antipsychotic drugs under the Due Process Clause of the Fourteenth Amendment.”); *Youngberg v. Romeo*, 457 U.S. 307, 315–16 (1982) (recognizing a protected liberty interest in “freedom from unreasonable bodily restraints”).

determine what shall be done with his own body.”²⁵⁷ Although bodily integrity is usually about protection against intrusion, rather than foregone opportunities to protect one’s body over time, the concept has been extended to a fundamental privacy right in several different contexts.²⁵⁸

Federal case law is against recognizing a patient’s right to medical privacy for nonapproved treatments. In *Abigail Alliance for Better Access to Developmental Drugs v. von Eschenbach*, the District of Columbia Circuit held that there was no constitutional privacy right for terminally ill cancer patients to be prescribed a drug, Laetrile, that had not been approved by the FDA.²⁵⁹ Bone marrow compensation could be distinguished on the ground that the Court was opposed to a right to treatment that was not proven to be safe or effective whereas a bone marrow transplant is.²⁶⁰

The Court has also recognized a protected liberty interest in refusing unwanted medical treatment.²⁶¹ In *Cruzan v. Director*, the Court based its decision on a long line of cases recognizing the right to bodily integrity and “the right of every individual to the possession and control of his own person, free from all restraint or interference of others.”²⁶² Similarly, in *Washington v. Harper*, the Court found that mentally ill state prisoners possess a liberty interest in refusing treatment of antipsychotic drugs.²⁶³ Thus, the Court has certainly found a right to refuse treatment in certain instances.

Furthermore, the Court has emphasized its support of “the protection and preservation of all human life” and lifesaving treatment.²⁶⁴ In

257. *Schloendorff v. Soc’y of N.Y. Hosp.*, 105 N.E. 92, 93 (N.Y. 1914).

258. *Roe v. Wade* is a seminal case in which the Court addressed this right of privacy in medical decisions. Still, although Justice Blackman, writing for the majority, acknowledged that there was a limited right of a woman to choose what to do with her body in making a decision whether or not to have an abortion, he also made it clear that there is not “an unlimited right to do with one’s body as one pleases.” *Roe*, 410 U.S. at 153–54. Note that this medical privacy right was upheld in *Casey*, 505 U.S. at 850–61, 869.

259. *Abigail Alliance for Better Access to Developmental Drugs v. von Eschenbach*, 495 F.3d 695, 709–10 (D.C. Cir. 2007). *See also* *People v. Privitera*, 591 P.2d 919, 921–22 (Cal.), *cert. denied*, 444 U.S. 949 (1979) (holding that there is also no federal constitutional right for non-terminally ill cancer patients to be prescribed Laetrile). Note that the California Supreme Court also found that no such right existed under the California Constitution. *Id.* at 926.

260. The plaintiffs in *Flynn* were cautious in formulating the right: “The right to participate in safe, *non-experimental*, lifesaving medical treatment.” *Flynn* Complaint, *supra* note 2, at 49 (emphasis added).

261. *Cruzan*, 497 U.S. at 278.

262. *Id.* at 269 (quoting *Union Pac. R.R. Co. v. Bostford*, 141 U.S. 250, 251 (1891)).

263. *Washington v. Harper*, 494 U.S. 210, 221 (1990).

264. *Washington v. Glucksberg*, 521 U.S. 702, 710 (1997) (supporting the States’ assisted suicide bans as “longstanding expressions of the States’ commitment to the protection and preservation of all

Washington v. Glucksberg, the Court upheld a law that forbade physician-assisted suicide for the terminally ill.²⁶⁵ Although this decision limited the right to medical privacy, it may be possible to distinguish this case from bone marrow donation because the latter concerns a liberty interest that protects and preserves human life. The right articulated by the plaintiffs in *Flynn* certainly implicates a special constitutional protection for an individual's interest in seeking to prolong and preserve his life.

The values implicated in the formation of specific privacy rights by the Court may support the extension of the right to privacy in medical decisions to "the right to participate in safe, non-experimental, lifesaving medical treatment." First, the fundamental right to access medical treatment may be deeply rooted in our Nation's history.²⁶⁶ Other values emphasized by the Court—bodily integrity and preservation of life—may also persuade courts to allow individuals the "personal control of medical treatment."²⁶⁷ Moreover, the Court has acknowledged our "emerging awareness" of our understanding of liberty.²⁶⁸ Under these notions, the Court may extend the right to privacy in medical decisions to a right to lifesaving, medical treatment.

Alternatively, the Court could consider Eugene Volokh's proposal of "medical self-defense" and find that self-defense is a longstanding tradition in the United States that should apply to people's access to medical treatment.²⁶⁹ The concept of medical self-defense is rooted in the right to lethal self-defense—the right to protect one's life by killing an attacker. Volokh argues that if people can protect their lives by using violence, then they should also be free to protect their lives through the use of lifesaving medical procedures.²⁷⁰

This right to medical self-defense has been recognized by courts in some contexts but not in others. For example, the Court currently

human life").

265. *Id.* at 728. Note, however, that the Court did leave the option open for access to pain relief even if it accelerated death. *Id.* at 735 n.24.

266. There is good reason why this right—if it exists—has not been exactly reflected in the traditional understanding because it is only recently that biomedical technology has presented us with these options.

267. *Glucksberg*, 521 U.S. at 763 (Souter, J., concurring).

268. *Lawrence v. Texas*, 539 U.S. 558, 572 (2003).

269. See generally Volokh, *supra* note 138, at 1838–43 (arguing for a right of medical self-defense). Characterizing the right as a right to "medical self-defense" is a much broader characterization than that which the plaintiffs chose in *Flynn* and would carry with it many more implications. See *supra* note 253 and accompanying text.

270. Volokh, *supra* note 138, at 1818.

recognizes the right to an abortion if necessary “to preserve the life or health of the mother.”²⁷¹ Courts, however, have rejected this right in cases involving the right of terminally ill cancer patients to take non-FDA approved drugs.²⁷² Yet, while rejecting patients’ access to non-FDA approved drugs, courts have acknowledged that the right to medical self-defense might be properly invoked in other cases.²⁷³ Ultimately, the Court could use medical self-defense as a tool for determining whether there is a fundamental right to “safe, non-experimental, lifesaving medical treatment”—although it is unlikely that this Court would deem this right to medical self-defense to be fundamental.²⁷⁴

The Court also has a “meta-tradition” of considering new social and technological developments that could not have been previously considered by the framers or by previous courts.²⁷⁵ Traditions can change, leading to the apparent inconsistency that what is constitutional at one time may not be constitutional at another time.²⁷⁶ In *Lawrence v. Texas*, the Court essentially reformatted the *Glucksberg* test by limiting the historical inquiry to the half century preceding the case, examining an “emerging

271. *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 846 (1992); *Roe v. Wade*, 410 U.S. 113, 163–164 (1973).

272. *United States v. Rutherford*, 442 U.S. 544, 552–53 (1979); *Abigail Alliance for Better Access to Developmental Drugs v. von Eschenbach*, 495 F.3d 695, 709–10 (D.C. Cir. 2007).

273. *Abigail Alliance*, 495 F.3d at 710 (specifically distinguishing the right to use Laetrile from other situations in which the right to medical self-defense might be appropriate because Laetrile was only potentially lifesaving and involved large risks and was thus not using “reasonable force”). Because the court emphasized that Laetrile was not proven to be lifesaving, it may remain open to the possibility of the application of medical self-defense in regard to drugs or treatment that are proven to be lifesaving, such as a bone marrow transplant.

274. Although the analogies that Volokh asserts are apt, they may be less compelling for the Court, as some scholars have argued. See Roy G. Spece, Jr., *A Fundamental Constitutional Right of the Monied to “Buy Out of” Universal Health Care Program Restrictions Versus the Moral Claim of Everyone Else to Decent Health Care: An Unremitting Paradox of Health Care Reform?* 3 J. HEALTH & BIOMEDICAL L. 1, 75 (2007).

275. *Lawrence v. Texas*, 539 U.S. 558, 559 (2003) (considering social developments only within the past fifty years); *Roe*, 410 U.S. at 149 (1973) (considering the advances in medical technology that made abortions safer for the mother). Under the Eighth Amendment, courts take into account evolving traditions; in evaluating what constitutes cruel and unusual punishment, courts look to “the progress of a maturing society.” *Trop v. Dulles*, 356 U.S. 86, 101 (1958). The Court has similarly limited its tradition inquiry in evaluating executions of the mentally ill and minors. *Roper v. Simmons*, 543 U.S. 551, 564–65 (2005); *Atkins v. Virginia*, 536 U.S. 304, 313–16 (2002). In both of these cases, the Court limited its inquiry to the thirteen and sixteen-year periods since the last relevant case, finding in both that the “national consensus ha[d] developed against” execution of the mentally ill and minors. *Roper*, 543 U.S. at 563; *Atkins*, 536 U.S. at 316.

276. This volatility in social and technological change does not necessarily mean that there is not an inquiry into “tradition.” It merely alters the inquiry and in some cases, limits it.

awareness.”²⁷⁷

In the medical field, technological changes have expanded and created lifesaving possibilities that were unheard of in the past. For example, courts have previously considered developing medical technologies that make procedures less harmful.²⁷⁸ In *Roe*, the Court was swayed by the fact that, although a previous justification for abortion bans was the dangerous procedure, “[m]odern medical techniques have altered this situation.”²⁷⁹

Here, the Court would have to reconstruct the notion of “tradition,” or at least recognize its inherent complexities, to include new technologies that did not exist before.²⁸⁰ It is possible that the development of PBSC donation—a process that is less invasive and does not involve the risks of anesthesia that are associated with surgical bone marrow donation—would create a particular need for review.²⁸¹

2. Is the Constitutional Right Infringed?

If the Court were to find that NOTA implicates a fundamental right to medical treatment, the statute would be subject to strict scrutiny. In recognizing this right, the government cannot substantially burden the right. Total bans on purchasing something necessary to exercise a right is a substantial burden.²⁸² Thus, it would have to be shown that a proscription

277. *Lawrence*, 539 U.S. at 571–72 (“In all events we think that our laws and traditions in the past half century are of most relevance here.”). Note also that traditions can exist at different levels of generality. See *Tribe & Dorff*, *supra* note 255, at 1088. In *Michael H. v. Gerald D.*, Justice Scalia advocated using “the most specific level” of a tradition. *Michael H. v. Gerald D.*, 491 U.S. 110, 127 n.6 (1989). The concern was that inquiring into more generalized traditions “provide[s] such imprecise guidance, they permit judges to dictate rather than discern society’s views.” *Id.*

278. See *Roe*, 410 U.S. at 148–50.

279. *Id.* at 149.

280. Of course, there is a slippery slope argument here as well—the concern that if the Court casually continues to consider new technological developments in forming new fundamental rights, it will make it infinitely easier to create new liberty interests. Specifically, if the ban on bone marrow compensation were lifted because of the developing technology of PBSC, it is possible that, with evolving transplant technologies for solid organs, the ban on solid organ compensation could also be lifted. Several Justices adhere strongly to the view that without a deeply rooted tradition of recognizing a liberty interest, it cannot be established, which could make this development more difficult. See *Montana v. Egelhoff*, 518 U.S. 37, 43–51 (1996); *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 980–81 (1992) (Scalia, J., concurring in part and dissenting in part) (“[I] believe[] that the text of the Constitution, and our traditions, say what they say and there is no fiddling with them.”).

281. See *supra* Part II.B (discussing the technological development of PBSC donation). Because Congress was not able to take PBSC donation into account when developing NOTA, the changing technology creates the possibility that the law has not been able to keep up with the developing technology and social conceptions. Also note, however, that it is unclear that PBSC donation is definitively less risky than traditional surgical donation. See *supra* text accompanying notes 55–57.

282. See *Volokh*, *supra* note 138, at 1836–37. Moreover, a complete ban is a total burden if the

on compensation for bone marrow was not the least restrictive alternative.²⁸³ Certainly a complete ban is more burdensome than a heavily regulated market.²⁸⁴ Thus, a regulatory scheme may be a less restrictive means,²⁸⁵ a regulatory scheme may be subject only to an “undue burden” standard and likely upheld.²⁸⁶ This would mean that NOTA would be overbroad, implicating a liberty interest, and thus unconstitutional.

VII. CONCLUSION

Currently, the altruistic system for bone marrow supply falls far short of demand, a shortage which is arguably due to restrictions imposed by NOTA and state laws. The present legal bans on bone marrow compensation impose an impossible burden on those suffering from many different terminal diseases. *Flynn v. Holder* challenges the laws that proscribe compensation for bone marrow donation; however, it also challenges our ethical and moral sensibilities concerning compensation for the donation of bone marrow and organs in general. Although there are ethical implications to allowing a market in bone marrow, there are also enormous ethical consequences to proscribing one. In evaluating whether bone marrow donation should be compensated, it is necessary to connect the legal issues with the ethical implications.

Scholars opposing or supporting compensation for organ donation, whether from a live or cadaveric donor, rarely consider the distinctions between solid organs and bone marrow. Because of bone marrow’s regenerative qualities, as well as the development of the less invasive PBSC donation, we are offered a renewed perspective on the legal ramifications of bone marrow donation.

Although there is a concern for the volatile slippery slope towards a

purchased item or service is strictly necessary.

283. *Id.* at 1827 (“Modest burdens on the right to medical self-defense, such as an informed consent requirement or a short waiting period, would be constitutional. But to impose a substantial burden on the patient’s right to protect her life through medical procedures, the government should have to show that it has an extremely powerful reason for burdening the right and that the burden is genuinely necessary because the government’s goals can’t be achieved in less burdensome ways.”). Certainly a ban on compensation for bone marrow donation is a substantial burden.

284. *See id.* at 1816–17.

285. *See supra* text accompanying notes 138–40 (discussing the possibility of a regulatory scheme rather than a complete ban).

286. It is important to compare total bans and minor regulatory schemes—a comparison seen in abortion litigation. In *Roe*, a total ban on abortion constituted a violation of a fundamental right and was thus subject to strict scrutiny. *Roe v. Wade*, 410 U.S. 113, 155–56 (1973). In *Casey*, however, regulations that were obstacles to an abortion were upheld under an “undue burden” standard. *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 875–78 (1992).

market for solid organs, the fundamental differences between solid organs and bone marrow urge for a change in the current law. Ultimately, we must examine the current regime in the United States in order to determine why a regulated system of compensation for bone marrow would be entirely adverse to our moral scheme. Perhaps a system of compensation could be synchronized with our ethical constructs. Furthermore, it is likely that the chief ethical concerns could be addressed with substantial regulation of a market for bone marrow.

The Supreme Court's general receptivity to unenumerated rights arguments offers hope for the plaintiffs in *Flynn*, along with thousands of people waiting for a bone marrow transplant, that perhaps the legal system will allow compensation for bone marrow donation. Still, although the policy issues may make this a compelling case, the constitutional challenges to NOTA are fundamentally weak. Ultimately, it is necessary for Congress to reevaluate the situation in order to take into account the increasing pressure from developing technologies and the unnecessary loss of life that has resulted from our current laws.