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Overcoming the Legal Obstacles to the Creation of a Futures Market in Bodily Organs

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I. INTRODUCTION

President Clinton has focused national attention on the problems facing the American health care system. This attention is long overdue; fundamental reforms are badly needed. It is not clear, however, that the Clinton Administration has its priorities completely in order. Much attention is being paid to questions concerning limits on fees for medical services, the availability and scope of health insurance coverage, and the allocation of responsibility for insurance costs. These matters are of great importance, and certainly merit sustained deliberation. In my opinion, however, there exists a narrower problem which, because of its great urgency and the relative ease with which it can be addressed, should be given priority over these larger but more complex and intractable concerns.

We have in this country what can only be described as a scandalously ineffective legal and institutional framework governing the transplantation of human bodily organs. Thousands of Americans die every year for want of a kidney, a heart, a liver, or a pancreas, while the organs that could prolong their lives are fed to worms.[1] It does not have to be this way. Armed with modern

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medical technology, with its sophisticated surgical equipment, procedures, and arsenal of highly effective immuno-suppressant drugs, our doctors are capable of carrying out the needed organ harvesting and transplantation surgeries at a substantial but acceptable cost[2] and with excellent survival rates.[3] Just as

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some very useful research sources, and with helpful comments on an earlier draft of this Article. I would like to also thank Tom Mayo for his extensive and insightful comments on an earlier draft of this Article and Julie Lawson for her excellent research assistance.

[1] I am indebted to Lloyd Cohen for this gruesome but accurate metaphor. Many commentators who have contributed to the recent legal and medical literature in this area have noted that there is a severe and growing shortage of transplantable organs, and that there exists an adequate but unutilized supply of such organs in the cadavers of those persons who die of accidental causes and whose organs are suitable for transplantation but are not made available to potential recipients. *See generally* James Childress, *Ethical Criteria for Procuring and Distributing Organs for Transplantation*, 14 J. HEALTH POL. POL'Y & LAW 87 (1989); Lloyd Cohen, *Increasing the Supply of Transplant Organs: The Virtues of a Futures Market* 58 GEO. WASH. L. REV. 1 (1989); Henry Hansmann, *The Economics and Ethics of Markets for Human Organs*, 14 J. HEALTH POL. POL'Y & LAW 57 (1989); Howard Schwartz, *Bioethical and Legal Considerations in Increasing the Supply of Transplantable Organs: From UAGA to 'Baby Fae,'* 10 AM. J.L. & MED. 397 (1985); Richard Schwindt & Aidan R. Vining, *Proposal for a Future Delivery Market for Transplant Organs*, 11 J. HEALTH POL. POL'Y & LAW 483 (1986); Michelle Bourianoff Bray, Note, *Personalizing Personalty: Toward a Property Right in Human Bodies*, 69 TEX. L. REV. 209 (1990); *Developments in the Law—Medical Technology and the Law*, 103 HARV. L. REV. 1519 (1990); Note, *Regulating the Sale of Human Organs*, 71 VA. L. REV. 1015 (1985).

While there is general agreement that potential recipients are dying while utilizable organs are being wasted, the commentators disagree sharply on whether allowing the commercial sale of organs would be an effective and acceptable means of dealing with the problem. Writers who generally support relaxation of the prohibitions against commercial transactions in organs include, among others, Cohen, *supra*; Hansmann, *supra*; Charles K. Hawley, Note, *Antitrust Problems and Solutions to Meet the Demand for Transplantable Organs*, 1991 U. ILL. L. REV. 1101 (1991); Schwartz, *supra*; Schwindt & Vining, *supra*; *Developments in the Law—Medical Technology and the Law*, *supra*; Note, *Regulating the Sale of Human Organs*, *supra*; Note, *The Sale of Human Body Parts*, 72 MICH. L. REV. 1182 (1974) [hereinafter *The Sale of Body Parts*]. Writers who favor retention of these prohibitions include, among others, RUSSELL SCOTT, THE BODY AS PROPERTY (1981); Childress, *supra*; Bray, *supra*; Note, *Source Compensation for Tissues and Cells Used in Biotechnical Research: Why a Source Shouldn't Share in the Profits*, 64 NOTRE DAME L. REV. 628 (1989).

[2] A heart transplant operation was estimated in 1986 to cost between $60,000 and $110,000, and a liver transplant between $70,000 and $240,000. TASK FORCE ON ORGAN TRANSPLANTATION, U.S. DEP'T OF HEALTH & HUMAN SERV., ORGAN TRANSPLANTATION: ISSUES AND RECOMMENDATIONS 99 (1986) [hereinafter TASK FORCE]. A pancreas transplant was estimated in 1987 to cost between $30,000 and $50,000. M.H. Cooper, *Survey of*

importantly, the necessary organs are physically available *from cadavers alone* in sufficient quantities to meet existing and projected needs.[4]

This unfortunate situation is not a tragedy, strictly speaking, because there is nothing inevitable about it. These many deaths from organ failure are no longer the result of an inexorable fate that we must accept, but occur in the modern world only as the unintended consequence of a flawed legal regime that can be changed. The existing state and federal laws that govern the transplantation of organs prohibit the commercial sale of organs by donors to recipients or brokering intermediaries.[5] We have institutionalized a transplantation system that relies totally upon donor altruism for its supply of organs. Not surprisingly, the number of organs supplied falls well short of meeting the needs, and many potential transplant recipients who could live productive and satisfying lives instead linger painfully and fruitlessly on long

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Development, Current Status, and Future Prospects for Organ Transplantation, in HUMAN ORGAN TRANSPLANTATION 18, 22 (1987). The total one-year costs associated with transplant operations were estimated by another observer to be between $170,000 and $200,000 for heart transplants and $230,000 and $340,000 for liver transplants. George J. Annas, *Regulating Heart and Liver Transplantation*, 25 JURIMETRICS J. 249, 250–51 (1985). These costs are difficult or impossible to estimate with any precision because most transplant facilities are parts of larger hospital complexes rather than independent facilities, and the arbitrary nature of the allocations of fixed costs across different areas of operation render total cost estimates rather meaningless. Cohen, *supra* note 1, at 35 n.104.

The arguments I offer in this Article are premised upon my belief that the social benefits of saving lives through organ transplant surgeries justify incurring social costs of these magnitudes, and that therefore measures that would expand the availability of organs for transplant, other things being equal, should be pursued. There are, however, commentators who have taken the position that society currently allocates excessive resources to heroic medical interventions such as organ transplants, and for that reason alone might oppose reforms that would enhance organ availability. *See, e.g.*, RENEE FOX & JUDITH SWAZEY, SPARE PARTS 208 (1992): "We do believe, however, that all the professional and public consideration given to transplants . . . and the social value commitments that organ replacement epitomizes are helping to divert attention and human and financial resources away from more basic and widespread public and individual health care needs in our society." *Id.*

Such commentators might support the existing organ sale restrictions primarily on the basis of the "natural gatekeeper" function those restrictions serve, obviating the need for society to make these extraordinarily difficult resource allocation decisions in an explicit manner. *See infra* notes 123–25 and accompanying text.

[3] The one-year transplant survival rates had by 1985 reached the following levels for various categories of transplants: kidneys 92–95%; hearts 75–85%; livers 60–70%; pancreases 75–80%; and heart-lung combinations 50%. TASK FORCE, *supra* note 2, at 17.

[4] *See infra* text accompanying notes 37–41.

[5] *See infra* text accompanying notes 42–87.

waiting lists[6] and then die of organ failure.[7]

Wise legislators design laws to govern people as they are, not as we would wish them to be. If history teaches us anything it is that we cannot rely solely upon the altruistic feelings of producers to provide society with the needed goods and services. We must also harness the powerful motivation of economic self-interest to ensure that those dangerous, difficult or unpleasant tasks that need to be done are done.[8] While most people sincerely profess to draw some intrinsic satisfaction from their work, relatively few would continue to labor with the same dedication and intensity they now exhibit were they not financially compensated for their efforts.

So it is with organ donations. While most persons are generally inclined to help their fellow man when the opportunity arises, they are also inclined to avoid confronting the unpleasant fact of their own mortality. There is a powerful psychological resistance to turning to look at the angel of death always perched on one's shoulder; something one cannot really avoid when seriously contemplating the possibility of posthumously donating one's organs.[9] Our unfortunate experience with a donation-based system of organ supply suggests rather strongly that for most persons the anxiety created by contemplation of their mortality overcomes their altruistic fellow feeling and saps them of the resolve to serve as organ donors. Moreover, the next of kin of a recently deceased person with harvestable bodily organs—usually a victim of

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[6] The National Kidney Foundation estimated in 1989 that 21,000 people in the U.S. were on organ transplant waiting lists. National Kidney Foundation, KIDNEY '89, Mar.–Apr. 1989, at 5. Another group estimated in 1989 that 16,363 persons were awaiting a kidney, 1,324 persons a heart, 830 persons a liver, 322 persons a pancreas, 240 persons a heart-lung combination, and 94 persons a lung. UNITED NETWORK FOR ORGAN SHARING, TRANSPLANT STATISTICS (1989).

[7] Each year an estimated 15,000 people who might benefit from a heart replacement operation die. Roger W. Evans & J. Yagi, *Social and Medical Considerations Affecting Selection of Transplant Recipients*, *in* HUMAN ORGAN REPLACEMENT 27–28 (1987).

[8] I can do no better than to quote from the master here:

> It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.

ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 14 (Modern Library ed. 1937).

[9] Cohen, *supra* note 1, at 10–15 (arguing that organ donation requires an individual to confront his mortality "in the particularly vexing form of an invitation to assent to his own dismemberment").

a sudden death caused by traumatic brain injury or cerebral hemorrhage—are still in a state of shock and grief at the time when the organ donation decision must be made. Such an emotional state is not conducive to consenting to uncompensated dismemberment of the recently sentient corpse, and most medical personnel are understandably highly reluctant to even broach the subject. Enough organs will be voluntarily supplied to meet the substantial and rapidly expanding transplantation needs only if and when we allow potential organ recipients or their agents to augment the noble altruistic feelings of potential donors or their bereaved kin with the promise of more tangible compensation.

There are a number of arguments that have been offered in opposition to the creation of a commercial market in bodily organs.[10] Some of these arguments are specious, but others have some merit and are grounded in fundamental and widely shared beliefs concerning the dignity of individuals and the importance to personhood of bodily integrity.[11] It has been rather convincingly argued, however, that it is not necessary to impose a blanket prohibition banning all commercial organ transactions—thereby creating a severe organ shortage and effectively sentencing thousands of persons a year to needless suffering and death—to adequately address these concerns.[12] The critical needs of persons who require organ transplants to survive and the concerns of defenders of principles of personhood and individual dignity can *both* be met through the imposition of a regulatory structure that allows the commercial sale of organs to take place, but only within the confines of a "futures" market.[13]

A futures market in bodily organs would in all likelihood dramatically increase their availability for transplantation, saving many lives. Such a market would be entirely contractual and consensual in its operation, fully respecting the rights of persons to dispose of their organs as they see fit. It would enable us to satisfy all transplant organ needs from cadavers alone rather than requiring the removal of paired organ (such as a kidney) from live donors. The increased availability of organs would probably relieve society altogether from the current burden of having to make (and disguise) the "tragic choices" as to which persons will be denied organs and left to die.[14] Moreover, such a market

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[10] For elaboration of the arguments offered for and against allowing the creation of a commercial market in bodily organs see *infra* notes 88–128 and accompanying text.

[11] *See infra* notes 88–128 and accompanying text.

[12] *See generally* Cohen, *supra* note 1; Hansmann, *supra* note 1; Schwindt & Vining, *supra* note 1.

[13] *See generally* Cohen, *supra* note 1; Hansmann, *supra* note 1; Schwindt & Vining, *supra* note 1.

[14] *See generally* GUIDO CALABRESI & PHILLIP BOBBITT, TRAGIC CHOICES (1978)

could be designed so that no one would be put into the position where he would be tempted to sell a bodily organ to meet a pressing financial exigency. A properly structured futures market would alleviate the dire organ shortage while avoiding the entire parade of horribles regularly invoked by opponents of commercialization.

The merits of the futures market approach are becoming more widely recognized. Even the medical community, which has historically expressed strong opposition to the introduction of financial incentives into the organ supply system,[15] is finally beginning to recognize that a futures market would likely increase organ availability while adequately addressing the concerns of those who hold reservations about commercialization. For example, the House of Delegates of the American Medical Association (AMA) recently adopted the recommendations of a report provided to it by the AMA Council on Ethical and Judicial Affairs[16] that strongly endorsed the futures market concept, and that called for the implementation of a pilot futures market program that would utilize financial incentives to encourage organ donation.[17] The advantages of a futures market over the current donation-based system of organ supply and over other alternatives such as a "presumed consent" system[18] or a cash market[19] are compelling from almost any reasonable point of view. What is not nearly so clear is how to get from here to there; how to change the laws that are now preventing the development of a futures market.

This Article will first review the basic features of the current shortage of transplantable organs,[20] and will outline the existing legal framework governing the transfer of those organs.[21] I will then present and discuss the arguments that have been offered for and against allowing the commercial transfer of bodily organs.[22] I will describe the series of increasingly sophisticated proposals that have been offered over the past decade for the creation of a regulated futures market in transplantable organs, and set forth my

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(discussing the difficulty society has in dealing candidly with triage decisions).

[15] *See infra* text accompanying notes 115–22.

[16] *Financial Incentives for Organ Procurement: Ethical Aspects of Future Contracts for Cadaveric Donors, Report 1-93-6* of the Council on Ethical and Judicial Affairs, American Medical Association (1993) (adopted by the AMA House of Delegates on December 7, 1993) [hereinafter *CEJA Report 1-93-6*].

[17] *Id.* at 8–9. This significant report is discussed more fully later in this Article. *See infra* text accompanying notes 320–23.

[18] *See infra* text accompanying notes 210–18.

[19] *See infra* text accompanying note 219.

[20] *See infra* text accompanying notes 27–41.

[21] *See infra* text accompanying notes 42–87.

[22] *See infra* text accompanying notes 88–128.

own proposal.[23] After closely scrutinizing this proposal, I will conclude that while the concept of a futures market for organs does present certain risks and shortcomings, a properly designed futures market would be so superior to the existing social arrangements, and to other possible alternatives, that immediate and decisive action to create such a market is necessary.[24]

In the final substantive Part of this Article, I will argue that the existing laws governing organ transplantation cannot be reasonably reinterpreted to allow a futures market to operate.[25] I will then propose a two-pronged strategy for bringing about the needed statutory changes.[26] This strategy combines constitutional challenges to the validity of the federal and state law restrictions on organ sales, with efforts to create a politically effective coalition to lobby for statutory reform at the federal and state levels and block efforts to reimpose new legislative restrictions should the constitutional challenges prove successful. It is my hope that this Article will contribute to moving this urgent question from the pages of the law reviews into the courts and legislatures, and will speed the day when neither you nor I need fear dying a slow and painful death of organ failure while suitable organs are being interred to moulder.

II. THE ORGAN SHORTAGE

Several factors have combined over the past few decades to give rise to a tremendous increase in the need for bodily organs that can be transplanted into recipients suffering from organ failure. First, and most importantly, there have been dramatic advances in the technology of organ transplantation. The refinement of surgical techniques, the invention of sophisticated surgical support and life-maintenance equipment such as respirators, ventilators, and dialysis machines, and the development of highly effective immuno-suppressant drugs have combined to make organ transplantation a common and almost routine procedure with a high survival rate.[27] At least twenty-five different bodily tissues and fluids have been transplanted in human beings, including key

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[23] *See infra* text accompanying notes 129–67.

[24] *See infra* text accompanying notes 168–218.

[25] *See infra* text accompanying notes 219–37.

[26] *See infra* text accompanying notes 238–324.

[27] Cohen, *supra* note 1, at 3. In 1986 alone there were 8,960 kidneys, 1,368 hearts, 924 livers, and 45 heart-lung combinations transplanted in the United States. Robert Pear, *U.S. Will Require Hospitals to Identify Potential Organ Donors*, N.Y. TIMES, Sept. 6, 1987, § 1, at 26. The one-year transplant patient survival rates had by 1985 reached the following levels for various categories of transplants: kidneys 92–95%; hearts 75–85%; livers 60–70%; pancreases 75–80%; and heart-lung combinations 50%. TASK FORCE, *supra* note 2, at 17.

internal organs such as kidneys, hearts, livers, and pancreases.[28] Second, a variety of nutritional and medical factors have interacted to increase average lifespans, and older persons obviously face higher probabilities of organ failure.[29] Third, it has proven to be difficult to develop adequate artificial organs that could substitute for transplanted human organs.[30]

The supply of transplantable organs has unfortunately not kept up with the tremendous growth in demand.[31] Many people are on long waiting lists for organs,[32] and the unfulfilled demand represented by those lists probably significantly understates the number of persons who would benefit from an organ transplant.[33] It has been estimated that at the current level of medical knowledge and technique there is a backlog of approximately 15,000 persons who would benefit from a heart transplant, 22,500 persons from a kidney transplant, 5,000 persons from a liver transplant, and 5,000 persons from a pancreas transplant.[34] Because only a few thousand cadavers suitable for organ harvesting are donated annually,[35] many of these persons will die because of the lack of timely availability of suitable organs.[36]

While live donors can supply certain body tissues, such as a single kidney, the tail of the pancreas, and regenerative fluids such as blood and bone marrow, the basic sources of transplantable organs are the cadavers of people who have died in a manner that did not damage their transplantable organs and that allows rapid medical access to those organs after death. The ideal donor pool consists of the cadavers of those persons who die in hospital settings due to accidental injuries. This pool is large enough to meet the existing and

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[28] Cohen, *supra* note 1, at 3.

[29] Schwindt & Vining, *supra* note 1, at 484.

[30] *Id.*

[31] Hansmann, *supra* note 1, at 57.

[32] Cohen, *supra* note 1, at 4. Between December 1987 and June 1991 the total number of patients on organ transplant waiting lists increased 75.3% from 13,153 to 23,056 patients. *Strategies for Cadaveric Organ Procurement: Mandated Choice, Presumed Consent, and Financial Incentives, Report 1-93-2* of the Council on Ethical and Judicial Affairs, American Medical Association 1 (1993) [hereinafter *CEJA Report 1-93-2*].

[33] Cohen, *supra* note 1, at 4.

[34] Cohen, *supra* note 1, at 4–5.

[35] In 1984, for example, less than 3,300 cadavers were donated. TASK FORCE, *supra* note 2, at 36. Between 1987 and 1990 the number of organ donors stayed nearly constant, increasing only from 4,000 to 4,357 donors. *CEJA Report 1-93-2*, *supra* note 32, at 1.

[36] It was estimated by the United Network for Organ Sharing in September 1991 that at least 8.7% of patients needing a liver transplant die before an organ becomes available; other estimates place this figure closer to 30%. *CEJA Report 1-93-2*, *supra* note 32, at 1. Over one three-month period in 1991, nearly 500 transplant candidates died waiting for organs. *Id.*

projected near-term needs for transplant organs. Each year, for example, approximately 60,000 persons die in automobile accidents alone.[37] The Center for Disease Control estimates that 12,000 to 27,000 of these auto accident victims die in a hospital.[38] Those victims alone would provide on the order of 24,000 or more kidneys and 12,000 or more of each of the unpaired organs annually for transplant purposes; quantities more than sufficient to the meet the annual growth in the potential recipient population, quickly clear the existing organ waiting lists, and provide organs for those persons not now on formal waiting lists but who could benefit from an organ transplant.[39] When one considers also that a number of persons die in hospital settings as a result of nonautomobile accidents or for other causes that leave their transplantable organs viable, it is clear that the supply of cadavers is sufficient to meet the current demand for organs.[40] One commonly quoted estimate of the number of cadavers usable each year in the U.S. for obtaining transplant organs is 20,000.[41] Anything even approaching full utilization of these cadavers could eliminate the backlog of needed transplant operations within one to two years, saving many thousands of lives.

The current severe organ shortage therefore does not reflect the physical unavailability of sufficient transplantable organs. The shortage is instead the result of a poorly designed legal and institutional framework governing organ donations that does not adequately utilize the available cadavers. Let me turn to a brief discussion of those legal and institutional arrangements.

III. THE LAW GOVERNING THE TRANSPLANTATION OF ORGANS

A. *U.S. Law Prior to 1968*

Prior to the Second World War organ transplantations in the U.S. were governed in all states by common law principles. The common law generally did not recognize property rights in cadavers beyond the limited rights

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[37] Cohen, *supra* note 1, at 5.

[38] *Id.*

[39] *Id.*

[40] *See* S. REP. NO. 382, 98th Cong., 2d Sess. 2 (1984), *reprinted in* 1984 U.S.C.C.A.N. 3975, 3976 (stating that "up to 20,000 people die annually under circumstances that would make them suitable organ donors").

[41] C.O. Callender, *Legal and Ethical Issues Surrounding Transplantation: The Transplant Team Perspective, in* HUMAN ORGAN TRANSPLANTATION 46 (1987). The Task Force on Organ Transplantation has estimated that between 17,000 and 26,000 potential cadaveric organ donors become available annually. TASK FORCE, *supra* note 2, at 35.

accorded the decedent's next of kin to arrange for disposal of the corpse,[42] and was not well-designed to facilitate efficient use of cadaver organs for medical purposes. There were no recognized procedures by which a cadaver could be irrevocably donated for medical use. Organ donation clauses contained in wills were not regarded as final testamentary dispositions of property and could, in some circumstances, be challenged by the spouse or close relatives of the decedent.[43] The decedent's next of kin were also hindered by legal uncertainty concerning the nature and scope of their rights to dispose of the bodily organs.[44]

This legal regime may have been relatively adequate to meet medical needs during the long era when the demand for cadavers and cadaver organs was limited to the modest requirements of medical education and research.[45] After the Second World War, however, there was an increasing need for human tissues and organs for medical research, education and therapeutic extract purposes and, eventually, for transplantation.[46] This increasing need for organs, coupled with some signs of public willingness to donate organs, led

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[42] SCOTT, *supra* note 1, at 186–87; Stephen A. Montinger, Comment, *Spleen for Sale:* Moore v. Regents of the University of California *and the Right to Sell Parts of Your Body*, 51 OHIO ST. L. J. 499, 502 n.35 (1990).

[43] At common law the right of a decedent to determine the disposition of his remains was regarded as a personal right rather than a property right. The disposition was therefore not regarded as part of the probate estate, and the decedent's wishes were not accorded the legal weight normally accorded to testamentary dispositions. The decedent's wishes would normally be honored in court, but could be defeated by strong objections from close relatives or the surviving spouse. *See The Sale of Body Parts*, *supra* note 1, at 1184–85, 1247.

[44] *The Sale of Body Parts*, *supra* note 1, at 1185. For further discussion of the common law of cadaver dispositions and the rights of the next of kin, see generally B. Joan Krauskopf, Comment, *The Law of Dead Bodies—Impeding Medical Progress*, 19 OHIO ST. L. J. 455 (1958); Jack H. Olender, Note, *Donation of Dead Bodies and Parts Thereof for Medical Use*, 21 U. PITT. L. REV. 523 (1960); W.T. Windsor, Jr., Note, *The Law of Testamentary Disposition—A Legal Barrier to Medical Advance!*, 30 TEMPLE L.Q. 40 (1956).

[45] But see SCOTT, *supra* note 1, at 4–12, in which he discusses in entertaining fashion how the lack of property rights in cadavers in Britain in the early 19th century gave rise to the profession of the "body snatcher" to satisfy the needs of medical schools, and ultimately led to a multiple-murder scandal which inspired passage of the Anatomy Act of 1832. That legislation allowed for the donation of cadavers for anatomical examination. *Id.*

[46] In 1954 doctors performed the first successful kidney transplant. *Notes on Science*, N.Y. TIMES, Mar. 7, 1954, § 4, at 9. In 1967 Dr. Christian Barnard made history by performing the first human heart transplant. *Heart Transplant Keeps Man Alive in South Africa*, N.Y. TIMES, Dec. 4, 1967, § 1, at 1; *see also* Nancy Stadtman, *The First Transplants*, NEWSWEEK, Aug. 29, 1983, at 42–43.

many state legislatures to enact organ donation statutes.[47] California led the way in 1947,[48] and many other states followed suit during the 1950s and early 1960s.[49] By 1968 the large majority of the states had promulgated anatomical donation legislation which accorded persons or their surviving kin the right to donate organs for transplantation or other medical purposes.[50] In addition, a few states permitted limited commerce in human organs,[51] although no such transactions appear to have taken place.[52]

While these anatomical donation statutes were certainly a major advance over the common law in terms of establishing and clearly demarcating certain property rights in bodily organs, and thus facilitating their donation and transplantation, they suffered from major deficiencies. They were often inadequately drafted,[53] and the inevitable state-to-state variations in scope and coverage[54] created uncertainty regarding the status of gift authorizations executed in other states.[55] The growing shortage of transplantable organs that resulted during the 1960s, when great advances were made in transplantation technology, focused attention on the shortcomings of this statutory mosaic and gave impetus to efforts to draft a uniform statute that would increase the availability of organs. In 1965 the National Conference of Commissioners on Uniform State Laws appointed a subcommittee to draft a model act that would encourage the donation and use of cadaver organs.[56] Both the National Conference of Commissioners and the American Bar Association endorsed the resulting Uniform Anatomical Gift Act (UAGA)[57] in 1968.[58] This uniform

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[47] *The Sale of Body Parts*, *supra* note 1, at 1185.

[48] Cohen, *supra* note 1, at 6.

[49] *The Sale of Body Parts*, *supra* note 1, at 1185.

[50] *Id.* In addition, during the 1960s a few states adopted statutes explicitly prohibiting the sale of human bodies and bodily organs. Those states repealed those statutes when they adopted the Uniform Anatomical Gift Act after 1968. *See, e.g.*, Law of Aug. 1, 1968, ch. 429, § 7, 56 Del. Laws 1773, 1773 (1967) (repealed 1970); Law of Apr. 22, 1964, ch. 702, § 1, 1964 N.Y. Laws 1827, 1828 (repealed 1971); Act of June 12, 1967, ch. 353, 1967 Mass. Acts 202, 202 (repealed 1971).

[51] For a short time period between the late 1960s and about 1973, Delaware, Hawaii, Nevada, New York, and Oklahoma did permit contingent sales of organs by decedents, as well as sales by the next of kin. Cohen, *supra* note 1, at 7. These statutes were repealed by these states when they adopted the UAGA. *Id.*

[52] Cohen, *supra* note 1, at 7.

[53] *The Sale of Body Parts*, *supra* note 1, at 1185 n.26.

[54] *Id.* at 1185 n.27.

[55] *Id.* at 1185–86.

[56] *Id.* at 1186.

[57] UNIF. ANATOMICAL GIFT ACT, 8A U.L.A. 15 (1983).

[58] Alfred M. Sadler et al., *The Uniform Anatomical Gift Act: A Model for Reform*, 206

statute was a great success—at least in terms of its enthusiastic legislative acceptance, if not in achieving its ultimate objective of alleviating the organ shortage—with almost half the states adopting it in some form within fourteen months of its promulgation.[59] By 1973, all states and the District of Columbia had adopted the main provisions of the UAGA.[60] The relevant provisions of the UAGA will be briefly discussed below.

B. *The 1968 Version of the UAGA*

The original 1968 version of the UAGA explicitly gives individuals the right to designate whether their bodily organs are to be donated for transplantation upon their death.[61] Where a decedent has not made his wishes known, the UAGA gives the next of kin the right to designate whether the organs are to be donated.[62] The UAGA deals expressly only with the uncompensated donation of organs; it is silent on the subject of sales or other commercial transactions.

Given this silence, it is uncertain whether the UAGA should be interpreted to prohibit commercial transactions in bodily organs. According to the chairman of the committee that originally drafted the UAGA, it was intended to neither encourage nor discourage commercial transactions in organs.[63] If the UAGA is interpreted to not cover organ sales, then its universal adoption would have left in force the prior state statutes prohibiting such transactions, in the few states in which such statutes existed,[64] and elsewhere would have left in force the restrictive common law principles to govern compensated cadaver disposition.

It is unclear how the UAGA was interpreted by the adopting legislatures with regard to its treatment of organ sales. Several states had adopted pre-

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JAMA 2501, 2501 (1968).

[59] *The Sale of Body Parts*, *supra* note 1, at 1188.

[60] Ann McIntosh, Comment, *Regulating the 'Gift of Life'—The 1987 Uniform Anatomical Gift Act*, 65 WASH. L. REV. 171 (1990).

[61] UNIF. ANATOMICAL GIFT ACT §§ 2(a), 3, 8A U.L.A. 34, 41 (1983).

[62] *Id.* § 2(b).

[63] "It is possible, of course, that abuses may occur if payment should customarily be demanded; but every payment is not necessarily unethical. . . . Until the matter of payment becomes a problem of some dimensions, the matter should be left to the decency of intelligent human beings." E. Blythe Stason, *The Uniform Anatomical Gift Act*, 23 BUS. LAW. 919, 927–28 (1968).

[64] Six states—Delaware, Hawaii, Maryland, Massachusetts, Nevada, and New York—included express prohibitions against the sale of organs in their pre-UAGA statutes. *The Sale of Body Parts*, *supra* note 1, at 1248 n.446. All of these states repealed these statutes after adopting the UAGA. *Id.*

UAGA statutes during the 1960s that explicitly prohibited the sale of organs, and those states repealed those statutes when they adopted the UAGA.[65] It is difficult to draw a clear conclusion concerning the intentions that underlie the adoption of the UAGA from these subsequent legislative actions. These repeals may have been the result of programs of repealing all relevant statutes predating the UAGA, regardless of their nature, and therefore would shed no light on how the UAGA was interpreted by the adopting legislatures. Alternatively, those repeals may have reflected a judgment that the UAGA was a permissive statute that over-rode the prior prohibitions on sales, rendering them invalid.[66] As a third alternative, those repeals may have been based upon a judgment that the UAGA implicitly incorporated those prohibitions, making the earlier statutes redundant.[67] Despite the lack of clear evidence of legislative intent, however, the state codifications of the UAGA have subsequently been widely interpreted as making organ sales illegal at least to the extent of rendering unenforceable contracts for the sale of organs.[68]

The somewhat uncertain legal status of organ sales under the UAGA was largely mooted in 1984 when Congress adopted the National Organ Transplant Act (NOTA)[69] to govern interstate commerce in bodily organs. The relevant provisions of NOTA will be discussed briefly below.

C. *NOTA and Subsequent Federal Legislation*

NOTA represents a major extension of federal power into an area traditionally reserved for state law. NOTA has several major features. First, it authorizes the Secretary of Health and Human Services to provide significant financial assistance to local organ procurement agencies.[70] Second, it established the 25-member Task Force on Organ Transplantation (Task Force) to inquire further into the policy issues raised by organ transplants and make recommendations to the Secretary.[71] Third, it created the National Organ

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[65] *The Sale of Body Parts*, *supra* note 1, at 1248 n.446.

[66] The Delaware legislature, at least, may have had this belief, since they added a prohibition against organ sales to their version of the UAGA. *The Sale of Body Parts*, *supra* note 1, at 1248 n.446.

[67] This is the position favored in *The Sale of Body Parts*, *supra* note 1. *See also* SCOTT, *supra* note 1, at 190 ("Most of these [pre-existing state law restrictions on organ sales]. . .were abolished when the states successively adopted the Uniform Anatomical Gift Act, since the act was believed to exclude all sales.").

[68] Cohen, *supra* note 1, at 7.

[69] National Organ Transplant Act, Pub. L. No. 98-507, 98 Stat. 2339 (codified as amended at 42 U.S.C. §§ 273-274(e)(1988)).

[70] 42 U.S.C. § 273(a) (1988).

[71] 42 U.S.C. § 273 (1988).

Procurement and Transplantation Network as a vehicle for matching organ donors with those who need transplants.[72] Most significantly, NOTA makes it a federal crime "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."[73] The punishment provided for violation of this prohibition is a fine of up to $50,000, or up to five years in prison, or both.[74]

The legislative history of NOTA reveals little if any careful policy analysis justifying the very broad prohibition of organ sales.[75] Congress appears to have assumed without reflection that allowing any form of compensation to be paid to organ donors would violate fundamental social norms. There was no attempt made to examine alternative regulatory frameworks that might harness financial incentives to enhance organ availability without transgressing those norms. In particular, there was no effort made to distinguish between the effects of allowing a cash market in organs to exist and the quite distinct effects of allowing compensation to be paid for organs only through a carefully designed futures market framework. Moreover, when the Task Force submitted its first major report in 1986, it summarily reaffirmed NOTA's blanket prohibition of the commercialization of organ transplantation, offering only the conclusory observation that "society's moral values militate against regarding the body as a commodity," and suggesting that a ban on organ sales is appropriate to "encourage altruism."[76] The Task Force report also encouraged individual states to adopt their own prohibitions on the commercial sale of organs because of concern that NOTA, being limited to interstate commerce, might not be wholly effective in suppressing all such sales.[77]

The federal government has taken one further step after NOTA to encourage organ donation. Pursuant to a provision contained in the 1986

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[72] 42 U.S.C. § 274(b)(2) (1988).

[73] 42 U.S.C. § 274(e) (1988). This prohibition does not govern blood transfusions, nor extend to reasonable payments made solely to cover the costs incurred in transplanting an organ. *Id.*

[74] *Id.*

[75] The Senate Report on NOTA merely stated: "It is the sense of the Committee that individuals or organizations should not profit by the sale of human organs for transplantation," and "human body parts should not be viewed as commodities." S. REP. NO. 382, 98th Cong., 2d Sess. 16, *reprinted in* 1984 U.S.C.C.A.N. 3975, 3982. The House Conference Report stated only that NOTA "intends to make the buying and selling of human organs unlawful . . . ." H. CONF. REP. NO. 1127, 98th Cong., 2d Sess. 16, *reprinted in* 1984 U.S.C.C.A.N. 3989, 3992.

[76] TASK FORCE, *supra* note 2, at 96.

[77] Hansmann, *supra* note 1, at 59. This recommendation was followed by the drafters of the 1987 revision of the UAGA. *See infra* text accompanying notes 81–86.

Omnibus Budget Reconciliation Act,[78] hospitals may not participate in the Medicare or Medicaid programs unless they establish "written protocols for the identification of potential organ donors . . . ."[79] These protocols must set forth procedures by which families of potential donors are informed of their option to donate organs.[80]

D. *The 1987 Version of the UAGA*

Even after the passage of NOTA the shortage of organs for transplantation continued to become more severe. In response, the National Conference of Commissioners on Uniform State Laws drafted a new version of the UAGA in 1987.[81] The 1987 version incorporates a number of new provisions designed to facilitate the donation of organs.[82] It also, however, incorporates an express provision prohibiting the sale of organs for removal after the death of the donor.[83] Unlike the 1968 version, the 1987 version of the UAGA has

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[78] Pub. L. No. 99-509, § 9318(a), 100 Stat. 1874, 2009 (codified at 42 U.S.C. § 1320b-8 (1988)).

[79] 42 U.S.C. § 1320b-8(a)(l)(A) (1988).

[80] *Id.* § 1320b-8(a)(1)(A)(i).

[81] UNIF. ANATOMICAL GIFT ACT, 8A U.L.A. 3 (Supp. 1993). "It has become apparent that [the promulgation of the 1968 UAGA] is not producing a sufficient supply of organs to meet the current or projected demand." *Id.* at 4 (quoting with approval from HASTINGS CENTER REPORT: ETHICAL, LEGAL AND POLICY ISSUES PERTAINING TO SOLID ORGAN PROCUREMENT (Oct. 1985).

[82] The 1987 version of the UAGA prohibits the sale of organs that are to be removed after the death of the donor (though it does not purport to govern the sale of organs that are to be removed prior to death), reduces the formalities involved in executing donative documents, prioritizes donor consent over family objections, allows medical examiners to release usable organs for transplantation, and requires hospital personnel to routinely ask patients about their willingness to become organ donors. UNIF. ANATOMICAL GIFT ACT §§ 2–5, 10, 8A U.L.A. 12–22, 29–30 (Supp. 1993).

[83] UNIF. ANATOMICAL GIFT ACT § 10, 8A U.L.A. 29 (Supp. 1993). The Comment to Section 10 of the 1987 UAGA refers to the 1986 Task Force on Organ Transplantation report that recommends that states pass laws prohibiting the sale of organs, and cites the following statements from a Hastings Center report:

> Altruism and a desire to benefit other members of the community are important moral reasons which motivate many to donate. Any perception on the part of the public that transplantation unfairly benefits those outside the community who are wealthy enough to afford transplantation, or that it is undertaken primarily with an eye toward profit rather than therapy will severely impair the moral foundations, and thus the efficacy of the system.

encountered significant opposition, with debate centering on both the authorization and consent provisions and the routine inquiry requirement.[84] As of April, 1993, only fourteen states had adopted the 1987 version,[85] with the remaining states and the District of Columbia, Guam, and the Virgin Islands retaining their existing statutes that were based upon the 1968 version of the UAGA.[86]

E. *Summary of Existing Law*

The existing body of law governing organ transplantation is thus relatively straightforward and can be briefly summarized. Both federal and state law allow and encourage the donation of bodily organs for transplantation as uncompensated gifts. While the 1968 version of the UAGA—in force in most states—does not expressly prohibit the commercial sale of organs, it is generally interpreted to do so, at least to the extent of rendering contracts for sale unenforceable. Both NOTA and the state laws based upon the 1987 version of the UAGA clearly prohibit the commercial sale of bodily organs. While arguments can be offered that the facially restrictive language of NOTA can reasonably be reinterpreted to allow at least a futures market—if not a cash market—in bodily organs to operate, those arguments are unconvincing.[87] It is clear that significant changes in both federal and state law will be required if a futures market in bodily organs is to be established.

IV. SHOULD ORGAN SALES BE ALLOWED?

The organ commercialization controversy has now gone on for almost three decades,[88] with remarkably little progress having been made towards

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Id. at 30. Unlike NOTA, the 1987 version of the UAGA does not address the sale of organs to be removed prior to the death of the donor.

[84] *See* Ann McIntosh, *supra* note 60.

[85] UNIF. ANATOMICAL GIFT ACT, 8A U.L.A. 3 (Supp. 1993).

[86] *Id.* at 33. Several states that have retained their statutes based upon the 1968 UAGA have, however, added provisions restricting the sale of organs that are similar to those provisions contained in the 1987 UAGA. Bray, *supra* note 1, at n.103.

[87] *See infra* text accompanying notes 219–37.

[88] While the first kidney transplant took place in 1954, *see supra* note 46, the issue of the commercialization of bodily tissues did not receive widespread public attention until the publication in 1968 and 1971 of two British works that took sharply opposing stances with regard to the question of allowing blood sales in England. *See* M.H. COOPER & A.J. CUYLER, THE PRICE OF BLOOD (1968) (concluding that allowing payments to be made to blood donors would increase supplies and reduce costs); RICHARD TITMUSS, THE GIFT RELATIONSHIP (1971) (opposing blood sales). Titmuss responded to the arguments for

reaching a resolution that would satisfy the key concerns of both proponents and opponents of commercialization. Organ transplantation policy seems to be an area where the "debate," if one can so characterize the exchanges of accusations and lofty moralisms, reflects more the jousting of fundamentally opposed ideological stances than a shared commitment to reach a consensual solution.[89]

Proponents of commercialization are often professional economists who

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allowing blood sales with vehement and comprehensive criticisms that foreshadowed many of the arguments later asserted by opponents of organ sales:

> From our study of the private market in blood in the United States we have concluded that the commercialization of blood and donor relationships represses the expression of altruism, erodes the sense of community, lowers scientific standards, limits both personal and professional freedom, sanctions the making of profits in hospitals and clinical laboratories, legalizes hostility between doctor and patient, subjects critical areas of medicine to the laws of the marketplace, places immense social costs on those least able to bear them—the poor, the sick and the inept—increases the danger of unethical behavior in various sectors of medical science and practice, and results in situations in which proportionately more and more blood is supplied by the poor, the unskilled, the unemployed, Negroes and other low income groups and categories of exploited human populations of high blood yielders. Redistribution in terms of blood and blood products from the poor to the rich appears to be one of the dominant effects of the American blood banking system.
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> Moreover, on four testable non-ethical criteria the commercialized blood market is bad. In terms of economic efficiency it is highly wasteful of blood; shortages, chronic and acute, characterize the demand and supply position and make illusory the concept of equilibrium. It is administratively inefficient and results in more bureaucratization and much greater administrative, accounting and computer overheads. In terms of price per unit of blood to the patient [it is more expensive]. . . . And, finally, in terms of quality, commercial markets are much more likely to distribute contaminated blood . . . .

Id. at 245–46.

[89] James Blumstein, *Government's Role in Organ Transplantation Policy*, 14 J. HEALTH POL. POL'Y & LAW 5 (1989). Blumstein argues that "widely disparate ideologies . . . have developed in the area of organ transplantation," and that federal organ transplantation policy "reflects intense hostility to pluralism, decentralized decisionmaking, profit-making, commercialization, competition, private choice, and even private property . . . ." The organ transplantation enterprise "has indulged in an excess of romanticism, mandating altruism and communitarianism at the expense of saving lives." *Id.* at 36. He contrasts this attitude with the fact that "[In] other facets of health policy, the emerging consensus has been to require advocates for deviations from competitive norms and decentralized pluralism to bear a burden of justification—and to narrowly tailor proposed deviations to cure specific, delimited market failures." *Id.*

have been trained (and, perhaps, are also naturally so inclined) to accord great importance to the promotion of efficient resource allocation.[90] They consequently are disposed to favor market outcomes over the usually less efficient results of non-price allocation mechanisms.[91] They view the organ shortage as a near-textbook illustration of how the imposition of a price ceiling upon the equilibrating processes of supply and demand[92] weakens supplier incentives and causes persistent excess demand. From their perspective, a free market is a highly efficient means of moving goods from lower- to higher-valued uses, and the suspension of the price mechanism greatly hinders the transfer of harvestable organs from cadavers to persons who would benefit immensely from transplantation of those organs. They repeatedly call attention to the fact that we do not expect suppliers of other goods and services—including medical goods and services—to act purely out of altruistic motives, and regard the organ sale prohibitions as anomalies in a society committed to concepts of private property and voluntary exchange.[93] They criticize the existing donation-based organ supply system of having an increasingly Rube Goldbergesque air about it, as policymakers attempt desperately to alleviate the organ shortage in a noncoercive manner while avoiding resort to the one measure that has any prospects for success—allowing potential transplant recipients or their agents to offer financial incentives to potential organ donors.[94]

An additional argument sometimes offered in favor of allowing commercialization of organ transactions is that this would not only expand organ supplies, but would also lead to a more efficient distribution of the available organs among potential transplant recipients by facilitating a shift from a local to a national system of allocation.[95] Under the current donation-based system, rights to most harvested organs are now governed by a "rule of

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[90] For example, Lloyd Cohen holds a Ph.D. degree in economics from the State University of New York, Binghamton; Henry Hansmann holds a Ph.D. degree in Economics from Yale University; and Richard Schwindt and Aidan Vining are both professional economists on the faculty of Simon Fraser University in Canada.

[91] *See generally* Cohen, *supra* note 1; Hansmann, *supra* note 1; Schwindt & Vining, *supra* note 1.

[92] The prohibition of organ sales, in conjunction with the allowance of organ donations, is logically equivalent to requiring all organ transactions to take place at or below a zero "price."

[93] *Developments in the Law—Medical Technology and the Law*, 103 HARV. L. REV. 1519, 1624 (1990).

[94] Cohen, *supra* note 1, at 23–24 (discussing the convoluted nature and unintended consequences of proposals to require doctors to request the relatives of a newly deceased person to donate his organs).

[95] Hansmann, *supra* note 1, at 82–83.

capture" under which the organs effectively become the property of the hospital that harvests them and the local organ procurement agency.[96] Because these institutions are not permitted to sell these organs, the only way they can benefit from their possession is to transplant them themselves and thus create additional professional opportunities for the physicians and other health care professionals associated with these institutions.[97] This fact creates a perverse incentive for hoarding organs for local use rather than sharing them with transplant centers elsewhere that may have more pressing needs.[98] A market for organ sales would more closely align incentives with needs, and would facilitate a national allocation of organs to the highest-valued uses.

Opponents of commercialization have at times attempted to counter directly these economics-oriented claims by arguing that allowing commercialization will not significantly increase the supply of transplantable organs of suitable quality. Those arguments, however, overlook the most elementary economic principles and are strained and unconvincing. For example, it is often argued that allowing organ sales would reduce the number of organs donated, and thus have little or no effect upon the total supply of organs.[99] While this result may be a theoretical possibility, it seems highly unlikely to occur. I concede that if *all* of those persons who would sell their organs if market opportunities were available would donate those organs for transplantation if sale is prohibited, then obviously there would be no increase in organ supply due to the existence of market opportunities. Moreover, if some persons who would have donated their organs under the current system react adversely to the allowance of organ sales by refusing to either sell or donate their organs, then organ supplies may even be reduced by the existence of a market option.[100] In practice, however, one would expect that virtually all persons who would currently donate their organs would either continue to donate or would sell their organs under a

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[96] *Id.*

[97] *Id.* at 83.

[98] *Id.*; *see also Delay Sought in Combining of Transplant Waiting Lists*, DALLAS MORN. NEWS, June 30, 1993, at 23A.

[99] *See, e.g.*, H.R. REP. NO. 769, 98th Cong., 2d Sess. 14–15 (1984); Cohen, *A Futures Market in Cadaveric Organs: Would it Work?*, 25 TRANSPLANTATION PROCEDURES 60 (1993).

[100] This possibility is suggested by the prior experience with the legalization of blood sales. When the states first permitted the sale of blood—albeit at very low prices compared to what one would expect major bodily organs to bring in a free market—the overall blood supply dropped sharply because the decrease in voluntary donations—for whatever reason it occurred—was larger than the increase in paid donations. *Procurement and Allocation of Human Organs for Transplantation: Hearings on H.R. 5580 before the Subcomm. on Investigations and Oversight of the House Comm. on Science and Technology*, 98th Cong., 1st Sess. 361–64 (1983) (testimony of Arthur L. Caplan).

regime permitting sales. In addition, there certainly must be at least some persons who are currently unwilling to donate their organs, but could be induced to supply them by sufficiently strong market incentives. If these assumptions are valid, as seems likely, then organ supplies will be increased under a market regime.

A second, related economic argument often made against allowing organ sales is that a market system would lead to a degradation in the quality of organs provided for transplantation. The claim is that the persons who do not now choose to donate their organs but who would respond to financial incentives to sell those organs would, on average, have organs of lower quality than those now donated. I am not aware of any empirical evidence that supports this proposition. Even if it were the case, the new supply of harvested organs that are brought forth by these financial incentives could be quickly and inexpensively screened for quality, just as donated organs and both donated and purchased blood supplies are now screened.[101]

For the most part, however, those persons opposed to organ sales have declined to engage in meaningful debate concerning the probable organ supply consequences of various commercialization alternatives—no doubt recognizing that they will fare poorly in the debate if discussion is conducted according to the other side's ground rules and evaluative criteria—and instead have emphasized a number of arguments against commercialization that are based upon the categorical premise that organ sales are morally wrong, without regard to whether allowing a market to function would increase organ availability.[102] Opponents of organ sales often describe the practice as "trafficking in human flesh"[103] or in similar strong metaphors which evoke the widely felt repugnance with which we regard the concept of one person owning another. That repugnance is obviously rooted in our long and unhappy historical experience with slave markets. Any measures which are regarded as steps in the direction of reestablishing slavery will meet with near-universal outrage and opposition. If one regards organ sales as somehow analogous to the slave trade, it is not surprising or improper that one would conclude that organ sales are degrading to both the buyer and the seller, and to society as a whole, and are an unacceptable affront to basic principles of personhood and individual dignity.[104]

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[101] *Developments in the Law—Medical Technology and the Law*, *supra* note 1, at 1625.

[102] *Id.* at 1624 ("The principal objection to paying for organs is philosophical: allowing commercialism to displace altruism would be morally intolerable.").

[103] Cohen, *supra* note 1, at 24.

[104] For detailed explications of this point of view, see Margaret J. Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849 (1987); Bray, *supra* note 1.

Allowing organ sales necessarily places a monetary valuation on parts of the human body. To some commentators, this is a major step towards subjecting persons to the depersonalizing influence of market rhetoric, and constitutes a "commodification" of an object that should be held sacred and above market bartering.[105] The human body and its constituent organs are argued to be literally "priceless" and incommensurable with the normal articles of commerce. From this perspective, society should not allow the sale of bodily organs any more than it should allow persons to sell themselves into slavery or to enslave others. While the willingness to donate an organ is regarded as a high expression of altruism and communitarian sentiment, anyone who wishes to sell a bodily organ is either desperate, foolish, or both; a humane and progressive society that respects human personhood and dignity should protect such persons from making a serious mistake that they are likely to deeply regret.[106]

Opponents of commercialization often argue that your bodily organs are simply not your property to sell; that while you have a custodial and possessory right to use those organs during your lifetime, you do not have a full-fledged alienable property right with regard to objects that are inextricably connected to your personhood.[107] Just as a parent may exercise custody and control over his children, but may not regard them as his property and sell them, you do not

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[105] *See, e.g.*, Bray, *supra* note 1, at 241 ("An individual's integrity is affected negatively by being discussed in market rhetoric as a fungible commodity, because such terminology ignores the unique qualities and differences between individuals."). This position has also been well stated by Margaret J. Radin:

> One way to see how universal market rhetoric does violence to our conception of human flourishing is to consider its view of personhood. In our understanding of personhood we are committed to an ideal of individual uniqueness that does not cohere with the idea that each person's attributes are fungible, that they have a monetary equivalent, and that they can be traded off against those of other people. Universal market rhetoric transforms our world of concrete persons, whose uniqueness and individuality is expressed in specific personal attributes, into a world of disembodied, fungible attribute-less entities possessing a wealth of alienable, severable "objects." This rhetoric reduces the conception of a person to an abstract, fungible unit with no individuating characteristics.

Radin, *supra* note 104, at 1885; *see also* TITMUSS, *supra* note 88, at 245–46; William F. May, *Religious Justifications for Donating Body Parts*, 15 HAST. CENTER REP. 38 (1985); M.W. Wartofsky, *On Doing It for Money*, *in* BIOMEDICAL ETHICS 186 (Thomas A. Mappes & Jane S. Zembaty, eds. 1981).

[106] *See generally* Radin, *supra* note 104.

[107] *Id.* at 1891–98.

have a property right to sell your organs. This argument is offered even more forcefully against allowing a decedent's next of kin to sell his organs.[108] When presented with arguments that allowing organ sales only under a futures market regime that is subject to appropriately designed restrictions will prevent much suffering and loss of life while adequately protecting personhood and dignity concerns, opponents of commercialization respond at times with a variant of the classic "slippery slope" argument: that once organ sales are permitted as a matter of principle, the moral high ground will be lost and it will be difficult or impossible to withstand market forces that seek to promote increasing commercialization of the body and further erosion of the inherent rights of personhood.[109]

Finally, opponents of commercialization argue that allowing a market in organs to exist would reveal as starkly as possible the immorality of allocating needed goods and services on a willingness-to-pay basis in a society such as ours that is characterized by a highly skewed distribution of wealth. They regard it as morally unacceptable to permit rich people to purchase kidneys from poor persons who are forced by their economic difficulties to sell their own flesh, while other poor persons that need transplants but cannot afford them are left to suffer and die.[110] They point, for example, to our adoption of laws that no longer permit military draftees to purchase substitutes, and argue that organ sale restrictions demonstrate the same spirit of regarding basic rights and responsibilities as more important than personal wealth.[111]

So articulated, the issues are rarely joined in productive fashion. Proponents of commercialization often fail to take the "commodification/rights of personhood" arguments of their opponents entirely seriously, seeing no meaningful parallels between their carefully framed proposals and the acknowledged historic evils of the slave trade, and instead search for vested interests that benefit from the current donation-based organ supply system and that may be "behind" the emotional and moralistic anti-commercialization arguments.[112] There are in fact some identifiable groups who appear to benefit

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[108] Cohen, *supra* note 1, at 26.

[109] *See, e.g.*, Radin, *supra* note 104, at 1912–14 (discussing the merits of the "domino theory" under which allowing commodification of certain aspects of life will lead to market rhetoric dominating all forms of human interaction).

[110] This argument is summarized by Cohen, *supra* note 1, at 26. *See also Organ Transplants: Hearings Before the Subcomm. on Investigations and Oversight of the House Comm. on Science and Technology*, 98th Cong., 1st Sess. 338–39 (1983) (testimony of Robert M. Veatch); Marvin Brams, *Transplantable Human Organs: Should Their Sale Be Authorized by State Statutes?*, 3 AM. J.L. & MED. 183 (1977).

[111] Cohen, *supra* note 1, at 26.

[112] This skeptical attitude is illustrated by Lloyd Cohen, who in his article advocating a futures market for bodily organs writes: "There are many public policy questions on which

from the existing organ shortage, and who may for that reason, at least in part, be lending support to efforts to maintain the existing regime. It has been suggested, for example, that health insurers obtain financial benefits from the shortage of transplantable organs because it limits the number of expensive transplant surgeries they must finance.[113] However, any extra burden on insurers resulting from an increased organ supply would only be transitional, because insurance companies would adjust their coverage, premiums, and reimbursement schedules to reflect the increasing number of transplant surgeries as quickly as possible.[114]

The three transplant surgeons' medical associations—the American Society of Transplant Surgeons, the American Society of Transplant Physicians, and the International Transplantation Society—have each adopted a resolution calling for the expulsion of any member who participates in a commercial organ market.[115] A facially plausible special interest explanation of their support for restraints on commercialization is that while surgeons may generally be hurt by those restraints because it eliminates certain of their professional opportunities, current transplant surgeons that are now able to obtain regular access to organs for transplantation benefit from the existing system because of the reduced cost of those (donated) organs. While the number of surgeons who might engage in transplant surgeries were there no organ-availability limitations is substantially larger than the small number of current transplant surgeons, those potential transplant surgeons are not aware of their identity and the magnitude of their financial losses and consequently are an unorganized group that is not able to effectively counter the political efforts

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the law is opposed to the social interest. In most of these cases one can point to an entrenched and politically potent interest that is well served by the current law." Cohen, *supra* note 1, at 24. He concludes, however, that the "ultimate source of opposition" to organ sales is "public repugnance to the notion of trafficking in human flesh" rather than special interest lobbying, and that any special interest appeals are parasitic upon those public attitudes. *Id.*

Henry Hansmann, however, makes an effort to respond directly to the "commodification" thesis, and analyzes the sources of that point of view in terms of human tendencies to reflexively characterize human interactions as either "market" or "nonmarket" transactions, each with their own appropriate governing norms, and to not adjust those categories rapidly enough to keep up with changes in technology. Hansmann, *supra* note 1, at 74–78.

[113] Margaret A. Somerville, *"Procurement vs. Donation"—Access to Tissues and Organs for Transplantation: Should "Contracting Out" Legislation be Adopted?*, 17 TRANSPLANTATION PROC. 53, 56 (Supp. IV 1985).

[114] Cohen, *supra* note 1, at 24 n.82.

[115] *Id.*

of the organized current transplant surgeons.[116]

In my opinion, however, it is not necessary to resort to special interest explanations to understand the long-standing opposition of transplant surgeons to the introduction of financial incentives into the organ supply system. That opposition can be adequately explained as based upon sincere reservations about the ethical implications of allowing an unrestricted cash market to operate, and about the effects of such a market on organ quality and donor health. For example, Dr. Oscar Salvatierra, President of the American Society of Transplant Surgeons, testified at some length during the Congressional hearings that gave rise to the NOTA about the concerns of his organization's membership.[117] He specifically identified "four major problem areas that prompt our opposition to the commercial sale of human organs":[118] (1) the fear that the poor would become the sources of organs for the rich;[119] (2) the fear that the new organs supplied would be of inferior quality and pose health risks to recipients; [120] (3) the fear that allowing commercial sales would undermine altruism;[121] and (4) the ethical problems associated with removing organs from live donors.[122] Each of these legitimate concerns has been previously discussed in this Article, and I believe that the futures market proposal that I will later set forth in this Article adequately addresses each of them.

It has also been suggested that government policy makers seeking to limit budget expenditures benefit from the "natural gatekeeper" function served by the current donation-based system of organ supply, and would consequently resist moving to a more market-oriented system likely to sharply increase the availability of organs for transplant.[123] The argument here is that organ transplant surgeries are so expensive that in some cases their benefits are exceeded by their costs. This creates a need for limiting in some fashion the number of such operations. It has become increasingly difficult for government institutions to explicitly acknowledge that they will not expend resources when to do so would save lives. Public perception that the true barrier to organ

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[116] *But see CEJA Report 1-93-6*, *supra* note 16, which reflects the growing recognition that the broad group of surgeons generally would benefit from increased organ availability.

[117] *Procurement and Allocation of Human Organs: Hearings on H.R. 5580 Before the Subcomm. on Investigation and Oversight of the House Comm. on Science and Technology*, 98th Cong., 1st Sess. 268–83 (1983) (testimony of Oscar Salvatierra, M.D., President of the American Society of Transplant Surgeons).

[118] *Id.* at 269, 275.

[119] *Id.* at 269, 275–76.

[120] *Id.* at 269–70, 276–78.

[121] *Id.* at 270, 278–79.

[122] *Id.* at 270–71, 280.

[123] *See generally* Cohen, *supra* note 1, at 36–39; Hansmann, *supra* note 1, at 78–79.

transplantation was unwillingness to expend resources rather than physical limitations would create strong political pressures for increased public spending.[124] On the other hand, if the public can be convinced that the organ shortage that sharply limits the number of organ transplantations is a "natural" phenomenon beyond social control, then it may find this limitation politically acceptable.[125] Therefore government officials may conclude that the current donation-based system provides a convenient way to avoid facing the difficult, divisive, and expensive problems of allocation that would exist if organ supplies were sufficient to carry out all desired transplantations, and might support the continuation of this approach for that reason without candidly acknowledging their rationale.

This special interest argument rests on some dubious premises. First of all, with regard to kidneys—which represent 75% of all transplant operations—long-term dialysis is a more costly treatment approach than transplantation.[126] Second, if the number of heart, lung, liver and pancreas operations was sharply increased, average costs would probably fall as tissue matches were improved by the larger donor pool, learning took place for more fully utilized transplant teams, and fixed costs were spread over more patients. Consequently, the increased social costs of the expanded number of operations might not be all that large.[127] Finally, the use of an artificially-contrived organ shortage as a means for limiting the number of operations is inefficient—since it prevents many persons who would be willing to pay the full costs of transplantations from obtaining organs—and is such an unseemly and invidious strategy for dealing with the allocation question that it is hard to imagine that policy makers

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[124] Cohen, *supra* note 1, at 36–37.

[125] *Id.*

[126] *Id.* at 37 n.109. It must be recognized, however, that dialysis costs for a kidney patient are spread rather evenly over a substantial period of time, while the costs of a transplant surgery and the attendant postoperative recovery are much more concentrated up front during the surgery and the first following year. The proper comparisons are between present values which take into account this difference in timing and consequently do not overstate the relative advantages of transplant surgery. Nevertheless, transplantation of kidneys appears to result in savings. In 1978 Stange and Sumner estimated that over a 10-year period, providing kidney transplants to 1,000 patients who would otherwise be on dialysis would result in an aggregate cost saving of between $279 million and $300 million; approximately $300,000 per patient. Paul V. Stange & Andrew T. Sumner, *Predicting Treatment Costs and Life Expectancy for End-Stage Renal Disease*, 298 NEW ENG. J. MED. 372, 375 (1978). The U.S. Department of Health and Human Services has more recently estimated that kidney transplants result in overall savings, compared to the costs of dialysis, of $62,000 per patient. OFFICE OF ANALYSIS AND INSPECTIONS, DEP'T OF HEALTH AND HUMAN SERV., THE ACCESS OF FOREIGN NATIONALS TO U.S. CADAVER ORGANS 10 (1986).

[127] Cohen, *supra* note 1, at 38.

who did not have more principled objections to organ sales would oppose them on that basis alone.

Even on those relatively infrequent occasions when the proponents of commercialization attempt to respond directly to the moral questions raised by their opponents—and in the rights discourse favored by that latter group rather than the quantitative, reductionist language of economics—the issues are still not squarely joined. Proponents of commercialization, when they speak of rights and responsibilities, tend to emphasize libertarian autonomy principles, asserting the rights of persons to dispose of their bodily organ property as they see fit, and call attention to the moral demands arising from the realization that the organ sale prohibitions are directly responsible for a great deal of suffering and death.[128] It would be helpful for them to take a more compromising stance and devote greater efforts to tailoring a proposed framework for organ sale transactions that would adequately maintain the supply incentives they regard as so precious while addressing squarely the central personhood and dignity concerns of those who are leery of allowing further commodification of human relationships. Serious thinking along these lines, I will later argue, leads one inexorably towards the compromise solution of an organ futures market, accompanied by sidebar restrictions on cash sales and by subsidy mechanisms for making organs available to impecunious recipients.

On the other side of the controversy, opponents of commercialization tend to take refuge in moral pieties and absolutes stated in very general and abstract terms, draw inapposite and unfair parallels between organ sale proposals and past historical atrocities, and fail to give sufficient weight to the moral imperative to take immediate and effective action to stop the needless suffering and death of thousands of victims of organ failure each year. They also fail to concede the brute fact that human behavior is much more responsive to prospects for financial gain than it is to appeals to altruism. Rather than offering exhortations that persons should show more concern for the plight of their fellow man, and interposing blanket objections to all efforts to encourage desirable behavior through compensation incentives, the defenders of personhood and dignity need to be more discerning in identifying which classes of organ transactions would violate core moral principles and which

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[128] *See, e.g.*, Clifton Perry, *Human Organs and the Open Market*, 91 ETHICS 63, 67 (1980) (illustrating that an ethicist argues that any system that alleviates human suffering and death is acceptable, regardless of the underlying motivations of its participants); Note, *Compulsory Removal of Cadaver Organs*, 69 COLUM. L. REV. 693, 705 (1969) ("[A] death resulting from the unavailability of an organ is neither inevitable nor must it be viewed simply as a statistical occurrence. It must be seen for what it is in fact: a senseless tragedy which could be avoided by overcoming needlessly restrictive taboos."); *Developments in the Law—Medical Technology and the Law*, *supra* note 1, at 1624.

transactions could perhaps be tolerated as a necessary concession to human motives of self-interest if thousands of lives were thereby saved. Such a realistic stance, I will argue, would also lead opponents of commercialization towards the middle ground of an organ futures market, accompanied by restrictions on cash market transactions and subsidies or reliance upon non-price allocation criteria for the ultimate distribution decisions.

In the next Part of this Article, I will set forth the general characteristics of an organ futures market, discuss the various proposals that have been set forth for the establishment of such a market, set forth my own futures market proposal, and assess the extent to which my proposal addresses the concerns of both proponents and opponents of commercialization.

V. THE FUTURES MARKET SOLUTION TO THE ORGAN SHORTAGE

A. *General Features of a Futures Market in Bodily Organs*

The defining characteristic of a futures market for bodily organs is that transactions would take the form of a contractual commitment entered into by the person in whose body the organs are located (the "organ bearer") to make those organs available to the other contracting party (the "organ buyer") for transplantation or other purposes upon the death of the organ bearer. If organ sales are permitted to take place only if they conform to this pattern, the sale of a decedent's organs by his surviving kin would be prohibited, as would the sale by an organ bearer of a paired organ to be removed while the bearer is still alive. The organ buyer under a futures contract would be under no obligation to harvest those organs upon the bearer's death or otherwise dispose of the cadaver, but would merely have an option right to harvest those organs should he choose to do so.

The concept of a futures market in bodily organs raises many questions; as usual the devil is in the details. There are a large number of choices that will have to be made in giving structure to such a market. The following list provides a summary of the more important areas where governing rules of one sort or another would have to be imposed.[129] I have listed these areas in roughly descending order of significance, although all of them would have to be addressed by any serious proposal.

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[129] A number of other issues of somewhat lesser significance would also have to be addressed by a comprehensive futures market proposal, including the extent to which international participation will be permitted.

1. *Timing of Payments to Organ Bearers or Their Designees*

Probably the most crucial question concerning the operation of an organ futures market is whether organ buyers will be permitted to make current cash payments to organ bearers or their designees in exchange for obtaining future rights to organs, or whether instead payments will only be permitted to be made to the deceased organ bearer's estate or designees when the bearer dies or when the organs are harvested by the buyer.

2. *Size of Payments to Organ Bearers or Their Designees*

It would have to be determined whether the prices paid to organ bearers for entering into futures contracts would be left to be set by competitive forces, or whether there would be regulatory restrictions (such as price ceilings) imposed upon the contracting process.

3. *Class of Allowable Designees*

It would have to be decided whether organ bearers would be allowed to freely assign their contingent rights to future payments. Alternatively, those rights could be made wholly nonassignable—remaining estate property—or restricted in assignability to, say, close relatives and charitable organizations. Allowing assignment to creditors of the organ bearer could conceivably lead to creditor pressure on debtors to enter into organ futures contracts when they might prefer not to. If this creditor coercion problem is regarded as serious, it may be advisable to go even further and exempt organ sale proceeds paid to organ bearer estates altogether from claims asserted by estate creditors.

4. *Contracts Involving Minors*

Futures market contracts entered into by minors would be unenforceable against their estates under general contract law principles.[130] Small-size organs harvested from minors, however, are the best and sometimes the only suitable organs for certain categories of recipients, such as other young minors, and often promote higher recipient survival rates for other classes of recipients as well.[131] It must be decided whether the availability of small-size organs should

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[130] *See generally* E. ALLAN FARNSWORTH, CONTRACTS 228–33 (2d ed. 1990).

[131] The survival rate of kidney transplant recipients is significantly higher if the donor organ comes from a 6-to-15 year-old donor than from a 56-to-70 year-old donor. U.S. KIDNEY FACT BOOK 21 (U.S. Dep't of Health, Educ., and Welfare Pub. No. (NIH) 73-335) (1972).

be enhanced by allowing the parents or guardians of minors to commit their charges to contracts for the future delivery of their organs—as part of a "family contract" or otherwise—subject to the right of those minors to rescind their commitments upon reaching majority.

5. *Bailee Responsibilities*

It would have to be established what responsibilities will be imposed upon the hospital or other facility in which the organ bearer dies for notifying the organ buyer and for preserving the organs in harvestable condition until they can be removed, and what financial compensation these facilities would be entitled to for carrying out these services. The question of compensation for good faith but unsuccessful efforts to maintain organs in harvestable condition also needs to be addressed.

6. *Organ Buyer Eligibility*

It would be necessary to establish criteria specifying who can legally contract to be an organ buyer. The market could be structured so that a single governmental agency would be the sole buyer, or so that a single private entity would operate as a regulated monopsony buyer, or so that a number of private or public entities or both would be allowed to compete in some fashion to obtain futures contract commitments. It would also have to be decided to what extent a secondary resale market in future organ rights would be allowed to operate, and who could participate in that market.

7. *Allocation of Organs Among Potential Recipients*

It would have to be determined how the available organs, once harvested, would be allocated among competing claims asserted by potential transplant recipients. Potential allocation criteria are almost limitless, and could include willingness to pay, severity of need, clinical prospects for transplant success, age, first-come first-served queuing, lotteries, or other "fairness"-oriented mechanisms. The mechanisms chosen for making these difficult decisions would explicitly or implicitly establish the criteria which would determine the prices charged transplant recipients by organ buyers.

The above listed issues frame the more significant dimensions of an organ futures market which any serious proposal would have to address. In the next Part of this Article I will review the several comprehensive proposals that have been made for establishing a futures market in bodily organs, and discuss how each of those proposals resolves the major questions identified above. I will then outline a proposal of my own that attempts to incorporate the most attractive features of the earlier proposals, and avoid their shortcomings, and I will assess the strengths and weaknesses of this proposal in light of the arguments previously presented for and against allowing the commercialization of organ transactions.

B. *Prior Proposals for Establishing a Futures Market*

In recent years three serious proposals for the establishment of an organ futures market have been presented in the academic literature: (1) a 1986 proposal by Richard Schwindt and Aidan R. Vining of Simon Fraser University;[132] (2) a 1989 proposal by Henry Hansmann of the Yale Law School;[133] and (3) a 1989 proposal by Lloyd Cohen of the Chicago-Kent College of Law.[134] In the decade prior to the Schwindt and Vining proposal several advocates for the commercialization of organ transplantation had offered suggestions that incorporated certain aspects of a futures market,[135] but none of these early commentators attempted to set forth and defend a comprehensive futures market proposal.

1. *The Schwindt & Vining Proposal*

Under the Schwindt & Vining futures market proposal an organ bearer would receive compensation at the time he contracted with an organ buyer.[136]

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[132] Schwindt & Vining, *supra* note 1.

[133] Hansmann, *supra* note 1.

[134] Cohen, *supra* note 1.

[135] *See, e.g.*, Brams, *supra* note 110; Juliana S. Moore, Comment, *The Gift of Life: New Laws, Old Dilemmas, and the Future of Organ Procurement*, 21 AKRON L. REV. 443 (1988) (discussing the proposal by Dr. H. Barry Jacobs to establish a brokerage service for human kidneys); *The Sale of Body Parts*, *supra* note 1, at 1216-20 (suggesting as a possible organ sale alternative a contract for future delivery of organs; remuneration to be paid to the organ bearer's estate or beneficiary after his death); Ellen Goodman, *Life for Sale*, WASH. POST, Oct. 1, 1983, at A15.

[136] Schwindt & Vining, *supra* note 1, at 489. The authors of this proposal discuss several different ways in which compensation may be paid to the organ bearer: cash payment; payment to a charity of the bearer's choice; medical insurance discounts; preferential access to organ transplants if needed; or credit for college tuition, vocational

The buyer would obtain the right to harvest the bearer's organs if the bearer should die under circumstances under which the organs were transplantable.[137] The contract, once entered into, would be of lifetime duration unless rescinded by mutual consent.[138] Schwindt and Vining propose that the government would be the sole entity entitled to act as an organ buyer and seller to transplant recipients,[139] and would pay prices established with regard to its inventory requirements so as to equilibrate supply and demand through supply adjustments.[140] They attempt to justify this statist and monopolistic aspect of their proposal by arguing that a governmental monopoly would be necessary to achieve the economies of scale obtainable in what they regard to be a natural monopoly situation, and would facilitate the enforcement of organ supply contracts.[141] The prices charged transplant recipients would not bear any necessary relationship to the price paid to organ bearers, although the authors favor basing these recipient charges in most instances upon supply prices plus a normal load factor.[142]

Schwindt and Vining recognize the dilemma posed by the question of whether to allow minors to commit themselves to future delivery of their organs.[143] Their solution to this problem is to allow the guardians of minors to enter them into futures contracts, with the proceeds paid into a trust fund. If, upon reaching majority, the minor chose to opt out of the organ futures contract, he could do so and claim some prorated portion of the trust fund proceeds as compensation for his period of exposure to the risk of having his organs harvested had he died in a suitable manner. If the minor chose to remain in the futures contract relationship after achieving majority he could then claim the entire proceeds of the trust account.[144]

This proposal did not address the issue of what responsibilities will be imposed upon hospitals or other facilities that take possession of organ bearer cadavers to notify organ buyers and preserve the organs, nor what compensation those entities will be entitled to for performing those services.

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training, or postmortem expenses. *Id.* at 495–96.

[137] *Id.* at 489.

[138] *Id.* at 496–97.

[139] *Id.* at 489.

[140] *Id.*

[141] *Id.* at 489–90.

[142] *Id.* at 489.

[143] *Id.* at 496.

[144] *Id.*

2. *The Hansmann Proposal*

The Hansmann proposal shares some features with the earlier Schwindt & Vining proposal, but is more comprehensive and differs in several significant ways. Hansmann also proposes a current payment system under which organ bearers would receive immediate financial benefits upon entering into a futures contract under which the organ buyer would have the right to harvest the organs after the bearer's death.[145] In his proposal, however, the organ buyers would primarily be large health insurance companies who have natural advantages in engaging in actuarially-based medical transactions on a large scale and who would compensate organ bearers by giving them specified insurance premium reductions during the period in which the (periodically renewable) health insurance/organ futures contract was in force.[146] Each organ buyer would submit to a central registry the identification of each person with whom it had entered into an organ futures contract.[147] Hospitals would be legally required to consult this registry upon the death of any patient whose organs were potentially harvestable, and to notify the organ buyer and preserve those organs in a harvestable state for a reasonable period of time.[148] The ultimate recipient of any organ would be obligated to pay the organ buyer or its assignee the latter's stated price upon accepting the organ for transplantation.[149] Hansmann would permit resale of futures contract rights in a secondary market, so as to take advantage of specialization among risk bearers.[150]

If a person died without entering into an organ futures contract, under this proposal his survivors would *not* have the right to sell those organs,[151] unless they had been given that right by the organ bearer by devise and such dispositions of organ sale rights are legally recognized. Hansmann disfavors allowing the survivors to sell a decedent's organs as possibly working an inducement to suicide for some individuals.[152] The prices paid to organ bearers for future delivery commitments would be set by competitive forces.[153] The prices charged transplant recipients by organ buyers could be either administratively or competitively determined, whichever seemed preferable.[154]

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145 Hansmann, *supra* note 1, at 62–63.
146 *Id.* at 63.
147 *Id.*
148 *Id.* at 63–64.
149 *Id.* at 64.
150 *Id.*
151 *Id.* at 65.
152 *Id.*
153 *Id.*
154 *Id.* at 66–67.

3. *The Cohen Proposal*

The Cohen futures market proposal differs crucially from the earlier Schwindt & Vining and Hansmann proposals in that compensation would be paid to the organ bearer's estate or other designee only if and when the organs are harvested from the organ bearer's cadaver.[155] Like Hansmann, Cohen is willing to allow either market or administrative determination of futures contract prices; he does not believe that there would likely be much difference in outcome between the two regimes.[156] He ventures a "ballpark estimate" that the price that would be paid for harvested organs would be in the neighborhood of $5,000 for each major organ such as a heart, liver, or kidney, and "substantially lesser" amounts would be paid for other transplantable tissue such as blood, pituitary glands, skin, bone marrow, and corneas.[157] If these estimates are accurate, then an organ bearer whose organs are all harvested could have as much as $30,000 or more paid to his estate under this proposal.[158]

Cohen recommends that in order to create the proper incentives for hospital personnel to notify organ buyers and preserve organs in harvestable condition until those buyers can make transplantation arrangements, a cause of action in negligence be established on behalf of the organ bearer's estate and the organ buyer.[159] The hospital would be liable for the value of any resulting loss should it fail to exercise reasonable care in its notification and organ preservation efforts.[160]

Cohen favors allowing parents to commit their children to organ futures contracts, so long as they exhibit a willingness to commit their own organs on the same terms.[161] He would, however, void any futures contract commitment involving a minor if the minor died as a result of parental abuse.[162] The government would in that case take custody of the cadaver and sell the organs for its own fiscal use.[163] He does not take a dogmatic stance on the question of whether a secondary market should be allowed to exist, or with regard to various other procedural/regulatory rules, as long as they are "consistent with

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155 Cohen, *supra* note 1, at 2.
156 *Id.* at 35.
157 *Id.*
158 *Id.*
159 *Id.* at 34.
160 *Id.*
161 *Id.* at 41–42.
162 *Id.* at 42.
163 *Id.*

the overriding goal of increasing the supply of organs."[164] He also shows great flexibility with regard to the question of how to allocate scarce organs among competing potential recipients, and takes the optimistic view that a functioning futures market will so dramatically increase organ availability that the need to make controversial triage choices among competing claimants may well be mooted altogether.[165]

C. *The Crespi Proposal*

Each of the above proposals has its strengths, but each appears to create some difficulties or leave crucial issues unaddressed. I here propose for the sake of discussion a structure for a futures market in bodily organs which incorporates what I regard as the most desirable aspects of each of the above proposals. Under my proposal:

1. Organ bearers may enter into futures contracts with organ buyers under which the buyer will have the option to harvest the organs of the organ bearer after the bearer's death.
2. Those futures contracts may provide only for payments to be made to the organ bearer's estate, and only when the organ bearer dies or when the organs are harvested.
3. All organ futures contracts may be unilaterally terminated by the organ bearer at any time without liability. Once the organ bearer has died, however, the contract is no longer terminable by the representatives of the organ bearer.
4. All proceeds paid to an organ bearer's estate under an organ futures contract shall be exempt from the claims of any creditor of the organ bearer or his estate, and shall receive the same tax treatment as would life insurance proceeds paid to that estate.
5. Any legally competent person may enter into an organ futures contract, either as an organ bearer or an organ buyer. The organ buyer rights under such contracts shall be freely assignable. Organ bearer contingent rights to payment, however, are wholly nonassignable and must remain with the organ bearer's estate until that estate distributes its assets.
6. The prices to be paid to the estates of organ bearers for their futures contract participation or for various organs under organ futures contracts shall be left for determination by market forces.
7. Parents or guardians of minors shall have the power to commit their charges to organ futures contracts. Upon reaching majority, any minor may

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[164] *Id.* at 43.
[165] *Id.* at 43-44.

elect to terminate the organ futures contract without liability.

8. If a person dies in a manner that leaves his organs in harvestable condition, but has not entered into an organ futures contract, his surviving next of kin may sell the organs for immediate compensation, but the sale proceeds may be paid only to a church or other nonprofit organization which will bear no legal obligation to any person as a result of such payments.

9. No person may sell an organ to be removed while that person is still alive.

10. The federal government shall establish and fund a national registry of organ futures contracts, indexed both by organ-bearer identification and organ-buyer identification.

11. All hospitals or other medical facilities that have custody of a cadaver shall be obligated to immediately consult the national organ futures contract registry, and if the registry reveals that an organ futures contract exists involving the deceased person the hospital shall make reasonable efforts to contact the organ buyer and request further instructions.[166] The hospital will have the responsibility to take reasonable measures to preserve the cadaver's organs in harvestable condition, at its own expense, subject to reimbursement by the organ buyer if it accepts the organs, until the organ buyer has been notified.[167] Once the organ buyer has been notified of the organ bearer's demise, the hospital will remain responsible for taking

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[166] One would expect that if hospitals were legally required to notify organ buyers of the death of an organ bearer in their custody, they would as a matter of routine practice check the organ futures contract registry at the time of admission of a patient rather than waiting until they became custodians of a cadaver. This precaution would likely result in minimal delay between the death of an organ bearer and notification of the organ buyer.

[167] This would require at a minimum that hospitals utilize mechanical ventilators or other heart-lung machines to maintain the viability of the organs of a deceased organ bearer until the organ buyer is notified and gives instructions as to how to proceed. It is more debatable whether the hospital should be required to take the further step of actually harvesting organs and preserving them cyrogenically, should this prove necessary to maintain their viability while awaiting instructions from the organ buyer. On the one hand, such harvesting would preserve some organs that might otherwise lose viability due to a delay in communications. On the other hand, this requirement would impose substantial, nonrecoverable costs upon the hospital should the organ buyer decide that the value of the organs is less than the contingent payment obligation of the buyer to the organ bearer's estate, and consequently decline to take the organs. I admit to having some reservations about imposing any financial obligations upon hospitals that they will not have this right to recover from organ buyers. It may well be more equitable to create a small federal fund to reimburse hospitals for prenotification organ procurement expenses in instances where the buyer ultimately declines to accept the organs.

reasonable measures to preserve the organs, unless directed otherwise by the organ buyer, and shall make its facilities and personnel available to harvest the organs. All costs incurred after notification has been given shall be the responsibility of the organ buyer, as well as the prenotification costs should the buyer accept the organs. If the organ buyer declines to harvest the organs, the hospital's responsibilities shall be terminated. The hospital will be responsible for preserving the organs of a cadaver in its custody when the deceased person has not entered into an organ futures contract only if the hospital is given actual notice that the deceased person's next of kin wish to have the organs preserved and is given evidence of their financial responsibility for the hospital's organ preservation costs.

12. Organ buyers may sell harvested organs to transplant recipients or their agents on any mutually acceptable terms.

In the next Part of this Article the above proposal will be evaluated with regard to the arguments for and against allowing the commercial sale of bodily organs.

D. *Assessment of the Crespi Proposal*

1. *Payment/Contract Termination Provisions*

My proposal incorporates the essence of the Cohen proposal deferred payment feature that limits the compensation that can be provided to organ bearers under organ futures contracts to payments made to their estates or designees after their death. I have further limited these payments so that they can only be made to the bearer's estate, are nonassignable, are exempt from estate creditor claims, and are entitled to the favorable income tax treatment currently accorded life insurance proceeds. I have rejected the Schwindt & Vining and Hansmann proposal approaches of allowing organ buyers to pay current compensation to organ bearers or their designees at the time of contracting.

This feature of my proposal is an attempt to frame a workable compromise between proponents and opponents of commercialization in an especially delicate area. I expect that most potential organ bearers will regard the prospect of sufficiently substantial contingent payments being made to their estates to be an adequate incentive to enter into organ futures contracts. Proponents of commercialization should therefore not strenuously object to such payment restrictions. Limitation of payments to organ bearer estates also should address adequately the core concern of opponents of commercialization: that persons not be put into a position where they will feel pressured to allow future

harvesting of their organs to obtain the funds to meet an immediate financial exigency. The nonassignability and exemption from estate creditor claim status of those payment rights will remove the spectre of possible creditor coercion of financially pressed persons into unwanted organ supply contracts. The favorable tax treatment will help encourage potential organ bearers to regard organ futures contracts as simply being contingent life insurance contracts, which is an accurate characterization of their nature, and one that will help make these arrangements more routine and socially acceptable. The ban on payments made before the organ bearer's death, coupled with the organ bearer's right to unilaterally terminate the futures contract without liability at any time, should allay the fears of those opponents of commercialization who take a paternalistic stance with regard to protecting persons from entering into commitments that they will later come to regret but will be unable to undo because they cannot afford the cost of a "buyout."

One can only speculate as to how the financial terms of organ futures contracts will evolve under a market regime. My proposal leaves organ buyers able to offer organ bearers either of two alternative payment options for their futures contract commitments: (1) a specified contingent payment to be made to the organ bearer's estate for each type of organ that may be harvested, if and when that organ is harvested; or (2) a specified payment that is to be made to the organ bearer's estate upon his death, whether or not any organs are harvested. Under the first payment option, an organ bearer will have substantial funds paid to his estate *if* he dies in a manner that leaves his organs in harvestable condition *and if* the buyer chooses to harvest them. In other words, in return for the organ bearer entering into the organ futures contract his estate will receive at his death something akin to a lottery ticket; a low probability of a large payment. Under the second payment option, the organ buyer would agree to make payment to the organ bearer's estate upon the bearer's death regardless of whether the organs were harvested. Organ buyers also could offer as an alternative payment option some combination of options One and Two above. I would leave it to market forces to determine whether one of these two payment options will prove to be universally more popular and crowd the others out, or whether they will coexist as available alternative contracting terms.[168]

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[168] Lloyd Cohen considered the possibility that organ futures contracts might involve fixed payments to an organ bearer's estate upon his death, whether or not his organs are harvested. Cohen, *supra* note 1, at 33. He rejected that payment option as impractical, compared to payments made only upon harvesting of the organs, because of the greater number of financial transactions required, the difficulties involved in determining appropriate payment differentials between different risk classes of organ bearers, and the incentive it would create for relatives of decedents with harvestable organs to attempt to

I would like to examine briefly the incentive structure that each of these payment options would create for potential organ bearers. This examination will consider the implications that offering adequate financial incentives to organ bearers to ensure their large-scale participation in futures contracts would have for the prices that would have to be charged to recipients of transplant organs. Such an analysis is necessarily speculative at this point in time and can only be conducted in general, hypothetical terms. Nevertheless, the results are quite illuminating and suggest that an adequate supply of organs for transplantation might be made available at relatively reasonable prices.

Consider the incentives the first payment option—the promise of a large payment to an organ bearer's estate contingent upon the organs being harvested at his death—would provide for a hypothetical thirty-five year-old person of normal health to enter into such a futures contract. Such a person's future prospects for receiving payment can be specified as a continuous two-variable probability distribution characterized by: (1) a given probability that his death will occur at any particular future point in time, and (2) a given conditional probability that his organs will be harvestable at that point in time, given his death. These two probabilities can be combined multiplicatively to yield a distribution of the probabilities of earning the contingent payment at any particular point in time.[169] While certain generalizations can be made concerning common features of these probability distributions for different individuals,[170] their precise shapes still will vary widely between persons depending on a large number of demographic and other variables. Persons' attitudes toward risk also will vary widely; consequently, the valuation in present value terms that they will assign to the uncertain prospects of payments to be made to their estates will also vary. As a result, each person will have their own particular valuation of the contingent prospects of their estate

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void the contracts and sell the organs for a much greater sum. *Id.* at 33–34. While Cohen is probably correct in his assessment of the relative transaction costs involved in the different payment options, I would prefer to leave it to market forces to determine what contracting terms are selected as efficient.

[169] The probability of a person earning the payment at any point in time would be the probability of him dying at that point in time multiplied by the probability that his organs are harvestable and harvested, at that point in time.

[170] For example, a typical 35 year-old person faces first a gradually increasing probability of dying during any given period of time as he ages, followed by a gradually decreasing probability in his later ages (you don't have much chance of dying at age 95, because you are not very likely to live that long in the first place!). A second valid generalization is that the younger a person is when he dies, the more likely it is that his organs will be harvestable, because the proportion of deaths that occur due to traumatic brain injuries or accidents rather than age-related or infectious diseases that make organs unsuitable for transplants is obviously much greater for younger persons.

receiving upon their death a given sum.

For the purpose of making some illustrative but informative calculations, I would like to make some reasonable and simplifying assumptions that abstract from many of these complexities. Let us consider the situation that faces a thirty-five year-old person of normal health. Such a person has an additional life expectancy of about thirty-nine years.[171] Let us assume for now that such a person expects to die in exactly thirty-nine years. Each year approximately three million Americans die,[172] and as noted above, approximately twenty thousand of these deaths are of a kind that leave the organs suitable for harvesting.[173] In other words, a person has only about a 1/150 chance of dying in a manner that leaves his organs suitable for harvesting.[174] Let us also assume that our hypothetical thirty-five year-old person expects that the probability of his organs being suitable for harvesting after his death exactly reflects this overall average. Assume also for now that the Cohen price estimates are accurate: that organ buyers will be willing to pay organ bearers about $5,000 for each major organ; about $30,000 total (at existing price levels) to harvest a full set of transplantable organs.[175] Under these simplifying assumptions, the potential organ bearer is looking at a 1/150 chance of "winning" $30,000, with the "lottery drawing" expected to take place in thirty-nine years. If one assumes further that this hypothetical person is risk-neutral with regard to calculating the present value equivalent of such payment prospects,[176] regards the prospect of payments made to his estate as fully

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171 CHARLES GIVENS, FINANCIAL SELF-DEFENSE: HOW TO WIN THE FIGHT FOR FINANCIAL FREEDOM 94 (1990).

172 The total U.S. population in 1993 was approximately 258 million persons. COUNCIL OF ECONOMIC ADVISERS, ECONOMIC REPORT OF THE PRESIDENT 305 (1994). This population has an approximate average life expectancy of 75.5 years; 72 years for men, and 79 years for women. COUNCIL OF ECONOMIC ADVISERS, ECONOMIC REPORT OF THE PRESIDENT 120 (1993). One would therefore expect that about 3.42 million Americans (258 million/75.5) would die every year. Due to consistent population growth, however, and due to the demographic consequences of the post World War II "baby boom," the age distribution of the population is currently skewed somewhat towards over-representation of the younger age groups, and annual death rates are consequently likely to be closer to three million than to the figure calculated above.

173 *See supra* note 41 and accompanying text.

174 20,000/3,000,000 = 1/150.

175 Cohen, *supra* note 1, at 35.

176 A risk-neutral person is defined as a person who regards the receipt of the unknown outcome of a gamble and receipt of the expected value of the gamble's possible outcomes as equivalent. A. MITCHELL POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 28-29 (2d ed. 1989).

equivalent to the prospect of comparable payments made to him,[177] and discounts future receipts at a 4% real annual discount rate,[178] an organ futures contract with a contingent $30,000 payment provision will have a present value to the organ bearer of only approximately $43.29.[179]

Under the second payment option, the organ buyer would agree to pay the organ bearer's estate upon the bearer's death regardless of whether the organs were harvestable. In effect, the organ buyer rather than the organ bearer would assume the risk of the 149/150 chance that the organs would not be harvestable. Using the same simplifying assumptions as above regarding risk-neutrality and rates of time-preference, the organ buyer would then calculate that he could offer a $200 payment to be made to the hypothetical thirty-five year-old organ bearer's estate at the time of his death in exchange for the futures contract commitment,[180] an obligation also having a present value of

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[177] This is a strong assumption. Many persons regard future payments to their estates as less valuable to them in present value terms than similarly timed payments of equal size made to themselves. Their preferences might also take into account, however, the interests of their estate beneficiaries. The existence of a large life insurance industry suggests that many persons obtain substantial value from the prospects of future payments to their estates.

[178] This assumption implies that such a person would regard receipt of a sum of money today, and the receipt of a larger sum a year from now having 1.04 times the purchasing power of the initial sum, once adjusted for intervening price level changes, as equivalent benefits. The use of a 4% real discount rate seems roughly congruent with the real rate of return usually available on riskless long-term assets such as U.S. Government bonds. If one utilizes a higher discount rate, the resulting present value will be reduced, and vice versa.

[179] This is determined by first calculating the expected value of a 1/150 chance at receiving $30,000 as being $200 (1/150 x $30,000 = $200), and then discounting an expected payment of $200 that will occur in 39 years back to the present at a 4% annual discount rate to obtain a present value of $43.29 ($200 /(1.04)39 = $43.29).

If one assumes that organ bearers are risk-averse rather than risk-neutral with regard to such low-probability gambles, this would reduce the expected value equivalent of the gamble to those bearers, and thus lead them to assign it a present value of less than $43.29. If their real rates of time preference are greater than 4%, this also would lead them to assign a present value lower than $43.29 to the payment rights. On the other hand, if their real rates of time preference are less than 4%, this would lead them to assign a present value larger than $43.29 to the payment rights. The present value calculation done here is relatively insensitive (in absolute if not in relative terms) to the discount rate chosen; use of a 6% annual rate, for example, yields a present value of $20.62, while use of a low 2% annual rate still yields a present value of only $92.38.

[180] Out of every 150 organ futures contracts entered into, on average, the organ buyer could expect to obtain at some point in time one complete set of harvestable organs valued at $30,000. This would enable the buyer to pay as much as $200 to each organ bearer's estate at the time of death and still recoup his costs.

$43.29 to the hypothetical organ bearer.[181]

Under my proposal it would be left for market resolution whether organ bearers would prefer having their estates receive upon their death a small, certain payment, or instead a long-shot chance at receiving a much larger sum, or some combination of both options. Of course, if organ buyer payment obligations are structured as small, certain payments, this has the social advantage of providing less inducement to a person to attempt to commit suicide in a manner that preserves his organs so as to provide a large sum for his beneficiaries. As Cohen has argued, however—perhaps with tongue-in-cheek—if persons are inclined to commit suicide it is socially advantageous to give them incentives to do so in such a way that others may benefit from their demise![182] He also argues, in a more serious vein, that the transaction costs for organ buyers will be greater under the certain payment option primarily because such terms will necessitate a much larger number of financial transactions.[183]

Each of the two payment options, both of which have a present value of only $43.29 to the hypothetical thirty-five year-old organ bearer—$200 with certainty after an expected thirty-nine year wait, or a long-shot chance at $30,000 after an expected thirty-nine years—seem to be inadequate to induce organ bearers to enter into futures market contracts on the needed large scale. Moreover, these figures make no allowance for the transaction costs for organ buyers of negotiating futures contracts with organ bearers and subsequently maintaining adequate records and rapid harvest opportunity response capabilities. These transaction costs also must be covered out of the proceeds of organ sales to ultimate transplant recipients, if the organ buyer business is to be financially viable. One would think that such costs probably would approach, if not exceed, $43.29 per contract obtained even if the contracting process were to proceed on a large-scale, standardized basis. If so, and if ultimate organ transplant recipients were in fact willing to pay only about $5,000 per major organ, there would be little or nothing left after transaction costs for organ buyers to pay organ bearers to induce them to enter into the futures contracts.

I believe these illustrative calculations demonstrate that Cohen has seriously underestimated how high the prices charged to ultimate recipients for organs will have to be to both cover organ buyer transaction costs and provide organ bearers with adequate incentives to overcome their reluctance to reflect upon their mortality and consent to their postmortem dismemberment.[184] I suggest,

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[181] $200/(1.04)39 = $43.29.

[182] Cohen, *supra* note 1, at 40.

[183] *Id.* at 33–34.

[184] Lloyd Cohen, after reviewing an earlier draft of this Article, remains of the opinion that a relatively small financial incentive will be sufficient to induce large-

for the sake of argument, that it may be necessary to offer prospective organ bearers a payment option with a present value in the neighborhood of $200 to assure widespread participation in futures contracts.[185] For the hypothetical thirty-five year-old discussed above, this would require either a certain payment of about $924 to his estate upon his death,[186] or a contingent payment to his estate, if his organs are harvested, of about $138,600 for the entire set of organs (about $23,100 for each of the five major transplantable organs, plus another $23,100 for the remaining transplantable tissue).[187] Either of these payment alternatives would establish a floor of about $23,100 on the individual organ sale prices that would have to be charged recipients. I also venture an estimate of $50 per futures contract for the transaction cost to organ buyers of negotiating contracts and maintaining records and rapid response capabilities. This latter figure would result in an aggregate transaction cost of about $7,500 per entire set of organs harvested (about $1,500 per major organ), with this cost incurred largely at the time of contracting.[188] The future value of this

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scale participation in futures contracts, and that the necessary transaction costs might be quite low. Letter from Lloyd Cohen to the author (January 20, 1994) (on file with the author).

[185] This figure is, I concede, little more than a guess as to the minimum amount necessary to induce widespread organ bearer participation in futures contracts. One who disagrees with this estimate can repeat my subsequent calculations utilizing his own estimate, and the resulting organ sale price estimates will bear *almost* the same proportionate relationship to the original estimate of the size of the needed financial inducement as do my organ sale price estimates to my $200 inducement assumption. The changes in the sale price estimate will not be exactly proportionate to the changes in the financial inducement, because my method also includes an allowance for the transaction costs of entering into futures contracts. For example, if one believes that it will require payment arrangements having a present value of $400 rather than $200 to induce widespread participation, using my method one will conclude that organs will have to be sold to recipients at prices in the neighborhood of $53,000 apiece, somewhat less than twice my estimated $30,000 figure.

[186] When discounted back to the present at a 4% annual rate for the expected 39 year wait, $924 is the amount that yields a present value of approximately $200.

[187] When adjusted for the 1/150 chance of receipt and discounted back to the present at a 4% annual rate for the 39 year expected wait, $138,600 is the amount that yields a present value of approximately $200.

[188] These figures are calculated on the assumption that an average of 150 organ futures contracts, each at a $50 transaction cost, will be required to obtain one full set of organs which includes the five major transplantable organs (heart, liver, pancreas, and two kidneys) as well as some additional transplantable tissue worth on the aggregate as much as a single major organ. I have also assumed that the transaction costs are dominated by the up front negotiation costs and that the subsequent recordkeeping and response costs are quite small.

$7,500 current expenditure after the expected thirty-nine year wait for the organs is approximately $34,650, or about $5,775 per major organ.[189] The bottom line: to recoup both these transaction costs and the costs of payments to organ bearer estates, major organs would have to be sold by organ buyers to the ultimate transplant recipients or their agents at prices of approximately $30,000 apiece.[190] This figure is in general agreement with Hansmann's estimate that organ buyers will likely have to pay between $100,000 and $1 million per full set of organs harvested to obtain the necessary degree of participation in futures contracts by organ bearers.[191]

Prices at these levels, unfortunately, would increase the overall costs of transplant operations between roughly 10% to 100%, depending upon the organ transplanted.[192] Cost increases of this magnitude perhaps could begin to affect organ access due to ability-to-pay constraints. The high prices paid to organ bearer estates under the contingent payment option also could create uncomfortably strong incentives for organ-preserving forms of suicide. This latter prospect might counsel restricting organ buyer payment options to certain, smaller payments upon the organ bearer's death.

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[189] This is calculated by taking the $7,500 current outlay and compounding it at a 4% annual rate for the expected 39 year period until the organs are harvested ($7,500 x (1.04)39 = $34,650).

[190] $23,100 + $5,775 = $28,775, or in round numbers, $30,000. As discussed in the text, this estimate is premised upon offering organ bearers payment options having a present value of $200 and incurring a $50 transaction cost per organ futures contract. Any change in these underlying assumptions will have corresponding impacts upon the final organ sale price estimates obtained.

I have assumed for these preliminary estimates that the prices for major organs will not vary significantly between different types of organs. Of course, if the pattern of organ demand does not precisely match the distribution of supply of various organs, then supply and demand forces probably will lead to different equilibrium prices for different types of organs. Such a mismatch seems quite likely to occur. The overall organ supply distribution should reflect human biology, while the pattern of demand will reflect many different social and medical factors and bear little if any relation to initial biological endowments.

[191] Henry Hansmann has speculated that promises to pay organ bearers sums having annual present values of $10 to $100 may be necessary to induce participation in futures contracts on a large scale. Hansmann, *supra* note 1, at 66-67. Under his calculations—based upon the statistical probability that a typical person has a 1/10,000 chance of dying in a manner that preserves his organs in any given year—this would require organ buyers to obtain from transplant recipients approximately $100,000 to $1,000,000 per full set of organs harvested and sold to recoup their costs. *Id.* These figures are much closer to the numbers I suggest in this Article than they are to the Cohen estimates.

[192] For the estimated transplant surgery costs, see *supra* note 2.

2. *Contracts Involving Minors*

It is crucial to augment the current limited supply of small-size organs harvested from the cadavers of minors. To achieve this objective, I have chosen to propose to allow parents to enter their children into organ futures contracts. Opponents of commercialization who are willing to allow a futures market to operate under the payment restrictions I have proposed should have no serious objections to allowing minors to be entered into such contracts.[193] Conferring this authority upon parents is consistent with our general conception of the parent-child relationship in which we allow parents to make decisions for their children that have far more direct and significant impacts upon their children's lives than the manner of disposition of their organs after their death. Moreover, we currently allow the parents of a deceased child to donate the child's organs;[194] my proposal would simply add the possibility of the parents arranging for funds to possibly augment that child's estate.[195] Upon reaching majority, the children would be accorded the rights held by all organ bearers to rescind the contracts without liability.

3. *Cash Sales by Relatives of Organ Bearers*

It is a close and difficult question how to handle the situation of a person who dies with harvestable organs, but who has not indicated an intention to donate his organs nor has entered into a futures contract. To the extent we wish to recognize the concept of individual property rights in bodily organs, it may be appropriate to assume that such a person has chosen not to make his organs available, and to bury or cremate the organs with him. On the other hand, that person simply may not have given the questions of organ donation or sale any serious thought, and it would seem misguided to allow a person who

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[193] I concede that under most if not all intestate succession statues the proceeds of the deceased child's estate would devolve upon the parents. A person could, therefore, possibly benefit financially while still alive if he has entered his children into organ futures contracts, whereas he could not do so by entering into such futures contracts with regard to his own organs. This might be regarded by some as coming uncomfortably close to allowing cash sales of organs, and could (at least theoretically) create some incentives for parents to expose their children to greater risk of traumatic brain injury. If this is regarded as a significant problem, restrictions could be imposed on such contracts for minors comparable to the limitations that I have suggested be placed upon organ sales by relatives of deceased persons who have died without entering into futures contracts, *i.e.*, require that the proceeds paid under such contracts be paid only to religious or other non-profit organizations rather than to the decedent's estate.

[194] *See supra* text accompanying note 62.

[195] *See supra* note 193.

desperately needs an organ transplant to die in order to honor an abstract organ bearer right that has never been meaningfully exercised. Recall that under our current system we would allow the surviving kin to donate the organs of a decedent who has made no provision for donation.[196]

A futures market system—with its deferred payment protections against allowing organ bearers to be pressured into hasty organ sales—cannot deal effectively with this situation, because the organ bearer is deceased already and his relatives are likely to benefit directly and promptly from any payments made to his estate. The compromise solution I propose is to allow the relatives of a deceased person, who has given no indication of any preferences with regard to the disposition of his organs, to either donate or sell the organs, thus giving the relatives an additional incentive to make those organs available for transplant. The financial incentives created by the sale option would, however, be muted and "humanized" by limiting relatives to obtaining only the personal satisfaction and informal recognition associated with making a substantial contribution to their favorite church or charity. Some opponents of commercialization still may believe that my proposal here goes too far toward encouraging survivors to view their deceased relatives as a cash commodity, and may also lead them to pressure medical personnel to "pull the plug" prematurely on comatose patients who may be revivable. I am sympathetic to these concerns, and I call for these critics to propose a better formula that still is responsive to the need to provide relatives of deceased organ bearers with sufficient incentives to make the organs available so as to prevent their waste.

4. *Cash Sales by Organ Bearers*

My proposal flatly prohibits the sale of organs to be removed while the bearer is still alive. Such sales would directly conflict with the core objections of the opponents of commercialization. This limitation should not have a significant adverse impact on organ supply for two obvious reasons. First, it would only restrict the availability of paired organs, such as kidneys. Second, if one assumes that the futures market will draw into its pool a substantial fraction of the available cadavers, there is likely to be a sufficient supply of all major organs available without resort to live donors, particularly with regard to paired organ.

I must concede that my proposal raises the spectre of possible "black market" cash sales of kidneys by living donors or, even more chillingly, the possibility of murder committed for the purpose of obtaining bodily organs for sale on such an illegal market.[197] With organ buyers offering legitimately

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196 *See supra* text accompanying note 62.

197 *See* Russell Scott's entertaining discussion of two notorious 19th century British

harvested kidneys and other major organs for transplantation at prices in the neighborhood of $30,000, persons may be tempted to surreptitiously sell a single kidney for immediate removal—and immediate cash payment—to dishonest organ buyer middlemen or desperate persons unable to afford legitimately acquired organs, or even to commit murder so as to obtain salable organs.[198]

The potential for such reprehensible conduct could be virtually eliminated by taking the obvious prophylactic measures.[199] First, substantial criminal penalties should be imposed upon any person found guilty of knowingly buying or selling an illegally harvested organ. Second, it should be required that all harvested organs be accompanied by documentation certifying their source that is prepared by the harvesting physician, and that such documentation be subject to random audits by appropriate government officials. Third, it should be required that all organ transplantations should be accompanied by a review of the documentation of the source of the organ. These standard regulatory measures probably would be sufficient to prevent any large-scale abuses. There would, of course, possibly still be rare, isolated instances of abuse—most likely taking the form of substitution of an illegally procured kidney for a legitimately harvested one that had lost its viability prior to transplantation, rather than the more lurid form of murder for dismemberment and sale—but not on a scale sufficient to undermine the integrity of the futures market restrictions. Such abuses, one must realize, also occur upon rare occasions under the current donation-based system, which provides those potential recipients that are at the end of the long waiting queues for kidney transplants[200] with a strong incentive to offer under-the-table payments to living kidney donors.[201]

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scandals involving multiple murders and subsequent sales of the corpses to medical schools for anatomical examination purposes. SCOTT, *supra* note 1, at 8–10.

198 *Id.*

199 The comparable "body snatcher" abuses that took place in 19th century England to supply cadavers for medical school purposes effectively were brought to an end by the standard regulatory measures contained in the Anatomy Act of 1832. *Id.* at 11–12:

> The Anatomy Act of 1832 introduced the principle of licensing . . . . Strict rules were imposed upon anatomy schools, including . . . supervision by government inspectors, and the filing of regular reports . . . . The Anatomy Act of 1832 was a simple and completely effective piece of legislation that at one stroke destroyed the trade of the body snatchers.

Id.

200 On average, the waiting time in the U.S. for a kidney is 457 days. *Delay Sought in Combining of Transplant Waiting Lists*, DALLAS MORN. NEWS, June 30, 1993, at 23A.

201 Consider the well-publicized incident of a Turkish father who sold a kidney for

5. *Buyer Notification/Organ Preservation Responsibilities*

The question of how to allocate notification and organ preservation responsibilities raises some practical difficulties, but fortunately does not seem to involve any divisive issues of principle. I have attempted to set forth a common sense resolution that imposes the cost burden of notification and preservation initially on the hospital—at that point in time the least-cost avoider of preventable organ losses—with some of the notification costs (the cost of maintaining the national futures contract registry) spread across society as a whole through the governmental fisc. This organ preservation cost burden is then shifted to the organ buyer once he is notified (and accepts the organ) and the hospital's information advantage ceases to exist. This allocation of responsibility would result in a minimum amount of preventable organ loss, and would encourage hospitals to notify organ buyers quickly. It would, however burden hospitals with unrecoverable prenotification costs should the organ buyer decline the organs; this cost should perhaps be spread more broadly through some governmental funding arrangement. The potential for a negligence action would motivate hospitals to change their current practice of obtaining the consent of the decedent's survivors before harvesting organs, because the hospitals would then be exposed to suit by organ buyers seeking to enforce their rights.

6. *Market Determination of Prices*

I strongly favor relying on market forces to determine the prices paid under futures contracts, primarily because no one currently has any good idea of what the market-clearing prices for various bodily organs are likely to be. Under these circumstances, the trial-and-error processes of markets are ideally suited to economize on limited knowledge and elicit the needed information from many decentralized sources. Competition among organ buyers is likely to dissipate any monopsony profits. If the organ futures market proves not to be as competitive as I expect it to be, there may be justification for some form of governmental intervention limiting the price negotiation aspects of the organ futures contracting process.[202]

$4,400 in order to pay for an operation for his daughter. *Take My Kidney, Please,* TIME, Mar. 13, 1989, at 88.

[202] In particular, for some forms of human tissue transplantation immuno-suppressant drugs are not yet effective, and close tissue matching is therefore still of crucial importance. Cohen, *supra* note 1, at 49. There could well be instances in which there would be only a single organ buyer who had matching tissue available to meet the needs of a given recipient, and that buyer could then engage in price-gouging unrestrained by potential competition.

My endorsement of market price determination of the prices to be charged to the ultimate transplant recipients for organs is, I concede, much more controversial. One can easily think of good reasons to object to allocating, in effect, life itself on the basis of ability to pay. But there is method to my meanness. I agree with the position taken by Cohen that a properly functioning futures market that draws into its pool a substantial fraction of the 20,000 or so suitable cadavers available annually will provide sufficient organs to fill *all* organ transplantation needs and obviate the need for difficult triage choices.[203] The requirement here is to let the prices offered potential organ bearers for their futures commitments rise to levels that provide sufficient incentive for them to sign up en masse, and this will occur only if the organ buyer middlemen can resell those organs at prices sufficient for them to recoup their costs. These costs must be paid by someone, if sufficient organs are to be obtained without resort to coercion, and the surest mechanism to assure that this will occur is to pass those costs on to recipients whose demand, in general, is highly price-inelastic. Let us first make sure that an adequate supply is there, and then argue about who is going to help impecunious recipients pay for their needed transplant organs. I expect that between health insurers and government entitlement programs the major portion of the costs of even $30,000+ organs generally will be spread broadly across society, as are the costs of transplant surgeries now, and there is no reason that a futures market cannot be accompanied by expanded government programs to facilitate further cost sharing. Moreover, one must never forget the elementary economic fact that payments made by or on behalf of organ transplant recipients to organ bearer estates through the intermediation of organ buyer middlemen are *transfer payments*, and do *not* reflect real resource costs. On the other hand, when a person dies for lack of a suitable organ when such an organ exists but is wasted, now *that* is a *real* cost.

7. *Overall Assessment*

If one attempts to evaluate my futures market proposal by the standard economic criteria of Pareto efficiency or Kaldor-Hicks efficiency,[204] the results

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Some form of price limitation or application of the unconscionability doctrine might well be appropriate under these circumstances.

[203] Cohen, *supra* note 1, at 6.

[204] Under the Pareto standard, a legal rule is said to be efficiency-enhancing (a "Pareto-improvement") if it operates to benefit at least one person, by his own assessment, and harms no one, again by their own assessments. RICHARD POSNER, ECONOMIC ANALYSIS OF LAW 12 (3d ed. 1986).

Under the Kaldor-Hicks criterion, a legal rule is said to be efficiency-enhancing (a

are inconclusive.[205] An organ futures market, despite its great benefits for many persons, would not be a Pareto-improvement over the current donation-based system of organ supply.[206] An attempt to ascertain whether my proposal would be efficiency-enhancing when judged by the more forgiving Kaldor-Hicks wealth maximization criterion founders (as do so many attempts to utilize economic principles to provide definitive guidance for resolving social questions) upon the indeterminacy inherent in the offer/asking problem.[207] If you measure the benefits of the proposal for potential transplant recipients by determining their asking prices—how much they would have to be paid to forego the benefits conferred upon them by the proposal—at least a few of them

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"Kaldor-Hicks improvement") if the total dollar value of the benefits, as measured by the willingness-to-pay of the beneficiaries, exceeds the total dollar value of the costs imposed, as measured by the willingness-to-pay of the persons who must bear those costs. *Id.* at 11. It is not required for a measure to be a Kaldor-Hicks improvement that any compensation payments actually be made by the gainers to the losers. *Id.*

For further discussion of the nature and shortcomings of these efficiency criteria, see generally Gregory Crespi, *The Mid-Life Crisis of the Law and Economics Movement: Confronting the Problems of Nonfalsifiability and Normative Bias*, 67 NOTRE DAME L. REV. 231 (1991).

[205] This is the usual situation when one attempts to apply those economic efficiency criteria to evaluate policy measures having broad social impacts.

[206] There is certain to be at least one organ recipient under a futures market regime who could have obtained the needed organ under the current donation-based system at a lower cost, or at least one person who objects to the commercialization of organ transplantation on principle. One "loser" is all that it takes for a proposal to fail to satisfy the extremely stringent Pareto-improvement criterion.

[207] The offer/asking problem rears its head when one goes beyond the vacuous "willingness-to-pay" articulation of the standard microeconomic approach to valuation to ask whether that willingness is to be measured by asking people who would be benefited by a measure how much they would be willing to pay, if necessary, to have that measure implemented—their offer price—or should be measured by how much one would have to pay those beneficiaries to return the benefit once it was received—their asking price. These measures can diverge substantially, and persons can conceivably assert infinite asking prices when they regard something they possess as "not for sale" as a matter of principle. There unfortunately does not appear to be any neutral, objective means available for determining whether offer prices or asking prices are the appropriate measures of valuation, which renders much efficiency analysis uncomfortably indeterminate. For a comprehensive discussion of the offer/asking problem and its implications, see generally Duncan Kennedy, *Cost-Benefit Analysis of Entitlement Problems: A Critique*, 33 STAN. L. REV. 387 (1981); *cf.* Richard Markovits, *Duncan's Do Nots: Cost-Benefit Analysis and the Determination of Legal Entitlements*, 36 STAN. L. REV. 1169 (1984). For an excellent recent attempt to grapple with the implications for legal and economic analysis of the offer/asking problem, see Elizabeth Hoffman & Matthew Spitzer, *Willingness to Pay vs. Willingness to Accept: Legal and Economic Implications*, 71 WASH. UNIV. L.Q. 59 (1993).

will quite reasonably assert infinite asking prices, because they would have otherwise died, thus yielding infinite aggregate benefits for the proposal. Similarly, there are quite likely at least a few opponents of commercialization who regard their positions as matters of principle not subject to compromise, and who will assert infinite asking prices for their consent to a futures market system, yielding infinite costs for the proposal. One could attempt to avoid this problem by using offer prices to measure both the benefits and costs of the proposal, and thus obtain finite measures which could be more meaningfully aggregated. This appears to be an entirely arbitrary resolution of the offer/asking problem, however, and the results so obtained would appear to have no particular normative significance for decisionmaking.

With the failure of the more "rigorous" evaluative criteria of economics to provide a meaningful assessment of the proposal, one has no choice but to engage in a more intuitive, ad hoc, common sense balancing of interests to reach a judgment. Such an exercise is necessarily highly subjective, and the conclusions reached are always open to challenge from persons who begin from different normative and epistemological premises. Nevertheless, one must decide where one stands, and my personal conclusion is that an organ futures market would provide results superior to those obtained through the existing organ supply system virtually regardless of the point of view from which you make the comparison.

My futures market proposal splits the difference between the positions taken by proponents and opponents of commercialization in a manner that should be acceptable to virtually any member of either group who appreciates the disastrous consequences of the current donation-based system and recognizes the need for some form of immediate and radical change. Proponents of commercialization should agree that this proposal achieves their central objectives: the introduction of financial incentives into the organ supply system and the use of market mechanisms to determine the form and size of those incentives. Opponents of commercialization should also agree that this proposal goes quite far toward protecting the personhood interests they so strenuously defend. The restrictions on payments to organ bearers before their death and on sales by living donors and relatives of decedents will prevent persons from being economically coerced into selling their organs to meet pressing financial needs, and will prevent relatives of decedents from desecrating their memories by auctioning off their organs to the highest bidder for personal gain. Potential transplant recipients, of course, will be the great winners under this proposal, because they now will be able to promptly obtain the organs they so desperately need, at least if they are able to pay for them.

No one will get everything he would like from this proposal. Proponents of commercialization will have to concede that the aggregate sums that will have

to be paid to organ bearers to induce futures market commitments are likely to be significantly greater than previously estimated. This will require the establishment of some effective public or private mechanisms to subsidize the purchase of the consequently somewhat expensive organs by those potential transplant recipients who otherwise would be denied access. Advocates of commercialization generally find such large-scale subsidization distasteful and inefficient. They will have to develop some subsidization proposals, however, if they are to convince opponents of commercialization to go along with a comprehensive futures market proposal along the lines I have set out. Opponents of commercialization will have to come to terms with the somewhat unflattering conception of human motivation that underlies moving to a system based upon financial incentives, and with the idea that parts of the sacred human body are being sold, albeit for delivery after death. They also will have to accept the possibility of at least isolated instances of illegal cash sales, and that even if mechanisms are instituted to help poorer transplant recipients defray the costs of obtaining organs, ability-to-pay may remain an occasional factor in organ access.

Even potential transplant recipients, the biggest gainers from my proposal, will bear some additional burdens. On the plus side, this proposal promises to alleviate or wholly eliminate the organ shortage. This will be a great boon for mankind. On the other hand, all of these newly available organs will be expensive. For those potential transplant recipients who would not otherwise be able to obtain an organ, the price, whatever it may be, is a great bargain. For those potential recipients who would have been able to obtain the needed organs under the current donation-based supply system, however, the proposal provides no benefits and only higher organ costs. Potential recipients do not know ex ante, however, whether they will be winners or losers under our current donation-based system. From the point of view of their veil of ignorance, one would expect that they would overwhelmingly favor a system that at least assures the physical availability of the needed organs, even with the accompanying concerns such a system creates for making the necessary financial arrangements.

VI. COMPARISON OF THE FUTURES MARKET SOLUTION TO OTHER ALTERNATIVES TO THE EXISTING ORGAN SUPPLY SYSTEM

There are essentially two alternatives to the existing donation-based organ supply system other than some variant of the organ futures market: (1) a "presumed consent" system (perhaps more accurately described as an "opt out"

or "escheatage" system);[208] and (2) a "cash market" system.[209] Each of these two alternatives, however, has serious shortcomings that makes it far inferior to an organ futures market as an alternative to the current inadequate system.

Under a "presumed consent" system such as has been adopted by at least fourteen European countries,[210] a person who dies with harvestable organs, and who has not given express indications of being unwilling to donate those organs, is presumed to have consented to their harvestation, and they then escheat to the state for harvesting and allocation.[211] This presumption overrides any objections to donation asserted by the surviving kin of the decedent.[212] This approach, therefore, attempts to augment organ supply not by the "carrot" of financial inducements, but instead by simply expropriating the harvestable organs of any deceased person who has not specifically objected in advance to such expropriation.

In theory, such a system would greatly increase the supply of harvestable organs beyond those now obtained through donations, unless a large number of persons exercised their right to "opt out" of the system. In practice, the results obtained in those countries that have implemented a presumed consent system have been disappointing.[213] This disappointment has not resulted from widespread exercise of the "opt out" choice. The problem instead seems to be that despite having the legal right to harvest the organs of a deceased person who has not opted out without obtaining the consent of his relatives, hospital personnel are unwilling to proceed without their consent, and are understandably reluctant even to broach the subject to grieving survivors.[214]

If hospitals did exercise their full legal rights under a presumed consent

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[208] Cohen, *supra* note 1, at 15.

[209] A potential third "alternative"—a "mandated choice" system under which individuals would at some point be required to state their preferences regarding the donation of their organs—I regard as simply a variation on a donation-based system, and consequently will not discuss it as an alternative to the current system. For an insightful discussion of mandated choice, see *CEJA Report* I-93-2, *supra* note 32, at 2-3, 7.

[210] These countries include Austria, the former republic of Czechoslovakia, Denmark, Finland, France, Greece, Hungary, Italy, Norway, Poland, Spain, Sweden, Switzerland, and Germany. *See* Cantaluppi, et al., *Legal Aspects of Organ Procurement in Different Countries*, 16 TRANSPLANTATION PROC. 102, 103 (1984).

[211] For an insightful discussion of the merits of a presumed consent system relative to those of an organ futures market, see generally Cohen, *supra* note 1, at 15-21.

[212] *Id.*

[213] *Id.* at 19-20.

[214] Cohen, *supra* note 1, at 19-20; William Gerson, *Refining the Law of Organ Donation: Lessons From the French Law of Presumed Consent*, 19 N.Y.U. J. INT'L L. & POL. 1013, 1024 (1987).

system, all bodily organs would become the property of the government upon the death of their bearer, unless he had previously exercised his right to opt out of this arrangement. The government then would be free to direct the hospitals to harvest these organs as needed and provide them to transplant recipients at low cost. This approach might solve both the organ supply problem and the recipient affordability problem.[215] It might also have certain other economic advantages over the futures market approach.[216] This "solution" to the organ supply problem, however, is regarded by many as being a moral outrage,[217] because it takes insufficient account of the wishes of the organ bearer and summarily confiscates his organs if he has not objected in advance. It calls forth "historical analogies to slavery and contemporary ones to totalitarianism."[218] Such reservations are the probable reason why such systems have failed to work in the past. A properly designed futures market system would make those same organs available without what is, in effect, a governmental taking of property without compensation, and appears to be the much better alternative almost regardless of one's point of view.

Under a cash market system, organ bearers would be free to contract to deliver their organs either during or after their deaths for current cash payments. Such a system would likely greatly increase the supply of available organs, if prices were permitted to be set at sufficiently high levels, but would raise starkly all of the concerns expressed by opponents of commercialization that the futures market proposal is designed to address. It therefore is unlikely to expand organ supplies any more than would a properly structured futures market system, and would be far less acceptable to those who disfavor commercialization.

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[215] Then again, it might not, because the actual exercise by hospitals of their presumed consent rights might result in public outrage and lead to opting out on a massive scale. A recent Gallup Poll has found that 85% of persons oppose escheatage. Nat Semple, *Ending the Organ Grind: Transplants Could Be Quicker and Fairer*, WASH. POST, July 11, 1993, at C4. A futures market approach would probably be more efficient than a regime of presumed consent because it would provide a positive incentive for persons to make their organs available for transplantation. *But see infra* note 216.

[216] If the primary reason people do not now donate their organs is their reluctance to confront the prospect of their own mortality, then escheatage may be economically superior to a futures market because it will make those organs available without forcing people to bear the psychic costs of contemplating their own death. Cohen, *supra* note 1, at 18. On the other hand, perhaps people should be encouraged to confront the fact of their own mortality. *See, e.g.*, CARLOS CASTANEDA, JOURNEY TO IXTLAN (1972) (arguing that enlightened self-realization can be achieved, if at all, only if life is lived with a consciousness of death).

[217] Cohen, *supra* note 1, at 18; *CEJA Report 1-93-2*, *supra* note 32, at 7.

[218] Cohen, *supra* note 1, at 15–16.

In summary, if one is seriously willing to consider alternatives to the existing donation-based organ supply system in the U.S., the concept of a futures market with accompanying restrictions upon cash organ sales by live donors and by relatives of decedents seems to be the most promising possibility.

VII. CHANGING THE LAW TO ALLOW AN ORGAN FUTURES MARKET TO OPERATE

A. *The Dismal Prospects for Favorable Judicial Reinterpretation of NOTA and the UAGA*

The existing statutory framework governing organ donations is extremely hostile to commercial transactions.[219] Even if the judiciary could be convinced that the arguments in favor of allowing a futures market in bodily organs to operate are so compelling that the legal restrictions on commercial transactions should be subjected to severe scrutiny and circumvented if possible, the applicable statutes leave little or no room for articulating a jurisprudence that could finesse those restrictions. Even sympathetic judges with a realist bent and who accept all of the policy arguments in favor of allowing commercialization will have great difficulty interpreting a clear statutory "no" to mean "yes." Any efforts to obtain the consistent body of permissive judicial statutory re-interpretations that would be necessary to allow a futures market involving substantial financial commitments to operate are likely to be futile, and the only alternatives that appear to hold any promise of success are direct constitutional or political/legislative challenges to NOTA and the UAGA.

Let me set forth my reasoning in more detail. As previously discussed, the 1968 version of the UAGA—still the basis for current state law in most jurisdictions—does not expressly address the matter of organ sales. This gives the courts some room to exercise their discretion. Given the underlying policy of facilitating organ transplantation that was central to the drafting and widespread adoption of the UAGA,[220] the forceful arguments that can be made that a futures market could better achieve that objective than does the existing system,[221] and the lack of clear evidence concerning the intent of the adopting legislatures,[222] it may be possible to convince judges to construe those statutes that are based upon the 1968 UAGA to not preclude commercial organ

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219 *See supra* text accompanying notes 42–87.

220 *The Sale of Body Parts*, *supra* note 1, at 1186.

221 *See supra* notes 129–208 and accompanying text.

222 *See supra* text accompanying notes 61–68.

transactions. Such a construction could be accompanied by judicial endorsement of the concept of property rights in body parts—a concept now supported by a significant body of legal authority[223]—which in conjunction would remove at least the state law obstacles to the operation of a futures market in the significant number of states that have statutory frameworks based upon the 1968 UAGA and that have not adopted express prohibitions against commercial organ transactions.[224]

Such rulings, however, would not reach the state law restrictions in the fourteen states that have adopted the 1987 version of the UAGA[225] with its express prohibition on organ sales,[226] nor the restrictions existing in those states that have augmented their 1968 UAGA-based statutes with express prohibitions.[227] More importantly, they would not address the prohibition imposed by NOTA barring any organ sale transactions that involve the instrumentality of interstate commerce.

Some commentators have offered arguments that NOTA can be reasonably reinterpreted to permit at least a futures market in organs to operate, but those arguments are rather unconvincing.[228] NOTA makes it unlawful to "transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce."[229] One commentator has taken the position that this language leaves it unclear whether NOTA would prohibit the sale of an organ if the transfer "is classified as a service rather than as a purchase or sale."[230] There is no indication, however, that Congress intended NOTA to draw any Uniform Commercial Code-type distinctions between goods and services. Even if the organ that was transplanted was regarded as an ancillary aspect of the broader "service" of maintaining the life of the recipient, the sale of that organ as part of the service arrangements would appear to fall squarely under the broad NOTA prohibition against compensated transfers. Whether an organ transaction is characterized as a sale of "goods" or "services" would appear to bear only upon the applicability of product liability

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223 *See infra* notes 276–85 and accompanying text.

224 Thirty-nine states still have in force statutory frameworks based upon the 1968 version of the UAGA. UNIF. ANATOMICAL GIFT ACT, 8A U.L.A. 33 (Supp. 1993). Of those states only a few have adopted express prohibitions against organ sales. Bray, *supra* note 1, at 209, 223–24, 225 n.103 (citing such statutes for Illinois, New Mexico, New York, and Virginia).

225 UNIF. ANATOMICAL GIFT ACT, 8A U.L.A. 3 (Supp. 1993).

226 *Id.* at § 10, 8A U.L.A. 29 (Supp. 1993).

227 *See supra* note 86.

228 *See infra* notes 230–33 and accompanying text.

229 42 U.S.C. § 274e (1988).

230 Karen L. Johnson, Note, *The Sale of Human Organs: Implicating a Property Right*, 21 VAL. U. L. REV. 741, 743 n.20 (1987).

remedies or Uniform Commercial Code-based implied warranties,[231] and not on the applicability of the sale restrictions themselves.

Another commentator has focused upon the "valuable consideration" language of the NOTA prohibition,[232] and has argued that the statute's definition of this phrase is "uncertain" and "might not prohibit the exchange of an organ for noncash compensation" such as according the "donor's family members priority if they need an organ in the future and to make a $10,000 donation to the donor's favorite charity in exchange for the donated organ."[233] The term "valuable consideration," however, is one of the broadest in all the law, and is universally understood to cover noncash compensation, deferred compensation, and payment of compensation as directed to third parties. The limitations contained in the NOTA definition of valuable consideration do not suggest that any of those traditional forms of consideration are to be excluded from the scope of the prohibition.

There is one not entirely implausible textual argument that can be made concerning the NOTA "valuable consideration" definition. That definition expressly excludes from its scope the "reasonable payments" associated with virtually the entire sequence of operations that might be involved in an organ transplantation.[234] Given the broader recognition now generally accorded property rights in bodily organs,[235] one could contend that payments of current or deferred compensation to the holders of those rights to induce them to give them up are reasonable payments. It arguably would be "unreasonable" for transplant recipients to expect to be able to take possession of other persons' valuable property without paying compensation. Those payments, if regarded as "reasonable," are certainly "associated" with the sequence of organ transplantation procedures. As a counter to the argument that the legislative history of NOTA evidences congressional intent to prohibit organ sales,[236] and that therefore the "reasonable payments" language should be construed to not include compensation paid to donors for their organs, one can argue that the legislative history evidences even more clearly the legislative intent to alleviate

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231 *See* Moore v. Regents of the Univ. of Cal., 793 P.2d 479, 491 (Cal. 1990).

232 The definitional provisions of NOTA define "valuable consideration" to *not* include "the reasonable payments associated with the removal, transplantation, 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." 42 U.S.C. § 274e(c)(2) (1988).

233 Note, *Regulating the Sale of Human Organs*, 71 VA. L. REV. 1015, 1024 n.92 (1985).

234 42 U.S.C. § 273e(c)(2) (1984).

235 *See infra* notes 276–85 and accompanying text.

236 *See supra* note 75 and accompanying text.

the organ shortage, and that all textual ambiguities should be resolved in a manner that furthers achievement of this primary objective. There is little one can say, however, in response to the further argument that congressional inaction since 1984 in this area, despite the growing organ shortage, constitutes an implicit legislative ratification of the universal interpretation of NOTA as prohibiting organ sales. Moreover, if one attempts to analogize to the adoption area, where many state statutes permit reasonable payments to be paid to the biological mother to cover expenses attendant to child-birth,[237] one searches in vain for judicial approval of payments for intangibles such as separation anxiety or relinquishment of parental rights that might be viewed as somewhat congruent with the sacrifices made by an organ donor.

It thus appears that the governing statutes can not reasonably bear a favorable reinterpretation that would allow a futures market to operate, and that a frontal assault upon NOTA and the UAGA will be required. I will first set forth two constitutional arguments that can be mustered against those statutes, and then turn to the question of developing an effective political/legislative strategy to support the constitutional challenge and, if necessary, to press for appropriate statutory amendments.

B. *Constitutional Challenges to NOTA and the UAGA*

There are two relatively plausible constitutional critiques that can be made of NOTA and of any state statutes that similarly prohibit the sale of bodily organs. One or the other of these critiques may provide a legal rationale sufficient to allow sympathetic courts that are persuaded of the advantages of a futures market in bodily organs to invalidate those statutes on constitutional grounds. One of these challenges is based upon the "right to privacy" line of constitutional jurisprudence, and the other is based upon recent "Takings Clause" jurisprudence. Each of these constitutional challenges is set forth and examined below in relatively summary fashion.

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237 *See, e.g.*, ARIZ. REV. STAT. ANN. § 8-114, (1956); HAW. REV. STAT. § 432:1-602.6 (1992 Supp.).

1. *The Privacy Right Argument*[238]

A constitutional critique of NOTA and the UAGA-based state statutes can be offered along the following general lines: The Supreme Court has long recognized a fundamental right of privacy under the United States Constitution. An individual's decision whether to sell his bodily organs is a deeply personal and private matter that falls within the scope of that privacy right. When Congress or a state legislature enacts legislation that limits the exercise of a fundamental right, that legislation should be subject to strict judicial scrutiny, and can be justified only by a compelling state interest. The state interests implicated here can be adequately protected by requiring organ sales to take place within a futures market context. There is no compelling state interest served by imposing more extensive restrictions that prohibit all organ sales. NOTA and the UAGA-based prohibitions therefore unnecessarily violate fundamental privacy rights and should be invalidated. Even if NOTA and the UAGA-based statutes are regarded as being primarily economic legislation—on the basis that they permit organ donation and prohibit only sales—the decision to sell an organ inherently involves fundamental personal rights as well as economic rights, and such personal rights are implicated by such a sweeping limitation of options. These statutes must therefore meet at least an intermediate standard of review; the legislation must be precisely tailored to further a substantial state interest. Because restriction of organ transactions to a futures market would serve fully the substantial state interests implicated, the NOTA and UAGA-based prohibitions are overbroad and constitutionally invalid.

This line of argument has a certain plausibility and merits a more detailed examination. The Supreme Court clearly has taken the position that there exists an unenumerated right of privacy that merits constitutional protection.[239] Although many of the Supreme Court decisions in this area have focused upon

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[238] The constitutional right of privacy argument against the NOTA sale prohibitions is well-developed in Johnson, *supra* note 230, and many of the arguments *infra* are drawn from that discussion. Other commentators who have recognized that NOTA may be vulnerable to a constitutional challenge on right of privacy grounds include Mary Taylor Danforth, Note, *Cells, Sales, and Royalties: The Patient's Right to a Portion of the Profits*, 6 YALE L. & POL'Y. REV. 179, 186–89 (1988); Note, *Regulating the Sale of Human Organs*, 71 VA. L. REV. 1015, 1025 (1985).

[239] The development of the main features of the right of privacy jurisprudence can be traced through the following well-known line of Supreme Court cases: Roe v. Wade, 410 U.S. 113 (1973) (establishing the right to abortion); Eisenstadt v. Baird, 405 U.S. 438 (1972) (establishing the right of privacy in the contraceptive context); Griswold v. Connecticut, 381 U.S. 479 (1965) (establishing the right of privacy in the contraceptive context); NAACP v. Alabama, 357 U.S. 449 (1958) (establishing the freedom of association).

statutes impacting marriage and family life,[240] a substantial number of lower court decisions handed down over the last two decades in the "right to die" cases have interpreted the privacy right more broadly to cover medical decisions regarding personal health and the quality of life.[241] For example, in *Gray v. Romeo*[242] the U.S. District Court for the District of Rhode Island ruled that a patient had a right grounded in the constitutional right of privacy to refuse life-sustaining medical treatment.[243] Similarly, in *Brophy v. New England Sinai Hospital, Inc.*[244] the Massachusetts Supreme Judicial Court ruled that the right to privacy protected a patient's right to refuse medical treatment.[245] It held that decisions regarding an individual's quality of life should be made by the individual rather than the state, and no state interest could override the patient's right to discontinue treatment.[246] As early as 1976, the New Jersey Supreme Court had held in *Matter of Quinlan*[247] that even a "compelling" state interest was not sufficient to override the patient's right of privacy to decline medical treatment.[248] Even the possibility of the patient's death resulting from her decision was determined not to be an adequate reason to allow the state to infringe upon her fundamental privacy right to decide upon

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[240] *See, e.g.*, Zablocki v. Redhail, 434 U.S. 374 (1978) (protecting the right to marry); Moore v. City of East Cleveland, 431 U.S. 494 (1977) (reviewing a housing ordinance's definition of "family"); Roe v. Wade, 410 U.S. 113 (1973) (establishing the right to abortion); Doe v. Bolton, 410 U.S. 179 (1973) (establishing the right to abortion); Eisenstadt v. Baird, 405 U.S. 438 (1972) (protecting the right to use contraception); Griswold v. Connecticut, 381 U.S. 479 (1965) (protecting the right to use contraception).

[241] *See, e.g.*, Gray v. Romeo, 697 F. Supp. 580 (D.R.I. 1988); Rasmussen v. Fleming, 741 P.2d 674 (Ariz. 1987); Bouvia v. Superior Court, 225 Cal. Rptr. 297 (Cal. App. 1986); Brophy v. New England Sinai Hosp., Inc., 497 N.E.2d 626 (Mass. 1986); Superintendent of Belchertown State Sch. v. Saikewicz, 370 N.E.2d 417 (Mass. 1977); *Matter of* Quinlan, 355 A.2d 647 (N.J. 1976).

[242] 697 F. Supp. 580 (D.R.I. 1988).

[243] *Id.* at 584–86. The opinion emphasized that "the right to control fundamental medical decisions is an aspect of the right of self-determination and personal autonomy" that is deeply rooted in our traditions. *Id.* at 586. The court declared forcefully that "the right to control medical decisions affecting one's body can hardly be questioned. The root premise is the concept, fundamental in American jurisprudence, that '[e]very human being of adult years and sound mind has a right to determine what shall be done with his own body . . . .'" *Id.* at 586 (quoting Canterbury v. Spence, 464 F.2d 772, 780 (D.C. Cir.), *cert. denied*, 409 U.S. 1064 (1972)).

[244] 497 N.E.2d 626 (Mass. 1986).

[245] *Id* at 633.

[246] *Id.* at 635.

[247] 355 A.2d 647 (N.J. 1976).

[248] *Id* at 664.

her own course of treatment.[249]

The difficult question is whether this line of right to die privacy cases that protects an individual's right to make certain, very fundamental medical decisions can be interpreted to extend protection to the deeply personal but not life-threatening decision to sell a bodily organ for postmortem transplantation purposes. A strong case can be made for such an expansive interpretation. The organ sale decision does involve bodily integrity in a direct, personal way comparable to the decisions at issue in the right to die cases. The decisions to sell organs are definitely "medical decisions affecting one's body" of the sort that the *Gray* court argued merited constitutional protection.[250] Even though some persons may believe that selling organs is an incorrect course of conduct, under the rationale of *Brophy*, the wisdom of a decision regarding health and the quality of one's life is not relevant to determining its claim to constitutional protection.[251] The right of a person to make his own decision in such matters is arguably particularly appropriate for protection in a situation such as organ transplantation where there are no simple answers or obvious solutions to the complex dilemmas posed.[252]

On the other hand, there exist recent Supreme Court opinions which suggest that if the Supreme Court were squarely presented with the question it would rule that the NOTA and UAGA-based prohibitions on organ sales would not violate the constitutional right of privacy. In *Cruzan v. Director, Missouri Dept. of Health*[253] the Supreme Court addressed the right-to-die question and declined to hold that the decision to refuse life-sustaining treatment is encompassed by the constitutional right of privacy.[254] The *Cruzan* ruling could be regarded as indicating only a reluctance to extend constitutional privacy rights in the narrow right-to-die context, or it may be read more broadly as indicating a general reluctance to extend those protections beyond the contours defined by precedents.

The latter interpretation unfortunately seems more in accord with the restrictive position taken by the Supreme Court in *Bowers v. Hardwick*.[255] The Supreme Court in *Bowers* refused to accord privacy right protection for

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[249] *Id.*

[250] Gray v. Romeo, 697 F. Supp. 580, 584 (D.R.I. 1988).

[251] Johnson, *supra* note 230, at 754.

[252] *Id.*

[253] 497 U.S. 261 (1990).

[254] *Id.* at 279 n.7. The opinion did not hold that the right to refuse treatment was necessarily outside of the zone of the right of privacy, but simply that the issue "was more properly analyzed in terms of a Fourteenth Amendment liberty interest." *Id.*

[255] 478 U.S. 186 (1986).

homosexuals against a statute criminalizing sodomy.[256] The Court framed the issue narrowly as relating to the right to engage in homosexual sodomy rather than more broadly as concerning the right to engage in private, consensual sexual behavior.[257] The opinion stressed that the right of privacy should extend only to include personal decisions that are "implicit in the concept of ordered liberty,"[258] or that are "deeply rooted in this Nation's history and tradition."[259]

Under the *Bowers* approach, the constitutional issue raised by the NOTA prohibitions would likely be characterized narrowly as the question of the right to sell body parts in commerce, rather than more broadly as the question of the right to control the postmortem disposition of one's body. From this perspective, it does not appear that the right to sell bodily organs is necessarily implicit in the concept of ordered liberty to the extent that "neither liberty nor justice would exist if [that right] were sacrificed."[260] Nor is there any deeply rooted tradition of organ sales in the United States. To the contrary, the recent period during which organ transplants have become feasible has been characterized by the widespread adoption of legislative prohibitions that appear to have at least implicit public support.

Bowers would thus appear to present a substantial obstacle to the right of privacy attack on the NOTA prohibitions. Nevertheless, the *Gray* decision was rendered post-*Bowers* (although, concededly, pre-*Cruzan*), and the *Gray* court had little difficulty distinguishing between the homosexual rights at issue in *Bowers* and the medical decision rights implicated in the controversy before it. The *Bowers* opinion may well come to be regarded generally as an example of particular antipathy towards homosexuals, and its approach of characterizing the rights at issue narrowly may not be consistently followed in privacy right controversies outside of that limited context.

If it can be established that the organ sale decision falls within the zone of privacy right protection, then attention must turn to whether the blanket NOTA and UAGA-based prohibitions against such sales can satisfy the requisite criteria of protecting a compelling state interest, and of being narrowly drawn so as to limit that right only to the extent necessary to protect that interest.[261] At this point in the argument, one would introduce the concept of a futures market for bodily organs, and attempt to show that limiting organ sales to such

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[256] *Id.* at 191.

[257] *Id.* at 190.

[258] *Id.* at 191 (quoting Palko v. Connecticut, 302 U.S. 319, 325 (1937)).

[259] *Id.* at 192 (quoting Moore v. City of East Cleveland, 431 U.S. 494, 503 (1977)).

[260] Palko v. Connecticut, 302 U.S. 319, 326 (1937).

[261] *See* Roe v. Wade, 410 U.S. 133, 155 (1973) (holding that regulations affecting fundamental rights can only be justified by compelling state interests).

a regime would protect all of the implicated compelling state interests. If this showing can be made to the satisfaction of the courts, then the blanket NOTA and UAGA-based prohibitions on organ sales could well be struck down as overbroad. If the constitutional inquiry comes down to this issue the prospects for invalidation of at least the UAGA-based statutes are favorable,[262] although historically the courts have been highly reluctant to invalidate an act of Congress such as NOTA.[263]

Defenders of these statutes would doubtless seek to characterize them as merely economic legislation that does not implicate privacy rights, because they do not restrict—and even attempt to facilitate the exercise of—an individual's right to donate his organs for transplantation, and seek only to prevent the individual from doing so for compensation. Thus, the private, personal, bodily integrity aspects of the organ donation decision are not being infringed, but rather only the economic consequences are being affected. It is established law that when a statute affects purely economic rights, the governmental body need only show that the law is rationally related to a legitimate state purpose to pass constitutional muster.[264]

This is a powerful argument, but a response can be offered. NOTA and the UAGA-based statutes are surely rationally related to legitimate state purposes, but are arguably not forms of economic "regulation." While economic regulations generally attempt to steer commercial activity into socially acceptable channels, and are intended to curtail excesses and abuses, these statutes' flat prohibitions on all forms of commercial activity in bodily organs arguably go beyond merely regulating such activity and limit it in such a drastic manner that the protected, private, personal decision is so confined as to be abridged. When legislation has an economic aspect and satisfies rationality criteria, yet infringes upon fundamental personal rights, arguably at least an intermediate standard of review should be applied.[265]

In *Plyler v. Doe*[266] the Supreme Court applied such an intermediate standard of review in the education context . It balanced the "substantial" state

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[262] In accord are Danforth, *supra* note 238 and Johnson, *supra* note 230.

[263] *See, e.g.*, United States v. Weidner, 692 F. Supp. 968 (N.D. Ind. 1988).

[264] *See, e.g.*, Duke Power Co. v. Carolina Envtl. Study Group, Inc., 438 U.S. 59 (1978) (holding that courts should not interfere with economic legislation on constitutional grounds unless the legislation is arbitrary or irrational); *see also* Griswold v. Connecticut, 381 U.S. 479, 482 (1965) ("We do not sit as a super-legislature to determine the . . . propriety of laws that touch economic problems . . . ."); United States v. Carolene Products, 304 U.S. 144 (1938) (legislation affecting commercial transactions is not unconstitutional if it rests upon a rational basis).

[265] *See* Plyler v. Doe, 457 U.S. 202, 224 (1982).

[266] 457 U.S. 202 (1982).

interest there implicated against the resulting infringement on various individual rights, and found that the State of Texas had not met its burden.[267] In similar fashion, it could be argued that the governmental interests furthered by imposition of the NOTA and UAGA-based prohibitions—beyond those interests adequately furthered by the more measured approach of limiting organ sales to the confines of a futures market—are not "substantial." Even if the interests are substantial, they are outweighed by the importance of the privacy and economic interests abridged. This "intermediate review" argument for striking down the NOTA and UAGA-based prohibitions is more difficult to sustain than the privacy right argument made above; that the NOTA and UAGA-based prohibitions are not properly limited nor necessary to further compelling state interests given the availability of the futures market alternative. It does, however, have its adherents.[268]

2. *The Takings Clause Argument*

A second constitutional critique of NOTA and the UAGA-based sale prohibitions can be elaborated along the following general lines: Under the Fifth and Fourteenth Amendments no governmental body may take private property for public use without paying the owner just compensation.[269] During the nineteenth and early twentieth century, only actual physical appropriations of property were found to constitute governmental takings.[270] However, since *Pennsylvania Coal Co. v. Mahon*[271] the Supreme Court has recognized that regulatory interference with the rights of property owners that stops short of actual physical appropriation may, in some instances, constitute a taking requiring compensation.[272] In its recent landmark decision in *Lucas v. South Carolina Coastal Council*[273] the Supreme Court forcefully reasserted the concept of a regulatory taking. Under the standards articulated in *Lucas*, any law that proscribes all economically beneficial use of private property constitutes a taking that requires compensation unless the proscribed uses were not inherent in the owner's title—such as when the proscribed uses were classified as actionable nuisances at common law.[274]

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[267] *Id.* at 230.

[268] *See generally* Johnson, *supra* note 230.

[269] Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992).

[270] Paul F. Haffner, Note, *Regulatory Takings—A New Categorical Rule*, 61 U. CIN. L. REV. 1035, 1038 (1993).

[271] 260 U.S. 393 (1922).

[272] *Id.* at 416.

[273] 112 S. Ct. 2886 (1992).

[274] *Id.*

Under modern law, a person's bodily organs have become widely recognized as constituting a form of personal property to which many of the usual incidents of property ownership attach.[275] Both NOTA and the UAGA attempt to further certain public interests by facilitating voluntary donation of organs and by prohibiting persons from making any economically beneficial use of the right to control the disposition of their bodily organs after their death. There was, however, no doctrine at common law that limited a person's right to dispose of his organs for compensation on the basis that such compensated transactions constituted a public nuisance. Therefore, under the *Mahon-Lucas* line of cases, NOTA and the UAGA constitute takings of the rights of organ donors to make economically beneficial use of their property, without compensation, and thus should be held constitutionally invalid.

The *Mahon-Lucas* line of reasoning hinges upon three central issues: (1) whether persons have a property right in their bodily organs which, in the absence of statutory abridgment, includes the right to sell those organs; (2) whether the expansive *Lucas* precedent is restricted to takings of real property, or is more broadly applicable to protect property interests in bodily organs; and (3) whether, assuming that *Lucas* applies to property interests in bodily organs, the NOTA and UAGA-based restrictions deprive persons of "all economically beneficial use" of their bodily organs so as to trigger the *Lucas* compensation requirement.

There is substantial authority supporting the proposition that a person's bodily organs are widely regarded as tangible, personal property over which the owner may exercise many of the usual rights incident to property ownership. While traditional English common law did not recognize property rights in human bodies, modern American courts have generally deviated from this position. Many states recognize at least a limited property right with regard to cadavers.[276] Numerous other courts have in recent years taken further steps towards recognizing a broader property right in bodily tissues.[277] A recent

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[275] *See infra* notes 276–85 and accompanying text.

[276] *See, e.g.*, Sinai Temple v. Kaplan, 127 Cal. Rptr. 80 (1976) (holding that a daughter had the legal right to direct the disposition of her father's corpse); Leno v. St. Joseph Hosp., 302 N.E.2d 58 (Ill. 1973) (stating that a decedent's next of kin has a right of possession of the body for purposes of arranging disposition); Finley v. Atwell Transport Co., 115 N.E. 715 (N.Y. 1917) (concluding that the son had a cause of action against a steamship company for not returning his father's body to the U.S. for burial); *In re* Moyer, 577 P.2d 108, 110 (Utah 1978) (stating that a person has a "property right of a special nature" in controlling and directing the "disposition of his body [parts] after death").

[277] *See, e.g.*, United States v. Garber, 607 F.2d 92, 97 (5th Cir. 1979) ("[B]lood plasma . . . like any salable part of the human body, is tangible property . . . ."); Venner v. Maryland, 354 A.2d 483, 498 (Md. App. 1976) stating that:

significant decision went beyond all earlier holdings to flatly declare that human tissue is the property of the person from whom it is removed.[278] In *Moore v. Regents of the University of California*,[279] a case involving the property rights of a hospital patient in his removed spleen and in the commercial prospects for pharmaceutical products developed from cells contained in that spleen, the California Court of Appeals stated forcefully:

> We have been cited to no legal authority . . . which compel[s] a conclusion that the plaintiff cannot have a sufficient legal interest in his own bodily tissues amounting to personal property. . . . To our knowledge, no public policy has ever been articulated, nor is there any statutory authority, against a property interest in one's own body. . . . The rights of dominion over one's own body, and the interests one has therein, are recognized in many cases. These rights and interests are so akin to property interests that it would be a subterfuge to call them anything else . . . . The essence of a property interest—the ultimate right of control—therefore exists with regard to one's own human body. Even though the rights and interests one has over one's own body may be subject to important limitations because of public health concerns, the absence of unlimited or unrestricted dominion and control does not negate the existence of a property right for the purposes of a conversion action. . . . A patient must have the ultimate power to control what becomes of his or her tissues.[280]

The opinion in *Moore* was affirmed in part and reversed in part by the California Supreme Court.[281] That court reversed the lower court's ruling that the plaintiff could sustain a cause of action for the conversion of his spleen, but

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> It could not be said that a person has no property right in . . . materials which were once a part of or contained within his body . . . . It is not unknown for a person to assert a continuing right of ownership, dominion, or control, for good reason or for no reason, over such things as . . . organs or other parts of the body.

Id.; *see also* Bouvia v. Superior Court, 225 Cal. Rptr. 297, 302 (Cal. App. 1986) ("Every human being of adult years and sound mind has a right to determine what shall be done with his own body . . . ."); O'Donnell v. Slack, 55 P. 906, 907 (Cal. 1899) (stating that there exist "property rights in the body which will be protected, and for a violation of which" the next of kin will be entitled to indemnification).

[278] Moore v. Regents of the Univ. of Cal., 249 Cal. Rptr. 494 (Cal. App. 1988).

[279] *Id.*

[280] *Id.* at 503–08.

[281] Moore v. Regents of the Univ. of Cal., 793 P.2d 479 (Cal. 1990).

held that his complaint did state a cause of action for breach of the physician's duty to disclose.[282] The court, however, failed to take a clear position on the question of property interests in bodily organs: "[W]e do not purport to hold that excised cells can never be property. . . ."[283]

NOTA and the state codifications of the UAGA themselves—with their elaborate procedures for facilitating the donation of organs by donors or their surviving kin, and their exemptions to allow the commercial sale of hair, sperm, blood, and other regenerative tissues—also serve to demonstrate that the prevailing legal landscape now recognizes property rights in bodily organs. Given this authority, it is at least arguable that the bundle of rights which constitute the bodily organ property interest would, absent the NOTA and UAGA-based sale prohibitions, be the bundle normally incident to personal property ownership, and would include the right of a person who bears those organs in his body to sell them to potential transplant recipients or their agents for delivery after his death.[284] The NOTA and UAGA-based prohibitions, therefore, can be regarded as limiting these background common law rights, and conceivably could constitute takings without compensation under a *Lucas*[285] analysis.

The Supreme Court's opinion in *Lucas* is potentially very sweeping in its scope and merits close examination. That case involved a challenge by an owner of two parcels of property to a South Carolina statute enacted after the owner had acquired title that barred the owner on environmental grounds from erecting any permanent habitable structures on the parcels.[286] That statute so restricted the owner's ability to utilize the parcels that his interest had become "valueless."[287] The owner conceded that the statute was a lawful exercise of the state's police power, but contended that the complete destruction of the property's commercial value nevertheless entitled him to compensation.[288] The owner was awarded compensation by the state trial court, but the South Carolina Supreme Court reversed, citing as authority for its ruling a line of U.S. Supreme Court cases stemming from the *Mugler v. Kansas*[289] decision

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282 *Id.* at 480.

283 *Id.* at 493.

284 *Id.*

285 Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992).

286 *Id.* at 2890.

287 *Id.*

288 *Id.*

289 123 U.S. 623 (1887). The primary cases that have elaborated upon the principles first set forth in *Mugler* are Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470 (1987); Goldblatt v. Hempstead, 369 U.S. 590 (1962); Miller v. Schoene, 276 U.S. 272 (1928); Hadachek v. Sebastian, 239 U.S. 394 (1915).

that suggested that regulations designed "to prevent serious public harm" could not constitute takings even if they severely impacted property values.[290] The U.S. Supreme Court, however, ruled in favor of the property owner, and reversed the ruling of the South Carolina Supreme Court and remanded for further proceedings.[291]

Justice Scalia wrote the majority opinion in *Lucas*, and began his analysis of the merits of the dispute by citing with approval the proposition first set forth by the Supreme Court in 1922 in *Mahon* that "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."[292] While recognizing that the questions of when regulations go far enough to constitute takings generally involve "ad hoc, factual inquiries," he stated that "where regulation denies all economically beneficial or productive use of land" the effect is categorically compensable "without case-specific inquiry into the public interest advanced in support of the restraint."[293] Noting the caution expressed in *Mahon* that "[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change,"[294] Justice Scalia declared that this basis for allowing value-reducing regulatory restrictions without compensation "does not apply to the relatively rare situations where the government has deprived a landowner of all economically beneficial uses."[295] He concluded that "there are good reasons for our frequently expressed belief that when the owner of real property has been called upon to sacrifice all economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking."[296]

The *Lucas* opinion does recognize some limitations upon this sweeping principle of requiring compensation for all total takings. According to Justice Scalia, a governmental body need not compensate a person for the deprivation of all economically beneficial use of land if "the proscribed use interests were not part of his title to begin with."[297] Such limitations on the property rights that an owner may exercise may "inhere in the title itself,"[298] or may exist "in the restrictions that background principles of the State's law of property and

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[290] *Lucas*, 112 S. Ct. at 2890.

[291] *Id.* at 2902.

[292] *Id.* at 2893 (citing Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 414–15 (1922)).

[293] *Id.*

[294] *Id.* at 2894 (citing Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 413 (1922)).

[295] *Id.*

[296] *Id.* at 2895 (footnote omitted).

[297] *Id.* at 2899 (footnote omitted).

[298] *Id.* at 2900.

nuisance already place" upon property ownership.[299]

A crucial question is whether the *Lucas* compensation requirements apply only to total takings of real estate, or apply more generally to protect interests in personal property as well. This question appears to be the weakest link in the takings clause argument against NOTA and the UAGA-based statutes. There is little if any question that personal property as well as real property is entitled to Fifth Amendment protection. The Fifth Amendment Takings Clause refers generally to "private property" without limitation.[300] The Supreme Court never has held that the Fifth Amendment protections against uncompensated governmental appropriation are limited to real property, and has resolved numerous controversies under the Takings Clause that related to regulations restricting rights relating to personal property (although, concededly, usually upholding the governmental regulation).[301]

While there can, therefore, be takings of personal property which implicate constitutional protections, it is not clear that the particular *Lucas* "compensation for total takings" requirements are applicable to takings of personal property. The *Lucas* decision involved a taking of interests in real property,[302] and the standards articulated by Justice Scalia in that opinion consistently refer to real property interests.[303] Most significantly, while he did not expressly limit the authority of *Lucas* to controversies involving the regulation of real property, Justice Scalia did state that "by reason of the State's traditionally high degree of control over commercial dealings [a person] ought to be aware of the possibility that new regulation might even render his property economically worthless."[304] His meaning is not entirely clear. This statement might be read as only requiring for a *Lucas* analysis a more searching inquiry into the nature and scope of the bundle of rights persons reasonably expect to obtain when they acquire property, if the property is personal rather than real. Alternatively, Justice Scalia's caveat can be interpreted more broadly as excluding personal property takings altogether from the scope of *Lucas*, and leaving unchanged the restrictive jurisprudence in that area.[305]

Finally, if persons are regarded as having a common law property right to

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[299] *Id.*

[300] U.S. CONST. amend. V.

[301] *See, e.g.*, Andrus v. Allard, 444 U.S. 51 (1979) (property at issue was Indian artifacts composed of bird feathers); Everard's Breweries v. Day, 265 U.S. 545 (1924) (property at issue was stocks of alcohol); Jacob Ruppert, Inc. v. Caffey, 251 U.S. 264 (1920) (property at issue was stocks of alcohol).

[302] *Lucas*, 112 S. Ct. at 2895.

[303] *Id.*

[304] *Id.* at 2889.

[305] *See, e.g.*, the cases cited *supra* in note 301.

sell their organs, and if the *Lucas* opinion is regarded as applicable generally to all total takings, there is presented the question whether a prohibition on organ sales constitutes the deprivation of "all economically beneficial use" of those organs. Such a prohibition of course allows persons to utilize their organs for their natural purposes as they go through life, including their economic life. It does, however, completely remove the possibility of a person also benefiting himself economically in an additional manner by committing himself to a compensated postmortem transfer of those organs to transplant recipients. If a person's right to control the postmortem use of his organs by other persons is regarded as a property interest qualitatively different from and separate from his interest in using his organs during his life, then the NOTA and UAGA-based state prohibitions constitute total takings of the economic value of that separate interest, and the compensation requirements of *Lucas* would be implicated. If, however, the use of one's organs during life and the right to control their postmortem disposition are viewed as two aspects of a single, indivisible bodily organ interest, the NOTA and the UAGA-based prohibitions would constitute only partial takings of the value of that interest, and *Lucas* would be inapplicable. The sensitivity of the *Lucas* analysis to the precise definition of the property interest at issue is perhaps one of the most serious difficulties that the courts will encounter in attempting to give force to that opinion, as Justice Scalia conceded[306] and at least one commentator has pointed out.[307]

3. *Summary*

I have not attempted to exhaustively analyze the merits of the two constitutional challenges to NOTA and the UAGA-based statutes that I have presented above. One could certainly sieve those arguments through a much finer mesh of Supreme Court precedents and constitutional theory. What I have attempted to demonstrate, however, is that proponents of an organ futures market have available at least a couple of plausible constitutional critiques of the NOTA and UAGA-based organ sale prohibitions. I approach these constitutional questions from a legal realist perspective. If the judiciary can be convinced by the policy arguments I have offered in this Article—that social welfare would be greatly advanced by allowing a futures market in bodily organs to operate—it likely will be responsive to somewhat novel legal arguments designed to further that end. One of my constitutional critiques may then, in more developed form, provide the courts with what they regard as a

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[306] *Lucas*, 112 S. Ct. at 2901.

[307] Paul F. Haffner, Note, *Regulatory Takings—A New Categorical Rule*, 61 U. CIN. L. REV. 1035, 1056-57 (1993).

sufficient legal basis for removing the current statutory obstacles to the development of such a market. Such judicial action, however, will not suffice to establish and maintain an organ futures market if Congress or the state legislatures subsequently act to place additional obstacles in the way of organ sales to replace the fallen NOTA and UAGA-based prohibitions. The efforts to overturn those prohibitions on constitutional grounds, even if successful, must therefore be accompanied by political activity that is influential enough to block legislative efforts to reimpose those restrictions in a different form. If the constitutional challenges are unsuccessful, then the political effort will have to be substantially greater so that the legislative inertia can be overcome and the NOTA and state UAGA codifications amended in appropriate fashion. I now turn to developing the contours of a political/legislative strategy that could achieve these objectives.

C. *Creating a Politically Effective Coalition to Amend NOTA and the UAGA*

It would be a great step forward if NOTA and the state UAGA codifications were amended to allow an organ futures market to operate along the lines I have proposed. Just because an organ futures market is a good idea, however, does not mean it will come to pass. For such a major change to be made in the legal and institutional framework, it will be necessary to mount a political effort strong enough to overcome both legislative inertia and the opposition of certain interest groups in both Congress and the statehouses.

The Schwindt & Vining,[308] Hansmann,[309] and Cohen[310] futures market proposals were all major steps in the right direction, and laid the intellectual groundwork for more comprehensive and detailed proposals such as set forth herein. None of these earlier proposals, however, were followed by any significant efforts to adopt implementing legislation at the state or federal levels, and consequently no change has resulted. Our legislative system—with its deliberately cumbersome framework of committees and subcommittees, bicameralism, and the like—is designed to be heavily biased in favor of the status quo, and to kill bills quietly and anonymously unless the forces for change are extremely powerful and persistent.[311] To prod legislatures to act

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[308] Schwindt & Vining, *supra* note 1.

[309] Hansmann, *supra* note 1.

[310] Cohen, *supra* note 1.

[311] *See, e.g.*, the insightful discussions by West Virginia Supreme Court Justice Richard Neely of the causes and consequences of the high degree of legislative inertia that characterizes the American political system. RICHARD NEELY, HOW COURTS GOVERN AMERICA 47–48 (1981); RICHARD NEELY, WHY COURTS DON'T WORK 60–89 (1983).

favorably in this area it will be necessary for proponents of an organ futures market to hire full-time paid lobbyists, supported by qualified staff, to exert efforts on both the state and federal levels. These lobbyists will have to be able to present target legislators with comprehensive draft legislation sufficient to achieve the needed changes,[312] along with those accompanying provisions necessary to provide for the financing of any proposed government expenditures or tax benefits. They also must be able to supply legislators with arguments and supporting materials to counter the claims that will be made by opponents of the legislation and, *most importantly*, with significant campaign contributions for legislators to finance any additional reelection efforts needed to offset any loss of support from opponents of the legislation and the voters that those opponents may influence.[313]

Proponents of futures market-enabling legislation can expect to encounter resistance from two sources. First, there are certain organized and politically powerful groups who may perceive their interests to be threatened by such legislation precisely because it promises to sharply increase the supply of transplantable organs, while simultaneously increasing the cost of organ transplantations. I am thinking here specifically of the three major professional associations of transplant surgeons, all of which have taken strong positions threatening to expel any member physician who pays compensation for an organ.[314] These associations can be expected to oppose any move towards commercialization, although a well-tailored futures market proposal would appear to address their legitimate reservations that are grounded in public health concerns.[315] I am thinking also of the major health insurers, that may oppose such legislation because of the (probably justified) perception that such legislation would lead to their having to pay for a larger number of transplant operations, and at increased per-operation costs to cover the costs of organ purchases, with a time lag occurring before they are able to adjust their coverage terms and premiums to reflect their changed claims experience. The proposal also may be opposed by those federal agencies that currently finance a significant share of organ transplantation costs and fear the budgetary consequences of a larger number of more expensive operations. Finally, it may be opposed by organizations of organ procurement agencies and other professionals involved in the existing organ procurement and transplantation system, whose members have become comfortable with accustomed routines

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312 RICHARD NEELY, WHY COURTS DON'T WORK 249–50 (1983).

313 "[M]ost incumbent legislators devote a disproportionate amount of their time, effort, and political credit to satisfying those people who routinely make political contributions . . . ." *Id.* at 74.

314 *See supra* text accompanying note 115.

315 *See supra* text accompanying notes 117–22.

and procedures.[316]

A second source of political resistance to such legislation, more diffuse and intangible but nevertheless present and powerful, is current public opinion. The public appears to largely accept rather uncritically the arguments offered by opponents of commercialization that organ sales are morally wrong and somehow show disrespect for concepts of personhood and individual dignity.[317] As long as politicians believe that a substantial portion of the public regards organ sales as a moral outrage, it will be nearly impossible to convince politicians to take visible stances in favor of allowing commercialization, even if restricted to a futures market regime. This public opinion only can be changed by a major national education campaign that succeeds in getting across three key ideas: (1) thousands of people are allowed to die of organ failure annually while we fail to come anywhere close to fully utilizing the available supply of cadaver organs; (2) the primary reason that this occurs is because we have taken away the financial incentive to be an organ donor; and (3) there is nothing morally problematic about organ sales if they are confined to the framework of a futures market system such as I have proposed.

This last concept is absolutely crucial to communicate. People must come to understand that the revulsion they legitimately feel at the thought of persons selling themselves or their children into slavery, or at the thought of an impoverished member of the urban underclass or a Third-World peasant selling for a mere pittance a kidney that will be immediately removed and airlifted to a Miami Beach transplant center, should not be allowed to affect their judgment as to the merits of organ futures market proposals that will allow neither of these forms of abuse to occur. There are rights here implicated, to be sure. They are, however, the rights of persons to have their mortal remains disposed of as they see fit, and the rights of many thousands of persons who need organ transplants to live to offer sufficient financial inducements to have those organs made available, not any abstract rights of "personhood" which it is claimed would be somehow infringed upon—in a way never made quite clear[318]—by

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[316] For example, the resistance exhibited by local organ procurement agencies to proposed United Network for Organ Sharing rules that would force consolidation of separate organ waiting lists, *Delay Sought in Combining of Transplant Waiting Lists*, DALLAS MORN. NEWS, June 30, 1993, at 23A, suggests that those agencies also would oppose a futures market proposal that would effectively allocate organs on a national basis and eliminate the privileged access certain agencies and hospitals now possess. *See also supra* notes 95–98 and accompanying text.

[317] For example, public outrage caused severe embarrassment and political harm for Milwaukee City Board Supervisor Anthony Zielinski when he proposed that the City of Milwaukee sell the organs of dead welfare recipients in an effort to reduce the City's burial expenses. *Plan to Sell Organs of Welfare Dead Fails*, CHI. TRIB., July 22, 1990, § 1, at 17.

[318] "It is difficult, however, to find a clear statement of precisely what is meant by

allowing normal market processes to occur.

How can a political coalition with the clout to overcome these formidable resistances be created? Who will lend their financial and other resources to the cause? There is a real collective action problem here that stands in the way of effective organization of those who would benefit from an organ futures market.[319] The primary beneficiaries would be the following groups of persons: (1) those persons who through that market would be able to obtain a needed transplant organ, and who would not have been able to do so under the current system given the severe shortages that exist; (2) those persons who will be able to obtain funds for their estates through entering into organ futures contracts, and their heirs, and who would not be able to do so under the current system; (3) those medical professionals currently involved to a limited extent in the organ transplant system, and those who would be involved were there more transplants taking place, who would have expanded professional opportunities to utilize their skills; and (4) those persons who would benefit indirectly from or by empathizing with the good fortune of persons in any or all of the above three groups. Unfortunately, none of the above groups currently exist in any meaningful, self-conscious, organized form, because it will not be possible to identify their members until after the organ futures market is in operation. It is consequently going to be extremely difficult before that market exists to frame focused appeals that can be expected to elicit significant donations of financial or other support.

One basis for some optimism is the recent dramatic change in the stance taken by the American Medical Association (AMA) on this question. As previously discussed, the AMA House of Delegates has recently adopted as its official position the remarkably strong endorsement of the futures market concept recommended by its Council on Ethical and Judicial Affairs. [320] The AMA no longer regards organ futures contracts as violative of its ethical guidelines,[321] recognizes that "[A] carefully designed and regulated system of

commodification or why it is undesirable." Hansmann, *supra* note 1, at 74 (footnote omitted).

[319] See generally MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION (1971), for a comprehensive discussion of the problems faced in attempting to organize a large group of persons, each having only a limited interest at stake, into an effective political force.

[320] *CEJA Report 1-93-6*, *supra* note 16.

[321] *Id.* at 2, where the Report states:

> The Council would not view such a system as a violation of *Opinion 2.15: Organ Donation*, which states in part that "it is not ethical to participate in a procedure to enable a donor to receive payment, other than for the reimbursement of expenses necessarily incurred in connection with removal, for any of the donor's non-renewable organs."

future contracts in cadaver organs could significantly increase the supply of organs and, for some organs, save many lives, while avoiding the ethical pitfalls of other forms of incentives,"[322] and is on record in favor of the implementation of a pilot futures market program.[323] The AMA is a powerful political organization that obviously will play a pivotal role in the ongoing national debate concerning the future of our health care system. Not only does the AMA endorsement provide instant credibility for the futures market approach, but that organization may with some prodding bestir itself to provide effective lobbying support for the needed legal changes, as well as serve as the near-perfect vehicle for futures market proponents to neutralize and discredit any opposition mounted by the transplant surgeons' associations on the basis of their more parochial concerns.

Where else can support for a futures market be found? There is the obvious potential for the creation of a politically effective organization of persons who have received organ transplants, and their families. The number of such persons is admittedly not very large, and many of those persons are aged, in poor health, or have limited financial resources. Nevertheless, there are without doubt hundreds or even thousands of transplant recipients who are still young and vigorous, and who feel some civic responsibility to actively support measures that would enhance the availability of organs for others still in need. These persons could engage in debate on the issues in public forums with a rare degree of credibility and capacity to elicit public empathy, and may well be able to markedly affect public opinion and favorably influence the environment in which legislative actions are taken.

Other than the above two groups, I am not sure where else futures market advocates could profitably turn for additional effective political support. Those people who are relatives of persons who died because they were unable to obtain needed organ transplants in timely fashion probably want nothing less than to revisit their tragedy. Most public interest organizations have insufficient funding to pursue even their core priorities, and would not be willing to take on a new controversial cause. The Clinton Administration is not likely to be of any substantial assistance, given that Vice President Albert Gore was one of the leading opponents of commercialization during the NOTA congressional debates.[324] None of these other avenues appears promising in terms of obtaining effective political support, and, therefore, despite the heartening

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Id.

[322] *Id.* at 8.

[323] *Id.* at 8–9.

[324] *See, e.g., National Organ Transplantation Act, 1983: Hearings on H.R. 4080 Before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce*, 98th Cong., 1st Sess. 7, 109 (1983) (statement of Sen. Albert Gore, Tenn.).

AMA endorsement and the prospects for favorable media coverage of transplant recipient appeals, the cause seems unlikely to attract the political entrepreneurs and lobbyist support necessary to move it to the forefront of public debate. It appears to me, therefore, that the prospects may hinge upon the fate of the constitutional challenges to NOTA and the UAGA-based statutes. If the organ sale restrictions imposed by those statutes are struck down on constitutional grounds, then the new legal status quo would arguably allow commercialization, and the opponents of organ sales would then have to overcome the considerable inertial resistance to the passage of legislation to impose new restrictions. Proponents of a futures market would then have the upper hand, and given solid AMA backing, might be able to force a legislative compromise under which they could agree to accept restrictions on cash sales and sales by living donors, in exchange for acquiescence to the futures market concept. Under these circumstances, I believe that there would be some hope that an organ futures market could come into existence. If, however, the constitutional challenges fail, and proponents of a futures market must fight the steeply uphill battle to obtain major legislative changes, I must frankly admit to pessimism with regard to the prospects for establishing such a market any time within the foreseeable future.

VIII. CONCLUSION

Every year we allow thousands of people to die who could be saved by the transplantation of a bodily organ from a cadaver that has no further use for it. We blame these deaths on the "organ shortage" which we often treat as an immutable fact of nature. This shortage, however, is totally the creation of a flawed legal regime that has removed all financial incentives to serve as an organ donor. A properly designed organ futures market would restore those incentives, dramatically expanding organ supplies and saving many lives, without resulting in any of the abusive or degrading practices feared by opponents of commercialization.

The existing framework of state and federal statutes governing organ transplantation currently stands as a complete roadblock to the creation of an organ futures market. Those statutes' organ sale restrictions must be struck down or amended. While there are some potential sources of support for a political effort to amend those statutes, most importantly the American Medical Association and former transplant recipients, such an effort is unlikely to succeed given the organized opposition and unfavorable public opinion. The most promising course of action for proponents of an organ futures market appears to be to seek to have the statutory restrictions on organ sales invalidated on federal constitutional grounds—thus opening the doors for

commercial activity in bodily organs—and then from that relatively advantageous position seeking to muster sufficient political support to meet those forces seeking to reimpose restrictions halfway with futures market-oriented compromise solutions.