

REVERSE TRANSPLANT TOURISM

KIMBERLY D. KRAWIEC*

MICHAEL A. REES**

I

INTRODUCTION

In this article, we propose a novel form of kidney transplantation involving cross-border kidney-paired donation, which we refer to as reverse transplant tourism (RTT). Although RTT is currently still a hypothetical—to date, no RTT swaps have been performed—we argue that such a program, if properly structured, is both legal and ethical and is a natural next step in the development of kidney exchange.

Kidney exchanges, in which patients with willing but incompatible living kidney donors exchange their donors' kidneys, have become common in the United States. RTT takes this approach a step further by redefining incompatibility to include not only immunological barriers, but also a more prevalent incompatibility when transplantation is considered worldwide: the barrier of poverty. In the United States, there are many patients with kidney failure (known as end-stage renal disease (ESRD)) who have insurance to pay for a transplant, but whose donors have the wrong blood type or human leukocyte antigens (HLAs) and thus are not immunologically compatible.¹ In contrast, there are many poor patients outside of the United States with willing compatible living donors, who are not able to afford the immunosuppression necessary to sustain a renal transplant.² In both these cases, the patients face

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* Kathrine Robinson Everett Professor of Law, Duke University School of Law; Senior Fellow, Kenan Institute for Ethics, Duke University. We thank Matt Adler, Scott Altman, Jamie Boyle, Alex Capron, Guy Charles, Steve Choi, Glenn Cohen, Phil Cook, David Cruz, Gabriel Danovitch, Sam Erman, Mitu Gulati, Dan Klerman, Ed McCaffery, Eric Posner, Christopher Robertson, and workshop participants at Cardozo, Columbia, USC, and the University of Tulsa law schools, Harvard's Petrie-Flom Center, and the *Organs & Inducements* symposium at Duke University. We also thank Brittany Edwards-Franklin and David Mikulka for outstanding research assistance.

** Professor and Vice-Chair of Urology and Director of Renal Transplantation, University of Toledo Medical Center.

1. A patient with preexisting antibodies capable of binding to the donor's kidney will cause rejection of the kidney. For this reason, the presence of donor-specific antibodies is assessed prior to transplantation, and if identified, the transplant is not performed. Antibodies that cause rejection generally recognize the blood group or human leukocyte antigen (HLA) markers. Antibodies binding to HLA markers result from exposure of the human immune system to cells from other humans through pregnancy, blood transfusion, or organ transplantation. For this reason, women are more likely to suffer from immunological incompatibility than men. See Charles B. Carpenter, *Histocompatibility Systems*, in *TRANSPLANTATION* (Leo C. Ginn, A. Benedict Cosimi & Peter J. Morris eds., 1999).

2. The international donor-recipient pair could also be both immunologically incompatible and

barriers that prevent the transplant from moving forward.

RTT, if properly structured, can provide an opportunity for impoverished foreign patients to overcome their financial barriers and for American recipients to overcome immunological barriers through an international exchange of kidneys. The use of biologically compatible pairs would also expand the donor pool in important ways, with particular benefits for O–blood type recipients and “sensitized” recipients.³

Moreover, RTT reverses some of the more pernicious effects of typical transplant tourism, in which comparatively wealthy individuals with ESRD travel abroad, normally to a comparatively poor country, to purchase organs for transplantation.⁴ These black-market transactions have been widely condemned not only for commercializing organ transplantation, but also for producing a net outflow of organs from the developing world to the developed world (with accompanying cash flows in the opposite direction) under conditions that fail to guarantee any protections for either donor or recipient.⁵

RTT, in contrast, leverages the donative intent and reciprocity of friends and family inherent in the kidney paired–donation model to avoid the net-outflow or organ-deficit problem of traditional transplant tourism—under RTT, organ flows out of each country are matched with inflows. RTT also extends the benefits of the U.S. transplant system to impoverished nations, allowing patients who could never afford a kidney transplant to obtain one.

The “reverse” in reverse transplant tourism thus carries a double meaning. One meaning is literal and geographic—impoverished foreign patients travel to the United States to receive a kidney transplant they could not acquire in their home country, rather than the other way around. But the other meaning is figurative—RTT reverses many of the negative effects of traditional transplant tourism by avoiding the organ-deficit problem of typical transplant tourism and

financially destitute, thus explicitly fitting within the plain language of the exception provided in the Charlie W. Norwood Living Organ Donation Act (Norwood Act), Pub. L. No. 110-144, 121 Stat. 1813 (2007) (codified at 42 U.S.C. §§ 273b, 274e (2006 & Supp. IV 2011)). See *infra* text accompanying notes 25–26 (discussing AUKPD and the Norwood Act). Practically, however, a much greater impact will be achieved through the inclusion of biologically compatible, but destitute, pairs. Thus, throughout this article we assume that the international pair is biologically compatible and specifically analyze the legally more complex, but medically more practical, possibility of RTT with biologically compatible international pairs.

3. Roughly thirty percent of patients on the kidney waiting list are considered “sensitized,” meaning that they have high antibody levels that react to foreign tissue. *Highly Sensitized Patients*, MONTEFIORE, <http://www.montefiore.org/nephrology-kidney-transplant-program-highly-sensitized-patients> (last visited Feb. 25, 2014). These patients are harder to match for donor kidneys. See *infra* text accompanying note 78 (discussing the advantages of RTT for sensitized patients).

4. See generally I. Glenn Cohen, *Transplant Tourism: The Ethics and Regulation of International Markets for Organs*, 41 J.L. MED. & ETHICS 269 (2013).

5. For a debate on the ethics of transplant tourism, see Tarif Bakdash & Nancy Scheper-Hughes, *Is It Ethical for Patients with Renal Disease to Purchase Kidneys from the World's Poor?*, 3 PLOS MED., 1699, 1699 (2006); see also Alexander M. Capron, *Six Decades of Organ Donation and the Challenges That Shifting the United States to a Market System Would Create Around the World*, 77 LAW & CONTEMP. PROBS., no. 3, 2014 at 25 (reviewing international organ black markets and attempts to combat them).

by building on the system of protections for donors and recipients already present in the U.S transplant system.

In order to develop a proper structure for RTT, the United States must partner with countries that have enough infrastructure available to their citizens to ensure that ongoing transplant-specific medical care is available and that local conditions are safe for immunosuppressed patients, so that kidney transplants for impoverished patients are not lost to preventable causes. Other safeguards could include patient-screening protocols, standards and procedures to ensure organ quality, and firewalls between the nonprofit funder and participating transplant centers and, eventually, between the nonprofit and any insurance and pharmaceutical companies that provide funding.⁶

In part II we introduce the concept of kidney-paired donation (KPD) and an increasingly common variant, altruistically unbalanced kidney-paired donation (AUKPD), and argue that RTT is less ethically controversial in some respects than AUKPD because neither participant in an RTT swap could successfully transplant without the swap. In part III we detail our RTT proposal, illustrating the mechanics and expenses of the exchange. In part IV we analyze RTT's permissibility under the National Organ Transplant Act (NOTA),⁷ concluding that neither the text nor legislative history provide significant insight into the potential scope of the term "valuable consideration" beyond the obvious concerns of the commercial buying and selling of kidneys. In part V we consider the policy rationales that might motivate the ban against the exchange of valuable consideration for transplantable organs, concluding that RTT does not threaten any of these policy concerns and in fact improves on the status quo with respect to some concerns. In part VI we discuss the numerous benefits of RTT, both to the individual patient participants and to the health-care system more generally. In part VII we discuss what would be necessary to start, sustain, and safeguard an RTT program, and in part VIII we conclude.

II

AN INTRODUCTION TO KPD

In this part, we introduce KPD, as practiced domestically in the United States, and the relevant laws governing it. This discussion helps set the stage for our RTT proposal, which we describe in detail in part III.

A. Conventional KPD

Estimates suggest that roughly 6000 ESRD patients on the kidney waiting list have a willing, but incompatible, living donor.⁸ KPD arose as a means to permit these patients, whose willing donors cannot donate directly because they

6. See *infra* Part VII (discussing these and other safeguards).

7. 42 U.S.C. §§ 273–274e (2006 & Supp. IV 2011).

8. Dorry L. Segev et al., *Kidney Paired Donation and Optimizing the Use of Live Donor Organs*, 293 JAMA 1883, 1884 (2005).

have the wrong blood type or HLA antigens, to nonetheless receive kidney transplants. Under the simplest form of KPD, a willing but incompatible donor for one person in need of a transplant donates to another person in need of a transplant with whom they are compatible. In return, that recipient's willing but incompatible donor returns the favor, donating to the first donor's desired recipient.⁹

To illustrate, suppose that Amanda wants to donate a kidney to Bob but is unable to do so, either because their blood types do not match or because there is some other incompatibility. Another pair, Carlos and Diana, faces the same problem. However, Carlos is compatible with Bob, and Amanda is compatible with Diana. By swapping, as illustrated in figure 1, KPD enables two transplants, providing both Bob and Diana with a compatible kidney. Although KPD began with this type of two-pair exchange, longer exchanges and chains of transplants have recently come to dominate.¹⁰

KPD has experienced rapid growth in recent years due to advancements in kidney-matching algorithms and the ability to ship organs.¹¹ Yet barriers remain. Specifically, O-blood type recipients are disadvantaged in a KPD system. If one considers a pool limited to blood-type-incompatible pairs, there will be no O-blood type donors. This is because, as universal donors, most O-blood type donors are able to donate to their intended recipients, unless the intended recipient has antibodies directed against the donor's kidney. Thus, O-blood type donors are enrolled into KPD pools only when the recipient has donor-specific antibodies that render the intended donor incompatible. As a result, O-blood type recipients, who can only receive from O-blood type donors, are less likely to find suitable donors through KPD, given the shortage of O-donor pairs in the pool.¹² This is a troubling fact, given that O-blood type candidates comprise more than half of the waiting list and have longer median waiting times than other blood-group candidates, such as those with blood group A.¹³

Some KPD programs now attempt to mitigate this problem by admitting biologically compatible donor-recipient pairs. These exchanges operate in the

9. UNITED NETWORK FOR ORGAN SHARING, OPTN KIDNEY PAIRED DONATION PILOT PROGRAM 2 (2013), available at http://www.unos.org/docs/Living_Donation_KidneyPaired.pdf.

10. See generally M. L. Melcher et al., *Chain Transplantation: Initial Experience of a Large Multicenter Program*, 12 AM. J. TRANSPLANTATION 2429 (2012); Michael A. Rees et al., *A Nonsimultaneous, Extended, Altruistic-Donor Chain*, 360 N. ENGL. J. MED. 1096 (2009).

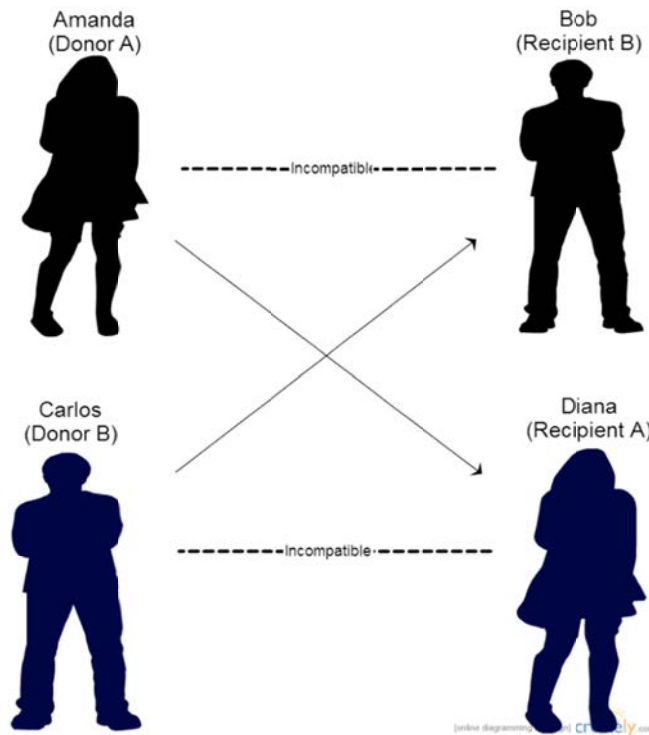
11. See generally D. L. Segev et al., *Transporting Live Donor Kidneys for Kidney Paired Donation: Initial National Results*, 11 AM. J. TRANSPLANTATION 356 (2011); C. Bradley Wallis et al., *Kidney Paired Donation*, 26 NEPHROLOGY DIALYSIS TRANSPLANTATION 2091 (2011).

12. Jeremy M. Blumberg, *Kidney Paired Donation: Advancements And Future Directions*, 16 CURRENT OPINION IN ORGAN TRANSPLANTATION 380-81 (2011).

13. *Table 1.4: Characteristics of Waiting List Patients at End of Year: 2002 to 2011*, SCI. REGISTRY TRANSPLANT RECIPIENTS, http://www.srtr.org/annual_Reports/2011/104_can-abo_dh.aspx (last updated Dec. 4, 2012); U.S. DEP'T HEALTH & HUM. SERVICES, <http://optn.transplant.hrsa.gov/latestData/advancedData.asp> (all Kaplan-Meier Median Waiting Times For Registrations Listed: 1999-2004).

same manner as traditional KPD, with one important exception: one of the two pairs in the swap is biologically compatible. Thus one donor–recipient pair in the swap could transplant directly without participating in KPD. These programs are sometimes referred to as altruistically unbalanced KPD programs, and they partially address the shortage that O–blood type recipients face by attracting O–blood type donors.¹⁴

Figure 1



B. AUKPD and the Case for RTT

Although the inclusion of compatible pairs in KPD programs is not without controversy, many KPD programs now include compatible pairs, due to the potential utilitarian benefit just described: increasing numbers of O–blood type donors in the pool. For example, one study found that the inclusion of compatible pairs in a national KPD registry could more than double the probability that donor–recipient pairs find a compatible KPD match, from

14. Lloyd E. Ratner et al., *The Altruistic Unbalanced Paired Kidney Exchange: Proof of Concept and Survey of Potential Donor and Recipient Attitudes*, 89 *TRANSPLANTATION* 15, 21 (2010).

37.4% to 75.4%.¹⁵

The controversy surrounding AUKPD programs is apparent from their name: “altruistically unbalanced.” The typical objection is that incompatible pairs receive something of great value (a compatible organ), while the compatible pair enters a complex exchange unnecessarily and without countervailing benefit.¹⁶ Some commentators dispute this objection, noting that compatible pairs do indeed receive countervailing benefit.¹⁷ For example, it may be possible to improve the compatible recipient’s outcome by allowing her to “trade up” to a younger organ, a more appropriately sized organ, or a better immunological match.¹⁸ In addition, the term “unbalanced” implies some inequality in the exchange, but some researchers contend that altruism may be a source of psychological benefit to compatible pairs, rather than an indication of an ethical problem weighing against the pairs’ inclusion.¹⁹

Though the increasing acceptance of AUKPD has implications for the legal status of RTT, which are detailed in the following subpart, it is worth noting that RTT does not implicate the same ethical concerns. Rather than presenting a potentially unbalanced exchange, RTT leaves both involved pairs better off. One pair, though biologically compatible, would be unable to engage in the transplant due to financial constraints. The other, biologically incompatible pair would be unable to transplant due to incompatibility. RTT provides substantial benefit to both pairs, permitting two transplants to occur that otherwise would not. With respect to ethical concerns regarding altruistic balance, therefore, RTT is *less* problematic than existing compatible–incompatible KPD programs. Of course, RTT raises other legal and ethical concerns not posed by domestic AUKPD. As discussed in parts V and VI, however, these concerns are surmountable and can be adequately addressed through a variety of safeguards.

C. The Legal Status of AUKPD and Implications for RTT

Despite the differing ethical issues posed by AUKPD and RTT, the growing acceptance of AUKPD is relevant to the legal status of RTT under NOTA. NOTA prohibits the knowing acquisition, receipt, or transfer of “any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce.”²⁰ NOTA does not define the term valuable consideration and, as detailed in part IV, the Act’s legislative history provides

15. S. E. Gentry et al., *Expanding Kidney Paired Donation Through Participation by Compatible Pairs*, 7 AM. J. TRANSPLANTATION 2361, 2365 (2007).

16. See David Steinberg, *Compatible-Incompatible Live Donor Kidney Exchanges*, 91 TRANSPLANTATION 257, 258 (2011).

17. *Id.* at 259.

18. Blumberg, *supra* note 12, at 382–83.

19. Compare, e.g., Lainie Friedman Ross & E. Steve Woodle, *Ethical Issues in Increasing Living Kidney Donations by Expanding Kidney Paired Exchange Programs*, 69 TRANSPLANTATION 1539 (2000) (criticizing altruistically unbalanced kidney-paired exchange as ethically problematic), with Ratner et al., *supra* note 14, at 21 (defending AUKPD).

20. 42 U.S.C. § 274e(a) (2006 & Supp. IV 2011).

almost no guidance regarding the meaning of the term beyond the obvious legislative concerns of “buying,” “selling,” and “commerce” in human organs.²¹ In the Charlie W. Norwood Living Organ Donation Act (Norwood Act), however, Congress provided some guidance on what is *not* valuable consideration.²² Specifically, the Norwood Act provides that NOTA’s ban against valuable consideration does not apply to KPD exchanges among *biologically incompatible pairs*.²³ Neither AUKPD nor the increasingly common nonsimultaneous, extended, altruistic donor (NEAD) chain—both of which developed after passage of the Norwood Act—are mentioned.²⁴

This raises two points relevant to the RTT discussion. First, and most specifically, although only biologically incompatible pairs are specifically exempted by the Norwood Act, as already noted, AUKPD employs compatible pairs and is becoming increasingly common. Importantly, any controversy surrounding AUKPD is an *ethical* controversy, not a legal one—our research has uncovered no suggestion in either the legal or medical literature that the practice is illegal under NOTA. Thus, there is already precedent for the use of biologically compatible pairs in KPD, as contemplated by our RTT proposal.

Second, and more significantly, the growing use of AUKPD and NEAD chains reinforces the notion, explored more fully in Part IV, that the Norwood Act provides a nonexclusive exemption, or safe harbor, from the definition of valuable consideration. There is no suggestion that Congress intended its failure to specifically exempt any activity to be read as a condemnation of that activity. In fact, just the opposite is true. The Norwood Act’s legislative history suggests that the ban on “valuable consideration” remains the touchstone for determining legality under NOTA. Indeed, during congressional deliberations on the Norwood Act, many members of Congress emphasized that the statute was unnecessary, as it should have been obvious that KPD did not involve “valuable consideration” as contemplated by NOTA.²⁵

The prevalence of AUKPD and NEAD chains further supports this interpretation. The text and legislative history of both NOTA and the Norwood Act, along with current transplant practice, thus suggest that RTT is prohibited only if it involves the transfer of a human organ in exchange for valuable

21. See *infra* notes 41–47 and accompanying text (providing examples); see also, Kieran Healy & Kimberly D. Krawiec, *Custom, Contract, and Kidney Exchange*, 62 DUKE L.J. 645 (2012) (discussing possible legal and cultural meanings and ambiguities in the phrase “valuable consideration”).

22. 42 U.S.C. §§ 273b, 274e (2006 & Supp. IV 2011).

23. *Id.*

24. A NEAD chain is similar to a kidney swap. However, in a NEAD chain, an altruistic donor gives a kidney to a patient who already knows a willing but biologically incompatible donor. The incompatible donor then donates to a recipient in a similarly situated donor–patient pair, potentially initiating a chain of transplants among a series of incompatible pairs. The addition of the altruistic donor at the front of the chain means NEAD chains, unlike kidney swaps, are unconstrained by simultaneity and reciprocity, allowing longer chains with more transplants. See generally Rees et al., *supra* note 10 (discussing NEAD chains in more detail); see also Healy & Krawiec, *supra* note 21 (discussing the application of NOTA and the Norwood Act to NEAD chains).

25. See *infra* text accompanying notes 53–62 (providing examples).

consideration. We address the legality of RTT under NOTA's prohibition against valuable consideration in part IV, below.

III AN RTT PROPOSAL

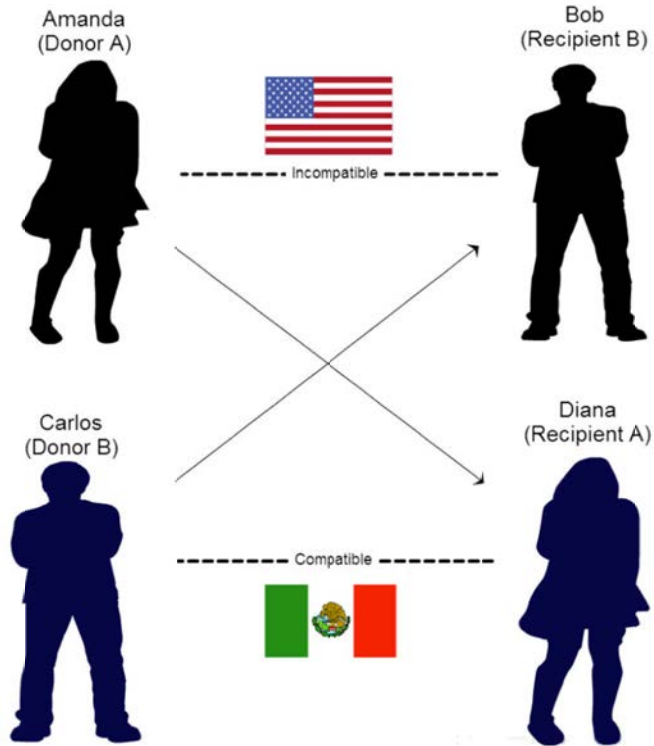
To illustrate the mechanics of our RTT proposal, recall the donor–recipient pairs of Amanda–Bob and Carlos–Diana. Imagine now, however, that Carlos and Diana, rather than facing biological incompatibility, face a different problem: They are poor and live in a country where poverty is a barrier to transplantation. For a specific example, assume that Carlos and Diana live in Mexico. The Mexican health care system pays for the basic medical costs of transplantation, such as the nephrectomy, transplant, and the inpatient and outpatient costs associated with the surgery. Importantly, however, the most basic form of public health insurance in Mexico does not pay for the outpatient immunosuppressive drugs necessary to prevent Diana's body from rejecting Carlos's kidney, which cost at least several thousand dollars per year and which Diana must take for the rest of her life. Unless Diana has sufficient personal wealth to pay for this ongoing long-term care, therefore, transplantation is doomed to failure.

As illustrated in figure 2, RTT can help both Bob and Diana, allowing each to receive a kidney that each otherwise could not—in Bob's case because of his biological incompatibility with Amanda, and in Diana's case because of her lack of access to adequate long-term immunosuppression. Under RTT, the domestic pair (Amanda and Bob) would both remain in the United States, while Carlos, the international donor, would travel to the United States for transplantation, and Diana, the international recipient, would remain in her home country (in Diana's case, Mexico). The expenses of the swap would be paid by a combination of three parties: the Mexican government, Bob's insurance provider,²⁶ and a nonprofit organization established to pay for the excess medically necessary expenses associated with RTT swaps.

These excess medically necessary expenses arise because each RTT swap is purposely designed to ensure that neither the U.S.-based insurance provider nor the Mexican government pay more for any single RTT transplant than would be required for a transplant directly from Amanda to Bob or from Carlos to Diana, respectively. In the aggregate, however, and as detailed in part VI, RTT could eventually reduce the long-term costs of ESRD to both the U.S. and Mexican governments and to U.S. insurance providers, due to the cost savings of transplantation as compared to dialysis. In the next two subparts, we detail these RTT expenses, specifying which costs are allocated to the nonprofit entity, versus the U.S.-based insurance provider and the Mexican government.

Figure 2

26. The term “insurance provider” includes both commercial insurance providers and Medicare, as applicable.



A. The Amanda–Diana Transplant

Let us first analyze the expenses associated with the transplant from Amanda to Diana, which would involve removing Amanda’s kidney in the United States and shipping it to Mexico for transplantation into Diana, as illustrated by figure 3. Table 1 details the relevant parties to the swap and their accompanying expenses.

The Mexican government’s payment for Amanda’s nephrectomy and any other associated medical costs would equal its normal payment for a living donor’s kidney to be removed in Mexico. Not surprisingly, the cost of such surgery is higher in the United States—a cost that the Mexican government is unwilling to pay. This remainder, therefore, would be paid by a nonprofit organization, as would the costs of shipping the kidney internationally.

As already noted, the Mexican government would pay for some, but not all, of the expenses associated with transplants performed in Mexico. Because Diana would receive her transplant in Mexico, the cost of subsequent care would be paid by the Mexican government, supplemented with support from a nonprofit organization. Diana’s outpatient immunosuppressive drugs and transportation to and from the transplant clinic or hospital would be provided by the nonprofit organization. The Mexican government would pay Diana’s outpatient clinic visit and inpatient admission expenses.

Figure 3

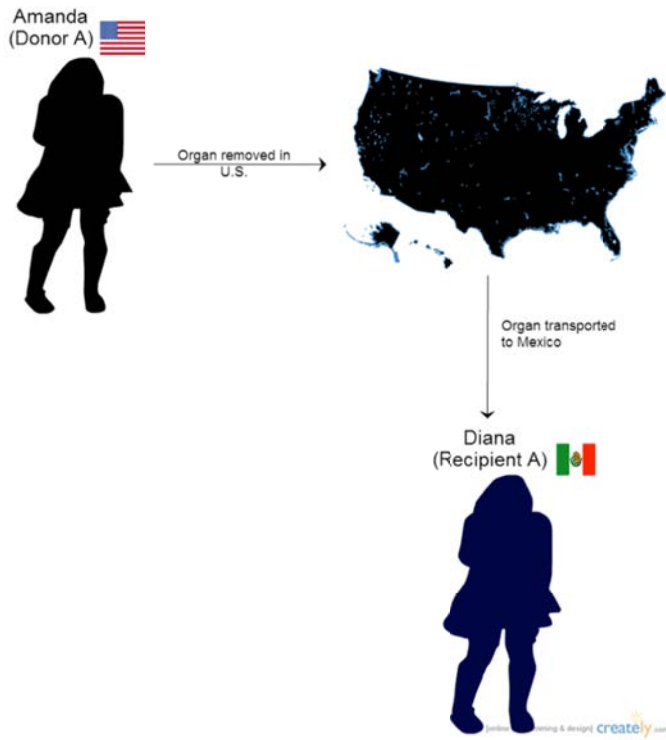


Table 1

	Amanda	Bob	Carlos	Diana
	Domestic Donor	Domestic Recipient	International Donor	International Recipient
Location	United States	United States	Travel to United States	Mexico
Costs paid by Mexican government	Nephrectomy and other associated medical costs, up to normal amounts required for a transplant performed in Mexico.	N/A	N/A	Outpatient clinic visit, all inpatient admission expenses, cost of subsequent care
Costs paid by Bob's insurance or Medicare	N/A	All costs of transplantation, immunosuppressive drugs (up to three years if Medicare primary)	All medical costs (nephrectomy, domestic kidney shipping, if any)	N/A
Costs paid by nonprofit organization	Kidney shipping and medical costs in excess of normal expenses for nephrectomy in Mexico	N/A	All travel, food, and lodging costs	Outpatient immunosuppressive drugs (up to ten years) and to transportation to and from the clinic or hospital

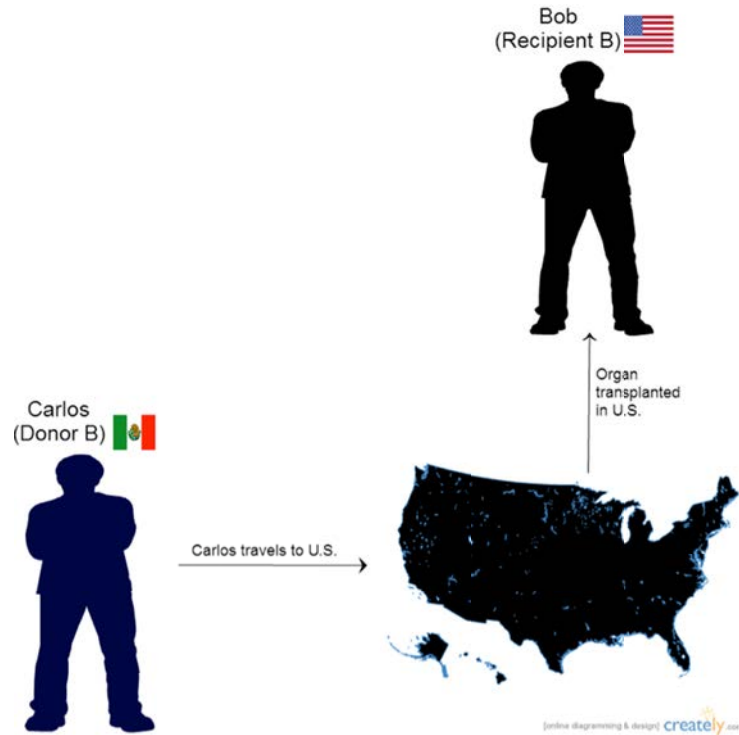
B. The Carlos–Bob Transplant

The Carlos–Bob transplant is illustrated in figure 4. Carlos, the international donor, would have to travel to the United States for a nephrectomy, because the Organ Procurement and Transplantation Network (OPTN) specifies that U.S. transplant centers may only transplant living-donor kidneys that have been removed at an OPTN-approved living-donor nephrectomy site, and there are no approved sites outside of the United States.²⁷ All of Carlos's medical costs

27. OPTN specifies that live kidney donation is only permissible when the transplanted kidney is

(for example, the nephrectomy and domestic kidney shipping, if required) would be borne by Bob's insurance provider. Carlos's travel, food, and lodging costs would be paid by the nonprofit organization. Bob's transplant would occur in the United States, and all of his costs would be borne by his insurance provider.

Figure 4



IV

RTT UNDER NOTA

The legal status of RTT under NOTA is best understood by analyzing NOTA's applicability to each component of the RTT swap. The RTT medical-expense payments by U.S. insurance providers and the Mexican government

removed at an OPTN member transplant facility. ORGAN PROCUREMENT & TRANSPLANTATION NETWORK POLICIES 14.7.C (2014), available at http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf ("Transplant hospitals that perform living donor transplants must only accept and transplant living donor organs recovered at OPTN member recovery hospitals that are approved to perform living donor recovery for that organ type."). Because OPTN member facilities are only located within the United States, this policy effectively bans importing organs from living donors. See *Transplant Centers*, U.S. DEP'T HEALTH & HUM. SERVICES, <http://optn.transplant.hrsa.gov/members/search.asp> (choose "Transplant Centers" in Step 1 and "All Regions" for Step 2) (last visited Feb. 25, 2014) (listing all member transplant facilities, none of which are located outside of the United States).

are—by design—simply the normal reimbursements for transplantation by each of these entities and are legally unproblematic. Therefore, we analyze only those expenses covered by the nonprofit entity. In our example, and as detailed in table 1, those expenses include (1) Amanda’s kidney-shipping and medical costs in excess of normal expenses for nephrectomy in Mexico; (2) all of Carlos’s travel, food, and lodging costs; and (3) the cost of Diana’s outpatient immunosuppressive drugs (for up to ten years of treatment) and of her transportation to and from the transplant clinic or hospital.²⁸

In this part, we consider whether NOTA’s ban on valuable consideration applies to each of these expenses by examining the statute’s text and legislative history, as well as the Norwood Act’s amendments to NOTA. In part IV.A, we discuss the plain text of NOTA, concluding that it exempts the first two expenses listed above from being considered valuable consideration. The third expense, however, requires more analysis, which we undertake in parts IV.B.-C, concluding that the text and legislative history of NOTA and the Norwood Act provide little insight into the intended scope of the ban against valuable consideration beyond the obvious concerns with the commercial buying and selling of human organs. In part V, however, we conclude that the public policies underlying NOTA ultimately suggest that a well-designed RTT program would not involve valuable consideration.

A. NOTA’s Plain Text

As previously discussed, NOTA prohibits the knowing acquisition, receipt, or transfer of “any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce.”²⁹ Although the term “valuable consideration” is not defined, NOTA specifically excludes certain payments from the definition:

The term “valuable consideration” does not include the reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality control, and storage of a human organ or the expenses of travel, housing, and lost wages incurred by the donor of a human organ in connection with the donation of the organ.³⁰

Under the plain language of the statute, items one and two of the RTT reimbursements discussed above and categorized in table 1 are exempt from

28. U.S. and Mexican insurers treat travel expenses in the same manner: Insurance pays for the costs of health care, but not for the costs associated with travel, food, and lodging to and from the hospital or clinic. SECRETARIA DE SALUD, *SEGURO POPULAR: CARTA DE DERECHOS Y OBLIGACIONES* [PUBLIC INSURANCE: PAMPHLET OF RIGHTS AND OBLIGATIONS], available at http://www.seguro-popular.gob.mx/images/Contenidos/beneficios/ARMADO_CARTA_DER_Y_OBLIG_Low.pdf. For a poor patient who lives four to six hours away from her transplant center and has no means of transportation, this might be a significant barrier to attending outpatient clinic visits, especially if an overnight stay is required. In the case of a minor, these expenses would need to be covered not only for the minor, but for a parent or guardian, as well.

29. 42 U.S.C. § 274e(a) (2006 & Supp. IV 2011).

30. 42 U.S.C. § 274e(c)(2) (2006 & Supp. IV 2011).

NOTA's definition of valuable consideration, provided they are reasonable in amount. The components of item three, however—the payments for Diana's outpatient immunosuppressive drugs and her transportation to and from the transplant clinic or hospital—are not explicitly addressed by NOTA.

It may appear, at first glance, that these reimbursements are also excluded from NOTA's prohibition against "valuable consideration," based on the plain language of the statute. After all, Diana, the recipient of the reimbursements at issue, is an organ recipient, not an organ donor. And although Carlos gives up his kidney, he receives no direct compensation in return. It is thus tempting to conclude that, under the plain language of NOTA's text, the prohibition against valuable consideration in exchange for a human organ has no bearing on these reimbursements.

Such a conclusion would be premature. A skeptic could argue that, when Carlos agrees to donate his kidney through RTT so that Diana can receive the immunosuppression and medical transport necessary to complete her transplant, Carlos has received valuable consideration in exchange for his kidney. The transaction, one could argue, is equivalent to Carlos exchanging his kidney for cash, then using that money to purchase the immunosuppressive drugs and transport for Diana.³¹ Accordingly, we assume that one must look elsewhere to determine whether the reimbursements to Diana pass muster under NOTA. That determination requires an analysis of NOTA's legislative history as well as the possible policy rationales behind the statute, an analysis we undertake in parts IV B-C and V.

Before undertaking that analysis, though, we emphasize that we do not wish to make too much of the "kidney for cash which is then used to purchase drugs and transport" analogy, as similar analogies could be—but have not been—used to prohibit many transplant innovations developed after NOTA's passage that result in some non-pecuniary benefit to the organ donor. Traditional KPD, AUKPD, and NEAD chains are each legal examples in which a donor agrees to transfer her kidney only in exchange for something of value. In the case of KPD, AUKPD, and NEAD chains, the value received is a compatible kidney for a friend or family member. In the case of RTT, the value received is medically necessary immunosuppression, transportation to and from the transplant clinic or hospital, and a compatible kidney transplant for a friend or family member. Yet, Congress has explicitly exempted KPD from NOTA's prohibition against the exchange of valuable consideration for transplantable organs (though, as discussed in part IV.C., many members of the Norwood Act Congress argued that an explicit exemption was unnecessary). And AUKPD and NEAD chains are increasingly common, despite the lack of an explicit congressional exemption. The common assumption (and one that we share) appears to be that AUKPD and NEAD chains are legally permissible because of their similarity to KPD, the underlying federal concerns that prompt the ban

31. Cf. Choi et al., *infra* note 38, at 283 (discussing "altruism exchanges" and their status under NOTA).

against valuable consideration, and something that we refer to as the “perfect world donative intent” of each participant—in a perfect world, each donor would give altruistically to her friend or family member, but in actuality is prevented from doing so by real-world barriers.³² RTT shares these characteristics. This similarity, together with NOTA’s legislative history, the Norwood Act, and policy rationales, all support our contention that RTT drug and transportation costs do not fall within the definition of valuable consideration, as the NOTA-enacting Congress understood that term.

B. The Ambiguous Phrase “Valuable Consideration:” What Did Congress Mean?

As we illustrate in this section, neither the text nor legislative history of NOTA provide meaningful insight into the phrase “valuable consideration” in a setting, such as RTT, that involves no commercial buying or selling of human organs. Standing alone, then, neither the text nor legislative history of NOTA answers the question of whether Diana’s RTT reimbursements constitute valuable consideration under NOTA. Of course, these sources for understanding the meaning of the term do not stand alone. As we detail in the following part V, courts—when faced with ambiguous meanings not clarified through the text or legislative history—typically turn to the possible underlying policy rationales, particularly if those rationales were explicitly discussed by the enacting Congress.

Although NOTA is today most often discussed in connection with its prohibition of valuable consideration, it is important to remember that such a ban was not the central purpose of the statute, and was added to the statute relatively late. Original drafts of NOTA addressed only the development of a national organ procurement and distribution system.³³ The prohibition on compensated organ donation was added later, in response to a *Washington Post* article about the plans of H. Barry Jacobs, a Virginia physician whose medical license had previously been revoked for Medicare fraud, to establish a for-profit organ brokerage.³⁴

Perhaps because the “valuable consideration” language was a late addition to the statute in response to a specific concern, NOTA’s legislative history addresses the term “valuable consideration” only with respect to that concern, and does not provide much insight into the term’s breadth beyond the commercial-exchange context. The extent to which the term should reach RTT-like exchanges that, while noncommercial, involve the donor receiving some limited benefit, is not entirely clear.

32. See Healy & Krawiec, *supra* note 21 (arguing that NEAD chains can be squared with both the language and legislative history of NOTA, despite the exchange of something of great value).

33. Sally Satel, Joshua C. Morrison, & Rick K. Jones, *State Organ Donation Incentives Under the National Organ Transplant Act*, 77 LAW & CONTEMP. PROBS., no. 3, 2014 at 217 (discussing the origination of NOTA’s ban on valuable compensation).

34. *Id.*

Most analyses of the term “valuable consideration”—including an influential Department of Justice memo on the topic—conclude that the phrase has no clear meaning.³⁵ Although the term “consideration,” with origins in the common law of contract, has a fairly well established meaning that clearly encompasses a variety of nonmonetary bargains, the significance (if any) of the additional word “valuable” is much less clear.³⁶ The phrase is rarely defined, and the meaning, to the extent that one is discernable, appears to have varied across time, place, and setting.³⁷ Although some sources treat the two terms as synonymous, other sources (including cases, statutes, and secondary sources) suggest that the word “valuable” denotes a financial or pecuniary gain.³⁸

Other elements of NOTA and its legislative history reinforce the notion that Congress undoubtedly meant to prohibit the commercial, for-profit buying and selling of human organs for transplantation. The extent to which the NOTA congress intended to reach other exchanges in which the donor receives some benefit, however, is far from clear. For example, the title of section 301, “Prohibition of organ purchases,”³⁹ suggests a congressional concern with the buying and selling of organs for profit, as do statements in the accompanying Senate and House conference reports.⁴⁰ During House hearings on NOTA, the most commonly discussed issues were the need to address the organ shortage through a combination of national coordination and federal financial support and the controversial provision for Medicare coverage of outpatient immunosuppressive drugs.⁴¹ Several House members did mention the section

35. See, e.g., Legality of Alternative Organ Donation Practices Under 42 U.S.C. § 274e to Gen. Counsel Dep’t of Health and Human Servs., 31 Op. O.L.C. 1, 2 (2007).

36. *Id.*

37. *Id.*

38. *Id.*; see also e.g. Prewitt v. Wilson, 103 U.S. 22, 24 (1880) (“Marriage is to be ranked among the valuable considerations, yet it is distinguishable from most of these in not being reducible to a value which can be expressed in dollars and cents.” (quoting 1 JOEL PRENTISS BISHOP, COMMENTARIES ON THE LAW OF MARRIED WOMEN: UNDER THE STATUTES OF THE SEVERAL STATES, AND AT COMMON LAW AND IN EQUITY § 776 (Boston, Little, Brown & Company 1878) (variation in original) (internal quotation marks omitted)). Contemporaneous state laws also define “valuable consideration” as involving financial gain. See, e.g., CAL. PENAL CODE § 367f(a), (c)(2) (West 2010) (prohibiting the transfer of any human organ for valuable consideration, then defining valuable consideration as “financial gain or advantage.”). Stephen J. Choi, G. Mitu Gulati, and Eric A. Posner assume that “valuable consideration” has the same meaning as “consideration” under contract law, but conclude that some altruistically motivated exchanges, including NEAD chains, operate under a legal fiction that treats certain exchanges for value, when undertaken for altruistic purposes, as gifts. Stephen J. Choi, Mitu Gulati & Eric A. Posner, *Altruism Exchanges and the Kidney Shortage*, 77 LAW & CONTEMP. PROBS., no. 3, 2014 at 289. We believe that RTT passes muster as such a legal fiction. See *infra* notes 71–73 and accompanying text (distinguishing RTT from the “altruism exchanges” proposed by Choi, et al., which the authors conclude would require an amendment to NOTA).

39. 42 U.S.C. § 274e (2006 & Supp. IV 2011).

40. S. REP. NO. 98-382, at 2–4 (1984), reprinted in 1984 U.S.C.C.A.N. 3975, 3976–78 (stating that NOTA “[p]rohibits the interstate buying and selling of human organs for transplantation” and “is directed at preventing the for-profit marketing of kidneys and other organs”); H.R. REP. NO. 98-1127, at 16 (1984) (Conf. Rep.), reprinted in 1984 U.S.C.C.A.N. 3989, 3992 (“This Title intends to make the buying and selling of human organs unlawful.”).

41. See generally *To Amend the Public Health Service Act to Authorize Financial Assistance for*

301 prohibition against valuable consideration in exchange for human organs, sometimes with a specific allusion to the Jacobs venture, but without elaborating on the meaning of the term “valuable consideration” beyond commercial buying and selling. For example, California Representative Henry A. Waxman stated,

In recent months, proposals have been made to encourage otherwise healthy individuals to *sell* one of their kidneys in exchange for *payments ranging from \$6,000 to \$50,000*. If these *commercial ventures* were allowed to proceed, I believe our efforts to promote voluntary organ donations would collapse, and health risks to transplant patients would greatly increase.⁴²

Several other House-member statements clearly condemn the buying and selling of organs, but fail to mention NOTA’s possible application to the type of nonpecuniary benefits contemplated by RTT.⁴³

Even the most specific references to the section 301 ban tend to address the meaning and scope of other section 301 terms, and not the meaning of “valuable consideration.” The most detailed discussions of section 301 terminology, for example, address clarifications or expansions of the definition of “reasonable expenses” and arguments to exclude blood, blood products, and other items from the definition of “organ.”⁴⁴

In 1983, after NOTA had been introduced in both the House and Senate, but before the statute’s passage, the Senate Committee on Labor and Human Resources held hearings on organ transplantation.⁴⁵ As in the House, references to the Jacobs proposal by several senators were accompanied by condemnations of the buying and selling of organs.⁴⁶ Also like the House discussions, there was

Organ Procurement Organizations, and for Other Purposes: Hearing on H.R. 4080 Before the Subcomm. on Health of the H. Comm. on Ways & Means, 98th Cong. (1984) [hereinafter Hearing on Financial Assistance for Organ Procurement Organizations].

42. *Id.* at 26 (statement of Rep. Waxman, Chairman, S. Comm. on Health & the Environment, Comm. on Energy & Commerce) (emphasis added).

43. *Id.* at 31 (statement of Rep. Madigan) (“I wholeheartedly agree that the buying of human organs should be made illegal.”); *id.* at 34 (statement of Rep. Moore) (“I also agree with the comment that Mr. Waxman made in his testimony that we ought to prohibit the sale of organs.”).

44. *Id.* at 34 (statement of Rep. Gore) (“[W]e are changing the bill to change the definition of ‘valuable consideration,’ so that it does not include the reasonable costs associated with removal, processing, preservation, quality control procedures, storage, and transportation.”); *id.* at 36 (statement of Rep. Gore) (noting that “[w]e are going to specifically exclude corneas” from the definition of “organ”); *id.* at 131 (statement of Robert E. Stevenson, Ph.D., Chairman, Standards Comm., Am. Ass’n of Tissue Banks) (noting that although the then current draft excluded “the ‘reasonable costs associated with removal, storage and transportation’ the bill fails to consider the reasonable costs of quality control, processing, and preservation which are equally essential to high quality organ and tissue transplantation”); *id.* at 116 (statement of James E. Davis, M.D., Am. Med. Ass’n) (urging the exclusion of blood and blood products from the ban on organ sales); *id.* at 170 (statement of Mary Jane O’Neill, Exec. Dir., The Eye-Bank for Sight Restoration, Inc.) (urging the inclusion of “processing, preservation and quality control procedures among the reasonable costs not included in the term ‘valuable consideration’”).

45. *Examination of the Problems Involved in Obtaining Organs for Transplant Surgery: Hearing Before the S. Comm. on Labor and Human Resources, 98th Cong. (1983) [hereinafter Hearing on Problems in Obtaining Organs].*

46. *Id.* at 13 (statement of Sen. Quayle) (referencing “the [Washington Post] article about the Virginia physician who has written the FDA seeking a license to import organs” and condemning such

some dialogue on the term “reasonable expenses.” For example, witnesses expressed concern that “reasonable expenses” must include out-of-pocket expenses associated with organ donation, such as travel, lost wages, and the like, lest the statute operate as a deterrent to organ donation, rather than an encouragement.⁴⁷ But, as in the House, a careful reading of the Senate history of NOTA suggests that Congress paid little, if any, attention to the possible meanings of and ambiguities in the phrase “valuable consideration.”

In sum, a vast academic literature addresses valuable consideration under NOTA.⁴⁸ Concerns about running afoul of the provision have halted state programs, such as Pennsylvania’s planned pilot program to reimburse funeral expenses, and have caused uncertainty about the validity of specific practices, such as kidney swaps.⁴⁹ Commentators debate the meaning of the term and what Congress must have intended with this ambiguous language.⁵⁰

But our analysis suggests that Congress, in passing NOTA, only considered the term “valuable consideration” in the context of a very specific and immediately salient threat involving for-profit, commercial exchanges. Attempts to divine NOTA’s intended scope from the statute’s legislative history are, thus, of limited use. Congress provided almost no guidance on the meaning of the term beyond the obvious threat of buying, selling, and for-profit commerce in human organs and failed to outline the extent to which NOTA reaches other exchanges—like RTT—in which the donor receives some nonpecuniary value.

C. From NOTA to the Norwood Act

Between the passage of NOTA in 1984 and the Norwood Act in 2007, Congress had several occasions to clarify, expand, or otherwise alter the ban against valuable consideration in exchange for human organs and failed to do so. For example, bills were introduced or considered that would have allowed tax credits, honorific awards, and the provision of insurance policies as incentives for organ donation.⁵¹ None of these bills passed, however, and

methods); *id.* at 135 (statement of Sen. Metzenbaum) (referencing the organ-brokerage proposal of a “Virginia physician”).

47. *See, e.g., id.* at 250 (statement of Carol G. Bluemle) (“To send or threaten to send donors to prison for receiving reimbursement for out-of-pocket expenses would decrease the total pool of available kidneys.”).

48. Jed Adam Gross, *E Pluribus UNOS: The National Organ Transplant Act and Its Postoperative Complications*, 8 *YALE J. HEALTH POL’Y L. & ETHICS* 145, 148 (2013) (finding that the vast majority of articles on NOTA address the section 301 ban against valuable consideration).

49. Sally Satel et al., *supra* note 33; *see infra* text accompanying note 53 (discussing the uncertainty surrounding kidney swaps).

50. *See, e.g.,* R. S. Gaston et al., *Limiting Financial Disincentives in Live Organ Donation: A Rational Solution to the Kidney Shortage*, 6 *AM. J. TRANSPLANTATION* 2548 (2006) (proposing a compensation scheme for organ donors and defending its legality under NOTA).

51. Rick K. Jones et al., *supra* note 33 (detailing these bills and the surrounding debates); Erin D. Williams et al., *Living Organ Donation and Valuable Consideration*, *Congressional Research Service* CRS-3 (2010) (detailing bills designed to incentivize organ donation).

NOTA's original language banning valuable consideration remained unchanged.⁵²

However, in 2007, Congress revisited the term "valuable consideration" when passing the Norwood Act. Prior to 2007, some organ-procurement organizations, other nonprofit organizations, and individual transplant programs had implemented KPD programs. Due to an interpretation by the Department of Health and Human Services that KPD may violate NOTA, however, many hospitals and the United Network for Organ Sharing (UNOS) were reluctant to perform paired donations, for fear of violating NOTA.⁵³

In the course of enacting the Norwood Act, many congressional members made claims regarding the intent of the NOTA-enacting Congress with respect to the phrase "valuable consideration," reiterating the enacting Congress's refrain that the statute was intended to prohibit the buying and selling of transplantable organs. We do not reference that discussion to suggest that these remarks have any direct bearing on the term's meaning—most legal scholars conclude that they do not.⁵⁴ Nonetheless, we believe that, due to the similarities between KPD and RTT, the Norwood Act's legislative history will be reviewed by courts and commentators considering the legality of RTT for possible insights into the policy rationales underpinning permitted transactions that involve the exchange of nonpecuniary benefits.⁵⁵

Representative Inslee stated on the House floor when introducing the Norwood Act, "I believe it is imperative that *we make it clear that there is no intent by Congress to bar [KPD]*. It is my hope that the Senate will act quickly on this. Simply put, we want this legislation to save lives immediately."⁵⁶ Similarly, Representative Dingell insisted that "[t]he [valuable consideration] clause was intended to outlaw the buying or selling of transplantable human

52. Although these failed congressional efforts thus did nothing to clarify or alter the meaning of the term "valuable consideration" as used in NOTA, we reference the debates surrounding these potential changes in part V, in which we analyze the possible federal concerns underlying NOTA.

53. 153 CONG. REC. 5439 (2007) (statement of Rep. Dingell); *id.* at 5439–40 (statement of Rep. Gingrey).

54. Many commentators and jurists contend that subsequent legislative history of this sort should have no relevance in statutory interpretation, *see, e.g.*, Richard A. Posner, *Statutory Interpretation—in the Classroom and in the Courtroom*, 50 U. CHI. L. REV. 800, 809–10 (1983) (arguing that courts should ignore subsequent legislative history), and black-letter statements of the law typically emphasize subsequent legislative history's inferior role, *see, e.g.*, *Se. Cmty. Coll. v. Davis*, 442 U.S. 397, 411 n.11 (1979) ("[I]solated statements by individual Members of Congress or its committees, all made after the enactment of the statute under consideration, cannot substitute for a clear expression of legislative intent at the time of enactment.").

55. Subsequent legislative history may provide insight on the probability of being overruled through subsequent legislative action and in assessing current societal norms, both of which are important to courts. *See, e.g.*, Lee Epstein & Jack Knight, *Mapping Out the Strategic Terrain: The Informational Role of Amici Curiae*, in *SUPREME COURT DECISION-MAKING* 215, 217–18, 225–26 (Cornell W. Clayton & Howard Gillman eds., 1999) (arguing that the probability of legislative override is relevant to courts and that they glean information about this probability from many sources, including the current positions of legislators); Daniel A. Farber & Philip P. Frickey, *Legislative Intent and Public Choice*, 74 VA. L. REV. 423, 467–68 (1988).

56. 153 CONG. REC. 5437 (2007) (statement of Rep. Inslee) (emphasis added).

organs.”⁵⁷ Said Representative Linder: “The valuable consideration clause has a noble purpose, which is to keep people from buying and selling human organs. . . . Let me be clear: paired-organ donation does not constitute the buying or selling of organs.”⁵⁸

Some House members made reference to the fact that the Norwood Act would “clarify” that NOTA’s ban on valuable consideration did not prohibit KPD, suggesting that the statute was never intended to ban such behavior.⁵⁹ Charlie Norwood himself was even more explicit in a statement read into the record (he had died just a month earlier from lung cancer that spread to his liver, despite a successful lung transplant):⁶⁰

For years, people missed or were delayed in an opportunity to have a life-saving kidney transplant simply because a member of the executive branch couldn’t grasp the true intent of the National Organ Transplant Act’s valuable consideration clause. The valuable consideration clause was meant to outlaw the buying and selling of organs, which everyone agrees is proper. . . .

Now, I’m just an old country dentist, but isn’t this just common sense? I want to give to someone, but I’m not compatible, but I can give to another patient. Their willing, yet also incompatible, friend can give to my loved one. As a result, two people live; two more slots are opened on the list for even more transplants to take place. Common sense, Mr. Speaker.

However, instead of every single transplant center undertaking this commonsense approach, some folks were denied the chance to be cross-matched and, instead, their loved one suffered and even died while awaiting a transplant.⁶¹

The Senate record expresses similar sentiments. For example, Senator Levin, when introducing the Norwood Act legislation in the Senate, said,

This legislation is necessary because the National Organ Transplant Act, NOTA, which contains a prohibition intended by Congress to preclude purchasing organs, is unintentionally impeding the facilitation of matching incompatible pairs, as just described. . . . That section has been interpreted by a number of transplant centers to prohibit such donations. . . . Congress surely never intended that the living donation arrangements that permit paired donation be impeded by NOTA. Our bill simply makes that clear.⁶²

In sum, the Norwood Act’s legislative history does nothing to alter our conclusion in part IV.B that the NOTA Congress paid little attention to the possible meanings of the phrase “valuable consideration” beyond the immediately salient threat of for-profit organ brokerage. If anything, the

57. *Id.* at 5439 (statement of Rep. Dingell).

58. *Id.* at 5440 (statement of Rep. Linder).

59. *Id.* at 5437 (statement of Rep. Barton) (“The legislation before us today clarifies the ability to perform paired transplantations through the National Organ Transplant Act, or NOTA. This legislation clarifies that paired donations are not considered a valuable consideration.”); *id.* at 5440 (statement of Rep. Gingrey) (“H.R. 710 would clarify in statute that this type of paired living kidney donation would be allowed under Federal law.”).

60. John A. Schall, *Congress Passes Legislation on Paired Kidney Donation*, AM. ASS’N KIDNEY PATIENTS, <https://www.aakp.org/advocacy/public-policy/item/congress-passes-legislation-on-paired-kidney-donation.html> (last visited Sep. 28, 2014).

61. 153 CONG. REC. 5438 (2007) (statement of Rep. Norwood).

62. 153 CONG. REC. 33,289 (2007) (statement of Sen. Levin); 153 CONG. REC. 18,209 (2007) (statement of Sen. Levin) (nearly identical to the formerly cited one).

Norwood Act legislative history suggests that the Norwood Act was intended as a safe harbor from NOTA for risk-averse transplant centers and that NOTA does not speak to the type of altruistic exchange contemplated by RTT at all, though we hesitate to read too much into that conclusion. As already noted, the dominant view among scholars and jurists is that subsequent legislative history is, if not wholly irrelevant in determining a statute's meaning, at least of secondary importance as compared to the original text and contemporaneous legislative history. Many scholars have argued that subsequent legislative history is, nonetheless, relevant to courts, and for that reason, we review the Norwood Act legislative history here. This relevance arises not because courts use such history to determine what the enacting Congress meant, but because courts have a natural aversion to being overridden and are often interpreting vague language by reference to contemporary social norms and standards. Considered together with the text and legislative history of NOTA, we find no indication that Congress contemplated exchanges such as RTT when enacting NOTA (or, for that matter, when passing Norwood), and we proceed to the policy rationales underlying the ban for greater insight into Congress's likely intent.

V

POLICY RATIONALES

Even if Congress did not clearly specify the intended scope of NOTA's prohibition against valuable consideration in exchange for human organs, commentators have asserted a variety of public policy concerns that justify the ban, many of which appear to resonate with at least some members of the NOTA-enacting Congress and later Congresses. In this part, we analyze those public policy concerns and demonstrate that RTT does not run afoul of any of them. In fact, RTT actually minimizes some of those concerns better than existing transplant practices do.

When considering the extent to which RTT withstands common objections to inducements, it is important to remember one important difference between RTT and other inducement schemes that might qualify as valuable consideration under NOTA: RTT does not provide an inducement to donate an organ. Rather, RTT provides an inducement for someone who, in a perfect world free of financial and immunological barriers, would altruistically donate an organ to a friend or family member, to instead donate that same organ to someone else. Once this is recognized, it becomes clear how and why RTT does not run afoul of standard objections to inducements to donate.

To illustrate, recall that Carlos is willing to altruistically donate his kidney to Diana. However, because Carlos and Diana are poor and the Mexican public health care system does not provide immunosuppression to transplant patients, Carlos's donation to Diana would be pointless—in the absence of immunosuppression, her body would reject the kidney and the transplant would fail. Thus, Carlos is not a person uninterested in or ambivalent about organ

donation who has been induced to donate through the lure of compensation. Rather, Carlos is a person with perfect-world donative intent. RTT merely ensures that Carlos's donation results in a successful transplant to Diana, while at the same time helping an immunologically incompatible American pair through a kidney swap.

A. Equality of Access

Many objections to the exchange of valuable consideration for organs rest on concerns about unequal access. Some commentators worry, for example, that in a system that permits valuable consideration, only the rich will have access to organs.⁶³ Access concerns are evident in congressional deliberations on organ donation and appear to animate at least some objections to the exchange of valuable consideration for transplantable organs.⁶⁴ Although others dispute the contention that inducements to donate would necessarily disadvantage the poor, arguing that access issues are easily addressed through a variety of mechanisms, we need not engage that debate here because RTT easily withstands this objection.⁶⁵ RTT is specifically designed to provide transplant access to the poor by providing them with necessary immunosuppression that they could not otherwise afford. In terms of access, therefore, RTT improves upon the status quo.

B. Coercion and Exploitation

One set of concerns frequently expressed with transplant tourism (or, indeed, inducements to the poor more generally) relates to coercion and exploitation, and these concerns are evident in some of the legislative history regarding organ donation.⁶⁶ Concern over coercion normally involves a worry that poor sellers will be forced into selling their organs because they have no

63. Gerald Dworkin, *Markets & Morals: The Case for Organ Sales*, in MORALITY, HARM, AND THE LAW 155, 157–58 (Gerald Dworkin ed., 1994).

64. *Hearing on Financial Assistance for Organ Procurement Organizations*, *supra* note 41, at 174; National Organ Transplant Act, Hearing Before The Subcommittee On Health, House of Representatives, Ninety-Eighth Congress Second Session On H.R. 4080, (statement of National Association of Patients on Hemodialysis and Transplantation, Inc.) p. 174 February 9, 1984 (“If purchasing an organ [e]ver became the primary means of obtaining a transplant, those of greater wealth would obviously be at a substantial advantage.”); *Hearing on Problems in Obtaining Organs*, *supra* note 45, at 131 (statement of Sen. Howard Metzenbaum) (expressing concern regarding organ markets that “if you had enough money you could . . . see to it that you got an organ.”); *id.* at 212 (testimony of Gary B. Friedliaenidere M.D., President (Interim), American Council on Transplantation) (“It would be unconscionable to create a system by which only the most wealthy would benefit.”).

65. See, e.g., T. Randolph Beard & Jim Leitzel, *Designing a Compensated–Kidney Donation System*, 77 LAW & CONTEMP. PROBS., no. 3, 2014 at 253.

66. In 2003, Congress declined to allow incentives for donation of cadaveric organs based on a concern that such a program would “unduly put pressure on low-income individuals.” *Assessing Initiatives to Increase Organ Donations: Hearing Before the Subcomm. on Oversight & Investigations of the H. Comm. on Energy and Commerce*, 108th Cong. 4 (2003). Congress was particularly concerned with “exploit[ing] vulnerable members of society.” *Id.* at 64.

reasonable alternative.⁶⁷ Critics concerned about exploitation generally envision a bad bargain for or unfair advantage over the weaker party to the transaction, which, in this case, is the poor Mexican pair of Carlos and Diana.

Dealing with exploitation first, it is difficult to see how RTT could be considered exploitative of Carlos and Diana. Neither Diana nor Carlos receive a bad bargain in the transaction relative to either the other pair (Amanda and Bob) or to their respective outcomes in the absence of an RTT swap. In the absence of a swap, Carlos could donate his kidney, but Diana's body would reject the kidney for lack of immunosuppression and the transplant would fail. With the RTT swap, Diana receives the immunosuppression she needs for the transplant to succeed. In both cases, Carlos is left with only one kidney. But with RTT, Diana has the chance of a successful transplant, which is a better state of affairs for both Carlos and Diana.

Similarly, RTT does not appear to coerce Carlos. This is not a case, such as those often invoked in arguments against inducements to donate, in which a poor person sells her organ in order to provide food or shelter for her family or to escape bonded labor.⁶⁸ Although one could question whether even these examples are, in fact, coercive, we need not do so here. Rather, we emphasize again Carlos's perfect-world donative intent, which is thwarted only by his poverty and Diana's lack of access to immunosuppression. The donation is not motivated by the RTT scheme, but only facilitated by it.

To the extent that any lingering concerns regarding the informed or voluntary nature of the Carlos–Diana choice remain, they are addressable through existing safeguards employed in the United States to ensure informed consent and voluntariness among organ donors. In fact, meeting these safeguards would be a prerequisite for any RTT program. Recall that Carlos would travel to the United States for his nephrectomy—thus, Carlos's screening for donor eligibility would be the same as that performed for swap participants in the United States.

C. Commodification

Also sometimes labeled corruption or alienation, this objection (or, more accurately, collection of objections) to inducements relates to the purported degrading effect of market exchange on certain items or activities.⁶⁹ In the case of inducements for organs, the specific objection is normally that allowing valuable consideration in exchange for organs devalues humanity by treating

67. See I. Glenn Cohen, *Regulating the Organ Market: Normative Foundations for Market Regulation*, 77 LAW & CONTEMP. PROBS., no. 3, 2014 at 71 (providing more formal definitions of various strands of the coercion, exploitation, and justified paternalism concerns, with illustrative examples).

68. See *id.* (providing these and other examples).

69. See, e.g., Elizabeth Anderson, VALUE IN ETHICS AND ECONOMICS, at xii–xiii (1993) (discussing commodification); Dworkin, *supra* note 63, at 159 (referring to commodification as “a large class of arguments” that are “diverse in character”).

the human body and its parts as mere commodities.⁷⁰

It can be hard to refute an objection as inchoate as commodification, but RTT does not seem to implicate the concerns most critics have in mind with this objection. Carlos does not “sell” his organ or value it like cash or its equivalents. Rather, Carlos trades one like good—a healthy kidney—in exchange for another healthy kidney. Diana also receives immunosuppression thanks to the RTT exchange, but it is not obvious that this corrupts the exchange, the parties to it, or human beings more generally.

Although congressional members have, at times, expressed concerns that fall within the commodification family, these concerns arose in the context of condemnations of monetary payments in exchange for human organs.⁷¹ The text of the statute, legislative history, and animating policy goals discussed throughout this article all suggest that RTT would not be derailed by the courts or Congress because of commodification concerns. Instead, RTT is most similar to KPD, which Congress has already explicitly approved, and AUKPD and NEAD chains, which, although never explicitly permitted by Congress, currently enjoy widespread acceptance.

D. Slippery Slopes

A final possible objection to RTT relates not to RTT itself but to its possible effect on the validity of future proposals to increase the organ supply. If the exchange of one kidney for another kidney plus immunosuppression and medically necessary transport is valid under NOTA, then what is to prevent the exchange of a kidney for a kidney plus college tuition for a donor’s child—or, for that matter, for a beachfront condominium?

This fear, though understandable, is unwarranted. RTT passes muster under NOTA due to a combination of three unusual characteristics of the exchange: (1) Carlos’s perfect-world donative intent, (2) Carlos’s altruistic motivation, and (3) the medical necessity of the benefit received in the swap (Diana’s immunosuppression and transport). Carlos’s perfect-world donative intent—the same donative intent present in KPD, AUKPD, and NEAD chains—has already been discussed at some length. In addition, Carlos’s motivation for the exchange is altruistic: He wants to benefit Diana rather than himself. These two factors distinguish RTT from other common proposals to increase the organ supply through inducements, such as financial incentives that accrue directly to the donor.

Finally, the benefit in question—Diana’s immunosuppression and clinic travel—is incidental to and medically necessary for the transplant to succeed.⁷¹

70. MARGARET JANE RADIN, *CONTESTED COMMODITIES* 125–26 (1996) (discussing organ markets and commodification).

71. We recognize the possibility of some slipperiness in the concepts of “incidental to” and “medically necessary for” the transplant. Conceivably, expenses other than transportation and immunosuppression could be characterized as medically necessary to the success of the transplant.

In this sense, RTT is more like current exchange practices, such as KPD, AUKPD, and NEAD chains, along with practices explicitly excluded from NOTA, such as reasonable payments to donors incidental to the transplant, including travel, housing, and lost wages.⁷² This characteristic distinguishes RTT from other inducement proposals that rely on altruism, such as the altruism exchanges proposed by Stephen J. Choi, G. Mitu Gulati, and Eric A. Posner in this issue of *Law and Contemporary Problems*, which the authors conclude would likely require an amendment to NOTA.⁷³

Thus, the text of the statute, legislative history, and animating policy goals discussed throughout this article all suggest that payments for immunosuppression and drug travel—the only component of RTT that could even possibly be construed as valuable consideration—should not be labeled as such.

VI

BENEFITS OF RTT

Thus far, we have explained why RTT does not run afoul of the language of or public policy animating NOTA. However, RTT has important benefits yet to be discussed. In this part, we detail those benefits.

A. Cost Savings to the U.S. Health Care System

Innovation in health care currently focuses on improving the quality of care while reducing the cost. There is perhaps no single disease entity in which this purpose is more easily achieved than ESRD. Simply put, ESRD is most commonly treated by dialysis, but this form of treatment is much less effective, and ultimately much more costly, than kidney transplantation. According to the *2013 USRDS Annual Data Report*, one year of hemodialysis cost the Centers for Medicare and Medicaid Services (CMS) \$87,945 in 2011 (the last year data is available), whereas one year of kidney transplantation cost CMS \$32,922.⁷⁴ Over five years, transplanting a single ESRD patient rather than having the patient remain on dialysis saves CMS \$273,235. If a patient instead undergoes a transplant preemptively (before starting dialysis), the commercial payer (that is, the health-insurance company) receives a net cost-avoidance benefit of \$250,000–\$400,000 during the thirty-three months Medicare is the secondary payer.⁷⁵ Thus, RTT would save money for the U.S. health care system and

Permissible expenditures could be limited, however, to the same types of transplant-related expenses currently paid in the United States by insurance providers and nonprofit entities.

72. See *supra* notes 42–43 and accompanying text (discussing these exclusions).

73. Choi et al., *supra* note 38.

74. NAT'L INST. OF HEALTH, 2 2013 USRDS ANNUAL DATA REPORT: ATLAS OF END-STAGE RENAL DISEASE IN THE UNITED STATES 328 (2013), available at http://www.usrds.org/2013/pdf/v2_ch11_13.pdf (“Per person per year Medicare ESRD fell 0.3 and 0.5 percent, respectively, to \$87,945 and \$32,922 in 2011, compared to a rise of 6.6 percent in peritoneal dialysis patients, to \$71,630.”)

75. F. D. Irwin, A. F. Bonagura, S. W. Crawford & M. Foote, *Kidney Paired Donation: A Payer*

insurance providers.

B. Better Health Outcomes

In addition to the cost savings, the average patient who receives a deceased-donor kidney transplant lives ten years longer than they would had they remained on dialysis.⁷⁶ Further, living-donor kidney transplants function on average for 14.7 years, while deceased-donor kidneys last only 8.9 years.⁷⁷ Thus, increasing the number of patients receiving transplants via living-donor chains and simultaneous exchanges reduces the number of patients on dialysis, and leads to better health, better health care, and lower costs for those patients. For those who remain on the kidney waiting list, RTT also gives them a better chance of receiving a deceased-donor organ.

VII

START-UP, SUSTAINABILITY, AND SAFEGUARDS

In this part, we provide some initial thoughts on what will be necessary to bring an RTT system into being, as well as to sustain it. To pilot the RTT concept and to demonstrate its value to those who stand to financially benefit, philanthropy is necessary. Otherwise, those who do stand to benefit will never see RTT's potential.

However, RTT will not become sustainable if it is based on philanthropy alone. In order to make RTT sustainable, the costs of an RTT program will have to be paid by those who will gain from it financially. The structure of such funding is not difficult to resolve: Benefitting stakeholders can simply donate to the aforementioned nonprofit in our proposed RTT structure.⁷⁸ But who are the stakeholders?

We identify three: insurance companies, pharmaceutical companies, and CMS. Health-insurance providers should be interested in funding RTT because they save a substantial amount of money for each person who receives a transplant instead of remaining on dialysis (because dialysis is much more expensive than transplantation)—more money than they would have to pay per RTT transplant. Commercial payers are likely to save in excess of \$300,000 for each patient preemptively receiving a transplant prior to starting dialysis.⁷⁹ Assuming that in Mexico the cost of immunosuppressive medications is about \$8000 per month, RTT would cost the aforementioned nonprofit about \$100,000 for ten years of immunosuppressive medications and for travel to and

Perspective, 12 AM. J. TRANSPLANTATION 1388, 1388 (2012).

76. Robert A. Wolfe et al., *Comparison of Mortality in All Patients on Dialysis, Patients on Dialysis Awaiting Transplantation, and Recipients of a First Cadaveric Transplant*, 341 N. ENGL. J. MED., 1725, 1729 (1999).

77. J. Matas et al., *Kidney Transplant Half-Life ($t_{1/2}$) After Rapid Discontinuation of Prednisone*, 87 TRANSPLANTATION 100, 101 (2009).

78. See *supra* Part III.A.

79. See Irwin et al., *supra* note 75, at 1338.

from the recipient's Mexican transplant health-care provider. Thus, an insurance company would save approximately \$200,000 in dialysis costs by contributing to an RTT nonprofit. It therefore seems a reasonable investment on the part of a commercial insurance carrier to make a donation to a nonprofit that supports reverse transplant tourism so that RTT could eventually become sustainable.

Involving insurance companies in the funding of RTT requires safeguards, however, to ensure that insurance-company donors have no ability to influence patient selection and transplant decisions. Specifically, in order for a commercial insurance company to donate money to a nonprofit involved in reverse transplant tourism, the algorithm matching international patients with American patients would have to be transparent and clearly demonstrate that the insurance companies' financial contributions did not influence the allocation of kidneys in favor of the companies' patients. There could be no implication that a specific insurance company could purchase a kidney for a specific patient.

Commercial payers are not the only commercial organizations that could benefit from reverse transplant tourism. Pharmaceutical companies that sell immunosuppressive drugs gain a new source of profit with every patient receiving a transplant—a source that lasts for the lifetime of the patient. The average annual cost of immunosuppressive agents in the U.S. is \$15,000–\$20,000.⁸⁰ Given a reasonable profit margin from these drugs, pharmaceutical companies' benefit from an RTT-induced uptick in transplants would be substantial. It would therefore be in the pharmaceutical industry's best interest to donate to a reverse-transplant tourism nonprofit. However, as with the commercial insurance payers, there could be no implication that a specific pharmaceutical company would purchase a kidney for a specific patient or program in which that pharmaceutical company's drugs were more likely to be used.

Finally, CMS would also have an incentive to donate to an RTT nonprofit. CMS as an entity saves \$273,235 per transplant as compared with dialysis over five years. Thus, CMS could legitimately use part of this savings to support RTT as a means of both reducing the overall cost of ESRD for American taxpayers and improving the quality of health care provided. As noted in part VI, innovation in American health care is being driven by the desire to decrease cost while improving the quality of health care. As renal transplantation (as opposed to remaining on dialysis) is one of the best examples of this type of innovation, reverse transplant tourism is an example of the type of innovation that CMS is trying to promote. Although it seems hard to imagine that the U.S. government would invest \$100,000 to help transplant a poor international patient when there are so many poor people in the United States lacking adequate health care, it is clear that such an investment in an RTT transplant

80. Roger W. Evans et al., *Cost-Related Immunosuppressive Medication Nonadherence Among Kidney Transplant Recipients*, 5 CLINICAL J. AM. SOC'Y NEPHROLOGY 2323, 2326 (2010) (“[A]nnual third party reimbursements for a patient who has a functioning kidney transplant average \$16,844.”).

would actually still save U.S. taxpayers \$173,235 and provide better health care to one American who would otherwise have remained on dialysis. As with the other potential stakeholders, though, CMS's support of such a nonprofit could not be directly linked to Medicare patients receiving transplants.

VIII

CONCLUSION

As we have demonstrated, RTT could provide benefits to U.S. patients in need of kidney transplantation, as well as to the U.S. health care system more generally and to impoverished international patients who otherwise would have no access to transplantation. But there is more to be said in favor of RTT. RTT also provides particular benefit to certain segments of the U.S. population, such as O–blood type patients and highly sensitized patients.

As previously noted, O–blood type patients are disadvantaged in a typical KPD program, relative to other–blood type patients, due to the shortage of O–blood type donors in the KPD donor pool.⁸¹ Highly sensitized patients also face challenges. Because RTT brings immunologically compatible pairs to the United States in exchange for medical treatment, RTT provides an influx of easy-to-match recipients and O donors into the KPD pool. This is particularly true when RTT partnerships involve poor countries, whose compatible pairs have an incentive to participate in KPD that those in rich countries do not have.

There is a final advantage to RTT partnerships with a country such as Mexico: ethnic diversity. Although people of different races frequently match with and donate to one another, an individual has a better chance of finding a match with a potential donor from her ethnic group because of the higher likelihood of compatible blood types and tissue markers. And the need for donation is particularly acute for members of minority ethnic groups in the United States: Although ethnic groups donate in rough proportion to their population, minorities' incidence of ESRD is higher.⁸² Thus, increasing the racial and ethnic diversity of the donor pool, although beneficial to all U.S. recipients, is especially valuable to racial and ethnic minorities.

The benefits of RTT for the individuals involved and the U.S. health care system are many and suggest that any lingering uncertainties about the validity of RTT would be resolved in the proposal's favor. Instead of non-U.S. kidney donors being offered money through a black-market middleman in exchange for one of their kidneys, RTT would provide a legal and ethical exchange of living-donor kidneys through kidney-paired donation. In this way, the donors will not receive money for their kidneys, but rather will receive a transplant for

81. See *supra* text accompanying notes 12–15 (discussing O–blood type donors in KPD).

82. For example, non-Caucasians are three times more likely to suffer from ESRD than are Caucasians. *Why Minority Donors are Needed*, ORGANDONOR.GOV, <http://organdonor.gov/whydonate/minorities.html> (last visited Feb. 25, 2014). African Americans, Hispanics, and American Indians make up 56% of the over 98,701 people with ESRD waiting for a deceased donor kidney in America. See U.S. DEP'T HEALTH & HUM. SERVICES, <http://optn.transplant.hrsa.gov/latestData/advancedData.asp>.

someone they love.