Winning chances? Client relations, math, and ethics

By Daniel Kegan

Clients often ask their attorneys about the chances of winning, seeking a number. Attorneys often answer. They shouldn't. Mathematically, the wrong question is asked, and if the attorney numerically answers the question as asked that likely violates basic legal ethics—by incompetently providing the client incorrect and often deceptive information.

Yet there are strong pressures to attach a probability number to legal dispute outcomes. Most adults recognize that there is some relationship between investment, probability of "winning," and net profit, whether the contest is a lottery, an otherwise described Ponzi scheme, a business pro forma business plan, or litigation. How much to invest, and whether to litigate or settle, is often determined by the calculation whether expected costs are less than the desired award multiplied by the probability of success.

Insurers often practically determine whether litigation continues or settles. Lenders want attorney assurances. Potential company buyers and sellers calculate assets and liabilities, as do controllers setting liability and tax contingency reserves. Settlement mediators stress the uncertainty of litigation and jury decisions. The current promotion of "legal project management" logically requires multiple estimates of probabilities. Most involved with your client and its finances want a probability number to insert into their expected value calculations. Yet formal logic, mathematics, and legal ethics suggest a quick numerical answer be resisted. Validity sometimes requires more than a two-digit response.

Some Definitions

Attorneys craft words to persuade and to reduce risk; judges decide, issue opinions, and give sentences. So first, some definitions.

**Probability. Statistics.** A number expressing the likelihood that a specific event will occur, expressed as the ratio of the number of actual occurrences to the number of possible occurrences.

**Chances.** The likelihood of something happening: possibility or probability.

**Uncertainty.** An immeasurable, not possible to calculate.

**Risk.** The possibility of suffering harm or loss; danger. The danger or probability of loss to an insurer.

**Bayesian Probability.** Bayesian inference makes statistical inferences utilizing both the believed prior probability and the posterior (typically after an observation) probability. Bayes’ theorem is a condensation of the rules that should be applied when one acts under reasonable rules of rationality and consistency.

**People are Poor Probability Estimators**

Humans are often poor probability estimators. They don’t learn well from experience. They tend to overestimate the probability of
good events (lottery winning) and underestimate the probability of bad events (traffic accidents, running stop signs). Moreover, judgments are often biased by one's position in a trial.17

For a litigator to improve his or her judgment, an easy way of making predictions, saving the results of actual trial experience, and comparing predictions with final decisions is needed. With such information, litigators may successively identify and reduce judgment biases, while improving their subjective legal probability estimates upon which resource allocation and litigation strategy are dependent. Litigators make subjective legal probability estimates to predict whether each piece of evidence will be sufficiently believed by the factfinder to satisfy the appropriate legal standard.

Human cognition is limited. A fundamental cognitive limit is that human short term memory can hold only a half dozen chunks.18 In contrast, many human problem solving tasks require accurate perception, memory, evaluation, and retrieval of vast amounts of information.

To validly offer an estimate of case success, the litigating attorney must collect and analyze a large number of potentially relevant facts, collect and analyze a large number of rules (case holdings and citations, statutes, regulations, and the like) and their exceptions and the exceptions to the exceptions, and collect and analyze a large amount of evidence. The evidence may, to some extent, tend to make a fact more or less acceptable to the trier of fact. The facts, if accepted, may support a decision based on a given rule. The rules, if accepted as prevailing against a counter set of rules offered by adverse counsel, may persuade the judge or jury to find in one's favor. And adverse counsel has a parallel task, to win support for its evidence, facts, and rules and to render its adversary's evidence, facts, and rules (EFR) less acceptable.19

Even if precise probabilities were known, the mathematical task is difficult for unaided human cognition. But the probabilities of winning a positive decision are not simple, linear multiplications of the discrete probability of each element of a trial. Over the history of our legal system, certain distinct legal standards of proof have evolved. For example, in many civil trials, the plaintiff need only prevail on the basis of “the preponderance of the evidence”; in many criminal trials the prosecution must prevail “beyond a reasonable doubt.” Other cases require “clear and convincing evidence.”

These legal standards of proof—preponderance of the evidence, beyond a reasonable doubt, clear and convincing evidence—have been defined over centuries by common law and statute in words, not by mathematical probability estimates. The courts operate and instruct juries by these words.20 However, the rational litigator can better understand the strengths and weaknesses of the client's position by properly converting these verbal standards into mathematical estimates. Empirical studies have estimated the numerical values of these verbal descriptions as approximately 51 percent, 67 percent to 75 percent, and 90 percent, respectively.21 Thus, under a “preponderance of the evidence” standard, remembered evidence which is at least 60 percent believable would be accepted, while the same evidence would fail under a “beyond a reasonable doubt” standard. The probability associated with a factfinder believing any given evidence at a level to satisfy the applicable legal standard of proof may be termed as the legal probability.

A Simple Example-Toss Two Coins

Take a simple probability question.22 Two fair coins are fairly tossed into a shallow pond. One result is tails. What is the probability that the other coin is also tails? The answer and its rational appears later in this article, but take a minute now and write down your answer.23

Plenty or Paltry Possibilities

A coin has two states; a modern playing deck has 13 cards in each of four suits. For the Mega Millions lottery one chooses five different numbers from one through 56 and an additional number from one through 46—a more complex probability problem but well defined: jackpot probability (5 of 56) with no replacement multiplied by probability (1 of 46), or 1 in 175,711,536.24 The odds of being struck by lightning for a person over an 80 year period are roughly 1:3000.25 But what should be counted to give the numerical probability of winning a lawsuit?

One could study the basic underlying data for litigation, much of which is now available through government reports and data, such as from the Administrative Office of the US Courts and the Federal Judicial Center.26
One could study the additional scholarly research on litigation and on local forum and jury effects.\textsuperscript{27} Research indicates most criticisms of juries are founded on anecdotes, exaggerations, rationalizations, and outlier events but not on data.\textsuperscript{28} The mass media tends to emphasize unusual or seemingly absurd decisions, while statistics and win rates for the fuller range of ordinary cases are often quite different. Additionally, disputes dismissed, abandoned, settled, or argued to judges or arbiters are a different selection, often with different statistics.

One could study the basic underlying data for intellectual property disputes, much of which is now available through government reports and databases.\textsuperscript{29}

One could report known statistics. A quick Google search (percent plaintiffs win) reports Medical malpractice plaintiffs win only 27 percent of trial cases compared to 52 percent for all other plaintiff-won tort trials; Plaintiffs win only 15 percent of employment-related cases in federal court; Plaintiffs win more than half of state court civil trials in 2005; Constitutionality of State Statute shows of 144 judge trials a 46 percent plaintiff win rate in Section 1983 cases, 4309 judge trials showed plaintiff win rates of 12 percent, while the substantially fewer jury trials had a 17 percent plaintiff win rate;\textsuperscript{30} 4.6 percent of filed cases are tried, and plaintiffs win 76.1 percent.\textsuperscript{31} Plaintiffs won 56 percent of all general civil trial cases (Indiana 2005); patent plaintiffs whose cases go to trial in Marshall (ED TX) win 88 percent of the time.\textsuperscript{32}

Studying the data, University of Iowa Professor Michael Saks concluded, "Many of the most widely held beliefs about the tort litigation system are untrue, unknown or unknowable."\textsuperscript{33} An ABAJ article summarizes, "despite all the studies and chart-filled reports generated over the years, a trio of new papers suggests that most of what Americans believe about tort litigation is wrong."\textsuperscript{34}

Public interpretation of even common simple statistics is often misguided

The weather forecast says that there is a “30 percent chance of rain,” and we think we understand what it means. This quantitative statement is assumed to be unambiguous and to convey more information than does a qualitative statement like “It might rain tomorrow.” Because the forecast is expressed as a single-event probability, however, it does not specify the class of events it refers to. Therefore, even numerical probabilities can be interpreted by members of the public in multiple, mutually contradictory ways. … To improve risk communication with the public, experts need to specify the reference class, that is, the class of events to which a single-event probability refers.\textsuperscript{35}

While the American lay public might be confused about general tort win probabilities, rational intellectual property attorneys—once known for their logical precision—now have the benefit of the sophisticated empirical scholarship on patent, trademark, copyright, and trade secret law.\textsuperscript{36}

Statistical reports for federal and state court cases may be purchased from commercial vendors.\textsuperscript{37} Richer text evaluations of judges and 1 to 10 ratings on 14 criteria may be found, and entered, with The Robing Room, "where judges are judged,"\textsuperscript{38} although the reliability and validity concerns of government and scholars may be missing.\textsuperscript{39}

Plaintiff win rate data must be interpreted with extreme caution. Not only do they obscure pretrial settlements from some defendants, perhaps leading plaintiffs to pursue cases involving stronger or weaker cases of liability against defendants, they also ignore potential differences in the quantum and quality of expert evidence at trial, lawyering skills, the parties’ or insurers’ incentives to settle versus to go to trial, and a number of other factors. Without knowledge about how and why the small percentage of trial cases emerge from the other law suits that are settled or dismissed, and without knowledge of actual trial evidence, win rates can provide us with only limited information.\textsuperscript{40}

Frequencies of plaintiffs “winning” vary by year, cause of action, state, federal circuit, and judge. Frequencies of winning also vary by the facts of the case, the relative commitment and financial resources of the parties, the competence of the attorneys, and of judges. “Reported aggregate data tend to be exaggerated or incorrect."\textsuperscript{41} From which bases will the simple sounding question, “What are my chances of winning?” be answered?\textsuperscript{42}

Unethical Precision, Ethical Response Metamorphosis
In several service occupations, the client’s presenting question seldom states the client’s central concerns, nor does the question provide sufficient facts for more than an “it depends” answer. Quickly answering a client’s “What are my chances of winning” a legal dispute likely threatens violating a half dozen ethical rules. Prudence, and ethics, suggests responding to the client’s underlying emotional concerns as well as answering a rephrasing of the client’s question while briefly explaining why the question as asked is unanswerable.

Nature is an impartial target of meteorologists’ predictions, it does not change the clouds to confound the predicted precipitation percentages. The adverse attorney is charged to “zealously” assert the client’s position, and actively seeks, within some ethical, client, and financial limits, to dismantle the opponent’s case and discredit their credibility.

Any numerical prediction of the probability of success is likely imperfectly calculated from incomplete data. For the attorney’s management planning, it might be helpful to make estimates for successful outcomes of each major stage of litigation, with explicit statements of the assumptions, including adverse counsel actions and the quarterly business profit of your own client. And as the case progresses to review the newly disclosed events and legal facts, revisit those assumptions, and revise those estimates.

Responding to the client’s question likely should include a reminder of the stages and uncertainties of litigation, the opportunities for immediate and deferred settlement discussions, and a review of some of the salient choices the client has. An attorney can provide both valid case evaluation and client emotional support without fabricating false certainty.

1. “Winning” is often illusory, although it may still generally be preferable to losing a lawsuit. Besides the distraction and expense of management time, which is not compensated by an award of attorneys’ fees, besides the stress of a few years of conflict, besides the uncertain discretion of the court to award attorneys’ fees to the prevailing party—if such is even authorized by statute, most US courts often award a prevailing party only a part of their legal costs, and even after a robust judgment, collection and possible defendant bankruptcy loom. Cf. Eagle Services Corp v H20 Industrial Services, Inc., 532 F3d 620, 624 (7th Cir 2008)(“when the prevailing party is the defendant, who by definition receives not a small award but no award, the presumption in favor of awarding fees is very strong”); Richard A Posner, How Judges Think, Harvard Univ Press (2008).

As one attorney observed, “Discourage litigation. Persuade your neighbors to compromise whenever you can. Point out to them how the nominal winner is often a real loser in fees, expenses, and waste of time. As a peacemaker the lawyer has a superior opportunity of being a good man [sic]. There will still be business enough.” (Abraham Lincoln, Fragment, notes for a law lecture, July 1, 1850? Collected Works of Abraham Lincoln, vol. 2, p. 81, Rutgers University Press (1953, 1990).


3. More accurate financial analyses consider the time value of money, and thus add the additional uncertainty of estimating future interest rates. (Eugene L Grant & W Grant Ireson. Principles of Engineering Economy, Ronald Press (1964). Although focused on decision making for the acquisition and retirement of capital goods from a long-term perspective, the same principals govern decisions between alternative types of financing.)

Federal post-judgment interest rates are less volatile than the stock and bond market, but a modest economic analysis of litigation might still consider internal rates of return and the opportunity cost of committing funds to a few years of litigation. See 28 USC 1961 for civil and bankruptcy adversary judgments, 18 USC 3612 (f)(2) for criminal judgments, and 40 USC 3116 for deficiency judgments in condemnation proceedings.


Meet Schedules, Manage Risks, and Maintain Sanity, Create Space (2009).

7. Stock prices, short-term expected earnings, and general perceptions in the short-term for publicly traded companies may be less influenced by precise-appearing probability estimates, amid the flood of personnel, company, industry, national, and globalization news, rumor, and misinformation.


10. Id.


12. AHD. Back in seafaring days, “risk” included the possibility of financial gain. For broader perspectives of risk see Risk, Daedalus (Fall 1990), including Mary Douglas, Risk as a Forensic Resource; Aaron Wildavsky & Karl Dake, Theories of Risk Perception: Who Fears What and Why?; Peter W Huber, Pathological Science in Court.


20. “Raising the statistical literacy of judges, very few of whom came to their positions from backgrounds involving quantitative or scientific skills, is an extremely difficult undertaking. Law has been a field of the humanities, not the sciences. Law students, and therefore the lawyers and judges they become, are people of the word, not of the number, and not of the conceptualizations that numbers, data, and empirical research involve. I have no doubt that one of the hardest things judges or lawyers are asked to understand during their careers is statistical reasoning.” Michael J Saks, Comment on the Age Discrimination Example, 42 Jurimetrics 351 (2002).


22. This question and its answer were presented by Arthur J Howe, Risk and Uncertainty, Chicago Bar Association presentation (3 May 2011).

23. For more folk probability problems consider the Monty Hall Problem, <http://en.wikipedia.org/wiki/Monty_Hall_problem>, Six
Degrees of Separation,
<http://en.wikipedia.org/wiki/Six_degrees_of_separation>, and Having the Same Birthday as Another in the Room,

24. The combination, not permutation, formula, \((56C5 \times 46)\). <http://en.wikipedia.org/wiki/Mega_Millions> 14May2011;


28. Id. At 93.


35. Gerd Gigerenzer, Ralph Hertwig, Eva Van den Broek, Barbara Fasolo & Konstantinos V. Katsikopoulos, A 30 percent Chance of Rain Tomorrow: How Does the Public Understand Probabilistic Weather Forecasts?, Risk Analysis 623, 629 (June 2005). The percentage “does not refer to how long, in what area, or how much it rains. It means that in 3 out of 10 times when meteorologists make this prediction, there will be at least a trace of rain the next day.”

37. A Google search disclosed, for example, Winning Case, Inc.

38. Temperament, Scholarship, Industriousness, Ability to handle complex litigation, Punctuality, Evenhandedness in civil litigation, Evenhandedness in criminal litigation, Flexibility in scheduling, General inclination regarding bail, General inclination in criminal cases—pre-trail, Involvement in civil settlement discussions, General inclination in criminal cases—trial, General inclination in criminal cases—sentencing, Typical discount off guidelines for cooperators.

39. David Segal, “The Haggler, A Rave, A Pan, Or Just A Fake?” NY Times BU 7 (22May2011) (Reputation management services post paid-for reviews, both positive and for competitors or enemies negative.) Posting intentionally false statements may be unlawful, but small slings and arrows of outrageous Internet fortune are rarely worth legal redress, and are more often shielded, in the USA with its First Amendment, as opinion. See, Remedies for Small Copyright Claims, Statement of the United States Copyright Office before the Subcommittee on Courts, the Internet, and Intellectual Property, Committee on the Judiciary (29 March 2006), <http://www.copyright.gov/docs/regsstat0322906.html>, 19May2011.


41. Eisenberg (1996) at 433, n 21 supra.

42. Answer to A Simple Example. Two coins in a fountain. Each coin has two states, heads or tails, yielding a 2 by 2 probability: HH HT TH TT. We know one coin is tails, so HH is no longer a possibility. Four minus one equals three. The probability the second coin is also tails is one-third, or 33 percent. Quickly answered that correctly? Great.

43. Competence. A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.

Rule 1.4. Communication. (a) A lawyer shall: (3) keep the client reasonably informed about the status of the matter; (4) promptly comply with reasonable requests for information; and (b) A lawyer shall explain a matter to the extent reasonably necessary to permit the client to make informed decisions regarding the representation.

Rule 1.14. Client with Diminished Capacity. (a) When a client’s capacity to make adequately considered decisions in connection with a representation is diminished, whether because of minority, mental impairment or for some other reason, the lawyer shall, as far as reasonably possible, maintain a normal client-lawyer relationship with the client.

Rule 2.1. Advisor. In representing a client, a lawyer shall exercise independent professional judgment and render candid advice. In rendering advice, a lawyer may refer not only to law but to other considerations such as moral, economic, social and political factors, that may be relevant to the client’s situation.

Rule 2.3. Evaluation for Use by Third Persons. (a) A lawyer may provide an evaluation of a matter affecting a client for the use of someone other than the client if the lawyer reasonably believes that making the evaluation is compatible with other aspects of the lawyer’s relationship with the client.

Rule 4.1. Truthfulness in Statements to Others. In the course of representing a client a lawyer shall not knowingly: (a) make a false statement of material fact or law to a third person; ....

Rule 8.4. Misconduct. It is professional misconduct for a lawyer to: (c) engage in conduct involving dishonesty, fraud, deceit, or misrepresentation.


45. Under the rules of the adversary system. IL R Prof Conduct, Preamble [2] (2010); A lawyer must also act with commitment and dedication to the interests of the client and with zeal in advocacy upon the client’s behalf. Rule 1.3 Diligence, Comment [1].
46. Current litigation bears strategic similarity to 14th Century siege. "Against walled towns, siege was slow and costly. For rapid conquest everything depended on a negotiated surrender, but this could be achieved only by a credible show of force and in most cases initial combat." Barbara W Tuchman, A Distant Mirror: The Calamitous 14th Century (1978).

47. “Plaintiffs lawyers do not work in a world of predictability or one of uncertainty. For them the dichotomy probably makes little sense. They work in a world of the possible, one rounded in the variability and complexities of individual disputes and the processes that resolve them. … Between the extremes of predictability and uncertainty, they work in a context of knowable patterns and regularities that allow them to make judgments about the likely.” Stephen Daniels & Joanne Martin, “Plaintiffs’ Lawyers: Dealing with the Possible But Not Certain,” 60 DePaul L Rev 336 (2011).

48. The author is 98.6 percent sure of these recommendations.

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