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Article

Strategic Enforcement

Margaret H. Lemos† and Alex Stein‡

INTRODUCTION

Consider a standard rule that sets cars' speed limit at fifty-five miles per hour. To implement this rule, police dispatch radar-equipped patrols to highways. The patrolling officers cannot stop every speeding vehicle. Instead, they stop only those cars whose speed is conspicuously above the limit. The "conspicuously above" criterion varies from one case to another: a speeding driver sometimes becomes conspicuous by exceeding the limit by ten miles, while in other cases the going rate is seventy-five miles per hour. Either way, the police keep their "conspicuously above" criterion unannounced.

Drivers exceeding the speed limit consequently become motivated not to drive their cars conspicuously fast. When the speed of sixty miles per hour makes a driver conspicuous relative to other drivers on the same road, the driver will drive her car below that speed. The benefit from not being an outlier will motivate every driver to slow down. This speed-reduction process will stop at a point at which the driver becomes confident about other drivers' prevalent speed. This point can be set at sixty-five, sixty, or even fifty-five miles per hour and may depend on the traffic conditions, the police patrols' visibility, or on an individual driver's ability to count on other drivers' speed. The drivers' collective speed reduction will likely be significant. Most important, this social benefit will be achieved at an affordable cost.

This way of enforcing the law, identified in this Article as a "strategic" model of enforcement, is suitable for a wide variety

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of areas. The key element of the strategic model is the dynamic this Article refers to as "cascaded retreat," which unfolds as follows: A concentrated enforcement effort that targets high-end violations induces violators not to be on the high end. Violators know that they will avoid punishment if their violations do not stand out as rampant relative to what other violators do. This knowledge motivates violators to reduce the intensity of their unlawful activity from the high-end zone to the inconspicuous level. Crucially, each violator does not know the extent to which other violators will downscale their unlawful activity, and even when violators communicate their plans to each other, they cannot fully trust each other. The violator thus must rely on his own judgment in estimating the extent to which other violators will reduce the volume of their unlawful activities. Aware of the fact that other violators' calculations will be similar to his, he will have to cut back on his unlawful activities in order not to lose the downscaling contest. Every other violator will do the same, and the volume of illegality will shrink.

This process will repeat itself a number of times. After learning that law enforcers only target high-end violators and let all others go unpunished, many violators will decide to leave the high-end zone. This exodus will make those who remain in that zone more conspicuous than before, which will increase those violators' probability of being apprehended and punished. The consequent increase in the violators' expected penalty—the amount of the fine or other penalty, multiplied by the probability of apprehension—will induce some of them to downscale their unlawful activities. This new exit will further increase the remaining violators' conspicuousness and the corresponding prospect of being apprehended and punished. Consequently, some of those violators will find staying in the high-end zone too risky and will begin their exit as well. This downscaling process will continue until violators reach a uniform level of unlawful activity that they are collectively unwilling to reduce. This activity level will mark the safe-harbor zone in which violators will stay with impunity. The law enforcers will not enforce the law against these low-end violators. Instead, they will concentrate their enforcement effort on apprehending and punishing the outliers who violate the law rampantly. This dynamic will reduce the volume of the violators' unlawful activity both significantly and at a relatively low cost.1

1. Violators' aversion to risk will exacerbate this dynamic. See infra note 36 and accompanying text.
If strategic enforcement seems familiar, it should. As the driving example suggests, police and other public law enforcers already follow the strategic model whenever they concentrate their efforts on apprehending and punishing the worst offenders. And strategic enforcement is simply the converse of a common way of awarding benefits. The highest bidder wins the auction, the fastest runner wins the race, the team with the highest score wins the game, and so forth. In these contexts—and in many more—benefits are determined by a performance-based (or other) comparison among similarly situated actors, rather than by a fixed standard.

Although the advantages of relative performance measures are well recognized in the economic accounts of tournaments, scholars have failed to consider the applicability of a similar approach to legal penalties. Instead, the conventional law-and-economics wisdom centers on two enforcement models that this Article identifies as “comprehensive” and “randomized.” Under the comprehensive model, law enforcers try to apprehend and penalize every violation of the law. This model is expensive to implement, and the returns from the law enforcers’ efforts—deterrence, remediation, and other enforcement benefits—do not always justify the costs. To fix this problem, law enforcers are often advised to use the randomized model of enforcement. They are told to enforce the law randomly on a relatively small number of occasions, but impose heightened penalties on the apprehended violators. Those penalties are supposed to offset


3. The uniqueness of our strategic model’s tournament can possibly account for this failure. Under this model, actors will engage in a never-ending series of negative-prize tournaments that can be won simultaneously by all of them.


6. See generally Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169, 180–85 (1968) (identifying enforcement costs associated with attempts to increase the probability of conviction and outlining the need to enhance punishments accordingly); Richard Craswell, Damage Multipliers in Market Relationships, 25 J. Legal Stud. 463, 466 (1996) (outlining the strategy of increasing sanctions and decreasing enforcement);
the diluted deterrence brought about by the reduced rate and correspondingly reduced probability of enforcement.\textsuperscript{7} Ex ante, prospective violators will expect to receive roughly the same penalty as under the comprehensive model. This prospect will adequately deter violators at a relatively low cost to society.\textsuperscript{8}

Yet, neither of these models is effective in all situations. Society often cannot afford, or is unwilling to incur, the expenditures demanded by the comprehensive model. And applying this model with a severely limited budget will sacrifice its advantages. When enforcement efforts are underfunded, law enforcers will fail to apprehend all or most offenders, and courts and agencies will commit many errors in enforcing the law.

The randomized model is cheap, but so is the justice that it delivers. Application of this model will engender inequities that are morally indefensible. Under this model, small-time violators will often receive harsh punishments while rampant and more sophisticated wrongdoers go scot free.\textsuperscript{9} The model’s deterrence capacity cannot always be trusted either. By allowing law enforcers to seek penalties in just a few cases out of many, the model will incentivize them to concentrate their efforts on easy cases: ones that involve violators whose liability can be established without much difficulty. The law enforcers’ incentive not to work hard will drive them away from sophisticated violators who are both able and willing to conceal their misdeeds. These violators consequently will acquire a practical immunity against prosecutions, while the law enforcers go after and impose harsh penalties upon small-time offenders. This non-


\textsuperscript{8} See Becker, supra note 6, at 184.

\textsuperscript{9} See \textit{infra} Part I.A. and text accompanying notes 159–63.
random consequence will defeat the very purpose of the random- 
domized model of enforcement.\textsuperscript{10}

Given the limitations to the comprehensive and randomized 
models of enforcement, policymakers should consider the 
adoption of the strategic model whenever it outperforms the 
two conventional models. The conditions that make one of the 
three models operationally superior vary across different areas 
of the law and depend on society’s investment in law enforce-
ment. Policymakers need to be mindful of all these factors 
when they choose the right model, and the goal here is to facili-
tate this understanding.

This Article establishes a framework for choosing the ap-
propriate model of law enforcement. Part I describes the defini-
ing characteristics of the two conventional models of law en-
forcement—comprehensive and randomized—and presents the 
strategic model. Part II develops a stylized prototype of that 
model’s operation: a situation where the lawmaker promotes 
consumer protection by forcing car sellers into a full cascaded 
retreat. This prototype reverses the classic microeconomic 
“market for lemons” paradigm.\textsuperscript{11} Part III moves to the real 
world to discuss three important areas of the law—
antidiscrimination, election districting, and copyright—in 
which the strategic model can outperform the two conventional 
models of enforcement. Through these illustrations, Part III 
demonstrates that the strategic model works best when a rela-
tive measure of wrongdoing is easier to establish than an abso-
lute one, and where a potential violator must commit to a 
course of action without credible information about other viola-
tors’ behavior and strategies. A short conclusion follows.

\section*{I. THREE MODELS OF LAW ENFORCEMENT}

\subsection*{A. COMPREHENSIVE AND RANDOMIZED MODELS}

Academics and policymakers have formed a remarkable 
consensus about law enforcement. This consensus recognizes 
two basic models of enforcing the law. Under the comprehen-
sive model, law enforcers (public or private) investigate every 
violation they become aware of and bring suspected violators to

\textsuperscript{10} See infra Part I.A.

\textsuperscript{11} See George A. Akerlof, \textit{The Market for \textasciitilde\textit{Lemons}}: Quality Uncertainty and the Market Mechanism, 84 Q.J. Econ. 488, 489–90 (1970) (describing how "lemons" are capable of driving quality cars out of a market because of buyers' inability to determine car quality before purchasing).
courts or agencies for adjudication. Adjudicators, in turn, determine whether the law was actually broken and impose penalties upon violators. This model is effective when the benefits from enforcing the law are greater than the costs of investigating, identifying, and proving violations. When the enforcement costs get disproportionately high, the model becomes ineffec
tual, if not altogether inapplicable, because enforcers can pursue only a fraction of offenders. Furthermore, society is often unable or unwilling to commit a large portion of its limited resources to law enforcement. When society underfunds courts and agencies, it weakens their ability to enforce the law both accurately and expeditiously. Underfunded courts and agencies face a choice: they must either slow their enforcement efforts down or compromise on accuracy. Private litigation can pick up some of the slack in public enforcement, but high costs discourage private efforts, too, especially when the benefits of litigation are low or uncertain. In either scenario, the comprehensive model of enforcement will not work properly and will systematically fail to deliver the desired results. The number of cases in which law enforcers will fail to enforce the law or adjudicators will enforce it erroneously will go up. This number will increase in parallel with the shortfall in society’s funding of law enforcement.

These constraints explain the presence of the randomized enforcement model, under which law enforcers apprehend and punish violators randomly and only once in a while, but the penalty is increased to offset the benefit that violators expect to derive from their ex ante prospect of not being caught. For

12. This Article uses the term “law enforcers” to capture the various actors who may play a role in uncovering and prosecuting violations. These may include local police officers, federal agencies, and—where a private civil action is available—private parties. In some cases, the same institution may engage in both law enforcement and adjudication; for example, the Environmental Protection Agency has the authority to investigate and sanction offenses. In other cases, law enforcers will have to persuade a separate institution, usually a court, to impose penalties.

13. This Article uses the term “penalties” in a broad sense that includes compensatory awards that successful plaintiffs recover from defendants.

14. See Margaret H. Lemos, Special Incentives to Sue, 95 MINN. L. REV. (forthcoming Feb. 2011) (explaining that private enforcement will be limited when the costs of litigation outweigh the expected benefits to the plaintiff).

15. See Becker, supra note 6, at 174.

16. See supra note 6. For an application of this principle to the civil setting, see Perez v. Z Frank Oldsmobile, Inc., 223 F.3d 617, 621 (7th Cir. 2000) (explaining that optimal deterrence is achieved when damages equal the harm
example, when the regular fine for a violation is $10,000, but law enforcers apprehend only one violator out of three, the fine for every convicted violator should be set at $30,000. The expected fine for prospective violators would then be $10,000: the same amount as the regular fine. The increased penalty that violators receive under the randomized model always equals the regular penalty amount ($P$) divided by the probability of enforcement. This probability is determined by the fraction of cases in which violators are actually punished ($1/f$). The heightened penalty for convicted violators consequently equals $f \times P$—a formulation that underscores the crucial role of penalty multipliers ($f$). Those multipliers set the expected penalty for prospective violators at the optimal amount ($P$). This adjustment offsets the incentive to break the law created by the gap between the complete and incomplete enforcement.\(^{18}\)

The accepted wisdom holds that the legal system should coordinate its use of those two models. Specifically, the system should apply the comprehensive model within its budget and up to the point of diminishing returns.\(^{19}\) After reaching this point, the system should switch to the randomized model. The randomized model compensates for shortfalls in law enforcement with a strike of a pen: instead of making a costly effort at apprehending violators on the ground, the model increases their penalty on paper. To make the threat of the increased penalty credible, law enforcers and adjudicators still need to apprehend and punish a sufficient number of violators. Failure to do so would erode the threat’s credibility. The legal system therefore still needs to invest substantial resources in law enforcement. However, the system becomes able to support itself with a partial enforcement and ration its effort at enforcing the law in an economically sensible way. This rationing is the main advantage of the randomized model.\(^{20}\)

\(^{17}\) See Becker, supra note 6, at 183.

\(^{18}\) See United States v. Elliott, 467 F.3d 688, 692–93 (7th Cir. 2006) (applying the multiplier method in meting out criminal punishment); Becker, supra note 6, at 180–84; Polinsky & Shavell, NEW PALGRAVE DICTIONARY, supra note 6, at 193–94; see also Parks v. Wells Fargo Home Mortg., Inc., 398 F.3d 937, 943 (7th Cir. 2005) (“One of the purposes of punitive damages is to punish a defendant who might otherwise find that its behavior was cost-effective.” (citing Polinsky & Shavell, Punitive Damages, supra note 6, at 887)).

\(^{19}\) See POSNER, supra note 4, at 563–64.

\(^{20}\) See Becker, supra note 6, at 184.
The randomized model enters the scene when comprehensive enforcement of the law costs the legal system too much. The system encounters this problem in cases involving covert violations of the law that are difficult to uncover. Antitrust violations, punishable by treble damages, are probably the best example of cases falling into this category. Other examples include violations of the Racketeer Influenced and Corrupt Organizations Act, the Antiterrorism Act, the rule prohibiting submission of false claims for payment to a federal agency, and the requirement that banks limit their activities to banking. These and some other violations of the law are punishable by treble damages.

The legal system also encounters the excessive-cost problem in cases where there is a substantial disparity of power between plaintiffs and defendants. Cases falling into this category involve violations of consumers’ rights, tenant abuse, embezzlement of a client’s money by her attorney, and other misdeeds. Suits filed in connection with those violations are extremely difficult to win because of the defendant’s formidable litigation resources that plaintiffs cannot match. As a result, only a small number of deserving plaintiffs file and prosecute suits against violators. One way of addressing this problem is

23. 18 U.S.C. § 2333(a) (2006) (entitling victims of international terrorism to recover from a liable defendant “threefold the damages he or she sustains”).
28. See, e.g., GA. CODE ANN. § 44-7-35 (West, Westlaw through 2010 Legis. Sess.) (allowing tenant to recover treble damages for landlord’s improper withholding of rent deposit).
29. See, e.g., MASS. GEN. LAWS ANN. ch. 221, § 51 (West, Westlaw through 2010 Legis. Sess.) (“An attorney at law who unreasonably neglects to pay over money collected by him for and on behalf of a client, when demanded by the client, shall forfeit to such client five times the lawful interest of the money from the time of the demand.”).
30. See, e.g., MASS. GEN. LAWS ANN. ch. 231, § 85J (West, Westlaw through 2010 Legis. Sess.) (“Whoever, by deceit or fraud, sells personal property shall be liable in tort to a purchaser in treble the amount of damages sustained by him.”).
to subsidize suits. 31 Another way is to ration the enforcement effort by accepting the fact that only a small proportion of the violations will be remedied, while increasing the violators’ penalty in order not to dilute deterrence. Both solutions call for an introduction of a special rule promising multiple-damage awards or other incentives to successful plaintiffs. 32

The randomized model has a number of shortcomings. Chief of those is the model’s limited scope. This model operates effectively when a monetary award adequately deters the wrongdoer and compensates the victim. These effects will be achieved in most, but not all, cases. In many instances, the only available enforcement measure is an injunction rather than compensation or fine. Monetary damages may be inadequate where the primary goal of the suit is to change the specific defendant’s action. More importantly, when the relevant offenders are state actors, a monetary award may be legally unavailable even where it is appropriate. 33 Because prospective injunctive relief cannot be multiplied to adjust for the fraction of violators who are punished, randomized enforcement will result in insufficient deterrence in these circumstances.

Another deficiency of the randomized model is distributive injustice. Under this model, the legal system systematically imposes harsh penalties on a relatively small number of violators and lets all others go scot free. Worse yet, because law enforcers and adjudicators choose this small number of violators from a large pool of suspects, they have an incentive to enforce the law only in easy cases in which violations can easily be proven. This selective targeting allows wealthy and sophisticated violators to avoid detection and sanction by taking measures that make the enforcers’ task difficult to carry out.

Finally, by substituting enhanced damages in a few cases for enforcement in a higher number of cases, the randomized model can undermine the norm-building function of the law. The goals of law enforcement and adjudication are not always confined to compensating victims and deterring future offenses. Enforcement events also play an expressive role, branding certain conduct as blameworthy and entrenching beneficial social

31. See Lemos, supra note 14 (discussing plaintiff-side attorneys’ fee shifts and multiple and punitive damages).
32. Id.
33. See infra notes 136–37 and accompanying text.
This important goal limits the system’s ability to ration its enforcement efforts.

B. STRATEGIC ENFORCEMENT

The comprehensive and randomized models of law enforcement are indispensable policy tools. However, they are not the only models available to the legal system. The conventional understanding of the law enforcement options ignores a third possibility: the model of strategic enforcement. This model concentrates the enforcement effort on the worst violators. Under this model, law enforcers enforce the law only against violators identified as the worst at the time of enforcement. The law enforcers tolerate the average and small-time infringers so long as they stay away from the “worst” category. As this section explains, a strategic enforcement strategy produces a socially beneficial dynamic—a cascaded retreat from high-end violations—that allows law enforcers to economize on enforcement costs while avoiding the distortions associated with the conventional models.

Strategic enforcement works as follows. A concentrated enforcement effort that exclusively targets the worst violators increases their probability of being apprehended and punished. Moreover, while rampant violators face a high expected penalty, all other violators are largely risk-free. This punishment differential will induce violators to constrain their activities in order to avoid becoming conspicuous. Under the comprehensive model, by contrast, some violators prefer to violate the law rampantly instead of staying in or below the average. To see why, consider a legal regime that imposes a $5000 fine on average violators and doubles the fine when a violator qualifies as "rampant" or "the worst." Assume for simplicity that the probability of apprehension is 0.5 for all violators. Under this set of facts, by moving from the "average" to the "worst" category, a violator will add $2500 to his expected penalty. Consequently, a


35. See supra Part I.A.
violator will upgrade his unlawful activity from “average” to “worst” whenever his expected benefit exceeds $2500.

The strategic model eliminates this perverse incentive. Under this model, average and below-average violations are considered tolerable and go unpunished. Conspicuous violators, on the other hand, face a near-certainty (say, a ninety percent chance) of punishment. As a result, an average violator’s transition to the “worst” category costs him $9000, as opposed to just $2500. An average violator consequently will avoid this transition even when he stands to gain $8900 from breaking the law.

Under the strategic model, violators will not downscale their unlawful activities just once. Rather, they will do so repeatedly. This cascaded retreat will be forced out by the model’s most crucial element: its self-adjusting comparative identification of the worst violators. More specifically, under the strategic model, the “worst” status will attach to violators occupying the upper end of the unlawfulness scale. The boundaries of this category will be dynamic. For example, when most drivers breaking the fifty-five miles per hour speed limit drive their cars at sixty-three miles per hour, a person who drives her vehicle at seventy miles per hour will fall into the “worst” category. This person could have escaped the “worst” categorization if the majority of the speeding drivers drove their cars at roughly the same speed as hers, with some highly reckless drivers driving their vehicles at eighty miles per hour. But because no other drivers actually drove at eighty miles per hour, the person driving at seventy miles per hour is an outlier—the status that makes her eligible for a penalty that will be imposed with a high probability. The strategic model penalizes outliers because they are outliers. This strategy incentivizes violators not to be in the outlier position at any given point in time.

The strategic model will authorize law enforcers to identify outliers—the worst violators—by the extent to which they break the relevant legal rule relative to other violators. Criteria for appraising this comparative egregiousness will vary with legal context, and could include the number of violations, the amount of the violator’s ill-gotten gain, and the magnitude of harm he caused to the victim and society at large. Policymakers will be free to combine these factors and rank their relative significance as they deem appropriate.

Because strategic enforcement employs a relative measure of wrongdoing, its comparative procedure for identifying out-
hers induces competition among violators as each tries to avoid being "the worst." This competition will lead to the violators' cascaded retreat. Each violator will try to bring his unlawful activity down to the second-worst level. Anticipating that other violators will do the same, he will try to outplay them by reducing the level of his activity again and again until he reaches a point where he is confident that he will not be exposed as an outlier. The violators' collective efforts will repeatedly reduce the volume of the unlawful activity. In theory, this process may eradicate the activity completely. More realistically, the process will be discontinued at a certain level of the unlawful activity that most violators perceive as a safe harbor.

For risk-averse violators, the certainty of the safe harbor will often be more valuable than an uncertain gain from a punishable violation. Thus, if a violator stands to gain $10,000 from an average or below-average violation and his expected gain from a rampant violation is $15,000, the violator's aversion toward risk might induce him to opt for the sure gain of $10,000. Whether it will happen or not depends on the intensity of the violator's aversion to risk. This factor will vary from one violator to another.

The aggregate effect of the violators' risk-aversion, however, will be systematic. Risk-averse violators will always try to keep their activities as close as possible to the safe-harbor zone. All other violators will anticipate this strategy and the consequent reduction of the tolerated volume of unlawfulness. Every violator will tend to reduce the volume of his unlawful activity in order not to fall into the "worst" category. The socially beneficial change in the behavior of risk-averse violators will therefore affect the behavior of all violators, including those who are not risk-averse. The overall effect of the strategic model's implementation will be an entrenchment of conduct that society can tolerate as minimally offensive or, at worst, has to put up with on account of scarce resources.

In sum, the strategic model offers an approach to law enforcement that avoids the pitfalls of the conventional enforce-

ment models. In contrast to the comprehensive model, strategic enforcement deters unlawful activity without requiring law enforcers to apprehend and sanction all or most offenders. Instead, like the randomized model, strategic enforcement lowers enforcement costs by targeting only a subset of violators. But while randomized enforcement creates incentives for law enforcers to focus on easy cases while the worst offenders go free, the strategic model focuses exclusively on the worst of the worst. The result, as explained above, will be a cascaded retreat away from illegal activity as violators compete with each other to avoid the outlier status. 37

The remainder of this Article illustrates how the strategic model of enforcement can work in diverse areas of the law. Part II begins with a stylized example of consumer protection, based on one of the classics of microeconomic theory. Part III takes up three real-world cases where neither the comprehensive nor the randomized model has succeeded, and shows how the compara-

37. Our tournament-based system of enforcing the law is not the only method of economizing law enforcers' efforts. Another method is "dynamic concentration." See Mark A.R. Kleiman, When Brute Force Fails: How to Have Less Crime and Less Punishment 49–65 (2009). This method's prototypical example features a Texas Ranger facing an angry mob that wants to lynch a prisoner inside the jail, whom the Ranger must protect. The Ranger is down to one bullet in his revolver, and the mob knows it. The Ranger, nonetheless, saves the prisoner by shouting at the mob, "Whoever takes the first step forward, dies." Id. at 55. The Ranger's success flows from his ability to rein in a subset of mobsters by threatening to shoot one of them, thereby freeing up a new enforcement capacity that deters other mobsters. This method of enforcing the law can be particularly effective against drug gangs. See id. at 176–77. For an innovative and insightful application of the "dynamic concentration" method, see generally Rachel A. Harmon, Promoting Civil Rights Through Proactive Policing Reform, 62 Stan. L. Rev. 1 (2009). This article focuses on the implementation of 42 U.S.C. § 14141(a), which authorizes the Department of Justice to sue police departments for unconstitutional police misconduct. To improve this provision's implementation, Professor Harmon urges the Department of Justice to target large police departments, to "generate and publish a list of departments it has reason to believe are engaged in the worst wrongdoing," to "sue those departments in which investigation confirms serious systemic misconduct," and to "publicly adopt the policy of refraining from investigating or suing any department that adopts . . . a set of standardized remedial measures" that the Department of Justice will determine in advance. Harmon, supra, at 4, 26, 37–38. These measures will induce many police departments to get off the blacklist by implementing the requisite remedial measures. Id. at 38–39. Under this system, the law enforcer sets the concentration dynamic in motion by making a credible commitment as to what violations it will and will not prosecute. Under our model, no such commitment is necessary. Rather, our model forces violators into a competitive self-selection process that will determine the inconspicuous—and hence tolerated—level of unlawful behavior.
tive focus of strategic enforcement might improve enforcement in each case.

II. STRATEGIC ENFORCEMENT AS A MARKET FOR ANTILEMONS

This Part presents a stylized prototype of strategic enforcement. The goal is to identify the conditions under which this model operates at its best and outperforms the two conventional models of enforcement. To this end, this Part revisits the classic "market for lemons" theory that establishes the impossibility of consumer protection in a nonregulated market. In so doing, it shows how the adoption of the strategic model can set up comprehensive consumer protection at a socially affordable cost.

The "market for lemons" scenario features sellers of used cars who cannot credibly inform potential buyers about the quality of their cars. When no other credible information is available, buyers cannot discriminate among used cars. Consequently, they will pay no more than the average price for any car offered for sale. Sellers who know that their cars are high quality but cannot support their true claims about the value of those cars will face skepticism from buyers. Car buyers, in turn, will ignore unsubstantiated claims because dishonest car sellers can replicate those claims as well. Owners of the best used cars may therefore decide not to sell them. Removal of those cars from the market will reduce the average quality and price of secondhand cars. Faced with this situation, owners of the second-best used cars may also decide not to sell their cars, thus dragging the average car quality and price further down. This process will repeat itself until the market turns into a "market for lemons," offering only the poorest quality cars.

To illustrate, consider a market offering for sale three types of used cars in equal numbers: the best, the second-best, and the worst (the "lemons"). Buyers are willing to pay $18,000 for a best-quality car, $10,000 for a second-best car, and $2000 for a worst-quality car.

38. See Akerlof, supra note 11, at 488–500.
39. Id.
40. See id. at 489.
for a "lemon." However, none of the buyers is able to ascertain a car's quality. The buyers consequently offer each seller the average car value: $10,000. This offer is way below the best cars' value, which prompts owners of those cars to remove them from the market. The market subsequently offers two types of cars: the second-best cars—that turn into the best—and the "lemons." The average price that buyers offer to the sellers correspondingly goes down to $6000. The price is far below the value of the second-best cars. Owners of those cars consequently have no choice but to remove them from the market. As a result, the only cars that remain on the market are the "lemons."

To avoid this socially harmful consequence, the state can set up a legal mechanism that will allow—or even require—car sellers to give warranties upon which buyers can rely. Buyers will then be willing to pay $18,000 for cars advertised as "best quality." To make this mechanism work, courts would have to enforce every warranty accurately and expeditiously. This is what the comprehensive model attempts to do. Under this model, courts will have to provide both prompt and accurate resolutions to numerous disputes between buyers and sellers of used cars. This model will consequently be costly to implement (but the expenditure might still be worthwhile).

As an alternative measure, the state may devise a cheaper system of enforcement. This system will punish breaches of warranty only once in a while, but the punishment for apprehended violators will be harsh. The expected punishment will be set high enough to deter unscrupulous sellers of used cars. This economized deterrence is what the randomized model tries to achieve. The model achieves this deterrence by creating a distortion in the distribution of legal penalties and remedies. Under this model, numerous violators will go free while many deserving plaintiffs are denied a remedy. Over time, however, this distortion will supposedly disappear. Theoretically, the prospect of harsh punishment will induce all violators not to break the law.42

The strategic model offers the state a third enforcement mechanism. This model imposes highly probable harsh penalties on the worst violators of car-selling warranties—those who overprice their cars by the largest margin—and abstains from enforcing the law against other infringers. This system will exploit asymmetrical information: the fact that one violator can—
not predict and rely upon other violators’ behavior. This informational asymmetry will force violators to compete against each other over whose conduct avoids being the worst.

This competition will force the violators into a cascaded retreat. Assume again that all sellers begin by advertising their cars as “best” and asking $18,000. As the sellers compete to avoid the outlier status, those offering “lemons” will have a strong incentive to give buyers more accurate information about their cars’ quality. At any given point in time, each seller will try to outperform its competitors in order to avoid being identified as the worst violator. This dynamic will reduce the asking price of a “lemon” car to $2000 (or a close amount). Because a “lemon” owner is unaware of other car sellers’ strategies, it will be too risky for him to ask for any price that substantially exceeds $2000.43

Anticipating the “lemon” owners’ new pricing, sellers of second-best cars will be reluctant to pass their cars off as best-quality cars. Any such misrepresentation might fall into the “worst” category and make the seller eligible for the penalty. Whether it will happen depends on how other sellers misrepresent their second-best cars, but this information is not available to the seller. The seller only knows that other sellers will try to outperform him in informing the buyers about their cars’ quality. This competition will bring the asking price for a second-best car down to $10,000 (or a close amount). This correct price will separate the second-best cars from the best, thereby transforming the market for “lemons” into a market for “anti-lemons.”

This consequence is what the strategic model can achieve when it operates at its best. But the model’s best performance is not guaranteed. Rather, it depends upon numerous factors. First, the strategic model can only work properly when the violators cannot make a dependable conspiratorial agreement that will align their violations. When violators can coordinate the level of their unlawful activity, law enforcers will not achieve the cascaded retreat. Under such circumstances, they will have to choose between the comprehensive and the randomized model of enforcement.

43. The “lemon” car owner will avoid taking this risk for a simple reason. An addition of $100 to his asking price will overprice the “lemon” and misrepresent the warranty by five percent, while a similar addition to the true price of a second-best car ($10,000) will overprice it by only one percent.
Most violators, however, will not be able to coordinate the level of their unlawful activities. Their costs of getting organized, making dependable undertakings, and preventing holdouts will be too high. Moreover, multiple actors coordinating an unlawful activity will often expose themselves to additional sanctions that include penalties for conspiracy, for antitrust violations, and for obstruction of justice. These additional penalties reduce the attractiveness and the probability of the violators' cooperation.

Second, the cascaded retreat may not eradicate all illegal activity. Even in the absence of conspiracy, it may stop at a certain level of infringement. For example, sellers of the second-best cars may advertise them as “nearly as good as the finest cars” and set their asking prices around $16,000. They may adopt this uniform selling method spontaneously—without any prior agreement—just because it offers an attractive way to turn a profit. Assuming that the $2000 “lemons” are no longer in the pool, this selling method will prompt buyers to cap their offers at $14,000. Many, if not all, owners of the best used cars will consequently remove those cars from the market. The “market for lemons” dynamic will thus unfold once again.

Although strategic enforcement may leave some false warranties in place, the “lemons” that take over the market are not nearly as sour as they were in the original “market for lemons” case. Ideally, cars should be sold at their correct prices, and should be accompanied with manufacturers’ and sellers’ warranties upon which buyers can depend. The legal system should try to achieve this desirable state of affairs. Yet, it will be expensive for law enforcers and adjudicators to enforce each and


46. Buyers will settle on $14,000 as a maximum offer because they will not be able to distinguish between the $18,000 (best) and the $10,000 (second-best) cars.
every warranty effectively. The need to avoid such costly efforts may turn the strategic model of law enforcement into a superior policy tool. Under this model, society would spend resources only to mount a credible threat of penalty against the worst violators of car warranties. This threat will induce the socially beneficial dynamic of cascaded retreat. To avoid the “worst violator” status, sellers of used cars will sequentially improve their compliance with warranties. This improvement, admittedly, will not eliminate all warranty violations, but it will go a long way to mitigate the violations’ severity. This mitigation may be substantial enough to make it imprudent for society to embark on an expensive large-scale enforcement campaign against all violators.

Third, the success of the strategic model depends on mounting a credible threat of penalty for the worst offenders. Recall that a common problem with the comprehensive approach is that violations may be difficult—and therefore expensive—to expose. Where it is equally difficult to expose violations as rampant, the strategic model will be weakened accordingly. And, of course, where it is even more difficult to apply a relative performance measure than an absolute one (for example, when the number of violators is extraordinarily high and their violations are difficult to uncover), a strategic approach to enforcement will be inappropriate.

In many cases, however, the comparative focus of the strategic model may make it easier to spot outliers than run-of-the-mill violators. This will often be true where the standard for liability is vague, such as a requirement of “reasonable” or “good faith” effort. Suppose, for example, that lawmakers replaced a fifty-five mile per hour speed limit with a prohibition on “dangerous” driving. Focusing enforcement efforts on the fastest drivers at a given point in time would offer a straightforward way to give effect to that prohibition and avoid the need to determine the meaning of “dangerous” in the abstract. The same will hold whenever it is difficult for policymakers to specify in advance what the “right” answer is in a given context, or to measure progress relative to that goal. Just as auctions can help sellers identify the right price for their items, comparing the behavior of similarly situated actors can help law enforcers identify wrongs.

Yet, the strategic model differs from regular auctions in one important respect—a difference that underscores another advantage of the model. Regular auctions suffer from the “win-
ner’s curse” problem: auction participants tend to reduce their bids out of fear that the auction’s winner will have overpaid for the auctioned item because her bid was an outlier compared with the bids of other participants. This fear leads to an under pricing of the seller’s item. The strategic model of enforcing the law will encounter no such problem. Under this model, an outlier will lose the auction instead of winning it, while the competition over the spots in the “safe harbor” zone can be won by multiple actors simultaneously. Winning the strategic model’s auction therefore is always a blessing, not a curse.

Fourth, the strategic model will perform best when the behavior that will place a violator in the “worst” category is difficult to predict ex ante. Speeding drivers can see how fast other cars are moving and adjust their speed accordingly. Although strategic enforcement still can be useful in such circumstances, there is a risk that drivers will coordinate their behavior without communicating directly. Imagine, instead, that each driver had to choose her speed without being able to observe the other cars on the road. It is in that scenario—where each potential violator must make a completely independent judgment about the level of activity that will render her an outlier—that the strategic model works best.

For a real-world example, consider government’s approach to abusive tax avoidance. Abusive tax avoidance commonly involves reporting of exaggerated expenses and other deductibles to a tax agency. To counter this practice in a comprehensive way, the agency must audit the taxpayers’ returns line-by-line. Such comprehensive auditing, however, is unrealistic. Tax agencies simply do not have enough personnel and resources for carrying it out. The agency therefore needs to find a suitable substitute for comprehensive enforcement. One such substitute is the “Discriminant Index Function” (DIF) method, used by the IRS.

This method uses a formula that assigns a score to each return based on the difference between the reported and the standard amounts for each type of income and deduction. The DIF is determined by a statistical analysis of those scores.

49. See, e.g., id. at 1068–70 (describing the DIF method used by the IRS).
50. Id.
This analysis uses the cutoff score for identifying suspicious returns. Returns with DIF scores higher than the cutoff are identified as prima facie suspicious. The IRS subsequently examines those returns individually to identify the taxpayers that require audit.51 The DIF formula and the cutoff score are both secret.52

This secrecy is the core component of the DIF-based enforcement of tax laws. Taxpayers do not know—and are not supposed to know—the DIF formula and the cutoff score.53 All they know is that a high DIF score will expose their tax affairs to an audit and that their scores depend on the difference between their reported income and deductions and the income and deductions factored into the secret DIF formula as standard or normative for the given occupation or business. This difference marks a taxpayer’s return as suspicious when it scores high relative to other taxpayers’ returns.54

This anticipation forces the taxpayers into cascaded retreat. To avoid audit, every taxpayer needs to outplay others by scoring less than they do on the secret DIF scale. Anticipating the outplay prospect, all taxpayers will take their fraudulent reporting down to the level they consider prevalent and, consequently, inconspicuous. This dynamic, in turn, will push down the “standard” deductions for each category.55 Aware of the fact that some taxpayers will inevitably win the DIF tournament, each individual taxpayer will try to be outscored by others. The taxpayers’ uncoordinated efforts will be made under extreme uncertainty. Each taxpayer will try to identify the safe harbor of a low DIF score while he is unaware of other taxpayers’ re-

51. Id. at 1068–69.
52. Id.
53. As the First Circuit has explained, “the IRS closely guards information concerning its DIF scoring methodology because knowledge of the technique would enable an unscrupulous taxpayer to manipulate his return to obtain a lower DIF score and reduce the probability of an audit.” Gillin v. IRS, 980 F.2d 819, 822 (1st Cir. 1992). This information is confidential under 26 U.S.C. § 6103(b)(2)(D) (2006), which exempts from disclosure “standards used or to be used for the selection of returns for examination, or data used or to be used for determining such standards.” See also 5 U.S.C. § 552(b)(3) (2006) (providing that the Freedom of Information Act does not apply to “matters . . . specifically exempted from disclosure by statute”); Aronson v. IRS, 973 F.2d 962, 967 (1st Cir. 1992) (ruling that confidentiality of tax information under 26 U.S.C. § 6103(b)(2) trumps the Freedom of Information Act).
54. Lawsky, supra note 48, at 1068–69.
55. The DIF formula is secret, but it is safe to assume that the IRS formulates its norms by considering the going rates of expenses and other deductions that appear in tax returns.
ported deductions and income. This dynamic will reduce the magnitude (but not the incidence) of tax frauds.

Taxpayers' aversion toward risk will bring the magnitude of those frauds further down. Fearful of the high penalties for tax evasion, risk-averse taxpayers will not suffice themselves with a high probability of getting a low DIF score. Rather they will try to secure the placement of their returns in the safe harbor zone. These efforts will reduce the average misreported amounts of income and deductions for all taxpayers, thereby increasing the conspicuousness of aggressive tax evasions. To avoid this increased conspicuousness, taxpayers with no aversion to risk will have no choice but to curb their fraudulent ambitions as well.

This Part has used the stylized “market for lemons” scenario to single out the comparative advantages of the strategic model, and to expose some of its limitations. Strategic enforcement will not work when violators can easily coordinate their behavior, or when it is difficult for law enforcers to compare the conduct of multiple violators. Moreover, while application of the strategic model should reduce the overall level of violations, it will not necessarily stamp out all illegal activity.

One final limitation warrants mention here. The strategic model will be easiest to implement in areas that feature a single enforcer of the law, typically a governmental agency, who uses the available information to identify the worst offenders. All the illustrations thus far have involved this type of public enforcement of the law. The strategic model, however, also can work in a decentralized mode of private or multiple-agency enforcement. To achieve this effect, multiple enforcers must pool their information about violators' misdeeds. They must disseminate copies of suits, indictments, and court decisions, engage experts,56 and cooperate with watchdog organizations that monitor relevant violations. The remainder of this Article shows how decentralized private enforcers of the law can take advantage of the strategic model in real-world settings.

III. STRATEGIC MODEL AT WORK

This Part uses three examples from federal law to demonstrate in more detail the potential advantages of the strategic model. In two of those examples—employment discrimination and state legislative districting—enforcement currently follows

56. See infra note 170.
the comprehensive model. However, inadequate plaintiff resources and difficulties of proof make truly comprehensive enforcement impossible in both areas, leaving many violations unpunished. The third example involves damages for copyright infringement, where the law has embraced the randomized model of enforcement. The randomized approach promotes deterrence at a low cost to enforcers, but achieves this goal in a way that imposes crippling compensation duties on small-time infringers while doing little to discourage the worst offenders. This Part explains how policymakers and law enforcers could use the strategic model to improve enforcement efforts in each area, focusing enforcement where it is most needed without raising—and in some cases reducing—the overall costs to society.

A. EMPLOYMENT DISCRIMINATION

Federal law prohibits discrimination in employment on the basis of various protected characteristics, including race, gender, national origin, religion, age, and disability. For the sake of simplicity, the discussion here will focus on racial discrimination, which is barred by Title VII of the Civil Rights Act of 1964. Enforcement of Title VII reflects the comprehensive model. It relies primarily on the efforts of employees (or prospective or former employees) who can sue in court to collect damages from employers who violate the statute. Congress has facilitated such litigation with statutory provisions that permit prevailing plaintiffs to recover their attorneys' fees and to collect punitive damages from employers who are shown to have acted with "malice or reckless indifference to the federally protected rights of an aggrieved individual." Despite these inducements, most observers agree that enforcement still

falls far short of the ideal, in part because employment discrimination allegations are notoriously difficult to prove.\textsuperscript{64}

Because Title VII prohibits discrimination "because of" race,\textsuperscript{65} its most straightforward application is to intentional discrimination—widely known as "disparate treatment."\textsuperscript{66} A plaintiff alleging disparate treatment must prove not only that he received less favorable treatment than his white counterparts, but also that the defendant employer took the challenged action because of race and not for some permissible reason.\textsuperscript{67} For obvious reasons, proof of discriminatory intent is hard to

\begin{footnotesize}
\begin{enumerate}
\item See Kevin M. Clermont & Stewart J. Schwab, \textit{How Employment Discrimination Plaintiffs Fare in Federal Court}, 1 J. EMPIRICAL LEGAL STUD. 429, 457 (2004) (explaining that employment-discrimination plaintiffs win only about thirty-seven percent of cases that go to trial before a judge, compared to a win rate of fifty-nine percent for plaintiffs in tort and contract cases before a judge). See \textit{generally} Michael Selmi, \textit{Why are Employment Discrimination Cases So Hard To Win?}, 61 LA. L. REV. 555 (2001). Studies have shown that employment discrimination cases also tend to settle less frequently than other civil cases. See, \textit{e.g.}, Theodore Eisenberg & Charlotte Lanvers, \textit{What Is the Settlement Rate and Why Should We Care?}, 6 J. EMPIRICAL LEGAL STUD. 111, 140 (2009) ("The pattern strongly supports the notion that employment cases settle less frequently than contract or tort cases"). Studies have further shown that settlement amounts are often quite low. See Laura Beth Nielsen et al., \textit{Uncertain Justice: Litigating Claims of Employment Discrimination in the Contemporary United States}, AM. B. FOUND. RES. PAPER SERIES 08-04 (2008), available at http://ssrn.com/abstract=1093313.
\item Many scholars have argued forcefully that a focus on intentional discrimination is inadequate to address the complicated and subtle forms of disadvantage that minority and female employees face today. See \textit{generally} Linda Hamilton Krieger, \textit{The Content of Our Categories: A Cognitive Bias Approach to Discrimination and Equal Employment Opportunity}, 47 STAN. L. REV. 1161 (1995) (emphasizing that bias often is unconscious and unintentional). Doctrinally, moreover, Title VII has been extended to employment practices that have a discriminatory \textit{effect} on minority applicants and employees. See 42 U.S.C. 2000e-2(k). This Article does not suggest that hard-core intentional discrimination is the only—or even the most harmful—contemporary form of employment discrimination. However, few would argue that intentional discrimination has been eradicated completely by the prevalent approach to Title VII enforcement. Cf. Krieger, \textit{supra}, at 1163 (noting that "well over 90 percent" of Title VII cases are disparate-treatment cases). Thus, it is worth considering how the strategic model could enhance enforcement of the core prohibition on intentional discrimination.
\item See Int'l Bhd. of Teamsters v. United States, 431 U.S. 324, 335 n.15 (1977) ("Disparate treatment . . . is the most easily understood type of discrimination. The employer simply treats some people less favorably than others because of their race, color, religion, sex, or national origin. Proof of discriminatory motive is critical . . ."); Paul N. Cox, \textit{Employment Discrimination} 7-4 (3d ed. 2005) ("[D]isparate treatment is 'intentional discrimination' or, more accurately, distinction in treatment motivated by race (or other prohibited ground)."").
\end{enumerate}
\end{footnotesize}
obtain. Evidence regarding the employer's decisionmaking process is both generated and controlled by the defendant employer. Although discovery offers plaintiffs an opportunity to elicit information from the defendant, smoking-gun evidence of discrimination is rare. Plaintiffs thus face an uphill battle in establishing illicit motivation by circumstantial evidence. Employers, on the other hand, can easily offer and substantiate facially legitimate explanations for employment decisions.

Cognizant of this disparity of power and of plaintiffs' difficulty in proving discriminatory intent, courts have embraced statistics as an alternate source of proof in disparate-treatment cases. In theory, statistical evidence showing gross disparities between the percentage of minorities in a given position and the percentage of qualified minorities in the relevant labor market can create a powerful inference of discrimination. But statistical proof has its own difficulties. The statistical approach requires the parties and the court to identify the appropriate group for comparison, which can raise tricky questions about who counts as "qualified" and what constitutes the relevant labor market, often demanding resort to complicated and contestable regression analyses. Once those obstacles are


69. See, e.g., id. at 1203 ("Evidence of illicit intent may be extremely difficult to obtain, whether the responsible individuals are conscious of their bias, and therefore likely to try to hide it, or whether they are expressing unconscious bias through some discretionary decisionmaking process."); Selmi, supra note 64, at 563 ("[I]t seems that the general consensus today is that the role discrimination plays in contemporary America has been sharply diminished, and those who take this view are reluctant to find discrimination . . . based on circumstantial evidence.").

70. See Richard A. Posner, The Efficiency and the Efficacy of Title VII, 136 U. PA. L. REV. 513, 518 (1987) ("[E]ven a bigoted employer is unlikely to take out his racial animus against a perfect worker. Most workers are not perfect. As to them, it is usually easy to supply a plausible reason why they were not hired or why they were let go.").

71. See Paul Meier et al., What Happened in Hazelwood: Statistics, Employment Discrimination, and the 80% Rule, 1984 AM. B. FOUND. RES. J. 139, 139 ("Tests of statistical significance have increasingly been used in employment-discrimination cases since the Supreme Court's decision in Hazelwood.").


73. See Thomas J. Campbell, Regression Analysis in Title VII Cases: Minimum Standards, Comparable Worth, and Other Issues Where Law and Statistics Meet, 36 STAN. L. REV. 1299, 1299–1300 (1984) (discussing problems with identifying qualified workers); Meier et al., supra note 71, at 146 ("[T]he choice of the relevant labor market to be used as a standard of comparison can be a
cleared, an additional question arises concerning legal and statistical significance. Suppose plaintiffs can show that the percentage of minorities employed by the defendant is lower than the percentage of qualified minorities in the relevant labor market. How big must the difference be in order to raise an inference of discrimination? Most courts have adopted familiar tests of statistical significance to answer that question, but commentators have argued persuasively that there are critical differences between statistical significance and the real-world, practical significance.

Commentators likewise have challenged the core doctrinal assumption that "nondiscriminatory hiring practices will in time result in a work force more or less representative of the racial and ethnic composition of the population in the community from which employees are hired." Because "[a]ctual hiring practices . . . rarely approximate a random process," a comparison between real hiring and an idealized random hiring process will not necessarily expose discrimination. Finally, statistical proof is merely the first step for plaintiffs seeking to prove intentional discrimination. Ultimately, each plaintiff must prove that he was a victim of the employer's presumptively discriminatory practice, which means that he must rebut any evidence the defendant presents to show that he would not have been hired regardless of race. As already explained, it is complex question not necessarily admitting of a simple, unique, or unambiguous answer.

74. Hazelwood, 433 U.S. at 311 n.17 ("[A] fluctuation of more than two or three standard deviations would undercut the hypothesis that decisions were being made randomly with respect to race." (citing Castaneda v. Partida, 430 U.S. 482, 497 (1977))).

75. See, e.g., Allan G. King, "Gross Statistical Disparities" as Evidence of a Pattern and Practice of Discrimination: Statistical Versus Legal Significance, 22 Lab. Law. 271, 272 (2007) ("[I]f applied mechanistically, 'statistical significance' can mislead by indicating disparities at Employer A are 'grosser' than those at Employer B, when in fact the opposite is true, merely because Employer A is much larger.").


78. Class action or "systemic" discrimination cases are typically bifurcated into liability and remedy stages of trial. Statistical proof can establish liability, creating a presumption that all of the plaintiffs in the class were the victims of discrimination. At the remedy stage, the defendant can rebut this presumption with proof that the same decision would have been made as to any
exceptionally difficult for plaintiffs to prove why an employer made a particular decision.\textsuperscript{79}

The comprehensive model of enforcement does not work well in circumstances like these, where would-be enforcers face significant difficulties in amassing the evidence they need to prove violations of the law. One solution would be to devote more resources to law enforcement, for example by buttressing private enforcement with a more muscular version of public enforcement than the one that currently exists.\textsuperscript{80} If cost were no object, comprehensive enforcement could be improved significantly. But in the real world of limited resources, the current approach to enforcement will continue to produce a high ratio of false negatives.

Alternatively, lawmakers could turn to the randomized model in an effort to correct for the shortfall in enforcement, and adopt a rule that any employer found liable of a violation must pay the successful plaintiff’s treble damages. By increasing the penalty for proven violations, the randomized model might result in more voluntary compliance. It would do so, however, at a high cost to distributive fairness, as many victims would continue to go uncompensated while others would receive a windfall. Such distributive distortions are a problem with any use of the randomized model, but the concern seems especially pressing in this context. Because compensatory damages under Title VII are tied to wages, discrimination against upper-echelon, white-collar workers is far more costly than discrimination against low-paid, unskilled workers.\textsuperscript{81} Accordingly, a damage multiplier would be unlikely to deter discrimination across the board. Although it might decrease more costly forms of discrimination, it would do relatively little to protect low-paid workers whose claims for lost wages or back pay, even if tripled, have only a marginal effect on the bottom line.

given plaintiff notwithstanding the discriminatory practice. In individual disparate treatment cases, most courts hold that statistical proof alone cannot establish liability if the employer advances an individual, nondiscriminatory reason for its conduct. See King, supra note 75, at 272. \textsuperscript{79} See supra note 70 and accompanying text.

\textsuperscript{80} See Lemos, supra note 61, at 383–86 (describing recurrent proposals to give the Equal Employment Opportunity Commission authority to enforce Title VII directly through cease-and-desist orders).

Apart from causing injustice to individual victims of discrimination, randomized enforcement would undercut the norm-building function of Title VII adjudication. The goal of such adjudication is not merely to compensate victims of discrimination, but also to transmit—and ultimately entrench as a social norm—the egalitarian message that race, gender, and other protected characteristics should not negatively affect a person's employment prospects and conditions.\textsuperscript{82} Attainment of this goal depends critically on the number of cases in which courts find the discriminating employer liable and its victim entitled to legal redress. By leaving deserving plaintiffs without vindication and redress, courts will slow down this important social process.

The strategic model of enforcement could ameliorate the problems of proof associated with the comprehensive model while avoiding the distributive and other concerns raised by the randomized model. Rather than relying on employees to come up with evidence of discrimination by employers, a strategic approach could focus enforcement on results, targeting employers who are outliers in the sense that their workforces reflect abnormal racial imbalances. Plaintiffs seeking to prove discrimination in hiring, for example, would need to prove only that the percentage of minorities in the defendant's workforce is lower than the percentage of minorities employed by similarly situated employers. Policymakers could, of course, adopt different criteria for identifying the "worst" abnormalities and the "worst" offenders.\textsuperscript{83} The critical point is that the egregiousness of any employer's behavior would be gauged by comparison to similar employers' behavior.

To see how strategic enforcement would work, imagine a somewhat stylized model of hiring, under which each employer faces a choice among three options: (1) hire the most qualified applicants regardless of race; (2) favor white applicants, so that less-qualified white applicants are chosen over more-qualified minority applicants; or (3) favor minority applicants. The second option—discrimination against minorities—will be precarious under a strategic enforcement model. Unless all em-

\textsuperscript{82} See Sunstein, \textit{supra} note 34, at 2043 (emphasizing the expressive value of law in promoting racial and gender equality by "shift[ing] social norms and social meaning").

\textsuperscript{83} The discussion that follows identifies the "worst" offenders in hiring discrimination by reference to the proportion of minorities employed in a given position. As noted in the text, however, policymakers could employ the strategic model of enforcement while adopting a different measure of egregiousness.
ployers discriminate in the same way, any employer who hires disproportionately few minority employees risks standing out as an outlier. The third option—preferential treatment of minorities—will be unnecessary for the same reason. Absent cause to believe that other employers are engaging in a vigorous form of affirmative action, an employer will not need to favor minorities in order to avoid penalties. The most straightforward option for each employer, then, is simply to hire qualified applicants without regard to race.

This is not to say that the strategic model will weed out all discrimination; employers may still favor white applicants if they believe the benefits of that practice outweigh the costs. But a strategic approach to enforcement changes the cost-benefit analysis in several ways. Under existing law, penalties tend to take the form of lightning strikes. Title VII suits are always a possibility, but rarely a success. The difficulties in proof that allow many employers to avoid sanction depress the expected costs of discrimination. Under the strategic model, by contrast, establishing liability is relatively cheap and easy for plaintiffs. The ease of enforcement raises the expected costs of discrimination even if the penalty for each violation remains the same. The strategic model also focuses enforcement efforts on a relatively small set of employers—those who exhibit abnormal racial imbalances in the workforce and consequently stand out as rampant violators. Each employer will know that it faces a high risk of sanction if it becomes an outlier, but will not know in advance which actions will prove to be conspicuous from a comparative perspective. In such circumstances, the employer can safely discriminate only if it is confident that all or most of its competitors are also discriminating at equivalent levels. Such confidence would seem ill-founded in the absence of collusion, since other employers will have to balance the gains from discrimination against the expected costs, and will fear enforcement unless they are confident that their competi-

84. See supra note 64 and accompanying text.
85. It should be clear that the model will work only when employers cannot effectively collude with one another. Each employer might be able to identify the percentage of minorities employed by its competitors, but this figure will constantly be in flux. Absent collusion, an employer cannot be sure that its competitors will not hire more minorities, thereby making it an outlier. Theoretically, any given employer could constantly keep an eye on the racial balance in its competitors' workforces and adjust accordingly—and as a result, it may be able to get away with turning away some qualified minority applicants if every other employer is also sailing relatively close to the wind—but such a strategy seems too burdensome to hold much appeal for the average employer.
tors are discriminating as well. Thus, the cost-benefit analysis that each employer will undertake needs to track the analyses made by its competitors, as the likelihood of sanction depends directly on the choices made by other employers. The enlightened (or strategic) choices by some employers effectively raise the bar for all, setting off a cascaded retreat from high-end violations.

The proposed approach eases enforcement efforts by exchanging an inquiry into an employer’s subjective intent for a focus on both observable and verifiable factors such as the number or percentage of minorities employed in a given position. In itself, that shift in emphasis is not unique: as explained above, existing law has embraced statistical evidence as a way for plaintiffs to establish liability without the need for evidence of the defendant’s state of mind. An even simpler—albeit highly controversial—way to link liability to easily accessible evidence would be to adopt a quota system. The remainder of this section examines how the strategic model differs from these two alternatives. Although all three approaches emphasize the outcomes of employment decisions rather than the employers’ motivations, they are different in important respects. Attention to those differences helps highlight the possible advantages, as well as the limitations, of the strategic model.

Consider, first, a simple quota approach, such as “a requirement that every firm employ minorities in proportion to their percentage in the national population.” Such a rule may be grossly inaccurate as a proxy for nondiscriminatory hiring. If a minority group accounts for fifteen percent of the national population but only five percent of the qualified applicant pool—perhaps because historical trends have deprived its members of the necessary qualifications—a quota will go beyond preventing current discrimination, and will force employers to hire under-qualified minority applicants. On the other hand, if more than fifteen percent of qualified applicants

86. See Meier et al., supra note 71, at 139–42.
87. See generally Michael H. Gottesman, Twelve Topics to Consider Before Opting for Racial Quotas, 79 GEO. L.J. 1737, 1748–56 (1991) (arguing that alternative programs for prioritizing minority employees are preferable to racial quotas).
89. See Gottesman, supra note 87, at 1737–39.
are minorities, a quota tied to national population percentages would permit employers to reject qualified applicants solely because of their race.

The strategic model ducks the difficult line-drawing problems that bedevil any quota system by relying on the employers’ tournament to draw the line. Employers are better situated than judges or legislators to gauge the relative qualifications of any given applicant for any given job. Perhaps the result will be fifteen percent minorities; perhaps it will be five percent; perhaps it will be seventy-five percent. The “right” result will depend on the characteristics of the relevant job. By linking sanctions to a comparison between the revealed hiring preferences of similarly situated employers, strategic enforcement can utilize the employers’ superior knowledge and experience. More precisely, application of the strategic model will force out information as to which workforce is a racially imbalanced outlier relative to comparable workforces that constitute the employers’ norm.

Consider, now, how the strategic model differs from the current system’s reliance on statistical evidence. The prevalent approach to statistical evidence assumes that, in the absence of discrimination, the outcome of employment decisions will resemble the outcome of a random sampling of employees from a qualified pool of applicants. Just as a bright-line quota may fail to reflect the realities of the labor market, the mathematical ideal of random hiring oftentimes proves to be unrealistic in practice. In such situations, the statistical approach can generate false positives and false negatives. Here, too, a comparison between similarly situated employers may increase both accuracy and ease of enforcement. For example, one way in which actual hiring practices deviate from the imagined ideal of random selection is that employers often hire employees in non-random groups, such as when “a person recruited . . . recommend[s] or otherwise bring[s] along friends into the company,” or when “success with applicants from a given school or other organization . . . set[s] up a short-term ‘pipeline’ of future applicants.”

Neither scenario necessarily reflects discrimination,

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91. Meier et al., supra note 71, at 154.
but the results may look like discrimination if clustering effects are not properly taken into account.\textsuperscript{92}

If clustered hiring is indeed the norm rather than the exception—as commentators have argued\textsuperscript{93}—the strategic model should avoid this problem, because the defendant-employer and its competitors in the labor market will follow similar hiring patterns. More broadly, unless an employer's hiring practices are especially idiosyncratic, the comparative approach of the strategic model might help ameliorate the problems that accompany comparisons between real-world hiring and random samplings.

As the discussion thus far suggests, the strategic model will work best in areas where there is an easily identifiable market. A strategic approach to enforcement requires precision in identifying similarly situated employers—it would not be useful to compare the percentage of minorities employed as law professors in New York City to the percentage of minorities employed as middle school teachers in New York City or the percentage of minorities employed as law professors in Milwaukee. In that sense, the model might replicate some of the difficulties with statistical evidence under the existing system, which requires plaintiffs to identify the relevant labor market. Yet the strategic model's real-world orientation allows it to sidestep some of the thorniest problems with the current system. For example, the strategic model largely avoids any need to identify the necessary qualifications for a job, since it focuses on a comparison of actual employees, and employers are presumed to hire only qualified workers. Similarly, while current law must take pains to avoid comparisons to workforces that are skewed by affirmative action programs,\textsuperscript{94} no such correction is required under the strategic model. Only if virtually every employer engaged in affirmative action would an employer's failure to exercise race-based preferences result in outlier status. And in the event that the overwhelming majority of employers decided without legal compulsion that business would be improved by hiring significantly more minorities, it would then seem appropriate to view with suspicion any employers who did not follow suit.

\textsuperscript{92} See id. at 155.

\textsuperscript{93} See id. at 154.

\textsuperscript{94} See Hazelwood, 433 U.S. at 311–12 (emphasizing the importance of “appropriate comparative figures”).
An important caveat is in order. The goal here is not to offer a "fix" for the current state of antidiscrimination law, and this Article addresses only a small slice of that immense topic. However, strategic enforcement need not be an all-or-nothing affair. The strategic model could be used as a cost-saving supplement to—rather than a replacement of—the traditional comprehensive approach to enforcing the ban on intentional discrimination. Moreover, strategic enforcement of straightforward disparate treatment claims could coexist with special enforcement strategies for combating various subtle forms of discrimination not discussed here. For example, the strategic model is hardly suitable as a tool for eradicating structural barriers to employment advancement, such as those associated with childcare responsibilities. Although discrimination against employees with children is wrong, it is entirely rational from an employer's perspective. Hence, there is a heightened risk that all or most employers will decide independently to engage in such discrimination, which will impede the cascaded retreat that lies at the core of the strategic model.

Although the strategic model is not a panacea, its comparative focus offers some noteworthy advantages over conventional approaches to liability. In contrast to the comprehensive approach that requires parties and courts to undertake a complicated and costly inquiry into discriminatory intent, the stra-

95. The possibility of a mixed approach should help ameliorate concerns that the simple strategic model would yield too many false negatives or false positives. For those who believe that the strategic approach would result in insufficient enforcement, the model could be supplemented by other approaches to enforcement, whether public or private. Those who believe that the strategic model would produce overenforcement may still benefit from our new insight by treating the "outlier" status as a necessary, albeit not sufficient, condition for liability. Under this approach, the plaintiff would bear the burden of proving that the defendant-employer's workforce contains fewer minorities than comparable workforces. The burden would then shift to the defendant to establish that it would have made the same employment decision regardless of race. The result would parallel the current judicial treatment of mixed-motive cases. See 42 U.S.C. § 2000e-2(m) (2006); Desert Palace, Inc. v. Costa, 539 U.S. 90 (2003).

96. The risk of "rational" discrimination exists in our hiring example as well, as employers might rely on racial stereotypes in an effort to reduce search costs. But the likelihood that multiple employers will settle independently on the same course of action, with the same results, seems significantly lower in the hiring context. It is easy to imagine multiple employers independently choosing to reward employees who work long hours, without regard to childcare responsibilities. It is far more difficult to imagine multiple employers independently adopting precisely the same approach to hiring, resulting in equal numbers of minority employees in comparable positions.
tegic model links liability to observable, verifiable, and easy-to-prove facts about an employer's workforce. Strategic enforcement would require plaintiffs to amass information about multiple employers, rather than just one—an extra burden that might involve a significant cost. On the other hand, the strategic approach would also create a strong incentive for potential plaintiffs, legal advocacy groups, and civil rights watchdogs to pool information about discriminatory employment practices. This network economy may ultimately improve the enforcement of antidiscrimination laws. As explained in the previous Part, the strategic model works best in areas where it is more difficult for law enforcers to identify "bad" than "worst." Whether that is true in the employment-discrimination context is an empirical question on which—to date—there is no evidence. Given the stark shortcomings of the current approach to Title VII enforcement, the strategic model merits consideration as a new policy tool.

Like the randomized model, success of the strategic approach does not depend on increasing the rate of enforcement or the resources devoted to uncovering unlawful activity. But, while randomized enforcement is just that—random—the strategic approach concentrates enforcement on the worst offenders, encouraging firms to downscale any discrimination in order to avoid outlier status. By focusing the inquiry on the results of actual employment practices in the relevant industry, the strategic approach takes advantage of employers' superior access to information about the circumstances and needs of their business. It relies primarily on employers, rather than lawmakers, to determine optimal employment practices. The model does not ignore the risk that employers may have a "taste for discrimination." However, rather than expecting employees to uncover those discriminatory tastes, the strategic model sets up competition among employers to encourage compliance and trigger enforcement.

B. STATE LEGISLATIVE DISTRICTS AND THE ONE PERSON, ONE VOTE PRINCIPLE

A second candidate for strategic enforcement is the constitutional guarantee of equality in voting. In a series of cases decided in the 1960s, the Supreme Court recognized a right—

97.  See supra Part II.
grounded in the Equal Protection Clause of the Fourteenth Amendment—to have one's vote counted equally with every other voter's. The principle of one person, one vote that emerged requires that state and local voting districts contain roughly equal total populations. The rule has been flexible from the start. Acknowledging that "it is a practical impossibility to arrange legislative districts so that each one has an identical number of residents, or citizens, or voters," the Court has held that deviations from population equality might be justified by "legitimate objectives" such as creating compact districts of contiguous territory, respecting existing political boundaries, preserving existing districts, and avoiding contests between incumbents.

Although the Court has disclaimed resort to "rigid mathematical standards," over time one person, one vote cases have coalesced around a particular figure: ten percent. Total population deviations of less than ten percent are deemed "minor" and are insufficient to create a prima facie case of discrim-

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99. Avery v. Midland Cnty., 390 U.S. 474, 478–79 (1968) (applying the one person, one vote requirement to all of a state's political subdivisions); Reynolds v. Sims, 377 U.S. 533, 577 (1964) ("[T]he Equal Protection Clause requires that a State make an honest and good faith effort to construct districts, in both houses of its legislature, as nearly of equal population as is practicable.").

100. Compliance with the one person, one vote requirement typically is gauged by the deviation in total population between the most populous and least populous districts, but states are free to base districting decisions on the number of actual or potential voters instead. See Grant M. Hayden, The Supreme Court and Voting Rights: A More Complete Exit Strategy, 83 N.C. L. Rev. 949, 964–65 (2005).

101. The Court has derived a similar one person, one vote requirement for voting districts for the U.S. House of Representatives from Article I, section 2 of the U.S. Constitution. That provision states that members of the House of Representatives shall be chosen "by the People of the Several States." U.S. Const. art. I, § 2. However, because of the differences between Article I and the Equal Protection Clause, congressional districts are held to a stricter standard, under which the state bears the burden of justifying any deviation from equal population, "no matter how small." Karcher v. Daggett, 462 U.S. 725, 730, 734 (1983). The discussion here will focus on state and local election districts, which are governed by the more flexible rule of equal protection.

102. Reynolds, 377 U.S. at 577.


105. Brown, 462 U.S. at 842 ("Our decisions have established, as a general matter, that an apportionment plan with a maximum population deviation under 10% falls within th[e] category of minor deviations.").
Deviations of more than ten percent are constitutionally suspect. As such, they lead to invalidation of the districting plan unless the state can show "a rational and legitimate state policy for the districting plan." 107

Courts and commentators disagree over whether the ten percent rule is properly understood as a safe harbor—rendering deviations of less than ten percent immune from constitutional challenge on one person, one vote grounds—or whether the benchmark serves merely to allocate the burden of proof. 108
Under the latter view, the state must justify deviations greater than ten percent by reference to neutral criteria, while the plaintiff bears the burden of proof with respect to deviations of less than ten percent. 109 In practice, however, the ten percent rule tends to operate as a safe harbor, even in jurisdictions that condemn "minor" deviations that are the result of an arbitrary or unfair districting process. 110 The difficulty is primarily one of proof. Under the burden-shifting conception of the ten percent rule, plaintiffs challenging deviations of less than ten percent must persuade the court that the redistricting body did not "make an honest and good faith effort" to construct equipopulous districts. 111 Several factors combine to make that burden virtually impossible for plaintiffs to sustain in the usual case.

First, there is deep theoretical disagreement about what count as permissible and impermissible motives in the context of redistricting—particularly when it comes to politics. While

106. Id.; see also Gaffney v. Cummings, 412 U.S. 735, 745 (1973) ([M]inor deviations from mathematical equality among state legislative districts are insufficient to make out a prima facie case of invidious discrimination under the Fourteenth Amendment so as to require justification by the State.).
109. See Daly, 93 F.3d at 1220.
110. See infra note 123 and accompanying text (describing how rarely challenges to deviations of less than ten percent succeed).
politics properly (and inevitably) will play some role in the districting process, there is a point at which partisan and other political motivations threaten to render the process fundamentally unfair. The problem, of course, is where to draw the line. In its 2004 decision in Vieth v. Jubelirer, a plurality of the Court held that complaints of partisan manipulation are non-justiciable, at least when packaged as political gerrymandering claims. Nevertheless, during the same term an eight-Justice majority summarily affirmed the judgment in Cox v. Larios—a case in which the lower court had struck down a state redistricting plan under the rubric of one person, one vote because it "reflected 'blatantly partisan and discriminatory' attempts to protect Democratic incumbents while undermining Republican-held seats." Thus, although the Court considers itself incapable of drawing a judicially manageable line between permissible and impermissible partisanship in the gerrymandering context, it continues to condone an inquiry into political motivation in one person, one vote claims. But just how much politics is "too much" remains unclear.

Second, even if courts could agree on stable sets of legitimate and illegitimate criteria in districting—and even if partisan advantage were excluded from the category of permissible districting considerations—plaintiffs would find it difficult to prove the illicit motivation of a redistricting body. In some respects, the difficulty is similar to that discussed in the previous section, regarding proof of discriminatory intent in employment discrimination cases. Put simply, few defendants are foolish enough to create an obvious record of illegal conduct. But the problem of proof runs deeper in the districting context because of the nature of the defendant. In most states, district lines are

112. See Gaffney v. Cummings, 412 U.S. 735, 753 (1973) ("Politics and political considerations are inseparable from districting and apportionment.").
113. Richard L. Hasen, Bad Legislative Intent, 2006 Wis. L. REV. 843, 845 (emphasizing the "degree problem").
117. See Vieth, 541 U.S. at 277–78 (citing the lack of judicially discoverable and manageable standards for resolving political gerrymandering claims).
118. See Hasen, supra note 113, at 861 ("Few legislators are likely to admit publicly that their purpose in passing an election law is to protect themselves from fair political competition, an admission that would not sit well with voters.").
The difficulties with divining the intent of such multimember bodies are well known. Different members may have had different motivations for the same act, making it impossible to ascribe an intent to the redistricting body as a whole.

Making matters worse, virtually all districting bodies are entitled to a legislative privilege that shields their communications and other records from compelled disclosure. As others have noted, "[b]ecause of the legislative privilege, critical information as to motive may be difficult to obtain where so much of the work of the redistricting body, even the work of a nonpartisan redistricting commission, is done in closed session and by secretive email." The upshot is that plaintiffs rarely can carry their burden of proof in cases that fall below the ten percent threshold. Indeed, in the years since the ten percent rule was announced, only three such challenges have succeeded. It is no coincidence that none of the elected defendants in those cases asserted any legislative privilege.

These problems of proof undermine a comprehensive approach to enforcement of the one person, one vote principle. The current system is ill-suited to uncovering and remedying bad-faith districting practices when the result is a total population deviation of less than ten percent. States have recognized as much, and tend to use ten percent as the target for their redis-

120. See, e.g., Kenneth A. Shepsle, Congress Is a "They," Not an "It": Legislative Intent as Oxymoron, 12 INT'L REV. L. & ECON. 239, 254 (1992).
121. Forty-three states have constitutional provisions that provide a privilege for state legislators analogous to the federal Speech or Debate Clause, which "protects both legislators and their staff against civil and criminal liability, as well as against compelled questioning or document production, concerning all matters that are "an integral part of the deliberative and communicative processes' of legislating." Steven F. Huefner, The Neglected Value of the Legislative Privilege in State Legislatures, 45 WM. & MARY L. REV. 221, 225 (2003) (quoting Gravel v. United States, 408 U.S. 606, 625 (1972)). In states that lack such provisions, "the common law has frequently recognized a similar protection." Id. at 224. The privilege attaches to the act of legislating, not the status of "legislator," and therefore has been extended to redistricting commissions made up of independent consultants. See Stephanie Cirkovich, Note, Abandoning the Ten Percent Rule and Reclaiming One Person, One Vote, 31 CARDOZO L. REV. 1823, 1843 (2010).
122. Eckstein, supra note 119, at 47.
123. See Raviv, supra note 108, at 1027-37 (describing the cases).
124. See Cirkovich, supra note 121, at 1841.
tricting efforts. Moreover, their deviations from population equality predominantly occupy the upper end of the range. According to data from the National Conference of State Legislatures, the majority of state houses now have population deviations of between nine and ten percent.

One response, of course, is to deny that deviations of less than ten percent can violate the Constitution. On this view, because "minor" deviations "cause no constitutional injury, they are valid regardless of the legislature's reasons for creating them." Even if that is correct, it is difficult to see why ten percent should be the magic number. The Supreme Court has never explained the logic behind the ten percent figure. Its best defense appears to be administrability. If explicitly adopted as a safe harbor, the ten percent rule would allow courts to enforce a bright line, saving them the difficulty of determining whether any given deviation is "minor" in the sense that it does not impair any individual's right to vote by diluting its weight "in a substantial fashion . . . when compared with votes of [other] citizens." The same could be said for any other bright-line rule, however. Absent a coherent argument for why ten percent is a better proxy for "harmless" deviations than, say, five or fifteen percent, strict adherence to a ten percent cutoff seems arbitrary indeed.

A different response to the problems with the ten percent rule might be to abandon it entirely, requiring the state to justify any deviations from population equality, no matter how small. That move would reflect a truly comprehensive approach to enforcement, undistorted by the influence of the ten

125. See Carvin & Fisher, supra note 108, at 28 ("Following the 2000 census, state legislatures around the country relied heavily on the 10% rule."); cf. Rodriguez v. Pataki, 308 F. Supp. 2d 346, 367 (S.D.N.Y. 2004) (per curiam) ("[A]n express objective of staying within a ten-percent deviation while pursuing other legitimate goals provides no support to the plaintiffs' claim of invidious or arbitrary discrimination or of bad faith.").

126. See Raviv, supra note 108, at 1038.


128. See Raviv, supra note 108, at 1012 ("The Court arrived at the ten percent benchmark without explicitly explaining why this was a logical number to use in determining minor deviations in state and local districting plans.").

129. Reynolds v. Sims, 377 U.S. 533, 568 (1964); see also Carvin & Fisher, supra note 108, at 30 ("A bright-line standard is essential in this area, since lower courts and legislatures otherwise would be at a complete loss to determine when population deviations are 'minor'.").

130. This is essentially the approach the Court has taken for districts for the U.S. House of Representatives. See supra note 101.
percent benchmark. Yet it would come with a big price tag. First, given widely acknowledged inaccuracies in the census data, coupled with differences between the total population revealed in the census and the voting population, there is no guarantee that perfectly equipopulous districts in fact contain equal numbers of voters.  

Factor in changes in population throughout each decade, and a “zero-tolerance” approach to population disparities looks just as arbitrary as a ten percent safe harbor. Second, jettisoning the ten percent rule would significantly complicate enforcement of the one person, one vote principle, as it would force courts to confront head-on the difficult line-drawing problems discussed above. Simply placing the burden of justification on the state would not clarify the point at which politics “goes too far.” Courts would have to “develop some idea of where the line between constitutionally legitimate and constitutionally illegitimate partisanship falls. In short, they must do exactly what four of the Justices who rejected the plaintiffs’ claims in Vieth . . . thought could not be done.”

The randomized model offers no escape from this morass. A randomized approach to enforcement simply would not work in the redistricting context, because the available remedy takes the form of an injunction (a court-imposed district plan or an order to the redistricting body to try again), rather than damages. This limitation on the randomized model extends well beyond one person, one vote cases. It also applies to the

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131. See Hayden, supra note 100, at 965–66 (arguing that census data are “plagued by systemic errors” and that “these slippages swamp the precise tolerances built into the one person, one vote rules, and make such exacting judgments about district size absurd”); Issacharoff & Karlan, supra note 116, at 569 (“Although there is apparent precision to . . . strict application of the equipopulation principle[,] . . . the mathematical exactitude is compromised by the general imprecision of the underlying census enumeration, and the inclusion of children, aliens, and other disenfranchised individuals (such as ex-offenders)—whose numbers can vary dramatically from district to district.”).

132. See Eckstein, supra note 119, at 44 (“Relying on total population figures instead of voting age figures can create a significantly different result; using decennial data in fast-growing districts even one year after the census is taken (let alone at mid-decade, as was done recently in Texas and attempted in Colorado) can distort the result even further.”).

133. Cox v. Larios, 542 U.S. 947, 952 (2004) (Scalia, J., dissenting) (stating that all but one of the Justices agree that “politics as usual” is a “traditional [redistricting] criterion, and a constitutional one, so long as it does not go too far”).

134. Issacharoff & Karlan, supra note 116, at 568.

135. See Eckstein, supra note 119, at 48 (discussing the two injunction options courts have when redistricting).
many areas of federal law where doctrines such as sovereign\textsuperscript{136} and legislative immunity\textsuperscript{137} bar the recovery of damages, leaving prospective injunctive relief as the only available "penalty." In such circumstances, the engine of randomized enforcement—the penalty multiplier calibrated to compensate for the shortfall in law enforcement—will be unavailable.

Consider, instead, a strategic approach to enforcement of the one person, one vote principle. The strategic model would focus enforcement on outliers, which in this context would likely mean districts with the largest total population disparities.\textsuperscript{138} As noted, the primary advantage of aggressive application of the ten percent rule is ease of administration.\textsuperscript{139} Focusing on mathematical figures prevents judges from thrashing too far into the "political thicket,"\textsuperscript{140} and offers judicially manageable standards for distinguishing between permissible and impermissible deviations from population equality. The strategic approach achieves the same ends while avoiding the arbitrariness associated with both the ten percent and the zero-tolerance approaches. Although targeting outliers would require courts to compare the population disparities in up to fifty states' districting plans rather than comparing one plan to ten or zero percent, the task requires no more than the "sixth-grade arithmetic" demanded by existing law.\textsuperscript{141} Moreover, rather than setting an arbitrary standard ex ante, the strategic model relies on competition among states to distinguish between good faith efforts to create equipopulous districts and districting processes tainted by arbitrariness and discrimination.

Admittedly, strategic enforcement would mean that states would enter the districting process without a clear benchmark; states could no longer be confident that deviations of less than ten percent would almost certainly be sustained. But it is not at

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136. See Alden v. Maine, 527 U.S. 706, 756–57 (1999) (distinguishing between suits seeking monetary awards from state officials sued in their official capacity, which are barred by the Eleventh Amendment, and suits seeking prospective injunctive relief, which are permitted).

137. See supra note 121 (explaining that legislative immunity at the state and federal level precludes civil or criminal liability for the performance of legislative functions).

138. A strategic approach could focus instead on average deviations from equipopulousness. The distinction is immaterial for present purposes, and we take no position on which measure is preferable.

139. See supra note 129 and accompanying text.


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all clear that such ex ante clarity is a blessing, as the apparent consequence is that states make virtually no effort to do better than ten percent—or wherever the benchmark is set.\textsuperscript{142} A strategic approach would make enforcement easy to do once district lines are drawn, but difficult to predict as the process unfolds. The resulting uncertainty should force states to hedge their bets, foregoing manipulations that might expose them as outliers. The result may be that most states adopt plans with lower deviations from equal population than the nine to ten percent deviations that currently are the norm.

It is important to acknowledge, however, that a strategic enforcement model might encourage states to deviate even more than they currently do from equipopulous districts. Whether such an outcome should be cause for concern is a difficult question. Assume, for the sake of simplicity, that collusion among states is impossible and that no state can observe the outcome of another state’s districting process before completing its own. In those circumstances, any state that adopts a plan with a total population deviation of fifteen percent, for example, must believe that many other states will do the same. Such a belief might be justified if larger deviations make it possible for states to achieve valid and important districting goals, such as respecting county lines or creating majority-minority districts.\textsuperscript{143} If that were true, it would suggest that the current approach to enforcement is deterring states from pursuing valid policies and would count in favor of a more flexible, strategic approach. But a state also might adopt a plan with large deviations in order to serve more pernicious ends,\textsuperscript{144} knowing that other states have the same strong incentive to use the districting process for partisan advantage. The temptation will always

\textsuperscript{142.} The Supreme Court has recognized as much in the context of congressional districts, citing this tendency as an argument against making exceptions for "minor" deviations from the strict requirement of equipopulation. See Karcher v. Daggett, 462 U.S. 725, 731 (1983) ("Adopting any standard other than population equality, using the best census data available, would subtly erode the Constitution’s ideal of equal representation. If state legislators knew that a certain \textit{de minimis} level of population differences was acceptable, they would doubtless strive to achieve that level rather than equality."); Kirkpatrick v. Preisler, 394 U.S. 526, 531 (1969) ("[T]o consider a certain range of variances \textit{de minimis} would encourage legislators to strive for that range rather than for equality as nearly as practicable.").

\textsuperscript{143.} See Hayden, supra note 100, at 966–69.

\textsuperscript{144.} For example, states may draw districts with the goal of increasing the number of Democratic representatives and reducing the number of Republican representatives, or vice versa.
be present when district lines are drawn by legislators, “who are (by definition) incumbents (and almost invariably) from one of the two major parties.” The risk, then, is that states will abandon good faith efforts to achieve equal districts because they will know that similar political pressures will induce other states to do the same.

That risk is not inconsequential, but political differences among the states complicate the picture significantly. Each state’s political situation will be slightly different and will yield different results even if all legislators succumb to the temptation of self-interested districting. Moreover, there is no necessary connection between political gerrymanders—partisan or bipartisan—and total population deviations; “absolute equality is perfectly compatible with ‘gerrymandering’ of the worst sort.” Finally, many states leave districting to independent—and often bipartisan—commissions. Although independent commissions are not free from political pressures or motivations, their objectives may be less transparent than those of a legislative majority. Thus, even if one assumes that legislators always will try to draw district lines so as to protect their own seats and those of others in their party, it is quite difficult to predict what the resulting population deviations will be.

The preceding discussion assumed that collusion among states is impossible and the results of districting are unknown. In cases where those assumptions do not hold, the risk of gamesmanship increases and the utility of the strategic model decreases accordingly. For example, because redistricting usually happens just once a decade and the number of state legislative districts is finite, a state may delay its districting process in the hope of observing the results in other states and then adopting a plan with population disparities just below the highest state or cluster of states. One difficulty with that ap-
proach is that litigation may change the landscape, removing the first set of outliers and revealing the wait-and-see state as the most rampant offender. Another is that there are limitations on how long states can delay, since the new census will almost certainly render the existing district plan grossly unequal and therefore open to challenge. Nevertheless, conceding the risk of some gamesmanship of this sort does not doom the strategic model. If the model encourages “honest and good faith” efforts in many or even most states, the occasional results-oriented districting of the kind imagined here may be a tolerable price to pay.

A more pressing concern is collusion. Collusion between states is a real possibility both because there is a limited number of districting bodies and because states, unlike employers, are not competitors. If undetected, widespread collusion would defeat strategic enforcement, as it would allow states to abandon good faith districting efforts without risk of sanction. Yet courts have experience uncovering collusion in other areas, including criminal and antitrust law, and should be able to do the same in the redistricting context. Legislative privilege may prevent plaintiffs from wresting proof of collusion from the defendants themselves. But the districting process typically involves more than one party, and disappointed minority party politicians will always have an incentive to expose collusion by the majority. In contrast to antitrust, where those with the strongest incentive to expose collusion are outsiders looking in—consumers or competitors—the “losers” in the districting game will often be involved in the process, albeit lacking the power to control its results. The exception is the bipartisan gerrymander, in which incumbents of both parties draw districts that will ensure their reelection. The “losers” in such circumstances—potential challengers and voters—will have played no part in the districting process and may face more difficulties in outing collusion. Nevertheless, competition among politicians and parties, if not states as such, should provide an effective check on the worst abuses.

C. COPYRIGHT DAMAGES

Copyright law offers a third, and final, illustration of the strategic enforcement’s promise. Copyright infringements are

149. See id. at 46 (explaining that redistricting bodies face challenges if they are not “attempting to create a redistricting plan in a timely fashion”).
150. See supra note 45 and accompanying text.
largely undetectable. Their invisibility makes it difficult for the owner to identify and prosecute the infringer—a faceless hacker who downloads music from a semilegal Internet platform, an anonymous reproducer of videotaped films, a nameless gamer who breaks the codes of computer games and uses them for free, and a prolific, but unidentifiable, reader who photocopied half of the local library and shares his literary treasures with friends and family. Copyright infringements also do not physically damage the protected work. Instead, they dilute the owner’s earning opportunities and reputation—a causally amorphous intellectual property damage that most owners find difficult to prove.\textsuperscript{152} The compounded effect of these difficulties on copyright suits is high cost and a low expected recovery.\textsuperscript{153}

\textsuperscript{151} See, e.g., \textsc{Lawrence Lessig, Code and Other Laws of Cyberspace} 125 (1999) (noting that copyright infringers in communication networks are difficult to identify and bring to justice); see also Peter Pan Fabrics, Inc. v. Dobela Fabrics, Inc., 329 F.2d 194, 195–96 (2d Cir. 1964) (explaining that statutory damages for copyright infringement allow “the owner of a copyright some recompense for injury done him, in a case where the rules of law render difficult or impossible proof of damages or discovery of profits” (quoting Douglas v. Cunningham, 294 U.S. 207, 209 (1935))).

\textsuperscript{152} There is nearly unanimous agreement among intellectual property scholars that the scope of copyright protection is overbroad. See, e.g., Gideon Parchomovsky & Alex Stein, \textit{Originality}, 95 VA. L. REV. 1505, 1509–16 (2009) (arguing that copyright holders “enjoy very broad protection” at the “expense of future creators”). See \textit{generally Lawrence Lessig, The Future of Ideas: The Fate of the Commons in a Connected World} (2001) (putting forth the notion that the Internet is losing its innovative nature due to copyright laws); \textsc{Neil W. Netanel, Copyright's Paradox} 54–80 (2008) (discussing “copyright's ungainly expansion”); \textsc{Siva Vaidhyanathan, Copyrights and Copywrongs: The Rise of Intellectual Property and How It Threatens Creativity} (2001) (arguing that copyright law depresses creativity); Jessica Litman, \textit{Billowing White Goo}, 31 COLUM. J. L. & ARTS 587, 587 (2008) (attesting that rights granted by copyright law underwent extraordinary expansion over the past fifty years). There is, however, an equally broad consensus about the necessity to enforce the rights of the owners who merit this protection. See \textit{Richard A. Epstein, The Disintegration of Intellectual Property? A Classical Liberal Response to a Premature Obituary}, 62 STAN. L. REV. 455, 487–96 (2010) (articulating social benefits of the injunction-based protection of intellectual property); Parchomovsky & Stein, supra, at 1516–23 (arguing that although not all copyrights need to be strictly enforced, the very original copyrights should).

\textsuperscript{153} See, e.g., \textsc{Lori A. Morea, The Future of Music in a Digital Age: The Ongoing Conflict Between Copyright Law and Peer-to-Peer Technology}, 28 CAMPBELL L. REV. 193, 249 (2005) (“[I]t is simply too difficult to enforce traditional U.S. copyright law in today’s technology-driven environment.”); Lateef Mtima, \textit{So Dark the Cont(ut) of Man: The Quest for a Software Derivative Work Right in Section 117}, 76 U. PITT. L. REV. 1, 21 (2008) (“The digital format of software programs makes it difficult to enforce even the most basic of the copyright holder’s exclusive rights: the rights to reproduce, distribute, and/or prepare derivative versions of her work.”); Steven Wilf, \textit{The Making of the Post-}
This effect makes the comprehensive model dysfunctional. Unscrupulous infringers of copyrighted works are well aware of this vulnerability and exploit it to its fullest by increasing the volume of their illicit activities.

To make copyright violations economically unattractive, copyright law moved away from the unworkable comprehensive model by adopting a statutory rule that exempts plaintiffs from the duty to prove their actual damages. This special rule provides that a successful plaintiff can simply elect to recover an award in any amount between $750 and $150,000 per infringed work. Courts could apply this provision in two different ways. One way is to apply the randomized model of enforcement: randomly select a small number of copyright infringers and let them pay for the sins of all other violators. Another way of applying the statutory damage rule is to use the strategic model of enforcing the law. Under this model, courts would impose high-end penalties on the worst copyright infringers and allow only modest recoveries against all others. This method of awarding statutory damages would make suits against small-time violators unprofitable and those violators would be practically immune from prosecutions. This immunity would make it economically attractive for violators to seek the safe harbor zone by downscaling their activities. At the same time, plaintiffs and courts would concentrate their efforts on large-scale infringers of copyright. These infringers will receive high penalties, and their probability of receiving those penalties will also be higher than under the system that spreads its enforcement effort over all violators. As a result, some—or, perhaps, many—of these large-scale infringers will downscale their activities as well in order to reach the safe harbor.

Courts generally take the former path without much discussion. Their unqualified adoption of the randomized model faced no dissenters. Consistent with this model's principles,
courts allow private copyright owners to select the infringers who will pay the high penalty. The grant of this unchecked power paid no heed to the fundamental misalignment between the private incentives to use the legal system and society’s benefit. An aggrieved copyright owner only cares about her expected recovery amount and future protection of her work. All that matters to her is how easy it would be for her to prevail in the contemplated suit, whether the defendant has enough money to pay the statutory award, and, finally, whether the court’s verdict will enhance her reputation as a tough player and drive future infringers away from her work. There is nothing else an owner is interested in. She is completely oblivious to society’s copyright policy and whether her suit will help society to set up optimal deterrence against copyright infringers.

To illustrate this misalignment between private and societal interests, consider a copyright owner whose litigation budget allows him to sue only one infringer of his works out of two. The owner must choose between two infringers: an Internet-based company that illegally reproduced and sold twenty CDs containing the owner’s copyrighted music and then disappeared; and Mary, a single mother with a part-time employment and a $200,000 house, who downloaded five of those albums onto her MP3 player. The owner estimates that he has a five percent chance of locating the company and its executives. If he does, the court will award him the maximal amount of statutory compensation (20 x $150,000 = $3,000,000). The owner’s expected recovery thus amounts to $150,000. To file the suit, however, the owner would have to spend $50,000 on private investigators and attorneys. His expected net recovery amount will therefore be $100,000. Suing Mary, on the other hand, will cost the owner only $5000. Because Mary is both a willful and serial infringer, the court will likely order her to pay the owner $30,000 or more for each album she downloaded.

156. See id. at 577–78.
157. Id.
158. $3,000,000 x 5% = $150,000.
159. See 17 U.S.C. § 504(c). Technically, Mary may be required to pay the owner $30,000 or more per each song, rather than per album. See Pamela Samuelson & Tara Wheatland, Statutory Damages in Copyright Law: A Remedy in Need of Reform, 51 WM. & MARY L. REV. 439, 442 (2009).
The owner's expected recovery will thus be $145,000.\textsuperscript{160} Because Mary owns a $200,000 house, and the homestead exemption in her state is capped at $75,000,\textsuperscript{161} the owner can realistically expect that he also will be able to collect $125,000 or a close amount from Mary.\textsuperscript{162} As far as the owner's reputational gain is concerned, suing Mary and evicting her and her child from her house may actually have a powerful deterrent effect on potential infringers. They will perceive the owner as determined and merciless and stay away from his copyrighted content. Going after the pirate company is unlikely to generate the same reputational effect. The owner consequently will sue Mary and will make no effort to sue the company. This choice runs against society's interest, while the owner takes full advantage of the copyright enforcement system subsidized by society.

Other copyright owners will act in the same way. Instead of making a sustained effort at apprehending and suing rampant infringers, they will file easily winnable suits against defendants who are readily identifiable. This selection of infringers does not advance the social purpose of the copyright law's high-penalty mechanism. In fact, it frustrates this purpose because it sends rampant violators a signal that they can proceed with business as usual by making themselves difficult to identify. A relatively moderate, and sometimes even small, investment in the violator's detection-avoidance strategy will turn the copyright owners' attention to easy targets. The owners' incentive to enforce the law in this way is perfectly rational and easily understandable. What is less understandable—and also less rational from society's viewpoint—is the courts' decision to cooperate with these owners.

The courts' approach has produced numerous distortions. Those distortions fit into the hypothetical scenario where Mary pays with her house for the wrongs of copyright mega-pirates. Professors Pamela Samuelson and Tara Wheatland have assembled and insightfully analyzed those distortions in a recent article.\textsuperscript{163} The authors recommend that courts align their awards of statutory copyright damages with the rules of due

\begin{itemize}
\item \textsuperscript{160} \( (\$30,000 \times 5) - \$5000 = \$145,000. \)
\item \textsuperscript{162} The owner's net gain from the suit will then be $120,000 ($200,000 - $75,000 - $5000).
\item \textsuperscript{163} Samuelson & Wheatland, \textit{supra} note 159, at 442–43, 462–63.
\end{itemize}
process that control the imposition of punitive damages in the area of torts.\textsuperscript{164} If adopted, this proposal will improve the existing state of affairs immensely. The improvement, however, will not be attained for free. To satisfy constitutional due process, an award of punitive damages must not be disproportionate to the victim's actual damage.\textsuperscript{165} Specifically, it must conform to the Supreme Court's "single-digit ratio" standard that deems unconstitutional virtually any award of punitive damages that exceeds the victim's actual damage by ten times or more.\textsuperscript{166} This conformity and all other relevant aspects of due process are subject to the de novo review of appellate courts.\textsuperscript{167} The proposed reform consequently will increase the costs of adjudicating copyright damages. The increased volume of litigation over the plaintiffs' actual damages—the benchmark for determining the constitutionality of the punitive damage awards—will be particularly costly.

These new expenditures might well be a good investment. Our society values creativity: it strives to be innovative rather than stagnant in developing new works, ideas, products, and markets.\textsuperscript{168} For this society, therefore, a strong copyright protection is necessary even when it is expensive to maintain. At some point, however—and it may well be that our courts have already reached this point—a more strategic approach may become an economic necessity.

Courts may apply the strategic model to copyright enforcement by imposing a uniform high penalty (or a range of high penalties) on the worst category of rampant infringers. All other violators will not be exempt from suits but they will only be required to pay the copyright owner compensatory damages.

\textsuperscript{164} Id. at 464–73.
\textsuperscript{166} See id.; see also State Farm Mut. Auto. Ins. Co. v. Campbell, 538 U.S. 408, 425 (2003) ("Single-digit multipliers are more likely to comport with due process . . .").
\textsuperscript{167} Cooper Indus., Inc. v. Leatherman Tool Grp., Inc., 532 U.S. 424, 436 (2001) ("[C]ourts of appeals should apply a de novo standard of review when passing on district courts' determinations of the constitutionality of punitive damages awards.").
\textsuperscript{168} See Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 546 (1985) (noting that copyright laws assist in the creation of new works); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984) ("[Copyright protection] is intended to motivate the creative activity of authors and inventors by the provision of a special reward . . ."); see also Parchomovsky & Stein, supra note 152, at 1517 ("[Copyright protection's] raison d'être is to enrich the domain of expression and thereby improve the well-being of society.").
This system will induce copyright owners to concentrate their enforcement efforts on rampant infringers, thereby increasing the probability that those infringers will be apprehended and penalized. The increased probability of being forced to pay the high penalty will induce some of those infringers to downscale their encroachment of the owners' protected domains. This inducement will set the cascaded-retreat dynamic in motion. The infringers will begin their exodus from the worst or "rampant" category and lower the intensity of their activities to the safe-harbor zone. On their way down, they will be periodically reducing the level of copyright infringement that qualifies as worst or rampant. There will be an equilibrium point at which this downscaling process will be discontinued. It is not possible to predict where this point will be. However, it is reasonable to anticipate a substantial reduction in the volume of copyright violations. Most important, society will be able to achieve this reduction at a relatively low cost.\textsuperscript{169}

To put this proposal into effect, it is necessary to articulate the criteria for the "worst" or "rampant" copyright violations. As in cases previously discussed, these criteria are all-inclusive. An infringer can be identified as "worst" or "rampant" by the number of his infringements—for example, by the number of copyrighted works he unlawfully downloaded from the Internet\textsuperscript{170}—by the size of his illicit gain, by the magnitude of the damage he caused the copyright owner, or by any combination of those factors.\textsuperscript{171} The strategic model does not prescribe any

\textsuperscript{169} Copyright owners would still be able to sue and recover compensation from average and small-time infringers. To be entitled to this compensation, however, an aggrieved copyright owner would have to prove her actual damages.

\textsuperscript{170} The expert-assisted pooling of information by copyright owners indicates that this criterion is technologically implementable. See, e.g., Paramount Pictures Corp. v. Hopkins, No. 5:07-CV-593, 2008 WL 314541, at *1 (N.D.N.Y. Feb. 4, 2008) (attesting that Paramount, the world's leading motion picture studio, retained MediaSentry to identify individual copyright violators); Sony Pictures Home Entm't Inc. v. Chetney, No. 5:06-CV-227, 2007 WL 655772, at *1 (N.D.N.Y. Feb. 26, 2007) (describing how Sony retained MediaSentry to "combat infringers" who use the Internet to download Sony's copyrighted materials).

\textsuperscript{171} Copyright enforcement faces a serious problem of collectability that none of the three models can resolve. Many Internet companies that facilitate or directly engage in copyright piracy are basically insolvent, and numerous individual infringers reside overseas and are practically immune from suits. See, e.g., Napster Files for Bankruptcy, BBC NEWS (June 3, 2002, 16:17 GMT), http://news.bbc.co.uk/2/hi/business/2023201.stm (announcing that Napster, a pioneer in technology that made it possible for Internet surfers to download copyrighted music, had declared bankruptcy and would be bought as part of a settlement resolving multiple suits against it).
particular criteria for identifying the “worst” violators. Instead, it allows policymakers to select one, or a combination, of those criteria.

CONCLUSION

“‘And-not’”—said Karl Llewellyn—“is bad [j]urisprudence.”172 His point was that lawmakers’ choices do not present themselves in reality as a small set of mutually exclusive possibilities.173 When a legal system is unable to enforce one of its rules in a comprehensive fashion, it need not automatically switch to a randomized mode by apprehending a few violators out of many and penalizing them severely enough to deter all the rest. This switch has been—and still is—the American legal system’s modus operandi. It has existed long enough to create path dependence. Path dependence, however, is not a good reason for policymakers to forestall the assessment of other enforcement options. With this in mind, this Article developed an alternative method of enforcing the law—the strategic model—and identified the conditions under which it might outperform the comprehensive and the randomized models. The extent to which this theoretical prediction will materialize on the ground is an empirical question. To answer this question, the legal system will have to test the strategic model in real-life settings.

173. See id.