I. INTRODUCTION

On October 22, 2004, President Bush signed into law the American Jobs Creation Act of 2004 (“the Act”). Section 882 of the Act overhauls the tax treatment of charitable donations of patents, significantly reducing the amount a donor is able to deduct. Although the measure removes the primary financial incentive for making such donations, the provision is a necessary measure to realign the practice of patent donation with tax and innovation policy goals.

This Comment will begin with an overview and history of the patent donation industry. It will then describe the administrative difficulties in using fair market value as the value of the donation. Next, the Comment will address measures taken by the Internal Revenue Service earlier in 2004 in response to those difficulties. It will then describe the Act itself. The Comment concludes with a discussion of the broader impact of reducing the deduction.

II. OVERVIEW OF PATENT DONATION

While tax deductible for decades, patent donations have become increasingly popular in the past several years. In a typical transaction, a donor (usually a large corporation) transfers a patent or set of patents to a qualified charity (usually a university). The university then further develops the patented technology in hope of developing a
commercial application. As the full owner of the patent rights, the university can monopolize the profit on any resulting commercial use. Meanwhile, the corporation deducts the full value of the patent at the date of transfer.

Under both the new and old versions of the law, a deduction is available if several structural conditions are met. The patent itself must be donated; licenses are not deductible. The donation must be made with no strings attached; for example, the property interest cannot revert to the donor. Finally, the donor must derive no (non-tax) benefit from the transfer; for instance, receiving a copy of the university’s research results would invalidate the deduction.

Under the previous law, a patent donor could deduct the fair market value of the transferred patents. The new law limits the deduction to the patent’s cost basis, which is typically zero. The donor is also able to deduct a declining percentage of any of the donee’s income attributable to the patent for the next ten years.

III. THE PATENT DONATION INDUSTRY

Patent transactions became prevalent in the late 1990’s. Works such as Rivette and Kline’s *Rembrandts in the Attic* increased awareness of the potential value of unused intellectual property. Tax advisors and consultants began promoting patent donations for tax benefits. Within a few years, major corporations such as Ford and Procter & Gamble were writing off tens of millions of dollars for donated patents.

Corporations saw donation as an attractive alternative to abandonment. Patent holders are required to pay maintenance fees to keep

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5. See id. (discussing 26 C.F.R. § 1.170A-1(e)).
11. KEVIN G. RIVETTE & DAVID KLINE, REMBRANDTS IN THE ATTIC: UNLOCKING THE HIDDEN VALUE OF PATENTS 123–24 (2000) (“Now it’s time for CFOs to turn their attention to the three-fourths of all corporate wealth that consists of unexploited intellectual assets.”).
their patents active. The fee structure is designed to raise revenue equitably by requiring fees only from valuable patents. Since empirical evidence suggests that a majority of patents prove to be worthless, the fee structure imposes the largest costs toward the end of the patent’s life. Thus, holders of valueless patents can avoid the majority of the costs by simply allowing the patent to lapse into the public domain. As such, tax advisors and consultants began auditing corporate portfolios for unneeded patents. Obviously, tax deductions made donation a more attractive means of disposing of those unneeded patents than simple abandonment. For large corporations holding tens of thousands of patents, the resulting savings of donation rather than abandonment were significant.

On the other side, universities developed several ways of using donated patents. Patent donation effectively served as a private Bayh-Dole Act, opening the technology transfer business up to universities who lacked the fundamental research capability to develop their own patent portfolios. In some cases, commercialization of a donated patent became a student project, with the university poised to receive any financial benefit of success. In other cases, brokers formed startup companies around donated intellectual property.

An entire industry evolved around patent donation. Intermediary companies, such as Cincinnati-based Donology, sprung up for the sole purpose of brokering these transfers. Intermediaries identified patents and donees, managed the transfer, and worked with donees to ensure commercial success. With commercial success typically many years off, however, intermediary firms’ financial success primarily resulted from the tax benefits of donation.

Corporate donations to universities offered additional benefits. Often, the patent was accompanied by a donation of cash, equipment, or other services needed to develop the technology. In addition, company engineers often formed relationships with the universities, work-

14. See 37 C.F.R. § 1.20(c)–(g) (2004) (requiring the patentee to pay fees in the amounts of $940, $2,150, and $3,320 at three years and six months, seven years and six months, and eleven years and six months after the grant, respectively).
16. See H.R. REP. No. 96-1307(I), at 4–5 (1980) (“Should the invention prove to have no commercial value, the inventor has the option of permitting the patent to lapse, thus avoiding all further fees.”).
17. See Layton & Bloch, supra note 10, at 5.
18. Id.
19. Id. at 16.
20. Id. at 9–10.
21. For additional information on Donology, see http://www.donology.com (last visited Nov. 7, 2004).
ing with students on projects related to spun-out technology. In many cases, these secondary effects of a donation far outweighed any direct financial benefits derived from the patent itself.

Unfortunately, some corporations abused patent donations as a means of lightening their tax liabilities. Patents were donated which were of little practical use to the recipient university. At an extreme, some patents were valued at millions of dollars at the time of donation, then abandoned by their recipients to avoid the payment of maintenance fees. Some universities began refusing donations, while others implemented a strict evaluation policy before accepting new donations.

IV. ADMINISTRABILITY PROBLEMS

The increase in patent donations brought these problems to light. The high valuations often assigned to donated patents precipitated charges of both abuse and inaccuracy. Most of these charges stem from the inherent difficulty in performing patent valuations.

Under the old law, a patent donor was entitled to a deduction in the amount of the patent’s fair market value, defined as the “price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of the relevant facts.” Donations valued at over $250 required substantiation by the donee, and those valued at over $5,000 generally required an appraisal.

The difficulty in administering this standard stems from the fundamental difficulty in valuing patents:

Determining the financial worth of your patents, unfortunately, is no easy task. For one thing, valuation methods for intangible assets are at best rudimentary, and the subject of more than a little debate. For another, markets for the trading of patent assets are still

25. See Teresa Riordan, Patents; Some Corporations Take Generous Tax Write-Offs For Donated Patents, an Industry Gadfly Says, N.Y. TIMES, Mar. 17, 2003, at C2 (indicating charges of abuse were common in the media and in government).
in their infancy and thus of little help in providing reliable valuation benchmarks.\textsuperscript{29}

The main problem with the fair market value approach is that it rests upon the fiction of an efficient market in donated patents. In reality, technology is rarely traded on an open market, and the terms of a technology transfer are extraordinarily context-dependent. A patent is nothing more than a government-sanctioned monopoly, and a monopoly is of much greater value to someone who can exploit it than to someone who cannot.\textsuperscript{30} Valuing a donated patent at the price paid by a hypothetical buyer poised to utilize the monopoly is thus inherently inaccurate. If such a buyer existed, then any rational patent holder would rather license the patent to that buyer.\textsuperscript{31}

Valuation experts use other methods to approximate fair market value.\textsuperscript{32} The sunk cost approach focuses on the expenses incurred in reproducing the patent, such as legal and research effort. Market approaches look at recent transactions in similar patents to predict the sale price of the considered patent. Finally, income approaches focus on the projected revenues that ownership of the patent would provide, either through licensing or utilization.

These approaches are not free from shortcomings. The sunk cost approach generally underestimates patent value, since the success of a good invention frequently has no relation to the costs of its development. Market-based approaches suffer from the inherent difficulties in comparing patent transactions.\textsuperscript{33} Since each patent is by statutory definition a unique good, no two patents are alike. Furthermore, the buyer’s willingness to pay for a patent depends on its ability to exploit it. A drug company with factories and supply networks in place is likely to extract more value from a drug patent than is a university lab with several graduate students. Finally, income approaches often require significant speculation into the technological and commercial


\textsuperscript{30} See HENRY W. CHESBROUGH, OPEN INNOVATION 175 (2003) (discussing the importance of business models in IP valuation).

\textsuperscript{31} Although these deductions are allowed, the regulations suggest that the inability to find a buyer must be taken into account when calculating fair market value:

\begin{quote}
[If a donation is made] at a time when [the donor] could not reasonably have been expected to realize its usual selling price, the value of the gift is not the usual selling price but is the amount for which the quantity of property contributed would have been sold by the donor at the time of the contribution.
\end{quote}

\textsuperscript{26} C.F.R § 1.170A-1(c)(3) (2004).


\textsuperscript{33} See Matsuura, supra note 32.
success of a novel idea, making the resulting valuation inherently uncertain.\footnote{See id.}

Despite these deficiencies, it is possible to create a rigorous methodology for determining a patent’s value. For example, courts have established a sizable body of jurisprudence controlling the estimation of reasonable royalties in patent infringement cases.\footnote{See Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) (articulating fifteen factors for estimating reasonable royalties).} Unfortunately, the IRS has failed to articulate such guidelines, rendering the application of the fair market value standard subject to abuse and inaccuracy.

V. THE GOVERNMENT’S RESPONSE

In December 2003, the IRS launched an aggressive enforcement campaign with an announcement by IRS Commissioner Mark Everson:

[I]t is important for taxpayers considering donations of patents or other intellectual property to focus on the limitations of these deductions . . . . We’re seeing an increasing number of deductions that don’t pass the smell test. Donations that are overly inflated or made with strings attached are going to receive increased scrutiny.\footnote{I.R.S. News Release IR-2003-141 (Dec. 22, 2003).}

Soon thereafter, the IRS expressed its intention to actively enforce the existing requirements for patent donation deductions.\footnote{See I.R.S. Notice 2004-7, 2004-3 I.R.B. 310.} The IRS cited abuses in several areas, including overvaluation and transfers that did not meet the statutory requirements, such as transfers of partial interests.

In addition to echoing the Commissioner’s warnings of increased scrutiny, the IRS threatened taxpayers, promoters, and appraisers with active enforcement of existing penalties for issuing improper patent valuations.\footnote{See id. (threatening penalties under 26 U.S.C. §§ 6662, 6700, 6701, and 6694).} Taxpayers could be subject to a penalty of up to forty percent of the excess deduction.\footnote{See 26 U.S.C. §§ 6662(a), (h) (2000).} Appraisers were subject to a penalty of up to $10,000 per taxpayer.\footnote{See 26 U.S.C. § 6701(b)(2) (2000).}

Finally, the IRS elaborated on the method for computing a patent’s fair market value:
For example, the fair market value of a patent must be determined after taking into account, among other factors: (1) whether the patented technology has been made obsolete by other technology; (2) any restrictions on the donee’s use of, or ability to transfer, the patented technology; and (3) the length of time remaining before the patent’s expiration.\footnote{See I.R.S. Notice 2004-7, 2004-3 I.R.B. 310 (citation omitted).}

As part of this campaign, the IRS retained Virginia-based M-CAM as a patent valuation expert, bringing the firm in to assist in audits of donated patents.\footnote{See, e.g., John Yellig, Charlottesville Company Values Intellectual Property, CHARLOTTESVILLE DAILY PROGRESS, Aug. 16, 2004, available at http://www.m-cam.com/downloads/dailyprogress_20040816.pdf.} This credible threat of meaningful enforcement promoted the adoption of defensible, third-party appraisals of donated intellectual property.

The IRS’s actions were effective steps in the right direction. Intentional or negligent overvaluation was frequently caused by a failure to adequately consider risks that a hypothetical buyer would ponder. For example, legal risks of invalidity can be determined easily by enlisting a patent attorney to study the patent’s prosecution history for potential flaws that would be uncovered in litigation. Prior to the IRS’s enforcement campaign, however, some valuations were given without making this consideration.\footnote{See Riordan, supra note 25.} The IRS’s actions had a noticeable chilling effect in the industry. In the words of one practitioner, “it is not a question of if a donation of patents will be audited. Rather, there is an understanding that the patent donations will be audited.”\footnote{Kitch, supra note 13 (emphasis added).}

Unfortunately, the IRS’s actions did not address some of the current shortcomings of the fair market valuation method. First, the IRS failed to fully articulate a standard or approach. More importantly, it could not change the fundamental nature of technology development, which makes it impossible to predict the outcome of a commercialization project. Numerous pitfalls may preclude a scientifically sound idea’s transformation into an affordable product. For example, drug development involves a series of increasingly rigorous tests, from animal tests through human trials, any one of which might reveal a fatal flaw in a patented drug. The inability to fully predict the future of an innovation’s development remains an inescapable shortcoming in the fair market valuation approach.

\footnote{41. See I.R.S. Notice 2004-7, 2004-3 I.R.B. 310 (citation omitted).}
VI. THE AMERICAN JOBS CREATION ACT

The American Jobs Creation Act significantly alters the deduction scheme, effectively rendering the IRS’s actions moot. The Act lowers the initial deduction, but allows the donor to take additional, smaller deductions over the following years.

First, the Act adds a provision reducing the initial deduction by the amount of capital gain that would have been realized on the sale of the patent, effectively reducing that deduction to the donor’s basis.45 Next, the Act permits the donor to deduct a percentage of the donee’s income attributable to the patent, to the extent that it exceeds the initial deduction.46 The percentage declines at roughly ten percent per year over a twelve-year period.47 Income attributable to the patent is defined as income derived from the patent itself, not income from any other related activities.48

Opponents of this provision described it as the end of the patent donation industry. Because patents are often carried at zero cost basis, this provision eliminates most of the initial financial incentive for donation. One CEO bemoaned that “80–90% of the brainpower of the U.S. will be left on corporate shelves.”49 Two bills were introduced in opposition to this measure, each proscribing a fair market value standard with heightened standards of appraisal.50 These measures and other industry opposition ultimately faltered in the face of the projected $3.6 billion in savings the provision offered.51

The Act remedies the shortcomings of the previous approach by eliminating the fair market value standard altogether. Instead of granting a single deduction to the donor at the time of the transfer, the new approach grants deductions when actual revenues are realized. The Act thus eliminates any risk of overvaluation, thereby forcing the donor to share in the donee’s commercialization risks.

45. See American Jobs Creation Act § 882(a).
46. See id. § 882(b).
47. See id.
49. Layton & Bloch, supra note 10, at 6.
VII. IMPACT OF THE NEW LAW

While the new law addresses the valuation difficulties associated with the fair market value approach, there remains a more fundamental question of what deduction amounts are needed to adequately incentivize socially efficient donations. This Comment contends that the Act’s smaller deductions provide more than enough incentive to motivate socially useful university patent donations.

The new approach usually values donated patents at significantly less than fair market value. Because the deductible percentage of the donee’s income declines each year, donors will usually be entitled to deduct no more than half of the donee’s income. Further, donated patents almost certainly require additional investment before they begin to yield revenues. As such, the majority of the revenues attributable to the patent are likely to occur near the end of the patent’s life, when the donor is only able to deduct ten percent. According to government estimates, these decreased deductions will increase tax revenues by over $300 million per year.52

The fundamental policy question is thus whether this $300 million annual revenue increase will cost society more than $300 million in lost inventive activity. The justification given for incentives for donations in general is the “orphan” technology problem, which refers to technologies which are patented but not in use.53 Orphan technologies are surprisingly common; in fact, it is estimated that a majority of major corporations’ patent portfolios are not utilized.54 It is therefore argued that deductions are a necessary means of putting those assets in the hands of institutions who would put them to productive use.55

While such an argument seems compelling at first glance, the actual number of orphan patents that are candidates for donation is rather small. It is true that many valuable inventions created in a company’s research laboratory are not directly used because they do not fit within the business activities of the firm. However, companies are becoming increasingly sophisticated at appropriating rents from unused technologies through licenses to outside firms.56 As such, any orphan patents that have commercial value will be licensed for profit,

52. See id.
not given away. Consequently, the only patents a firm would consider donating are those that lack a ready commercial application.

Therefore, a donated patent must be further developed before any value can be realized. University laboratories are ideal places for this development, since this type of work falls well within the traditional scope of university research. However, this work is likely to result in follow-on innovations which may be patentable in their own right. As such, universities do not necessarily need the monopoly incentive granted by the donated patent, since they are capable of obtaining patents on any resulting research. This makes patent donation a questionable alternative to patent abandonment. Donation, in essence, serves as a grant to one university to coordinate the development of the technology. Abandonment, in contrast, would open up the innovation race to other universities as well, putting pressure on all institutions to develop the technology.

Even if donated patents are a necessary incentive to promote university commercialization, current deductions provide an unneeded windfall to donors. Since the only patents that a corporation would donate are those incapable of being immediately used or licensed, corporations need little incentive to motivate donations. In essence, a firm would likely only donate those patents it would otherwise abandon. As such, any deduction amount that exceeds the transaction costs associated with locating and managing a patent donation would be sufficient to motivate that donation.\(^{57}\)

While abandonment is a socially superior option in many (if not most) cases, there is one notable exception: where the patented technology is ready to be commercialized, but the risks of further developing the technology outweigh the benefit to the patentee.\(^{58}\) Particularly for a technology with high development costs, abandoning the patent would likely result in no one commercializing the technology, since the needed additional costs could not be recovered via monopoly profits.\(^{59}\) In this situation, the only way the technology will be commercialized is if the subsequent developer obtained the original patent right. Orphan drugs — drugs whose potential sales are not worth the cost of development to their owners — represent some of the best successes attributable to patent donation.\(^{60}\)

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57. Donations could be motivated for patents capable of licensing if the value of the allowable tax deduction exceeds the value of achievable licensing fees.


59. This is not a concern when the technology is not yet ready for commercialization, since researchers can likely obtain a patent on the finished product.

60. Earlier this year, Johnson & Johnson donated technology for an AIDS-fighting topical solution to the International Partnership for Microbicides, a non-profit group that will fund the development of a product incorporating that technology. See Mark Drajem, Johnson & Johnson Licenses Rights for AIDS Drugs to Non-Profit, BLOOMBERG NEWS, Mar. 29, 2004.
Reducing the amount paid to promote patent donations is thus sound government policy. Society already pays for monopoly costs. Charitable deductions on the value of a donated patent effectively force society to pay twice: one payment to the donor in the form of deductions, and a second payment to the donee in the form of its monopoly profits. This is too heavy a price to pay for an asset that would otherwise sit on the shelf or be abandoned.

VIII. CONCLUSION

The charitable donation of patents to universities is a beneficial means of promoting the commercialization of technologies that would otherwise go unutilized. A deduction in the amount of the fair market value of the patent, however, is not the most effective means of promoting such transactions. Patent valuation is an imprecise art, and any system based upon such valuations will be difficult to administer. Also, the fair market value provides an excessive incentive to industry to donate patents. By reducing the deduction granted from fair market value to a percentage of the donee's income, the American Jobs Creation Act begins the realignment of the practice of patent donation with the public interest.