

Restrictive Covenants, Employee Training, and the Limits of Transaction-Cost Analysis

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I. INTRODUCTION

Restrictive covenants are an increasingly common feature of employment, used across a wide range of industries, occupations, and employees.¹ In its most common form, a restrictive covenant prohibits an employee from competing with the employer within a certain geographic area for a specified period of time after departure, usually one or two years. Sometimes these clauses are drawn more narrowly, proscribing specific activities such as continued dealings with former customers. Regardless of scope, the typical remedy when an employee breaches such a covenant is injunctive relief.

A substantial literature within law and economics debates the merits of restrictive covenants from an efficiency perspective. A core theme of this literature is that the central task for legal rules is to mediate competing incentives for “opportunism” by both firm and employee.² This focus on the concept of opportunism to explain parties’ behavior and assist in the design of legal rules is not unique to the literature on postemployment competition.³ It has become commonplace for scholars analyzing contracts and organizational structures to adopt the rhetoric and framework of Williamson’s “transaction cost” model.⁴ Indeed, Williamson’s classic treatises on

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1. I am unaware of any empirical study directly measuring the prevalence of restrictive covenants in practice. *But see* Peter J. Whitmore, *A Statistical Analysis of Noncompetition Clauses in Employment Contracts*, 15 J. CORP. L. 483, 484-85 (1990) (reporting a more than doubling of appellate decisions on restrictive covenants between the late 1960s and late 1980s and reviewing literature suggesting that this reflects an underlying increase in the actual use of covenants in employment contracts). For a discussion of the industries and occupations represented in appellate litigation, see *id.* at 519-23.

2. A well-known example is Paul H. Rubin & Peter Shedd, *Human Capital and Covenants Not to Compete*, 10 J. LEGAL STUD. 93 (1981).

3. Oliver Williamson famously described opportunism as “self-interest seeking with guile.” OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING* 47 (1985).

4. When I use the term “transaction-cost economics,” I am referring loosely to the extensive body of scholarship growing out of Ronald Coase’s early conception of the firm as

transaction-cost economics—*Markets and Hierarchies* and *The Economic Institutions of Capitalism*—have each surpassed Marx's *Capital* to become the most frequently cited books in the social sciences.⁵ In spite of this popularity, I argue in this Article that the concept of opportunism, while an intuitively attractive heuristic for analyzing certain principal-agent relations, is also plagued by significant indeterminacies that can limit its utility as a legal-policy device. The law of restrictive covenants is one area in which some of the most telling obscurities of the model float to the surface.

Another reason to revisit the literature on the efficiency of restrictive covenants relates to the rising challenge of maintaining a well-trained workforce in the current mobile economy. According to the traditional internal labor market model, workers acquire progressive levels of skill and training as they move up the career ladder within a particular firm. The employer, in turn, is rewarded with a cadre of skilled, long-term employees. In recent years, however, as we have witnessed a decline of job stability and increasing mobility of labor,⁶ firms' traditional incentives for providing training may have waned.⁷ While economists and organizational theorists studying the high-mobility economy have considered a range of options for preserving incentives to train workers, they have not, for the most part, directed their attention to the legal literature on restrictive covenants. Legal scholars, in turn, have until very recently adopted traditional assumptions about labor markets when analyzing restrictive covenants.⁸

a mechanism for reducing the costs of transactions. Although one could present a more refined description of the distinctions between the "organizational failures," "property rights," and other strains of theory within this broader rubric, that is beyond the scope of my essay. For a general discussion of the growth and scope of ideas about the firm as a mechanism for reducing transaction costs, see PAUL MILGROM & JOHN ROBERTS, *ECONOMICS, ORGANIZATION AND MANAGEMENT* chs. 8 & 9 (1992).

5. Scott E. Masten, *About Oliver E. Williamson*, in *FIRMS, MARKETS, AND HIERARCHIES: THE TRANSACTION COST ECONOMICS PERSPECTIVE* 37, 49 (Glenn R. Carroll & David J. Teece eds., 1999).

6. Although the patterns of change are somewhat more complicated than the text implies, reviews of empirical studies on changes in job stability suggest that there was indeed a decline in the 1990s. *E.g.*, PETER CAPPELLI, *THE NEW DEAL AT WORK: MANAGING THE MARKET-DRIVEN WORKFORCE* 133-36 (1999); David Neumark, *CHANGES IN JOB STABILITY AND JOB SECURITY: A COLLECTIVE EFFORT TO UNTANGLE, RECONCILE, AND INTERPRET THE EVIDENCE* (Nat'l Bureau of Econ. Research, Working Paper No. 7472, 2000).

7. For a discussion of these changes, see CAPPELLI, *supra* note 6, at 47-48 (arguing that rising employee turnover has reduced employers' incentives to invest in training employees).

8. Recent inroads into analyzing trade secrets and restrictive covenants in the high-mobility, high-technology economy include ALAN HYDE, *WORKING IN SILICON VALLEY: ECONOMIC AND LEGAL ANALYSIS OF A HIGH-VELOCITY LABOR MARKET* (forthcoming 2002); Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, 74 N.Y.U. L. REV. 575, 608-09 (1999) (explaining Silicon Valley's success compared to Massachusetts's Route 128 as resulting from California's legal prohibition on restrictive covenants); Alan Hyde, *Silicon Valley's High-Velocity Labor Market*, 11 J. APPLIED CORP. FIN. 28, 28-29 (1998) [hereinafter Hyde, *High-Velocity*]; Christine M. O'Malley, *Covenants Not to Compete in the Massachusetts High-Tech Industry: Assessing the Need for a Legislative Solution*, 79 B.U. L. REV. 1215 (1999) (advocating Massachusetts's adoption of a statute modeled after Colorado law); Hanna Bui-

Thus, while my Article focuses principally on the utility of transaction-cost economic models in the context of restrictive covenants, I also try to advance at least some preliminary thoughts on how the law of restrictive covenants may bear on the challenge of training the workforce of the future.

The remainder of the Article proceeds as follows: Part II describes why restrictive covenants may be useful where other mechanisms for protecting employer investments fail. Part III discusses judicial approaches to enforcement of restrictive covenants, exposing the puzzling tendency of courts to enforce restrictive covenants where they protect employer investments in trade secrets, confidential information, or customer relations, but not where they protect an employer's investment in training employees in the "general tools of the trade." In Part IV, I discuss economic analyses of the law in this area, expanding on the significance of transaction-cost economics as a theoretical centerpiece. In Part V, I critique these analyses, arguing that deploying the concept of bilateral opportunism to either defend or prescribe a legal rule for enforcing restrictive covenants is more elusive than those who invoke the techniques may acknowledge. I conclude with some speculations as to how legal scholars might steer clear, or at least avoid the worst perils, of this conceptual thicket.

II. THE ROLE OF RESTRICTIVE COVENANTS

Perhaps the most logical way to begin my inquiry is to ask why an employer would want a restrictive covenant to begin with. While there may be a number of answers to this question, the most prevalent concerns the protection of a specific investment. An employer may wish to reveal business secrets to employees, or introduce employees to clients it has cultivated, yet fear that doing so would be risky should the employees depart and try to exploit the information. In order to protect such an investment, the argument goes, the employer will require employees to promise not to compete in the event of departure.

Of course, the employer could attempt to use a number of extra-legal mechanisms in lieu of a restrictive covenant to protect itself from possible leakage of business secrets. Each of these alternatives, though, has notable limitations.

For example, requiring employees to pay for access to the information itself through reduced wages is likely to be thwarted by liquidity problems. Certainly, an employee may be willing to purchase the information, expecting the investment to pay dividends in the form of professional advancement and a share of returns to projects involving the secrets. Yet even the most motivated employee may be unable to do so, because a single secret, even one that is easy to learn, may be worth hundreds of thousands of dollars.⁹ The use of "golden handcuffs," that is, paying an employee to

Eve, Note, *To Hire or Not to Hire: What Silicon Valley Companies Should Know About Hiring Competitors' Employees*, 48 HASTINGS L.J. 981, 1001-02 (1997) (summarizing California statutory and decisional law on noncompetition agreements); and Alan Hyde, *The Wealth of Shared Information: Silicon Valley's High-Velocity Labor Market, Endogenous Economic Growth, and the Law of Trade Secrets*, at <http://www.andromeda.rutgers.edu/~hyde> (Sept. 1998) [hereinafter Hyde, *Wealth*] (explaining Silicon Valley's comparative success in terms of both the prohibition on covenants not to compete and the reluctance of California firms to bring trade secrets lawsuits).

9. See Edmund W. Kitch, *The Law and Economics of Rights in Valuable Information*, 9

stay with the firm, is frequently not a viable solution either: it would be necessary to pay the employee enough to make him indifferent between exploiting the information elsewhere and staying—an amount that would often eliminate the profitability of the information entirely.¹⁰ Moreover, if multiple employees are privy to the secret, the sum of the bribes required to retain each employee may very well *exceed* the value of the secret to the original employer.¹¹ A third alternative is modifying the production process to make the information more difficult to appropriate, for example, fragmenting production so that no one employee knows all of the essential steps. Here however, the costs of balkanization are obvious, and the resulting losses of production efficiency may very well outweigh any gains arising from protection of information.

Finally, an alternative to these extra-legal mechanisms is enforcement of property (or perhaps tort)¹² rights embodied in the law of trade secrets. The majority of states have now adopted the 1985 Uniform Trade Secrets Act (“UTA”),¹³ which defines a trade secret as

information . . . that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.¹⁴

The *Restatement (Third) of Unfair Competition* follows the UTA, adopting a very similar definition and the posture that any misappropriation of a trade secret may be enjoined.¹⁵

J. LEGAL STUD. 683, 708 (1980).

10. Sometimes golden handcuffs take the form of stock options that vest only after the employee has been with the company for a minimum period. These deferred compensation schemes might also be unreliable retention devices for different reasons. See CAPPELLI, *supra* note 6, at 185-86 (discussing the examples of IBM, in which some employees' incentives to stay collapsed with a collapse in the stock price in the early 1990s, and the converse example of Microsoft, where booming stock prices in the late 1990s led some key employees whose stock options had vested to cash in their stock options and form start-ups).

11. Kitch, *supra* note 9, at 709.

12. The question of whether trade secret law is a species of property or tort has given rise to some debate. See Catherine L. Fisk, *Working Knowledge: Trade Secrets and Restrictive Covenants in Employment and the Rise of Corporate Intellectual Property, 1800-1920*, 52 HASTINGS L.J. (forthcoming 2001) (manuscript at 74 n.277, on file with author) (discussing this point of ambiguity).

13. UNIF. TRADE SECRETS ACT, 14 U.L.A. 433 (1985).

14. *Id.* §1(4), 14 U.L.A. 438.

15. RESTATEMENT (THIRD) OF UNFAIR COMPETITION §44 (1995). Section 39 defines a trade secret as “any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable and secret to afford an actual or potential economic advantage over others.” *Id.* at § 39. This UTA-compatible definition is an expansion of the previous definition that appeared in the first *Restatement of Torts*, in that it eliminates the distinction drawn in the *Restatement of Torts* between trade secrets and other confidential information that has economic value. RESTATEMENT OF TORTS § 757 cmt. b (1939). For a discussion of this expansion of trade secret law, see Edmund W. Kitch, *The Expansion of Trade Secrecy*

Trade secret law, however, does not completely allay employer concerns. For example, the employer may never discover the misappropriation or competitive use of a trade secret by an erstwhile employee.¹⁶ Further, even if the employer discovers misappropriation and pursues legal redress, additional leaks of the confidential information are possible in the course of legal proceedings. Finally, an employer may be uncertain as to whether valuable information will satisfy the definition of a trade secret for purposes of legal protection. For example, while confidential customer lists may be considered trade secrets, other kinds of customer relations are not. A medical clinic that makes various investments (providing infrastructure, hiring support personnel) to assist employee physicians in developing clients faces the risk of departure by physicians once they have enough patients to sustain an independent practice. If the identity of the clients is nonconfidential, trade secret law may offer little comfort.

Restrictive covenants, then, fill a gap where other legal and extra-legal mechanisms fall short. Ideally, a contract enables the employer to keep former employees away from competitors (or direct competition) in the first place.¹⁷ Thus, while not the only way to protect business secrets and customer relations, restrictive covenants may be preferable to the alternatives.¹⁸ One might ask, why use a restrictive covenant, rather than a long-term contract binding the worker to the firm? The answer stems at least partly from the historical resistance of courts to enforce long-term contracts on grounds of public policy, or, in the United States, the Thirteenth Amendment.¹⁹ So long as it is not inordinately broad, a restrictive covenant does not force the worker to serve her employer; it merely prevents her from putting her labor to a particular set of uses, for a particular period of time, postdeparture.

Protection and the Mobility of Management Employees: A New Problem for the Law, 47 S.C. L. REV. 659, 659-64 (1996).

16. The problem of low probability of detection is compounded by the fact that it would be difficult (for liquidity reasons) to magnify the size of the sanction to a sufficient level that elicits deterrence equivalent to that of an enforceable restrictive covenant.

17. Kitch, *supra* note 9, at 690-91; *see also* Rubin & Shedd, *supra* note 2, at 105 (arguing use of contractual mechanisms may be a pragmatic response to the difficulty of knowing ex ante whether information will be deemed a trade secret).

18. I should note here that the question of whether the enforcement of restrictive covenants is the optimal way to encourage innovation is not uncontroversial. *See* Gilson, *supra* note 8, at 608-09; Hyde, *High-Velocity supra* note 8, at 33; *see also* Kitch, *supra* note 9, at 722-23 (speculating that courts may be hostile to restrictive covenants because such restrictions inefficiently reduce the depth and continuity of the labor market); *infra* text accompanying notes 111-13.

19. *Beverly Glen Music, Inc. v. Warner Communications, Inc.*, 224 Cal. Rptr. 260, 261 (Cal. Ct. App. 1986) (holding judicial compulsion of personal services would violate the Thirteenth Amendment); *ABC, Inc. v. Wolf*, 420 N.E.2d 363, 366 (N.Y. 1981) (same). The enforceability problem due to involuntary servitude, however, is salient only where the contract requires specific performance. Traditional analysis does not speak to the reasons why parties could not enter into long-term contracts enforceable through damages. I will take as given the difficulties in enforcing long-term contracts for purposes of this Article (although I recognize that this position may be debatable in itself).

III. JUDICIAL ANALYSIS OF RESTRICTIVE COVENANTS

As a presumptive matter, contracts restricting postemployment employee mobility are unenforceable at common law.²⁰ Behind this presumption lurks a peculiarly resilient commitment to the notion that a worker should have the liberty to ply his general tools of the trade, unfettered by contractual or other restraints.²¹ The foundations of this commitment are the twin assumptions that restrictive covenants are the product of unequal bargaining power between the parties,²² and that they interfere with market competition.²³ Exceptions to the rule arise only where a covenant protects a "legitimate interest" of the employer and is not "unreasonable" in its scope.

Legitimate or protectible employer interests include trade secrets and confidential know-how, as well as some kinds of customer relations.²⁴ Trade secrets are the least

20. For histories of the common law on covenants not to compete, see Harlan M. Blake, *Employee Agreements Not to Compete*, 73 HARV. L. REV. 625, 625-46 (1960); Fisk, *supra* note 12. See also Benjamin Aaron & Matthew W. Finkin, *The Law of Employee Loyalty in the United States*, 20 COMP. LAB. L. & POL'Y J. 321 (1999) (situating the law of restrictive covenants within the broader legal realm of employee loyalty).

A minority of states, such as California, simply deem restrictive covenants unenforceable by statute, though these statutes usually contain narrow exceptions. CAL. BUS. & PROF. CODE §§16600-16602.5 (West 1997) (exceptions include covenants attached to sale of goodwill of a business or upon dissolution of partnership or limited liability corporation); see also ALA. CODE § 8-1-1 (1993); COLO. REV. STAT. ANN. § 8-2-113 (West 1994); HAW. REV. STAT. § 480-4(c) (1993); LA. REV. STAT. ANN. 23:921 (West 1998); MONT. CODE ANN. §§ 28-2-703, -704 (2000); N.C. GEN. STAT. § 75-4 (2000); N.D. CENT. CODE § 9-08-06 (1987); OKLA. STAT. ANN. tit. 15, § 217 (West 1999).

21. *Donahue v. Permacel Tape Corp.*, 127 N.E.2d 235, 240 (Ind. 1955) ("Knowledge, skill and information (except trade secrets and confidential information) become a part of the employee's personal equipment. . . . These things cannot be taken from him, although he may forget or abandon them." (citing *Jewel Tea Co. v. Grissman*, 279 N.W. 544, 545 (S.D. 1938))); *Reed, Roberts Assocs. v. Strausman*, 353 N.E.2d 590, 593 (N.Y. 1976) (stating that "no restrictions should fetter an employee's right to his own best advantage the skills and knowledge acquired by the overall experience of his previous employment"). Note that to make the review of doctrine more manageable, I focus mainly on the (fairly typical) laws of Illinois, New York, and Indiana.

22. A famous articulation of this rationale for the rule appears in *Arthur Murray Dance Studios v. Witter*, 105 N.E.2d 685, 703-04 (Ohio C.P. 1952) (stating that an "[employee's] individual bargaining power is seldom equal to that of his employer"). See also RESTATEMENT (SECOND) OF CONTRACTS §188 cmt. g ("Post-employment restraints are scrutinized with particular care because they are often the product of unequal bargaining power . . .").

23. *Gillespie v. Carbondale and Marion Eye Ctrs., Ltd.*, 622 N.E.2d 1267, 1269 (Ill. App. Ct. 1993) ("Because Illinois courts abhor restraints on trade and encourage fair competition, restrictive covenants in employment contracts are carefully scrutinized."); *Hahn v. Drees, Perugini & Co.*, 581 N.E.2d 457, 459 (Ind. Ct. App. 1991) ("Covenants . . . are not favored in the law because they are in restraint of trade."); *Reed, Roberts Assocs.*, 353 N.E.2d at 593 (explaining judicial disfavor of covenants partly because "our economy is premised on the competition engendered by the uninhibited flow of services, talent, and ideas").

24. This list is not fully inclusive. Restrictive covenants might also, for example, permit an employer to prevent a unique employee, such as an athlete or artist, from departing after the

controversial protectible interest.²⁵ A typical restrictive covenant held enforceable on this basis is a prohibition on a former employee's use of a confidential customer list (that itself is a trade secret) after departure.²⁶ Sometimes, as in the case of customer relationships, evidence of significant employer investment alone, even absent trade secrets, suffices.²⁷ But for these latter kinds of protectible interests, vendor-client relations tend towards exclusivity. A common example of protectible customer relationships is the client base a professional develops through her affiliation with a professional practice group.²⁸ In contrast, where customers of a business that sells a

employer has made an investment in promoting the unique employee's talents. *See generally* Margaret N. Kniffin, *Employee Noncompetition Covenants: The Perils of Performing Unique Services*, 10 RUTGERS-CAM. L.J. 25, 36-52 (1978) (reviewing doctrine on restraints enforceable on basis of employee uniqueness).

25. *Geritex Corp. v. Dermarite Indus., L.L.C.*, 910 F. Supp. 955, 959 (S.D.N.Y. 1996) (stating protectible employer interests include trade secrets and confidential customer lists); *Ackerman v. Kimball Int'l, Inc.*, 634 N.E.2d 778, 781-84 (Ind. Ct. App. 1994) (stating courts will enforce a covenant to protect trade secrets, so long as it meets other requirements of enforceability), *vacated in part, adopted in part*, 652 N.E.2d 507 (Ind. 1995). This is so even in some states, such as California, that statutorily prohibit covenants not to compete. *See e.g.*, *Loral Corp. v. Moyes*, 219 Cal. Rptr. 836, 840 (Cal. Ct. App. 1985) (holding that use of former employer's confidential information to lure customers away could be legally restricted despite state statute prohibiting covenants not to compete because nondisclosure agreement is legally distinct from covenant not to compete). *But cf.* Gilson, *supra* note 8, at 607-08 (failing to locate case law that specifically upheld a covenant not to compete because it protected underlying trade secrets).

26. *Ivy Mar Co. v. C.R. Seasons Ltd.*, 907 F. Supp. 547, 556-57 (E.D.N.Y. 1995) (holding customer list protectible as a trade secret when the names on the list could not be readily ascertainable, and developing the list entailed great employer effort or expenditure).

27. *See, e.g.*, *Label Printers v. Pflug*, 564 N.E.2d 1382, 1387 (Ill. Ct. App. 1991) (finding protectible interest where employer has "near-permanent" relationship with customers with whom, but for the employment, employee would not have encountered; "near-permanence" is a function of, inter alia, time, cost, and difficulty of developing and maintaining clientele, as well as continuity and duration of relationship (citing *Reinhardt Printing Co. v. Feld*, 490 N.E.2d 1302 (Ill. Ct. App. 1986))); *Hahn*, 581 N.E.2d at 460 (finding protectible good will includes right to restrict former employee from enticing away old customers (citing *Donahue v. Permacel Tape Corp.*, 127 N.E.2d 235, 241 (Ind. 1955))). Edmund Kitch, in a recent article, notes that with the advent of the UTA and subsequent expansion of the definition of trade secrets, some cases in which the interest protected by a restrictive covenant formerly was seen to extend beyond trade secrets might now fit within the definition of trade secrets. Kitch, *supra* note 9, at 665.

28. *See Cockerill v. Wilson*, 281 N.E.2d 648, 651 (Ill. 1972) (veterinarian); *Canfield v. Spear*, 254 N.E.2d 433, 434 (Ill. 1969) (physician); *Sarah Bush Lincoln Health Ctr. v. Perket*, 605 N.E.2d 613, 617 (Ill. Ct. App. 1993) (stating "near-permanence" of employer relationship with patients, and thus protectibility of interest in patients, is inherent in the medical professional and veterinary context); *Gelder Medical Group v. Webber*, 363 N.E.2d 573, 577 (N.Y. 1977) (physician); *Karpinski v. Ingrassi*, 268 N.E.2d 751, 755-56 (N.Y. 1971) (oral surgeon); *Zellner v. Stephen D. Conrad, M.D., P.C.*, 589 N.Y.S.2d 903, 905-06 (N.Y. App. Div. 1992) (holding ophthalmologist's clients a protectible interest of former employer-clinic). But see the recent decision of the Second Circuit under New York law in *Ticor Title Ins. Co. v. Cohen*, 173 F.3d 63 (2d Cir. 1999), affirming the lower court's decision to recognize an

nonunique product also do business with rival firms, or where the identity of customers is readily available through a publicly available directory, there is no protectible interest.²⁹

Even assuming a legitimate employer interest, only reasonable restrictions will be enforced. Reasonableness, purportedly a question of law, typically turns on the weighing of various factors, including hardship to the employee (which takes into account inequality of bargaining power), effect on the public interest (which takes into account anticompetitive effects), and the imperative that the restriction be no greater than necessary to protect the interests of the employer in terms of time, geography, and activity.³⁰ The bite of the reasonableness analysis rests principally in the latter factors, pertaining to the *scope* of the restrictions: a restraint deemed reasonable in scope typically will not be invalidated due to public interest or hardship alone. Conversely, a restraint found to violate public interest or hardship concerns virtually always also contains unreasonable time, geography, or activity constraints.³¹

As with most standard-like doctrines, there are no hard and fast rules about the reasonable scope of restrictions. Typical judicial guidance on duration is the truism that it ought not extend beyond what is necessary to protect the employer's interests.³² As for geography, courts focus on whether the restraint exceeds the geographic area or territory in which the employee formerly worked,³³ or where the employer

insurance company's protectible interest in a salesman's relationships with clients whose identities were widely known in the highly competitive business of selling real estate title insurance. *Id.* at 71. In what is arguably an expansion of the spirit if not the letter of New York precedent, the court held that the salesman's client relationships were protectible as unique services, a classification that in the past had been reserved for the services of employees such as acrobats and corporate officers, rather than salespersons. *Id.* at 72.

29. *Ivy Mar*, 907 F. Supp. at 558; *Springfield Rare Coin Galleries, Inc. v. Mileham*, 620 N.E.2d 479, 485 (Ill. App. Ct. 1993).

30. RESTATEMENT (SECOND) OF CONTRACTS §188(1)(a), (b), & cmts. b, c, & d (1981). The seminal holding on the enforceability of reasonable restraints remains the eighteenth-century English decision of *Mitchel v. Reynolds*, 24 Eng. Rep. 347 (Ch. 1711) (establishing restraints on competition presumptively unenforceable, though presumption may be rebutted if restraint is reasonable). *See also*, e.g., *Ivy Mar*, 907 F. Supp. at 558-59 (reviewing the general factors that influence reasonableness); *Abbott-Interfast Corp. v. Harkabus*, 619 N.E.2d 1337, 1340-41 (Ill. App. Ct. 1993); *Donahue v. Permacel Tape Corp.*, 127 N.E.2d 235, 239 (Ind. 1955); *Waterfield Mortgage Co. v. O'Connor*, 361 N.E.2d 924, 926-27 (Ind. Ct. App. 1977); *Mallory Factor, Inc. v. Schwartz*, 536 N.Y.S.2d 752, 753 (N.Y. App. Div. 1989).

31. *Blake*, *supra* note 20, at 686-87; *Milton Handler & Daniel E. Lazaroff, Restraint of Trade and the Restatement (Second) of Contracts*, 57 N.Y.U. L. REV. 669, 731-49 (1982); *Whitmore*, *supra* note 1, at 508-19.

32. *House of Vision, Inc. v. Hiyane*, 225 N.E.2d 21, 25 (Ill. 1967); *Schmidl v. Central Laundry & Supply Co.*, 13 N.Y.S.2d 817, 824 (N.Y. Gen. Term 1939).

33. *Donahue*, 127 N.E.2d at 241 (holding that a restriction on competition in the United States and Canada was overbroad where an employee's former responsibilities in manufacturing and selling adhesive tape had been limited to northern Indiana); *Commercial Bankers Life Ins. Co. v. Smith*, 516 N.E.2d 110, 114-15 (Ind. Ct. App. 1987) (holding covenant restricting employee from competing in state, where employee had previously worked only in northern Indiana, overbroad).

conducted its business.³⁴ Some restraints are invalidated because they restrict an unreasonably broad range of vocational activities,³⁵ although more tailored restraints that simply prevent the employee from dealing with former customers may be deemed reasonable.³⁶ In some cases, a court will “blue pencil” a covenant that protects a legitimate interest but is unreasonable in its scope, narrowing the scope of the injunction accordingly.³⁷

Before moving to critique, let me emphasize what is most striking about the doctrine I have just described. Recall the typical range of legitimate interests: trade secrets, confidential know-how, and certain kinds of customer relations. Courts have been exceedingly reluctant to protect employer investments in training per se. Even where an employer can demonstrate costly training expenditures, a court is unlikely to enforce a covenant to protect them absent the additional presence of trade secrets, confidential information, or protectible client relationships. Thus an employer’s costly investment in training an employee to authenticate rare coins was deemed by an Illinois court to be mere instruction in the trade, rather than a protectible interest.³⁸ Still another employer, this time from Indiana, was powerless to enforce an agreement signed by an employee it had trained to polish orthopedic products, even though the contract expressly required the employee to reimburse the employer for training expenses according to a specified price schedule should he decide to leave for a

34. *Ebbeskotte v. Tyler*, 142 N.E.2d 905, 909 (Ind. Ct. App. 1957) (discussing restrictive covenant limited to city and vicinity where former employer operated business); *NCR Corp. v. Rotondi*, 450 N.Y.S.2d 198, 199 (N.Y. App. Div. 1982).

35. *Norlund v. Faust*, 675 N.E.2d 1142, 1155 (Ind. Ct. App. 1997) (holding ophthalmologist could enjoin former employee optometrist from contacting optometrists who referred patients to former employer, but could not enjoin former employee from acting as an optometrist in association with any ophthalmologist within specified counties, because the latter would prevent him from practicing his livelihood); *Karpinski v. Ingrassi*, 268 N.E.2d 751, 754 (N.Y. 1971) (holding covenant preventing oral surgeon from practicing dentistry in a particular territory for a particular period following departure from oral surgery practice overbroad because it extended beyond oral surgery).

36. *E.g.*, *Schmidl*, 13 N.Y.S.2d at 824 (granting employer injunction enforcing restrictive covenant that prohibited employee from soliciting, for nine months postdeparture, any clients he brought to former employer’s business).

37. *Total Health Physicians v. Barrientos*, 502 N.E.2d 1240, 1242-43 (Ill. App. Ct. 1986) (limiting the geographic area of an overbroad covenant to an area that is reasonable); *Akhter v. Shah*, 456 N.E.2d 232, 235 (Ill. App. Ct. 1983); *Consumers’ Oil Co. v. Nunnemaker*, 41 N.E. 1048, 1051 (Ind. 1895); *Young v. Van Zandt*, 449 N.E.2d 300, 304 (Ind. Ct. App. 1983); *Career Placement of White Plains, Inc. v. Vaus*, 354 N.Y.S.2d 764, 773 (N.Y. Gen. Term 1974); *Schmidl*, 13 N.Y.S.2d at 824.

Earlier cases required that a covenant be clearly divisible before severance was permissible, but this requirement has softened over time in many jurisdictions. *See, e.g.*, *Bridgestone/Firestone Inc. v. Lockhart*, 5 F. Supp. 2d 667, 683 (S.D. Ind. 1998); *Hahn v. Drees, Perugini & Co.*, 581 N.E.2d 457, 462 (Ind. Ct. App. 1991) (holding where contract is divisible, and where it will not lead to the addition of any new terms, court may “blue pencil” unreasonable provisions to make the contract reasonable as a whole); *B.D.O. Seidman v. Hirschberg*, 93 N.Y.2d 382, 395 (N.Y. 1999).

38. *Springfield Rare Coin Galleries v. Mileham*, 620 N.E.2d 479, 486 (Ill. App. Ct. 1993).

competitor.³⁹

The exceptions to this reluctance are few and narrow. While some jurisdictions do explicitly recognize training expenses as protectible at common law,⁴⁰ even in these jurisdictions courts have been conservative in their approach.⁴¹ Florida, Louisiana, and Colorado have attempted to protect investments in training by statute.⁴² These attempts, too, have been ill-fated,⁴³ or often narrowly construed.⁴⁴ Courts have been

39. *Brunner v. Hand Indus., Inc.*, 603 N.E.2d 157, 160-61 (Ind. Ct. App. 1992) (holding an agreement unenforceable because it restrained an employee's use of "general training and skills").

40. *E.g.*, *Beckman v. Cox Broadcasting Corp.*, 296 S.E.2d 566, 568 (Ga. 1982) (holding employer may legitimately protect investment in time and money in developing employee's skills); *see also* *Milwaukee Area Joint Apprenticeship Training Comm. for the Elec. Indus. v. Howell*, 67 F.3d 1333, 1339 (7th Cir. 1995) (holding loan agreement obligating electrician to repay cost of training to joint union-multiemployer training-apprenticeship trust fund if he went to work for a noncontributing employer within the industry was not a restrictive covenant because it did not enjoin competition generally, only recoupment of training costs in the event of accepting employment with certain competitors); *Borg-Warner Prot. Servs. Corp. v. Guardsmark, Inc.*, 946 F. Supp. 495, 500-02 (E.D. Ky. 1996) (applying both Tennessee and Kentucky law to find security contractor's investment in training security guards on-the-job to satisfy needs of hiring firm was a legitimate basis for enforcing covenant that prohibited employees from working for successor contractor); *Rogers v. Runfola & Assocs., Inc.*, 565 N.E.2d 540, 544 (Ohio 1991) (holding employer investment in time and money for equipment, facilities, support staff, and training is protectible interest); *Atlantic Tool & Die v. Kacic*, No. 2717-M, 1998 WL 801913, at *4 (Ohio Ct. App. Nov. 18, 1998) (holding protectible interest arose out of costly and specialized—but not confidential—training conferred on employee in the area of tool and die manufacturing quality control).

41. *See, e.g.*, *Brunswick Floors, Inc. v. Guest*, 506 S.E.2d 670, 673 (Ga. Ct. App. 1998) (holding that although investment in extensive training may be protectible interest, sending employee from Brunswick, Georgia, to Kansas City for all-expense-paid training program in advanced carpet installation, and to Atlanta for certification course in floor installation, was insufficient investment in training to uphold covenant not to compete within eighty-mile radius for two years).

42. COLO. REV. ANN. STAT. § 8-2-113(2)(c) (West 1994) (permissible to have covenant that provides for recovery of expense of educating and training an employee who has served an employer for a period of less than two years); FLA. STAT. ANN. § 542.335(1)(b)(5) (West 1985) ("extraordinary or specialized training" is a legitimate business interest); LA. REV. STAT. ANN. § 23:921 (West 1998) (legitimate employer interests include training and advertising).

43. Louisiana Revised Statutes section 23:921, which included among protectible interests employer investments in training and advertising, was amended in 1989 to eliminate the special exception for training and advertising.

44. *E.g.*, *Dyer v. Pioneer Concepts, Inc.*, 667 So. 2d 961, 964 (Fla. Dist. Ct. App. 1996) (holding employee trained in stripping floors and operating equipment leased to grocery stores, and enrolled in seminars on interpersonal skills, hiring and firing employees, and repairing equipment, did not have extraordinary training pursuant to definition of legitimate business interest); *Hapney v. Cent. Garage, Inc.*, 579 So. 2d 127, 132 (Fla. Dist. Ct. App. 1991) (holding in order to be "extraordinary," training must exceed "what is usual, regular, common, or customary in the industry in which the employee is employed"; employer's investment in extending air-conditioning installer and repairer's skills to include cruise-control units and cellular telephones not extraordinary); *see also* *Orkin Exterminating Co. v. Foti*, 302 So. 2d

more willing to enforce contracts that require an employee to reimburse discrete training costs, rather than refrain from competing,⁴⁵ though even this type of agreement is vulnerable to judicial invalidation on public-policy grounds.⁴⁶ In sum, to the extent protection of employer investments in nonconfidential human capital is desirable, common law and statutory inroads are at best narrow, and at worst, leave employers uncertain and perhaps unwilling to provide some types of training to employees. Economic logic plays no explicit role in the distinction drawn by the doctrine. Yet, as I will discuss shortly, numerous scholars have argued that there are compelling reasons to enforce restrictive covenants that protect employer investments in training per se.

IV. CRITIQUE AND ANALYSIS

A. Review of Literature on Restrictive Covenants

The question whether restrictive covenants ought to be enforced at all—and if so, when—sharply divides commentators. Some legal scholars advance noneconomic justifications for their positions, coming out on both sides of the enforcement question. Normative attacks on courts' reluctance to enforce postemployment restraints grounded in antipaternalist⁴⁷ and egalitarian⁴⁸ rationales are countered by fairness based arguments against enforcement.⁴⁹ Economics influenced commentators, with a few noteworthy exceptions,⁵⁰ have generally criticized the

593, 597 (La. 1974) (holding on-the-job training such as employee sales and training meetings, and training courses in the administrative needs of the employer itself, cannot be considered the sort of training that is protectible pursuant to (former) Louisiana Revised Statutes section 23:921, which requires investment in "substantial" sums for "special" training or extensive advertising of the employee); *Educ. for Living Seminars, Inc. v. Leone*, 558 So. 2d 250, 254 (La. Ct. App. 1990) (holding restrictive covenant unenforceable despite employer outlay of \$7900 in tuition for course related to employment, because money not spent on "special training," but instead on advanced skills in an area—leading seminars—where employee was already skilled).

45. See Anthony W. Kraus, *Repayment Agreements for Employee Training Costs*, 44 LAB. L.J. 49, 50-52 (1993) (reviewing cases in which courts have enforced training-cost repayment agreements).

46. See *Brunner v. Hand Indus., Inc.*, 603 N.E.2d 157, 160-61 (Ind. Ct. App. 1992).

47. See Christopher T. Wonnell, *The Contractual Disempowerment of Employees*, 46 STAN. L. REV. 87, 108-10 (describing how employees' inability to commit themselves to employer for some period into the future disempowers employees because it makes employers either unwilling to hire them or willing to hire them only at a depressed wage).

48. See Stewart E. Sterk, *Restraints on Alienation of Human Capital*, 79 VA. L. REV. 383, 454-56 (1993) (arguing that the inalienability of human capital is inequalitarian because the young and the talented are its principal beneficiaries).

49. E.g., Phillip J. Closius & Henry M. Schaffer, *Involuntary Nonservitude: The Current Judicial Enforcement of Employee Covenants Not to Compete—a Proposal for Reform*, 57 S. CAL. L. REV. 531, 548-49 (1984).

50. See *supra* note 6; see also Harvey J. Goldschmid, *Antitrust's Neglected Stepchild: A Proposal for Dealing with Restrictive Covenants Under Federal Law*, 73 COLUM. L. REV. 1193, 1204-07 (arguing restrictive covenants give employers too much control over

narrowness of enforcement, arguing that the scope of contractually protectible interests should not exclude pure investments in training.⁵¹ To the extent that at least part of the rationale for limiting enforceability of covenants is a nonconsequentialist claim that a worker has an inalienable and unconditional right to ownership of his own labor, the critics' position reveals their belief that labor is as susceptible as other commodities to this kind of contractual commitment. Consequently, they maintain, a legally enforceable commitment device is essential to induce efficient investments in training and innovation.

Economists are frequently dubious of arguments that deem inequality of bargaining power to be a transaction cost justifying "market-correcting" regulatory or judicial intervention.⁵² The academic literature on restrictive covenants is no exception. Numerous commentators have argued that while duress and unconscionability are legitimate bases for invalidating restrictive covenants, judicial concern for inequality of bargaining power per se is deeply problematic.⁵³ To begin with, they argue, if

competition within their industry, and they should therefore be subject to federal antitrust laws); Rubin & Shedd, *supra* note 2; Charles A. Sullivan, *Revisiting the "Neglected Stepchild": An Antitrust Treatment of Postemployment Restraints of Trade*, 1977 U. ILL. L. F. 621, 647-50 (arguing courts should expand the applicability of antitrust law to examine more explicitly the market impact of postemployment restraints on trade).

51. See MICHAEL J. TREBILCOCK, *THE COMMON LAW OF RESTRAINT OF TRADE: A LEGAL AND ECONOMIC ANALYSIS* 120-23 (1986); Maureen Callahan, Comment, *Post-Employment Restraint Agreements: A Reassessment*, 52 U. CHI. L. REV. 703, 715, 718 (1985); York Moody Faulkner, Comment, *A Market Analysis of Anticompetition Agreements in Labor Contracts*, 1991 BYU L. REV. 1657, 1675-76 (1991).

52. See, e.g., Benjamin Klein, *Transaction Cost Determinants of "Unfair" Contractual Arrangements*, 70 AM. ECON. REV. 356, 360-61 (1980) (stating contracts facially appearing one-sided may contain a counterweight in the form of implicit, or reputationally driven, checks on opportunistic behavior); Stewart J. Schwab, *The Law and Economics Approach to Workplace Regulation*, in GOVERNMENT REGULATION OF THE EMPLOYMENT RELATIONSHIP 91, 111-13 (Bruce E. Kaufman ed., 1997) (stating numerous forms of transaction costs may justify intervention, but inequality of bargaining power is not one of them); Michael L. Wachter & Randall D. Wright, *The Economics of Internal Labor Markets*, 29 INDUS. REL. 240, 254-55 (1990) (arguing that despite certain efficiency justifications for unions, defending inalienable entitlements under the National Labor Relations Act ("NLRA") in the name of failures of bargaining power, while perhaps sensible in the 1930s, seems strained today). But see Michael H. Gottesman, *Wither Goest Labor Law: Law and Economics in the Workplace*, 100 YALE L.J. 2767, 2787 (1991) (reviewing PAUL C. WEILER, *GOVERNING THE WORKPLACE: THE FUTURE OF LABOR AND EMPLOYMENT LAW* (1990)), who argues that the characterization of the employment relation as a bilateral monopoly collapses if one party is more powerful than the other. Assuming the existence of surplus due to asset specificity, one party may be able to extract more of the surplus than the other, effectively rendering the relationship a simple, rather than bilateral, monopoly. *Id.* If the more powerful party is the firm, it may find it privately rational to pay a wage below that which will elicit maximal productivity from workers (because the surplus captured may exceed the returns from paying higher wages). *Id.* This outcome, argues Gottesman, may be suboptimal from a societal standpoint and may justify laws such as the NLRA that are designed to equalize bargaining power between parties. *Id.*

53. See, e.g., TREBILCOCK, *supra* note 51, at 135-39, 143 (expressing skepticism that employer monopsony power, if it existed, would manifest itself in a restrictive covenant disadvantageous to the employee); Callahan, *supra* note 51, at 715-23 (asserting that many

bargaining power is indeed important, then its invocation is inconsistent: while paying lip service to policing inequality of bargaining power, judges routinely analyze covenants alone, paying scant attention to the actual bargaining power of the parties.⁵⁴ Moreover, they contend, bargaining power itself is a limited concept in a broader market context. Absent severely constrained competition (for example, monopsony conditions), wages will tend to reflect the opportunity costs of any future restrictions on mobility. Judicial hostility to the “anticompetitive” effects of covenants is greeted with similar skepticism among most economist observers, who stress that unless the employer has a monopoly or market dominance more generally, its power to restrain an employee from competing will only trivially affect market competition.⁵⁵

The upshot is that critics are unpersuaded by the existing limitations on the range of protectible interests. Instead, they would expand the field to include pure training investments. In addition, some critics are also predictably unsentimental about the doctrine’s reasonableness jurisprudence which, as discussed earlier, invokes inequality of bargaining power and anticompetitive effects in assessing whether, even assuming a protectible interest, a covenant overreaches in terms of time, geography, or vocation.⁵⁶ To this end, some reformers would eliminate the reasonableness test altogether, enforcing restrictive covenants according to the conventional rules of contract.⁵⁷ Traditional contract analysis, they say, leaves room to scrutinize process defects during contract formation. The doctrines of duress, unconscionability, and so on are sufficient bases on which to evaluate the soundness of an agreement. Other critics would save the reasonableness test in one form or another, satisfied simply to broaden the scope of legitimate interests to include training.⁵⁸

employees who sign postemployment restraints are likely to be inventors who possess considerable bargaining power); Kitch, *supra* note 9, at 686-88 (stating that courts do not distinguish between sophisticated and unsophisticated employees, making the bargaining power criterion suspect; moreover, parties can always renegotiate); Sterk, *supra* note 48, at 406-08 (arguing that the anticompetitive effect of restrictive covenants will be insignificant); William H. White, “Common Callings” and the Enforcement of Postemployment Covenants in Texas, 19 ST. MARY’S L.J. 589, 596-98 (1988) (arguing that duress and unconscionability are valid mechanisms for protecting employees from restrictive covenants, but a covenant cannot be invalidated simply because unequal bargaining power exists).

54. See Callahan, *supra* note 51, at 721-22.

55. TREBILCOCK, *supra* note 51, at 147; Callahan, *supra* note 51, at 714-15. Callahan further argues that even if the employer did have market dominance, allowing it to enforce postemployment restraints would not imply that the agreement was anticompetitive. Any costs resulting from allowing a dominant market player to prolong its dominance by eliminating competitors would be offset by gains resulting from encouragement of investment in research and training. *Id.* at 715.

56. See *supra* text accompanying notes 30-37.

57. *E.g.*, Callahan, *supra* note 51, at 725-27.

58. See, *e.g.*, Faulkner, *supra* note 51, at 1677-78. Faulkner advocates a two-part test in which the court assesses whether, at the time of contracting, the market was competitive and the employee had full information: judged, respectively, by whether the employee was qualified for other acceptable jobs, and whether a reasonable person similarly situated would have entered into the anticompetition agreement at the same wage. *Id.* Although the author does not label it as such, this proposed test is functionally similar to the test for unconscionability, which itself may take into account monopoly power and information asymmetry in assessing

I stated in the introduction that my particular interest is the invocation of transaction-cost economics, in particular, the concept of opportunism, to analyze the efficiency of the common law of restrictive covenants. The application of this model, I will argue, at once raises the analysis to a higher level of sophistication, and introduces the new hazards for legal scholars and reformers. It is to that literature I now turn.

B. Transaction-Cost Economic Analysis

The paradigmatic starting point for transaction cost analysis of restrictive covenants is Gary Becker's 1964 treatise on human capital, which distinguishes between general and specific training.⁵⁹ General training is equally valuable across firms.⁶⁰ An example is the training a medical intern receives at a hospital. For the worker, general training represents a valuable asset and he should be willing to pay for it in the form of reduced wages. But some workers will find it difficult to refuse jobs offering higher wages from the outset, even if the quid pro quo is less training and consequently lower prospects for long-term career advancement.⁶¹ In order to attract applicants, firms that offer extensive general training may defer recouping their investment by reducing the worker's compensation only after providing some or all of the training.

The problem with this arrangement is that the worker may be tempted during the "pay-back" period—when he is receiving a wage below his marginal product—to act opportunistically. The worker may "hold up" the employer by demanding a higher wage under threat of defecting to a competitor who offers a higher wage. Restrictive covenants might reduce this temptation by preventing the employee from working for competitors for some specified period following separation.⁶² To take a simple stylized example, suppose TrainCo hires Alice, offering a salary of \$30,000 per year for the first two years. During year one, TrainCo spends \$5000 on training programs

procedural fairness. In contrast to the usual application of unconscionability doctrine, however, the author recommends reformation, rather than invalidation, of covenants that fail the test. *Id.*

59. GARY S. BECKER, *HUMAN CAPITAL: A THEORETICAL AND EMPIRICAL ANALYSIS WITH SPECIAL REFERENCE TO EDUCATION* 40 (3d ed. 1993). See also the classic article by Jacob Mincer, *On-the-Job Training: Costs, Returns, and Some Implications*, 70 J. POL. ECON. 50 (1962). Human capital is the investment, embodied in a person, in human resources expected to improve productivity. It includes schooling, on-the-job experience, and skills training. See BECKER, *supra*, at 29-58 (describing the various types of human capital). The discussion herein focuses almost exclusively on on-the-job experience and training.

60. See BECKER, *supra* note 59, at 33-40 (describing the ideas summarized in this paragraph).

61. Federal law makes this more difficult at the low end of the wage scale. The Fair Labor Standards Act ("FLSA"), 29 U.S.C. § 206(g) (Supp. IV 1998), permits explicitly reduced "training wages" in only a limited range of circumstances. For example, employers are permitted to pay employees under the age of twenty an "opportunity wage," that is, a wage of \$4.25 per hour (which is below the federal minimum wage) for the first ninety days of employment. *Id.* § 206(g)(1). The FLSA similarly permits below-minimum wages for learners, apprentices, and messengers, but only under certain limited circumstances specified in the regulations. *Id.* § 214(a) (1994).

62. See, e.g., Blake, *supra* note 20, at 652; Kitch, *supra* note 9, at 685.

that enhance Alice's general skills. Alice's marginal product during the first year equals \$30,000, which is below TrainCo's \$35,000 outlay (salary plus training). In year two, the value of Alice's marginal product rises to \$35,000, exceeding TrainCo's \$30,000 salary outlay. TrainCo's total outlay of \$65,000 equals Alice's total marginal product. The problem for TrainCo is that PoachCo is willing to pay \$35,000 to recruit Alice during year two. A restrictive covenant that prevents Alice from working for a competitor for some period following separation may be an effective way to protect TrainCo's investment in training Alice. Numerous scholars have advocated reforming the law to permit such restrictions.⁶³

An elaboration on this simple story introduces a bilateral threat of opportunism. The threat of opportunism declines when both parties have made investments that depend on the parties' continued relationship. From the employee's side, training or other job-specific investments that are more useful to the firm providing them than to other firms or uses are called firm-specific human-capital investments.⁶⁴ Familiarity with matters such as a firm's personnel practices, transaction histories, or manufacturing processes might be more valuable within the firm than outside. Where there is salient risk of job loss, a worker will be reluctant to invest in firm-specific training, knowing that it will have no value to other firms.⁶⁵ The firm, too, worries about the loss of its investment. The worker who has received firm-specific training is more valuable to the firm than a replacement who lacks such training. In the jargon of transaction-cost economics, specific investments create a type of ex post surplus, or "quasi rents," that is, value that can be captured only within that relationship.⁶⁶

Although the presence of quasi rents reduces the likelihood that the relationship will break down, it does not eliminate it.⁶⁷ Even an employee who has invested heavily in firm-specific skills may possess valuable industry-specific skills that he will be tempted to exploit elsewhere. Moreover, the parties may have a preference for avoiding the type of costly ex post bargaining (and concomitant breakdown in the relationship) that quasi rents create. As such, the parties may still wish to hedge against the breakdown of the value-optimizing relationship through reputationally enforced implicit contracts.⁶⁸ They might, for example, implicitly agree to share the

63. See, e.g., TREBILCOCK, *supra* note 51; Callahan, *supra* note 51; Faulkner, *supra* note 51; Edward M. Schulman, *An Economic Analysis of Employee Noncompetition Agreements*, 69 DENV. U. L. REV. 97 (1992).

64. BECKER, *supra* note 59, at 40-51 (discussing the concept of specific training).

65. *Id.* at 43.

66. See Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297, 298 (1978) (elaborating the concept of quasi rents, defined as the excess of the value of an asset over its salvage value, that is, the value of its next best use to another renter); see also, WILLIAMSON, *supra* note 3, at 242.

67. See WILLIAMSON, *supra* note 3, at 243 (arguing that the unexpected severing of a relationship in which there is asset specificity can nonetheless occur and lead to loss of value; for this reason, organizational features must be crafted with care towards preserving these assets); Klein et al., *supra* note 66, at 298.

68. The combination of implicit and explicit contracts designed to reduce transaction costs in the employment relationship is otherwise known as an internal labor market. See Wachter & Wright, *supra* note 52, at 252-53, 256-57 (stating that an internal labor market contemplates long-term relationships between the parties in which the desire to avoid disruption of the

cost of training in the sense that the employer will pay the worker a wage that exceeds the value of her marginal product in the training stage, yet below what the worker could earn at another firm that offers no training. Later, the parties will share in the return to investment: the firm will pay a wage below the worker's marginal product, yet above her opportunity wage (because her specialized skills make her more valuable to the firm for which she has specific training).⁶⁹

Still, implicit contracting over bilateral investments may not achieve the desired equanimity. The risk of "hold up," in which each party attempts to extract a disproportionate share of quasi rents, remains a lurking threat for both parties.⁷⁰ The employee may demand higher wages under threat of departure, or alternatively, the employer may reduce wages in the postinvestment period to a competitive level (for example, by failing to increase wages with inflation).⁷¹

One might assume that reputational incentives would stem opportunism on both sides. A large firm might implicitly promise not to act opportunistically in dealing with its workers, knowing that to do so would jeopardize substantial reputational capital in the eyes of other, similarly situated workers.⁷² Yet, there is still room for opportunism if the value of exploiting the right to bind the employee equals or exceeds the present discounted value of future returns to having a good reputation. Moreover, the modern corporation increasingly diverges from the large, stable, visible organization envisioned by Klein, Crawford, and Alchian. The rapid structural and identity changes that characterize many modern corporations may undermine the effectiveness of reputation as a way to temper opportunism.⁷³ Similarly, the threat of lost reputational capital may have only a trivial disciplining effect on the individual worker, whose trading partners (firms) may be dispersed, dissolved, or hampered from exchanging information with one another, for the reasons cited above or for other reasons.⁷⁴

relationship or retaliation dampens incentives to engage in opportunistic behavior); *see also* Edward B. Rock & Michael L. Wachter, *The Enforceability of Norms and the Employment Relationship*, 144 U. PA. L. REV. 1913, 1921-27 (1996) (describing the mechanisms by which internal labor markets dampen incentives for opportunistic behavior).

69. BECKER, *supra* note 59, at 43-44.

70. *See generally* Klein, *supra* note 52.

71. Klein et al., *supra* note 66, at 316.

72. *See* Klein et al., *supra* note 66, at 305 (assuming adequate information about when and how severely a contract will be broken, if the short-run gains from opportunism are inadequate to offset the present value of foregone future returns to reputational capital, the transaction will not occur). This also assumes the firm transacts with multiple similarly situated workers and that there is communication among them.

73. MARGARET M. BLAIR, OWNERSHIP AND CONTROL: RETHINKING CORPORATE GOVERNANCE FOR THE TWENTY-FIRST CENTURY 259 (1995). But *see* Hyde, *High-Velocity*, *supra* note 8, at 31-32, who argues that in a tight-knit regional economy such as Silicon Valley, reputational sanctions may be quite salient. In his case study, however, Hyde argues that the reputational sanctions may cut in the direction of *disfavoring* litigation to protect intellectual property embedded in human capital, even when based on potentially legitimate claims. *Id.* at 32.

74. Due to the fear of liability, firms may be increasingly reluctant to provide detailed references. *See, e.g.*, Robert S. Adler & Ellen R. Peirce, *Encouraging Employers to Abandon Their "No Comment" Policies Regarding Job References: A Reform Proposal*, 53 WASH. &

Risk aversion about the downstream division of returns to investment may therefore lead parties to enlist the further protection of explicit contracts, including restrictive covenants, to protect their respective "shares" of the assets of the relationship.⁷⁵

C. Bilateral Opportunism and Restrictive Covenants: Limits

I now take up directly the argument posited at the outset of this paper: that despite usefulness and popularity of the transaction-cost model for analyzing the efficiency of legal rules, it bumps up against its limitations in the area of restrictive covenants. Seizing on the idea that restrictive covenants may be a way for parties to hedge against opportunism by their trading partners, legal scholars have reached different conclusions on whether the scope of protectible interests ought to be expanded. Paul Rubin and Peter Shedd, for example, believe the current rules are efficient,⁷⁶ while others, such as Michael Trebilcock, believe that the range of protectible interests ought to include training per se.⁷⁷ As it happens, my criticism of the scholars' invocation of the concept of opportunism does not turn on the resolution of this issue. In essence, my critique is conceptually separate from the question of whether it is efficient to enforce covenants that protect pure training.

Rubin and Shedd's well-known article was one of the first to explicitly focus on the problem of opportunism in this context. Their original and important work helped lay the foundation for a subsequent spate of refinements of human-capital and transaction-cost theories to the legal doctrine of restrictive covenants. Rubin and Shedd's argument begins with the observation that the worker will pay for only the portion of general training that he can afford.⁷⁸ Training involving trade secrets, for example, is a type of general training that workers often cannot afford to self-finance, and thus the only way for an employer to recapture the investment is through wage concessions by the employee. However, once a worker receives this type of training, he will have an incentive to breach the contract opportunistically and take his

LEE L. REV. 1381, 1387-88 (1996) (reviewing empirical literature showing that employers are reluctant to provide references, or provide overly positive references, for fear of lawsuits by former employees); *Checking References of Applicants is Risky Business but Necessary Step*, 17 HUM. RESOURCES REP. (BNA) 145 (Feb. 15, 1999) (giving anecdotal accounts of employer reluctance to give references for fear of liability for defamation or discrimination); J. Hoult Verkerke, *Legal Regulation of Employment Reference Practices*, 65 U. CHI. L. REV. 115, 141 (1998) (mentioning employers' notorious reluctance to give candid assessments of former employees when providing references).

75. Here, though, a familiar litany of new avenues for opportunism crops up. It may be difficult, for example, to draft a contract that reflects all future contingencies. Complexity, bounded rationality, and lack of complete information may result in explicit contracts having inaccurate, vague, or open terms, leading to downstream opportunism in the course of parties' attempts to fill gaps in and/or enforce the agreement. See OLIVER E. WILLIAMSON, *MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS* 66-67 (1975); Klein, *supra* note 52, at 357 (stating "[t]he size of the hold up potential is a multiplicative function of two factors: the presence of specific capital, that is, appropriable quasi-rents, and the cost of contractually specifying and enforcing delivery of the service in question").

76. Rubin & Shedd, *supra* note 2, at 99.

77. TREBILCOCK, *supra* note 51, at 148.

78. Rubin & Shedd, *supra* note 2, at 96-97.

knowledge elsewhere for financial gain. A restrictive covenant, Rubin and Shedd argue, reduces this risk, and thereby preserves the proper *ex ante* incentives for the employer to invest in research and training.⁷⁹ Viewed in this light, there appears to be a compelling case for vigorous enforcement of restrictive covenants in order to promote socially valuable activities.

The authors point out, however, that the threat of opportunism is bilateral, and thus an act that stems problems of opportunism for one party may exacerbate them for the other.⁸⁰ As applied to this context, a worker's human capital will typically be some combination of general training for which he paid and other kinds of general training, such as trade secrets, for which he did not pay. If courts always enforce restrictive covenants, the employer may well be overprotected—an absolute injunction permits the employer to prevent the worker from using any of his skills in the service of a competitor, even skills he paid for himself.⁸¹ This might permit an employer to undercompensate the employee over time, essentially holding him ransom via the threat of enforcing the restrictive covenant.⁸²

How, then, should courts police these bilateral incentives for opportunism? According to Rubin and Shedd, the current judicial approach gets it right.⁸³ Trade secrets might be seen as the paradigmatic example of general training financed by the employer. Therefore, courts' practice of enforcing restrictive covenants that protect trade secrets is efficient.⁸⁴ Similarly efficient, they argue, is enforcing covenants that protect customer lists only where they are not generally known, and there is evidence of effort or expenditure on the part of the employer in developing the list. This, they say, is efficient because it likely singles out human capital paid for by the employer, rather than by the employee.⁸⁵ Rubin and Shedd acknowledge that their examples are nonexhaustive. Still, they clearly endorse the law's exclusion of nonconfidential general training from the categories of protectible interests on the basis that it prevents employer opportunism.⁸⁶

While thought-provoking and initially convincing, Rubin and Shedd's analysis fails on several grounds. First, it is not obvious that singling out employer investments in confidential information and relationships effectively polices bilateral opportunism. To be sure, evidence of costly investments in acquiring and maintaining the secrecy of information may support a legal inference of trade secrets.⁸⁷ But this does not answer the question of whether trade secrets alone are worth protecting. It does not follow that absence of efforts to protect secrecy signals a lack of desire to protect an underlying investment. Even assuming we could solve the classic administrative

79. *Id.* at 98-99.

80. *Id.* at 99.

81. *Id.* at 97-98.

82. *Id.* at 101-02.

83. *Id.* at 103-07.

84. *Id.* at 105-07.

85. *Id.* at 104.

86. *Id.* at 107.

87. Professor Kitch speculates that in the case of covenants prohibiting postemployment use of trade secrets, the requirement of evidence of employer investment in secrecy can be rationalized as a surrogate for a visible symbol informing employees of the intention that the information be kept secret. Kitch, *supra* note 9, at 698-99.

problem of distinguishing between trade secrets and general “tools of the trade,”⁸⁸ limiting protectible interests to the former may be an underinclusive rule.

Consider as an example the contract held unenforceable in the Indiana case of *Brunner v. Hand Industries*.⁸⁹ When the employee, Brunner, began his employment with Hand Industries, he signed an agreement promising to reimburse the employer for training in the trade of polishing and inspecting orthopedic products should he go to work for a competitor within three years of commencing employment.⁹⁰ The amount owing in the event of premature departure was subject to a graduated price schedule.⁹¹ Two years and four months after commencing employment, Brunner went to work for Hand’s competitor.⁹² In accordance with the price schedule, the trial court awarded the employer \$20,000, an award the Third District Court of Appeals of Indiana overturned.⁹³

The court of appeals might have reached its decision for a number of reasons. For example, the court might have concluded that the price charged for the training was unreasonable, and if accompanied by irregularities in the formation process, might have concluded that the contract was unconscionable. The court, however, made no inquiry into the actual cost of training, nor into the contract formation process.

Another possibility would be to scrutinize the quite peculiar price schedule. One might predict that a price schedule of this nature would peak in the beginning, when the cost of training exceeded the worker’s marginal product, and then taper off over time as the intensity of training diminished and the employee’s productivity gradually increased. Instead, the price schedule increased steadily for the first two years from \$2200 to \$20,000, stayed at \$20,000 during the third year, and then dropped abruptly to zero upon arrival of the third year.⁹⁴ The court therefore might have identified this as a penalty clause, rather than an enforceable liquidated damages clause designed to approximate actual cost of training. But the court did not take this approach either. The court did say it was influenced by the fact that if the covenant were enforced, the employee would be liable for an amount that exceeded the sum total of the wages earned while working for the former employer.⁹⁵ However, high training costs, even when they exceed wages, do not unto themselves indicate sharp practices. On the contrary, for some jobs, the actual cost of training may be very high and might well exceed the total wage of the worker in the early years of employment. Indeed, this would be the very case in which the employee could not afford to pay for training which might later prove marketable, thus inducing the employer to seek protection of its investment through contract.

88. Blake’s classic article pointed out the central problem of distinguishing between trade secrets or confidential information embodied in human capital and an employee’s nonconfidential training: “In modern laboratories, design centers, and planning conferences, where do trade secrets begin and the employee’s intellectual tools of the trade end?” Blake, *supra* note 20, at 668.

89. 603 N.E.2d 157 (Ind. Ct. App. 1992).

90. *Id.* at 158-59.

91. *Id.* at 159.

92. *Id.* at 158-59.

93. *Id.* at 159.

94. *Id.* at 158-59.

95. *Id.* at 160-61.

In the end, the Indiana Court of Appeals's ruling in *Brunner* turned on the fact that the record contained no evidence that Brunner possessed confidential information, customer lists, or trade secrets.⁹⁶ In the absence of such evidence, enforcing the contract would contravene a long line of Indiana cases categorically holding that general knowledge, information, or skills gained by the employee in the course of his employment are not protectible through restrictive covenant.⁹⁷

Cases like *Brunner* belie Rubin and Shedd's assumption that the common law is efficient because the courts selectively enforce covenants where the employer has paid for the investment. The class of "legitimate interests" recognized by the law of restrictive covenants is underinclusive because it ignores training investments of the sort made by Hand Industries. Absent the ability to protect these investments (as Hand Industries mistakenly believed it could), firms may think twice before making such substantial outlays in on-the-job general training.

It may well be, though, that investments of the sort made by Hand Industries are the exception. Perhaps the vast majority of employer investments do in fact fall within the range of interests currently deemed legitimate under the law of restrictive covenants. Even assuming this is so, it raises the question of whether courts *ought* to single out the types of investments they currently protect. Reliance on the *fact* of certain kinds of investments overlooks the possibility that behavior is endogenous to the existing rule, efficient or otherwise. In other words, employers familiar with a century of common law jurisprudence know that courts will enforce covenants protecting employers' investments in trade secrets, confidential information, and nonpublicly available customer lists and relationships, but will presumptively invalidate covenants that protect even very costly investments in human capital deemed general tools of the trade. One would predict that, over time, investment decisions will shift to reflect the contours of the legal rule. Specifically, one would expect that training will be externalized, that is, workers will be required to self-finance general training by attending college or trade-school programs.

Suppose that, contrary to the current rule, investments in general, nonconfidential training were protectible. We might expect a change in investment strategies: we might see more investment in on-the-job training, apprenticeship programs, and the like. I am not aware of any convincing empirical evidence from states that have experimented with expanding the law of restrictive covenants to protect investments in nonconfidential general training. Nor can I assert definitively that the hypothesized shift in the rule would lead to an optimal investment regime. My point for the moment is simply that Rubin and Shedd's analysis falls prey to the circularity of its assertion that the common law is efficient because it protects investments made in the shadow of a rule that likely induces those investments.

Before considering what rule might lead to a better human-capital investment regime—and whether the law of restrictive covenants even has a role to play in that regard—let me raise one further limitation of the transaction-cost economics concept of bilateral opportunism as a heuristic in this context. Although it may be correct that workers will typically pay for general training that they can afford in the form of reduced wages, the dynamic nature of this process may be exceedingly difficult to

96. *Id.* at 160.

97. *Id.*

capture in a legal rule. Rubin and Shedd argue that invalidating covenants that restrict an employee from using general, nonconfidential training efficiently curbs perverse employer incentives “to restrain such an employee from competition in order to reduce his wages after the training has occurred.”⁹⁸ The problem with this statement is that it assumes employees pay for their training only during the period of training. As explained in Part IV.B., however, it is quite plausible that the “pay-back” period, when the worker’s wage is depressed relative to his marginal product, will occur after training is complete. During this period, the threat of opportunistic employee defection is still quite salient.

In light of this dynamic story, if the goal of an optimal rule is to police bilateral opportunism, the relevant question is not simply whether the employer made a costly investment in training (confidential or otherwise). The question is whether one party has appropriated some of the value of the training without paying for it. Perhaps the worker will choose to depart when she has worked at reduced wages only long enough to pay back half of the value of the training she received. Perhaps, though, the worker will have compensated the employer fully for its initial investment, and allowing the worker to depart will preclude opportunistic attempts by the employer to continue paying wages below the worker’s marginal product. Rubin and Shedd’s attempt to vindicate existing doctrinal categories fails to capture these nuances.

To illustrate, let’s return to our example in which TrainCo hires Alice at \$30,000 per year for two years. Recall that in the first year of employment, TrainCo invested \$5000 in training Alice, although Alice’s marginal product was equal to only \$30,000 that year. In year two, Alice’s marginal product jumped to \$35,000, yet TrainCo held her salary at \$30,000. In the aggregate, Alice’s marginal product was equal to Trainco’s outlay of \$65,000 in salary and training investments. In order to prevent Alice’s defection in year two, TrainCo asked Alice to sign a restrictive covenant in which she promised not to work for any local competitors for one year following departure. In a dynamic story, the timing of Alice’s departure is critical to whether she appropriates training for which she did not pay. If she departs at the end of year one, she will appropriate \$5000 worth of training. If she departs at the end of year two, she will have fully reimbursed the employer for the value of her training and appropriate nothing for which she has not paid. If she departs after eighteen months (assuming, for sake of simplicity, that the “pay-back” process in year two is linear), she will appropriate \$2500 of the value of training.

In sum, the existing rule, which is static in its application, does not ensure that the worker departs only with training for which she has paid.

Trebilcock’s edifying analysis avoids core pitfalls in Rubin and Shedd’s model: it does not assume that it is singularly efficient to enforce covenants that protect investments in trade secrets, customer lists, and high-investment customer relationships. Trebilcock would presume a protectible interest where the employee has had access to the “employer’s trade secrets, specialized know-how or customer connections.”⁹⁹ Where a restrictive covenant appears to restrict competition *per se*, however, Trebilcock would permit a former employee to exploit innate talents or

98. Rubin & Shedd, *supra* note 2, at 107.

99. TREBILCOCK, *supra* note 51, at 147.

skills acquired on-the-job, even at the expense of the former employer.¹⁰⁰ More specifically, the test for a protectible interest would be: “[H]ave the post-termination activities of the employee reduced the value of his former employer’s investments in innovations or customer connections, which reduction in value would not have occurred *but for* the employee’s prior access to these innovations or customer connections, and the [has] reduction in value significantly exceed[ed] that likely to be associated with the activities of other rivals (and their employees) in the market in question?”¹⁰¹

At the same time, Trebilcock would discourage categorical invalidation of covenants designed to protect up-front investments in “garden-variety” training, advocating instead a case-by-case, fact-specific judicial inquiry designed to gauge whether the employer has failed to recoup an investment in human capital. He notes that, in some cases, divergence between the marginal product and training costs in early time periods will be so clear that a court could enforce the covenant with confidence that the employer has yet to recoup the investment.¹⁰² As countervailing protection for employees, Trebilcock would weaken the presumption in favor of injunctive relief, favoring liability rules (damages) instead. Employers seeking to enforce a restrictive covenant to protect training costs would bear the burden of demonstrating early investments in the employee that exceeded the value of the employee’s marginal product, and which were not recouped in later time periods.¹⁰³

Trebilcock’s solution of requiring courts to compare the value of up-front investments in training with the value of the worker’s marginal product both during and after training may well be the optimal rule in a first-best world. In the world of the second-best, however, Trebilcock’s sophisticated approach confronts intractable problems of its own. To truly get to the heart of opportunism, the court would need to undertake an extensive inquiry. Evaluating the market wage for workers in the trade in question during the period of skill acquisition, as well as the market wage following skill acquisition, would only be the first step. Answering the question of exactly when the employer has recouped its investments requires determining the worker’s actual productive contribution to the firm and the precise market value of

100. *Id.* at 147.

101. *Id.* at 147–48. Trebilcock assumes that if the market is workably competitive, restrictions on postemployment competition will have a trivial effect on the market in question, and the case for enforcement is weak.

102. *Id.* at 148.

103. *Id.* at 149. More generally, where it is ambiguous whether customer relations and other informational assets constitute a protectible interest, the employer would bear the burden of quantifying damages caused by the competing former employee in excess of the competitive threat already presented by business rivals. *Id.* Even where the existence of a protectible interest is unambiguous, Trebilcock would relax the presumption of injunctive relief, shifting to a liability rule where, *prima facie*, the costs imposed on the employee by the injunction outweigh the likely benefits of enforcement to the employer. Here, too, the employer would bear the burden of proving its actual damages, which, once determined, would essentially serve as a judicially-facilitated “buy-out” option for the employee. Trebilcock assumes that this method would get around some of the difficulties parties may have in striking Coasean bargains on their own. *Id.* at 150.

that contribution.¹⁰⁴ Further, the judge would need to weigh inevitable idiosyncrasies in the talents, capacities, and efforts of that individual employee relative to others in the trade, and decide how those differences ought to affect the determination of when the employee has paid the employer back for its investment. Valuation of training would be complicated as well. The judge would need to determine the nature and degree of training, and its value in excess of other forms of on-the-job training that the contract is not intended to protect. These are only some of the difficult empirical and conceptual questions that would plague the inquiry.

My point is not that we ought to go back to the drawing board to craft a still more sensitive test. Trebilcock's analysis raises the right questions. The problem is, the questions may be unanswerable. So long as the core theoretical problem is how best to solve problems of bilateral opportunism, even the most tailored approach will need to surmount technical and conceptual challenges that may be so formidable as to make the rule essentially impossible to administer.¹⁰⁵

V. CONCLUSION

Despite my critical appraisal, this Article is not intended as an indictment of transaction-cost economics in general, nor even the more specific concept of opportunism. On the contrary, both offer useful normative frameworks for conceiving the law. Nonetheless, I have tried to illustrate some hazards of applying this popular model to more practical enterprises, such as explaining the existing law of restrictive covenants or prescribing implementable reforms. I am persuaded that transaction costs plague long-term contracting, and in particular, that the costs of bilateral opportunism are significant in the realm of restrictive covenants. However, selective enforcement of covenants based on either overly-crude surrogates for opportunistic appropriation, or exceedingly fine-grained assessments of firms' and workers' relative investments in human capital, may be very difficult to apply meaningfully in practice.

None of this is to say that it would be futile to continue exploring optimal contract

104. Researchers have only recently begun to tackle the difficult methodological problem of testing the training-wage hypothesis, with mixed results. *See, e.g.,* Jonathan R. Veum, *Training, Wages, and the Human Capital Model*, 65 S. ECON. J. 526, 533-36 (1999) (showing that data from the National Longitudinal Survey of Youth reflects an inverse relationship between formal initial training and starting wage, as predicted by the human-capital model). *But see* Daniel Parent, *Wages and Mobility: The Impact of Employer-Provided Training*, 17 J. LAB. ECON. 298, 309-13 (1999) (using the same data set, finding that the inverse correlation exists only for very early training; there is no evidence that wages are reduced while workers are being trained in later years).

105. Trebilcock acknowledges these difficulties, but argues that unless courts "engage in these kinds of inquiries, then they are driven back to the elusive and at least as indeterminate distinctions between personal skills of the employee and specialized employer know-how, and between personal skills and customer connections." TREBILCOCK, *supra* note 51, at 139. My point of departure with Trebilcock is on the question of whether rejecting his technically demanding rule renders the existing rule the only viable alternative. As I will discuss momentarily, I believe there are still other approaches worth exploring.

design using insights from transaction-cost analysis,¹⁰⁶ but so doing requires that we be mindful of these practical constraints. Accordingly, I will conclude this essay by offering some conjectures on how we might proceed within such constraints.

Perhaps the most basic question to ask is a doctrinal one: are property and tort more fruitful venues than contract for identifying an efficient rule to mediate innovation and training in the employment context? Earlier in this essay, I briefly discussed the principal property-like approach for protecting workplace investments—the law of trade secrets. There is extensive literature analyzing the economics of property rights to information in the employment setting, only some of which I have cited in this Article. Although delving into the thicket of such an analysis is beyond the scope of this short Article, it is far from clear that such inquiry would bear fruit. Recall, from the discussion earlier in this Article, that one reason for employing restrictive covenants in the first place is because of the functional lack of reliability of traditional property and tort-based regulations manifested in the law of trade secrets.¹⁰⁷ Indeed, one recent scholar's exhaustive and critical economic analysis of the "muddle" of trade secret law led him to advocate moving away from property and tort rules in favor of contract principles.¹⁰⁸ Thus, notwithstanding the considerable limitations of contractual devices I have described in this essay, they may be less flawed than property rules in the realm of trade secrets and other investments in information and training.

Is it possible, then, to devise administrable contract rules that mediate opportunism and encourage investment in human capital? At least on the first cut, the analysis in this Article implies that a categorical rule of enforcement would be preferable to a more nuanced standard. For the reasons discussed earlier, applying a discretionary rule depending on which party has paid for an investment in human capital would demand difficult empirical judgments that may exceed the capacity of judges, leading to ex post errors and ex ante uncertainty as to which investments are protectible.¹⁰⁹

106. In the context of collective bargaining law, for example, some scholars have fruitfully applied transaction-cost analysis to defend imposition of penalties on parties who act strategically to appropriate rents from joint surplus. Kenneth Dau-Schmidt, in whose honor this symposium is held, has argued persuasively that collective bargaining rules on bargaining in good faith should be strictly enforced if we believe that the NLRA is in large part designed to regulate wasteful strategic rent-seeking between parties. See Kenneth G. Dau-Schmidt, *A Bargaining Analysis of American Labor Law and the Search for Bargaining Equity and Industrial Peace*, 91 MICH. L. REV. 419, 498-99 (1990). Although this makes good sense in the context of the more ritual, formalized bargaining process we expect under the NLRA, the question of what constitutes bad faith may prove more elusive in the present context.

107. See *supra* text accompanying notes 9-16.

108. See generally Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of a Justification*, 86 CAL. L. REV. 241, 304 (1998) ("Focusing on contract principles will direct courts toward the proper issues and away from open-ended inquiries into poorly defined standards of commercial morality. Intellectual property will be the better for the change.").

109. I should note that a rule requiring analysis that exceeds judges' competency is not necessarily bad. See, e.g., Gillian K. Hadfield, *Judicial Competence and the Interpretation of Incomplete Contracts*, 23 J. LEGAL STUD. 159 (1994). Hadfield argues that in the area of contracts in which mutuality is satisfied by an obligation of "good faith," such as long-term requirements or supply contracts, a standard may be preferable to a bright-line rule even though it may be beyond some judges' competence to apply a standard assessing good faith and fair

One obvious possibility would be to enforce all covenants (save those rendered unenforceable by conventional contract rules, such as unconscionability and duress). This, as noted earlier, is popular with several law and economics scholars who have written in this field.¹¹⁰

Here, however, I return to the litany of hazards that arise in the drafting, monitoring, and enforcement of covenants designed to anticipate future contingencies with respect to parties' joint human-capital investments.¹¹¹ While the problems summarized here might be said to afflict all manner of contracts to some degree, the difficulties are likely to be particularly acute in the context of restrictive covenants, given the long-term nature of such terms, and the imprecise nature of the investments made by parties over time. Uncertainty about the future of the parties' dealings and market conditions may make negotiations costly. Avoiding these initial costs by devising a standard-form contract may instead result in downstream costs because the terms prove to be ill suited to the parties' (often heterogeneous) circumstances.¹¹² Monitoring the contract downstream may also prove difficult for the reasons Rubin and Shedd described: firms may be able to prevent employees from using the portion of their skills that they paid for themselves, or undercompensate workers who initially underestimated the value of their downstream marginal product and whose alternatives are now constrained by the employer's injunctive power.¹¹³

Enforcement raises further problems. In the presence of judicial error (which seems likely in complex and heterogeneous employment environments) the procedure for issuing an injunction, the usual remedy for breach of covenant, can be exploited by firms for strategic purposes, adding to the usual costs of litigation.¹¹⁴ Rational

dealing. *Id.* at 163-64. The reason is that bright-line rules will lead potential defendants to overcomply with the established categorical rule, and the costs of overcompliance may outweigh the costs of undercompliance that would occur in absence of judicial enforcement. *Id.* at 164.

110. See *supra* text accompanying notes 51-58.

111. See *supra* note 75 (discussing various avenues for opportunism in the drafting and enforcement of long-term contracts).

112. Mark Romaniuk, an attorney with the Indianapolis law firm of McHale, Cook & Welch, in his commentary on my paper at this Symposium, also described the following practice used by some firms. When an employee commences employment, the employee signs an off-the-rack covenant that would likely be deemed overbroad if tested in court. Upon separation, the employer gives the employee a letter modifying the covenant so that it is more narrowly tailored to the particular employee's appropriable skills and the scope of the external market for those skills. In this way, the employer reduces the likelihood that the covenant will be invalidated if enforced. If the employee lacks information about the law or is unable to predict the circumstances of his departure, he may not have adjusted his wage demands to offset the overbroad covenant, and during the time of employment, may have operated under the belief that his freedom to seek alternative employment was more constrained than it actually was.

113. See *supra* text accompanying notes 80-82.

114. See Terry R. Boesch, *What's Really at Issue in Restrictive Covenant Litigation: A Commentary Inspired by Staidl*, 2 EMPLOYEE RTS. & EMP. POL'Y J. 439, 439-42 (1998) (arguing that employers may use the procedural devices associated with an injunction in a strategic fashion; for example, using an *ex parte* restraining order to restrict an employee's mobility pending consideration of the request for a permanent injunction, during which time the employee may suffer reputational losses).

Coasean bargaining may be thwarted if employment separation is acrimonious or if the employer wants to cultivate a reputation as a tough enforcer in the eyes of other current and potential defectors.¹¹⁵ Damages pose difficulties of their own. Liquidated-damages clauses run the risk of invalidation as penalties given the wide range of circumstances that could lead to breach. Ex post determination of appropriate remedies poses the challenge of measuring the actual damages resulting from the employee's postemployment activities.

In sum, notwithstanding that an enforceable commitment device has the potential virtue of allowing parties to make socially valuable ex ante investment decisions, I am ultimately quite persuaded by Rubin and Shedd, Trebilcock, and others that the range and severity of transaction costs would pose formidable barriers to optimal contracting between the parties. One question, then, is whether this conclusion pushes my analysis full-circle, back to the very solutions I criticized in Part IV. I do not believe so.

Another categorical rule would take the opposite approach: prohibiting enforcement of restrictive covenants across-the-board (or at least prohibiting any covenants that expand employer protection beyond that already afforded by trade secret law). This is the approach in California.¹¹⁶ Some legal scholars have recently argued that the success of Silicon Valley compared with other high-technology industrial districts may be attributable in significant measure to California's weak restrictions on postemployment competition.¹¹⁷ The argument is that "high-velocity" labor markets, in which employees move fluidly between firms taking ideas and innovations with them, permit the rapid diffusion of information, creating joint technological gains that would be unattainable in a regime favoring strong enforcement of intellectual-property rights.¹¹⁸ Moreover, firms appear to limit their exercise of even those legal rights available to them under trade secret law, whether because of California juries' reluctance to convict defendants except in the most clear-cut cases, or due to the reputational costs of bucking norms that tolerate employee mobility (norms that may have emerged as a result of the background rules pertaining to covenants).¹¹⁹

I find these explanations of the remarkable success of Silicon Valley plausible, and at least partially persuasive. Although Hyde and Gilson's accounts speak more directly to the context of inventions and secrets, they are relevant also in the context of "garden-variety" training. Still, it remains difficult to generalize with certainty as to whether other state or regional economies would flourish under similar regimes of weak intellectual-property rights.¹²⁰ Anecdotal evidence suggests that the poaching

115. See TREBILCOCK, *supra* note 51, at 141-42.

116. See *supra* note 20. California's statute does not expressly exempt restrictive covenants that protect trade secrets, but courts have interpreted it as leaving room for such contracts. See, e.g., *Scott v. Snelling & Snelling, Inc.*, 732 F. Supp. 1034, 1043 (N.D. Cal. 1990) (acknowledging judicial recognition in California of an exception to the prohibition on enforcement of restrictive covenants where trade secrets are being protected).

117. See, e.g., Gilson, *supra* note 8; Hyde, *High-Velocity*, *supra* note 8; Hyde, *Wealth*, *supra* note 8.

118. Gilson, *supra* note 8, at 608-09; Hyde, *High-Velocity*, *supra* note 8, at 29.

119. Gilson, *supra* note 8, at 600-01; Hyde, *High-Velocity*, *supra* note 8, at 31-32.

120. Gilson, *supra* note 8, at 627-29 (cautioning that the success of the Silicon Valley

of valuable employees is seen by at least some employers as a rising and troubling menace in the current economy.¹²¹ Firms' perceptions (or the reality) that employees are becoming more mobile and that firms cannot count on returns to investment in human capital may undermine their incentive to invest in training.¹²² Firms' belief that they are losing human capital to poachers, of course, does not mean that they are in fact receiving suboptimal returns to their investments. They may simply lack information about their actual net returns to human capital,¹²³ or the market for skilled labor may be in a state of disequilibrium that, over time, will evolve: all firms may become both trainers and poachers, and this kind of cooperation, however uneasy at first, may enhance aggregate efficiency in the long run.¹²⁴

I strongly suspect, however, that there is a nontrivial subclass of situations where employers would inefficiently underinvest in their employees absent some form of protection. If this conjecture were borne out empirically, I would share with a handful of other commentators some optimism about a hybrid approach in which restrictive covenants are deemed unenforceable by statute, with an explicit exception made for discrete training repayment contracts.¹²⁵ Colorado statutory law permits employers to

experience may depend on the characteristics of regional industrial infrastructure); Hyde, *High-Velocity*, *supra* note 8, at 33-37 (recommending additional empirical research on the generalizability of the Silicon Valley phenomenon).

121. See CAPPELLI, *supra* note 6, at 182-87, 198-200. Cappelli speculates that firms are reducing investments in training employees because poaching has become increasingly prevalent in American industry. He gives as examples: Ernst & Young's poaching a team of ninety employees from Coopers & Lybrand and the German electronics firm Siemens, which set up a high training-investment firm in the U.S., only to conclude that it had become the training outfit for local companies, and subsequently changed its strategy to providing less-extensive training.

122. See Anthony P. Carnevale & Donna Desrochers, *Training in the Dilbert Economy*, 53 TRAINING & DEV. 32, 34 (1999) (noting that opportunities for lifelong learning within a particular firm are declining); Laura Dresser & Joel Rogers, *Sectoral Strategies of Labor Market Reform: Emerging Evidence from the U.S.*, in VOCATIONAL AND ADULT EDUCATION IN EUROPE 269, 278 (Fons van Wieringen ed., 1999) (describing the classic prisoners' dilemma whereby individually rational firms, each fearing that others will free ride on their efforts, will collectively underinvest in training). *But see* Margaret Olesen, *What Makes Employees Stay?*, 53 TRAINING & DEV. 48 (1999) (arguing that training can be a retention strategy).

123. See Laurie J. Bassi et al., *Measuring Corporate Investments in Human Capital*, in THE NEW RELATIONSHIP: HUMAN CAPITAL IN THE AMERICAN CORPORATION 368-70 (Margaret M. Blair & Thomas A. Kochan eds., 2000) (suggesting that the market systematically undersupplies information about the returns to human-capital investments).

124. Some scholars also suggest that firms may formalize the sharing of human-capital investments through training consortia. See Peter Cappelli, *A Market-Driven Approach to Retaining Talent*, 78 HARV. BUS. REV. 103, 111 (2000) (describing U.S. examples of private-training consortia); Kenneth G. Dau-Schmidt, *Employment in the New Age of Trade and Technology: Implications for Labor and Employment Law*, 76 IND. L.J. 1, 18-20 (2001) (advocating government-supported multiemployer training programs, financed by a payroll tax, that would coordinate employees' careers among multiple employers while also solving the collective action problem that creates disincentives to train a mobile workforce); Dresser & Rogers, *supra* note 116, at 278 (describing public and private training consortia in Europe).

125. For thorough and thoughtful discussions advocating models in this vein, see O'Malley, *supra* note 8, at 1233-39; Schulman, *supra* note 63, at 120.

enforce contracts requiring employees of less than two years' tenure to repay education and training expenses.¹²⁶ A statute of this sort could also contain a provision allowing contractual arrangements specifying the discrete terms of access to clients, again, with limitations on duration. The advantage of moving towards statutory codification of a training-repayment contract exception is that it would more explicitly delineate the existing safe haven that purportedly, but inconsistently, currently exists for these agreements.¹²⁷ Ideally, the statute would require parties to identify clearly, in express contractual terms, the specific cost of training and the duration—perhaps subject to a statutory cap. Should an employee depart before completing the required service, he would be required to pay the employer reasonable liquidated damages.

Of course, some of the problems associated with contingent contracting would exist here just as in a regime that enforced all restrictive covenants. However, such problems would be attenuated in this context because the contracts would be shorter-term, with more discrete, measurable consideration. The task of enforcement would therefore be much simpler, and less subject to evidentiary ambiguity, than for a more finely crafted remedy that (for example) attempted to determine damages caused by actual competition. Certainly, such contracts could cover only a limited range of the training that occurs on the job.¹²⁸ Despite these limitations, I believe this approach can marshal some useful insights from transaction-cost economics while avoiding the hazards that make more complex approaches alluring, but ultimately unachievable.

126. COLO. REV. STAT. ANN. § 8-2-1-13(2)(c) (West 1994). Note that the Colorado statute contains a limited number of other exceptions as well, including restrictive covenants executed as part of the sale of a business and covenants that protect trade secrets. *Id.* § 8-2-1-13(2)(a)-(b). These exceptions also exist in California statutory and judicial law.

127. For a discussion of the courts' inconsistent approach to enforcing agreements that protect training costs, see *supra* notes 38-46 and accompanying text.

128. In a forthcoming article, Eric Talley and I attempt to develop a model for how courts might adjudicate disputes involving mutual investments in less readily quantifiable kinds of information and training, such as trade secrets. We argue for relatively weak entitlements, favoring liability over property rules in most instances. See GILLIAN LESTER & ERIC TALLEY, TRADE SECRETS AND MUTUAL INVESTMENTS (Univ. S. Cal. Law Sch., Olin Working Paper, forthcoming 2001).