

Populism and Patents

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Lawyers and other commentators often remark that American courts, and particularly American juries, are prejudiced against large corporate entities. Existing empirical research attempting to confirm this suspicion is contradictory and suffers from a number of shortcomings. In this Article, Professor Moore reexamines the issue by reporting the results of research on an original dataset of over 4000 patent cases and more than a million patents. The results cast substantial doubt on the hypothesis that individuals and corporations are treated identically in jury trials of patent property rights. In jury trials of patent cases between corporations and individuals, the individual won 74% of the time, with the large corporation winning in the remaining 26% of cases. Corporations and individuals won at nearly equal rates with judges. Marshaling a range of other evidence, Professor Moore explains that these results are likely to understate the degree of bias, placing a floor but not a ceiling on the impact of anti-corporate prejudice.

Moreover, analysis of patent cases permits the exploration of a related phenomenon—the heroic iconization of the American inventor. As the injured tort victim is sympathetic, the American inventor is idealized for her ingenuity, productivity, and creativity. The individual inventor puts a face on the corporate entity, humanizing or personalizing the party. Hence, even corporate versus corporate litigation has an individual component and therefore an opportunity for bias to impact decision-making.

Perceptions that American juries are biased in favor of individuals and prejudiced against corporations are widespread. As one commentator noted, “A common belief is that jurors are so prone to favor individual plaintiffs over corporate defendants that they pick the ‘deep pockets’ of rich businesses and deliver extremely high awards that are not merited by the company’s actions or the plaintiff’s injuries.”¹ Anecdotal accounts often bear great weight in the formation of these

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¹ Valerie P. Hans, *The Illusions and Realities of Jurors’ Treatment of Corporate Defendants*, 48 DEPAUL L. REV. 327, 329 (1998).

impressions. Whether this impression of jury populism is perceived as anti-corporate prejudice,² a preference for the underdog, or a desire to redistribute wealth,³ there is no doubt that the prevailing wisdom among commentators is that juries are prejudice against the large corporate entity and biased in favor of the small, and often injured, individual.⁴ This bias could impact

² Sandra J. Anderson, *Jury System Requires Public's Participation*, COLUMBUS BUSINESS FIRST, May 2, 1997 (quoting Jeff Howard) (“A perception clearly exists that corporations don't get a fair shake when it comes to juries. It's not just corporations feeling sorry for themselves; juries are generally anti-corporate.”); DECISION QUEST, *Trial Tip: Overcoming Jurors' Bias Against Corporate America*, Decision Points, Litigation Library at http://www.decisionquest.com/litigation_library.php?NewsID=82 (“Corporate image has taken a beating in the last year. Never before have corporations, their leaders, and advisors been held in such low regard by the general public.”); Steven Lybrand & Jim Dobson, *Jury Bias? Could Be True*, 28 LEGALTIMES, March 28, 2005 (stating that “hard-core anticorporate jurors will not listen to the evidence of a case. Jurors within this hard-core group also express the idea of conspiracy: that corporations ‘are all in cahoots with one another’ or that ‘they are in bed together.’ Such jurors see corporations as in opposition to ordinary folk.”).

³See SAUL M. KASSIN & LAWRENCE S. WRIGHTSMAN, *THE AMERICAN JURY ON TRIAL* 162 (1988) (“Like Robin Hood, civil juries are accused of using the courts as a means of taking from the rich and giving to the poor.”); Amithy Shlaes, *Tragedy of Tort Theater; Asbestos Litigation Makes a Mockery of our Legal System*, CHICAGO TRIBUNE, May 15, 2002, at 23, available at 2002 WL 2655160 (“We know all the players: the swaggering trial lawyers, the sheepish corporations that are forced to empty their deep pockets, the Robin Hood juries that hand out cash as a form of redistributive justice.”); *Sidle v. Majors*, 341 N.E.2d 763, 771 (Ind. 1976) (“The tendency to take from the rich and give to the needy is as American as apple pie.”); *Life Ins. Co. v. Johnson*, 648 So.2d 685, 703 (Ala. 1996) (“Allowing evidence of a defendant’s wealth into evidence brings the politics of resentment into the courtroom and encourages and legitimates the Robin Hood reaction.”); Clarence Morris, *Punitive Damages in Tort Cases*, 44 HARV. L. REV. 1173, 1191 (1931) (“[R]ich men do not fare well before juries, and the more emphasis placed on their riches, the less well they fare.”); Alan Howard Scheiner, *Judicial Assessment of Punitive Damages, the Seventh Amendment, and the Politics of Jury Power*, 91 COLUM. L. REV. 142, 164 (1991) (“It also has been claimed that juries harbor a consistent bias against wealthy or insured defendants and that a difference in the parties' financial status creates a ‘Robin Hood-like state of mind in the jury room.’”); Martin A. Kotler, *Social Norms and Judicial Rulemaking: Commitment to Political Process and the Basis of Tort Law*, 49 U. KAN. L. REV. 65, 110 (2000) (“Unless restrained by the judiciary or legislature ... juries will see little harm in wealth redistribution (and in fact take satisfaction in playing Santa Claus with someone else’s money) when faced with a dispute between individuals or entities of disparate wealth.”); Henry J. Lischer, Jr., *Domestic Asset Protection Trusts: Pallbearers to Liability?*, 35 REAL PROP. PROB. & TR. J. 479, 499 n.75 (2000) (“Once you get to court, you will find that the system is heavily weighted toward the sympathetic plaintiff, as judges and juries play Robin Hood with your money.”); *Law Hitting the Jackpot*, THE FLORIDA TIMES, at B6 (Dec. 13, 2002) (“Juries are often persuaded to take from the rich and give to the poor.”); *Mark* 10:21 (King James) (“Go thy way, sell whatsoever thou hast, and give to the poor, and thou shalt have treasure in heaven.”).

⁴ Even an episode of the popular sitcom *Friends* espoused hatred for corporate America: Phoebe, unhappy about the prospect of Rachael going to a large massage place complained, “You know how I feel about these ‘big massage places’! They’re putting people like me out of business. . . . It’s about corporate greed destroying our hearts and leaving us the hollow shells.” See Transcript of *Friends* #921 available at www.twiztv.com/scripts/friends/friends921.htm. In fact, Hollywood movies such as *Wall Street*, *Erin Brochovich*, *Civil Action*, *The Insider* and *Silkwood* are replete with images of corporate villainy. See Larry E. Ribstein, *Film and Firms*, available at <http://home.law.uiuc.edu/~ribstein/ribsteinmovies.pdf> (observing how large corporations are villainized in many films and suggesting that Hollywood’s view of business “may have done much to feed a populist anti-business tendency”). See also Larry Ribstein, <http://busmovie.typepad.com> (discussing movies showing businesses as evil).

jury decision-making in determinations of liability and assessment of damages.⁵

These anecdotes and impressions have spurred social science literature on jury decision-making and incited substantive and procedural legal reform efforts.⁶ All of this despite claims by some that no credible evidence substantiates the existence of such bias.⁷ The empirical literature that has addressed this problem and its impact on U.S. litigation has taken several forms.⁸

⁵ See Meghan A. Crowley, *From Punishment to Annihilation: Engle v. R.J. Reynolds Tobacco Co.—No More Butts—Punitive Damages Have Gone Too Far*, 34 LOY. L.A. L. REV. 1513, 1532-33 (2001) (“Studies have shown that juries are often biased against large, wealthy corporate defendants and often believe that wealthy corporations should be held to a higher standard of responsibility than the average individual.”).

⁶ Concern over the tendency of juries to redistribute wealth has caused the implementation of substantial safeguards to minimize such prejudice. For example, in many circumstances evidence of the defendant’s wealth is not admissible because of concern that it will prejudice a jury. See, e.g., *Reilly v. Natwest Mkts. Group Inc.*, 181 F.3d 253, 266 (2d Cir. 1999) (“Evidence of wealth ... is generally inadmissible in trials not involving punitive damages.”); *DeRance, Inc. v. PaineWebber Inc.*, 872 F.2d 1312, 1330 (7th Cir. 1989) (same). Cf. Andrew L. Frey, *Corporate Wealth: The 800-Pound Gorilla that Sabotages Fair Adjudication of Punitive Damages*, 30 Litigation 8 (2004) (“the most significant factor fueling the drive over the past couple of decades to ever larger punitive awards is evidence of corporate finances”). In fact, many patent cases bifurcate the trial of damages and in particular willfulness, from the trial on liability in order to extricate this potentially prejudicial evidence from the liability trial. See Kimberly A. Moore, *Empirical Statistics on Willful Patent Infringement*, 15 FED. CIR. B.J. 227, 235 (2004) (“Concerns over the impact inflammatory evidence such as willfulness evidence would have on verdicts – concerns about how the factfinder may be swayed by bad guy evidence – would be greater in jury trials.”).

⁷ MARC GALANTER, *THE REGULATORY FUNCTION OF THE CIVIL JURY, IN VERDICT: ASSESSING THE CIVIL JURY SYSTEM* 70 (Robert E. Litan ed., 1993) (“The literature, on the whole, converges on the judgment that juries are fine decisionmakers. They are conscientious, collectively they understand and recall the evidence as well as judges, and they decide on the basis of the evidence presented.”); JOHN GUNTHER, *THE JURY IN AMERICA* 93, 181 (1988) (stating that findings of jury bias were insignificant in large-scale mock jury studies and that there is no evidence of pro-plaintiff juror bias); RITA J. SIMON, *THE JURY: ITS ROLE IN AMERICAN SOCIETY* 69 (1980) (concluding mock juries were attentive to rules of law); HARRY KALVEN & HANS ZEISEL, *THE AMERICAN JURY*, 158 (1966) (observing congruent Judge-Jury agreement in both “clear” and “difficult” cases); Kevin M. Clermont & Theodore Eisenberg, *Trial by Jury or Judge: Transcending Empiricism*, 77 CORNELL L. REV. 1124, 1152 (1992) (“[T]he evidence, such as it is, consistently supports a view of the jury as generally unbiased and competent.”); Hans, *supra* note 1 at 327-28 (“Reflecting the citizenry from which they are drawn, civil jurors are largely supportive of the aims of American business and extremely concerned about the potential negative effects on business corporations of excessive litigation.”); Valerie P. Hans & Stephanie Albertson, *Empirical Research and Civil Jury Reform*, 78 NOTRE DAME L. REV. 1497, 1507 (2003) (“[T]he common beliefs that jurors are highly sympathetic to individual plaintiffs and anti-business are not supported by empirical evidence to date.”); George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 34 (1984) (suggesting that jury decisions may be less prone to bias than judge decisions because “individual biases are suppressed where a twelve-person jury must agree on a verdict”).

⁸ See Robert MacCoun, *Inside the Black Box: What Empirical Research Tells Us about Decisionmaking by Civil Juries*, in *VERDICT ASSESSING THE CIVIL JURY SYSTEM* 140-47 (1993) (detailing the different ways to study jury decision-making).

experimental studies,⁹ surveys and interviews,¹⁰ shadow or mock juries,¹¹ and archival analysis.¹² The results of these studies differ, but most seem to conclude that juries exhibit some form of anti-corporate prejudice when assessing liability and/or damages.¹³

Whether the anti-corporate prejudice exists in fact, there can be no controversy about the reality of the perception that bias and prejudice exist in American courts and particularly with

⁹ Scholars and psychologists have attempted to test for corporate prejudice by distributing surveys with fact patterns in which they vary the identity of the defendant (generally between individual and corporation) while controlling the other facts about the dispute. See, e.g., Valerie P. Hans & M. David Ermann, *Responses to Corporate Versus Individual Wrongdoing*, 13 L. & HUM. BEHAVIOR 151, 157-58 (1989) (finding a sample of college students significantly more likely to find a corporate defendant liable and assess a higher damage award in a personal injury case); Robert J. MacCoun, *Differential Treatment of Corporate Defendants by Juries: An Examination of the "Deep Pockets" Hypothesis*, 30 L. & SOC'Y REV. 121, 135 (1996) (finding that corporate defendants were more likely to be found liable than either rich or poor individuals).

¹⁰ Social scientists have attempted to identify and quantify anti-corporate prejudice by surveying former jurors and by interviewing judges to determine whether they agreed with the jury verdict. See, e.g., *The View from the Jury Box*, NAT'L L. J., Feb. 22, 1993, at S15 (polling 800 people who sat on a jury and finding that 1/3 of the jurors considered the financial situation of the defendants when reaching their verdict); Hans, *supra* note 1, at 341-42 (discussing the Arizona jury reform study which interviewed judges ex post about 132 civil cases to determine whether they disagreed with jury verdicts); *Id.* at 349-50 (presenting the results of ex post survey of jurors asking them whether their decision was influenced by the fact that the defendant was a corporation and finding that 23% said that if the case had involved individuals they would have changed their approach). Ex post interviews of jurors or judges about case outcome or the decision-making process seems unlikely to produce accurate information given the impact of such hindsight analysis and the likely reluctance to admit that prejudice impacted a verdict.

¹¹ Social scientists have sought to measure corporate prejudice in a group deliberative process by having a mock jury determine liability while varying the identity of the defendant and controlling other factors. See, e.g., Robert MacCoun, *Is There a "Deep Pocket" Bias in the Tort System?*, RAND, Oct. 1993, at 3 (finding that jurors do treat corporations differently (a corporate identity effect), but not because of wealth (rejecting a deep pocket effect)); Hans, *supra* note 1, at 344-45 (conducting a mock jury study with community residents at a courthouse deliberating as a group over a slip-and-fall case and finding that whether the defendant was an individual or a corporation significantly influenced judgments). Mock jury studies have the added advantage of examining group dynamics and how bias could impact a group deliberative process differently than individual decision-making.

¹² See, e.g., Audrey CHIN & MARK PETERSON, *DEEP POCKETS, EMPTY POCKETS: WHO WINS IN COOK COUNTY JURY TRIALS* (1985) (finding that corporate defendants lost more than individual defendants in jury verdicts in Cook County, Illinois from 1960-1970); Brian Ostrom et al., *What are Tort Awards Really Like? The Untold Story from the State Courts*, 14 LAW & POL'Y 77 (1992) (analyzing tort cases from 1989 in 27 state courts and finding that corporate defendants won more often, but that when they lost they had to pay more than their individual counterparts). The existing empirical studies which examine the corporate identity effect in actual case outcomes are outdated, inconclusive, and limited to state court personal injury type cases.

¹³ See Hans, *supra* note 10, at 338-340 (summarizing empirical studies of anti-corporate jury research and concluding that "the experimental research that I and other scholars conducted shows that corporations are treated differently in at least some instances. Because of the limited range of cases studied, the generality of the phenomenon is not yet known.")

American juries. The psychology literature, empirical studies, and legal reform efforts all testify to this perception. This bias/prejudice has the potential to arise in any case that pits an individual against a corporation—everything from products liability litigation with its injured individual against the irresponsible corporation to patent litigation with its heroic inventor against the thieving corporate infringer.¹⁴ As one commentator noted,

In the United States, if you go into the courtroom with a patent of a small inventor against a large corporation, let me tell you, that large corporation is shaking in its boots because juries are pro-patent. Anyone who has ever done a jury study—and I have done a number of them: we do ten or fifteen test juries on a case before we go to trial—will find that juries are just overwhelmingly pro-patent for the individual inventor.¹⁵

In 1999, I conducted a survey of sixty-two Chief Patent Counsels of large corporations¹⁶ and found that they overwhelmingly believed that juries favor individuals over corporations in patent litigation.¹⁷ One of the Chief Patent Counsels with thirty-eight years of experience commented that, “Human nature is to favor the underdog.”¹⁸ These sentiments were replicated

¹⁴ See Nicholas M. Cannella & Timothy J. Kelly, *Jury Trials and Mock Jury Trials*, 375 PLI/Pat 731, 738-39 (1993) (“Regardless of whether it is right or wrong, big corporations suing individual inventors or mom-and-pop local companies may not get off on the right foot with the jury.”); Jack L. Lahr, *Bias and Prejudice Against Foreign Corporations In Patent and Other Technology Jury Trials*, 2 FED. CIR. B.J. 405, 408 (1992) (“Warmly received is the opportunity presented to represent David against Goliath—the small company or individual inventor with the staying power to assert a patent claim against Goliath International, Inc. The bias in favor of the Little Guy against the Big Guy need not be stressed in the courtroom for the jury knows regardless.”); Edmund L. Andrews, *A ‘White Knight’ Draws Cries of ‘Patent Blackmail’*, N.Y. TIMES, Jan. 14, 1990, §3, at 5 (stating that juries “have proven eager to side with inventors against large companies”).

¹⁵ Douglas Wyatt, *Symposium: Early Patent Publication: a Boon or a Bane? A Discussion on the Legal and Economic Effects of Publishing Patent Applications After Eighteen Months of Filing*, 16 CARDOZO ARTS & ENT LJ 601, 624 (1998).

¹⁶ This survey was administered at the annual conference of the Association of Chief Patent Counsels. In order to attend this conference, a lawyer must be the Chief Patent Counsel of an organization with at least five full-time intellectual property attorneys. The group had an average of 25.3 years of patent legal experience.

¹⁷ When asked, “Do you believe that jurors are biased in any of the following ways: Jurors favor the inventor over the big corporation? YES or NO,” 89.8% of the fifty-nine respondents answered affirmatively, indicating their belief that juries are biased against corporate entities.

¹⁸ Another chief patent counsel commented that, “Big co. vs. small company—juries tend to sympathize with the little guys.”

in concerns over juries favoring patentees over infringers. One Chief Patent Counsel commented that juries favor patentees because there is a “misconception about inventing and bias against large corporations.”¹⁹ The skyrocketing frequency in recent years of jury demands in patent cases only compounds these fears about the biases and prejudices of American juries.²⁰ Perceptions of juror favoritism manifest themselves in a significantly higher likelihood that individual plaintiffs seeking to enforce their patents will demand a jury trial when they sue corporate parties.²¹ Undoubtedly, these perceptions impact the litigation process and in particular, the selection of cases that are taken to trial.

This Article reports the results of an empirical study designed to test for anti-corporate prejudice in patent litigation. Empirical research on deep pocket bias or anti-corporate prejudice has previously been limited to tort and contract cases.²² The appeal of these cases for studying jury bias is obvious; there is usually an injured individual up against a corporate defendant. Analysis of these cases, however, runs into a serious methodological problem: the inability to determine the population of potential cases. Although these studies could measure the outcomes in suits involving individuals and corporations, and could even measure the number of cases brought by these parties, they could not determine the number of situations that potentially could have led to litigation. This difficulty does not exist in patent law. The number of patents applied

¹⁹ When asked, “Do you believe juries are more likely to find for the patentee?” 87% believed juries favored patentees, 11% believed that juries were not more likely to find for either patentee or infringer, and 2% believed that juries were more likely to find for the infringer.

²⁰ Kimberly A. Moore, *Jury Demands: Who’s Asking?*, 17 BERKELEY TECH. L. J. 847, 855 (2002) [hereinafter Moore, *Jury Demands*] (finding that juries were demanded in 78% of all patent cases terminated from 1999-2000); see also Kimberly A. Moore, *Judges, Juries, and Patent Cases: An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 366–67 (2000) (finding that jury trials in patent cases have risen from 2.6% in 1970 to 62% in 1999).

²¹ Moore, *Jury Demands*, *supra* note 20, at 865 (finding that plaintiff is more likely to demand a jury if the plaintiff is an individual and more likely to demand a jury if the defendant is a corporation).

²² See *supra* notes 8-13 and accompanying text.

for and obtained by individuals and corporations can be measured and compared with the number of U.S. patent cases. Though it is impossible to control for every factor that could impact outcome, the existence of a measurable universe of potential patent cases facilitates analysis of actual patent cases. For patent cases, we can study the impact of anti-corporate prejudice from patent acquisition, to attempted patent enforcement, to trial.

Moreover, analysis of patent cases permits the exploration of a related phenomenon—the iconization or idealization of the American inventor.²³ As the injured tort victim is sympathetic, the American inventor is loved for her ingenuity, productivity, and creativity. The inventor is usually the first witness to testify in every patent trial, to tell her inventive story: how she recognized a problem in the existing technology and toiled endlessly to find a solution that had thus far eluded all others. Even in corporate versus corporate patent litigation, the inventor humanizes or individualizes one of the parties.²⁴ Accordingly, every patent case has a very real individual component.

The empirical data analyzed and presented in this Article includes all patents granted in the eleven-year period 1990-2000 (1,265,876 patents), all patent cases terminated by any means during the two-year period 1999-2000 (4,247 cases involving 6,861 patents), and all patent trials that occurred during the fourteen year period 1990-2003 (1,997 patents tried). The data validate concerns that American juries decide cases involving individuals and corporations differently. The most significant finding illustrates a substantial disparity in individual and corporate success in jury trials. Individual patentees win 78% of cases tried to juries when their adversary is a

²³ See Michael E. Gorman, TRANSFORMING NATURE: ETHICS, INVENTION AND DISCOVERY (July 14, 1999) (manuscript at <http://repo-nt.tcc.virginia.edu/book/chap3/chapter3.html>) (“[W]e spoke of the discoverer as hero. Inventors, especially in America, are often painted in the same mythic colors.”); Mark Janis, *Patent Abolitionism*, 17 BERKELEY TECH. L. J. 899, 910 (2002) (discussing the fact that the image of the “heroic” inventor remains firmly entrenched in modern patent law iconography).

²⁴ See *infra* note 97.

corporation; corporate patent owners, in contrast, only win 50% of the cases in which their adversary is an individual. There is no similar difference in win rates between individual and corporate parties with judges. In fact, corporate parties win a bit more often than their individual counterparts in bench trials. Importantly, this latter finding not only helps to identify the source of the bias in patent litigation, but it also minimizes the possibility that the low corporate win rate is due to differential case quality. If corporations somehow systematically pursued weaker cases than individuals, the difference should be manifest in both judge and jury decisions.

To further explore the differences in case strength, this Article compares patterns of patent acquisition with patterns of patent enforcement. Individuals acquire 15% of all patents issued by the United States Patent and Trademark Office (“PTO”) each year, yet they only initiate 12% of all patent litigation, and only 7% of patent trials involve individual patentees. At first blush, it seems this could explain the fact that individuals win more—individuals only bring their strongest suits.

Given the high cost of patent litigation,²⁵ individuals simply can’t afford to enforce their patents against big corporations.²⁶ Law firms do not accept patent cases on a contingency basis as often as other forms of tort litigation such as medical malpractice or products liability.²⁷ This

²⁵ See AM. INTELL. PROP. L. ASS’N, REPORT OF THE ECONOMIC SURVEY 2003 (hereinafter ECONOMIC SURVEY), at 21-22 (finding that the median litigation fees are \$2 million per side for a patent case that goes to trial). The fees are even higher when more money is at stake. *Id.* at 94 tbl. 22 (demonstrating that the median litigation expenses for a \$25 million patent case are \$3.9 million per side).

²⁶ In response to the rising costs of patent litigation, a market for patent infringement insurance has developed. Leslie Scism, *Insurance Helps Little Guy Sue Patent Infringer*, WALL ST. J., Nov. 25, 1996, at B1; Jason A. Reyes, *Patents and Insurance: Who Will Pay For Infringement?*, 1 B.U. J. SCI. & TECH. L. 3, 35 (1995) (small companies and individuals obtain patent enforcement insurance which will pay the litigation costs associated with the patent owner enforcing its patent).

²⁷ Scott H. Blackmand & Rebecca M. McNeill, *Alternative Dispute Resolution in Commercial Intellectual Property Disputes*, 47 AM. U. L. REV. 1709, 1723 (1998) (“Many attorneys and firms balk at contingent-fee [patent] cases, often in large part because of the time, effort, and expense involved in a patent case.”); Josh Lerner, *Patenting in the Shadow of Competitors*, 38 J.L. & ECON. 463, 477 n.42 (1995) (“Conversations with practitioners suggest that explicit contingent fee arrangements are rare in corporate patent litigation.”); Reyes, *supra* note 26, at 35

does not mean, however, that patents acquired by individuals are not litigated with proportional frequency. In fact, individual patents are more likely to end up being litigated than corporate patents, just not by individuals.

Although individuals only acquire 15% of all patents issued each year from the PTO, 32% of all patent litigation involves a patent acquired by an individual.²⁸ The data show that many of these individual inventors who acquired patents transferred the patent rights via assignment to a large corporation who then litigated the infringement dispute. This finding has a number of implications for patent law and policy. Is it the case that the modern day Thomas Edison develops the truly valuable inventions, which in turn are the valuable patents? If patents acquired by individuals are much stronger, more valuable and simply more important than those acquired by corporations, there needs to be an increase in the focus or incentives the patent system offers individuals. Alternatively, is there a systematic difference in the patenting strategies of individuals and corporations that makes patents acquired by individuals more likely to be litigated? While the impact of these transfer rate findings deserve further review, the fact that individual patents are in fact litigated far more often than their proportion of acquisition may at least partially dispel the notion that individual selectivity results in a stronger pool of litigated

("Unfortunately for small companies and individual inventors, enforcing a patent—especially against a well-funded infringer—is a very expensive and time-consuming proposition. Lawyers rarely take on the enforcement of a patent on a contingent-fee basis, absent some proven track record of success"); David Rubenstein, *Contingency Patent Lawyer Fills Unique Niche: To Some He's a Hero, to Others He's No Better than an Extortionist*, CORP. LEGAL TIMES, Mar. 1994, at 3 ("Very few attorneys are willing to take these cases on a contingent fee. . . and there are a lot of people out there who own patents and are looking for someone to handle their case."). *But see* Paul Morgan & Bruce Stoner, *Reexamination vs. Litigation: Making Intelligent Decisions in Challenging Patent Validity*, 86 J. PAT. & TRADEMARK OFF. SOC'Y 441, 441 (2004) (noting that there has been an increase in contingent fee patent cases); Richard W. Painter, *Litigating on a Contingency: A Monopoly of Champions or a Market for Champerty?*, 71 CHI-KENT L. REV. 625, 625 (1995). *Cf.* Joseph Hosteny, *The Ideal Contingent Fee Client*, INTELL. PROP. TODAY, July 2002, at 32-33 (discussing contingent fee patent litigation as the only option for individual patentees due to the high cost of patent litigation); Andrea Gerlin, *Patent Lawyers Forego Sure Fees on a Bet*, WALL ST. J., June 24, 1994, at B-1 (patent attorney made \$150 million a year in contingent fee patent infringement cases).

²⁸ If instead of comparing individuals and corporations we compare small entities versus large corporations, the numbers are even more disparate. Small entities acquire 29% of all patents and yet small entity patents are enforced in 53% of all patent litigation.

cases.

Moreover, the low rate at which individually owned patents proceed to trial may more likely be attributed to the greater frequency with which courts grant summary judgment in these cases rather than a more tenuous suggestion that individual selectivity results in stronger cases. Courts not only grant summary judgment more frequently in cases brought by individual patentees, but it is much more likely the judgment will favor the corporate defendant, suggesting that the pool of individual patentee litigations is actually weaker on the merits.

Another method of analyzing the respective case strengths focuses on the patents at issue. Economists suggest that certain characteristics are indicative of the strength or breadth of a patent;²⁹ we have previously argued that, at a minimum, these characteristics are indicative of the value of the patent to its owner.³⁰ This Article substantiates significant differences in the characteristics of corporate and individual patents at each stage of analysis: issuance, litigation and trial. The characteristics of issued patents suggest that the pool of patents issued to corporate entities is stronger and more valuable than those issued to individuals. Sensibly the more valuable the patent is to its owner, the less likely the owner would be to risk damaging a valuable patent by litigating a weaker case, suggesting that, because corporations generally own more valuable patents, they will be reluctant to pursue weak cases. Moreover, the pool of patents litigated by corporations and the pool of patents that corporations pursue to trial likewise appear stronger than those litigated or tried by individual patentees. This casts doubt on the notion that individuals are more likely to win simply because they bring stronger suits.

²⁹ See, e.g., Jean O. Lanjouw & Mark Schankerman, *Characteristics of Patent Litigation: A Window on Competition*, 32 RAND J. ECON. 129, 140-42 (2001) (suggesting that the number of claims in a patent is indicative of the breadth of the patent's coverage).

³⁰ Kimberly A. Moore, *Xenophobia in American Courts*, 97 N. W. U. L. REV. 1497, 1536-45 (2003) (discussing how patent characteristics are in some cases indicia of the strength or value of the patent); John R. Allison et al., *Valuable Patents*, 92 GEORGETOWN L. J. 435 (2005) (presenting a patent value theory based on patent characteristic data).

Additional factors may also impact the relative case strengths of individual and corporate litigants, for example, the likelihood that individuals are not rational wealth maximizers may indicate a willingness to try weaker cases. In comparison, corporations are more likely to be repeat players in litigation, which may indicate that they have some advantages and would be more likely to win. Both of these observations point to a weaker pool of tried cases for individual patentees and do not explain how individuals win more often with juries. Differences in the quality of the counsel routinely selected by individuals and corporations may also suggest that corporations hire better lawyers and therefore ought to win more.³¹ Moreover, selection effect theory may support a differential case theory. Because of asymmetric stakes, asymmetric information, and different risk preferences, there may be differences in the pools of individual and corporation cases.³² None of these explanations, however, justify a difference in win rate only in jury trials.

Part I of this article describes this empirical project. Part II considers the likely difference between individual and corporate litigation strategy. It analyzes economic case selection models, behavioral patterns, and economies of scale and predicts that corporations will pursue stronger cases to trial. It also considers the impact pre-litigation and pre-trial sorting ought to have on the pool of tried cases and finds that corporate patents are stronger at all stages than their individual counterparts. Part III tests these predictions against the empirical results and finds that individuals are significantly more likely to win than corporations, but only in jury trials. Part IV discusses the related findings that juries prefer patentees and, more particularly, solo inventors and the impact these findings have for corporate versus corporate litigation.

³¹ We are presently undertaking a study on the impact of counsel and their credentials on litigation and win rates. Michael Abramowicz & Kimberly A. Moore, *The Impact of Attorney Characteristics on Litigation* (in progress).

³² See *infra* notes 46-62 and accompanying text.

I. The Empirical Project

In order to measure perceived bias in the U.S. courts and its impact on the litigation process, I collected a database that includes every patent trial in every district court from 1990-2003, which resulted in 1,997 patents being litigated. This database includes three types of information relevant to testing the hypothesis:

(1) PARTY DATA: detailed characteristic information on the parties to the litigation such as foreign or domestic, individual or corporation, located in the state where the litigation is brought or out-of-state, and whether the plaintiff or defendant was the patent holder;

(2) CASE DATA: temporal length of the litigation, the district court, age of the patent at the time suit was brought, whether a jury was demanded and if so, by which party, win rate data (who won the lawsuit, plaintiff or defendant, patent holder or infringer) and win rate data on individual issues such as patent infringement, validity, enforceability and willfulness, as well as damages data; and,

(3) PATENT DATA: detailed characteristic information on the patents involved in the litigation such as the number of claims, issuance date, priority date, filing date, prior art citations made on the patent including other U.S. patents, foreign patents and publications and citations received by the patent, field of technology, how long the patent was prosecuted, how many related applications were filed, the number of inventors, whether the inventors were foreign or domestic, whether the patent was assigned either before or after issuance, and if so, to what type of assignee (foreign or domestic, individual or corporation, small or large corporate entity).

The data in this study was largely acquired through independent research. I obtained the names of tried cases from the Administrative Office of the Courts database, but then personally

researched every variable for every case.³³ I obtained most of the data by contacting the ninety-four district courts and obtaining the docket sheets and case documents (complaints and judgments, court orders and special verdict forms) for the cases. In order to get a sense of the selection of patent cases that go to trial, I also collected data on all patent cases terminated by any means during the two-year period 1999-2000 (4,249 cases, 6,861 patents). For this database, I collected all the same party and patent data, and with regard to the case data, I also collected detailed information on the litigation itself such as at what stage in the litigation process the case terminated (before there was any significant court action, mid-litigation or at trial) and how the case was terminated (settlement, judgment on a motion, court verdict, jury verdict, etc).

To analyze the pool of potential underlying disputes, I also examined how the patents in the population of patent cases and patent trials differed from the population of patents that issued. This allows consideration of how actual disputes differ from the universe of potential disputes. It also permits analysis of the differences in patents acquired by corporations and individuals as well as the differences in enforcement rates. For purposes of this article, I isolated patents issued during the eleven-year period 1990-2000 (1,265,876 patents). Some of the patent characteristic data is from the extensive empirical work of Bronwyn Hall, Adam Jaffe, and Manual Trajtenberg on the characteristics of all issued patents from 1975-1999.³⁴ Because this database lacked data on patent families and prosecution lengths, which seemed relevant to differences between individual and corporate patenting strategies, I supplemented the NBER data with data acquired directly from the PTO.

³³ Such verification is necessary as there are a large number of errors in the Administrative Office data; these errors are the subject of an on-going project, Kimberly A. Moore, *Empirical Studies of Litigation: Fact or Fiction*.

³⁴ Bronwyn Hall, et. al., *The NBER Patent Citation Data File: Lessons, Insights and Methodological Tools*, NBER Working Paper 8498 (2001).

Two significant coding issues arise in identifying individuals and corporations for purposes of this analysis. First, should the status of the party that owns the patent be determined by the assignment recorded on the patent itself³⁵ or by the nature of the party to the litigation? Of course, every patent lists the individual inventors of the patented technology, and these individuals own an undivided interest in the patent absent assignments. For any patent assigned and recorded prior to issuance, I have data on the type of assignee who owns the patent. The PTO records such data on the front face of the patent itself. No data is currently available on assignments that take place after the patent issues or on assignments that are not recorded at the PTO until after the patent issues.³⁶ I was, however, able to determine how many patents from the pool of litigated patents were transferred after issuance because we have data on the name of the owner at the time of issuance and we have data on the name of the party involved in the suit as the patentee (only patent owners are entitled to bring suit).³⁷ If the owner at issuance differs from the patentee in suit, then the patent was transferred after issuance.

It made sense to analyze the data both ways for different purposes. To test for anti-corporate prejudice, the parties to the litigation are the most logical choice as these are the entities seen by the judges and juries. In analyzing the strength of the patents obtained by individuals versus corporations generally, it made sense to consider how many of the litigated

³⁵ Of the litigated patents, 2.1% were assigned to individuals, 25.6% were unassigned (they were still owned by the individual inventors listed on the patent) and 72.2% were assigned to corporations at the time of issuance.

³⁶ There is a PTO website which allows you to check on individual patents to determine if they are assigned. <http://assignments.uspto.gov>. It is important to record patent assignments with the PTO in much the same way it is important to record transfers of real property. If the assignment is not recorded with the PTO within three months from its date or prior to the date of a subsequent purchase or assignment, the assignment is void against a subsequent assignment. 35 U.S.C. § 261.

³⁷ Only the owner of a patent, the patentee, may bring a lawsuit. There is one exception to this general rule. An exclusive licensee can bring a lawsuit to enforce a patent, but only if the patentee is joined. In either case, if the names of the patentee (assignee or inventors) at issuance is not the same as the name of the party in the lawsuit who is the patentee, then we know that there was a post-issuance assignment.

patents were originally acquired by individuals, small entities, and large corporations. We define small entities in the same manner as the PTO: an individual, a small business concern as defined by the Small Business Administration,³⁸ or a nonprofit organization.³⁹

The second coding issue concerns how to code when there are multiple defendants or multiple plaintiffs. If all parties on a given side are individuals, the party is coded as an individual and if all parties are corporations, the party is coded as a corporation. However, when there is an individual and a corporation on the same side, we coded this as a corporation. This happened very infrequently, but when it did it was in one of two circumstances. If there was both an individual and a corporation listed as the patentee, the suit necessarily involved an individual patentee and its exclusive licensee suing an infringer because an exclusive licensee lacking “all substantial rights” can only sue infringers if the patentee is joined.⁴⁰ In these suits, the exclusive licensee almost always was the true party to the litigation—the one with the financial interest in the outcome and the one controlling the litigation. Alternatively, there would be a single patentee suing multiple defendants (where at least one was an individual and at least one was a corporation). Again we treated this as a corporate entity unless the judge or jury was asked to make separate findings regarding the individual and the corporation. Hence, if the same act of infringement resulted in both the individual and the corporation being liable, we treated the parties as a corporation. If, however, the court treated the defendants as two discrete parties with different litigation positions, then we treated them separately (coding the individual defendant as an individual and separately coding the corporate defendant as a corporation).

³⁸ See 13 C.F.R. §121 (defining small concerns).

³⁹ 37 C.F.R. §1.27 (defining small entity status).

⁴⁰ See, e.g., *Fieldturf, Inc. v. Southwest Recreational Indus., Inc.*, 357 F.3d 1266, 1268 (Fed. Cir. 2004) (holding that an exclusive licensee can only bring an action for patent infringement as a co-plaintiff with the patentee).

II. Individual Versus Corporate Litigation Strategy: A Different Pool of Cases

There are several reasons to believe that individuals and corporations may litigate different pools of cases. Asymmetries in resources, stakes and information; differences in risk preferences; concern over adjudicator bias; behavioral science; and repeat player economies all suggest a difference in the pool of cases litigated by individuals and corporations. In this section, I explore how case differences would likely impact case outcome.

A. Selection Effect Theory: Economic Modeling of the Patent Case

For the rate of plaintiff verdicts to be an accurate measure of the influence of a legal standard, *of judicial or jury attitudes*, or of the substantive fairness of any adjudicatory process, litigated disputes must be representative of the entire class of underlying disputes.⁴¹

The district courts resolve 2,800 patent cases each year, but only 3% of these reach trial. Most scholars agree that the 3% that reach trial are not a random or representative sample of all disputes.⁴² The Priest/Klein expectation model predicts that the win rate for tried cases ought to be 50% as the fraction of tried cases approaches zero.⁴³ This divergent expectations model predicts that the parties are more likely to disagree on their chances of success in close cases because disputes closer to the decision standard will generate more uncertainty.⁴⁴ Close cases

⁴¹ George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 4 (1984) (emphasis added) (presenting a model in which the plaintiff wins 50% of the tried cases regardless of the relative strength of plaintiff's case in the overall pool of litigated cases).

⁴² See, e.g., Theodore Eisenberg, *Litigation Models and Trial Outcomes in Civil Rights and Prisoner Cases*, 77 GEO. L.J. 1567, 1568 (1989) (describing "expectations theory" which suggests that tried cases might not reflect the pool of all disputes). In fact, the litigations brought in district court are not a random or representative sample of all potential disputes. Karl Llewellyn once noted that litigated cases bear the same relationship to the underlying pool of disputes "as does homicidal mania or sleeping sickness, to our normal life" KARL N. LLEWELLYN, *THE BRAMBLE BUSH: ON OUR LAW AND ITS STUDY* 58 (2d ed. 1951).

⁴³ Priest & Klein, *supra* note 41, at 19-20. Professors Priest and Klein claim that the 50% tendency ought to hold true regardless of the shape of the underlying distribution of cases (even if the pool of disputes was more favorable to one side). *Id.* at 20.

⁴⁴ *Id.* at 4.

are the ones more likely to end up at trial and the wins ought to fall more or less evenly on both sides of the decisional standard resulting in the 50% win rate. This 50% prediction is not based solely on the merits of any given case, but rather is outcome estimation taking all relevant outcome determinants into consideration.⁴⁵

Of course, this simplifies the selection effect theory, which is a hypothesis based on a number of unlikely assumptions. At least five assumptions underlie the 50% prediction: (1) equal stakes;⁴⁶ (2) equal information;⁴⁷ (3) identical outcome estimations; (4) absence of strategic behavior;⁴⁸ and (5) risk neutrality.⁴⁹ In any given case, these detractors could contradict the Priest/Klein prediction and cause the trial of cases that are not close.⁵⁰

In cases with systematically asymmetric stakes, for example, the party with more at stake

⁴⁵ Priest & Klein, *supra* note 41. As one commentator noted:

Many factors other than the merits of the plaintiff's case, such as jury bias, relative ability of the lawyers, and attractiveness or availability of key witnesses, may affect these variables. Additionally, the outcome of negotiations may be affected by factors such as risk aversion, strategic behavior (such as bluffing), and the parties' relative ability to bear the costs of continued litigation.

Janet Cooper Alexander, *Do the Merits Matter? A Study of Settlements in Securities Class Actions*, 43 STAN. L. REV. 497, 503 n.14 (1991).

⁴⁶ The Priest/Klein model assumes equal stakes. Priest & Klein, *supra* note 41, at 5 (stating that “the relative stakes to the parties will greatly influence the rate of success in litigation and are likely to be the principal reason why success rates differ from the 50 percent baseline”).

⁴⁷ See Leandra Lederman, *Which Cases Go to Trial? An Empirical Study of Predictors of Failure to Settle*, 49 CASE W. RES. L. REV. 315, 322-24 (1999) (discussing the divergent stakes, asymmetric information and asymmetric stakes models for predicting the selection of tried cases).

⁴⁸ Litigants may behave strategically to attempt to capture the maximum amount of the settlement range. Such strategic behavior may be a barrier to settlement. Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LIT. 1067, 1078 (1989).

⁴⁹ Kip Viscusi, *Product Liability Litigation with Risk Aversion*, 17 J. LEGAL STUD. 101, 103 (1988) (explaining how risk aversion can impact the selection of cases for trial and settlement amounts).

⁵⁰ See Daniel Kessler et al., *Explaining Deviations from the Fifty Percent Rule: A Multimodal Approach to the Selection of Cases for Litigation*, 25 J. LEGAL STUD. 233, 236-42 (1966) (concluding that deviations from the underlying assumptions likely explain the empirical studies which failed to substantiate the 50% hypothesis).

is likely to settle the close cases and will only try the stronger cases.⁵¹ In patent cases, the asymmetric stakes seem to flow in both directions. Because the patentee is guaranteed injunctive relief in every successful patent suit, the defendant generally stands to lose more than the patentee can win.⁵² The defendant risks not only the damage award that he will have to pay the plaintiff, but also his continuing ability to compete. One commentator likened injunctive relief in patent cases to a “nuclear winter” for defendants.⁵³ In cases with non-practicing patentees, patentees who do not themselves commercialize the invention, the injunction hurts the defendant a lot more than it helps the patentee—the defendant has more at stake. These are likely to mirror the cases in our study because individual patentees are more likely than corporate patentees to hold paper patents—patents for inventions that they do not commercialize. Adding this complexity to the model, the notion of higher stakes for the corporate defendant who confronts the individual patentee suggests that tried cases may be stronger for the corporate party.

In contrast, the asymmetric stakes analysis also suggests that the patentee may have more at stake than the infringer given that a favorable precedent will permit the patentee to further

⁵¹ Priest & Klein, *supra* note 41, at 25 (stating that “where the stakes are greater to the defendants than to the plaintiffs, relatively more defendant than plaintiff victories ought to be observed in disputes that are litigated”).

⁵² *MercExchange, LLC v. eBay, Inc.*, 401 F.3d 1323, 1339 (Fed. Cir. 2005) (holding that courts must issue permanent injunctions against patent infringement absent exceptional circumstances). See Glynn S. Lunney, Jr., *Patent Law, The Federal Circuit, and the Supreme Court: A Quiet Revolution*, 11 SUP. CT. ECON. REV. 1, 12 (2004) (suggesting that injunctive relief may result in a lower patentee win rate because the injunction has a different value for the patentee and infringer). I agree with Professor Lunney that injunctive relief may be hard to accurately value by the parties and that the value of injunctive relief to the patentee may be different from the value to the infringer. *Id.* Professor Lunney explains the different values as follows:

For the patent holder, the value of an injunction consists in the additional rents earned if the would-be competitor is successfully excluded from the market. In contrast, an alleged infringer values the possibility of injunctive relief based upon the rents that he expects to earn if successful in entering the market. Because the market will become more competitive after entry, successful entry will reduce the total rents available.

Id.

⁵³ Brenda Sandburg, *Battling the Patent Trolls*, THE RECORDER, July 30, 2001.

enforce of his patent rights.⁵⁴ In a two-supplier market, where the only competition is between the patentee and the infringer, the stakes are equal. In a more competitive market, however, the patentee has more at stake because success against one defendant impacts suits against all other potential infringers. If the defendant successfully invalidates the patent or renders it unenforceable, the patent will be unenforceable against all potential infringers. If the patent is rendered invalid or unenforceable, it will likely void any existing licensing agreements the patentee already has for the patent. If the court adopts a narrow claim construction, this may impact the patentee's ability to argue other products fall within the claim scope. Each of these reasons suggest that the patentee may actually have more at stake than the defendant which would indicate that the patentee would settle close cases and be likely to try stronger cases. However, there is no reason to believe that individual patentees and corporate patentees would be different in this regard.

There may also be asymmetric stakes when individual patentees who have contingent fee lawyers sue corporate infringers.⁵⁵ Here, the stakes are asymmetric for the lawyers. If the patentee's lawyer takes a case to trial and fails, she does not recoup any of the millions of dollars in attorney fees. The contingent fee lawyer, therefore, will likely settle all but the strongest cases to minimize her risk. The corporate defendant's lawyers who are paid hourly may actually have an incentive to prolong litigation to continue to get paid. This ought to result in a stronger pool

⁵⁴ See Frank B. Cross, *In Praise of Irrational Plaintiffs*, 86 CORNELL L. REV. 1 (2000) (suggesting that rational litigants who are repeat players have strong incentives to settle unfavorable cases and litigate those with favorable facts).

⁵⁵ For example, Jerome Lemelson, perhaps the most well known individual patentee of recent times, obtained more than 300 patents and filed lawsuits against many large corporate defendants. Lemelson's lawsuits were handled by attorney Gerald Hosier who collected more than \$150 million in contingent fees when he secured \$500 million in settlement for Mr. Lemelson. See Emily Barker, *The One that Got Away*, AM. LAW., Nov. 1995 at 16. See also David Rubenstein, *Contingent Patent Lawyer Fills Unique Niche to Some He's a Hero, to Others He's No Better than an Extortionist*, CORP. LEGAL TIMES, March 1994, at 3 (describing a patent lawyer whose "specialty is handling cases on a contingency basis for small companies and individuals who allege that their patents have been infringed" by large corporations).

of tried cases for individual patentees.

The contingent fee cases could also be explained in terms of risk aversion. The individual patentee and his lawyer may have opposite approaches to risk in contingent fee patent cases. The patentee, since he is not paying millions of dollars in legal fees, may be more risk seeking, while his attorney, who only gets paid if he wins the case, may be more risk averse and therefore want to settle all but the strongest cases. While the lawyers' asymmetric stakes may suggest that tried cases would be stronger for the individual on the merits, the parties' asymmetric stakes may tend toward the opposite case selection in contingent fee cases.

There are also information asymmetries in patent litigation that would suggest that defendant infringers try stronger cases.⁵⁶ Until the close of discovery, defendants alone possess most of the information regarding infringement, strength of the patent, and damages, which may be an obstacle to accurate outcome estimation by the patentee plaintiff. The defendant-infringer has more information about the operation of his product. The defendant will likely acquire prior art through searches early in the dispute giving the defendant information on the strength or validity of the patent. The defendant also has information about the number of potentially infringing sales and profit from those sales. These asymmetries are likely to be most acute in cases involving individual patentees and corporate infringers because the patentee who does not herself commercialize the invention has less information on the profitability of the market. The asymmetric information model suggests that when one party has private information, she is more likely to settle cases that are weak for her; the selection of cases that go to trial will be stronger for the party with the private information.⁵⁷ Since the corporate defendant-infringers have more

⁵⁶ Eva Osbourne, *Who Should Be Worried About Asymmetric Information in Litigation?*, 19 INT'L REV. L. & ECON. (1999) (finding that the defendant generally has more information in the cases that proceed to trial).

⁵⁷ See Keith N. Hylton, *Asymmetric Information and the Selection of Disputes for Litigation*, 22 J. LEGAL STUD. 187

information about product operation and damages, especially in cases where the patentee is an individual, the selection of tried cases, according to this model, ought to be stronger for the corporate defendant.

Finally, scholars have observed that individuals and corporations have a difference in attitude toward risk of trial—in particular individual litigants are more risk averse than risk neutral corporate litigants.⁵⁸ Individuals may be more risk averse than corporations largely because they have less ability to diversify their risk portfolios. Individuals own fewer patents than corporations, so when each one is at stake, they have more to lose. The party who is more averse to risk would settle more cases and the pool of tried cases would therefore be stronger for the risk averse party. If individual patentees are more risk averse than corporations, and in particular, more risk averse than corporate patentees, then we would expect the pool of tried cases to be stronger for individual patentees.

Scholars have suggested that in frivolous or low probability suits, the plaintiffs are more likely to be risk-seeking.⁵⁹ There is some suggestion among patent lawyers that individual patentees may be more likely to file frivolous lawsuits against corporations looking for nuisance settlements⁶⁰ and because they are not afraid of being sued in retaliation.⁶¹ There are also

(1993) (concluding that in a divergent expectations model of trial outcomes where there is asymmetric information the "easy" cases go to trial because a party with private information will be eager to settle cases in which he has a weaker than average case); Leandra Lederman, *Precedent Lost: Why Encourage Settlement, and Why Permit Non-Party Involvement in Settlements?*, 75 NOTRE DAME L. REV. 221, 233 (1999) (stating that outcomes will favor a party with an informational advantage).

⁵⁸ Dana A. Kerr, *The Effect of Ownership Structure on Insurance Company Litigation Strategy*, 34 J. LEGAL STUD. 273, 283 (2005).

⁵⁹ Chris Guthrie, *Framing Frivolous Litigation: A Psychological Theory*, 67 U. CHI. L. REV. 163, 168 (2000) (using prospect theory to predict that "plaintiffs pursuing low-probability claims are likely to prefer the risk-seeking option—trial—while defendants are more likely to prefer the risk averse option—settlement"). Cf. Avery Katz, *The Effect of Frivolous Lawsuits on the Settlement of Litigation*, 10 INT'L REV. L. & ECON. 3, 4-5 (1990).

⁶⁰ James Bessen & Michael J. Meurer, *Lessons for Patent Policy From Empirical Research On Patent Litigation*, 9 LEWIS & CLARK L. REV. 1, 13 (2005) ("There is concern that independent inventors and licensing shops are

contrary suggestions that large corporations may file nuisance suits against smaller defendants because the smaller defendants cannot afford to litigate and are therefore likely to settle quickly regardless of the merit.⁶² While nuisance suits may affect the pool of litigated cases, it seems unlikely that nuisance suits would be continued to trial given the high costs of patent litigation. Therefore, it is unlikely that nuisance suits skew the win rate statistics in tried cases.

The complexity of analysis of any given set of cases would likely raise a similar plethora of concerns over the underlying assumptions of the Priest/Klein model. On balance, the economic modeling suggests, at a minimum, that the pool of tried cases are different for

especially likely to abuse the patent system by seeking licenses for weak or invalid patents.”); Douglas L Price, *Assessing the Patentability of Financial Services and Products*, 3 J. HIGH TECH. L. 141 (2004) (noting that “there has been a substantial increase in nuisance cases by smaller companies who seek wealth by bringing patent infringement suits against larger companies”); *Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy: Public Hearing*, Federal Trade Commission 146 (Apr. 10, 2002) [hereinafter *FTC Hearings*], <http://www.ftc.gov/opp/intellect/020410trans.pdf> (statement by Jay P. Kesan, Professor of Law, University of Illinois College of Law) (stating that “there is a typical problem of opportunistic licensing by a lot of individual inventors at times, who can easily create hold up...”); *FTC Hearings*, 679-80 (Feb. 28, 2002), <http://www.ftc.gov/opp/intellect/020228ftc.pdf> (statement by Robert Barr, Vice President, Worldwide Patent Counsel, Cisco Systems, Inc.) (“[Individual patentees] benefit from the high cost of litigation by demanding... license fees that just happen to be less than the cost of litigation, hoping that people will pay even if they don't infringe or if they do infringe it'll be too costly to change the product.”).

⁶¹ A number of commentators have suggested that individual patentees are more likely to file frivolous lawsuits because they are not deterred by the possibility of being sued themselves.

In many cases [individual inventors have] been able to exploit the fact that while, for instance, one competitor would be reluctant to threaten another one with a preliminary injunction, lest they also have that threat turned on themselves, here they can essentially . . . unilaterally engage in scorched earth kind of litigation tactics, simply because they don't have much to lose themselves.

FTC Hearings, 160-61 (Feb. 20, 2002), <http://www.ftc.gov/opp/intellect/020220trans.pdf> (statement of Josh Lerner, Professor of Investment Banking, Harvard Business School); see also FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY ch. 2, at 31 (2003), <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (“Since NPEs [non-practicing entities] are not vulnerable to an infringement counter attack, MAD [mutually assured destruction] strategies threatening infringement actions do little to constrain their willingness to seek high royalty rates from locked-in downstream actors. Thus, NPEs can threaten other firms with patent infringement actions...without fear of retaliation.”).

⁶² See Thomas J. Stueber, *Insurance Coverage for Patent Infringement*, 17 WM. MITCHELL L. REV. 1055, 1083 n.202 (1991) (explaining that “dozens of small companies with marginal interest in the patent are named as defendants” because the patentee can extract nuisance settlements from small companies who cannot afford to pay litigation costs); Note, *Improperly Procured Patents: FTC Jurisdiction and Remedial Power*, 77 HARV. L. REV. 1505, 1510 (1964) (stating that patents “have a high nuisance value in the hands of large corporate owners, since they can wreak financial havoc upon smaller competitors by infringement suits, even though the ultimate judgment is in favor of the infringer”).

individuals and businesses and as such explain why the win rates may not converge on the Priest/Klein 50% prediction. The problem though is that analysis of the stakes, resources, information and risk preferences of individuals relative to corporations is difficult to quantify with precision. The asymmetric stakes analysis is indeterminate. Corporate infringers may have more at stake due to injunctive relief, but individual patentees or their attorneys may have more at stake in contingent fee cases. The other asymmetries seem to balance out as well: corporate defendants may have more information, but individuals may be more risk averse. From this economic modeling there is reason to believe that the pool of tried cases may be different for individual and corporate litigants but quantifying that difference proves more difficult.

B. The Individual Versus the Corporate Patentee –Irrational Optimism

There are also psychological reasons to believe that individuals and businesses may estimate outcome differently, which would impact the strength of the pool of tried cases. Individuals may not be rational wealth maximizers with regard to their patents. Most individuals likely view each patent with affection as a legal acknowledgement of their accomplishments. An individual inventor's emotional attachment to her patent is likely to skew her ability to estimate outcome.⁶³ Corporations may be better at detached rational evaluation and outcome estimation. Due to emotional attachment to her patent, the individual may be more optimistic about the

⁶³ Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCIENCE 698, 701 (1998) (arguing that inventors' attachment to their own inventions can "interfere with clear-headed bargaining, leading owners to overvalue their own patents, undervalue others' patents and reject reasonable offers"); Ivar M. Kaardal, *The American Inventors Protection Act, the Independent Inventor's Interest & Consumer Choice in the Market*, 84 J. PAT. & TRADEMARK OFF. SOC'Y 503, 523 (2002) ("Transactions involving independent inventors typically include significant personal and emotional content."). Cf. Christine Jolls, Cass R. Sunstein, & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1545 (1998) (asserting people display bounded rationality limited by emotional biases); Ronald J. Mann, *Explaining the Pattern of Secured Credit*, 110 HARV. L. REV. 625, 647 n.79 (1997) (observing that "many factors could cause a borrower to value an asset more highly than the market. For example . . . the borrower may have an idiosyncratic or emotional investment in the asset"); Miranda Oshige McGowan, *Property's Portrait of a Lady*, 85 MINN. L. REV. 1037, 1095 (2001) ("[C]ourts recognize the fact that people do form deep attachments to some kinds of property, and that the value of some sorts of property cannot properly be compensated by substitution of another like thing.").

patent and the chances of success.⁶⁴ If individuals are more optimistic in their outcome estimations, they will take weaker cases to trial. If individuals pursue weaker cases, the pool of tried cases would be stronger for the corporation. If the pool of cases is stronger for the corporation, we ought to observe a higher corporate win rate.

C. Repeat Player Advantage for Corporations

Patent acquisition and litigation are both expensive undertakings.⁶⁵ Given the high transaction costs, corporations are likely to be more sophisticated consumers of patent litigation and likely would have a repeat-player advantage. Scholars have noted that repeat players have a significant advantage in litigation including increased credibility, specialized expertise, and benefits from economies of scale that lower costs.⁶⁶ Corporations are likely to have greater exposure to, and familiarity with, patent law, patent prosecution and patent litigation than most individual patentees. It seems plausible that corporations would gain an advantage by being repeat players in litigation.

Corporations often have established relationships with law firms who likely do a wide range of legal work for them. Moreover, given the reality that corporations generally have more

⁶⁴ Arti Kaur Rai, *Regulating Scientific Research: Intellectual Property Rights and the Norms of Science*, 94 NW. U.L. REV. 77, 125-26 (1999) (“[C]ognitive biases . . . could lead the . . . patent owner to overvalue its asset. In particular, the owner might overestimate the possibility that the [patent] would lead to the finding of a valuable drug therapy and then negotiate based on this irrational estimation.”); Julie S. Turner, comment, *The Nonmanufacturing Patent Owner: Toward a Theory of Efficient Infringement*, 86 CALIF. L. REV. 179, 183 (1998) (“[T]he patent owner may set too high a price for licensing due to an improper valuation of his patent. Overvaluation is a natural response in the inexperienced inventor.”).

⁶⁵ Patent litigation costs on average \$2 million per side from complaint through trial. See ECONOMIC SURVEY, *supra* note 25, at 21-22.

⁶⁶ Marc Galanter, *Afterword: Explaining Litigation*, 9 LAW & SOC’Y REV. 347 (1975) (analyzing the advantages for repeat players in litigation); Marc Galanter, *Why the “Haves” Come Out Ahead: Speculations on the Limits of Legal Change*, 9 L. & SOC’Y REV. 95, 98-125 (1974) (elaborating on the repeat player advantage in litigation). For examples of how repeat players dominate areas of the law see Guido Calabresi & Jeffrey O. Cooper, *New Directions in Tort Law*, 30 VAL. U. L. REV. 859, 863 (1996) (observing that tort reform is controlled by repeat players); Dennis S. Karjala, *Copyright Protection of Operating Software, Copyright Misuse, and Antitrust*, 9 CORNELL J.L. & PUB. POL’Y 161, 179-80 (1999) (describing the pivotal role of repeat players in shaping copyright law).

money than individuals and can better afford litigation, corporations may be able to hire *better* lawyers. One would think that better lawyers might do better at trial, a subject that we are exploring in more detail in another empirical study.⁶⁷ Given these resource asymmetries and repeat player advantages, the pool of tried cases ought to be stronger for the corporation.

D. Pre-trial Sorting

This part analyzes the effect of pre-trial sorting on the pool of tried cases. In particular, it focuses on what we can learn about the selection of cases that are tried and how they may differ from the underlying pool of disputes. Analysis of the pool of underlying disputes and the patents at issue in litigation helps to ascertain whether there are systematic differences between individual and corporate patent holders or their patents.

1. Patent Acquisition

Individuals acquire far fewer patents than do corporations. Individuals only acquired 11.6% of all patents granted in 2003.⁶⁸ Most of the rest (87.8%) are granted with assignments to corporate entities.⁶⁹ An individual patentee is one where the patent is granted to its inventor and unassigned at the time of issuance or which is assigned only to another individual at the time of issuance. Corporate patents, of course, have individual inventors, but are assigned to a corporation prior to their issuance. Generally, corporate patents are based on inventions made by corporate employees in the scope of their employment.

As Figure 1 demonstrates, patenting by the U.S. government,⁷⁰ U.S. individuals and U.S.

⁶⁷ See Abramowicz & Moore, *supra* note 31.

⁶⁸ U.S. PTO Historic Data, All Technologies Report, *Table A1-2b*, available at http://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_at.htm#parta1_2b.

⁶⁹ Governments were the owner of record on 0.6% of patents granted in 2003.

⁷⁰ US government patenting went from 2.6% in 1975 to 0.6% in 1999.

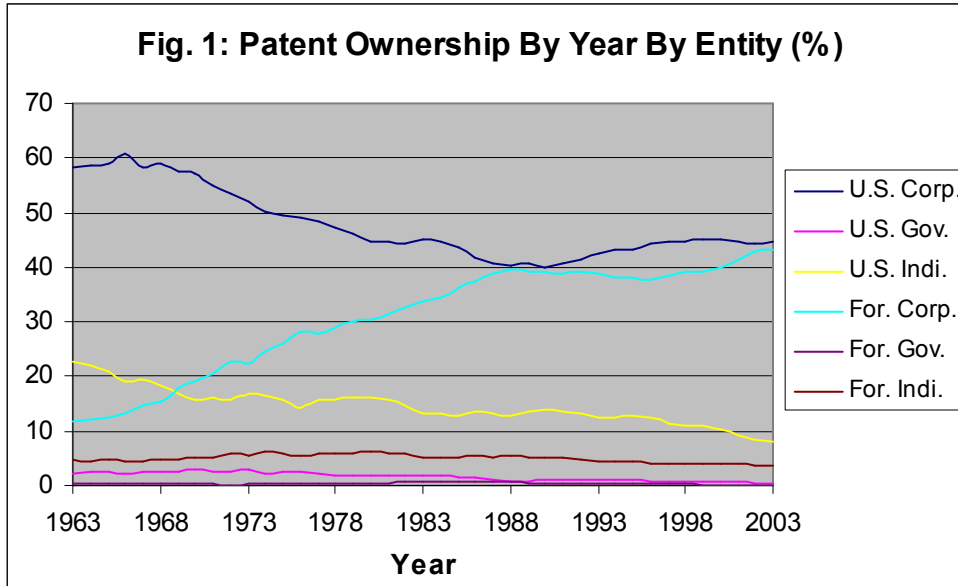
corporations has been declining,⁷¹ while patenting by foreign corporations has been on the rise—a testament to the increasing globalization of commerce. There are several additional explanations for the increase in corporate patenting and decrease in unassigned/individual patents. First, patents have become big business. Patent acquisition is an expensive endeavor where patent attorney fees for preparation and prosecution of a patent application cost anywhere from \$5,000 for a simple invention to hundreds of thousands of dollars for complex inventions.⁷² Although small in comparison to the attorney fees, the PTO also charges fees, which are halved for small entities including individuals.⁷³ These costs are often prohibitive for unsophisticated individual inventors who do not know whether they will even be successful in obtaining a patent and have no idea of the commercial value of their invention.⁷⁴

⁷¹ In particular, unassigned patent grants have been declining (from 21% in 1975 to 14% in 1999). Patents assigned to individuals have remained constant over the 25 years studied, 0.6% assigned to U.S. individuals and 0.4% assigned to foreign individuals.

⁷² See Kimberly A. Moore, *Worthless Patents*, 20 BERKELEY TECH. L. J. 1521 (2005); John R. Thomas, *Collusion and Collective Action in the Patent System: A Proposal for Patent Bounties*, 2001 U. ILL. L. REV. 305, 345 (2001) (stating that attorneys charge several thousand dollars for preparing simple patent applications and considerably more for complex applications or applications involved in appeals or interferences).

⁷³ The PTO currently charges applicants \$300 to file a patent application and \$1400 to issue a patent. PTO Fees and Payment of Money, 37 C.F.R. §§1.16(a), 1.18(a) (2004). These fees are cut in half for small entities – that is any individual, non-profit corporation, or corporation which qualifies as a small business under the Small Business Act. *Id.* Small entities accounted for 23% of patents granted in 2003 and 2004 with the remainder going to large corporate entities. See email from Jim Hirabayashi, U.S. P.T.O. dated August 9, 2005 (on file with author).

⁷⁴ Preparing the patent application and paying the application fees does not guarantee you a patent. Although there is some dispute regarding the percentage of applications which result in issued patents, not all do. Compare Cecil D. Quillen, Jr. et al., *Continuing Patent Applications and Performance of the U.S. Patent and Trademark Office—Extended*, 12 FED. CIR. B.J. 35, 38 (2002) (suggesting that the PTO issues over 85% of all applications that are filed) with Robert A. Clarke, *U.S. Continuity Law and its Impact on the Comparative Patenting Rates of the US, Japan and the European Patent Office*, 85 J. PAT & TM OFF. SOC'Y 335, 338 (2003) (concluding that the PTO grant rate was 75%).



In addition, corporate patent strategy has changed over the years. Corporations are increasingly adopting the shotgun approach to patent acquisition. When a corporation files a patent application on an important invention, it seldom files just one application. Corporations file claims on every possible variant of the invention to foreclose competition as broadly as possible. They likewise keep a continuation on file at the PTO so that they can add additional claims to cover competitor products as these products become known.

2. Patent Enforcement Rates

In a vacuum, patent acquisition rates shed little light on our finding that juries are more likely to find for individuals. Comparing acquisition rates with enforcement rates, however, gives us a better sense of the pool of underlying disputes. Table 1 details the individual and corporate litigation patterns.

Table 1: Suits By Entity Status (1999-2000)		
Plaintiff-Patentee	Defendant-Infringer	% of Cases
Individual	Individual	1.2%
Individual	Corporation	10.7%
Corporation	Individual	3.6%
Corporation	Corporation	84.6%

With 14.9% of patents and 11.9% of patent litigations, it seems individuals litigate slightly less often than corporation. Additionally, only 6.9% of the patent litigations that went to trial (1999-2000) involved individual patentees.⁷⁵ Transaction costs likely make patent litigation cost prohibitive for many individual patentees. In order to file a patent infringement suit, an individual would have to be able to identify infringers and perform a sufficient pre-suit investigation to justify the filing of a lawsuit. There is likely asymmetric information as between individual and corporate patentees. Individual patentees are more likely to own paper patents; they have patents but often do not compete in the industry to which their patents pertain. Accordingly, they are likely to be less informed regarding potential infringers, reasonable royalties or the product's profit margin. In addition, individual patentees, even when they are able to identify potential infringers, are likely deterred from filing suit due to projected litigation expenses.

While filing a patent infringement complaint in a federal district court is relatively inexpensive,⁷⁶ taking a case to trial costs on average \$2 million per side.⁷⁷ Here is where the transaction costs would likely catch up with the asymmetric resources of the parties. At first blush, the fact that individuals litigate fewer cases and take fewer cases to trial (that they are more selective in their cases) could explain their higher win rate. Given the transaction cost barrier, individuals may only take stronger cases to trial.

There are several reasons why this seems unlikely to explain why individuals win more.

⁷⁵ Expanding the data to include all trials from 1990-2003 results in individual patentees involved in 10% of all patent trials.

⁷⁶ The fee for filing a complaint is only \$250. 28 U.S.C. §1914(a). Of course, the parties generally need a lawyer to draft the complaint and serve as counsel should the case go forward. While drafting a complaint is not terribly expensive and in fact, most patent attorneys seem to file the same complaints over and over and just change the names of the parties, a presuit investigation does need to be performed to satisfy Rule 11 prior to filing the suit.

⁷⁷ See ECONOMIC SURVEY, *supra* note 25, at 21-22.

First, among the cases brought by individuals and corporations, individuals may actually bring weaker cases. Cases brought by individual patentees have a higher dispositive motion (summary judgment) grant rate, and the patents themselves seem weaker. While only 12% of all cases with corporate patentees are resolved on summary judgment 20% of all cases with individual patentees are resolved on summary judgment—a much higher summary judgment grant rate.⁷⁸ Moreover, 74% of the summary judgments involving corporate patentees favor the infringers, whereas 87% of those involving individual patentees favor the infringers. In short, the cases filed by individual patentees are more likely to be resolved on summary judgment against the individuals than the cases filed by corporate patentees. Thus, it would seem that the pool of litigation brought by individual patentees is weaker than the pool of litigation brought by corporate patentees.

Second, patents acquired by individuals do not appear to be objectively stronger than patents acquired by corporations. There are several ways we can measure the strength of individual and corporate patents. First, we can look directly at the characteristics of their patents for indicia of strength. Economists and scholars agree that the number of patent claims and the number of prior art citations considered by the PTO during prosecution are indicative of the value of the patent.⁷⁹ Sensibly, the more valuable the patent is to its owner, the less likely the owner will litigate a weak case with the patent. Comparing patents issued to individuals and corporations from 1990-2000, the characteristics suggest that corporate patents are, on the whole,

⁷⁸ Summary judgment is granted by the judge when no reasonable person could find to the contrary. Fed. R. Civ. P. 56.

⁷⁹ See, e.g., Manuel Trajtenberg, *A Penny for Your Quotes: Patent Citations and the Value of Innovation*, 21 RAND J. ECON. 172 (1990) (discussing the value of patent citation data); Jean O. Lanjouw & Mark Schankerman, *An Empirical Analysis of the Enforcement of Patent Rights in the United States*, (working paper 2002); Allison, *supra* note 30 (correlating patent characteristics with patent value); Moore, *Xenophobia*, *supra* note 30, at 1536-45 (discussing patent characteristics as measures of strength and breadth).

stronger and/or more valuable than individual patents. To the extent that these characteristics are indicia of patent strength, individuals are not filing fewer patent cases because they are more selective; they file fewer patent cases because their patents are not as strong.

	Pats Issued (90-00)		Pats Litigated (99-00) ⁸⁰		Pats Trials (90-03)	
	Corp. Pats	Indi. Pats	Corp. Pats	Indi. Pats	Corp. Pats	Indi. Pats
# of claims	14.3	12.3	19	18	18	14
# cites received ⁸¹	3.2	2.6	13	10	unavail	unavail
# cites (US pats)	9.2	9.8	15	12	12	11
Foreign Pats	unavail	unavail	2	1	2	1
Publications	unavail	unavail	4	3	5	1
Total Cites	unavail	unavail	21	17	20	13
Prosecution Time (yrs)	2.60	2.46	3.72	4.00	4.28	4.16
Patent Age at Lawsuit	unavail	unavail	5.63	7.12	5.24	5.47
# Related Apps	0.44	0.35	1.05	1.03	1.16	0.84

Moreover, even if the patents issued to individuals were objectively stronger than those issued to corporations, this would explain the difference in win rate only if individuals bring suit on patents issued to them and corporations bring suit on patents issued to them. An important finding of this empirical project is that 39.7% of the litigated patents are not being litigated by the party to whom they were originally issued.⁸² A very high transfer rate exists, at least among litigated patents. Among the 6,077 patents litigated by corporate patentees, 57.1% were issued to the corporation and 42.3% were acquired after issuance. Many of the patents acquired by corporations and litigated (41.5%) were originally acquired by individuals. When individual patentees were involved in litigation, in contrast, 80.0% of the patents were originally issued to

⁸⁰ I omitted the litigations involving design patents and plant patents as these patents are substantially different than utility patents. For example, all design patents have only one claim.

⁸¹ The number of cites received is unavailable for the patents involved in the trials from 1990-2003 because the cites received data available from the NBER database only extends until 1999. Hence any cites received by any patents after that are not included. Since many of the patents in the trial study actually issued later, the cites received data is unavailable.

⁸² This finding, of a high transfer rate for litigated patents, is the subject of my on-going research as it has important consequences for innovation, patenting, patent valuation and patent litigation.

the litigating individual.

Corporations acquired 85% of all patents (1999) and they brought 88% of litigation (1999-2000), but interestingly they were not litigating their own patents. Of all the patents litigated from 1999-2000, 31.9% were originally issued to individuals. Hence while individuals only acquire 14.9% of all patents, their patents were involved in 31.9% of the patent litigation. Individual patents are significantly different from corporate patents in ways that makes them more likely to end up in litigation, a subject ripe for further research.⁸³ This finding that a large percentage of individual patents are in fact litigated weighs against the notion that pre-litigation sorting creates stronger cases for individual patentees.

A comparison of the characteristics of the patents at issue in the litigations resolved in 1999 and 2000 also suggests that, if anything, the corporate patents are stronger. The corporate patents at issue in litigation had more claims, received more citations from other patents, and were allowed by the PTO after comparison to more prior art. Hence, litigated corporate patents are stronger than litigated individual patents.

We consider a comparison of the patents that actually went to trial most important because this comparison bears a more direct relation to the trial outcomes. Tried corporate patents have more claims, cite more prior art, are based on more related applications, and took longer to prosecute. Table 2 shows that the pool of issued corporate patents is stronger, the pool of litigated corporate patents is stronger, and the pool of tried corporate patents is stronger. Analysis of patent strength based on patent characteristic data suggests that the pool of corporate

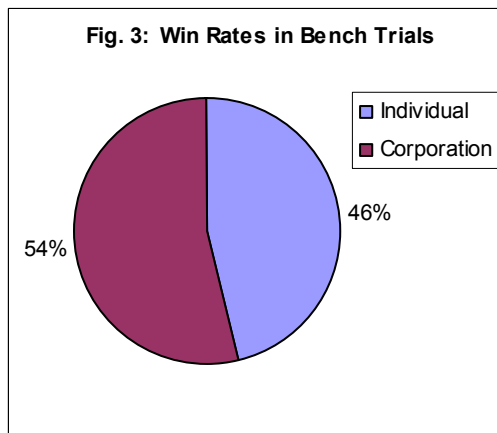
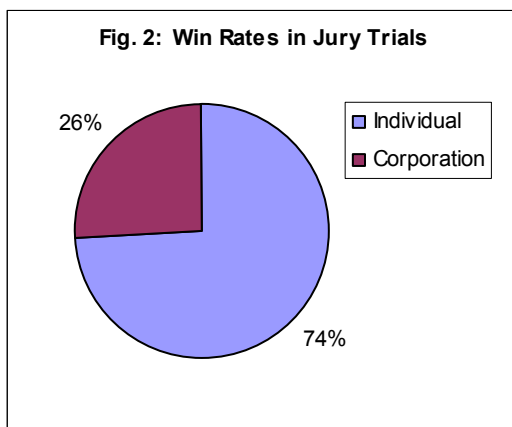
⁸³ While it may be argued that since individual patents are more likely to end up in litigation than corporate patents, they are therefore stronger, more valuable patents, undoubtedly the differences in patenting strategies are a partial explanation. Corporations patent for different reasons than individuals. Individuals, especially those with paper patents (not competing) patent exclusively for revenue generation through licensing and litigation. Corporations are more likely to patent defensively, as a signaling mechanism and to create thickets or more significant barriers to entry for their competition. As such, it makes sense that corporate patents are litigated less often.

cases ought to be stronger.

Factors affecting the selection effect theory, the nature of the individual versus corporate patentee, the repeat player advantage, and patent and case strength all indicate that corporations try stronger cases than do individuals.

III. Adjudicator Bias: Individuals Win More Often, But Only in Jury Trials

From 1990-2003, individual litigants prevail over their corporate adversary in 64% of the patent trials. If individuals won more often in bench and jury trials, case selection would seem a logical explanation—that despite the analysis in Part II individuals pursue stronger cases to trial than corporations. The data, however, show that in jury trials from 1990-2003 individuals won 74% of the patent trials against corporations. There is no similar discrimination in bench trials. In fact, corporations are slightly more successful with judges when their adversary is an individual. Individuals prevail against corporations in 46% of the bench trials.



The party's status, as patent holder or plaintiff, does not explain the difference. If the judge/jury difference was due to a differential selection of tried cases based on whether the individual was a patentee or infringer—namely, if more of the jury trials were individual patentees and more of the bench trials were corporate patentees, then the patentee/infringer distinction might be the cause. Alternatively, if the difference was attributable to which party

was the plaintiff—namely, if the individual was more often the plaintiff in jury trials and the individual was more often the defendant in bench trials, and then the plaintiff/defendant distinction might be the cause. However, the descriptive statistics show that the difference cannot be attributed to which party is the patentee or the plaintiff. Table 3 includes all infringement and declaratory judgment actions. It delineates between patentees and accused infringers. Table 4 also includes all infringement and declaratory judgment actions and delineates between plaintiff and defendant status.

Table 3: Patentee Win Rate Depending on Party			
Patentee	Accused Infringer	Patentee Win Rate With Jury	Patentee Win Rate With Judge
Individual	Individual	60%	88%
Individual	Corporation	78%	47%
Corporation	Individual	50%	59%
Corporation	Corporation	64%	52%

Table 4: Plaintiff Win Rate Depending on Party			
Plaintiff	Defendant	Plaintiff Win Rate With Jury	Plaintiff Win Rate With Judge
Individual	Individual	60%	88%
Individual	Corporation	80%	50%
Corporation	Individual	48%	61%
Corporation	Corporation	67%	52%

Individuals win more with juries and corporations win more with judges. Both tables confirm that in jury trials, individuals are more successful than their corporate counterparts regardless of their position in the litigation. Conversely, in bench trials, corporations are more successful than their individual counterparts regardless of their positions in the litigation. There are three possible explanations for these empirical results.

- (1) Juries are biased in favor of individuals, judges are not biased.
- (2) Judges are biased in favor of corporations, juries are not biased.

(3) Bench trials are systematically different from jury trials.

A. The Jury Bias Explanation

Perhaps the most startling finding of this empirical study is that the data substantiate jury bias in favor of individuals and prejudice against corporate litigants. It is not the fact that juries may be biased in this way that is startling,⁸⁴ but rather the fact that the data substantiate the bias. For jury bias to explain the results, the selection of tried cases would have to be slightly stronger for the corporation on the whole. This hypothesis is consistent with the case analysis of Part II which found that due to asymmetries, patent strength, behavioral characteristics and repeat player advantages, corporate cases are likely stronger. The slightly stronger cases would explain the bench trial results that slightly favor corporations. The jury results that eviscerate the strength of the corporate case would then be explained by an underestimated jury bias.

Because winning a patent case can be a function of many factors other than whether the parties are individuals or corporations, we used a multivariate regression model to isolate the effects of several independent variables on the win rate data. According to these results, the patentee is significantly more likely to win a jury trial if: (1) the patentee is the plaintiff; (2) the infringer is foreign; and, (3) the patentee is an individual. From the magnitude of the coefficients, whether the patentee filed the suit (as opposed to a declaratory judgment action) is the most powerful predictor of patentee win rate. Whether the patentee is an individual or a corporation is also a significant predictor of win rate, and from the magnitude of the coefficient,

⁸⁴ In fact, perceptions of jury bias are well documented. *See, e.g.*, *TXO Prod. Corp. v. Alliance Resources Corp.*, 509 U.S. 443, 492 (1993) (O'Connor dissenting) (commenting that "juries may feel privileged to correct perceived social ills stemming from unequal wealth distribution by transferring money from 'wealthy' corporations to comparatively needier plaintiffs"); *TXO Prod. Corp. v. Alliance Resources Corp.*, 509 U.S. 443, 468 (1993) (Kennedy concurring) (commenting that "the size of the punitive award is explained by the jury's raw, redistributionist impulses stemming from antipathy to a wealthy, out-of-state, corporate defendant"); *Honda Motor Co. v. Oberg*, 512 U.S. 415, 432 (1994); *Id.* at 431 ("[T]he rise of large, interstate and multinational corporations has aggravated the problem of arbitrary awards and potentially biased juries."). *See also supra* notes 2-4 and accompanying text (discussing the widespread belief that juries favor individuals over corporations and act on wealth redistributive impulses).

we can determine just how much of an impact corporate status has on win rate. The sign of the coefficient indicates the direction of the impact. For example, a corporate patentee has a coefficient of -.655, which we know is significant ($p=0.008$). The negative coefficient means that the corporation is less likely to win, or alternatively that the individual is more likely to win. The magnitude of the coefficient (.655) tells us the strength or impact this variable has on outcome. Compared to a case where the patentee is a corporation in which the patentee has a 50% chance of success, when the patentee is an individual the chance of winning increases to 66%.⁸⁵ Hence the results of the regression, like the descriptive statistics, suggest that being an individual has a significant impact on your likelihood of winning a jury trial.

Table 5: Impact of Party Characteristic Data on Patentee Win Rate with Jury			
Independent Variable	Coefficient	Standard Error	Significance (P stat)
Patentee is defendant (plaintiff/defendant)	-1.341	.211	.000
Foreign Patentee	-0.185	.265	.486
Foreign Infringer	0.934	.215	.000
Corporate Patentee	-0.655	.246	.008
Corporate Infringer	0.572	.442	.195
Constant	0.725	.476	.128
Number of Observations = 969			

B. The Judge Bias Explanation

A second possible explanation for the descriptive statistics is that judges are biased in favor of corporations and juries are not biased at all in their decision-making. In short, maybe the judge is reaching the wrong result, not the jury. For this to explain the data, the selection of

⁸⁵ Magnitude is calculated by taking the ant-log of the coefficient. For example, the coefficient for corporate patentee is -.655. $e^{.655}=1.925$. With all the other variables constant, jury resolution changes the odds of the corporation winning from 1:1 to 1.925:1. This corresponds to a probability of winning of 66% ($1.925/(1.925+1)$).

tried cases would have to be stronger for the individual on the whole so that the jury results are an accurate reflection of the merits of the case. Since judge results differ, the judicial prejudice against the individual could explain the lower win rate. To test this theory, we ran a multivariate regression, to analyze only bench trials. The regression mirrors the earlier one for jury trials. Unlike the jury trial regression, which confirmed the descriptive statistics, the bench trial regression indicates that there is no significant difference in the judge’s treatment of individuals and corporations.

Table 6 results are good because we would prefer that strength of the case rather than the characteristics of the parties would impact outcome. While we have not proven that judges rely on the strength of the case, any reliance on the characteristics of the parties seems less likely—at least with respect to alienage and entity status. Whether the patentee or infringer is foreign or domestic, an individual or a corporation, or plaintiff or defendant has no significant impact on the likelihood of winning in bench trials.

Table 6: Impact of Characteristic Data on Patentee Win Rate with Judge			
Independent Variable	Coefficient	Standard Error	Significance (P stat)
Patentee is defendant (plaintiff/defendant)	-0.127	.206	.535
Foreign Patentee	-0.259	.223	.245
Foreign Infringer	0.349	.221	.114
Corporate Patentee	0.082	.266	.758
Corporate Infringer	-0.629	.444	.156
Constant	0.643	.469	.171
Number of Observations = 729			

These data do not support the explanation of judicial bias. While tried cases are admittedly not a representative sample of all cases, case selection does not seem likely to support

the notion that judge bias in favor of corporations explains the difference in win rate. First, the selection effect model would predict both judge and jury trials would result only in close cases (the 50% hypothesis). Second, to the extent that patent cases involving individuals and corporations would deviate from the underlying assumptions, and they likely do, they would do so consistently in both judge and jury trials. Third, the likely optimism of individual patentees and repeat player status of corporations both suggest that the pool of tried cases would actually be stronger for corporations.

For judge bias to explain the empirical results, one would have to believe that the selection of cases for trial generally favors individuals; that juries are rightly deciding the cases; and that judicial bias in favor of corporations explains the lack of higher individual win rates in bench trials. Given that anecdotes and scholarship are flush with observations of perceived jury bias in favor of individuals⁸⁶ and there does not appear to be any widespread belief in pro-business judicial bias,⁸⁷ it seems unlikely that the selection of tried cases consistently produces stronger cases for the individual. Thus the data support a logical conclusion of impartiality by judges (at least with regard to who filed suit, alienage and entity status of the parties).

C. The Differential Selection of Cases Explanation

The first two explanations assume that the selection of cases tried before judges and juries do not differ in any way that would explain the empirical results. The most plausible alternative to the jury bias explanation is that the types of cases taken to trial in front of judges differ from the types of cases taken to trial in front of juries. For case differences to explain the

⁸⁶ See *supra* notes 2-4 and accompanying text.

⁸⁷ But see Lawrence Mitchell, *The Age of Aquarius or, How I (Almost) Learned to Stop Worrying and Love Free Markets*, 88 MINN. L. REV. 921, 933 (2004) (stating that “the influence of corporations in the processes of government has led to the appointment of probusiness judges”).

difference in judge/jury win rates, the cases tried to a jury would have to be stronger for the individual, and the cases tried to a judge would have to be stronger for the corporation.⁸⁸

Three reasons, however, suggest that this difference in selection fails to explain the results. First, given that juries are widely perceived as anti-corporation and pro-individual, litigants in a case where an individual is pitted against a corporation would factor this bias into their outcome estimation. Factoring in these perceptions of jury bias is likely to result in a selection of jury trial cases that are stronger on the merits for corporations than individuals. As Marc Galanter observed, settlement negotiations take place “in the shadow of the jury”⁸⁹ because litigants are estimating their outcome by attempting to anticipate how a jury will decide their case. Corporations will not proceed to trial in front of a jury on a marginal case where their opponent is a sympathetic individual. Regardless of the ultimate win rate percentage that one would estimate considering the model and deviations from the underlying assumptions (50% or not), the selection of cases for trial is affected by the parties’ outcome estimations and these estimations would include consideration of known or perceived biases on the part of the adjudicator. Hence, if litigants believe juries favor individuals, this would be taken into account in the outcome estimations such that we would not expect to see a statistical difference in win rate between judges and juries. As for the numerous possible deviations from the underlying assumptions of the model—the potential asymmetry in stakes and information and the differences in risk preferences—these deviations are unlikely to explain the empirical results because each of these assumptions or deviations would apply equally in both judge and jury

⁸⁸ See Joel Waldfogel, *The Selection Hypothesis and the Relationship Between Trial and Plaintiff Victory*, 103 J. POL. ECON. 229, 232-35 (1995) (discussing the effect of case strength on win rates under economic theory of case selection).

⁸⁹ Marc Galanter, *The Civil Jury as a Regulator of the Litigation Process*, 1990 U. OF CHI. LEGAL FORUM 201.

cases, yet the significantly higher win rate for individuals only exists in jury trials. While these deviations from the assumptions may explain why the overall win rate is not 50%, they do not explain why there is a difference between win rates in judge and jury cases—they do not explain why individuals are only more successful with juries. While there is a widespread perception of jury bias in favor of individuals, the empirical data, which demonstrate a 78% win rate for individuals with juries, actually indicate that parties may underestimate the magnitude of the jury bias.

Second, not only do individual patent owners prevail more often than corporate patent holders, but individual defendants also prevail more often than corporate defendants. As Table 3 indicates, in jury trials when individual patentees sue corporate defendants, the patentees win 78% of the cases, but when individual patentees sue individual defendants, the patentees only win 60%. If individual patentees simply bring stronger cases, then we would expect the individual win rate to be high against other individuals as well. However, it may be that individual patentees try stronger cases against corporate infringers than they do against individual infringers. Given the high costs associated with patent litigation and the likelihood that those costs would be driven up in cases involving a corporate defendant, individuals may only be willing to litigate against a corporate infringer when they have stronger cases. It seems unlikely that individual patentees would spend millions to litigate marginal patent cases. The higher the transaction costs (litigation expenses), the less likely an individual would be to continue the litigation. This argument assumes that the parties have asymmetric resources—namely that the individual is poorer than the corporation and therefore the litigation costs would act as a greater deterrent to continued litigation. Given the cost of patent litigation, when individual patentees litigate against corporations, they may hire lawyers on a contingency basis.

When the law firm is risking its entire fee (on average \$2 million) on the outcome of the trial, it will likely be unwilling to undertake the trial of marginal cases. Hence, there is reason to think that cases that go to trial with individual patentees against corporate infringers are stronger than the cases that go to trial with individual patentees against individual infringers. In fact, the patent characteristic data support this explanation—in jury trials, individual patentees sue based on stronger patents when their adversary is a corporation.⁹⁰

The difference between individual and corporate infringer success also exists in jury trials involving corporate patentees. When corporate patentees sue individuals, the corporate patentees win 50%, but when corporate patentees sue other corporations, the corporate patentees win 64%. Again the same explanation might make sense—that corporate patentees bring stronger cases against other corporations than they do against individuals because of their respective abilities to mount defenses. The patent characteristic data though do not support this explanation.⁹¹ The data on the strength of the patents being asserted in jury trials by corporate patentees against individuals and corporations is contradictory—there is no clear proof that corporations bring stronger suits against other corporations. Furthermore, intuition suggests that corporate patentees may try stronger cases against individuals to counteract the jury bias.

Third, measurable differences in the quality of the patents at issue in the trials suggest that corporate party patents are stronger than those tried by individuals. Table 7 analyzes the patent characteristics taking into account both the entity status of the patentee and the entity status of her opponent, the infringer. According to this analysis, individuals do bring suit with stronger patents against corporate infringers rather than individual infringers. When individuals

⁹⁰ See *infra* Table 7.

⁹¹ See *infra* Table 7.

sue corporations, they select their patents that have more claims, spend more time in prosecution (have more related applications), cite more prior art and are younger at the time of the suit. This is true in both bench and jury trials. This supports the notion that individuals bring stronger suits against corporate infringers than against individual infringers. However, individual patentees do not select significantly different patents for suit in bench trials versus jury trials. In fact, the individual patents that are the subject of suit in bench trials are, if anything, stronger than the ones individuals litigate in jury trials.

When corporate patentees sue other corporations, they litigate stronger patents in bench trials, but not in jury trials. Even if the data supported a difference between corporate and individual infringers—that patentees bring stronger suits when they are suing a corporation rather than an individual—it would not explain the difference in win rates between judge and jury. In fact, the data show that corporate patentees sue individual infringers in jury trials with stronger patents than individuals who sue corporations. To the extent that patent characteristics are indicia of the strength of the suit, corporations bring stronger suits in jury trials, not bench trials, and individuals bring weaker suits in jury trials. Both findings suggest that the underlying pool of disputes cannot explain the differences in the win rate. These findings are, however, consistent with perceptions of bias and case selection predictions. Corporations, anticipating jury bias, would pursue stronger cases in jury trials than bench trials. Similarly, individuals, perceiving favoritism by juries, would be willing to take weaker cases to a jury trial than a bench trial.

	# Claims	Total Cites	US Pats	For Pats	Pubs	Pros. Time (yrs)	# Related Apps	Age of Pat at Suit
JURY TRIALS								

⁹² Design patents are excluded from this data.

Indi. Pat. v. Indi. Inf.	6	8	8	0	0	1.77	0	4.94
Indi. Pat. v. Corp. Inf.	16	15	13	1	1	4.47	1	5.60
Corp. Pat. v. Indi. Inf.	19	21	4	1	16	5.55	2	5.91
Corp. Pat. v. Corp. Inf.	21	19	13	2	4	4.02	1	5.31
BENCH TRIALS								
Indi. Pat. v. Indi. Inf.	12	12	9	1	2	2.85	1	4.20
Indi. Pat. v. Corp. Inf.	17	16	14	1	1	4.00	1	5.13
Corp. Pat. v. Indi. Inf.	12	15	8	1	6	3.43	1	6.77
Corp. Pat. v. Corp. Inf.	20	22	12	2	8	4.48	1	5.06

When the patent characteristics are included in a multivariate regression, the same party characteristics continue to be significant: whether the patentee is an individual, whether the infringer is foreign, and whether the patentee filed the lawsuit. None of the patent characteristic data significantly impacts patentee win rate with juries except the age of the patent at the time the lawsuit is filed. This suggests that juries may prefer patentees that sue to enforce their patent rights quickly after the patent issues. None of the following patent characteristics were significant: number of claims, total cites, U.S. patent cites, foreign patent cites, publication cites, number of related applications, prosecution time, whether the patent was reissued, whether the patent was a design patent, or whether the patent was a utility patent.⁹³ The year that the case was resolved is also not significant. Thus, it is not the case that anti-business attitudes which may have become more prevalent in this age of corporate scandals such as Enron, Microstrategies, Healthsouth, Worldcom, Adelphia Communications and Tyco International are causing a bias to surface only in recent cases.⁹⁴

These data make less plausible the explanation that a difference in the selection of tried

⁹³ These findings are discussed in Kimberly A. Moore, *Do Patents Matter in Patents Litigation?* (draft on file with author).

⁹⁴ Corporate financial scandals have become big news since Enron collapsed in December 2001. *See Corporate Scandals: A User's Guide*, N.Y.TIMES, May 11, 2003, at 2 (highlighting recent corporate scandals and commenting that "dark details emerged of a tale of corporate greed and malfeasance almost unparalleled in financial history"). *See also Taking Care of Business Cheats*, CHICAGO SUN TIMES, June 21, 2005, at 39 (discussing how juries are holding corporate heads who defraud shareholders accountable); *Executives on Trial: More Pinstripes to Get Prison Stripes*, WALL STREET J., June 20, 2005, at C1 (detailing the recent wave of corporate-fraud cases).

cases explains the fact that individuals win more often than corporations with juries. Objective measurable evidence does not suggest that individuals had stronger cases on stronger patents in the jury trials. If anything, the patent characteristic data indicates that of all the litigations, the suits with the strongest or most valuable patents are brought by corporate patentees against individual defendants in jury trials—yet here the corporate patentee loses more often. In jury cases, individual patentees bring suit against corporate infringers with weaker patents—yet they win more often. In bench trials, individual patentees seem to sue corporate infringers on stronger patents—yet they win less often. Our analysis of the selection of tried cases actually seems to weigh in favor of corporate patentees having stronger cases than individuals, making jury bias the most plausible explanation for the data presented. These data support the widely held perception of jury bias but indicate that the community has underestimated the extent of the bias. The direction of the bias is accurate, but the magnitude is wrong.

Obviously, the number of claims in a patent and the number of prior art references cited are not the only way to measure the relative strength of the parties' patents, nor do I suggest that these indicia dispositively measure the strength of a case. There are undoubtedly a variety of factors, many case-specific, that elude measurement but which factor into outcome estimation for the parties. One factor present in nearly every patent case, which could affect win rate and provide additional insight into jury populism, is the inventor.

IV. Iconization of the American Inventor

When you say the word inventor to most Americans, a lot of pictures jump suddenly into their minds. They see Samuel Morse with his great white beard and his chest covered with medals standing by a telegraph key, ticking off the message "What Hath God Wrought." . . . They see Eli Whitney grinding away at his cotton gin and they see Edison standing stiffly by a large incandescent bulb, considerably bored by the crowd of admirers round him. . . . These are all pictures of popular American heroes. There is a regular parade of them before your

mind's eye whenever anyone says the word inventor.⁹⁵

There is ample evidence to suggest that society holds inventors in high regard.⁹⁶ "In the popular imagination, the hero of the patent world is the solo inventor—an eccentric individual who has a brilliant insight, obtains a patent and proceeds to fame and fortune by making and selling the patented invention."⁹⁷

Due to high transaction costs, most patent litigation is corporation versus corporation (85%). Analysis of patent cases though permits the exploration of a related phenomenon—the heroic iconization of the American inventor. The inventor puts a face on one of the corporate entities, humanizing or personalizing the party.⁹⁸ Even in corporate versus corporate litigation,

⁹⁵ ROGER BURLINGAME, *INVENTORS BEHIND THE INVENTION* 3 (1947).

⁹⁶ Philip K. Anthony et al., *Intellectual Property Trial Strategies: How Jurors Perceptions of Corporate America Affect Their Judgments in Patent Cases*, 804 *PLI/Pat* 965, 971 (2004) ("Inventors are idealized by jurors in a similar fashion to the public perception of cowboys in the Old West. Somehow, these figures—inventors and cowboys—personify the David and Goliath story in our collective imaginations."); Janis, *supra* note 23, at 908-921 (discussing how society views the inventor as a hero and the impact this has had on the patent laws).

⁹⁷ ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 1255 (3d ed. 2002). *See also* RUSSELL BOURNE, *INVENTION IN AMERICA* 4 (1996) ([T]he inventor has been hailed as hero or even god, even when his genius causes major social disruptions. This belief of ours goes way back."); THOMAS P. HUGHES, *AMERICAN GENESIS: A CENTURY OF INVENTION AND TECHNOLOGICAL ENTHUSIASM 1870-1970* 4-5 (1989) ("This history, then argues that inventors, industrial scientists, engineers, and system builders have been the makers of modern America.").

[Edison] embodies the powerful myth of the solitary inventor, a figure as strong in the American imagination as the yeoman farmer and the brave frontiersman. "Where does innovation come from?" asks Steven M. Shore, president of the Alliance for American Innovation. Even today, "the majority of technological breakthroughs comes from individual inventors," Shore adds. The VCR, the heart pacemaker, intermittent windshield wipers and even kitty litter, all are the products of solitary inventors. "Their protection from the unjust infringement and bullying by large corporations has to continue," Shore warns.

W. John Moore, *Who's Got the Patent on Thomas Edison?*, *NAT'L L. J.*, Jan. 24, 1998, at 175.

⁹⁸ Litigants realize the importance of humanizing the corporation in jury trials. *See, e.g.*, Norman J. Wiener, *Simple Lessons From a Complex Case*, 12 *LITIGATION* 14 (1986) (stressing that lawyers must humanize corporations in jury trials); Finis E. Cowan, *Make Sure the Jury Sees Corporation Witnesses as Fellow Human Beings*, *NAT'L L. J.*, Feb. 14, 1994, at 86 ("To combat this prejudice [against corporations], corporate executives have to be humanized. 'You've got to get the jury to think that your executives are pretty nice folks.'"); Peter Bennett, *Direct Examination of the Defendant in a Wrongful Discharge Action* 29 *FALL BRIEF* 46 (1999) (stressing the importance of

there is an individual component to every patent case and therefore an opportunity for bias to impact decision-making. In addition to a preference for individuals over corporations, a preference for inventors may also explain some of the empirical results.⁹⁹

Further analysis of the data show that not only do juries prefer individuals over corporations and domestic parties over foreign ones, they prefer patentees. In bench trials, the patentee wins 52.1%. In jury trials, the patentee wins 64.8%. Juries are significantly more likely than judges to find for patentees.¹⁰⁰

Examining patentees tells us about the parties to the litigation, examining inventors tells us about the creator of the invention. In nearly all patent litigation, the inventor will be the first person to testify. The inventor will explain the invention and the process of invention. She will explain how important her invention is and how she came up with the idea that eluded others. Even though there may be a corporate patent owner, and the inventor who testifies will not actually get any of the damage awards, the inventor puts a face on one of the corporate parties. If you find for the patentee, you are validating the efforts of the inventor.¹⁰¹ There is generally no individual as closely or personally linked with a corporate infringer. The corporate infringer

personalizing the faceless corporation to create the image of one individual against another to appeal to the jury); W. Edward Bailey, *Presenting the Witnesses Special to a Patent Trial*, 572 PLI/PAT 151, 155 (1999) (“Because patent cases often involve large, faceless corporations, the corporate character witness has an important role to play in humanizing the corporation.”); MacCoun, *supra* note 9, at 140 (suggesting that juries may treat corporations differently because of the impersonal nature of the corporation). *See also* TXO Prod. Corp. v. Alliance Resources Corp., 509 U.S. 443, 492 (1993) (O’Connor dissenting) (“Corporations are mere abstractions and, as such, are unlikely to be viewed with much sympathy.”).

⁹⁹ Bob Violino, *Novell’s Nemesis*, INFORMATION WEEK, Dec. 14, 1992 (“[A] small inventor against a big company usually does well by a jury.”).

¹⁰⁰ $\beta = -.130$; $t = -5.405$; $p = .000$

¹⁰¹ Mark Voorhees, *Hang The Jury: In Innovation and Its Discontents Adam Two Economists Argue That Judges Should Play a Larger Role in Patent Cases*, IP LAW & BUS., Oct. 2004, at 40 (noting that “many patent attorneys regard juries as excessively sympathetic to patent-holders, being too easily swayed by a beribboned patent document. As a result, the general attitude of the legal community-including judges-was that the request of a jury trial was a signal of a weak case.”).

may have a representative sitting at the counsel table, but it is not the same.

A regression analysis, which includes the characteristics of the inventors as well as the parties and the patents, finds that juries prefer individual inventors rather than groups of inventors.¹⁰² The lower the number of inventors, the more likely the patentee is to win with a jury. Juries like the image of the solitary inventor toiling away at a problem. The idea of teams of people working together on a solution is not as appealing. Even when a corporation owns the patent, the patentee is more likely to win if a solo inventor rather than a team invented the technology at issue.¹⁰³

Table 8: Impact of Inventor Characteristic Data on Patentee Win Rate with Jury			
Independent Variable	Coefficient	Standard Error	Significance (P stat)
Patentee is defendant (plaintiff/defendant)	-1.470	.227	.000
Foreign Patentee	-.244	.282	.387
Foreign Infringer	.998	.229	.000
Corporate Patentee	-.274	.309	.375
Corporate Infringer	.545	.449	.225
Year Suit Terminated	.114	.042	.008
Reissue Patent	.060	.423	.888
Design Patent	-.203	.414	.623
# of Claims	.003	.003	.386
# Prior Art Cites Considered	.005	.003	.111
# Related Applications	.090	.070	.199
Length of Prosecution Time	-.069	.034	.046
% of Foreign Inventors	.007	.011	.562

¹⁰² In this regression, whether the infringer is foreign continues to be significant as does whether patentee is the plaintiff. Whether the patentee is an individual ceases to be significant ($p=0.085$), however, this is because of the correlation with the number of inventors variable.

¹⁰³ Interestingly, the number of inventors seems to matter regardless of whether the suit is brought by the inventors, the patentee at the time the patent issued or a subsequent purchaser. The patentee, as we learned from the high transfer rate of patents prior to litigation, is not always the inventor. Transference of the patent, however, does not significantly impact the patentee's likelihood of success in a jury trial. This may be because even in cases where the patent is transferred, the inventor is still often brought to testify.

# of Inventors	- .200	.070	.004
Grant Year of Patent	- .144	.039	.000
Age of Patent When Suit was Filed	- .090	.044	.039
Corporate Assignee at Issuance	- .131	.213	.539
Transferred After Issuance	- .244	.175	.162
Constant	62.055	41.598	.136
Number of Observations = 943			

Few of the characteristics of the patents proved to significantly affect patentee win rate with juries. The number of claims, prior art references and related applications were not significant predictors of win rate, which questions whether these characteristics are predictors of the strength of the patent. It did not matter significantly whether the patent was a utility patent or a design patent or even whether the patent had been reissued. This last finding is surprising given that reissue is a second chance for the PTO to evaluate the patentability of the claims. A patent that was reviewed twice ought to be stronger than a patent that was reviewed only once. The only patent characteristics that significantly affected win rate with the jury were the length of prosecution time and the grant year of the patent. The length of prosecution time is correlated with the number of ancestor applications that have been filed on the same invention by the same applicant. Hence, it is a measure of the value of the invention to its patentee. The grant year of the patent was an important control because patent characteristics have changed significantly over time.¹⁰⁴ The older the patent the more likely the patentee was to win with the jury. The age of the patent at the time of the litigation was also significant. Juries like younger patents. This is consistent with our intuition that juries prefer patentees who file promptly to enforce their patent rights.

As we observed, the fewer the inventors, the more likely the patentee was to win. This

¹⁰⁴ Hall et al., *supra* note 34 (noting that claim and citation practice has changed dramatically over the years).

was true whether the patent was assigned to a corporation or an individual at issuance and regardless of whether the patent was transferred after issuance. In fact, assignment and transfers do not significantly impact win rate. This later finding was surprising given the hypothesis that juries favor inventors. Apparently juries favor inventors regardless of whether the inventor stands to gain in the lawsuit – regardless of whether the inventor is the patent owner. Whether the inventor was foreign did not significantly impact the win rate in the regression but this variable is correlated with the patentee’s domicile.

Many of the same characteristics of the lawsuit continued to be significant: infringer is foreign, patentee is an individual, whether the patentee initiated suit, and the year the suit was terminated. The termination year variable suggests that juries have become more favorably inclined towards patentees in recent years—the more recent the case the more likely the patentee was to win. Juries like pro-active patentees—those who initiate suits and who do so quickly after the patent has issued. Although entity status of the patentee was not significant in the reported regression results, it is correlated with two related variables: whether the patent is assigned to a corporation or individual at the time of issuance and the number of inventors. The more inventors listed on a patent, the more likely it is a corporate patent. The fewer the number of inventors the more likely it is a patent acquired by an individual which is not assigned. If these variables are removed from the regression then individual patentees are significantly more likely to win with juries.

These empirical results affirm the popular notion that juries love inventors and also support the conclusion that juries prefer individuals.

Conclusion

The data indicate that juries are more likely to find for individuals in patent cases. Since

bench trials do not demonstrate a similar win rate differential and evidence does not support a differential selection of cases, jury bias seems the most plausible explanation. Given the highly publicized corporate financial scandals in recent years¹⁰⁵ and the general belief in a lack of corporate morality,¹⁰⁶ that people harbor an anti-business prejudice is not surprising. That they have a love of inventors and creative genius is likewise not surprising.¹⁰⁷ That this bias impacts the litigation process is a certainty¹⁰⁸ -- practitioners and parties factor these perceptions into an analysis of their cases. The finding of jury bias in these trial data, however, is surprising because it indicates that practitioners underestimate the extent of the jury bias. They know bias exists but they are not accurately gauging the magnitude of the bias. The finding of jury bias in patent cases is especially meaningful because these are monetary disputes—nobody was physically harmed in a patent case. Juries seem more likely to exhibit bias or prejudice in products liability cases where a sympathetic, injured individual stands up against a rich corporation with a disregard for human life. The fact that bias can be found even in purely commercial patent disputes is all the more compelling.

The process of human invention is changing. Less frequently are major technological breakthroughs the result of individuals toiling away in their basements and garages; more frequently they are the work of inventive teams in large corporations or research labs. While the

¹⁰⁵ See *supra* note 94 and accompanying text.

¹⁰⁶ See generally Lawrence Mitchell & Theresa Gabaldon, *If I Only Had a Heart: or, How Can We Identify a Corporate Morality*, 76 TUL. L. REV.1579 (2002) (defining and lamenting the lack of corporate morality); Michael C. Jensen & Perry Fagan, *Capitalism Isn't Broken*, WALL ST. J., Mar. 29, 1996, at A10 (“In the view of many Americans, company profits seem to come at the expense of social well-being.”).

¹⁰⁷ See *supra* note 95-97 and accompanying text.

¹⁰⁸ Do not confuse an acknowledgement that bias impacts litigation with an endorsement of the same. While there may be some societal value in juror nullification, see, e.g., Paul Butler, *In Defense of Jury Nullification*, 31 LIT. 46 (2004) (explaining that jury nullification can be due to belief that the law is unjust or the prosecution is unfair), in patent cases, which are purely commercial disputes, generally between large corporate entities, there seems to be little desire for jury decision-making to be based upon bias and prejudice.

average person may envision Thomas Edison or Alexander Graham Bell when they think of independent inventors, corporations view many modern day individual inventors as parasites. Corporate infringers have termed them “trolls”¹⁰⁹ “predators”¹¹⁰ and “extortionists”¹¹¹ because these individuals do not practice the invention themselves; in fact, they generally do not manufacturer any commercial products. This image of the greedy inventor is relatively new, and it will be interesting to see whether it changes the long-standing love of the heroic inventor. In time, a changing perception of inventors in our society may diminish the jury bias manifested in patent litigation data. For now, the jury favors the individual inventor.

¹⁰⁹ See, e.g., David G. Barker, *Troll or No Troll? Policing Patent Usage with an Open Post-Grant Review*, 2005 DUKE L. & TECH. REV. 1, 5-19 (2005) (discussing the “pernicious” effects of patent trolls in innovation and competition); *Edited & Excerpted Transcript of Symposium on Ideas Into Action: Implementing Patent Reform of the Patent System*, 19 BERKELEY TECH. L.J. 1053, 1101 (2004) (statement of Mark Janis quoting from a legislative hearing) (“Patent trolls are patent system bottom feeders who buy improvidently granted patents from distressed companies for the sole purpose of suing legitimate businesses.”). Patent Trolls was the title of a conference held recently by the Intellectual Property Owner’s Association on March 14, 2005 in Washington D.C. Individuals are not the only “patent trolls.” Licensing shops, like TechSearch or JGR Acquisitions Inc., are frequently referred to as patent trolls. More and more patent licensing shops who are in the business of buying and selling patents which they determine might be enforceable against large companies but whose owners often lack the resources to do the enforcing themselves, are arising. Legislation has even been introduced in Congress for the purpose of minimizing the negative impact patent trolls have on the patent system. 151 Cong. Rec. E1160-01 (daily ed. June 8, 2005) (statement of Rep. Berman) (stating that the Patent Reform Act of 2005 was “designed to address the negative effect on innovation created by patent ‘trolls’”); 150 Cong. Rec. E1935-03 (daily ed. Oct. 8, 2004) (statement of Rep. Berman) (stating that section 6 of the Patent Quality Assistance Act of 2004 “is designed to address the deleterious effect on innovation created by patent ‘trolls’”).

¹¹⁰ *Colida v. Sanyo N. Am. Corp.*, 2004 WL 2853034 (2004) (unpublished) (Newman, J. dissenting).

¹¹¹ Sandburg, *supra* note 53 (“We were sued for libel for the use of the term ‘patent extortionists’ so I came up with ‘patent trolls.’”).