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NOT ALL PROPERTY IS CREATED EQUAL: WHY
MODERN COURTS RESIST APPLYING THE TAKINGS
CLAUSE TO PATENTS,
AND WHY THEY ARE RIGHT TO DO SO

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INTRODUCTION

After a century of disregard, the question of whether patents constitute a form of “property” protected by the Fifth Amendment’s Takings Clause has recently emerged at the forefront of scholarly and judicial debate.¹ Addressing the issue in 2006 in *Zoltek Corp. v. United States*, a panel of judges for the United States Court of Appeals for the Federal Circuit concluded that the Takings Clause does not apply to patents.²

This conclusion appears to fly in the face of not only century-old dicta, but also numerous Supreme Court cases describing patents as “property” in other contexts. Yet the Federal Circuit refused to rehear the case en banc, despite forceful dissent and external criticism, and the Supreme Court denied the patentholder a writ of certiorari. Given the Federal Circuit’s important dual roles as the appellate court for claims against the government and the appellate court for claims asserted under the patent laws, its precedent now controls this issue. This raises two intriguing questions: why was the Federal Circuit averse to finding that the Takings Clause applies to patents? And, as importantly, is the Federal Circuit’s conclusion correct, even if its stated reasons are not?

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¹ See, e.g., DAVID A. DANA & THOMAS W. MERRILL, PROPERTY: TAKINGS 233 (2002) (stating that the “application of the Takings Clause to intellectual property—trademarks, copyrights and patents—has not yet been seriously tested in the courts”); Thomas F. Cotter, *Do Federal Uses of Intellectual Property Implicate the Fifth Amendment?*, 50 FLA. L. REV. 529 (1998) (“[T]he law of takings with regard to intellectual property can only be characterized as a muddle . . .”) (emphasis added); Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. REV. 689, 690 (2007) (“Modern takings and intellectual property scholarship concludes that this question [of whether patents are ‘constitutional private property’] is novel, and its answer uncertain.”); see *infra* Part IV.A-B.

² *Zoltek Corp. v. United States*, 442 F.3d 1345, 1353 (Fed. Cir. 2006) (per curium), *cert. denied*, 127 S. Ct. 2936 (2007).

This Article answers the first question with a likely explanation: patentholders already possess a statutory right to compensation for almost all government use of patented technology.³ Thus the Takings Clause's command to furnish "just compensation" would only benefit the rare plaintiff, like Zoltek Corporation, where the government's use falls outside that statute's scope, and would in most situations simply be superfluous. Far more problematic than that redundancy, however, is that invoking the Takings Clause would likely give rise to disabling "regulatory takings claims." In contrast to takings claims arising out of *government* use of the patented technology, regulatory takings claims could occur if the government changed the patent laws so as to decrease the value of the patent when enforced against a *private infringer*—for instance, by narrowing the circumstances under which a patentholder could assert a claim or by limiting the damages that the patentholder could obtain. This could happen where new legislation reduces or eliminates subject matter from patent protection, narrows patents' scope, or reduces patent remedies. The first situation would occur if, for example, Congress decided to eliminate protection for genomes or methods of genome therapy.⁴ The second situation would occur if the statutory doctrine of equivalents were narrowed, thus removing some competing technologies from within the patent scope.⁵ The third situation would arise if Congress decided to reduce patent damages for all or some types of

³ See 28 U.S.C. § 1498(a) (2000).

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture.

Id. The Court of Claims has determined that the test for infringement under section 1498, while similar, is not coextensive with section 271(a), 35 U.S.C. § 271(a) (2000), the analogous private party statute. *Zoltek Corp. v. United States*, 51 Fed. Cl. 829, 834 (2002), *aff'd in part, rev'd in part*, 442 F.3d 1345 (Fed. Cir. 2006) (*per curiam*), *cert denied* 127 S. Ct. 2936 (2007).

⁴ Recently Representative Becerra introduced the Genomic Research and Accessibility Act, which would have prohibited additional gene patenting using the following language: "Notwithstanding any other provision of law, no patent may be obtained for a nucleotide sequence, or its functions or correlations, or the naturally occurring products it specifies." H.R. 977, 110th Cong. (1st Sess. 2007). That proposed statute, which was prospective, has not been enacted. Had it been, and had it been retrospective as well, it would have eliminated the value of any existing patents on genetic technology.

⁵ While the author knows of no effort underway to remove the doctrine of equivalents from the patent statutes, the criticisms of the uncertainty caused by that doctrine have caused it to fall out of favor. See, e.g., Charles W. Adams, *The Doctrine of Equivalents: Becoming a Derelict on the Waters of Patent Law*, 84 NEB. L. REV. 1113, 1113-14 (2006) (criticizing the doctrine of equivalents as unneeded and, based on recent judicial narrowing of the doctrine, predicting that it will be soon be defunct); John R. Allison & Mark A. Lemley, *The (Unnoticed) Demise of the Doctrine of Equivalents*, 59 STAN. L. REV. 955, 956-58 (2007) (noting that the doctrine has fallen out of use, and describing some of the criticism as follows: "Judges and scholars in the late 1990s suggested that the doctrine of equivalents exception was swallowing the rule, complained that it 'lacks a coherent vision' and labeled it the most controversial doctrine in all of patent law.") (footnote omitted).

technology.⁶ The possibility of such regulatory takings claims is particularly problematic now when patent policy concerns have taken a central place in national economic policy discussions. Congress is considering changes to patent protection to remedy several perceived problems, including patent monopoly prices of many pharmaceuticals.⁷ If regulatory takings claims could arise from those changes, the government might hesitate to make socially valuable reforms, thus injuring the public. The injury is not limited to the public, however; such claims might also be detrimental to the preponderance of patentholders, because if Congress did not feel free to cancel an expansion of patent rights that had unintended consequences, it would be less likely to initially adopt such changes. For all of these reasons, the circuit court may have been concerned that establishing Takings Clause protection for patents could effectively put the government in a policy stasis.

In light of the potential impact of regulatory takings claims by patentholders, one must ask the second question: regardless of the validity of the Federal Circuit's reasoning in *Zoltek*, did the court reach the correct conclusion? Unlike previous scholarship in the field, which focused primarily on dicta found in nineteenth century court opinions, this Article focuses on modern Supreme Court opinions, and concludes that the Federal Circuit's holding is correct. The nineteenth century courts' statements do not significantly impact the current discussion because the statements were hollow, and made without any concern for the potential impact on patent policy. The modern Supreme Court appears to recognize this, because when given the opportunity in 1990 to cite to those earlier cases, the Supreme Court instead chose to cast doubt on patentholders' right to bring takings claims.⁸

Upon considering the modern Supreme Court precedent pertaining to federal benefits, it becomes clear that patentholders are not entitled to a Takings Clause remedy. The modern Supreme Court has indicated that not all federal benefits are created equal.⁹ The Court has distinguished between various types of benefits, and has declared that some types are entitled to the full panoply of constitutional protections while other types are entitled to a lesser scope of protection. Patents fall within the latter category. This view is sensible because even though patents may be labeled "property" for some purposes,¹⁰ *patents are benefits that would not exist absent federal creation*. Pat-

⁶ Such a situation could have arisen, for instance, had certain 1996 legislation, which eliminated damages for medical methods patents, applied retrospectively. Limitation on Patent Infringements Relating to a Medical Practitioner's Performance of a Medical Activity, in Omnibus Consolidated Appropriations Act, 1997, Pub. L. No. 104-208, Title VI, § 616, 110 Stat. 3009-67 (codified at 35 U.S.C. § 287 (2000)) [hereinafter Medical Methods Amendment]. See also *infra* note 98 and accompanying text.

⁷ See Philip S. Johnson, *Patent Reform Legislation: An Introductory Note*, in TRIAL OF A PATENT CASE (ABA-ALI ed., 2006).

⁸ See *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661, 678 n.7 (1990).

⁹ *Bowen v. Gilliard*, 483 U.S. 587, 605, 607-08 (1978).

¹⁰ See *infra* p. 32 and note 154; see also *Myers v. United States*, 613 F.2d 230, 231 (9th Cir. 1980) (citations omitted) (holding that "a patent is property, is depreciable and falls within the purview of § 1239"

ent exclusivities exist solely to spur additional innovation, and are justified only to the extent that such innovation provides societal benefits which outweigh the cost of those exclusivities. Giving patentholders a Takings Clause remedy would compensate them for a loss of benefits that they were never entitled to in the first place.

I begin the discussion in Part I by introducing *Zoltek*, and reviewing the substantial flaws in the panel's reasoning.¹¹ Given those flaws, at first glance the Federal Circuit's refusal to rehear the case en banc is surprising, especially in light of a vociferous dissent to that refusal by the esteemed Judge Pauline Newman.¹² That surprise diminishes when one considers Judge Dyk's subsequent concurrence to the Federal Circuit's denial of a rehearing en banc, in which he explained that the availability of a statutory remedy for government infringement eliminates the need for a Takings Clause remedy.¹³ But even that explanation does not account for why the circuit court did not offer Takings Clause protection as a possible alternative in the rare situation in which the statutory remedy is not applicable, as was in fact the situation in *Zoltek*.

In Part II, the discussion turns to the possible explanation for the Federal Circuit's position: the hazard of regulatory takings claims by patentholders.¹⁴ One might have expected any concern about patentholders' assertion of regulatory takings claims to have been raised shortly after such claims were first authorized in 1922 in *Pennsylvania Coal Co. v. Mahon*.¹⁵ But as this Article catalogues, the progression of regulatory takings claims by patentholders reveals that these claims have only recently become common. In fact, very few regulatory takings claims by patentholders arose during most of the twentieth century, and the courts resolved those earlier disputes without having to engage in regulatory takings analyses, limiting the courts' concern.¹⁶ The historical absence of such claims might be attributable, in part, to patent attorneys' fear of wading into the quicksand of regulatory takings doctrine. A review of the current state of regulatory takings law, as well as of the confusion that would occur if one were to add patents' complexities to the mix, reveals why a court might hesitate to recognize that such claims are proper. Even in the context of traditional forms of property, (i.e., real and personal property), the Supreme Court's regulatory takings precedent is a hodge-podge of unanswered questions and inconsistent statements. Layer upon those problems the differences between tangible and intangible property, and it becomes apparent

of the tax code, which "treat[s] as ordinary income" any gain resulting from "the sale or exchange of depreciable property"); *Pierce v. Allen B. Du Mont Labs., Inc.*, 297 F.2d 323 (3d Cir. 1961) (holding that patent infringement claims survived the death of the patentholder).

¹¹ See *infra* Part I.

¹² *Zoltek Corp. v. United States*, 464 F.3d 1335, 1336 (Fed. Cir. 2006) (Newman, J., dissenting), *cert. denied*, 127 S. Ct. 2936 (2007).

¹³ *Id.* at 1339 (Dyk, J., concurring).

¹⁴ See *infra* Part II.

¹⁵ 260 U.S. 393 (1922).

¹⁶ See *infra* Part II.A.

that both the government and the lower courts will regularly be left guessing whether a taking should be found. Between the possibilities of either leaving the government at risk of hundreds of millions of dollars in liability or maintaining the status quo, the government might very well choose the latter—regardless of the balance of the harms to society. The Federal Circuit may understandably have cringed at the Hobson's choice that would arise if such claims were permitted.

Part III explains that regulatory takings claims need not afflict patent policy because, though the *Zoltek* court's reasoning was highly flawed, its holding is indeed correct.¹⁷ Some scholars have relied on nineteenth century precedent to reach the opposite conclusion, but that precedent is far from dispositive.¹⁸ Moreover, one should give those cases little weight, because those statements were effectively meaningless at a time before the Fifth Amendment was self-executing, and before the Supreme Court recognized regulatory takings claims.¹⁹ As a result, the nineteenth century courts were free to discuss takings without having to consider the potential impact of patent claims on policy.²⁰ Indeed, one recent Supreme Court opinion notably failed to cite those cases, and another opinion expressed skepticism that patentholders are entitled to a Takings Clause remedy.²¹

Consideration of decisions regarding other federal benefits reveals that application of the Takings Clause is not compelled by the categorization of patents as "property."²² As governmental benefits, patents fall within the class of federal benefits which the modern Supreme Court has found to be entitled only to the Fifth Amendment's Due Process Clause protection (specifically, procedural due process),²³ not Takings Clause protection. Indeed, despite the Court's repeated insistence that patents are *some* form of "property," the Court itself has obliquely expressed skepticism that patents are entitled to Takings Clause protection.²⁴ Furthermore, although the Court has suggested that Con-

¹⁷ See *infra* Part III.

¹⁸ See generally Mossoff, *supra* note 1; Justin Torres, *The Government Giveth, and the Government Taketh Away: Patents, Takings, and 28 U.S.C. § 1498*, 63 N.Y.U. ANN. SURV. AM. L. (forthcoming 2007) (manuscript at 5-14), available at <http://ssrn.com/abstract=970567>.

¹⁹ Now, one has a takings claim under the Fifth Amendment for a number of government actions. See, e.g., *Preseault v. Interstate Commerce Comm'n*, 494 U.S. 1, 12 (1990) ("If there is a taking, the claim is 'founded upon the Constitution' and within the jurisdiction of the [United States Court of Federal Claims] to hear and determine." (quoting *United States v. Causby*, 328 U.S. 256, 267 (1946))); *accord* *Mohlen v. United States*, 74 Fed. Cl. 656, 660 (2006) (citing *Preseault* and adopting this proposition). That was not the case when *Schillinger v. United States* was decided. 155 U.S. 163, 169-70 (1894); see also *infra* Part III.A.

²⁰ See *infra* Part III.

²¹ *Id.*

²² *Id.*

²³ Whether a patent regulation could run afoul of the right to *substantive* due process is a question best left for its own article. See *infra* note 152 and accompanying text.

²⁴ *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661, 678 n.7 (1990).

gress could choose to create a property right that is due the full scope of protections, no evidence of such intent to endow patents with that status exists.

In sum, the Federal Circuit's suspected unease regarding the potential threat from patentholders' takings claims is legitimate. While the *Zoltek* court's attempt to preempt that developing problem was unconvincing at best, its conclusion is supportable on other grounds. No natural patent rights exist; Congress provides them only because it has concluded that the benefits of exclusivity outweigh the harm done from forcing society to endure monopoly profits. As a result, a patent is like any other federally granted benefit, and therefore legislative change that diminishes its value does not trigger the right to Takings Clause compensation.

I. *ZOLTEK* AS THE CANARY IN A *PENNSYLVANIA COAL MINE*

Regardless of whether one agrees with the Federal Circuit's conclusion that patents are not property for purposes of the Takings Clause, one thing is certain: the *Zoltek* majority's reasoning is deeply flawed. It thus was destined to raise questions as to why the Federal Circuit appeared to be determined to reach the conclusion that it did.

In *Zoltek*, a government subcontractor used Zoltek Corporation's patented process without authorization while building the F-22 fighter.²⁵ The government is liable for infringement by its contractors, so it is unsurprising that Zoltek sought relief under section 1498, the statutory basis for claims against the government.²⁶ Patentholders have relied upon this statute for compensation since it was first enacted in 1910.²⁷ But the trial court, the Court of Federal Claims,²⁸ held that the conduct did not meet section 1498(c)'s requirement that the infringement "arise" within the United States, because the subcontractor engaged in one step of the patented process outside of the United States.²⁹ The

²⁵ *Zoltek Corp. v. United States*, 442 F.3d 1345, 1348-49 (Fed. Cir. 2006) (per curiam), *cert. denied* 127 S. Ct. 2936 (2007).

²⁶ *Zoltek*, 442 F.3d at 1349.

²⁷ See, e.g., *id.*; *Hughes Aircraft Co. v. United States*, 86 F.3d 1566, 1571 (Fed. Cir. 1996), *vacated on other grounds*, 520 U.S. 1183 (1997); *Deuterium Corp. v. United States*, 16 Cl. Ct. 454, 459 (1989); *Motorola, Inc. v. United States*, 729 F.2d 765, 768 (Fed. Cir. 1984); *Leesona Corp. v. United States*, 599 F.2d 958, 966-67 (Ct. Cl. 1979); *Pitcairn v. United States*, 547 F.2d 1106, 1114 (Ct. Cl. 1976).

²⁸ The successor to the trial division of the Court of Claims was formed on October 1, 1982, and was named the "United States Claims Court"; the appellate division of the Court of Claims was simultaneously formed and named the "United States Court of Appeals for the Federal Circuit." On October 28, 1992, the name of the United States Claims Court was changed to the "United States Court of Federal Claims." U.S. COURT OF FED. CLAIMS BAR ASS'N, UNITED STATES COURT OF FEDERAL CLAIMS 10 (2007), available at <http://www.uscfc.uscourts.gov/Court%20History%20Brochure.pdf>.

²⁹ *Zoltek Corp. v. United States*, 51 Fed. Cl. 829, 835-36 & n.13 (2002), *aff'd in part, rev'd in part*, 442 F.3d 1345 (Fed. Cir. 2006), *cert. denied*, 127 S. Ct. 2936 (2007) (construing 28 U.S.C. § 1498(c), which states that "[t]he provisions of this section [§ 1498] shall not apply to any claims arising in a foreign country"). Lockheed subcontracted with two companies for the making of parts created from silicide fibers.

case was not dismissed, however, because the trial court concluded that the plaintiff could possibly succeed on its second claim, which was based on the Takings Clause.³⁰ That clause commands the government to provide the owner with “just compensation”³¹ for any financial loss when it uses its power of “eminent domain” to appropriate private property in the public interest.³² Declaring that “Zoltek possesses an exclusive property right in its patented process,”³³ the lower court suggested that a trial could result in a right to compensation.

Considering both parties’ interlocutory appeals, the Federal Circuit affirmed the lower court’s geographic limitation on section 1498’s reach,³⁴ but rejected the ruling that patents are property for purposes of the Takings Clause.³⁵ To support that conclusion, Judge Gajarsa (writing for himself and Judge Dyk) reached back, surprisingly, to two century-old opinions. His per curiam opinion began by relying on the 1881 *James v. Campbell*³⁶ decision for its conclusion that the federal courts’ jurisdiction to award damages to patentholders does not extend past any statutory remedy that Congress chooses to provide: “the patentee’s recourse for infringement by the government is limited by the scope of the waiver of sovereign immunity established by the Con-

Zoltek, 442 F.3d at 1349. Because the subcontractors’ use of the patented manufacturing process occurred overseas, the Court of Federal Claims concluded that the use did not meet section 1498(c)’s requirement that the infringement “arise” within the United States, and thus *Zoltek* could not rely on section 1498(a) to obtain redress. *Id.* at 1350 (citing *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005)).

³⁰ *Zoltek*, 51 Fed. Cl. at 839 (“Where the government infringes [the] rights to exclude, interpreting § 1498(c) to bar such a claim might violate the Fifth Amendment.”).

³¹ U.S. CONST. amend. V (“[N]or shall private property be taken for public use, without just compensation.”).

³² When the power of eminent domain is properly used, the government seeks a court order condemning a piece of property, at which time the court orders the government to pay its “fair market value.” *See United States v. 564.54 Acres of Land*, 441 U.S. 506, 511 (1979) (“Under [the fair market value] standard, the owner is entitled to receive ‘what a willing buyer would pay in cash to a willing seller’ at the time of the taking.” (quoting *United States v. Miller*, 317 U.S. 369, 374 (1943))). The Takings Clause applies to the federal government, and applies to states and municipalities through the Fourteenth Amendment. *See Hairston v. Danville & Western Ry. Co.*, 208 U.S. 598, 605 (1908) (holding that if a state taking was for private use, “it is forbidden by the Fourteenth Amendment”) (cited in *Penn. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922)).

³³ *Zoltek*, 58 Fed. Cl. at 690.

³⁴ The Federal Circuit agreed with the Court of Federal Claims that, “where, as here, not all steps of a patented process have been performed in the United States, government liability does not exist pursuant to section 1498(a).” *Zoltek*, 442 F.3d at 1350. The court explained that it had previously concluded that “direct infringement under section 271(a) is a necessary predicate for government liability under section 1498.” *Id.* at 1350 (quoting *NTP*, 418 F.3d at 1316). Because the Federal Circuit had also previously held that “a process cannot be used ‘within’ the United States as required by section 271(a) unless each of the steps is performed within this country,” there was no liability under § 1498(a) unless each of the steps were performed within this country. *Id.* at 1350 (quoting *NTP*, 418 F.3d at 1318).

³⁵ *Id.* at 1349 (declaring that “[a] patentee’s judicial recourse against the federal government, or its contractors, for patent infringement, is set forth and limited by the terms of 28 U.S.C. § 1498.”).

³⁶ 104 U.S. 356 (1881).

gressional consent to be sued.”³⁷ Further, the Federal Circuit declared that permitting a takings claim distinct from the statutory remedy would be inconsistent with the 1894 decision in *Schillinger v. United States*,³⁸ in which the Supreme Court held that the Court of Claims (a precursor to the current Court of Federal Claims) could not entertain the patentholder’s Takings Clause claim.³⁹

The per curiam opinion dismissed two arguments proffered in Judge Plager’s lengthy dissent, which was based on the premise that “[a] patent for an invention is as much property as a patent for land.”⁴⁰ Judge Gajarsa first denied that *Schillinger* had been overruled by *Crozier v. Fried. Krupp Aktiengesellschaft*.⁴¹ Rather, he declared, the *Crozier* court’s use of the terms “eminent domain” and “taking” was simply for purposes of analogy, because the 1910 Act applied by the *Crozier* court employed language similar to the Takings Clause—awarding “reasonable compensation” for patent infringement.⁴² As noted by the *Zoltek* majority, *Crozier* pointed out that, prior to the 1910 enactment of the statutory remedy, patentholders had needed to provide a breach-of-contract theory to justify compensation.⁴³ The *Zoltek* majority found

³⁷ *Zoltek*, 442 F.3d at 1349 n.2 (“If the jurisdiction of the Court of Claims should not be finally sustained [to hear an infringement action against the government], the only remedy against the United States, unless Congress enlarges the jurisdiction of that court, would be to apply to Congress itself.” (quoting *James*, 104 U.S. at 359, but replacing “until” with “unless”). The court noted that the federal government’s waiver of sovereign immunity “can be limited and conditioned by the Congress.” *Id.* at 1349 (“[T]he United States, as sovereign, is immune from suit save as it consents to be sued.” (quoting *United States v. Sherwood*, 312 U.S. 584, 586 (1941))); *id.* (“[T]he Government’s consent to be sued must be strictly construed in favor of the sovereign and not enlarged beyond what the language requires.” (citing *United States v. Nordic Village Inc.*, 503 U.S. 30, 34 (1992))).

³⁸ *Zoltek*, 442 F.3d at 1351-53 (discussing *Schillinger*). The court finished its discussion of the issue by noting that “even if we shared the dissent’s belief that the Supreme Court would overrule *Schillinger*, we are nevertheless bound by its holding. It is not our place to overrule *sub silentio* the Supreme Court.” *Id.* at 1353.

³⁹ *Schillinger v. United States*, 155 U.S. 163, 168-69 (1894).

⁴⁰ *Id.* at 1374 (Plager, J., dissenting) (quoting *Consol. Fruit-Jar Co. v. Wright*, 94 U.S. 92, 96 (1876)).

⁴¹ *Zoltek*, 442 F.3d at 1350-52.

⁴² *Id.* at 1351-52.

It is true that *Crozier*, and several cases applying the 1910 Act (in its original form and as amended and recodified at § 1498), analyze the statute in terms of takings and protecting property rights. Under this case law, patent infringement by the government is analogized to “taking” a “compulsory license.” The view is consistent with the text of the 1910 Act, which provided for reasonable compensation for patent infringement, and with the legislative history, which provided that the purpose of the bill was “to enlarge the jurisdiction of the Court of Claims so that said court may entertain suits against the United States for the infringement or unauthorized use of a patented invention, in certain cases, and award reasonable compensation to the owner of the patent.”

Id. (internal citation omitted). The *Zoltek* court also explained that *Crozier* could not be seen to overrule *Schillinger* because *Crozier*, which considered a request for *injunctive* relief, did not address whether the Court of Claims’ jurisdiction extended to takings claims. *Id.* at 1351 (“None of the relevant *Schillinger* issues were joined: *Crozier* was not filed in the Court of Claims, had nothing to do with the Tucker Act, did not allege a taking, and was solely in equity.”).

⁴³ *Id.* at 1351 (quoting *Crozier*, 224 U.S. at 304).

equally unpersuasive the dissent's reference to the 1984 decision in *Ruckelshaus v. Monsanto Co.*,⁴⁴ in which the Supreme Court held that trade secrets are property for purposes of the Takings Clause. The *Zoltek* court emphasized that whereas *Monsanto* explained that trade secrets “stem from an independent source such as state law. . . . [P]atent rights are a creature of federal law.”⁴⁵

Unfortunately, to say that the *Zoltek* majority's reasoning does not stand on firm ground is an understatement—more accurately, it is mired in quicksand. To begin, the court misinterpreted the significance of *Schillinger*. As Judge Plager correctly explained in his dissent, the *Schillinger* Court's holding was jurisdictional—that Court had held that Congress did not intend to give the Court of Claims jurisdiction over constitutional claims against the government.⁴⁶ Such broad jurisdictional authority, the *Schillinger* Court concluded, would be at odds with the limited purpose behind the Court of Claims.⁴⁷ The Supreme Court later changed its mind, and the Court of Federal Claims now possesses jurisdiction to hear monetary claims based on the Constitution.⁴⁸

In any case, the *Zoltek* majority's premise—that the *Schillinger* Court presumed the Takings Clause did not provide patentholders with a remediable claim—did not require deciding patents are not covered by the Takings

[D]iscussing the state of the law before the 1910 Act, the *Crozier* court expressly noted that no patent infringement action could be brought against the government unless in the Court of Claims under a contract or implied contract theory. Far from ‘overruling’ *Schillinger*, this acknowledges and endorses the rule that *Schillinger* established. The Court thus recognized that by enacting the 1910 Act, Congress ‘add[ed] the right to sue the United States in the Court of Claims’ for patent infringement.

Id. The *Zoltek* court also commented that *Crozier* was addressing a different issue than had been addressed in *Schillinger*. *Id.*

The only question before the Supreme Court [in *Crozier*] was whether the trial court had jurisdiction to enjoin the government from alleged patent infringement. Because Congress, in adopting the 1910 Act, precluded injunctive relief against the government for patent infringement, the *Crozier* court concluded that the trial court lacked the power to grant Fried. Krupp the injunctive relief it was seeking.

Id. (citing *Crozier*, 224 U.S. at 308).

⁴⁴ *Id.* at 1352.

⁴⁵ *Zoltek*, 442 F.3d at 1352 (“As the Supreme Court has clearly recognized when considering Fifth Amendment taking allegations, ‘property interests . . . are not created by the Constitution. Rather, they are created and their dimensions are defined by existing rules or understandings that stem from an independent source such as state law.’” (quoting *Monsanto*, 467 U.S. at 1001)).

⁴⁶ *Id.* at 1375 (Plager, J., dissenting). Thus the *Schillinger* majority's comments regarding whether the government could have been liable in that case was pure speculation. See *Schillinger v. United States*, 155 U.S. 163, 171-72 (1894).

⁴⁷ The *Schillinger* Court questioned how Congress could have intended to provide the Court of Claims with jurisdiction over constitutional tort claims, such as those based on a violation of the Fourth Amendment's protection against search and seizure, when the Act establishing that court's jurisdiction expressly excluded tort claims. *Schillinger*, 155 U.S. at 167-69.

⁴⁸ See, e.g., *Preseault v. Interstate Commerce Comm'n*, 494 U.S. 1, 12 (1990) (“If there is a taking, the claim is ‘founded upon the Constitution’ and within the jurisdiction of the [United States Court of Federal Claims] to hear and determine.” (quoting *United States v. Causby*, 328 U.S. 256, 267 (1946))); accord *Mohlen v. United States*, 74 Fed. Cl. 656, 660 (2006). That was not the case when *Schillinger* was decided. 155 U.S. 163, 169-70 (1894); see also *infra* Part III.A.

Clause. Until the Supreme Court held the Takings Clause to be self-executing in 1933, no claim against the government regarding any form of property was remediable unless Congress had expressly waived immunity to such a suit.⁴⁹ Now, however, the Takings Clause furnishes a claim without any need for separate legislative authority.⁵⁰ The same change similarly condemns the relevance of the *Crozier* Court's explanation of the need for the 1910 Act.⁵¹ *Crozier*'s declaration of the need for a statutory remedy cannot be mindlessly presumed to apply now that the Fifth Amendment is recognized as a constitutional exception to sovereign immunity. Thus, neither *Schillinger* nor *Crozier* have the significance attributed to them by the per curium opinion.

The *Zoltek* majority's discussion of *Monsanto* is equally flawed. The majority drew a distinction between the state-law created trade secrets at issue in *Monsanto* and federal-law created patents.⁵² But that distinction is not meaningful because *Monsanto* refers to state law only as *an example* of an "independent source" of property rights, not as the *only* possible source.⁵³ So where might patents' property interests emanate from? The Copyright and Patent Clause, by itself, does not provide a "property interest."⁵⁴ But nothing prevents federal law from being such a source, if Congress clearly indicates an intention to create property for purposes of Takings Clause protection. Yet the court did not even address such a possibility. (However, as will be discussed in Part III, *infra*, Congress has demonstrated no such intention for patents.)

Perhaps then it should come as no surprise that the *Zoltek* opinion was the target of immediate and significant criticism, with one commentator condemning it as "judicial ossification."⁵⁵ At the very least, the reasoning of the Federal

⁴⁹ See *Jacobs v. United States*, 290 U.S. 13, 16 (1933) (holding that the Takings Clause is self-executing, thus allowing courts to award "just compensation" regardless of whether there is a statute permitting a monetary claim against the federal government); accord *United States v. Testan*, 424 U.S. 392, 401 (1976).

⁵⁰ *Zoltek Corp. v. United States*, 442 F.3d 1345, 1375 (Fed. Cir. 2006) (Plager, J., dissenting), *cert. denied*, 127 S. Ct. 2936 (2007) ("The tort of patent infringement is statutorily based and defined, and exists at the discretion of Congress; the right to just compensation for a taking is constitutional, it is not a tort, and it requires no legislative blessing.").

⁵¹ See *supra* note 43 and sources cited therein.

⁵² *Zoltek*, 442 F.3d at 1352 (per curium).

⁵³ *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1001 (1984) ("[P]roperty interests . . . are not created by the Constitution. Rather, they are created and their dimensions are defined by existing rules or understandings that stem from an independent source such as state law." (citing *Webb's Fabulous Pharmacies, Inc., v. Beckwith*, 449 U.S. 155, 161 (1980) (internal quotation marks omitted))).

⁵⁴ U.S. CONST. art. I, § 8, cl. 8 ("Congress shall have power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.").

⁵⁵ Posting of M. Slonecker to Patently-O, Patent Law Blog, http://www.patentlyo.com/patent/2006/04/cafc_patent_rig.html (Apr. 6, 2006, 12:05 EST) (criticizing the Federal Circuit's "slavish reliance on *Schillinger*" as "judicial ossification"); see also Posting of Patent Hawk to The Patent Prospector, http://www.patenthawk.com/blog/2006/09/taking_the_fifth.html (September 23, 2006, 19:42 EST) (commenting that, thanks to the Federal Circuit's decision in *Zoltek*, "[i]t can be disgustingly impossible to hold the gov-

Circuit was unexpected on several fronts. To begin with, the opinion fails to even mention the 1985 case of *Patlex Corp. v. Mossinghoff*,⁵⁶ the only Federal Circuit decision applying *Penn Central*'s regulatory takings test to patents.⁵⁷ In *Patlex*, the patentholder argued that application of a federal statute expanding a procedure for re-examination of patents,⁵⁸ which had taken effect after his patents had issued, violated the Fifth Amendment's Due Process Clause.⁵⁹ Judge Pauline Newman, writing for the *Patlex* court, expressly recognized that the issue brought before it was the existence of a violation of the Due Process Clause, not the Takings Clause.⁶⁰ Nonetheless, the court blended its due process analysis with a takings analysis.⁶¹ The *Patlex* court did not appear to doubt the application of the Takings Clause to patents, asserting that "[a] patent for an invention is as much property as a patent for land,"⁶² and that patents are "therefore subject to the principles of eminent domain."⁶³ Thus the court first properly considered whether "the legislature used a rational approach to

ernment accountable"); PHOSITA, http://www.okpatents.com/phosita/archives/2007/06/supreme_court_taking_a_break_from_patents_denies_cert_in_zoltek_corp_v_us.html (June 11, 2007, 16:35 EST) ("More troubling is the rejection of Zoltek's Fifth Amendment takings claim").

⁵⁶ *Patlex Corp. v. Mossinghoff*, 758 F.2d 594 (Fed. Cir. 1985), *aff'd in part, rev'd on other grounds*, 771 F.2d 480 (Fed. Cir. 1985). In Part II, I will discuss the other cases in which patentholders have brought regulatory takings claims that have all been resolved without the courts engaging in the *Penn Central* analysis. See *infra* Part II.B.

⁵⁷ *Patlex*, 758 F.2d at 602-03. *Penn Central Transportation Co. v. City of New York* is the case recognized as establishing the factors generally relevant to regulatory takings analysis. 438 U.S. 104 (1978). Those three factors are: (1) "the economic impact of the regulation on the claimant;" (2) its "interfere[nce] with distinct investment backed expectations;" and (3) "the character of the government action." *Id.* at 124. Recently, in *Lingle v. Chevron U.S.A. Inc.*, the Court prioritized the factors and declared the first two to be "primary." 544 U.S. 528, 538-39 (2005).

⁵⁸ 35 U.S.C. §§ 301-07 (1981). The same arguments were also made with regard to the implementing regulations: 37 C.F.R. § 1.26(c) (1981), 37 C.F.R. § 1.530(a) (1981), and MANUAL OF PATENT EXAMINING PROCEDURE § 2240, 2244, 2286 (5th ed. 1983). *Patlex*, 758 F.2d at 596.

⁵⁹ *Patlex*, 758 F.2d at 596. The patentholder also contended that the reexamination statute and regulations violated several other constitutional provisions: the Seventh Amendment right to a jury trial, Article III's vesting of judicial power with the courts of the United States, and the statutory mandate of Congress. *Id.*

⁶⁰ *Id.* at 596.

⁶¹ See *id.* at 602-03.

⁶² *Id.* at 599 (quoting *Consol. Fruit-Jar v. Wright*, 94 U.S. 92, 96 (1876)); *id.* ("It is beyond reasonable debate that patents are property."). Indeed, Judge Newman goes so far—too far—when she states that "[t]he basic right concomitant to the grant of a patent is the right of exclusivity founded in the Constitution." *Id.*; see also *id.* ("The right rests on the same foundation and is surrounded and protected by the same sanctions." (citing *Consol. Fruit-Jar*, 94 U.S. at 96)). However, there is no *right* to exclusivity founded in the Constitution. See *infra* Part III.A. But see Courtenay C. Brinkerhoff, *Medical Method Patents and the Fifth Amendment: Do the New Limits on Enforceability Effect a Taking?*, 4 U. BALT. INTELL. PROP. L.J. 147 (1996) (discussing an early case suggesting that an inventor has a right to a patent immediately upon invention).

⁶³ *Patlex*, 758 F.2d at 599 (citing *Leesona Corp. v. United States*, 599 F.2d 958, 966-68 (Ct. Cl. 1979)).

achieve a legitimate end,”⁶⁴ the appropriate question in a due process analysis. But then it improperly reshaped the issue as a determination of “the nature and magnitude of . . . [the effect of the re-examination statute] on preexisting property values”⁶⁵ and applied the *Penn Central* regulatory takings test.⁶⁶ Only at the very end of the discussion did the *Patlex* court return to the language of the Due Process Clause by announcing that it was “upholding the validity of the retroactive statute.”⁶⁷

In fairness to the *Zoltek* court, it could have concluded that *Patlex* was no longer good precedent. Possibly the nail in *Patlex*’s coffin, even as dicta, was the Supreme Court’s 2005 criticism of courts’ improper concoctions of due process and takings analyses—an error which the *Patlex* court certainly made.⁶⁸ So the *Zoltek* majority may have concluded that *Patlex* was discredited. But the majority’s choice to utterly ignore—even to explain its inapplicability—a relatively recent Federal Circuit decision strongly suggesting that patentholders are entitled to the protection of the Takings Clause is surprising, especially when the decision was written by the highly regarded (and still seated) Judge Newman.

Equally remarkable, the per curiam opinion failed to address two sets of precedent which would have, at least arguably, called for a different conclusion. First, the opinion neither distinguished nor expressly rejected prior Federal Circuit and lower court descriptions of section 1498 as a method of addressing the government’s use of its power of “eminent domain.”⁶⁹ Second,

⁶⁴ *Id.* at 601.

⁶⁵ *Id.* at 602.

⁶⁶ *Id.* at 602-03. The *Patlex* court acknowledged some patentholder investment, but it found that there was no permanent economic harm and that the character weighed in the government’s favor. *Id.*

⁶⁷ *Id.* at 603. A violation of the Due Process Clause requires invalidation of the statute in question, whereas a violation of the Takings Clause compels just compensation. *See Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 543 (2005) (“[A]ddressing a challenged regulation’s effect on private property, the [due process] ‘substantially advances’ inquiry probes the regulation’s underlying validity. But such an inquiry is logically prior to and distinct from the question whether a regulation effects a taking, for the Takings Clause presupposes that the government has acted in pursuit of a valid public purpose. The Clause expressly requires compensation where government takes private property . . .”).

⁶⁸ *See Lingle*, 544 U.S. at 540-42 (criticizing the earlier Supreme Court decisions which had commingled Due Process Clause and Takings Clause analyses).

⁶⁹ *See, e.g., Hughes Aircraft Co. v. United States*, 86 F.3d 1566, 1571 (Fed. Cir. 1996) (a spacecraft patent) (“The government’s unlicensed use of a patented invention is properly viewed as a taking of property under the Fifth Amendment through the government’s exercise of its power of eminent domain and the patentholder’s remedy for such use is prescribed by 28 U.S.C. § 1498(a).”), *vacated on other grounds*, 520 U.S. 1183 (1997); *Motorola, Inc. v. United States*, 729 F.2d 765, 768 (Fed. Cir. 1984) (a patent for radar beacons) (“This is a 28 U.S.C. § 1498 action, and as such, the patent owner is seeking to recover just compensation for the Government’s unauthorized taking and use of his invention. The theoretical basis for his recovery is the doctrine of eminent domain.”); *Leeson Corp. v. United States*, 599 F.2d 958, 966 (Ct. Cl. 1979) (mechanically rechargeable metal-air batteries) (“28 U.S.C. § 1498 is essentially an Act to authorize the eminent domain taking of a patent license, and to provide just compensation for the patentee.”); *Pitcairn v. United States*, 547 F.2d 1106, 1114 (Ct. Cl. 1976) (rotor structures and control systems on helicopters) (“The use or manufacture by or for the Government of a device or machine embodying any invention pro-

any attempt to reconcile its holding with the Supreme Court's characterization, in non-Takings Clause contexts, of patents as "property" was missing.⁷⁰ As will be discussed in Part III, those decisions are not dispositive. The comments in the former decisions are plainly dicta because the courts' explanations for the statutory remedy were both irrelevant and, in fact, highly speculative; and the characterization in the latter decisions does not compel the conclusion that patents are a species of property entitled to the particular protection of the Takings Clause. Nevertheless, one could have expected the *Zoltek* court to have explained its rejection of what was, at least debatably, relevant case law.⁷¹

In light of *Zoltek*'s direct conflict with *Patlex*, as well as its questionable rationale, a gambler might have reasonably wagered that the Federal Circuit would grant a rehearing en banc and overrule the panel. Indeed, one poster to the well-established Patently-O web site, in general accord with others on the site, even went so far as to forecast that "[an] [e]n banc petition [is] virtually assured, and reversal [of the panel's decision] [is] likely."⁷² But the Federal Circuit refused to grant an en banc rehearing.⁷³ An explanation for a court's choice not to hear a particular case is almost always speculative. At the very least, one can simply recognize that the majority of the Federal Circuit was clearly not so disconcerted with the *Zoltek* holding as to make overturning it a priority. But in light of vociferous dissent by Judge Newman (perhaps not surprisingly) to the circuit court's refusal, one can confidently state that the denial was not a perfunctory administrative decision.⁷⁴ Judge Newman offered three of the same arguments offered by Judge Plager in his earlier panel dissent: that *Schillinger* had not reached the issue of the existence of a constitutional

ected by a United States patent, is a taking of property by the Government under its power of eminent domain.").

⁷⁰ See, e.g., *Florida Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 653 (1999) ("The Court acknowledges, as it must, that patents are property."); *Transparent-Wrap Mach. Corp. v. Stokes & Smith Co.*, 329 U.S. 637, 614 (1947) ("A patent is a species of property."); *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 187 (1933) ("A patent is property, and title to it can pass only by assignment."); *Consol. Fruit-Jar Co. v. Wright*, 94 U.S. 92, 96 (1876) ("A patent for an invention is as much property as a patent for land.").

⁷¹ Even Judge Plager's dissent does not cite to *Patlex* or to the most recent Supreme Court decisions. *Zoltek Corp. v. United States*, 442 F.3d 1345, 1370 (Fed. Cir. 2006) (Plager, J., dissenting), cert. denied, 127 S. Ct. 2936 (2007). Judge Plager does discuss, however, some of the decisions describing § 1498 as a Fifth Amendment remedy as well as *Consolidated Fruit-Jar Co.*'s characterization of patents as property. *Id.* at 1374, 1384.

⁷² Posting of M. Slonecker to Patently-O, Patent Law Blog, http://www.patentlyo.com/patent/2006/04/cafc_patent_rig.html (Apr. 6, 2006, 12:05 EST) (adding "DOJ, if reversed, will certainly try to get this before the [Supreme Court]. If upheld, Zoltek [is] likely to try.").

⁷³ *Zoltek Corp. v. United States*, 464 F.3d 1335 (Fed. Cir. 2006), denying reh'g en banc for *Zoltek Corp. v. United States*, 442 F.3d 1345 (Fed. Cir. 2006). Moreover, as will be discussed briefly in Part III, the Supreme Court denied *Zoltek Corporation's* request for a writ of certiorari. *Zoltek Corp. v. United States*, 127 S. Ct. 2936 (mem.) (2007) denying cert. to *Zoltek Corp. v. United States*, 442 F.3d 1345 (Fed. Cir. 2006).

⁷⁴ See *Zoltek*, 464 F.3d at 1336-39 (Newman, J., dissenting).

claim,⁷⁵ that even if *Schillinger* had rejected a Takings Clause claim, it was overruled by *Crozier*,⁷⁶ and that earlier precedent which had recognized a Takings Clause right was still sound.⁷⁷ Moreover, Judge Newman claimed that recognizing the right to a Takings Clause remedy for trade secrets while rejecting one for patents was “in conflict with principles and precedent,” in particular Supreme Court and lower court precedent referring to patents as “property.”⁷⁸ Judge Newman appears to have concluded that this characterization indisputably leads to the right to a Takings Clause remedy.⁷⁹ As will be discussed in Part III, however, Judge Newman used the same faulty logic as some scholars who have considered the issue when she failed to recognize that the Supreme Court does not inevitably advance from the status of “property” to the right to a Takings Clause remedy.⁸⁰

So what is one to discern from the *Zoltek* court’s conclusion that patents are not property for purposes of the Takings Clause, and from the refusal to rehear the case en banc? Importantly, if the Federal Circuit panel had wished to avoid addressing whether patents are entitled to Takings Clause protection, it could have resolved the case on narrower grounds. Had it chosen to, the *Zoltek* panel could have stated: *arguendo*, patents are property for the purposes of the Takings Clause; a takings claim based on federal governmental use would be measured by the standards for private infringement under section 271(a),⁸¹ as under section 1498(a), infringement of a process under section

⁷⁵ *Id.* at 1337 (“*Schillinger* did not change the property status of patents and did not discuss constitutional principles; the only issue was whether the Court of Claims had jurisdiction under the Tucker Act.”).

⁷⁶ *Id.* at 1336 (“*Crozier v. Fried. Krupp Aktiengesellschaft* laid *Schillinger* to rest, establishing that the government’s right to use patent property was based on eminent domain and subject to the Fifth Amendment”) (internal citation omitted).

⁷⁷ *Id.* (“Almost a century of precedent has implemented the right of patentees to the remedies afforded to private property taken for public use. There is no basis today to reject this principle.”).

⁷⁸ *Id.* at 1336-38 (citing, among others, *Florida Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642 (1999)).

⁷⁹ *See id.* at 1336 (citing *Florida Prepaid* for the proposition that patents are property, and declaring that “[m]y concern with my colleagues’ position starts with their apparent rejection of the premise that patents are property and subject to the Fifth Amendment.”).

⁸⁰ *See infra* Part III.

⁸¹ 35 U.S.C. § 271(a) (2000) (defining patent infringement generally as the unauthorized making, using, offering to sell, selling, or importing into the United States of a patented invention during the patent’s term); *see, e.g.*, *City of Monterey v. Del Monte Dunes, Ltd.*, 526 U.S. 687, 715 (1999) (“[W]hen the government has taken property without providing an adequate means for obtaining redress, suits to recover just compensation have been framed as common-law tort actions.” (citing *Richards v. Washington Terminal Co.*, 233 U.S. 546 (1914) (a nuisance claim)); *Pumpelly v. Green Bay Co.*, 80 U.S. 166 (1871) (a claim for trespass on the case); *Beatty v. United States*, 203 F. 620 (4th Cir. 1913) (analogizing taking by eminent domain to lawful trespass); *see also* Daniel R. Cahoy, *Treating the Legal Side Effect of Cipro: A Reevaluation of Compensation for Government Takings of Patent Rights*, 40 AM. BUS. L.J. 125, 175 (2002) (“Fifth Amendment compensation for patent takings is properly calculated by the same rules employed to assess non-punitive, actual damages in private infringement actions.”). While a court has found § 1498 to offer broader protection than a claim for private infringement, there is no case law indicating that the opposite is true. Thus, § 1498 would likely be broader in scope than a takings claim. *See Motorola, Inc. v. United*

271(a) exists only if each of the steps is performed within the country;⁸² and thus in this case there could be no taking.⁸³ Yet the *Zoltek* court chose not to avoid the issue, instead choosing to expressly reject a patentholder's right to a Takings Clause remedy.⁸⁴

One can find some illumination as to this choice in Judge Dyk's concurrence to the denial of a rehearing en banc:

Th[e] decided lack of interest by the Congress and the Supreme Court in creating a takings remedy is perhaps not surprising given the fact that patent rights are created only by federal statute; that a Congressional decision to limit those rights is difficult to characterize as a taking of established property rights; and that Congress has in most situations created a right to sue the government for infringement damages equivalent to the right to sue private parties. The panel decision here, in rejecting the constitutional claim and in finding no infringement, is faithful to section 1498, to the decisions of the Supreme Court, and to the decisions of this court.⁸⁵

Judge Dyk recognized that because "patent rights are created only by federal statute," owners of those rights do not necessarily attain a Takings Clause remedy.⁸⁶ But Judge Dyk cited with approval section 1498's ability to provide relief "in most situations,"⁸⁷ thus indicating support for the policy objective of providing compensation for government use of patented technology.

In this light, we return to the first question posed in the introduction: why was the Federal Circuit averse to finding that the Takings Clause applies to patents? Given apparent judicial approval of offering the statutory equivalent

States, 729 F.2d 765, 772 (Fed. Cir. 1984) (holding that a statute barring recovery of damages for infringement occurring prior to notice of infringement is not incorporated into statute authorizing patent owner to recover compensation for government's unauthorized taking and use of his invention, and thus the marking and notice statute could not be used to bar recovery by patent owner for alleged unauthorized taking and use of the invention).

⁸² The Federal Circuit relied on a case interpreting the private infringement statute in order to determine how to interpret the term "arise" in § 1498. *Zoltek Corp. v. United States*, 442 F.3d 1345, 1350 (Fed. Cir. 2006) (per curiam) (holding that a process cannot be used "within" the United States as required by § 271(a) unless each of the steps is performed within the U.S. (citing *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.2d 1282, 1316 (Fed. Cir. 2005))).

⁸³ *Zoltek*, 442 F.3d at 1350.

⁸⁴ *Id.* at 1350-53.

⁸⁵ *Zoltek Corp. v. United States*, 464 F.3d 1335, 1339 (Fed. Cir. 2006) (Dyk, J., concurring), *denying reh'g en banc for Zoltek Corp. v. United States*, 442 F.3d 1345 (Fed. Cir. 2006). *See Trojan, Inc. v. Shat-R-Shield, Inc.*, 885 F.2d 854 (Fed. Cir. 1989) (rejecting an argument that section 1498 permits the award of an injunction against an alleged infringer to prevent bidding on a government contract, explaining that "[t]he patentee takes his patent from the United States subject to the government's eminent domain rights to obtain what it needs from manufacturers and to use the same. The government has graciously consented, in the same statute, to be sued in the Claims Court for reasonable and entire compensation, for what would be infringement if by a private person. . . . Though injunctions may seem to say that making for and selling to the government is [sic, are] forbidden, injunctions based on patent rights cannot in reality do that because of § 1498(a).") (emphasis added).

⁸⁶ *Zoltek*, 464 F.3d at 1339.

⁸⁷ *Id.* Though in *Zoltek*, the defendant's extraterritorial conduct precludes reliance on section 1498. *See supra* note 29 and accompanying text.

of a Takings Clause for unauthorized governmental use, why does the court shy away from establishing the constitutional right to that same remedy? The court's unwillingness suggests that it perceived a disadvantage, unrelated to the goal of section 1498, in offering that constitutional protection. A related subsidiary question that is attached is: why, when the panel could have ruled on other grounds, was it concerned enough, now, to feel the need to address the issue? As the next section discusses, the answers may relate to the recent acceleration of patentholders' regulatory takings claims, and the potential danger if such claims were to become frequent. The Supreme Court's regulatory takings precedent is regularly described as a "muddle"—and that confusion exists even before any attempt to adapt the *Penn Central* analysis, which has been applied primarily to tangible property, to the intangible world of patents. Most of such claims would probably fail, as most regulatory takings claims do.⁸⁸ However, merely the *threat* that such unpredictable claims will inhibit patent policymaking likely encouraged the Federal Circuit to exclude patents from the forms of property which are due Takings Clause protection.

II. A HINT OF THE MUDDLE TO COME IF REGULATORY TAKINGS PRECEDENT IS APPLIED TO PATENTS

The *Zoltek* court's likely concern—namely, that Takings Clause protection will enlarge patentholders' rights beyond compensation for the government's use of their inventions—appears justified. While takings claims were limited for almost 150 years to government seizure or trespass,⁸⁹ in 1922 the Supreme Court declared that the Takings Clause could encompass losses to property value resulting from a changed law or regulation. At that time, the Court in *Pennsylvania Coal Co. v. Mahon* held that a diminution in property

⁸⁸ Gregory M. Stein, *Who Gets the Takings Claim? Changes in Land Use, Pre-Enactment, and Post-Enactment Buyers*, 61 OHIO ST. L.J. 89, 152 n.162 (2000) (“[M]ost regulatory takings claims fail. . . .”); see also William S. Brewbaker, *Health Care Price Controls and the Takings Clause*, 21 HASTINGS CONST. L.Q. 669, 671 (1994) (“The [balancing] test suggests that, like most other regulatory takings claims, a challenge to price controls in the health care sector is likely to fail.”); Jennifer R. Yelin, Note, *Retroactivity Revisited: A Critical Appraisal of CERCLA's Retroactive Liability Scheme in Light of Landgraf v. USI Film Products and Eastern Enterprises v. Apfel*, 8 N.Y.U. ENVTL. L. J. 94, 143 (1999) (noting that commentators believe that takings challenge to CERCLA will fail).

⁸⁹ *Lucas v. S. C. Coastal Council*, 505 U.S. 1003, 1057-58 (1992) (Blackmun, J., dissenting) (“Until the end of the nineteenth century . . . jurists held that the Constitution protected possession only, and not value.” (quoting Stephen A. Siegel, *Understanding the Nineteenth Century Contract Clause: The Role of the Property-Privilege Distinction and “Takings” Clause Jurisprudence*, 60 S. CAL. L. REV. 1, 76 (1986))); *id.* at 1028 n.15 (majority opinion) (agreeing with proposition in Justice Blackmun's dissent that “early constitutional theorists did not believe the Takings Clause embraced regulations of property at all”); *id.* at 1057 n.23 (Blackmun, J., dissenting) (“James Madison, author of the Takings Clause, apparently intended it to apply only to direct, physical takings of property by the Federal Government.” (citing William M. Treanor, *The Origins and Original Significance of the Just Compensation Clause of the Fifth Amendment*, 94 YALE L.J. 694, 711 (1985), and Joseph L. Sax, *Takings and the Police Power*, 74 YALE L.J. 36, 58-60 (1964))).

value could be so great that it was “the functional equivalent of a ‘practical ouster of [the owner’s] possession[,]’” and thus, the doctrine of “regulatory takings” was established.⁹⁰ That doctrine does not mandate compensation for any and all losses caused by regulations; rather, property may be regulated to a certain extent, as a matter of inherent governmental authority, without providing compensation: “Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law.”⁹¹ The tipping point, at which compensation is required, has been unhelpfully described as when “[a] regulation goes *too far*.”⁹² Unfortunately, even since developing the *Penn Central* tripartite test in 1978,⁹³ the Supreme Court’s precedent has offered both property owners and the government little useful guidance to predict when courts will find that a change in a law or regulation has gone “too far.” More than one commentator has described the Supreme Court’s regulatory takings decisions as a “muddle”⁹⁴ and has concluded that courts are inconsistent in describing the requirements of a taking.⁹⁵ Section A, below, explains that only very recently have the courts been forced to wrestle with these regulatory takings issues in the context of patents, and briefly discusses why the pace of such claims is likely to accelerate.

Still, one could question why courts might have reason to believe that patentholders’ regulatory takings claims would constrain policy making to any greater extent than claims by real property owners. Section B briefly illuminates some of the problems that would result from applying the Supreme Court’s amorphous and unclear takings doctrine to patents. Given these additional hurdles, unsurprisingly the courts may be loathe to force the government to regulate patents with a sword over its head.

⁹⁰ *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 537 (2005) (quoting *Lucas*, 505 U.S. at 1014, and referring to *Penn. Coal Co. v. Mahon*, 260 U.S. 393 (1922)).

⁹¹ *Penn. Coal*, 260 U.S. at 413; see *Palazzolo v. Rhode Island*, 533 U.S. 606, 627 (2001) (“[t]he right to improve property, of course, is subject to reasonable exercise of state authority . . .”).

⁹² 260 U.S. at 415 (emphasis added). This nebulous standard has survived to the current Supreme Court’s regulatory takings analysis. See, e.g., *Lingle*, 544 U.S. at 537-38 (quoting *Penn. Coal*, 260 U.S. at 415).

⁹³ See *supra* note 57.

⁹⁴ See, e.g., Cotter, *supra* note 1, at 529 (describing takings analysis for intellectual property as “a muddle within the muddle” of takings jurisprudence).

⁹⁵ *Id.* at 536 n.53 (“The well-known paradox of takings jurisprudence” is that “owners may suffer large pecuniary losses . . . without a court’s finding a taking requiring compensation,” but “if the court decides to characterize the government action as a physical occupation, a taking will be found even if the loss or inconvenience to the owner is minuscule.” (citing MARGARET JANE RADIN, REINTERPRETING PROPERTY 125 (1993))).

A. *The Dearth—Until Recently—of Regulatory Takings Claims by Patentholders*

Since the 1933 *Jacobs*⁹⁶ decision which held the Takings Clause to be self-executing, Congress has amended the patent laws numerous times.⁹⁷ At no point during that time has a federal statute broadly provided compensation for losses to patent value caused by those amendments, that is, no statutory remedy analogous to section 1498 in the regulatory context exists. In the absence of such a remedy, one might have expected numerous regulatory takings claims.⁹⁸ Yet, until the late 1980s, the most striking facet of patentholders' regulatory takings claims was their almost complete absence. To a certain extent, Congress's decision to furnish compensation as a part of several specific statutes that eliminated patents' market value explains this absence.⁹⁹ Nonetheless, for the first thirty years that the Takings Clause was self-executing, not a single opinion addressed whether a patentholder had a valid regulatory takings claim. Over the next twenty years, until the early 1980s, only two such cases occurred.¹⁰⁰ Only starting in the late 1980s did patentholders begin to assert claims in any noticeable number, and only within this past decade could one fairly say that the trickle had turned into a stream.¹⁰¹ By comparison, in the

⁹⁶ *Jacobs v. United States*, 290 U.S. 13 (1933).

⁹⁷ See, e.g., Domestic Publication of Foreign Filed Patent Applications Act of 1999, in the American Inventors Protection Act of 1999, Sub. E, in the Intellectual Property and Communications Omnibus Reform Act of 1999, Pub. L. No. 106-113, §§ 4501-08, 113 Stat. 1501, 1501A-561 to 1501A-67; Patent Term Guarantee Act of 1999, in the American Inventors Protection Act of 1999, Sub. D, in the Intellectual Property and Communications Omnibus Reform Act of 1999, Pub. L. No. 106-113, §§ 4401-05, 113 Stat. 1501, 1501A-557 to 1501A-561; Process Patents Amendments Act of 1988, in the Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, § 9003, 102 Stat. 1107, 1563 (1988); Patent Law Foreign Filing Amendments Act of 1988, in the Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, § 9101, 102 Stat. 1107, 1567-68 (1988); Patent Law Amendments Act of 1984, Pub. L. No. 98-62, 98 Stat. 3383; Act of July 19, 1952, Pub. L. No. 82-593, 66 Stat. 792.

⁹⁸ Judicial decisions have never been considered to be basis for takings claims. See J. Nicholas Bunch, Note, *Takings, Judicial Takings, and Patent Law*, 83 TEX. L. REV. 1747, 1754-55 (2005) (arguing that patent law holdings by the Federal Circuit that dramatically depart from settled precedent should give rise to judicial takings claims). As a result, it would appear that the discussion in *Hartford-Empire Co. v. United States*, which suggests that a court order decreeing the forfeiture of a patent as a remedy for antitrust violations would violate the Takings Clause, is flawed. 323 U.S. 386, 387-88 (1945) (stating that it "has long been settled" that "a patent is property, protected against appropriation both by individuals and by government," and so courts have not issued antitrust decrees that "amount[] to a forfeiture of the patents," and declaring that "[i]n recognition of this quality of a patent the courts, in enjoining violations of the Sherman Act arising from the use of patent licenses, agreements, and leases have abstained from action which amounted to a forfeiture of the patents.").

⁹⁹ See, e.g., Atomic Energy Act, 42 U.S.C. § 2181(a)-(b) (2000); Invention Secrecy Act, 35 U.S.C. § 181 (2000).

¹⁰⁰ See *infra* pp. 21-22.

¹⁰¹ See *infra* pp. 23-26.

past fifty years, real property owners filed over 8,000 regulatory takings claims.¹⁰²

The first opinion mentioning the possibility of regulatory takings protection was not handed down until 1963.¹⁰³ That case, *N.V. Phillips v. Atomic Energy Commission*, involved a claim under the Atomic Energy Act of 1946 (“AEA”).¹⁰⁴ The AEA revoked all existing patents useful exclusively in the production of fissionable materials,¹⁰⁵ but also established the Patent Compensation Board to provide “just compensation” to affected patentholders.¹⁰⁶ The plaintiffs had filed an application for statutory compensation, but the Board dismissed their application as untimely.¹⁰⁷ The plaintiffs appealed that dismissal to the Circuit Court of Appeals for the District of Columbia.¹⁰⁸ Finding that the compensation provision should be applied liberally as a matter of “equity,” the circuit court described the Act as an “exercise[] [of] [the Government’s] constitutional power of eminent domain.”¹⁰⁹ But the suggestion that the revocation was a regulatory taking was plainly dicta. The plaintiffs asserted no takings claim, only their statutory claim.

The sole pre-1980s regulatory takings claim was easily dismissed because it asserted a right that most clearly does not fall within any “bundle of sticks”

¹⁰² Search of WESTLAW, Federal and State Courts (Jan. 2007). During that same period, real property owners filed approximately 14,000 invasion/occupation claims. *Id.*

¹⁰³ *N. V. Philips’ Gloeilampenfabrieken v. Atomic Energy Comm’n*, 316 F.2d 401, 407 (D.C. Cir. 1963).

¹⁰⁴ *Id.* at 405. See Pub. L. No. 79-585, § 11, 60 Stat. 755, (codified as amended at 42 U.S.C. § 2181(a)-(b)). The legislative history of the 1946 Act states that the acquisition of inventions or patents under the Act is effected through the “powers of eminent domain.” S. REP. NO. 79-1211 (1946), *reprinted in* 1946 U.S.C.C.A.N. 1327, 1336. The legislative history also notes that providing compensation to inventors “assure[s] the [Atomic Energy] Commission of access to new inventions and . . . provide[s] . . . financial inducements in lieu of patent rights.” *Id.* at 1335.

¹⁰⁵ *N.V. Philips*, 316 F.2d at 405 (discussing 42 U.S.C. § 2181(a)-(b)). It also prohibited the issuance of new patents insofar as they are useful for such purposes, but the plaintiff made no assertion of a taking by that provision. *Id.* at 405 (“In addition, it authorized the government to utilize as necessary any other patent in the process of producing fissionable materials.”) (discussing 42 U.S.C. § 2181(a)-(b)). While it appears that it would have been unlikely that the government could avoid liability under the Takings Clause, the district court held that the Atomic Energy Commission’s Patent Compensation Board did not have authority to consider such claims. *Id.* at 407-08 (“Whether or not petitioners may assert an infringement claim based on these patents against the United States in some other forum need not detain us. The Patent Compensation Board does not have jurisdiction over such claims.”).

¹⁰⁶ *Id.* at 404 (citing 28 U.S.C. § 2401(a) (2000)).

¹⁰⁷ *Id.* at 409. Even though the Act did not contain a time limit within which to apply for compensation, the Board asserted that its obligation to consider such applications was limited by the general six-year statute of limitations for civil claims against the United States established in 28 U.S.C. § 2401(a). *Id.* at 405.

¹⁰⁸ An appeal of a final order of the Patent Compensation Board of the Atomic Energy Commission was heard directly by Circuit Courts of Appeal by statute. *Id.* at 406 n.3.

¹⁰⁹ *Id.* at 407-08. The court did not consider, and did not need to consider, whether the Takings Clause would have provided a remedy had the claim brought under the Act not been time-barred.

possibly awarded to patentholders.¹¹⁰ In *Mosca v. United States*, the plaintiff asserted a Fifth Amendment takings claim because the Department of Agriculture had refused to permit his patented fungicide to be sold in the absence of sufficient information to support its efficacy.¹¹¹ The court properly found no Fifth Amendment taking, correctly rejecting plaintiff's argument that "[his] hope of earning profits in the future is property within the contemplation of the Fifth Amendment."¹¹²

After *Mosca*, there was not another case discussing a patentholder's right to be protected from regulatory takings until the Federal Circuit's discussion in *Patlex* which, as explained in Part I,¹¹³ was dicta because the claim was based on the Due Process Clause. In light of both the dearth of such claims, and the failure of the claim in *Mosca*, predictably the *Patlex* court was not concerned about the impact of intimating that patents were entitled to Takings Clause protection. But since *Patlex*, both the significance of patents and the legal culture have changed. In the past fifteen years, the annual number of patent applications has more than doubled—from 164,558 in 1990 to 390,733 in 2005.¹¹⁴ Moreover, patent owners have been successful at re-characterizing patents from incentives to property, in part by reframing violations of their rights not merely as infringement, but as property violations such as trespass. This metamorphosis, often referred to as the "proPERTIZATION" of patents (and more generally of "intellectual property"),¹¹⁵ has already caused some people to

¹¹⁰ The various rights that arise from the ownership of a piece of property are often referred to as the "bundle of sticks." See *United States v. Craft*, 535 U.S. 274, 278 (2002) ("A common idiom describes property as a 'bundle of sticks.'"); Thomas Merrill, *The Landscape of Constitutional Property*, 86 VA. L. REV. 885, 889 (2000) ("[P]roperty can be conceptually subdivided into . . . bundles of rights composed of different sticks."). In the case of patents, the most important right is the right to exclude others from using the invention. *Patlex Corp. v. Mossinghoff*, 758 F.2d 595, 599 (Fed. Cir. 1985) ("The basic right concomitant to the grant of a patent is the right of exclusivity. . . . The patent laws . . . embody a bundle of rights . . . including the foundational right to exclude others from the practice of the patented invention.").

¹¹¹ 417 F.2d 1382, 1383 (Ct. Cl. 1969).

¹¹² *Id.* at 1386 (citing *A. G. Davis Ice Co. v. United States*, 362 F.2d 934, 936 (1st Cir. 1966)). Unlike private property, patents do not provide a prerogative to use the patented invention; as explained earlier, patents only authorize their owners to exclude others. *Joy Tech., Inc. v. Quigg*, 12 U.S.P.Q.2d (BNA) 1112, 1115 (D.D.C. 1989) (citing *Crown Die & Tool Co. v. Nye Tool & Mach. Works*, 261 U.S. 24, 40 (1922)). It is not unusual for an inventor to patent an invention only for the government to deny him permission to sell the product—for instance, owners of patents covering pesticides, weapons, and pharmaceuticals may sell their products only if they meet the requirements of various government agencies.

¹¹³ See *supra* Part I.

¹¹⁴ U.S. PAT. & TRADEMARK OFF., NUMBER OF UTILITY PATENT APPLICATIONS FILED IN THE UNITED STATES, BY COUNTRY OF ORIGIN, CALENDAR YEARS 1965 TO THE PRESENT (2006), http://www.uspto.gov/go/oeip/taf/appl_yr.htm.

¹¹⁵ See, e.g., Michael A. Carrier, *Cabining Intellectual Property through a Property Paradigm*, 54 DUKE L.J. 1, 4 (2004) (asserting that "[o]ne of the most revolutionary changes in the past generation has been the 'proPERTIZATION' of intellectual property," in which such rights are viewed as "absolute property and the duration and scope of rights expand without limit"); Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property*, 75 TEX. L. REV. 873, 902 (1997) (reviewing JAMES BOYLE, *SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY* (1996) (criticizing "the 'prop-

worry that it encourages an overprotection of patent rights.¹¹⁶ Indeed, one should not be surprised that patentholders have begun to consider themselves entitled to compensation for a diminution of the value of the patent exclusivities, a right previously provided only to traditional forms of property.

Thus far, however, none of the post-*Patlex* claims have required the courts to engage in the complexities of a takings analysis. In the 1989 case of *Joy Technologies, Inc. v. Quigg*, the patentholder challenged the Patent and Trademark Office's ("PTO") reexamination procedure as causing a taking, an allegation very similar to the one set forth in *Patlex*. The plaintiff argued that it had a common law property interest in the patent specification¹¹⁷ and that the PTO took its interest without compensation when the PTO cancelled its patent as a result of reexamination.¹¹⁸ The district court agreed that the plaintiff had a common law property right, but explained that the right was not based on the specification, but rather, the invention which was left untouched by the cancellation of the patent.¹¹⁹ That same year, in *Constant v. United States*, the Navy placed the plaintiff's patent application under a secrecy order pursuant to the Invention Secrecy Act.¹²⁰ The plaintiff filed an application for compensation, which was provided for by the Act, but then refused to provide the Navy with additional information necessary to compute proper compensation.¹²¹ After the Navy denied the application for that reason, the plaintiff claimed that the order

ertization' of intellectual property," and the concurrent broadening of intellectual property protections)); *see also* Lemley, *supra* (in accord with Professor Boyle's criticism).

¹¹⁶ *See* Carrier, *supra* note 115, at 12 ("IP is quickly becoming property not only in the essentially unlimited scope and duration of its initial rights but also in the ubiquitous assertions that IP is absolute property."); Lemley, *supra* note 115, at 885 (suggesting that protections for intellectual property have gone too far at the expense of the public); *id.* at 902 ("[T]he public nature of a good seems to suggest that proper-tization is a uniquely bad idea, precisely because the consumption of that good is "nonrivalrous"--it does not take away from the creator of that good."); Pamela Samuelson, *Information as Property: Do Ruckelshaus and Carpenter Signal a Changing Direction in Intellectual Property Law?*, 38 CATH. U. L. REV. 365, 398 (1989) (attacking the "more proprietary and anti-dissemination attitude toward information than that which the law has previously displayed"). *But see* Stephen L. Carter, *Does It Matter Whether Intellectual Property Is Property?*, 68 CHI.-KENT. L. REV. 715, 723 (1993) (lamenting the importance of tangibility in determining protection under property law); Frank H. Easterbrook, *Intellectual Property Is Still Property*, 13 HARV. J.L. & PUB. POL'Y 108, 118 (1990) (arguing that society "should treat intellectual and physical property identically in the law"); I. Trotter Hardy, *Not So Different: Tangible, Intangible, Digital, and Analog Works and Their Comparison for Copyright Purposes*, 26 U. DAYTON L. REV. 211, 213 (2001) ("For the purposes of intellectual property rules and regimes, there are no differences between intangible and tangible property.").

¹¹⁷ *Joy*, 12 U.S.P.Q.2d (BNA) at 1115 (noting that Joy's takings argument rests on different grounds than those addressed in *Patlex*). The specification is a part of the patent application that includes a written description of the invention sought to be patented. *See* 37 C.F.R. § 1.71 (2005). The plaintiff in *Joy* did not dispute the *Patlex* court's conclusion that the reexamination procedure did not violate its right to patent exclusivities.

¹¹⁸ *Joy*, 12 U.S.P.Q.2d (BNA) at 1113.

¹¹⁹ *See id.* at 1115-16.

¹²⁰ 16 Cl. Ct. 629, 630 (1989) (citing 35 U.S.C. § 181 (1982)) *aff'd*, 884 F.2d 1398 (Fed. Cir. 1989).

¹²¹ *Id.* (citing 35 U.S.C. § 183 (1982)).

effected a taking of his patent application. The United States Claims Court rejected the plaintiff's appeal because he had not exhausted his administrative remedies.¹²² Four years later the Federal Circuit's first opportunity to consider an appeal of a regulatory takings claim arrived in *Hornback v. United States*.¹²³ But the Federal Circuit passed up the opportunity to carefully consider the plaintiff's takings claim. While the circuit court did affirm the district court's decision to grant summary judgment, the circuit court did not specify on which of the district court's grounds the affirmance was based—whether it affirmed the decision on the grounds that, “35 U.S.C. § 183 provides the exclusive remedy to inventor-owners for damages claimed as the result of a secrecy order imposed by the government,” or on the alternative grounds that the plaintiff had failed to present sufficient evidence in support of his assertion of damages.¹²⁴

Since *Hornback*, the drumbeat of regulatory takings claims has quickened. Another case based on the Invention Secrecy Act was brought,¹²⁵ as well as additional cases on new grounds.¹²⁶ In 2003, in *Figueroa v. United States*, the plaintiff patent applicant alleged a regulatory taking on two grounds: first, that increases in patent fees constituted a taking, and second, that the subsequent diversion or rescission of those fees, once paid, constituted a taking.¹²⁷ But, focusing on the right of the government to charge fees, the Court of Claims had no trouble finding the first allegation meritless: “the mere imposition of an obligation to pay money . . . does not give rise to a claim under the

¹²² *Id.* at 636. The court denied that it was clear that the Secrecy Act could have resulted in a taking. *Id.* at 631-32 (“Furthermore, it is established that not every act of the Government which impinges on property rights constitutes a compensable taking.”). But that court concluded that, in any case, no taking had occurred because the act provided for reasonable compensation. *Id.* at 632.

¹²³ No. 89-1914-R, 1993 WL 528066 (Fed. Cir. Dec. 22, 1993).

¹²⁴ *Id.* at *1. In 2002, these same claims were dismissed again, on the ground of res judicata. *Hornback v. United States*, 52 Fed. Cl. 374, 383, 385-86 (Fed. Cl. 2002), *aff'd*, 55 Fed. Appx. 536 (Fed. Cir. 2002). The only other reference to a Takings Clause claim in the 1990s occurred in *Harley v. Lehman*, but that plaintiff voluntarily dismissed the Takings Clause claim prior to decision. 981 F. Supp. 9, 10 (D.D.C. 1997) (noting the voluntary dismissal of the plaintiff's claim, which was based on the PTO's failure to issue a patent until after it considered additional prior art).

¹²⁵ *Weiss v. United States*, 146 F. Supp. 2d 113, 124 (D. Mass. 2001), *aff'd*, 37 Fed. Appx. 518 (Fed. Cir. 2002). The court found the takings claim to be without merit, stating that it was settled that “the issuance of a secrecy order is not *per se* a taking and that diminution of [an] invention and inability to exploit the invention are compensable elements of a claim under §183, not under the Fifth Amendment.” *Id.* (quoting *Constant*, 16 Cl. Ct. at 634-35).

¹²⁶ See *Michels v. United States*, 72 Fed. Cl. 426 (2006); *Korsinsky v. Godici*, No. 05 Civ. 2791 (DLC), 2005 WL 2312886 (S.D.N.Y. Sept. 22, 2005); *Figueroa v. United States*, 57 Fed. Cl. 488 (Fed. Cl. 2003), *aff'd*, 466 F.3d 1023 (Fed. Cir. 2006), *cert. denied*, 127 S. Ct. 2248 (2007).

¹²⁷ *Figueroa*, 57 Fed. Cl. at 490-91. In the Omnibus Budget Reconciliation Act of 1990, Congress enacted surcharges to the fees charged patent applicants and holders. *Id.* Because that provision was set to expire at the conclusion of fiscal year 1998, in the United States Patent and Trademark Office Reauthorization Act of 1999, Congress enacted “increased patent fees approximately equivalent to the previous patent fees plus the surcharge.” *Id.*

Takings Clause of the Fifth Amendment.”¹²⁸ In 2005, in *Korsinsky v. Godici*, a district court in the Southern District of New York addressed the issue more directly, declaring that patents are not property, but a privilege. The plaintiff claimed that the expiration of his patent for failure to pay maintenance fees constituted a taking. There, the court rejected that claim because if a patentholder fails to pay a maintenance fee, “it is not that plaintiff’s personal property is taken away . . . but rather the conditions of *the [patent] privilege* are no longer satisfied.”¹²⁹ The next year, *Michels v. United States* denied a similar takings claim on similar grounds. Thus, the cases filed to date have had fairly obvious defects that saved the courts from making the hard choice regarding the viability of the patentholders’ regulatory takings claims. Their increasing prevalence, however, suggests that such claims are gaining currency. Consequently, in the near future courts will likely see more cases in which patentholders allege a taking of rights which are truly within their “bundle of sticks.”

The increase in regulatory takings claims by patentholders is likely attributable to several factors. First, as intellectual property has become more valuable in the United States economy over the past twenty-five years, legislation, court opinions, and scholarship have endowed its owners with a sense of entitlement to stronger protection.¹³⁰ Second, commercial recognition of patents’ value has caused a higher application rate and corresponding issuance rate than ever before, thus causing any legal change to affect more patents, and accordingly, more patentholders. In the twenty-first century, patent rights to a particular invention can be worth tens of millions or even hundreds of millions of dollars. For instance, the estimated *annual* profits for drug manufacturers include: \$1.4 billion for AstraZeneca’s Prilosec; \$1.2 billion for Pfizer’s Lipitor; \$705 million for Pharmacia’s Celebrex; and \$583 million for Schering Plough’s Claritan.¹³¹ At least a substantial amount of those profits can be attributed to the patents on those drugs—one government report indicates that the patent on the blood-pressure drug Cardizem provides its owner Aventis

¹²⁸ *Id.* at 503 (quoting *Commonwealth Edison Co. v. United States*, 271 F.3d 1327, 1340 (Fed. Cir. 2001)); *see id.* (“Requiring money to be spent is not a taking of property.” (quoting *Atlas Corp. v. United States*, 895 F.2d 745, 756 (Fed.Cir. 1990))). The court also rejected the second claim; because the PTO was not holding the patent fees in trust on plaintiff’s behalf, the plaintiff “did not have any property right in the distribution of the proceeds.” *Id.* at 504.

¹²⁹ *Korsinsky*, 2005 WL 2312886, at *5 (citing *Figueroa*, 57 Fed. Cl. at 502-03 (emphasis added)).

¹³⁰ The increased significance of patents can be seen, among other ways, by the dramatic rise in the past ten years in attendance at related congressional hearings. *See* Posting of Hal Wegner to Patently-O, Patent Law Blog, http://www.patentlyo.com/patent/2007/04/wegner_on_paten.html (Apr. 27, 2007).

¹³¹ PUBLIC CITIZEN: CONGRESS WATCH, PATENTLY OFFENSIVE: CONGRESS SET TO EXTEND MONOPOLY PATENTS FOR CIPRO AND OTHER DRUGS 3 (2001), <http://www.citizen.org/documents/ACF34F.PDF>.

with approximately \$280 million in monopoly profits each year.¹³² Thus, a small change to a law may result in a large loss to a patentholder, increasing the likelihood that the patentholder will initiate litigation, and creating a risk of significant unexpected cost to the government.

The likelihood of imminent takings claims is hardly a matter of pure speculation. The specter of regulatory takings claims by patentholders has already been raised before the Supreme Court in *Eli Lilly & Co. v. Medtronic*.¹³³ There, the patentholder suggested that a certain interpretation of the Hatch-Waxman Act,¹³⁴ which permits pharmaceutical companies to use competitors' patented inventions as part of the research and testing of new products, might lead to a takings claim.¹³⁵ Other recent statutes have similarly come under attack by commentators as possibly effecting a taking of some patents (though the accuracy of those attacks is beyond the scope of this Article). For instance, one commentator has suggested that the 2002 amendment to the American Inventors Protection Act ("AIPA") of 1999¹³⁶ is a more subtle example of a statute which might give rise to regulatory takings claims—so subtle that, even if regulatory claims had been previously recognized, Congress would likely have never considered any obligation to provide compensation.¹³⁷ While the

¹³² See James Langenfeld & Wenqing Li, *Intellectual Property and Agreements to Settle Patent Disputes: The Case of Settlement Agreements with Payments from Branded to Generic Drug Manufacturers*, 70 ANTITRUST L.J. 777, 791 n.56 (2003).

¹³³ *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661 (1990).

¹³⁴ The formal name of the "Hatch-Waxman Act" is "The Drug Price Competition and Patent Term Restoration Act of 1984," but it is commonly referred to by the names of the two Congressmen who introduced it. Pub. L. No. 98-417, 98 Stat. 1585.

¹³⁵ *Eli Lilly*, 496 U.S. 678 n.7 (citing Brief of Petitioner at 31, *Eli Lilly*, 496 U.S. 661 (No. 89-243)). Nevertheless, possibly telling is that the Court adopted that interpretation. *Id.* *Eli Lilly* never brought a regulatory takings claim, possibly because, as will be discussed in Part III, the Court appeared unsympathetic to its proposed claim. See *infra* pp. 37-38.

¹³⁶ American Inventors Protection Act of 1999 (AIPA) in The Intellectual Property and Communications Omnibus Reform Act of 1999, Pub. L. No. 106-113, §§ 4001-4808, 113 Stat 1501, 1501A-552 to 1501A-591. The AIPA expanded the scope of the prior art under 35 U.S.C. § 102 of the Patent Act. That section determines which examples of known technology may be included as "prior art." Prior art is used to determine whether the invention described in the application (or, in the case of an invalidity defense, in the issued patent) satisfies the requirements for novelty and non-obviousness. The AIPA had "grandfathered" in certain applications which were pending at the time the statute went into effect, meaning that the PTO would not consider the newly included prior art when determining whether an invention is entitled to a patent. The 2002 Amendment "de-grandfathered" applications which had been grandfathered in by the AIPA, thus requiring the consideration of additional prior art if the issues of novelty or non-obviousness are raised by an accused infringer. Intellectual Property and High Technology Technical Amendments Act of 2002, in 21st Century Department of Justice Appropriations Authorization Act, Pub. L. No. 107-273, §§ 13201-11, 116 Stat. 1758, 1901-10; see also *infra* note 137. Expanding the scope of the prior art increases the possibility that some or all of the claims in a later application may be invalidated as non-novel or obvious in light of that prior art. As a result, a patentholder who had a perfectly valid patent issued under the AIPA of 1999 might have it invalidated as a result of the 2002 amendment.

¹³⁷ Posting of Burt Lincoln to The Patent Prospector, http://www.patenthawk.com/blog/2006/09/taking_the_fifth.html (September 24, 2006, 11:07 EST):

government may have reasonable notice that some patent legislation could decrease the value of a particular patent, even smaller “technical” changes may provide fodder for the new enthusiasm by patentholders for takings claims.

While courts have, on rare occasions, awarded owners considerable sums in response to government takings of real property,¹³⁸ those numbers would likely pale in comparison to the lost value of a patent related to particularly valuable technology.¹³⁹ Granted, not every change in a regulation would result in a compensable taking, even if such a claim were permitted. However, many changes in the patent laws might have some non-de minimis impact on a minority of the tens of thousands of valid patents. As a result, one can reasonably foresee an acceleration in the rate of patentholders’ regulatory takings claims.

B. *The Collision between a Creature of Regulation and the Regulatory Takings Doctrine*

The threat of claims would be less powerful if lawmakers were confident that they could predict with some certainty the likelihood of success. Unfortunately, the morass of regulatory takings precedent thwarts any attempt at reasonable predictions, and unpredictability would be magnified if that precedent were applied anew to the context of patents. Shortly before retiring, Justice O’Connor pulled no punches: “Our regulatory takings jurisprudence cannot be

Two years [later], buried in a technical amendment, was language that went back in time and “ungrandfathered” those applications REGARDLESS of whether or not they were voluntarily published. This has created a situation in which patents that issued on applications that were pending in November of 2000, could have been perfectly valid under the law that was in place when the patents issued, but became invalid as a result of a new law that went into effect LONG AFTER the applications were filed, and as long as two years AFTER THE VALID PATENTS WERE ISSUED.

Id. Because an invalidated patent is worthless, holders of valuable patents subsequently invalidated as a result of that additional prior art would be inclined to seek compensation.

¹³⁸ *Whitney Benefits, Inc. v. United States*, 18 Cl. Ct. 394 (Cl. Ct. 1989), *aff’d*, 926 F.2d 1169 (Fed. Cir. 1991). The court awarded \$200 million to a coal lease owner for damages sustained pursuant to the Surface Mining Control and Reclamation Act of 1977 in what is considered the largest judgment against the federal government in a regulatory takings action. The court held that the Act destroyed the value of the lease and upset the owner’s reasonable, investment-backed expectations in the property. Approximately \$140 million of the award was based on pre-judgment interest. CONG. BUDGET OFFICE, A CBO STUDY: REGULATORY TAKINGS AND PROPOSALS FOR CHANGE 10 (1998).

¹³⁹ A formula employed by the FDA estimates that a drug manufacturer loses approximately 70% of the market upon the expiration of its patent. Analogizing that loss of market share with a government taking of a patented drug would lead to claims in the hundreds of millions of dollars. Based on sales figures for 2000, Bayer’s patent monopoly on the anti-Anthrax drug, Cipro, was worth more than \$358 million per year. Plaintiffs in takings cases would certainly seek compensation for whatever patent term was left at the time of the taking. *See* PUBLIC CITIZEN: CONGRESS WATCH, PATENTLY OFFENSIVE: CONGRESS SET TO EXTEND MONOPOLY PATENTS FOR CIPRO AND OTHER DRUGS 3 (2001), <http://www.citizen.org/documents/ACF34F.PDF>.

characterized as unified.”¹⁴⁰ Simply put, even after eighty years the Court has yet “to develop any ‘set formula’ for evaluating regulatory takings claims.”¹⁴¹ The Court has not been able to clearly articulate either what qualifies as deprivation of “all economically beneficial us[e] of [the] property”¹⁴² sufficient for a total, *per se* taking,¹⁴³ or how to judge when partial economic diminution is sufficient to constitute a taking.¹⁴⁴

The relevant *Penn Central* analysis for determining a partial taking was, for many years, a three-factor test: (1) “the economic impact of the regulation on the claimant”; (2) its “interfere[nce] with “distinct investment backed ex-

¹⁴⁰ *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 539 (2005); *see also* *Palazzolo v. Rhode Island*, 533 U.S. 606, 617 (2001) (acknowledging that “Since *Mahon*, we have given some, but not too specific, guidance to courts confronted with deciding whether a particular government action goes too far and effects a regulatory taking.”); *id.* at 633 (O’Connor, J., concurring) (admitting that in 70-odd years of succeeding “regulatory takings” jurisprudence, the Court has generally “eschewed any set formula” for determining how far is too far, preferring to engage in “essentially ad hoc, factual inquiries” (internal quotation marks omitted)).

¹⁴¹ *Lingle*, 544 U.S. at 538 (quoting *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978)). In *Lingle*, the court rejected one approach to the takings analysis when it declared that the ability or inability of a regulation to “substantially advance legitimate state interests,” is irrelevant to a Takings Clause claim, thereby clearing up a quarter-century of improper co-mingling of the Fifth Amendment’s due process analysis and a Takings Clause analysis. *Id.* at 548 (overturning *Agins v. City of Tiburon*, 447 U.S. 255, 260 (1980), in which the Court declared that government regulation of private property “effects a taking if [such regulation] does not substantially advance legitimate state interests”). The *Lingle* Court explained: “[I]f a government action is found to be impermissible—for instance because it fails to meet the ‘public use’ requirement or is so arbitrary as to violate due process—that is the end of the inquiry. No amount of compensation can authorize such action.” *Id.* at 543.

¹⁴² *Id.* at 538 (emphasis in original); *see also* *Palazzolo*, 533 U.S. at 617 (2001) (“[A] regulation which denies all economically beneficial or productive use of land will require compensation under the Takings Clause.” (internal quotation marks omitted)); *Lucas v. S. C. Coastal Council*, 505 U.S. 1003, 1016, (1992) (“[T]he Fifth Amendment is violated when land-use regulation . . . denies an owner economically viable use of his land.”); *Kaiser Aetna v. United States*, 444 U.S. 164, 175 (1979) (quoting *Penn Central*, 438 U.S. at 124). The court has also concluded that the loss must be permanent. *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 330-31 (2002) (rejecting the possibility that a temporary though complete loss of property value could work a categorical taking).

¹⁴³ In establishing what percentage of remaining value would defeat a claim for a *per se*, or complete, taking, the Court has been unwilling to provide the lower courts with much guidance on the appropriate demarcation point. It has stated that leaving behind even 5% of the property’s value would be enough. *Tahoe-Sierra*, 535 U.S. at 330 (quoting *Lucas*, 505 U.S. at 1019 n.8 with approval). But the Court has ruled that leaving a “token interest” would not be enough. *Palazzolo*, 533 U.S. at 631. That description offers limited guidance, as one would guess that most property owners, and many courts, would have otherwise considered a 5% remaining value to constitute no more than a token interest. Equally problematic, the Court has admitted that it continues to struggle with how to define the extent of the plaintiff’s property that should be included in the analysis—often referred to as “the denominator problem”: should a court consider the entire property, regardless of size or difference in functionality, or should a court focus on damage done to a more specific portion of the property? *See Lucas*, 505 U.S. at 1016 n.7 (“Regrettably, the rhetorical force of our ‘deprivation of all economically feasible use’ rule is greater than its precision, since the rule does not make clear the ‘property interest’ against which the loss of value is to be measured.”). When referring to patents, that question may boil down to whether the “property” is the entire patent, or each claim.

¹⁴⁴ *See Lingle*, 544 U.S. at 538-39.

pectations”]; and (3) the character of the government action.¹⁴⁵ Unfortunately, each of the three factors has given rise to unresolved “subsidiary questions” which the Court, in a rare articulation of its frustration, most recently characterized as “vexing.”¹⁴⁶ These questions threaten to become only more difficult when applied to intangible property.¹⁴⁷ For instance, one of the few clear declarations that the Court has proffered is that the government need not compensate even the complete destruction of property value if the justification for the regulation comports with “background principles.”¹⁴⁸ But while the Court has

¹⁴⁵ *Id.* at 538-39 (citing *Penn Cent.*, 438 U.S. at 124 (1978)). The *Lingle* Court declared that the first two are “primary.” *Id.*

¹⁴⁶ *Id.* at 539. Determining the economic impact of the regulation is as equally difficult in the patent context as in “total takings” cases, because the same denominator problem remains. As to the second factor, it is extremely unclear how a court should determine a patentholder’s reasonable investment-backed expectations. In the trade secrets context, the Court has concluded that those principles include not only the general laws applicable to that particular type of property, but also to the “regulatory environment” as a whole. *Ruckelshaus v. Monsanto*, 467 U.S. 986, 1006 (1984) (noting the regulatory landscape that put Monsanto on notice that the EPA could reveal Monsanto’s formulae of products, as well as its health, safety, and efficacy data, to a federal agency and the public). But, in considering regulatory takings claims by patentholders, courts possess no guide to indicate how narrowly or broadly to define the relevant regulatory environment. Should the regulatory environment include only the patent statutes and their implementing regulations? Or should the considered environment include any general policy shift towards limiting or broadening patentholders’ rights? Moreover, it is unclear when a court should find that a patentholder’s reasonable expectation is set. While it is probably most easily argued that a patentholder’s expectations are set when the patent issues, undoubtedly patentholders would argue that expectations were set earlier, perhaps at the date of fielding the application. One could also argue that the expectation was set even earlier, such as when the inventor made the decision to invest resources to reducing the invention to practice. If the patent is assigned at a later time, the defendant in a takings action might be able to successfully argue that the plaintiff’s “reasonable investment-backed expectations” would be set at the time of assignment of the patent to the plaintiff.

¹⁴⁷ This is particularly true given recent decisions by the Court of Claims which have held that a patent application—prior to any patent’s issuance—constitutes property. *Figueroa v. United States*, 57 Fed. Cl. 488, 502 (Fed. Cl. 2003) (“Plaintiff also correctly maintains that a patent application constitutes property.” (citing 37 C.F.R. § 1.21 (2003) and listing the fees associated with “recording each assignment, agreement or other paper relating to the *property in a patent or application*”)) (emphasis added), *aff’d*, 466 F.3d 1023 (Fed. Cir. 2006), *cert. denied*, 127 S.Ct. 2248 (2007); *see also* *Michels v. United States*, 72 Fed. Cl. 426, 430-31 (Fed. Cl. 2006) (citing *Figueroa*, but stating, perhaps more skeptically, that “the [*Figueroa*] court accepted that ‘a patent application constitutes property’”). This position, which is a departure from precedent, has the potential to vastly increase the number of takings claims. *See, e.g.*, *Brenner v. Ebbert*, 398 F.2d 762 (D.C. Cir. 1968) (“[The court has] considerable doubt whether . . . [an] unissued patent is ‘property’ as that term is used in the Fifth Amendment [for purposes of the due process clause]”); *Mullins Mfg. Co. v. Booth*, 125 F.2d 660, 664 (6th Cir. 1942) (stating that “[t]he right of Booth to his invention while his application is pending is an inchoate right, which matures as property when the patent issues.”); *DeFerranti v. Lyndmark*, 30 U.S. App. D.C. 417, 425 (D.C. Cir. 1908) (stating that “in a patent, no vested rights of which the applicant cannot be deprived [are] acquired” until the patent issues and holding that a law that was enacted after plaintiff filed his patent application and that gave other patent application earlier rights of priority did not deprive Lyndmark of any vested rights even though his invention would have been patentable but for the new law).

¹⁴⁸ *See Lingle*, 544 U.S. at 538 (2005) (stating that in cases of such “categorical” takings, “the government must pay just compensation for such ‘total regulatory takings,’ except to the extent that ‘background

established that, in the real property context, this term refers to traditional property and nuisance common law;¹⁴⁹ it is unclear how the courts would apply the concept of “background principles” to patents. A traditional common law regime does not even exist with regard to patent rights, which exist solely as a result of federal statutory enactment. Unfortunately, in its only case applying regulatory takings to intangible property, *Ruckelshaus v. Monsanto*, the Court did not discuss what “background principles,” if any, are relevant to the trade secrets in question.¹⁵⁰ As a result, lower courts considering patentholders’ claims would be left attempting to gauge, without guidance, the appropriate scope of background principles for intangible property.

Because of the underdeveloped and inconsistent regulatory takings precedent, courts should be concerned about the impact of regulatory takings claims on the government’s ability to adjust patent policy. The danger is not simply that the government might be compelled to pay damage awards, but that uncertainties about the likelihood of such awards might very well deter the government from making socially valuable changes to patent policy.¹⁵¹

III. EVEN IF PATENTS ARE A FORM OF PROPERTY, THEY ARE NOT ENTITLED TO TAKINGS CLAUSE PROTECTION

Part II traced the burgeoning of patentholders’ regulatory takings claims, and briefly described how the Court’s existing confusion regarding the regulatory takings analysis would become additionally muddled when it is applied to patents. Nonetheless, these policy arguments cannot, by themselves, be the end of the discussion. If patents fit squarely within the class of property interests that the Takings Clause protects, the courts will simply have to resolve these problems and the government will have to adjust its patent regulation accordingly.

With this context we turn, in this Part, to the second of our two main questions: was the *Zoltek* panel’s conclusion correct, even if not for the reasons given? While courts have indeed described patents as a form of “property,” that debate is only the beginning of the analysis because the Supreme Court has made clear that not all “property” is created equal. Forms of “property” established solely as a matter of governmental discretion, such as patents,

principles of nuisance and property law’ independently restrict the owner’s intended use of the property.” (citing *Lucas*, 505 U.S. at 1026-32)).

¹⁴⁹ *Lucas*, 505 U.S. at 1029.

¹⁵⁰ 467 U.S. 986, 1003-04 (1984).

¹⁵¹ It is possible that, under some circumstances, a patentholder whose patent will be affected by a regulatory change might be able to recognize that change in advance, and would make its concern known to Congress. But it is likely that the value of the patent may not be fully realized until another party intrudes on the exclusivity.

may be entitled to procedural due process protection,¹⁵² but are not automatically entitled to Takings Clause protection.

The modern Supreme Court has suggested, however, that Congress could endow a federal benefit with the right to Takings Clause protection. There is no credible evidence, however, of an intention in the controlling 1952 Patent Act to establish Takings Clause protection. Given the extraordinary policy impact of regulatory takings claims, that protection should not be extended to patents absent clear congressional intent to do so, and evidence of that intent is absent here. In sum, Takings Clause protection is not historically or constitutionally required, and thus fortunately the courts and the government are not forced down the path of applying the currently enigmatic regulatory takings doctrine to patentholders' claims.

A. *The History of the Characterization of Patents as Protected Property is Inconclusive*

The Takings Clause indisputably protects real and personal property—recognized since English common law as forms of property which must be protected to ensure individual liberty.¹⁵³ Unquestionably courts have repeatedly referred to patents using the term “property.”¹⁵⁴ Some scholars base their

¹⁵² Whether or not patentholders have a right to assert due process claims is a discussion for another day. The right to substantive due process is similar to the Takings Clause to the extent that both protect property ownership. However, as the Supreme Court recently discussed in *Lingle v. Chevron U.S.A. Inc.*, both the questions asked and thus the tests properly used, in determining a violation of substantive due process are different than a Takings Clause violation. 544 U.S. 528, 540-42 (2005) (emphasizing that asking “whether a regulation of private property is *effective* in achieving some legitimate public purpose” is different than “discerning whether private property has been ‘taken’ for purposes of the Fifth Amendment”) (emphasis added). These distinctions, as well as the differences in both the Constitution’s text and the Supreme Court’s approach to the Due Process clause, advocate for considering the application of substantive due process to patent regulation separately. At least one article expressed the authors’ skepticism that patentholders would be able to assert a valid substantive due process claim, arguing that “it is unlikely that intellectual property is a ‘fundamental’ property interest in modern constitutional parlance.” Christina Bohannon & Thomas F. Cotter, *When the State Steals Ideas: Is the Abrogation of State Sovereign Immunity from Federal Infringement Claims Constitutional in Light of Seminole Tribe?*, 67 *FORDHAM L. REV.* 1435, 1507 (1999) (discussing whether or not state infringement of intellectual property could be a violation of substantive due process).

¹⁵³ See Bethany R. Berger, *It’s Not About the Fox: The Untold History of Pierson v. Post*, 55 *DUKE L.J.* 1089, 1096-98 (2006) (noting that the Founders relied on the English common law belief that individual land ownership was key to personal liberty); James W. Ely, *Property and Liberty in the American Constitutional Order: An Historical Analysis with a Focus on Just Compensation*, 49 *ALI-ABA* 57, 104 (2006) (noting that James Madison’s emphasis on property protection within the Bill of Rights as a way to ensure personal liberty was largely based on English common law).

¹⁵⁴ See, e.g., *Festo Corp v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 730 (2002) (stating that a patent “is a property right”); *Florida Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642 (1999) (stating that patents “have long been considered a species of property” and thus “are surely included within the ‘property’ of which no person may be deprived by a State without due proc-

support for the right to a Takings Clause remedy on arguably supportive nineteenth century cases.¹⁵⁵ However, that case law is a weak foundation for that argument, in two respects. First, the position of those courts is inconsistent with the evidence which indicates that the Founding Fathers believed that there was no right to government-established monopolies. Second, the nineteenth century opinions should carry little weight because the Takings Clause was neither self-executing nor encompassed regulatory takings at that time. As a result, the nineteenth century courts were free to discuss takings without having to consider the potential impact of regulatory takings claims. By contrast, one recent Supreme Court opinion notably failed to cite those cases, and another opinion expressed skepticism that patentholders are entitled to a Takings Clause remedy.¹⁵⁶

As Thomas Jefferson noted back in 1813, patents are a “gift of social law,” only to be provided to the extent that “benefit[ed] [] society.”¹⁵⁷ Given this view the Constitution’s Copyright and Patent Clause predictably does not require Congress to create copyrights and patents; it simply *authorizes* Congress to provide such exclusivities *if Congress decides doing so would be in society’s interest*. The Supreme Court’s 1834 opinion in *Wheaton v. Peters* affirmed that view: “*There is at common law no property in [patent exclusivi-*

ess of law”); *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 187 (1933) (“A patent is property.”); *Consol. Fruit-Jar Co. v. Wright*, 94 U.S. 92, 96 (1876) (“A patent for an invention is as much property as a patent for land.”); *Carl Schenck, A.G. v. Nortron Corp.*, 713 F.2d 782, 786 n.3 (Fed. Cir. 1983) (“The patent right is but the right to exclude others, the very definition of ‘property.’”); *Myers v. United States*, 613 F.2d 230, 231 (9th Cir. 1980) (holding that “a patent is property, is depreciable and falls within the purview of § 1239” of the tax code, which “treat[s] as ordinary income” any gain resulting from “the sale or exchange of depreciable property” (citations omitted)); *Pierce v. Allen B. Du Mont Labs., Inc.*, 297 F.2d 323 (3d Cir. 1961) (holding that patent infringement claims survived the death of the patentholder). *See generally* Mossoff, *supra* note 1, at 700-11.

¹⁵⁵ *See, e.g.*, Daniel R. Cahoy, *Patent Fences and Constitutional Fence Posts: Property Barriers to Pharmaceutical Importation*, 15 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 623, 690-91 (2005) (citing *James v. Campbell*, 104 U.S. 356 (1881)); Shuba Ghosh, *Reconciling Property Rights and States’ Rights in the Information Age: Federalism, the “Sovereign’s Prerogative” and Takings after College Savings*, 31 *U. TOL. L. REV.* 17, 41 n.163 (1999) (stating that patents are property for purposes of the Takings Clause, citing *James*); Mossoff, *supra* note 1, at 700-11 (arguing that, historically, patents have been recognized as property, and noting several cases from the nineteenth century, including *James*); Torres, *supra* note 18, at 5-14 (arguing similarly). *But see* Paul J. Heald & Michael L. Wells, *Remedies for the Misappropriation of Intellectual Property by State and Municipal Governments Before and After Seminole Tribe: the Eleventh Amendment and Other Immunity Doctrines*, 55 *WASH. & LEE L. REV.* 849, 857 (1998) (discussing *James* as the only precedent). *See also* discussion of Judge Newman’s argument (citing many of the same cases), *supra* Part I; *infra* pp. 32-34 and in particular note 170.

¹⁵⁶ *See infra* pp. 35-36.

¹⁵⁷ Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), in *THE WRITINGS OF THOMAS JEFFERSON*, at 333, 335 (The Thomas Jefferson Memorial Soc’y of the U.S. ed., 1904); *see* Adam Mossoff, *Who Cares What Thomas Jefferson Thought about Patents? Reevaluating the Patent ‘Privilege’ in a Historical Context*, 92 *CORNELL L. REV.* (forthcoming 2007) (manuscript at 1, on file with Cornell University Law Review).

ties]; *there is not even a legal right entitled to protection.*"¹⁵⁸ Nonetheless, patent exclusivities stimulate innovation, and this advantage justified permitting Congress to grant these limited monopolies: "Society may give an exclusive right to the profits arising from them, as an encouragement to men to pursue ideas which may produce utility."¹⁵⁹ Because they are merely statutory rights, the *Wheaton* court declared, Congress may provide as much or as little patent protection as it wishes.¹⁶⁰ Thus, scholars have generally concluded that throughout most of American legal history, "lawyers, jurists, and scholars agreed that a patent was neither a natural right nor a common-law right."¹⁶¹ As a result, many scholars today argue that the "proPERTIZATION" of patents is a modern phenomenon, caused by the increasing importance of intellectual property to the United States economy, which, in turn, has led to a more powerful intellectual property lobby.

Nonetheless, in Judge Plager's *Zoltek* dissent, he declared that patents are entitled to a legal status equal to real property.¹⁶² In doing so, he joins scholars who argue that patents are historically property, and thus protected by the Takings Clause.¹⁶³ Adam Mossoff has pointed to nineteenth century case law characterizing patents as "property" and referring to the government's use of a patented invention as an application of the doctrine of "eminent domain."¹⁶⁴ In context, perhaps courts' use of that term "property" should not be entirely surprising. Patents do share some characteristics with ownership of real and personal property—indeed, the document establishing ownership rights in land

¹⁵⁸ 33 U.S. (8 Pet.) 591, 600 (1834) (emphasis added); *see also supra* note 89, and sources cited therein.

¹⁵⁹ Letter from Thomas Jefferson to Isaac McPherson, *supra* note 157, at 334. The argument that the constitutional authorization in the Copyright and Patent Clause provides the basis for a right has been rejected.

¹⁶⁰ *Wheaton*, 33 U.S. (8 Pet.) at 600 ("Congress, therefore, when authorized to secure their rights, are authorized to do every thing; and full power over the subject is delegated to them. . . . In creating patents they take nothing away. They deprive the inventor of no property. He had nothing, and they gave him all merely by securing."); *see also* *Patterson v. Kentucky*, 97 U.S. 501, 508-09 (1978) ("[T]he national power will be fully satisfied if the property created by patent be, for the given time, enjoyed and used exclusively, *so far* as, under the laws of the several States, the property shall be deemed for toleration. There is no need of giving this power any broader construction in order to attain the end for which it was granted, which was to reward the beneficent efforts of genius, and to encourage the useful arts." (quoting *Livingston v. Van Ingen*, 9 Johns. 507 (N.Y. 1812))).

¹⁶¹ Mossoff, *supra* note 157, at 41-42 & n.171.

¹⁶² *See Zoltek Corp. v. United States*, 442 F.3d 1345, 1374 (Fed. Cir. 2006) (Plager, J., dissenting), *cert. denied*, 127 S.Ct. 2936 (2007).

¹⁶³ *See Cahoy, supra* note 155, at 673-677 (citing § 261 of the Patent Act for the proposition that patents are property and assuming, with only brief discussion, a right to compensation for government infringement); Ghosh, *supra* note 155, at 41 & n.163 (stating patents are property for purposes of the Takings Clause); Heald & Wells, *supra* note 155, at 857 (quickly concluding that patents are entitled to Takings Clause protection).

¹⁶⁴ Mossoff, *supra* note 1, at 700-11.

was traditionally described as a “land patent.”¹⁶⁵ Although a patent does not provide an “affirmative” property right—that is, it does not authorize the owner to do anything, the way the ownership of real property authorizes an owner to use the land—it does provide the “negative” property right of exclusion.¹⁶⁶ Moreover, to ensure that society obtains the benefit of commercialization of patented inventions, the patent laws give to an inventor who may lack the resources to commercialize his invention the ability to transfer his exclusivity, and the right to transfer one’s interest is a right associated with property.¹⁶⁷ As a result, in post-*Wheaton* opinions discussing these attributes, courts began shifting from identifying patents as statutory entitlements¹⁶⁸ to describing them as a form of “property.”¹⁶⁹ Thus, when the government’s use of patented inventions without payment troubled the courts, they analogized patents to real property and such use to eminent domain.¹⁷⁰ For example, in one of the

¹⁶⁵ See, e.g., *Amoco Prod. Co. v. S. Ute Indian Tribe*, 526 U.S. 865, 867 (1999) (“Land patents issued pursuant to the Coal Lands Acts of 1909 and 1910 conveyed to the patentee the land and everything in it, except the ‘coal,’ which was reserved to the United States.”); *United States v. Beggerly*, 524 U.S. 38, 40-41 (1998) (noting that in order to support their Takings claim, petitioners attempted to find evidence of a 1781 land patent to assert their claim of title); *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 382-83 (1996) (noting analogy between the court’s role in patent term construction with “interpreting terms with a land patent”).

¹⁶⁶ *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1011 (1984) (characterizing the right to exclude others as “one of the most essential” private property rights and “central” to trade secrets).

¹⁶⁷ *Blanchard’s Gun-Stock Turning Factory v. Warner*, 3 F. Cas. 653, 657 (C.C.D. Conn. 1846) (recognizing the value to a patentholder of the right to assign his “rights and privileges”).

¹⁶⁸ *Id.*

¹⁶⁹ See Mossoff, *supra* note 1, at 701 & n.56 (listing nineteenth century cases describing patents as property); *id.* at 701 (“Congresses and courts identified patents as *property* and invoked natural-rights justifications for property in defining and adjudicating patent rights.”); Mossoff, *supra* note 157, at 43-44 & nn.177-181; see also *McClurg v. Kingsland*, 42 U.S. (1 How.) 202, 206 (1843) (in a patent infringement suit between private parties, the court refers to the “right of property then existing in a patentee,” and in order to provide due process, the court requires application of the law in place at time of issuance of the patent, despite the law’s subsequent repeal).

¹⁷⁰ See, e.g., *Belknap v. Schild*, 161 U.S. 10, 16 (1896) (finding infringement against naval officers for manufacture and use of a patented caisson gate as part of their official duties, and rejecting the government’s assertion that sovereign immunity protected against damages, but holding that sovereign immunity prohibited injunctive relief, and stating that “this court has repeatedly and uniformly declared that the United States have no more right than any private person to use a patented invention without license of the patentee or making compensation to him”); *United States v. Palmer*, 128 U.S. 262, 270-72 (1888) (affirming a judgment against the United States in a case involving the Army’s manufacture and use of patented military materials); *Hollister v. Benedict & Burnham Mfg. Co.*, 113 U.S. 59, 67-68 (1885) (“[T]he right of the patentee, under letters patent for an invention granted by the United States, was exclusive of the government of the United States as well as of all others, and stood on the footing of all other property, the right to which was secured, as against the government, by the constitutional guaranty which prohibits the taking of private property for public use without compensation.”); *James v. Campbell*, 104 U.S. 356, 358 (1881) (same); *Cammeyer v. Newton*, 94 U.S. 225, 234-35 (1876) (“Agents of the public have no more right to take such private property than other individuals under that provision, as it contains no exception warranting any such invasion of the private rights of individuals.”); see also *McKeever v. United States*, 14 Ct. Cl. 396, 417-19 (1878) (holding that patents are property for the purposes of the Takings Clause).

cases cited in *Zoltek*, *James v. Campbell*, the Supreme Court stated: “A patented invention . . . cannot be appropriated or used by the government itself, without just compensation, any more than it can appropriate or use without compensation land which has been patented to a private purchaser.”¹⁷¹

However, additional information undermines reliance on these cases to support the conclusion that patents are entitled to Takings Clause protection. First, as one commentator pointed out, in most of these early cases, “the language referring to ‘takings’ and ‘eminent domain’ is arguably, only dicta,” because often these courts decided that the government’s activities did not fall within the patent’s claims.¹⁷² Second, these nineteenth century cases’ intimations are limited in value because they were toothless. Despite those courts’ suggestions that patents trigger the Takings Clause, the absence of a private right of action would have prevented them from upholding takings claims. To begin with, at that time the only court with jurisdiction to hear monetary claims against the government was the Court of Claims, but that court only possessed jurisdiction over contract claims or claims as to which the government had expressly waived its sovereign immunity. Even after the enactment of the Tucker Act, which on its face authorized the Court of Claims to hear claims based on constitutional violations such as the Fifth Amendment’s Takings Clause,¹⁷³ as this Article explained earlier, the Supreme Court in *Schillinger* adhered to its precedent.¹⁷⁴ In addition, until the Court held the Takings Clause to be self-executing in 1933, any assertion that the clause provided a remedy was hollow.¹⁷⁵ Even if the Takings Clause covered patents, courts could not furnish relief. Thus, courts could make these declarations without concern as to the financial or policy impact on the government, absent a government statute providing for compensation.

¹⁷¹ *James*, 104 U.S. at 358; see Ghosh, *supra* note 155, at 41 (referring to *James* as “long-standing precedent”).

¹⁷² See Cotter, *supra* note 1, at 543 (referring to *James*, *Hollister*, and *Palmer*). For example, in *James*, the court ruled for the government on the merits of the patent infringement claim, and thus, its reference to the appropriateness of a Takings Clause remedy was arguably dicta. See *Leesona Corp. v. United States*, 599 F.2d 958, 966 (Ct. Cl. 1979) (noting that the *James* Court’s statements supporting patentholders’ right to Fifth Amendment compensation was only dicta). Likewise, the *Cammeyer* Court held that there had been no infringement by the government and thus the discussion regarding the appropriate basis for a remedy had there been infringement was irrelevant. *Cammeyer*, 94 U.S. at 237. Moreover, *Cammeyer*’s reliance on *United States v. Burns*, 79 U.S. (12 Wall.) 246 (1870), for its assertion was unjustified because the claim in *Burns* was not patent infringement; it was breach of contract based on a pre-Civil War license to the government. See *Burns*, 79 U.S. at 251; *Cammeyer*, 94 U.S. at 235. However, there is one lower court ruling that does not appear to be dicta. See *McKeever*, 14 Ct. Cl. at 417-19 (holding that patents are property for the purposes of the Takings Clause).

¹⁷³ Tucker Act, ch. 359, 24 Stat. 505 (1887) (codified as amended at 28 U.S.C. § 1491 (2000)).

¹⁷⁴ See *supra* pp. 9-10.

¹⁷⁵ See *supra* p. 10 and note 49.

Mossoff has argued that it was Congress' recognition of the courts' pre-1933 impotence that persuaded it to enact the predecessor to section 1498.¹⁷⁶ Undeniably, lower court decisions describe section 1498 and its predecessor as fulfilling the goal of Takings Clause compensation,¹⁷⁷ but a sound policy basis existed for Congress to enact that statute even in the absence of a Constitutional imperative: Congress may have recognized that the absence of compensation would be a disincentive to create governmental-useful inventions.

In any case, in *Zoltek*, the Supreme Court chose to deny certiorari. Only the Justices know precisely why they voted against hearing the patentholder's appeal; but one can say, at a minimum, that no four Justices were so unsatisfied with the *Zoltek* panel's (arguable) contradiction of the nineteenth century cases as to make overturning it a priority. Indeed, given an opportunity to affirm those cases as having declared patents as Takings Clause property, the modern-day Supreme Court failed to do so. In the 1984 *Monsanto* decision, in which the Supreme Court concluded that trade secrets are "property" for purposes of the Takings Clause, the Court noted that it had "found other kinds of intangible interests to be property for purposes of the Fifth Amendment's Takings Clause,"¹⁷⁸ but did not point to any case referring to patents. The absence of any reference to patents as Takings Clause property is particularly striking given that patents and trade secrets are often considered in tandem as alternative ways of obtaining a financial benefit from an innovative invention. Thus, contrary to Judge Newman's belief in *Zoltek*, excluding federal benefits from Takings Clause protection accords with the Court's analysis in *Monsanto*.

¹⁷⁶ Mossoff has argued that the legislative history demonstrates that the enacting Congress recognized the Takings Clause as applying to patents. Mossoff, *supra* note 1, at 712-14 & nn.124-35; Torres, *supra* note 18, at 14, 28 (arguing similarly, and arguing that post-1933, § 1498 should be construed as a jurisdictional statute, "identifying the Court of Federal Claims as the exclusive forum for adjudicating a class of claims for which the government has already accrued liability under the Fifth Amendment"). But in its brief in opposition to rehearing en banc in *Zoltek*, the government argued that § 1498's legislative history indicates that it was simply meant to expand general patent infringement principles to government use: "Congress intended to 'extend the jurisdiction of the Court of Claims so that it may entertain suits and award compensation to the owners of patents in cases where the use of the invention by the United States is unauthorized and unlawful; in short, to give the court in patent cases, in addition to the jurisdiction it now has in matters of contract, jurisdiction in cases of tort.'" Brief in Response to Petition for Rehearing En Banc at 12-13, *Zoltek Corp. v. United States*, 464 F.3d 1335 (Fed. Cir. 2006) (No. 04-5100) (emphasis added in brief) (quoting H.R. REP. NO. 61-1288, at 3 (1910)). In any case, it is not clear that any one Congress' view of the scope of the Takings Clause should be controlling.

¹⁷⁷ See *supra* note 69 and sources cited therein.

¹⁷⁸ *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1003 (1984) (citing *Armstrong v. United States*, 364 U.S. 40, 44, 46 (1960) (holding that a materialman's lien provided for under Maine law is protected by the Takings Clause); *Louisville Joint Stock Land Bank v. Radford*, 295 U.S. 555, 596-602 (1935) (holding that a real estate lien is protected by the Takings Clause); *Lynch v. United States*, 292 U.S. 571, 579 (1934) (holding that valid contracts with the federal government are property within the meaning of the Takings Clause).

In fact, the Court recently disavowed a particularly strong view of patent remedies. In *eBay v. MercExchange*, the Court unanimously rejected the notion that the right to exclusivity meant that a patentholder was entitled to a particular remedy (in that case, a permanent injunction), declaring that “*the creation of a right is distinct from the provision of remedies for violations of that right.*”¹⁷⁹ Fifteen years before—and, notably, after *Monsanto*—the Supreme Court expressed veiled skepticism specifically of patentholders’ right to a Takings Clause remedy. The 1990 *Eli Lilly v. Medtronic* decision was perhaps the Court’s best opportunity in 100 years to describe patents as Takings Clause property, had it wished to do so. Eli Lilly sued for infringement based on Medtronic’s use of Eli Lilly’s patented medical device, and Medtronic defended by asserting that a safe harbor provision of the Hatch-Waxman Act explicitly referring to the use of “drugs” also sanctioned its use of a medical device.¹⁸⁰ The Court found in favor of Medtronic, rejecting Eli Lilly’s assertion that a “serious constitutional question under the takings clause of the Fifth Amendment . . . [would arise] if the statute is interpreted to authorize the infringing use of medical devices.”¹⁸¹ In addressing that assertion, the Court could have recognized patentholders’ right to bring takings claims. Yet the Court did not do so; instead, the Court rejected the premise of Eli Lilly’s argument, describing the claim hypothetically: “so the ‘serious constitutional question’ (*if it is that*) is not avoided by petitioner’s construction either.”¹⁸² Notably the Court appeared to direct its skepticism towards whether a “serious constitutional question” existed, implying that any takings claim might be rejected even before reaching the specific facts of the case. One can plausibly imagine that the Court’s reticence stems from its recognition of the danger of regulatory takings claims.

In sum, although the courts’ characterization of patents has moved from a congressionally authorized benefit to a form of property, no clear evidence demonstrates that patentholders were historically entitled to a Takings Clause remedy. Moreover, whatever speculative statements might have been proffered in the nineteenth century, the modern Supreme Court—in an era of both a self-executing Takings Clause and regulatory takings claims—is not enthusiastically embracing the notion that patentholders are entitled to Takings Clause protection. With this backdrop we turn to the modern Supreme Court precedent regarding federal benefits. This precedent permits the conclusion that the courts may consider patents to be “property” for some purposes yet reject reflexive application of the Takings Clause.

¹⁷⁹ 126 S. Ct. 1837, 1840 (2006) (emphasis added).

¹⁸⁰ *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661, 664-65 (1990).

¹⁸¹ *Eli Lilly*, 496 U.S. at 678 n.7 (citing Brief of Petitioner at 31, *Eli Lilly*, 496 U.S. 661 (No. 89-243)).

¹⁸² *Id.* (emphasis added).

B. *Various Forms of Property Are Entitled to Differing Scopes of Protection*

Being property is a necessary requirement for Takings Clause protection, but it is not a sufficient one. As Mossoff acknowledges, “constitutional scholars know that merely classifying a legal entitlement as *property* is insufficient by itself to justify” providing its owner with the full panoply of constitutional remedies.¹⁸³ Even nineteenth century courts characterized one type of monopoly as a form of “property” yet denied that such property was due Takings Clause protection.¹⁸⁴ Synthesizing *Goldberg v. Kelly*,¹⁸⁵ and *Bowen v. Gillard*¹⁸⁶ reveals that the Court has continued to recognize this distinction, offering federally granted benefits narrower protections and fewer remedies than traditional forms of property.¹⁸⁷ The Court has concluded that federally created benefits may create a form of property that warrants procedural Due Process protection—meaning that the benefit may not be taken away capriciously¹⁸⁸—yet it may be altered or even eliminated through subsequent legislative action without violating the Takings Clause.¹⁸⁹ The Supreme Court has made its distinction on policy grounds. That should not be surprising: “Typically, in proposing how the Takings Clause should be understood, modern theorists have devoted relatively little attention to the original understanding. Scholars have generally focused more on philosophy and economics than they have on history, partly because of the paucity of historical evidence of the Framers’ intent.”¹⁹⁰

¹⁸³ Mossoff, *supra* note 1, at 701; *see also* Sidney A. Shapiro & Richard E. Levy, *Government Benefits and the Rule of Law: Toward a Standards-Based Theory of Due Process*, 57 ADMIN. L. REV. 107, 128 n.120 (2005) (“As is the case today, at the time of the framing, the term ‘property’ had various meanings in various contexts.” (citing Steven Siegel, *Understanding the Lochner Era: Lessons from the Controversy over Railroad and Utility Rate Regulation*, 70 VA. L. REV. 187, 189-90 (1984))).

¹⁸⁴ Mossoff, *supra* note 1, at 701 n.57 (rejecting the claim of a bridge franchisee to be entitled to Takings Clause remedy when Massachusetts granted another bridge franchise over the same river, even though monopoly franchises were referred to as property (citing *Charles River Bridge v. Warren Bridge*, 36 U.S. (11 Pet.) 420 (1837))). *But see id.* at 702-04 (arguing that, in the early nineteenth century, the term “property” meant something different when applied to patents than when applied to other federally established entitlements).

¹⁸⁵ 397 U.S. 254 (1970).

¹⁸⁶ 483 U.S. 587 (1987).

¹⁸⁷ *See infra* pp. 37-39.

¹⁸⁸ *See infra* p. 37-39.

¹⁸⁹ *See infra* pp. 38-41.

¹⁹⁰ William Michael Treanor, *The Original Understanding of the Takings Clause and the Political Process*, 95 COLUM. L. REV. 782, 811 (1995) (citation omitted). Furthermore, the Supreme Court has never discussed the significance, if any, to the fact that the Due Process Clause expressly uses the term “property,” while the Takings Clause incorporates “the more technical and specific term ‘private property.’” Shapiro & Levy, *supra* note 183, at 128; *see also* John D. Echeverria & Sharon Dennis, *The Takings Issue and the Due Process Clause: A Way Out of a Doctrinal Confusion*, 17 VT. L. REV. 695, 710 (1993) (observing the Court’s failure to address the distinction between the clauses).

In the first of these cases, *Goldberg v. Kelly*, the court declared that Aid to Families with Dependent Children (AFDC) benefits are a “property interest,” and thus its beneficiaries are entitled to procedural due process protection (in that case, evidentiary hearings before terminating welfare benefits).¹⁹¹ The *Goldberg* Court explained that modern federal government has instituted many such benefits:

Society today is built around entitlement. . . . Many of the most important of these entitlements now flow from government; subsidies to farmers and businessmen, routes for airlines and channels for television stations; long term contracts for defense, space, and education; social security pensions for individuals.¹⁹²

Upon finding that the plaintiffs possessed an expectation of the benefits continuing, the Court concluded that they possessed the right to procedural due process before the benefits could be removed.¹⁹³

Nonetheless, as strong as the sentiment for protection of the property owners’ procedural due process rights was in *Goldberg*, equally strong was the court’s conclusion in *Bowen v. Gillard* that the same benefit was not a type of property that is protected by the Takings Clause.¹⁹⁴ The Court concluded that the government’s right to define a benefit program’s metes and bounds is not limited to the time of the program’s creation.¹⁹⁵ As a result, while the right not to have benefits removed has superficial plausibility, the Court declared, a benefit never granted and a benefit removed are not analytically different for takings purposes: “Congress is not, by virtue of having instituted a social welfare program, bound to continue it at all, much less at the same benefit level”¹⁹⁶ Thus, the grant of some benefit does not require the government to reim-

¹⁹¹ 397 U.S. 254, 261-62 (1970); see also *Bd. of Regents of State Colls. v. Roth*, 408 U.S. 564, 577 (1972) (“[P]roperty interests protected by procedural due process extend well beyond actual ownership of real estate, chattels or money.”).

¹⁹² *Id.* at 262 (quoting Charles A. Reich, *Individual Rights and Social Welfare: The Emerging Legal Issues*, 74 *YALE L. J.* 1245, 1255 (1965)).

¹⁹³ *Goldberg*, 397 U.S. at 262; see also *Roth*, 408 U.S. at 567-77 (“To have a property interest in a benefit, a person clearly must have more than an abstract need or desire for it. He must have more than a unilateral expectation of it. He must, instead, have a legitimate claim of entitlement to it.”).

¹⁹⁴ 483 U.S. 587, 603-05 (1987). In *Bowen*, the plaintiffs claimed that a regulation reducing AFDC payments to families of children receiving child support payments from a noncustodial parent affected a taking. See *id.* at 589-91. Specifically, although the North Carolina statute limited the funds’ use to the beneficiary children, plaintiffs claimed that the reduction or elimination of AFDC benefits effectively required parents to divert those funds to meet other family members’ needs. *Id.* at 595-96, 600.

¹⁹⁵ *Id.* at 604-05; see also *Flemming v. Nestor*, 363 U.S. 603, 610-12 (1960) (finding no due process violation in termination of an alien’s social security benefits once he was deported); David A. Super, *The Political Economy of Entitlement*, 104 *COLUM. L. REV.* 633, 648-52 (2004) (discussing positive entitlements); Super, *supra*, at 649 n.66 (“A positive entitlement could be property protected by the Takings Clause as well as the Due Process Clause . . . [but,] [t]he Court has given no support to this theory.”).

¹⁹⁶ *Bowen*, 483 U.S. at 604-05.

Had no AFDC program ever existed until 1984, and had Congress then instituted a program that took into account support payments that a family receives, it is hard to believe that we would se-

burse the person if that benefit is subsequently diminished or eliminated.¹⁹⁷ That subsequent change is not equivalent to the government's seizure of private property, but is merely the restructuring of government largess to best promote the public good:

The District Court was undoubtedly correct in its perception that a number of needy families have suffered, and will suffer, as a result of the implementation of the DEFRA amendments to the AFDC program. Such suffering is frequently the tragic byproduct of a decision to reduce or to modify benefits to a class of needy recipients. *Under our structure of government, however, it is the function of Congress – not the courts – to determine whether the savings realized, and presumably used for other critical governmental functions, are significant enough to justify the costs to the individuals affected by such reductions. The Fifth Amendment “gives the federal courts no power to impose upon [Congress] their views of what constitutes wise economic or social policy,” by telling it how “to reconcile the demands of . . . needy citizens with the finite resources available to meet those demands.”*¹⁹⁸

A firm conclusion as to whether a patent is deserving of procedural due process protection is best left for another article. In *Florida Prepaid*, the Court stated as much, but without providing any analysis whatsoever.¹⁹⁹ Even assuming that patents are property for procedural due process purposes, for the reasons explained in *Bowen* patents are not a category of property that deserves Takings Clause protection. Just as the Spending Clause authorizes, but does not require, the government to furnish public assistance, the Copyright and Patent Clause authorizes, but does not require, Congress to enact patent protection to the extent it is socially valuable. Indeed, Congress could legislate that no additional patents would be granted, and an inventor would have no constitutional basis for demanding any exclusive right to his invention. Indeed, the Federal Circuit has previously described patent rights as benefits given with a government exception built-in, recognizing that the government would leave itself the right to make use of those inventions as necessary for the public

riously entertain an argument that the new benefit program constituted a taking. Yet, somehow, once benefits are in place and Congress sees a need to reduce them in order to save money and to distribute limited resources more fairly, the “takings” label seems to have a bit more plausibility. For legal purposes though, the two situations are identical.

Id.; see also *Washlefske v. Winston*, 234 F.3d 179, 184 (4th Cir. 2000) (“[I]f a statute creates a property right not previously recognized or one broader than that traditionally understood to exist, the property interest so created is defined by the statute and may be withdrawn so long as the State affords due process in doing so.”).

¹⁹⁷ See *supra* note 196 and accompanying text.

¹⁹⁸ *Bowen*, 483 U.S. at 596-97 (emphasis added) (citing *Dandridge v. Williams*, 397 U.S. 471, 486, 472 (1970)); see also *Mitchell Arms, Inc. v. United States*, 26 Cl. Ct. 1, 5 (1992) (“At bottom, *Bowen* stands for the proposition that enforceable rights sufficient to support a takings claim against the United States cannot arise in an area voluntarily entered into and one which, from the start, is subject to pervasive Government control.” (citing *Dames & Moore v. Regan*, 453 U.S. 654, 674 n.6 (1981))), *aff’d*, 7 F.3d 212 (Fed. Cir. 1993).

¹⁹⁹ See *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642 (1999). In *Florida Prepaid*, the Court stated that “patents are a species of property” and therefore entitled to Due Process protection. *Id.*

good.²⁰⁰ Accordingly, if at some point Congress decides that the harm from the existing scope of patent protection is greater than the benefit, the Takings Clause does not require compensation for reducing or discontinuing that protection.

When one makes an analogy, of course, there are always differences. One obvious difference between AFDC benefits and patents is the mechanism by which the property obtains its value. The government directly provides the benefits to AFDC recipients, whereas the patent exclusivities themselves do not on their face cost the government money. Nonetheless, if the patented technology is marketable, those exclusivities will often create costs in two ways. First, there is the potential cost that arises in *Zoltek*—where the technology is of interest to the government, licensing the right to make or use the invention would create a direct cost. The government could very well conclude that the cost would be more problematic than the disincentive caused by eliminating the licensing fee. Second, and more often the case, the technology is not of direct interest to the government, but it is in demand in the society at large. In that case, the government could determine that the potential indirect cost to society from the monopoly pricing of patented technology is more dangerous to the public good than the disincentive caused by the absence of such patents. If so, the government might decide to narrow or eliminate the patent's scope through regulatory changes.

For example, the Medical Methods Amendment eliminated patentholders' right to obtain monetary damages for infringement. In enacting that legislation, Congress may have concluded that allowing health care companies to obtain remedies for infringement is sufficiently less valuable to society than allowing doctors to use whichever medical methods they deem best for their patients.²⁰¹ Presumably, Congress concluded that the non-fiscal benefit in improving patients' quality of life, as well as decreasing society's long-term health care costs—thereby permitting that money to be invested elsewhere—outweighed the injury to all of the patentholders whom might be denied damages.²⁰² A similar conclusion should be reached when considering the statute at issue in *Eli Lilly*, which permits the use of patented medical devices to develop competing products.²⁰³ That narrowing of patents' scope purportedly decreases the incentive to make innovative, patentable products. Nonetheless, Congress con-

²⁰⁰ See *supra* note 85.

²⁰¹ The Medical Methods Amendment impinged on any patent applications being prosecuted at that time it took effect, though not to earlier-issued patents. See *Limitation on Patent Infringements Relating to a Medical Practitioner's Performance of a Medical Activity*, in *Omnibus Consolidated Appropriations Act, 1997*, Pub. L. No. 104-208, Title VI, § 616, 110 Stat. 3009-67 (codified at 35 U.S.C. § 287 (2000)).

²⁰² The most direct government savings is any money saved through federally-funded health care, to the extent that government doctors might infringe a medical method patent claim. The federal government also funds health care through Medicare and Medicaid. If more efficient methods allow fewer or cheaper reimbursable procedures, the government would pay less through these programs.

²⁰³ *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661, 665 (1990); see also *supra* notes 133-135 and accompanying text.

cluded that the societal benefit of encouraging prompt post-patent period competition outweighed any potential disincentive to innovators from the lost revenue.

If the government had to pay the patentholder the loss in value, the government likely would maintain those less-than-socially-optimal exclusivities. This result would tread on Congress's authority to legislate for the public good similar to a rule requiring the government to pay for the "taking" of welfare funds. As *Bowen* underscores, Congress must be permitted to restrict statutory rights when the restriction promotes the public good.

Unlike AFDC benefits, however, a patentholder has arguably engaged in activity with the expectation of a certain scope of exclusive privileges.²⁰⁴ But many government privileges result in some sort of reliance behavior, often a behavior sought by the government. Conduct motivated by a government benefit should not prevent the government from changing the benefit when it decides that the benefit's cost outweighs its societal value. As one court has explained:

All licenses, we may assume, are issued with the expectation that they will be relied upon. Yet government as we know it would soon cease to exist if such exclusively governmental functions . . . could not be accomplished without the payment of compensation to those business interests that have chosen to operate within this highly regulated area. "To require compensation in all such circumstances would effectively compel the government to regulate by *purchase*."²⁰⁵

Indeed, with regard to another benefit, radio spectrum licenses, the courts have concluded that such licensees are entitled to the protection of the Due Process Clause,²⁰⁶ but not the Takings Clause,²⁰⁷ even though such licenses

²⁰⁴ Indeed, if the strength of the argument for Takings Clause protection of a particular entitlement was measured by the reliance generated by it, the argument for such protection for patents may be relatively weak. Unlike many entitlements such as licenses, in which investment tends to occur after a license has first been granted, many patentholders engage in the innovative activity and/or file their applications without knowing of, and thus without relying upon, any particular scope of patent exclusivity.

²⁰⁵ *Mitchell Arms, Inc. v. United States*, 26 Cl. Ct. 1, 5 (1992) (quoting *Andrus v. Allard*, 444 U.S. 51, 65 (1979) (emphasis in original) (rejecting the plaintiff's argument that revocation of its import license was a taking because it was "economically validated . . . by the investment of private capital"), *aff'd*, 7 F.3d 212 (Fed. Cir. 1993).

²⁰⁶ *Trinity Broad. of Fla., Inc. v. FCC*, 211 F.3d 618, 628 (D.C. Cir. 2000) (recognizing that a broadcasting license is "property" such that the renewal applicant is entitled to "[d]ue process," and holding that failure to provide sufficient notice before rejecting the renewal application violated due process). Given that court's position as the court with primary appellate jurisdiction over alleged violations by federal administrative agencies, its conclusion could be expected to carry a lot of weight in this debate. Moreover, in that case the FCC itself "[c]once[ed] that the denial of a broadcast license triggers due process protection." *Id.* But see *Prometheus Radio Project v. FCC*, 373 F.3d 372, 428 (3d Cir. 2004) (still relying on *FCC v. Sanders Bros. Radio Station*, 309 U.S. 470 (1940), for the conclusion that broadcast licenses are not subject to Due Process Clause protection or Takings Clause protection). Contrast this to the Court's decisions prior to *Goldberg*, in which broadcasting licensees were held not to create a property interest. *Sanders Bros.*, 309 U.S. at 475 (the court stated that "[t]he policy of the Act is clear that no person is to have anything in the

presumably induce recipients to invest in their “property” in various ways, such as investment in infrastructure and expenditures on marketing.

In sum, categorizing patents as a federal benefit gives patentholders due process rights before their benefits are removed, but not compensation after removal. As the Supreme Court has acknowledged in other contexts, the alternative conclusion would greatly impede the government’s ability to revise its policies as it sees fit.

C. Evidence of Congressional Intent

One cannot end the analysis there, however, because, as mentioned earlier, one can read *Monsanto* to suggest that Congress could, if it so chose, create a property right entitled to Takings Clause protection. *Monsanto* noted that a property interest entitled to Takings Clause protection need only be grounded in a source “independent” from the Constitution and presumably that source could be federal law.²⁰⁸ Arguably, not allowing Congress to designate an interest other than real and personal property to be so vital that it warrants Takings Clause protection would freeze property law in the eighteenth century. However, courts should not be quick to place a federal benefit in this category, and should recognize such a momentous categorization only when the choice is clearly stated by Congress. Otherwise, distinguishing between “property interests” entitled to such rights from those entitled to more limited rights would be extremely difficult.

Congress has not indicated any intention to place patents in the unique position of a benefit which receives Takings Clause protection. One provision which has attracted some attention as a provision arguably expressing that intention is section 261 of the 1952 Patent Act.²⁰⁹ That section begins: “Subject to the provisions of this title, [p]atents shall have the attributes of personal property.”²¹⁰ But the purpose of that statement, as well as the context in which it is placed, makes clear that it was not meant to go so far as to bestow a Takings Clause remedy. The statement, which is the sole sentence in the first paragraph of that section, first appears in the 1952 Patent Act, and both the House and Senate Judiciary Committee reports on that legislation clearly ex-

nature of a property right as a result of the granting of a license.”); *see also* *Ashbacker Radio Corp. v. FCC*, 326 U.S. 327, 331 (1945) (“No licensee obtains any vested interest in any frequency.”).

²⁰⁷ *APT Tampa/Orlando, Inc. v. Orange County*, No. 97-891-CIV-ORL-22, 1997 WL 33320573, at *9 (M.D. Fla. Dec. 10, 1997) (“Because Plaintiffs have cited no case law to the contrary and the Court is unable to find case law supporting the contention that an FCC license is a protectable property interest *in this context*, Plaintiffs’ unconstitutional taking claim is due to be dismissed with prejudice.”) (emphasis added).

²⁰⁸ *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1001 (1984) (quoting *Webb’s Fabulous Pharmacies, Inc. v. Beckwith*, 499 U.S. 155, 161 (1980)).

²⁰⁹ Act of July 19, 1952, Pub. L. No. 82-593, § 261, 66 Stat. 792, 810 (codified as amended at 35 U.S.C. § 261 (2000)).

²¹⁰ *Id.*

plain that the statement “is new but *is declaratory only*.”²¹¹ Section 261, titled “Ownership and Assignment,” relates to the assignments of patents and patent applications, and resolving ownership disputes.²¹² The remaining provisions of section 261 contain only technical and administrative amendments to the 1946 statute.²¹³ Congress would be most unlikely, first, to bury such a dramatic expansion of the constitutional protection of patent rights in the section on transfer of patents between private parties and, then, to nonchalantly describe that statement as “declaratory only.” This understanding accords with the limited attention that addition was given in the leading contemporary treatise on the 1952 Act.²¹⁴

In sum, Takings Clause protection for patents is neither a historical imperative nor wise policy. Moreover, Congress, in enacting the 1952 Patent Act, did not expect any other conclusion.

CONCLUSION

Society continually reassesses the value of providing benefits in light of their costs, and unless constitutionally prevented from doing so, the government should be able to modify its policies accordingly. Of particular concern at the moment is the cost to society of patent monopolies. Perhaps the *Zoltek* court realized that the threat of regulatory takings claims would impede government’s ability to legislate valuable changes and also diminish patents’ value. That would explain why the *Zoltek* court balked at the idea of extending Takings Clause protection to patentholders, despite offering only a weak argument and despite Judge Dyk’s explicit support for statutory compensation for government use of a patented invention, and why the Supreme Court chose to deny *Zoltek Corporation*’s petition for certiorari.

For many decades, one had little need to worry about the impact of regulatory takings claims by patentholders, because very few such claims had been asserted. Recently, however, patentholders have a greater sense of property ownership. Perhaps as a consequence, patentholders have recently begun asserting regulatory takings claims, which, so far, have all been dismissed on grounds other than the merits. Unquestionably, however, at some point in the

²¹¹ S. REP. NO. 82-1979 (1952), as reprinted in 1952 U.S.C.C.A.N. 2394, 2420 (emphasis added); H.R. REP. NO. 82-1923, at 27 (1952) (emphasis added).

²¹² See P. J. FEDERICO, COMMENTARY ON THE NEW PATENT ACT (1954), reprinted in 75 J. PAT. & TRADEMARK OFF. SOC’Y 161, 211 (1993) (“Section 261 is a revision of the section of the old law relating to assignments of patents and applications for patents. It begins by a new paragraph declaratory of the fact that patents have the attributes of personal property.”).

²¹³ *Id.*

²¹⁴ *Id.*; see also *Mosca v. United States*, 417 F.2d 1382, 1385 (Ct. Cl. 1969) (“[Section] 261 deals with the right of a patentee to assign his patent or to convey exclusive rights therein to others. There is nothing in the language of that statute which confers jurisdiction on this court to award damages to plaintiff [based] on [a Takings Clause claim].”).

future patentholder will assert a more viable regulatory takings claim. One would be comforted if the government could predict the likelihood of a regulatory takings award. But this comfort would be illusory because, as even the Supreme Court has recently acknowledged, its regulatory takings precedents have created a baffling, inconsistent quagmire. As a result, if the courts apply that doctrine to the intangible and highly technical field of patents, both patentholders and the government will be left predicting the result with all of the accuracy of a circus fortune-teller.

In light of this legitimate concern, fortunately, despite the flaws in its reasoning, the *Zoltek* court's conclusion was correct: patents should not trigger Takings Clause protection. Determining whether or not patents have been traditionally characterized as "property" is a relevant analysis but an inchoate one. The modern Supreme Court has held that not all property interests are created equal, and on the spectrum of property rights, patents are of a type which is not entitled to the full panoply of constitutional protections. Patents are authorized—but not required—by the Constitution, and exist only as creatures of federal statute for the purpose of promoting technological innovation. The Supreme Court has already concluded, in the context of another federally created benefit, that such benefits are "property" for purposes of the Due Process Clause but not automatically for purposes of the Takings Clause. Accordingly, patentholders are not entitled to assert takings claims. Moreover, Takings Clause protection should not extend to patents absent clear congressional intent to do so, and evidence of that intent is absent here. While patentholders may be disappointed when their federal benefits are diminished or removed, refusing to identify that disappointment as a Takings Clause violation is both consistent with the modern Supreme Court's view of such benefits and decreases the chance that society will be stuck with suboptimal patent policies.