EXPERIMENTAL APPROACH TO THE STUDY OF NORMATIVE FAILURES: DIVULGING OF TRADE SECRETS BY SILICON VALLEY EMPLOYEES

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This paper takes an experimental approach to the study of social norms in the context of the divulging of trade secrets in Silicon Valley. Based on data collected from 173 high-tech employees in Silicon Valley, the paper tries to advance the current knowledge in the legal scholarship with regard to the nature and limits of social norms in a legal enforcement context. After describing and analyzing the normative status of trade secret enforcement in Silicon Valley, the paper takes a three-layered approach to the normative failures in compliance with trade secrets requirements. The first level focuses on the limits of formal enforcement of trade secrets, focusing on aspects of deterrence, legitimacy, and information. The second level focuses on the limits of informal enforcement, which relates to the conflict of interest between the information-accepting and information-producing firms. In the third level, the focus is on merging the bounded rationality line of research with the social norms scholarship that suggests the potential failures that could emerge from biases in the perception of the norms. The paper concludes with preliminary suggestions for changes in the formal definitions of trade secrets.

I. INTRODUCTION

In the high-tech industry in Silicon Valley, there is a reported culture of high mobility of employees among competitors. Employee mobility and information diffusion between companies are perceived by many as the basis of the innovative environment and commercial success of Silicon Valley. However, some scholars argue that this high mobility...
among competitors has led Silicon Valley employees to consistently violate trade secret laws and contracts. Given that context, this project has two purposes.

The first purpose of this project is to understand the relationship between the behavioral and legal factors impacting Silicon Valley employees’ behavior regarding corporate secret information. In that sense, this project can be seen as more of a “problem-oriented” effort to understand employees’ perception of what is required from them socially and legally and how those two factors interact. The project offers a behavioral explanation for a reported culture of high mobility of employees among competitors, which, according to some, has led to a relatively high number of trade secret violations. Given this perspective, my empirical and theoretical inquiries are targeted towards identifying the ideal balance between formal and informal enforcement of trade secrets in a regime where employee mobility and information diffusion are perceived by the majority as innovative and important.

The second purpose of this project is more theoretical in nature, focusing on the ways social norms act as substitutes and/or complementary sources of enforcement—a growing area of research within law and economics. In that context, the purpose of this project is to improve the current level of research by comparing economic and psychological models to normative compliance in real-life dilemmas. The focus is on field research, as opposed to game theories and lab experiments, in order to improve the external validity of current law and economic models that have long been criticized for lacking such external validity.

On the “problem-oriented” level, I review and analyze the various reasons for the under-enforcement of trade secrets in the Valley,
questioning the desirability of such practices. In a second stage, I argue that there are formal, informal, and behavioral failures in the current normative system in Silicon Valley that prevents the efficient diffusion of information.

According to the “theory-oriented” perspective, the theme of this paper can be seen as a consideration of some of the complexities that the law and social norms literature should deal with if they wish to suggest alternatives to formal enforcement. The overall approach taken when attempting to ensure the norms’ efficient transfer of information is critical. Formal enforcement in ensuring efficient, informal social enforcement is important. However, without considering the informal aspects of social enforcement, formal enforcement alone cannot ensure the efficient transfer of information among firms in Silicon Valley.

I support my theoretical arguments regarding the normative failures of the current system of trade secrets in California with findings from my empirical research on the perception of trade secret laws by high-tech employees in Silicon Valley. A short description of the procedure, together with the actual questionnaires, is presented in the Appendix to this paper. The findings will be presented at the end of each section of this paper.

II. STRUCTURE OF THE PAPER

This paper will be divided into six parts. The first part suggests a basic taxonomy of the current literature that discusses the background story for this project—the decrease in formal enforcement of trade secret laws in Silicon Valley. The explanations are categorized in three groups: structural, cultural, and procedural.

The second part analyzes the pros and cons of free mobility of employees between competitors according to the various theories in economics, which are relevant to analysis of the distribution of firm know-how information between the employer and employee from an efficiency perspective. Many of the scholars who discuss employee mobility tend to focus on only one aspect of economic efficiency and might not be presenting its real implication in full. Illustrating the complexities of the efficiency argument suggests that, while there are clear advantages that result from free mobility’s promotion of know-how sharing, there is a point at which the resultant public cost exceeds the benefits.

The third part examines the limitations inherent in the formal enforcement mechanisms of trade secrets currently in effect in Silicon Valley. The current format of trade secret laws has led to a situation in which those employees who want to know what confidential information

people, but such an effort is not a part of my interest. See, e.g., J. Michael Steele, Models for Managing Secrets, 35 MGMT. SCI 240 (1989).
can be shared with their new employers are not likely to get any guidance from either the legislature or the courts. Thus, the current trade secrets system is not only unlikely to deter people from divulging trade secrets; it is not even likely to inform people as to the existence of a set protocol. People are, consequently, likely to rely more heavily on social norms. The end of this section presents findings from my empirical studies that are relevant to the shortcomings in the laws of trade secrets that hinder their ability to serve as formal social controls.

The fourth part examines the extent to which informal social controls are likely to efficiently monitor the behavior of employees. As in the previous section regarding formal controls, this section examines the structural limitations of informal controls both from their ability to inform people about the appropriate mode of conduct and from the deterrence model perspective. The section focuses on the structural limitations involved in managing the sharing of confidential information through social norms when two employers with different interests in the confidential information are involved. The employee who moves between companies faces a unique social dilemma that could lead to a normative failure.

The fifth part introduces another set of failures inherent in informal enforcement that follows the critiques of the rational choice model by those in the field of behavioral economics. While this section focuses mainly on trade secrets, it introduces a new source of failures for the social norms literature, which is particularly relevant to the consideration of multiple equilibriums. This section discusses some of the problems that might arise from a systematic bias in the perceived norms as compared to the actual norm and emphasizes the potential tendency of employees to overestimate violations of trade secret laws by their co-employees and to underestimate the normative power of trade secret laws. Such biases could further exacerbate the limited normative constraints on excessive disclosure of confidential information.

The final part suggests some preliminary expressive policy improvements that could be made in the current legal structure of trade secrets. Such changes could improve the ability to monitor both formal and informal controls of employees’ behavior when moving from one company to another.

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8. For the most recent review of the findings of behavioral law and economics, mainly focusing on the bounded rationality line of research (the notion that people make systematic biases when making decisions), see Russell B. Korobkin & Thomas S. Ulen, Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics, 88 CAL. L. REV. 1051 (2000).
III. SILICON VALLEY AS AN INFORMATION SHARING CULTURE

A. Short Background of the Legal Management of Intellectual Property in the Workplace

A short review of the doctrinal concepts involved is necessary before we begin the more focused discussion of formal and informal enforcement of trade secrets in Silicon Valley.

The legal treatment of intellectual property ("IP") distribution between employers and employees can be divided between trade secrets and ownership pre-assignment (e.g., copyrights and patents). While it is important to understand the assignment of property rights to inventions in order to fully grasp the scope of human capital distribution in the workplace, such a review exceeds the limits of this paper. The purposes of our discussion, I will only mention, in short, that courts in the United States generally allocate the inventions of employees to their employers. This is not the case with regard to trade secrets. A variety of factors has made the enforcement of trade secrets, especially in California, a difficult task for employers. These factors include the freedom of occupation and inter-firm flow of innovation. In addition,
some courts’ ambivalent perspectives on trade secrets touch on the very basic jurisprudential foundation of what constitutes a trade secret. There is no theoretical consensus as to whether a trade secret is an *in rem* property right or an *in personam* legal obligation of confidentiality.\(^\text{14}\) In the past, trade secrets were even protected under the Restatement of Torts,\(^\text{15}\) thus signaling a very different approach from that of other types of IP. A similar conceptual debate has emerged in the court system.\(^\text{16}\) According to the first line of reasoning, the concept of misappropriation of trade secrets is heavily related to the nature of employment relationships. The main emphasis of trade secrets is, therefore, to improve the social values of legal ethics, trust, and confidence in the employment context.\(^\text{17}\) According to this line of reasoning, courts tend to focus on “wrongdoing”\(^\text{18}\) in the process of the misappropriation.\(^\text{19}\) According to a second line of reasoning, trade secrets are treated in a fashion similar to other IP rights, with a primary focus on the property value of the secret. Similarly, IP laws and trade secrets place utilitarian emphasis on encouraging innovation.

**B. Formal Approach to Trade Secrets in Silicon Valley**

While trade secrets have been traditionally treated in an ambivalent manner in the United States, the treatment of trade secrets in California is even more complex. From a black-letter law perspective, the legal status of trade secrets in California, and in Silicon Valley in particular, is

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\(^{14}\) Miguel Deutch, *The Property Concept of Trade-Secrets in Anglo-American Law: An Ongoing Debate*, 31 U. RICH. L. REV. 313 (1997) (Reviewing the various factors that might lead us to question whether a trade secret is in fact an *in rem* right, or whether it is only an *in personam* right, e.g.: contractual right).  

\(^{15}\) *RESTATEMENT (FIRST) OF TORTS*, §§ 757, 758 (1939) (since 1979, these sections are no longer part of the Restatement of Torts).  


\(^{17}\) See generally, David D. Friedman et al., *Some Economics Of Trade Secrets Law*, 5 J. ECON. PERSP. 61 (1991) (arguing that the concept of trade secrets could be defended economically from the perspective of efficient disclosure of knowledge required for team production).  

\(^{18}\) The wrongdoing is what makes trade secrets different from all other IP laws, since part of what defines trade secrets is how one actually got the information. No such requirement exists with regard to patents. The law protects qualifying trade secrets against misappropriation or attempted misappropriation by others. A misappropriation is facilitated by such improper means as: “theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means.” *CAL. CIV. CODE* § 3426.1 (2003).  

\(^{19}\) In 1996, a law was passed that added criminal liability to the trade secrets misappropriation. For a review of the actual implications of this change, see James H. A. Pooley et al., *Understanding the Economic Espionage Act of 1996*, 5 TEX. INTELL. PROP. L.J. 177 (1997).
similar to regulations existing in any other part of the country. The official response of the courts to trade secret violations is sometimes framed as being identical to that of many other states. While struggling with the meaning of trade secrets, the courts have declared a policy generally against the disclosure of trade secrets. This policy is evident in the following quote: “By enacting the [California] Uniform Trade Secret Act in 1984, [our] legislature added California to the long list of states which have determined that the right of free competition does not include the right to use confidential work products of others.”

However, in other cases, the rhetoric of courts suggests a somewhat different tone: “[T]he decision to focus on [the] relationships and not to treat trade secrets as ‘property’ apparently reflects a policy choice by California authorities in which [the] interests in promoting freer use of new ideas was elevated . . . over [the] interests in rewarding holders of economically significant secrets.”

The last case is more representative of the treatment of trade secrets in Silicon Valley. Scholars that have recently studied the transfer of information in Silicon Valley have argued that, in practice, there is substantial under-enforcement of trade secret laws in Silicon Valley. There are several explanations for this under-enforcement of trade secrets. The most comprehensive account of this Silicon Valley practice is found in a book by AnnaLee Saxenian. According to her account, the weak controls on the transfer of knowledge by employees who moved between Silicon Valley companies are the main reason behind the success of Silicon Valley.

C. Reasons for the Under-Enforcement of Trade Secret Laws: A Basic Taxonomy

Saxenian discusses, from a macroeconomic perspective, the informational and innovative advantages of the practice of information sharing between companies. In the context of trade secret enforcement, many scholars have argued that, in reality, trade secret lawsuits are being filed in Silicon Valley. I will now briefly review and organize the main reasons for this. These reasons have been mentioned by departing employees in Silicon Valley, whether given directly in the context of

24. Id.
Silicon Valley, or indirectly in the context of legal enforcement, as explanations for the decline in use of formal laws in enforcing trade secret disclosure.

D. Structural Reasons: Employment Patterns in Silicon Valley

1. Geographical Proximity: An Urban Planning Perspective

Loyal to her institutional affiliation, Saxenian argues that, in fact, one of the differences between Silicon Valley and Route 128 in Massachusetts is the relative proximity between companies in Silicon Valley. She argues that the geographical proximity between the various companies in the Valley led to a situation in which employees in one company were informally interacting with colleagues from other companies. Saxenian reports that this proximity gave employees the feeling that they worked for the Valley and not for any particular company. The physical proximity between companies makes it very hard to preserve an atmosphere of secrecy, and, hence, restricting the transfer of confidential information becomes much harder.

2. High Internal Job Mobility

Not only does Saxenian discuss a situation in which workers within one firm feel very close to other firms even though they did not work there, but she also points to a situation in which it is very easy for employees, both mentally and physically, to move between companies in the Valley. From a mental perspective, when surrounding companies are not perceived as “enemies,” moving from one company to another is not perceived as betraying a previous employer. From a practical perspective, departing employees do not even need to move their children to a new school when moving to a new job. In a nationwide survey of semiconductor engineers, it was found that half the job changes reported “were moves in which both the old and new employers were located within the Silicon Valley.” Thus, the sharing of information was not done only through the interactions of the employee while working for the neighboring employer, but through the actual move of employees between competing firms.

The relationship between the high mobility of employees and the increased violation of trade secrets seems to be straightforward. If an
employee moves frequently between companies, he is more likely to use trade secrets than an employee who works for a longer period in one company. I am not suggesting that every departing employee is likely to disclose trade secrets. However, I am suggesting that, because mobility among companies is so great, employees have many more opportunities to divulge trade secrets with limited risk and with higher benefits.

3. Employability vs. Job Security

While the previous two reasons were specifically related to Silicon Valley, the change from job security to employability is not argued to be a unique phenomenon in Silicon Valley. In a recent paper, Katherine Stone gives different normative justifications for why employees should be allowed to use at least some of the know-how from their former employment. 29 According to her, there is a new psychological contract regarding the sharing of confidential information. The realities of high mobility and limited job security have changed expectations about information confidentiality and loyalty to a single employer. Given this new psychological contract, the law should change to adapt to this new meaning of employment relations. A similar focus on the new perception of career is suggested by Blake E. Ashforth’s discussion of “Organizations in Flux,” 30 as well as by Michael Arthur’s notion of a “boundary-less career.” 31 According to this new career path, people are trying to create networks and develop their career skills. This “boundary-less career” places a huge premium on individual initiative, networking, and learning. 32 This paradigm results in workers who care dearly about their work, but may not care too much about the specific organization they work for. Arguably, in such a paradigm, the nature of secrecy could not be expected to remain unchanged. While Stone directs her criticism at inevitable disclosure, 33 her argument holds true not only in that case, but also in the case of an actual violation of a trade secret. In Stone’s words:

[I]n addition, the new psychological contract requires employees to construct their own boundary less career. Rather than promising job security, employers encourage them to depart and to seek employment in related firms. If employers expect employees to


33. Stone, supra note 29, at 593 (discussing PepsiCo., Inc. v. Redmond, 54 F.3d 1262 (7th Cir. 1995)).
network beyond the boundary of the firm, then employees should be free to enjoy the benefits of the contacts and opportunities that such networks provide. They should not find themselves unemployed and unemployable when they set out to construct their careers.

Under current trends, the most successful employee in the new workplace is the one who is most at risk from the inevitable disclosure doctrine. The more successful she is on the employer’s own terms, the more likely she is to be penalized for obtaining information when she departs. In this area, the law is clearly out of step with social practice.  

E. Culture of Information Sharing

1. Culture of Entrepreneurs (Spin-offs and Start-up Companies)

The cultural arguments are related to the previous descriptions of high mobility and geographical proximity. It is hard to isolate and measure the direction of the causal relationship. This type of approach, however, argues that the culture of Silicon Valley is characterized by a high appreciation for innovation and entrepreneurship and less respect for internal labor markets and large corporations. Again, this does not mean that the culture is such that it encourages violations of trade secret law. However, it does mean that, to some extent, employees in this area share a cultural norm that opposes respect for the maintenance of confidential information within the boundaries of a traditional firm, especially when such information could be found to have a better use in a spin-off or a start-up. According to this rationale, the nature of innovation in the high-technology market gives an advantage to new and small companies, which focus on creating improvements for products while existing firms focus on maintaining their competitive advantages in their current product lines. New companies without any market share can allocate all their resources toward the creation of products that are currently not on the market. In most cases, entrepreneurs are not graduates fresh out of school, but rather they are people who had worked for several years in high-tech firms and then came up with an idea for a better product and left the company to find a new firm. However, the argument is that when the innovative employee has relied on confidential information that he was exposed to at his previous company, then a case brought by the previous employer would be seen as

34. Id. at 594.
35. It is also relevant to note that Mark Suchman's dissertation has demonstrated the unique social role of lawyers in Silicon Valley who are being seen more as facilitators than litigators. Mark C. Suchman, On Advice of Counsel: Law Firms and Venture Capital Funds as Information Intermediaries in the Structuration of Silicon Valley (1994) (unpublished Ph.D. dissertation, Stanford University) (on file with Stanford Sociology Department).
interfering with an activity that is highly appreciated in the Valley. This fact seems to form the underpinnings for the next argument: A bad reputation is associated with those who sue departing employees.

2. Bad Reputation for Companies that Sue Departing Employees

Professor Hyde has conducted the most comprehensive legal analysis of the legal reasons for Silicon Valley’s success.\(^{36}\) His argument is that Silicon Valley could not have succeeded if courts had prevented employees from competing with their former employers on the grounds that they would “inevitably disclose” some unspecified trade secret. Hyde speculates that many of the employees who start up a new Silicon Valley firm or move to a competitor rely on actual knowledge of some tangible program, specifications, or research project.

In his efforts to understand how the law of trade secrets enabled a spillover of information, Hyde offers three possibilities,\(^{37}\) of which the third is the most appealing. Enforceability is limited because, “Firms that litigate in defense of their trade secrets face substantial informal social and economic sanction from other firms (whose cooperation is necessary to accomplish many projects), venture capitalists, and incumbent and prospective employees.”\(^{38}\)

Hyde concludes that the informal market mechanism has abolished the trade secret laws from Silicon Valley: Most firms did not sue departing employees, even when those employees clearly violated trade secret laws and agreements, due to the reputation effect.\(^{39}\) Given how many employees move among competitors, a certain level of trade secret misappropriation occurs repeatedly, though few of these trigger lawsuits.\(^{40}\) Thus, Hyde translates the culture of information sharing in Silicon Valley into the reputation costs\(^{41}\) that prevented employers in

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36. See, HYDE, supra note 22.
37. Id. at ¶¶ 3, 4. (The first two possibilities are: (1) There is a difference between California’s laws and other states’ laws regarding the definitions of forbidden use of trade secrets; and (2) There is a difference between the IP clause in Silicon Valley employment contracts and contracts in other states.
38. Id. at ¶ 5. See also Robert P. Merges who agrees with this view, but adds another caveat as to why employers refrain from suing. Merges is quoted as saying: companies here are also more reluctant than those elsewhere to try to stop employees from working for competitors. They don’t want to be seen as tough on ex-employees because it would make hiring more difficult. And many executives remember when their companies were start ups and are more sympathetic to employees who are leaving.
40. Although Hyde, supra note 22, doesn’t discuss that, his study resembles a much earlier study by Stuart Macaulay, Non-Contractual Relations in Business: A Preliminary Study, 25 AM. SOC. REV. 55 (1963), which showed that breaches of contracts rarely reached courts.
Silicon Valley from pursuing their legal rights in courts. Former employers do prosecute the perpetrators of physical theft of very valuable hard-core technology, as well as very senior employees who move to competitors, but the vast majority of trade secret violations in Silicon Valley, which are committed by rank-and-file employees, are not subject to any legal action. Thus, according to Hyde, the informal reputation mechanism reduced the possibility of enforcing the level of secrecy in a high velocity environment, and reputation damage was intensified by the “negative” media coverage of cases.

F. Procedural and Legal Factors

1. Constraints on Non-Compete Covenants in California

Ronald Gilson conducted a doctrinally oriented follow-up to Saxenian that focused on non-compete covenants within employment contracts as the most efficient way of preventing departing employees from transferring trade secrets. These covenants are not enforceable in California, a fact that makes the enforcement of trade secrets harder because courts can no longer rely on the non-compete covenant and must find out whether there actually was a trade secret misappropriated...

42. When discussing the costs inflicted on those employers who did try to sue their departing employees, Hyde, supra note 22, IV(c), at ¶1, concludes: “First, a few such highly-publicized suits accomplished little for plaintiffs, as will be seen from reviewing the journalistic coverage of these suits. Second, such suits imposed direct costs on these plaintiffs in reputation, internal morale, and recruiting. This will be confirmed from journalistic and interview accounts.”

43. An anecdotal example comes in the form of the following media reaction to an eventually settled case of alleged theft of trade secret documents involving criminal charges in Symantec Corp. vs. Borland International, Inc. See Press Release, Borland and Symantec Settle Trade Secret Litigation (Feb. 14, 1997), available at http://www.symantec.com/press/1997/n970214.html. In an article about the case, they say, “the argument that bothers us is that Borland and the Santa Cruz County district attorney, by prosecuting Eubanks and Wang for the alleged transfer of Borland documents, are threatening the free movement of talent from company to company—a Silicon Valley tradition said to have fueled the growth of the microcomputer industry.” MacWeek, March 15, 1993, at 42 (emphasis added). See also Stephen Kreider Yoder, Silicon Valley Days: High-Tech Firm Cries Trade-Secret Theft, Gets Scant Sympathy, WALL ST. J., Oct. 8, 1992. Thus, the bad reputation cost for companies who sue their departing employees is not limited to employees who use “tacit knowledge” as 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 (1999) observes, but also extends to employees who were actually accused of stealing documents.


45. It should be noted that the vast majority of non-compete litigation cases have nothing to do with trade secrets. See Peter J. Whitmore, A Statistical Analysis of Noncompetition Clauses in Employment Contracts, 15 J. CORP. L. 483, 506–08 (1990). Thus, one could argue at face value that there is no direct relationship between the sharing of trade secrets and non-compete contracts. Nevertheless, this proposition is rejected in the following paragraph.

46. “Except as provided in this chapter, every contract by which anyone is restrained from engaging in a lawful profession, trade, or business of any kind is to that extent void.” CAL. BUS. & PROF. CODE §16600 (West 1997).
by an employee. Covenants not to compete have the potential to prevent an employee from using any of his knowledge to benefit a competitor. According to Gilson, section 16600 of the California Business and Professional Code forced employers to accept a norm of high employee mobility between competitors, which led to trade secrets being transferred among competitors. California courts, for the time being, have blocked an attempt to substitute the doctrine of inevitable disclosure for the lack of non-compete contracts.

The fact that an increase in trade secret disclosure correlates with non-compete contracts is supported by Weiss’s working paper. She demonstrates that the effect of legislative restrictions on non-compete contracts was mainly felt in the manufacturing sector. In her view, this fact suggests that the mobility of employees between competitors contributes to industrial output when departing employees pass trade secrets. While this conclusion could definitely be challenged, this is yet more evidence for the hypothesis that, without non-compete contracts, some information which otherwise would not be divulged is transferred by departing employees. In her words, “[t]he much larger effect on the manufacturing sector suggests that although non-compete covenants more commonly protect goodwill than trade secrets, their effect on trade secrets is more important.”

2. The High Cost of Litigation

A related argument, which is not unique to Silicon Valley but is aggravated by the unavailability of non-compete contracts within California, is the fact that trade secret litigation is very expensive. The ambiguous nature of trade secrets is not only relevant as a set of public policy concerns raised by the courts, but also because it means that there is a transaction cost involved to proving in court that a violation of trade secrets has occurred. The employer needs to prove that the information was, in fact, a secret, that he has taken reasonable steps to protect it, that it has economic value, that the employer’s usage of the information was not implicitly permitted, and so on. Since proving trade secret misappropriation is so hard, expensive, and unpredictable, few

47. See the discussion in the previous paragraph.
50. See generally Weiss, supra note 12.
51. I will later argue that while some transfer of know-how information is better than no transfer of information, it could be that the situation would have been better if effective constraints were imposed on the amount of information that they can take with them.
52. Weiss, supra note 12. I would argue that there is no real contracting process, so there is no violation of any economic theory opposing restriction of free bargaining.
53. For example, in a December 2001 interview with an engineer in a small firm in Silicon Valley, the interviewee said, “[i]n the current situation in the Silicon Valley, my previous employer doesn’t even have enough money to sue me.”
employers actually use litigation to prevent trade secret misappropriation unless the loss from the disclosure is devastating. The huge litigation costs lead to a situation in which employers will usually sue for extreme cases of trade secret violations, as in the case of former CEO’s, CTO’s, or in a case of corporate raiding. A rank-and-file employee is unlikely to get guidance about more modest trade secret violations whose threat to the employer does not justify the litigation costs.

3. Secrecy Seems to be at Odds with Freedom of Occupation/Freedom of Speech

The most cited reason for the public policy argument against the enforcement of trade secrets by the courts is that the property rights of the employer seem to be at odds with the freedom of occupation. This factor is not unique to Silicon Valley, but seems to fit well with the above-mentioned reputation argument by suggesting another reason for the relatively low social status associated with the enforcement of trade secrets. It appears that employers’ claims are perceived as less legitimate than a patent infringement claim in part because the proprietary interest of employers seems to be in conflict with the freedom of mobility. However, this factor goes beyond the informal reputation mechanism that exists in the Valley, for it also impacts the way that trade secret enforcement would be applied in courts. Judges who discuss the enforcement of trade secrets all appear to agree that, in theory, the employee’s right to work and compete does not extend to the right to divulge and take advantage of an employers’ trade secrets. They would more likely respect the trade secrets of employers in a balanced way. “[T]he Second Circuit has observed that courts in trade secrets cases often balance an employer’s right to proprietary information against an employee’s right to use his or her knowledge, training, and experience to gain a livelihood.”

In practice, it seems that the unclear distinction between the employees’ skill and the employers’ proprietary knowledge leads to a situation in which, foreseeing the unsupportive approach of courts and the low social legitimacy of trade secret litigation, many trade secret claims do not reach the courts.

G. Cooperation or Concession: The Employer’s Perspective

To further our analysis, it is important to notice that the taxonomy of reasons behind the under-enforcement of trade secrets in Silicon Valley, as described above, suggests two possible views that the employer

54. The ambiguity of trade secret laws is mainly to blame for the costly nature of trade secret enforcement. Gilson, supra note 43, at 601.
55. Roger M. Milgrim, MILGRIM ON TRADE SECRETS § 5.01 n.6 (1996).
could take regarding confidential information disclosed by his former employees. According to some of the above rationales, the employer accepts this disclosure because he assumes that such behavior is part of the Valley culture and, hence, part of the psychological contract under which the employer has operated his business. According to this line of reasoning, employers typically do not sue their departing employees because they remember how they started their own career, because they also hire employees from other companies, and so on. Thus, their behavior could be defined as voluntary acceptance of the practice of divulging trade secrets by departing employees.

However, according to some of the other approaches, especially those defined under structural and legal themes, the employer concedes to the norm against his individual will. He abstains from suing his departing employees because he cannot afford the social or legal costs associated with filing such a suit. According to this view, the employer will not tolerate any level of trade secrets violation and would sue departing employees who use trade secrets. This distinction is replete with important implications for the next discussion regarding the appropriate level of information that departing employees should take with them.

IV. IS SUCH A PRACTICE EFFICIENT?

Following a discussion of possible explanations for the alleged practice of under-enforcement, the next natural step is to ask whether such inaction is, in fact, an efficient move. A review of the relevant economic literature shows that most scholars discussing this question focus on a narrow aspect of economics to prove their case. For the most part, the advocates of each policy tend to underestimate associated costs, focusing solely on the advantages of their approach. Hence, the following review will not attempt to evaluate what weight should be given to each approach in order to produce an aggregated estimation of the most efficient policy. Instead, I will use this review to demonstrate the complexity involved in judging the efficiency of trade secret regulations and, hence, the incompleteness of existing approaches that focus on efficiency as measured by factors of limited or increased employee mobility.

A. Economic Perspective Supporting Greater Restriction on the Transfer of Confidential Know-How Information

From a policy perspective, greater restriction could be achieved in one of two ways. The first would be through stricter enforcement of
trade secrets by way of allowing non-compete contracts and creating a presumption favoring the employer. The second approach would entail a broader definition of the types of information that could be referred to as trade secrets. In the next section, I will discuss in more detail the interaction between these two possible strategies.\footnote{In fact, in the next section I will argue that, under certain circumstances, broader regulation diminishes the possibility of strict enforcement.} For the purposes of this section’s discussion, I will assume that broad definition and strict enforcement share the same goal, greater protection of the firm’s confidential information.

1. Effect on Investment in R&D

The classical reason to support restrictions on transfer of trade secrets in the high-tech industry is that investment in research and development (R&D) is large in this type of industry. Most R&D knowledge is not patentable,\footnote{To qualify for a patent, information needs to have a higher level of novelty, etc. See \textit{Restatement (Third) of Unfair Competition} § 39 cmt. e (1995).} and, without strict protection for all types of R&D, firms will have fewer incentives to invest in it. Moreover, where protections for R&D knowledge are lacking, a scenario may unfold wherein firms might find that they are better off cutting expenses on R&D and raising salaries in order to draw creative employees from other companies that have invested in R&D.

2. Transaction-Costs Approach

From a transaction-costs approach, mandatory limitation of the transfer of trade secrets seems to be efficient. Three types of transaction costs could be reduced by broader and stricter restriction on the transfer of trade secrets. The first, and most obvious, of these costs are those related to contracting. The existence of legal definitions eliminates the associated costs of agreeing on what information should not go with the departing employee. By strictly enforcing a broad, mandatory definition of trade secrets, the parties do not need to create sophisticated contracts to ensure the protection of the firms’ trade secrets.

The second type of transaction cost that can be reduced by strict restrictions on the transfer of trade secrets is the expense required in monitoring and managing information. Without legal protection for all types of important information, a firm would need to invest in efforts to monitor access to the unregulated information.\footnote{See David D. Friedman et al., \textit{Some Economics of Trade Secrets Law}, 5 J. ECON. PERSP. 61, 67–69 (1991).}

The third type of transaction cost is associated with allocation. A broad definition that allocates rights to the employer for all types of confidential information would sidestep the confusion that can arise in a
regime that allows some of the firm’s confidential knowledge to go with the employee. Merges, building on his treatment of the tragedy of the anti-commons argument, suggests that, in a world of team production, the increase in transaction costs (associated with coordination and hold-ups) that results from giving property rights to many people might decrease social welfare.

3. Team Production Approach

Merges justifies his approach by advocating the notion of team production: Property rights should not be assigned to each individual employee, because doing so might complicate and undermine team production. Similar arguments seem to hold for restricting the disclosure of trade secrets. The increased use of team production forces employers to disclose information about the whole project to everyone on the team. Without strict enforcement of trade secrets, an employer could not seriously rely on the protection of trade secret laws, especially when non-compete contracts are unavailable. One consequence might be limited disclosure of confidential knowledge in production teams; it may even impact the process of choosing the size of the team, due to monitoring considerations. Following the logic of that perspective, we might want to avoid situations in which production activities will be influenced by monitoring concerns and not by consideration of overall efficiency.

4. Human Capital Approach

As mentioned, treating human knowledge as capital poses major public policy concerns regarding the restriction of employee mobility. This is, in fact, the argument made by Stone in her discussion of “employability.” Stone argues that, given the new notion of employability, decreasing the protection of trade secrets is necessary in order to give the employee incentives to invest more in the study of techniques that might be of use in future employment. This change is

60. Merges, supra note 9, at 12–13.
62. For a review of the advantages of work-teams and transfer of knowledge within and between different divisions in an organization, see Fernando Olivera & Linda Argote, Organizational Learning and New Product Development: CORE Process, in SHARED COGNITION IN ORGANIZATIONS, THE MANAGEMENT OF KNOWLEDGE 297 (Leigh L. Thompson et al. eds., 1999).
63. See Merges, supra note 9, at 46–52.
64. See Stone, supra note 29, at 588–92.
65. In this perspective she follows the basic rationale of Becker’s traditional approach of human capital, which distinguishes between firm-specific knowledge and general knowledge. See Gary S. Becker, HUMAN CAPITAL: A THEORETICAL AND EMPIRICAL ANALYSIS, WITH SPECIAL REFERENCE TO EDUCATION 19–37 (2d ed. 1975). However, it seems that Stone argues that there is no longer a
especially necessary when the tenure of the employee in his current job is relatively short and less predictable, for in this scenario the future use of the technology exerts a greater weight on the decision structure of the employee. From that perspective, the human capital approach might suggest a strategy that would minimize restricting the use of confidential information in future jobs. However, a deeper examination of the implication of human capital on restricting the use of trade secrets might suggest that the answer is far more complex. An employer is more likely to invest in employee education if he knows that he can get legal protection for some of his investments. Without state protection, an employer is likely to limit investments in education or training that might benefit the future career of the employee, since the costs resulting from information disclosure exceed the benefits to the firm that result from investment in employee training. In a regime marked by limited protection of trade secrets, any investment in employee education relating to information exceeding the bounds of public knowledge becomes self-destructive, since it would increase the market value of the employee and might theoretically make him more likely to leave the firm. Weiss’s findings about the moderator effect of education, which consider the relationship between non-compete contracts and increases in industrial output, refer to education acquired by an employee prior to entering the job, and therefore can neither support nor refute the above-mentioned arguments.

B. Economic Approaches Favoring More Limited Restrictions on the Transfer of Confidential Know-How Information

After briefly reviewing the economic schools of thought, which focus on the cost of free mobility, I will move to the other side of the equation and examine the benefits to society from free mobility and a more moderate approach to the restriction of trade secrets.

need for the employee to pay for knowledge he could use in future jobs, due to the “new psychological contract.” Stone, supra note 29.

66. See Paul H. Rubin & Peter Shedd, Human Capital and Covenants Not to Compete, 10 J. LEGAL STUD. 93, 97 (1981) (arguing that, without protection, the employer will abstain from training his employees).


68. This is, of course, a simplified approach, assuming that the employee is motivated only by her market value. In reality, due to elements of reciprocity, employees who feel that their employer is investing in them might be more likely to stay for longer periods in the company since they feel more committed. Nonetheless, even when controlling for the norm of reciprocity, the bottom line still seems to suggest that from the employer’s non-institutionally protected perspective, a fear of increased opportunism by the employee seems to hold.
1. Endogenous Growth and Innovation: Information-Diffusion in Industrial Parks

Saxenian argues that, in contrast to the economists’ classical belief regarding the “boundaries of the firms” and the “tragedy of the commons,” the main reason for Silicon Valley’s success is the spillover of knowledge between firms in the Valley.69 Because departing employees have transferred negative information70 as well as new ideas, the Valley as a whole has flourished,71 and trade secret protection was therefore not given serious consideration.72 In fact, economic literature increasingly recognizes that, in the real world, firms share significant information and knowledge across firm boundaries and that the willingness to do so can significantly affect economic growth both in industrial districts73 and inter-firm relations.

Edmund W. Kitch was the first legal scholar to suggest that, from a welfare perspective, non-compete restrictions were creating inefficiencies related to the discontinuities in employees’ careers.74 The notion of information diffusion was advocated by Gilson and Hyde as one of the main causes of Silicon Valley success.75 The argument made by the

69. See SAXENIAN, supra note 23.
70. Negative information cannot be patented, but it captures most of the knowledge aggregated by a firm. Many of the problems that courts face in enforcing trade secrets are related to preventing ex-employees from using negative information that they were exposed to during their employment period.
71. See SAXENIAN, supra note 23, at 111–31 (especially with regard to “learning from failure”).
72. SAXENIAN, supra note 23, at 149 (“while nondisclosure agreements and contracts were normally signed in these alliances, few believed that they really mattered, especially in an environment of high employee turnover like that in Silicon Valley”) (emphasis added).
73. See Walter W. Powell, Trust-Based Forms Of Governance, in TRUST ORGANIZATION: FRONTIERS OF THEORY AND RESEARCH, 51 (M. Kramer & Tom R. Tyler eds., 1995) (Discusses the trust needed in industrial districts such as those in what is called Third Italy, Germany, and the Silicon Valley. The logic of these districts is self-reinforcing: Common interest encourages the success of other firm’s products that are complementary to their own. These social ties facilitate monitoring.).

For an interesting discussion of the information sharing in Silicon Valley, see David P. Angel, High Technology Agglomeration and the Labor Market: The Case of Silicon Valley, 23 ENV’T & PLAN. 1501 (1991). This work discusses how experiential knowledge passes freely through open labor markets, and the fact that firms have a general interest in developing an industry. Angel says that the best way to transfer information is through personal relations. Firms cannot learn all they need to know internally; they have to rely on the informational networks of the scientists.

For an elaborate discussion of information networks, see Chris DeBresson & Fernand Amesse, Networks of Innovators: A Review and Introduction to the Issue, 20 RES. POL’Y 363 (1991) (exploring how the boundaries of organizations slow innovation and the diffusion of knowledge in society, even in an R & D context).

74. See generally Edmund W. Kitch, The Law and Economics of Rights in Valuable Information, J. LEGAL STUD. 683 (1980). Kitch, id. at 710, in fact preceded Gilson, supra note 43, in recognizing the idea of California as a hub of technology and as a culture that does not favor secrecy. He notes that there is no exception in CAL. BUS. & PROF. CODE § 16600 that permits enforcement of non-compete contracts with regard to trade secrets. Another efficiency argument favoring a lower level of secrecy has been proposed. Kitch, supra note 74, at 721. He argues that firms do, in fact, want to be different, but not too different; and that they have an interest in having knowledge about the things that they do to develop a market for their product. Id. Kitch also argues that post-employment limitations are creating a problem of discontinuity and lack of depth in the specialization of each employee. Id.
75. See Hyde, supra note 22; see generally Gilson, supra note 43.
above-mentioned scholars is that trade secrets, transferred by departing employees, enhance the innovation in other firms, especially in spin-offs. Thus, it can be argued that a policy-maker who seeks to improve industrial output should favor limited restriction on the transfer of trade secrets between firms.

2. Monopoly Reduction

Debra Weiss, who has empirically demonstrated the positive relationship between restrictions on non-compete contracts and industrial output, has focused on a different explanation for the improvement in industrial output in states restricting non-compete contracts, based mainly on the concept of antitrust. She argues that non-compete contracts allow companies to maintain monopolies on some types of know-how and information. Since small firms have relatively small market power, they tend to innovate more and open the way for new markets. The growth of these new markets is encouraged by firms’ liberal attitudes towards the use of trade secrets by entrepreneurial employees. Weiss’s main point is that in industries where small companies are more likely than major companies to innovate, the state should prevent any limitations on the creation of spin-off companies by restricting the possibility of non-compete contracts. She argues that, from an antitrust perspective, even an appropriation of trade secrets could be efficient, although she does not admit that this is, in fact, the reason for the increase in industrial output.

3. Tentative Conclusion: A Balanced Approach Should be Taken to Advocate Free Mobility of Employees

The above review clearly suggests that to favor one regime over the other, we need to consider a whole variety of economic theories, which, at least at face value, seem to differ in their normative implications. Nevertheless, it should be noted that the two camps are not in complete opposition. In fact, most scholars who favor the free mobility of employees do not suggest that all types of trade secrets should be disclosed. Most of them admit, explicitly or implicitly, that a limit should be imposed at one point or another.

76. See Hyde, supra note 22; see generally Gilson, supra note 43.
77. See generally Weiss, supra note 12.
78. Id.
80. Weiss seems ambivalent about the possibility of using trade secrets. Weiss, supra note 12, at 44–45 (“This observation suggests another potential explanation for the connection between stimulating output and noncompetes. Perhaps departing employees are not taking with them their own inventions, but are merely appropriating their employer’s trade secrets. Nonetheless, this practice improves output by reducing the employer’s monopoly power.”).
Stone clearly states that she doesn’t advocate gross violations of trade secrets.\textsuperscript{81} Hyde suggests that we should allow disclosure as long as it does not affect the incentive structure of the employer;\textsuperscript{82} Weiss suggests that trade secret disclosure is efficient as long as the secret is being developed by the employee himself;\textsuperscript{83} and Gilson does not explicitly take any one stance, but seems to implicitly recognize this efficiency.\textsuperscript{84}

Nevertheless, in the current legal monitoring of trade secrets, nothing ensures that departing employees will transfer only efficient levels of information. The reduction in social welfare caused by attempts to regulate information without any actual ability to enforce that regulation, either formally or informally, would be recognized even by those who support the free mobility of employees and information between companies.

Trade secret laws say that nothing of economic value that is kept in confidentiality should be disclosed, and that a previous employer can sue any person who violates the laws governing trade secrets. In reality, some scholars argue, most employees who move between companies are beyond the scope of trade secret lawsuits.\textsuperscript{85} I will argue that even if we accept the possibility that some level of sharing is more efficient for Silicon Valley,\textsuperscript{86} we must consider that the gap between the practice and the law could lead people to go even further toward excessive disclosure, which represents the point at which even those scholars advocating free and unlimited employee mobility admit inefficiency.\textsuperscript{87} In other words, even if we accept the approach that favors free mobility and says that it increases general welfare, there is nevertheless a point at which the lack of trade secret protection decreases general welfare.

\textsuperscript{81} Stone, \textit{supra} note 29, at 592–96, focuses her critique on inevitable disclosure, recognizing the need for general protection of trade secrets.

\textsuperscript{82} See Hyde, \textit{supra} note 22, at 1.

\textsuperscript{83} Weiss, \textit{supra} note 12, at 21 (“A non compete is less likely to be desirable to the extent that the employee contributed to the innovation.”).

\textsuperscript{84} Gilson, \textit{supra} note 43, at 600 (arguing that there are benefits to the under-enforcement of trade secrets only relating to the “... kind of knowledge spillovers that give rise to a second-stage agglomeration economy.”).

\textsuperscript{85} Hyde even argues that this practice becomes part of the working definitions of trade secrets in some law firms in the Valley. “... [L]awyers in the Valley who represent firms and venture capitalists concluded from this experience until recently that the working definition of trade secret in the Valley is narrower than the formal legal definition. They so advised clients, as they told me in interviews conducted mainly in March 1996, and deals are concluded on that basis.” Hyde, \textit{supra} note 22, § IV(c), at ¶ 1.

\textsuperscript{86} While I feel more confident saying that there is a practice which goes to the left of L, the analysis taken in this project in regard to human capital suggests that there are pros and cons which might be hard to quantify only in terms of industrial output (especially, for example, the decline in education).\textsuperscript{87}

\textsuperscript{87} Thus, while the notion of free mobility definitely has an economic advantage, and, therefore, non-compete and inevitable disclosure regulations carry negative outcomes that should not be overlooked, at a certain level of information disclosure the advantages will be overshadowed by the social costs related to the increase in transaction costs and the decrease in educational investment and R&D.
4. From Efficiency to Enforceability

Focusing on the informational aspect of the law, the broad and fuzzy legal aspects force social norms to take over and guide people in their decision-making efforts. I will argue for the importance of narrowing and clarifying the boundaries of the information protecting trade secrets in order to allow both formal and informal social controls to monitor behavior more efficiently. The approach taken in this paper is that, rather than determining which secrets are valid to disclose, we should focus on what could realistically be achieved through social and formal enforcement when employees are allowed to move among competing employers. Regulating information sharing activities that are impossible to avoid, either psychologically or culturally, would decrease the effectiveness of trade secret law’s influence over departing employees’ behavior.88

It is important to mention that, as opposed to writers such as Lawrence Lessig on copyrights89 or Stone in regard to trade secrets,90 I do not want to argue that a narrower protection of trade secrets is required only from the employee perspective. My focus stems from a consideration of society’s interest in enabling an effective monitoring of employees’ inefficient and opportunistic transfer of confidential information.

My argument is that the expansion of trade secret protection and the increasingly flexible definition of what constitutes a trade secret might have mistakenly been seen as an achievement for employers. I will argue that when we take into account the interaction between legal and social monitoring, we see that employers in areas like Silicon Valley might be better off with limited protection of trade secrets. My focus on social enforcement and monitoring leads to the position that the law should not be oriented only toward litigation, but also toward the ability of people to understand what they need to do, especially when litigation is so unlikely.91

While I will not offer any magic formula that can identify what types of information should be shared, I will argue that when the legal definition of trade secrets includes information that derives value from its confidentiality, there is a reduction in the informative and normative value of the law. Lacking substantial formal enforcement and clear

88. For an econometric analysis of the failures in compliance that exist due to partial and unpredictable enforcement in an environmental context, see Dan A. Fuller, Compliance, Avoidance, and Evasion: Emissions Control Under Imperfect Enforcement in Steam-Electric Generation, 18 RAND J. ECON. 124 (1987). Note that in this study predictors such as morality were not measured.
90. Stone, supra note 29.
91. This notion seems to be in consensus among all scholars who discuss the expressive-educational role of the law. The main problem in the context of trade secrets is that judicial flexibility in defining a secret only in the context of a specific employment relationship complicates people’s ability to understand, outside the context of courts, what exactly it is that they cannot do.
guidance from the courts, employees will have to look to their peers in order to understand the letter of the law. I will show that allowing social norms to take over the traditional role of courts might not lead to a more efficient situation. I do not wish to undermine the importance of norms, nor do I wish to ignore the potential destruction to human capital that strict monitoring could effect. What I will argue is that narrowing and, therefore, clarifying the meaning of the law could make formal controls more efficient and that, subsequently, informal enforcement would become more effective.

V. THE LIMITS OF FORMAL SOCIAL CONTROLS

A. Are Non-Compete Agreements the Right Tool to Prevent Disclosure of Trade Secrets in Silicon Valley?

Without a doubt, the best formal control for preventing departing employees from using trade secrets is a non-compete contract.\(^{92}\) As mentioned, however, scholars who support fewer controls on trade secrets tend to do so by calling for a restriction on non-compete covenants. In the working paper mentioned earlier, Weiss compared the states that have various degrees of limitations on governing the enforcement of non-competes with most of the remaining states that allow for non-compete contracts.\(^{93}\) She included the following types of factors in her equation: regional factors, level of education, investment in R&D, industry output, and so on. She shows, using econometric analysis, that a prohibition on non-compete contracts improves industrial output in industries where employees hold college degrees and small firms play an important role in innovation. Similarly, Gilson argues that in such arenas, there is no economic incentive to develop R&D spillovers, and, therefore, the restrictions imposed by non-compete contracts force employers to “give away” R&D spillovers.\(^{94}\) With a few reservations, I tend to agree with the above-mentioned arguments. Certainly, something is working well here. Therefore, non-compete contracts fail to provide an easy solution when a complete block on the transfer of trade secrets is not desirable.

Before continuing to discuss the ability of trade secret laws (without non-compete contracts) to monitor the behavior of employees, I wish to draw attention to a few flaws in the arguments of Gilson, Hyde, and Weiss regarding the alleged efficiencies in restricting non-compete contracts in Silicon Valley.

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92. See Gilson, supra note 43.
B. Flaws in the Argument Against Non-Compete Covenants

Classical law and economics theory recognizes that, in some cases, it can be more efficient to breach an agreement if the breached-upon party does not become worse off (Pareto efficiency). Presumably, the advantage of ensuring that no one becomes worse off is that no one will have disincentives to enter a similar transaction in the future. However, the current justifications for restrictions on non-compete contracts do not speak for employers who want to prevent their employees from sharing confidential information but cannot afford the potential negative outcomes, such as reputation costs. In other words, the current mechanism does not aim to ensure that no one will be worse off for this “efficient breach” of the duty of confidentiality. The only consolation that these arguments offer employers that might be harmed is the overall success of the Valley. One could also argue that because every employer could hire other employees with the knowledge of other firms, and the Valley as a whole would be better off, then everyone would be better off. This argument is obviously problematic, since the lack of redistribution mechanisms creates a free rider problem. In other words, every employer will want to invest in raising salaries to attract employees with confidential knowledge of other firms, while failing to invest in R&D.

A second flaw relates to Gilson and Hyde’s conclusion that the policy is justified from a welfare-maximizing perspective, for we might wonder whether they refer to the welfare of Silicon Valley or to the welfare of the United States. One might argue that because Silicon Valley is being perceived as a place where employees enjoy greater mobility, it attracts all of the creative employees from other areas of the country. The rationale will be that creative employees from other parts of the country might self-select themselves to work in an environment with high mobility and lower job security in order to garner maximum control over the benefits of their productivity. In other words, the relationship between the legal infrastructure of Silicon Valley and its success is mainly manifested through the fact that it is different from other legal regimes. Such reasoning could lead one to reach two separate but related conclusions.

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95. Thus, as opposed to the suggested approach of welfare maximization, the classical approach of efficient breach is much more stable and consensual because no one becomes the worse for it (assuming perfect compensation). The welfare approach ignores the individual employer and would support breach of duty by the employee even if the previous employer does become worse off. Such a situation means that the employer will have an incentive to change his behavior in a way that does not exist under a Pareto-efficiency-based breach, in which compensation is being paid to the breached-upon party. Gilson would argue in response that if we allow a breach only when the employee will compensate the employer then no breach would occur because the benefit to the departing employee is smaller than the benefit to society.

96. This approach probably could not work within the boundaries of efficient breach, since their whole argument is that the departing employees do not internalize all the benefits to society from the information they “take” with them.
First, the success of Silicon Valley was achieved at the expense of other parts of the United States. The Valley thus functions as a classic example of negative spillovers from local government policies that require the intervention of the central government. 97

Second, according to this argument, there is no economic justification for the allowance of such unlimited mobility even from California’s perspective; it might be enough to allow just a little bit more mobility and information sharing than other states, so that potential employees will be motivated to move to the Silicon Valley.

Moreover, how can we know from a welfare perspective if the trade secrets I question should have been transferred? As Weiss observes, “A non-compete [clause] is less likely to be desirable to the extent that the employee contributed to the innovation.” 98 She argues that the use of trade secrets is more likely to be inefficient when it prevents employees from using information they have contributed to, and she takes into consideration the role of education. 99 However, does education really mean that the employee contributed to the production of the secret? Is it really true, as Weiss states, that “[s]ince college graduates are more likely to contribute to innovation, the law is less likely simply to encourage appropriation of employer ideas?” 100 Moreover, even if it is true, what could ensure that the knowledge that is being transferred consists of information developed solely by the employee?

In other words, assuming Gilson is right, and that divulging certain types of trade secrets contributes to social welfare, what would ensure only actions that promote general welfare would occur? Pareto efficiency could be achieved, according to Coase, because, if no one is worse off, there is no one to prevent the efficient transaction from occurring. In a welfare analysis, the parties who enjoy the benefit are not necessarily those who control it. How could employees or employers know which transactions to prevent? We know, for example, that in the absence of tangible theft, lawsuits that try to prevent the divulging of trade secrets are not likely to win in court; but from a perspective of welfare, do we want to encourage people to memorize things? In the case of something very valuable, where worth to the Valley exceeds its cost to the employer, would not it be better from a welfare perspective if we allowed them to download the whole document? Thus, while tangibility clearly impacts the ability to control and monitor disclosure, I do not understand why, from a welfare perspective, there should be a difference between the tangible and intangible taking of information. Moreover, is there any way for the Valley to appreciate the welfare

98. Weiss, supra note 12, at 21.
99. Id. at 22.
100. Id. at 21. Moreover, Weiss, supra note 12, at 29, is saying herself that “non-compete clauses intended to eliminate shirking will be efficient if employees are identical and there are no externalities.”
perspective and encourage employees to come to this more efficient conclusion, even if it might trigger a lawsuit by the employer? If we accept the view that the state should not use non-compete contracts to completely prevent disclosure of trade secrets, and if we appreciate that some divulging carries positive externalities, do not we need the integration of other formal controls to ensure that only appropriate secrets will be disclosed? The current structure of trade secret law is not likely to be very helpful in ensuring efficient disclosure of trade secrets. Thus, the current formal social controls are not likely to clarify people's understanding of the types of information they are allowed to take with them.

C. Trade Secrets as a Fuzzy Set (Relationship Dependent)

Courts in the United States say repeatedly that the definition of trade secret depends on the specific relations of each case. The following quote is typical: “Where that balance is struck in individual cases depends largely upon the facts and circumstances surrounding the employer-employee relationship.” This means that in order for an employee who plans to leave his firm to know ex ante whether a certain behavior is legal or not, he needs to be aware of the particular nature of the behavior’s relationship to the case law in discussion.

Manifestly, defining trade secrets as relationship-dependent makes it very expensive for employers to prove misappropriation, since they need to put the misappropriation in the context of the employment relationship and cannot focus solely on the value and secrecy of the information.

Legal ambiguity means not only higher litigation costs, it also means uncertainty about the legal outcome. Additionally, legal

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101. While I will focus on a few flaws in the structure of current trade secret laws, formal laws have been shown to be limited, especially in the context of corporate ethics, even when the law was clear and focused. See, e.g., Michael W. Maher, The Impact of Regulation on Controls: Firms' Response to the Foreign Corrupt Practices Act, 56 THE ACCT. REV. 751 (1981).


103. Similarly, Stone argues that trade secret protection prevents an employee from disclosing knowledge that qualifies as a “trade secret,” a vague and uncertain standard at best. She states even more explicitly: As courts expand the types of information they call trade secrets, it becomes increasingly difficult for an employee to avoid learning them. Even an employee who does not want exposure to trade secrets has no way to know which information that he learns on a job might later be the subject of a successful claim of protected trade secret status. When such an employee changes jobs, he is at risk of a suit for misappropriation. Stone, supra note 29, at 593.


105. It should be noted that, while I am emphasizing the costs of ambiguity to social enforcement and human-capital management, there might be advantages to human-capital management as compared to legal ambiguity. According to the Basic Human Capital model, employees need either compensation or personal interest to invest in knowledge they cannot use outside the firm, and
ambiguity increases reputation-loss because the blameworthiness of the departing employee is less clear.\textsuperscript{106} Combining the above, the employer may now have to pay the high financial costs of litigation in addition to costs relating to reputation-loss without any certainty as to the success of the legal action.

The notion of flexibility in the definition of trade secrets is not merely a characteristic of court rhetoric. The common wisdom of employers is to be ambiguous about the kinds of information that the departing employees are allowed to take with them. For example, popular legal guides for employers suggest that it is in the best interest of the employer not to create a list of projects that the employee should avoid upon leaving the company.\textsuperscript{107}

As opposed to the classical view,\textsuperscript{108} the more ambiguous the legality of disclosing the information, the less likely one is to see litigation (per act of violation)\textsuperscript{109} because it is more expensive to sue in the face of uncertainty of outcome, length of litigation, and loss of reputation.

Thus, according to this line of reasoning, people are less likely to receive guidance from courts with regard to the topics they need the most guidance about.\textsuperscript{110} In other words, while the informative value of legal cases is greater for these hard to define secrets, the above-mentioned arguments suggest that it is exactly these cases that are less

\begin{itemize}
    \item employers have no interest in investing in information that the employee could use outside the firm unless the employee is paying for it via a reduced salary. One might argue that preserving the ambiguity regarding the types of information that employees can take with them is important in order to reduce the ability of both employees and employers to engage in such opportunistic calculations.
    \item It is hard for an outside observer to understand the particular nature of the relationship and the implied messages which were transferred between the employer and the employee.
    \item See, e.g., Brian M. Malsberger, Trade Secrets: A State-By-State Survey 2001 Cumulative Supplement 75 (2001), (providing a resigning employee with a list of specific component trade secrets is not required; in fact, such a practice could actually jeopardize the secrecy of the information).
    \item See Robert Cooter & Thomas Ulen, Law and Economics 58 (3d ed. 2000) (arguing that ambiguous laws are more likely to be challenged in courts).
    \item That is, there will be more cases of violation if the law is not clear, but fewer cases of litigation compared to the number of violations of the law.
    \item While criticizing trade secret laws as being too fuzzy and ambiguous, the following point should be considered a counter-argument to my previous reasoning. In the previous section, I argued that economic theory suggests conflicting policy recommendations regarding employee mobility. Among the theories that I reviewed, I have mentioned that the human capital approach might suggest, on the one hand, greater restriction on the transfer of trade secrets (giving incentives for the employer), and on the other hand, limiting the restriction on the transfer of trade secrets (giving the employee incentive to educate herself). It seems to me that from this perspective the ambiguity of trade secrets might increase social welfare, for the employee and the employer would know \textit{ex ante} what is and is not an enforceable trade secret. The employer would only invest in educating the employee about enforceable trade secrets and the employee would only invest in educating herself about confidential know-how information that does not consist of enforceable trade secrets. (This is not to say that the investment in education by employee and employer is done only for the sake of the future, but given that the average tenure of a Silicon Valley employee is about 2-3 years, this “future” as well as the focus on employability is not that unreasonable (see Arthur, supra note 31)). From this perspective, the ambiguity of trade secrets might lead the employee and the employer to be less concerned about the future usage of the information and focus more on the present value of this information and its use within the boundaries of the firm.
\end{itemize}
likely to be pursued by employers. Employees are likely to file a suit when they feel that they have some “smoking gun,” such as missing documents, suspicious e-mail communication, or corporate raiding. But those are not the cases for which an employee really needs guidance; he needs guidance relating to precisely those cases in which employers are less likely to risk litigation. Combining the lack of guidance from courts with the ambiguous nature of trade secrets might cause people, following Sherif’s classical argument, to look around and see what other employees are doing. Gradually, such behavior means that for most rank-and-file employees, informal social norms tend to be much more available and useful than formal social monitoring.

D. “Trade Secret” as Being Too Broad for the Hi-Tech Industry: Over-Regulation and Under-Enforcement

1. The Expansion of the Definition of Trade Secrets in 1985

One facet of the fuzzy nature of trade secrets is the fact that trade secret laws are also very broad in the types of information they protect. California law prevents employers from imposing post-employment restrictions on their departing employees; California has also adopted the broadest version of protection of trade secrets in the nation. Those mixed signals might be partially responsible for the under-enforcement of trade secrets law and for the failure of formal controls to effectively monitor employees’ behavior.

111. Professor Merges argues that he has never seen a case of trade secrets without tangible items being taken by the employee. However, one might argue that those cases in which nothing tangible was taken by the employees are precisely those cases in which a potential violator of the law would need guidance from courts to know what is required.

112. Gilson, supra note 43, at 601 (“[S]ignificant protection is provided even against departing employees in circumstances where the misappropriation is clear (as when the former employee has removed or copied documents), the technology obviously secret, and the damage to the business substantial.”).

113. For empirical support for the theory that ignorance is a stronger predictor of noncompliance than intentional evasion, see John Brehm & James T. Hamilton, Noncompliance in Environmental Reporting: Are Violators Ignorant, or Evasive, of The Law?, 40 AM. J. POL. SCI. 444 (1996).

114. See Muzafer Sherif, An Experimental Approach to the Study of Attitudes, 1 SOCIOMETRY 90 (1937).

115. It is important to mention in this context that, obviously, there are some legal suits in Silicon Valley. However these suits in the Valley are usually either against a CEO, or they relate to a major threat to the company, such as ten employees leaving for a competing firm. There is no reason to think that, from an efficiency perspective, only high-profile employees should be prevented from moving from one company to another.

116. Arguably, it would be very hard for an employee to monitor the behavior of fellow employees when he himself is not sure what trade secrets are.

117. There is obviously some inter-causality between broadness of the law and fuzziness of the law. See supra text accompanying note 140.
The original definition of trade secrets comes from the Restatement of Torts. According to the Restatement, a trade secret “may consist of any formula, pattern, device, or compilation of information which is used in one’s business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.”

According to the Uniform Trade Secrets Act (the “Act”), a trade secret is defined as:

[I]nformation, including a formula, pattern, compilation, program, device, method, technique, or process, that derives independent economic value (actual or potential), from being generally unknown to, and not readily ascertainable by proper means by, other persons who could obtain economic value from its disclosure or use, and is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

As could be expected, given the differences between the types of information covered by the Restatement and the Act, the Act expanded in 1985 to protect negative information as part of a general attempt to expand IP protection and it now includes potential value, processes, and methods.

Scholars characterize the expansion as being sensitive to the required flexibility in modern industrialized life: “[T]hese expansions incorporate and recognize the need for expanded flexibility.” My criticism of the new law centers on the fact that it might be good for judges, but that defining every form of confidential know-how as a trade secret might prevent cases that should have reached the court (excessive disclosure) from actually getting there. The loss of formal controls from the broad definition of trade secrets is attributable, in my opinion, to the issues found in the arguments that follow.

2. Illegitimacy Spillovers

Both sociologists of law and legal psychologists recognize that a gap between formal law and community norms will evidently undermine the legitimacy of the law. If the law defines behaviors that are part of the

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118. Restatement of Torts § 757 cmt. b (1939).
120. Critique of the expansion of the actual law is suggested by Edmund W. Kitch, The Expansion of Trade Secrecy Protection and the Mobility of Management Employees: A New Problem for the Law, 47 S.C. L. Rev. 659, 665 (1996), which talks about a “new class” of employees who now enter the scope of the protection of trade secrets. See also Stone, supra note 29, at 593 (“By focusing on economic value rather than specific concrete technical innovations, the UTSA approach makes the definition of trade secret almost infinitely expandable.”).
121. See Stone, supra note 29, at 578 (“Courts have become increasingly receptive to employer efforts to limit employee use of human capital by adopting expansive theories of trade secrets and employees’ duty of loyalty.”); Kitch, supra note 121, at 665.
common practice as illegal, it might lose some of its legitimacy in psychological terms or, to use economic terminology, its creditability.123

The loss of legitimacy could spill into areas of law that are currently in congruence with the norm.124 Consequently, an employee could say, “If you forbid everything I will listen to nothing.”125 Recent empirical findings back the notion of illegitimacy spillover in Nadler’s work.126 Using experimental techniques, she demonstrates that people exposed to unjust laws were more likely to report a decrease in their general intention to obey laws unrelated to the unjust law they were told about.127

3. Greater Reputation Loss from Filing a Trade Secrets Suit

According to Hyde,128 the main reason for under-enforcement of trade secrets in the Valley is related to the potential reputation loss faced by employers. In the current situation, in which the same law prohibits all levels of sharing, employers might avoid filing a suit against departing employees. This may be the desirable practice even in the instance of an excessive violation. The reason for this is that future employees are unlikely to be able to discern the difference between enforcement of desirable disclosure and enforcement of excessive disclosure as long as both types of lawsuits are defined as a violation of the same law.


The previous argument attributes the increase in reputation loss, in part, to the fact that the law includes behaviors that are common to

123. This idea is more heavily researched in the context of the normatively accepted punishment of the crime. See V. Lee Hamilton & Steve Rytina, Social Consensus on Norms of Justice: Should the Punishment Fit the Crime? 85 AM. J. SOC. 1117 (1980) (discussing the importance of an “accepted” ratio between the crime and punishment); see also A. Michell Polinsky & Steven Shavell, The Fairness of Sanctions: Some Implications for Optimal Enforcement Policy, 2 AM. L. & ECON. REV. 223 (2000). Moreover, it should be noted that a negative effect of over-enforcement is not related only to legitimacy; it could sometimes lead to a change in incentives that will lead to an undesired outcome of a regulation. See, e.g., Kip W. Viscusi, The Impact of Occupational Safety and Health Regulation, 10 BELL J. ECON. 117 (1979) (discussing the idea that severe penalties, as opposed to moderate penalties, will be counterproductive).


127. See also Dale T. Miller, Disrespect and the Experience of Injustice, 52 ANN. REV. PSYCHOL. 527 (2001).

128. Hyde, supra note 22.
everyone. This aggravates another problem: free-riding. It has been suggested that litigation costs lead to a free rider problem because of the externalities of precedents, the additional reputation costs might aggravate this problem even further. Why should one employer pay not only for legal fees, but also for reputation loss, to help clarify the meaning of the law and signal to employees in other firms that there are legal costs to the disclosure of trade secrets? One outcome of this problem is discerned from a review of the few trade secret litigation cases that have reached courts in Silicon Valley. As mentioned earlier, those cases dealt, for the most part, with very senior employees, corporate raiding, or cases in which the violation of the trade secrets regulation was extremely clear. The cases usually dealt with clear misappropriation of documentation: usage of the core technology of the company for building very similar products. Therefore, an employee is unlikely to get answers from the courts because the borderline cases never reach the courts. Thus, the cases with highest informational externalities never reach the courts, and those cases that do reach the courts would have been clear to the general population of Silicon Valley even without the courts’ help.

5. Pulling Potential Cooperators and Defectors Together into the Same Group of Law Violators Weakens Social Sanctions that Accompany Legal Sanctions

The last argument, which should extend to the broader definition of trade secrets, is that the current scenario limits the ability of legal sanctions to trigger social sanctions. When the definition of trade secrets includes both common activities and uncommon activities, almost everyone in the society is part of the law-violators’ group. In other words, a broader definition of trade secrets law will reduce the number of people who can sanction those who violate the law, citing the law itself as a source of their legitimacy.

129. Robert Cooter, Normative Failure Theory of Law, 85 CORNELL L. REV. 747 (1997); see also Robert H. Frank, Social Norms as Positional Arms Control Agreements, in ECONOMICS, VALUES, & ORGANIZATIONS 275, 284–85. “As a descriptive matter, it is clear that most people have at least a limited willingness to incur costs both to enforce and to adhere to social norms.” However, he also recognizes that internal motivations don’t work alone and that in fact: In practice, internal motivations and exchange relationships will often act in mutually reinforcing way. Id.

130. It should be noted that even scholars within the economic tradition recognize that self-interest cannot explain enforcement of social norms. However, at the same time, they recognize that self-interest still has an important role in maintaining social norms, and hence the free rider effect can not be ignored. See Jane Mansbridge, Starting With Nothing: On the Impossibility of Grounding Norms Solely in Self-Interest, ECONOMICS, VALUES, & ORGANIZATION 151 (discussing the fact that it is impossible to base social-norms-enforcement only on self-interest and that considerations of justice are necessary to understand the maintenance of norms).

131. On an anecdotal level, Luc Gibbons from Toledo Law School has mentioned to me that while working at IBM, the joke was that even the toilet paper was stamped as confidential. Obviously, I cannot attribute any level of noncompliance with trade secret law to those jokes, but the jokes represented a common feeling of many employees that the employer had unrealistic expectations from them in regard to confidentiality.


E. Downward Spiral of Formal Enforcement: Procedural Justice Perspective

The high costs of trade secret litigation may have a pronounced negative effect on the procedural justice of trade secrets litigation. In an influential case, an IBM employee argued that the entire lawsuit against him was unfair since he was the first to be prosecuted on the issue. The court rebuffed his argument and reasoned that because it is so expensive to sue departing employees, his argument should not hold. While this argument might not serve as complete justification from a jurisprudential perspective, it does show that the few extant trade secret cases will spiral down to even fewer cases, since the cost of suing will only increase. The procedural-justice aspects of neutrality and equal use of the law are being harmed because of the perception of unexpected litigation. Thus, for example, if employees think that employers are filing very few lawsuits, they will be more reluctant to accept the legitimacy of a lawsuit. With such reluctance on the part of employees to accept the legitimacy of lawsuits, employers might be even less likely to file lawsuits against their employees, because the reaction by some employees will make it even harder for other employers to file a lawsuit in turn. As will be seen in the fifth part of the paper (in the context of pluralistic ignorance), because lawsuits are the main public expression of displeasure with the disclosure of trade secrets by employees, the decline in the perceived number of lawsuits in the Valley might lead to a biased estimation of the norm.

F. Tentative Conclusion

Currently, the trade secret laws have a limited effect on the monitoring of confidential know-how sharing. I have argued that while information sharing between firms is, overall, a phenomenon that should be encouraged, there is a consensus among scholars that not all types of information should be transferred between firms by departing employees. I have argued that the fuzzy and broad definitions of trade secret laws contribute to their normative limitations. In the following paragraphs, I will present, in short, empirical findings that support this argument. The description of the procedure can be found in the Appendix.

133. The dynamic notion of minority opinion becoming more and more expensive is suggested by Robert D. Cooter, Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization, 79 OR. L. REV. 1 (2000).
134. For a suggestion that there is a significant effect of expectations on perceptions of procedural justice, see Kees Van Den Bos et al., The Consistency Rule and the Voice Effect: The Influence of Expectations on Procedural Fairness Judgments and Performance, 26 EUR. J. SOC. PSYCHOL. 411 (1996).
135. In the current trade secrets litigation, all types of trade secrets disclosures are treated as one.
G. Empirical Evidence of the Limits of Formal Controls

1. Internalization of Non-Compliance to Trade Secret Laws in Silicon Valley

As mentioned, the main problem in the formal enforcement of trade secrets is the fact that it seems to be in conflict with the culture of Silicon Valley. The key issue is whether this culture of information sharing in Silicon Valley will hold when people are told that sharing information is, in fact, a violation of the law. I have examined whether being in Silicon Valley for longer periods is associated with employees’ normative evaluation of trade secret laws. For that purpose, I conducted a partial correlation (controlling for age) between length of time in Silicon Valley and a number of factors relevant to the normative perception of trade secret laws. The results (Table 1) show that the more time one spends in Silicon Valley, the more likely one is to think: 1) it is moral to disclose trade secrets; 2) you are likely to get the approval of your employer and co-employees; 3) that violation of trade secrets is the norm; and 4) that the laws governing trade secrets are less fair. Effect on career and intention to violate the law were not significantly related to length of time in Silicon Valley, but were approaching significant. Those relationships were unchanged across all conditions of the study.

136. It should be noted that, as far as I know, this is the first quantitative effort to account for the effect of this norm. Previous studies, which are discussed in the first part of the paper, are based on interviews with Silicon Valley employees.
137. This analysis was conducted only on the participants in the legal group.
138. See Appendixes A and B for full description – people who live in the Valley for longer periods of time are more likely not only to share learned trade secrets, but also to use trade secrets that they downloaded to their computer.
Table 1: Partial correlations between number of years in Silicon Valley and normative evaluations of trade secret laws (controlling for age).

<table>
<thead>
<tr>
<th>Factor</th>
<th>Number of Years in Silicon Valley</th>
</tr>
</thead>
</table>
| Moral norm in regard to violation of trade secret laws | r = 0.23*  
|                                              | N = 79  
|                                              | P = 0.036 |
| Injunctive norm (Approval of others for violating the law) | r = 0.32*  
|                                              | N = 78  
|                                              | P = 0.03 |
| Psychological contract (Typical employee could use trade secrets in future career) | r = 0.23*  
|                                              | N = 78  
|                                              | P = 0.04 |
| Descriptive norms (How many employees violate the law in Silicon Valley) | r = 0.23*  
|                                              | N = 78  
|                                              | P = 0.04 |
| General fairness of trade secret laws       | r = 0.22*  
|                                              | N = 77  
|                                              | P = 0.046 |
| Career effect (Ability to find a job if next employer knows) | r = 0.21  
|                                              | N = 77  
|                                              | P = 0.052 |
| Intention to violate the law               | r = 0.20  
|                                              | N = 78  
|                                              | P = 0.075 |

* Correlation is significant P<0.05

2. Formal Deterrence was Perceived to be Minimal

One of the main problems, from a deterrence perspective, in the enforcement of trade secrets in the Valley, is that people do not think they will be sued.

Only 24% of the participants in the study thought that a lawsuit for a violation of trade secrets was possible. On average, participants thought that only 30% of those who violate trade secrets were likely to be sued. While underestimation of formal sanctions is also reported in other contexts, the following findings about information sharing are even more devastating.

139. Professor MacCoun reports similar findings in the context of the effect of likelihood of punishment on drug users. Robert J. MacCoun, Drugs and the Law: A Psychological Analysis of Drug Prohibition, 113 PSYCHOL. BULL. 497, 500-01 (1993). Even more paradoxical is the finding that perceived severity of law was correlated with a higher intention to drive under the influence, which might be explained by a background confounding variable. See John Gastil, Thinking, Drinking, and Driving: Application of the Theory of Reasoned Action to DWI Prevention, 30 J. APPLIED SOC. PSYCHOL. 2217 (2000).
3. Perceived Legal Costs were not Related to Employees’ Intention to Violate the Law

While almost all social factors, such as career effect, moral norm, and approval by others, were significantly related to employees’ intentions to obey the law, legal costs had no significant relationship with reported intention to obey trade secret laws. The correlation between legal costs and intention to share was very low and non-significant ($r=.07$, NS). Moreover, legal costs were perceived as having no relation to any of the other social factors, such as fairness, moral norms, and descriptive norms.  

4. Legal Costs were not Perceived to be Sensitive to the Severity of the Act

As explained in the Appendix, the participants in my study were presented with different types of information disclosure scenarios. While, for example, participants thought that downloading information is different from using information that is in one’s head, with regard to social factors such as morality, fairness, and approval by others, there was no such difference with regard to legal consequences.

To test this question, I conducted a one-way ANOVA in which “type of activity” was the independent variable and “legal costs” was the dependent variable. I found that the type of activity in question was affecting the perceived severity of the legal consequences. However, in a post hoc analysis of the source of the variance, the perceived differences in legal costs were not as expected when compared to the literature.

While, according to Gilson and Hyde, the norm about information sharing in Silicon Valley was especially true with regard to intangible information, my study found that downloading information was morally and socially worse than using information that is in one’s head. However, participants did not think that one was more likely to lead to a lawsuit than the other. [Post hoc analysis (Schefe) Mean difference=0.70 SE=.45 P=.296 NS].

On the other hand, the picture was different with regard to the innovative employee who moves to another company and uses information that he helped create. Participants believed that legal costs resulting from the use of know-how information that the employee had a part in developing are greater than the legal costs that result from the use of information they have only learned about from their previous

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140. Correlation coefficients were between 0.02 and 0.09, all non-significant.
141. One third of the participants were told about a scenario in which the confidential information disclosed was partly developed by the departing employee, a second third were told that the information was downloaded by the employee, and the final third were told that the information was memorized by the employee (see Appendix A for a full description).
142. See Gilson, supra note 43; Hyde, supra note 22.
employer. Thus, while the free mobility of employees was advocated as a way to allow maximum freedom for innovative employees,\textsuperscript{143} it seems that employees think it is safer to divulge trade secrets they only learned about rather than divulge trade secrets that they had a part in developing.\textsuperscript{144} [Post hoc analysis (Schefe) mean difference=1.34 SE=.46 P=0.02].

5. Legal Ambiguity

Another failure that I have discussed in the context of the formal enforcement of trade secrets is that many employees do not know what information falls into the legal definition of trade secrets. This ambiguity reduces the likelihood of efficient formal enforcement.

To test for the relationship between certainty regarding the meaning of the law and normative evaluations of confidential know-how sharing, I have made a correlation analysis only for the participants in the non-legal group.\textsuperscript{145} Employees who were more certain\textsuperscript{146} about the meaning of trade secrets were more likely not to share confidential information with their new employer.

\textsuperscript{143} This is essentially the argument made by Weiss, supra note 12.

\textsuperscript{144} A possible explanation is that there are many more people who learn about know-how information than people who actually develop know-how information. Since people feel that so many learn about confidential information without having been sued, they have more reason to think that such activity will not result in a lawsuit.

\textsuperscript{145} For a full description, see Appendix A. In short, half of the participants in the study received scenarios in which the fact that sharing information violates the law was not mentioned.

\textsuperscript{146} Certainty was measured by participants’ perceived clarity of the law and their perceived certainty about what “trade secrets” means.
Table 2: Correlations between certainty about the meaning of trade secrets and normative evaluations of know-how sharing.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Certainty about the meaning of trade secrets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral norm in regard to sharing confidential information</td>
<td>r = 0.245*</td>
</tr>
<tr>
<td></td>
<td>N = 66</td>
</tr>
<tr>
<td></td>
<td>P = 0.047</td>
</tr>
<tr>
<td>Injunctive norm</td>
<td>r = 0.244*</td>
</tr>
<tr>
<td>(Approval of others for sharing confidential information)</td>
<td>N = 73</td>
</tr>
<tr>
<td></td>
<td>P = 0.037</td>
</tr>
<tr>
<td>Psychological contract</td>
<td>r = 0.14</td>
</tr>
<tr>
<td>(Typical employee could use confidential information in future career)</td>
<td>N = 73</td>
</tr>
<tr>
<td></td>
<td>P = 0.236</td>
</tr>
<tr>
<td>Descriptive norms</td>
<td>r = 0.249*</td>
</tr>
<tr>
<td>(How many employees share confidential information in Silicon Valley)</td>
<td>N = 74</td>
</tr>
<tr>
<td></td>
<td>P = 0.033</td>
</tr>
<tr>
<td>General fairness of trade secret laws</td>
<td>r = 0.34**</td>
</tr>
<tr>
<td></td>
<td>N = 73</td>
</tr>
<tr>
<td></td>
<td>P = 0.003</td>
</tr>
<tr>
<td>Intention to share confidential information</td>
<td>r = 0.346**</td>
</tr>
<tr>
<td></td>
<td>N = 74</td>
</tr>
<tr>
<td></td>
<td>P = 0.003</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

6. Actual Knowledge of Employees About the Meaning of Trade Secrets

Since perceived certainty about trade secret laws could be related, not to the actual clarity of the laws of trade secrets, but to factors such as an employee’s lack of interest in studying the law, I decided to examine employee’s actual knowledge about the law. As could be seen from Table 3, there is great uncertainty among engineers about the very basic definitions of trade secrets. In regard to the last two questions, the majority of participants were either wrong or uncertain about the legal status of behaviors that I assume many of them engage in during the course of their professional life.
Table 3: Actual knowledge about the meaning of trade secrets.

<table>
<thead>
<tr>
<th>Question</th>
<th>Legal</th>
<th>Illegal</th>
<th>Not sure</th>
<th>Did not Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is it legal for a departing employee to share confidential know-how information she had downloaded?</td>
<td>24.1%</td>
<td>58.6% (correct answer)</td>
<td></td>
<td>17.2%</td>
</tr>
<tr>
<td>Is it legal for an employee to program in Java if he learned to do it from a competitor?</td>
<td>58.6% (correct answer)</td>
<td>24.1%</td>
<td></td>
<td>17.2%</td>
</tr>
<tr>
<td>Is it legal for a departing employee to share confidential know-how information that she memorized?</td>
<td>13.8%</td>
<td>34.5% (correct answer)</td>
<td>37.9%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Is it legal for a departing employee to share confidential know-how information with a company that does not compete with her previous employer?</td>
<td>13.8%</td>
<td>34.5% (correct answer)</td>
<td>37.9%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>

7. Illegitimacy Spillovers Due to the Broad Nature of Trade Secret Laws

The previous findings were related to the fuzzy nature of trade secret laws. The next procedure is related to the other major problem in trade secret law, namely, the fact that its definitions are too broad. I have argued that broader trade secret laws give the secret owner (the employer) more protection, thereby undermining the overall legitimacy and perceived fairness of trade secret laws. The following graph demonstrates this argument.
When the participants in the non-legal group were asked at the end of the questionnaire about their views regarding the general fairness of trade secret laws, there was no difference between the participants based on the type of scenario they were exposed to (learned, developed, and downloaded). However, as can be seen from the comparison of those participants in the legal group, exposure to the different examples of what kinds of behaviors are being regulated by the law changed their overall evaluation of trade secret laws. Interaction effect was significant in a level of 0.05.

For those in the “download” group, being told that such activity is illegal caused employees to improve their perception of the overall fairness of trade secret laws. However, for those in the “developed” group, learning that such activity is illegal caused employees to lower their overall perceived fairness of trade secret laws. I interpret this finding to mean that exposure to the narrow definition of trade secret
laws (an employee who shares confidential information he has
downloaded is violating the law) improves employees’ estimations about
the legitimacy of trade secrets in general. However, following exposure
to the broad definition of trade secret law (an employee who shares
confidential information he helped to develop is violating the law)
employees tended to think that trade secret laws are less fair in general.

VI. LIMITS OF INFORMAL CONTROLS

While it might be true that some of the norms are more efficient
than the law, a situation in which norms replace law without the
agreement of both parties might decrease efficiency. I will try to build
the case that norms are limited in their ability to accurately transmit what
an employee cannot take with them, and in which situations they need to
respect the law.

Thus, while most of the legal literature about social norms focuses
on the destruction to human capital effected by the replacement of laws
with norms, the question here is whether norms have the ability to
monitor the behavior of employees in a manner that would ensure that
only efficient types of information would be transferred between
companies.

A. Conflict of Interests Between the Information-Accepting and
Information-Producing Firms

An important element in the economic analysis of social norms
relies on people’s willingness to punish violators of the social norm.
Many researchers argue for a “market-like morality,” where behaving in
an immoral way would draw a reaction from other actors in the market.
However, in the context of trade secrets, if the information is valuable
enough, law violators are less likely to be informally punished (the

149. See, e.g., Eric Talley, Disclosure Norms, 149 U. PA. L. REV. 1955 (2001) (discussing the
supremacy of extra-legal norms over formal laws in the context of information disclosure in corporate
context). Talley’s article mentions that, without courts, non-disclosure norms could be more efficient
in monitoring behavior of corporate executives than the court system could. Part of this argument is
that, in terms of information, courts are not likely to do a great job in signaling to people what they
can and cannot do. For a counter-view on the ability of norms to manage executives' behavior, see
Marcel Kahan, The Limited Significance of Norms for Corporate Governance, 149 U. PA. L. REV. 1869
(2001), which focuses on the inability of norms to have a significant effect on executives’ compensation
due to the fact that those who make the decisions about the size of the compensation are not part of
any cohesive group.

150. This is because the norm is argued to be efficient only from a welfare perspective and not
from Pareto perspective.

151. See Richard H. McAdams, The Origin, Development, and Regulation of Norms, 96 MICH. L.

152. ROBERT H. FRANK, PASSIONS WITHIN REASON: THE STRATEGIC ROLE OF THE EMOTIONS
(1988).

153. See Christine Horne, The Enforcement of Norms: Group Cohesion and Meta-Norms, 64 SOC.
PSYCHOL. Q. 253 (2001). Psychological research about the likelihood of non-formal enforcement
opposite incentive to that which exists under a formal enforcement regime). Thus, one could argue that the firm accepting the information is less likely to impose social sanctions on the sharing of trade secrets beyond a desirable or efficient norm.154 According to Dunfee, there is substantial evidence to suggest that morality does have some effect on people’s market-like decisions,155 as in the case of consumer boycotting of companies that do business with immoral suppliers. Other researchers point out the difficulties that employees and employers could face in trying to confront unethical behavior within organizations.156 These studies emphasize the overlooked costs of enforcing social sanctions, which are assumed to be costless by some scholars.157 This is not to say that social sanctions do not exist, but to point out that in many situations—as in the context of trade secrets—the cost of sanctioning might prevent society from enforcing social norms.158 While, on one hand, the enforcement of social norms in this context does not require direct confrontation but rather simple avoidance (i.e., not hiring, not going to work with certain employers), this social punishment is far more costly than simply not doing business with someone with a bad reputation. For the future employer,159 this confidential knowledge (even at the level of P•) makes the employee more valuable, and not hiring him might be very expensive.160

suggests a need, in strong social ties, between the potential punisher and the peer group of the offender.

154. The fact that norms are costly to enforce is not a new puzzle for the economic analysis of social norms. See, e.g., Elizabeth Anderson, Beyond Homo Economicus: New Developments in Theories of Social Norms, 29 Phil. & Pub. Aff. 170, 181 (2000). However, in this context, the price the competing firm is being asked to pay is much higher on average than that of a regular norm enforcer.


157. McAdams, supra note 152, at 365 (”To summarize the model thus far: The key feature of esteem is that individuals do not always bear a cost by granting different levels of esteem to others. Because the cost is often zero, esteem sanctions are not necessarily subject to the second-order collective action problem that makes the explanation of norms difficult. An individual maximizes her utility neither by hording all her esteem nor by granting equal esteem to everyone.”) (emphasis added). It is not clear to me whether, in the context of trade secrets, an honest employer would actually withhold esteem from an employee who offers to use his previous employer’s trade secrets.

158. For an explanation of why people would sanction others even when such an act is costly for the punisher, see Ernst Fehr & Klaus M. Schmidt, A Theory of Fairness, Competition, and Cooperation, 114 Q. J. Econ. 817 (1999). For a counter-perspective, see Robert Piron & Luis Fernandez, Are Fairness Constraints on Profit-Seeking Important?, 16 J. Econ. Psychol. 73 (1995).

159. A related problem that arises here concerns the free rider problem: each corporation enjoys the norm, but might not be willing to pay all the costs of not hiring employees with valuable information.

160. There is also a counter argument: that an employer will be afraid to hire an employee who brings trade secrets from the previous firm because such an action could be repeated when she leaves her company.
I. Shifting Loyalties: Why Information Sharing is not a Regular Social Dilemma

The notion of conflict of interest between different companies leads to another factor that I want to discuss, namely, the change in loyalties an employee experiences when he moves from one company to another. While in most “social dilemmas” literature the focus is on the question of when people will work for the collective purpose and when they will focus on their self-interest, this case is different. An employee who violates the law is not, in his eyes, solely pursuing his own self-interest. The disclosure of information could be seen from one viewpoint as sharing a more efficient methodology with the new employer. Such behavior could be seen in people’s minds as cooperative behavior, and not behavior stemming from a typically self-interested perspective.

Research about social influence in organizations suggests that the boundaries of a given firm tend to be extremely efficient in socializing people into norms unfavorable to the outside world. Similarly, research on group identity suggests that motives related to belonging to the group are developed very shortly after the individual joins the organization. Thus, when an employee has to decide whether he should honor the interest of the previous company or the interest of the new company, he is likely to go with the interest of the new company.

161. E. Allan Lind, Fairness Heuristic Theory: Justice Judgments as Pivotal Cognitions in Organizational Relations, in ADVANCES IN ORGANIZATIONAL JUSTICE 61 (Jerald Greenberg & Russell Cropanzane eds., 2001) (“The fundamental social dilemma is ‘fundamental’ because it reflects one of the most basic aspects of human nature... it is this tension between social impulses and individual interests that forms the context of much of our social and organizational existence.”).

162. The group-identity explanation is naturally developed by sociologists who try to account for people’s obedience to social norms. See, e.g., MARGARET GILBERT, ON SOCIAL FACTS (1989) (developing theories of “collective agency”).


164. See Brenda Morrison, Interdependence, the Group, Social Cooperation: A New Look at an Old Problem, in RESOLVING SOCIAL DILEMMAS 295–308 (Margaret Foddy et al. eds., 1999) for a review of the in-group, out-group and group-identity research applications to social dilemmas.

165. See John M. Darley, The Dynamics of Authority Influence in Organizations and the Unintended Action Consequences, in SOCIAL INFLUENCES ON ETHICAL BEHAVIOR IN ORGANIZATIONS 37–52 (John M. Darley et al. eds., 2001) (discussing corporate case studies in which employees were quick to comply with corporate norms such as selling damaged products to employees).

166. See Blake E. Ashforth, ROLE TRANSITION IN ORGANIZATIONAL LIFE 149–99 (Arthur P. Brief & James P. Walsh eds., 2001) (discussing the situational factors affecting role learning and innovation in the entry stage of the organization).

167. The most developed paradigm to explain who people would choose as their reference group is the social network approach. For an empirical demonstration, see Herminia Ibarra & Steven B. Andrews, Power, Social Influence, and Sense Making: Effects of Network Centrality and Proximity on Employee Perceptions, 38 ADMIN. SCI. Q. 277 (1993).
2. The Limits of Fairness

Fairness is one of the most important informal social forces constraining opportunistic behavior in large-scale social dilemmas in which communication is less likely.\textsuperscript{168} It has been shown that fairness has a positive effect on people’s decision to cooperate with the collective interest.\textsuperscript{169} and many economists realize nowadays that Becker’s original model\textsuperscript{170} of compliance is limited.\textsuperscript{171} However, due to the nature of information, it is not clear that justice is very helpful when people are unaware of what exactly they are expected to take with them. Because everyone uses some information when moving from one company to another, the effect of fairness will be encountered only when there are clear definitions placed on the boundary between legitimate and illegitimate use of information. In other words, the use of information seems to be a classic example of a situation in which the evaluation of fairness needs a reference point.\textsuperscript{172} It seems that the employee define the fairness of information usage in terms of the standard psychological contract that exists in a given industry.\textsuperscript{173} Uncertainty about what exactly the individual can take with him upon departure is likely to make it very hard for fairness to serve as an efficient constraint.

\textsuperscript{168} See generally Anders Biel, Factors Promoting Cooperation in the Laboratory, in Common Pool Resource Dilemmas, and in Large-Scale Dilemmas, in Cooperation in Modern Society 25 (Mark Van Vugt et al. eds., 2001); Daniel Kahneman et al., Fairness as a Constraint on Profit Seeking: Entitlements in the Market, 76 AM. ECON. REV. 728 (1986).
\textsuperscript{169} Eric Van Dijk & Henk Wilke, Differential Interests, Equity, and Public Good Provision, 29 J. EXPERIMENTAL SOC. PSYCHOL. 1, 3 (1993).
\textsuperscript{171} See, e.g., Richard S. Dowell et al., Economic Man as a Moral Individual, 36 ECON. INQUIRY 645 (1998).
\textsuperscript{172} For a refutation of the universalism of justice and its culture and context dependent, see Jerald Greenberg, The Seven Loose Can(n)ons of Organizational Justice, in ADVANCES IN ORGANIZATIONAL JUSTICE 245, 260 (Jerald Greenberg & Russell Cropanzano eds., 2001).
\textsuperscript{173} “We have already noted that psychological contracts change across times and places, suggesting that justice is relative. All people might share a common interest in fairness, but what they presume to be fair varies widely.” Robert Folger & Russell Cropanzano, Fairness Theory: Justice as Accountability, in ADVANCES IN ORGANIZATIONAL JUSTICE 1, 23 (Jerald Greenberg & Russell Cropanzano eds., 2001) (emphasis added).
\textsuperscript{174} For a demonstration of the importance of social context in the activation of fairness, see Bruno S. Frey & Iris Bohnet, Institutions Affect Fairness: Experimental Investigations, 151 J. INST. & THEORETICAL ECON. 286 (1995).
B. Empirical Evidence of the Limits of Non-Formal Controls

1. Choice of Reference Group: Which Group’s Approval will Predict the Intention of the Employee?\textsuperscript{175}

The main failure, discussed in this section, is that it seems that one’s previous and current employers might not perceive the sharing of trade secrets in a similar way. If the employee cares most about her current employer, and the interests of the current employer are not in congruence with the interests of the Valley, we could say that there is some failure in the choice of reference group by the employee.

Our findings show that most employees thought that their previous employers would not approve of the violation of trade secrets. However, with regard to the current co-workers and current employers, there was a mixed message leaning toward the approval of trade secret violations in all levels of behavior.

\textsuperscript{175} The concept of “subjective norms,” which includes what important people to you would say instead of what most people would say, might also be relevant in this context. Icek Ajzen, \textit{The Theory of Planned Behavior,} 50 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 179, 195–97 (1991). So far, no theory in economics offers any treatment for subjective norms. Nevertheless, it seems that even from an economic point of view, one could imagine a reputation perspective to the importance of the different groups. For a classic example of an interaction between injunctive norms of one group (one’s family) and descriptive norms (one’s co-workers) in the context of tax evasion, see Loretta J. Stalans et al., \textit{Listening to Different Voices: Formation of Sanction Beliefs and Taxpaying Norms,} 21 J. OF APPLIED SOC. PSYCHOL. 119 (1991).
Table 4: Likelihood of approval of trade secret violation by previous employers and current employers and co-workers.
(1=unlikely to approve; 10=likely to approve)

<table>
<thead>
<tr>
<th>Type of Activity Engaged in the Scenario</th>
<th>Approval of Current Co-Workers</th>
<th>Approval of Current Employer</th>
<th>Approval of Previous Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learned</td>
<td>Mean 6.8485</td>
<td>5.9375</td>
<td>2.7187</td>
</tr>
<tr>
<td></td>
<td>N 33</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 2.6824</td>
<td>3.1102</td>
<td>2.0357</td>
</tr>
<tr>
<td>Downloaded</td>
<td>Mean 5.4483</td>
<td>4.6552</td>
<td>2.2857</td>
</tr>
<tr>
<td></td>
<td>N 29</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 2.7978</td>
<td>3.0970</td>
<td>1.7817</td>
</tr>
<tr>
<td>Developed</td>
<td>Mean 6.2308</td>
<td>5.7200</td>
<td>2.4800</td>
</tr>
<tr>
<td></td>
<td>N 26</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 2.4217</td>
<td>3.0072</td>
<td>2.0232</td>
</tr>
</tbody>
</table>

The fact that there are differences between the perceived views of the previous employer and the current co-employees and employer is less surprising. The failure stems from the fact that the reported intentions of employees to violate the law were related to the injunctive norm of the current employers, but not to the perceived injunctive norm of the previous employer (see Figure 2).

However, as the table illustrates, one encouraging exception was found in the download condition. I found that those employees who were in the “download” group were more likely to care about the approval of their previous employers than the approval of their current employers. This means that when an employee thinks about taking something physical and tangible from the previous employer, he cares more about his previous employer. Nonetheless, even in the download condition, the approval of one’s current co-workers was more likely to predict the intention of the employee to download trade secrets.
Thus, as opposed to the covenant-without-a-sword theme advocated by Orbell et al., in this context the “sword” seems to influence the choice of reference group. The clear choice of reference group reflected in this study supports the classical rational actor assumption. People will tend to care more about the approval of those with the power to affect their career. Conversely, they will not care about those who do not have any sword, whether legal or social, to enforce their wish. The employee cares about a previous employer’s approval only in the download condition, in which the activity (the downloading) is done within the boundaries of the previous employer.

2. Limits of Morality

The main argument of this section is that employees will tend to choose a current employer and current co-employees as a reference group, and will tend to ignore the approval of a previous employer. It is also argued that fairness or morality will not be sufficient to remedy this failure and therefore cannot serve as an independent effective social constraint.

The correlation in Table 5 shows that employees who thought that more employees in Silicon Valley share confidential information were more likely to think that trade secret laws are not fair. Therefore, because the participants think the majority of employees in Silicon Valley share confidential information, it follows that people will tend to think that such practice is also morally permissible.

176. Orbell et al., supra note 4.
177. Obviously no conclusive casual direction could be inferred from a correlation analysis.
Table 5

Correlations between perceived practice of confidential information sharing in Silicon Valley and perceived morality of disclosing trade secrets.

<table>
<thead>
<tr>
<th></th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>descriptive norm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>about information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sharing in Silicon Valley</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>morality of disclosure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (2-tailed).

VII. BOUNDED RATIONALITY-DRIVEN NORMATIVE FAILURES

Enforcement failures might arise not only from the structure of the market but, additionally, from bounded rationality and limitations on the ability to accurately perceive the norm. The limits of social norms on the ability to maintain efficient normative control could be aggravated by employees’ confusion relating to the normative definition of their behavior, and a potentially biased estimation of the norm itself. A systematic bias (versus mere uncertainty) in the perception of the norm might lead to a situation in which there is an actual shift in the norm. A changing norm, due to inaccurate appraisals of reality, likely could lead to inefficient disclosure of information.

A. The Miscommunication Between Behavioral Law and Economics and the Law and Economics of Social Norms

A recent development in the economic scholarship is the behavioral criticism of the neo-classical model of the rational person. This criticism is founded upon the work of the cognitive psychologists Kahneman and Tversky, who presented a systematic study of collective cognitive biases in calculating losses and gains. The law and economics scholarship has

started to build a market-failure approach, which tries to consider these imperfections. Ironically, given all of the progress that has been made in the behavioral analysis of law and economics, when it comes to social norms, the “rational actor” assumption still dominates. The basis of the assumption is the belief that an individual, violating any particular social norm, is able to calculate the expected social costs of that action.179 Even before discussing the effect of norms on behavior, however, current models of social norms might face difficulties in relying on social enforcement. The conceptual bias causes law and economics scholars to turn to psychology in “first-party enforcement,”180 but not in second-party or third-party enforcement.

B. Why Coordination Matters So Much in the Context of Trade Secrets

Naturally, as in many social contexts,181 the perception that others would cooperate was acknowledged as a major factor in promoting cooperation.182 In the context of trade secrets, however, the behavior of others is even more crucial. If employees think that most co-workers are engaging in confidential know-how information sharing, they will not tend to think that unwillingness to disclose the information is going to matter. In the context of every social dilemma, people tend to cooperate more when they think that more people will cooperate. In the context of trade secrets, the behavior of others will tell individuals whether they are entitled to use the information or not (it will define the psychological contract). Also, it will force them to question whether it even makes sense to keep something secret if everyone around them will inevitably disclose this secret. Moreover, if people feel that many others are using

179. It is important to recognize that some economists writing in this tradition specifically acknowledge that in discussing normative expectation, they do not mean that people actually are making a cost-benefit analysis of the approval and disapproval of other people. See, e.g., Sugden, supra note 3, at 73–100. Instead, normative expectations are being defined as a general belief that other people generally are following conventions and disapprove of those not following conventions. Nonetheless, even those discussing normative expectations as an independent motivational force exceeding the traditional expected values approach should recognize the perception of the number of potential adherents is crucial to people’s willingness to comply.


181. The effect of the perceived number of people engaging in a particular behavior on willingness to engage in that behavior was recognized as being one of the main problems in juvenile delinquency. This phenomenon, usually referred to as “Social Modeling,” is a process by which observation of the performance of a behavior (e.g., heavy drinking) is thought to increase the likelihood of the observer adopting that behavior. Mark D. Wood et al., Social Influence Processes and College Student Drinking: The Meditational Role of Alcohol Outcome Expectancies, 62 J. STUD. ON ALCOHOL 32 (2001).

confidential know-how information in order to be hired, they realize that not disclosing information would decrease their ability to successfully compete for their next job.\textsuperscript{183}

\textbf{D. Overestimation of Excessive Disclosure of Trade Secrets}

Building the argument that, lacking institutional guidance, employees overestimate the amount of people who disclose trade secrets (even at a level of $P^*$), requires a brief review of two psychological phenomena: pluralistic ignorance and availability bias.\textsuperscript{184}

Pluralistic ignorance is a theory based upon an individual’s inability to estimate accurately the general level of acceptance of a particular norm and the private beliefs of fellow employees relating to that norm.\textsuperscript{185} Prentice and Miller have drawn on this theory to explain why students in college overestimate the amount of alcohol consumed by their fellow students.\textsuperscript{186} The main reason for this overestimation seems to be related to the fact that over-drinking is much more vivid and salient than average drinking. Although not addressed directly by Prentice and Miller’s work, this biased social norm might have led students to drink more alcohol than they would drink otherwise.

Excessive disclosure of trade secrets could follow a similar pattern to that found in the case of over-consumption of alcohol. In order to attribute a norm regarding information sharing from watching what others are doing, an employee needs to observe others and deduce the legitimate amount of information that can be taken when leaving an employer.\textsuperscript{187} Any situation in which a fellow employee might move to a competitor or create a spin-off and produce similar products can make the attribution of his motives fairly easy.\textsuperscript{188} Moreover, the greater the violation, the greater the vividness of the behavior and the clarity of

\textsuperscript{183.} See Robert E. Kraut, et al., \textit{Varieties of Social Influence: The Role of Utility and Norms in the Success of a New Communication Medium}, 9 ORG. SCi. 437 (1998) (arguing that following what others are doing could also be the most efficient step to take in an organizational setting).


\textsuperscript{185.} Another less innocent type of ignorance that might occur in the context of trade secrets is strategic ignorance. For a discussion of how individuals in organizations who wish to prevent organizational pressure associated with certain organizational ethical codes might intentionally choose ignorance when these codes contradict the individual’s self-interest, see John M. Darely, \textit{How Organizations Socialize Individuals into Evildoing}, in \textit{CODES OF CONDUCT: BEHAVIORAL RESEARCH INTO BUSINESS ETHICS} 13 (David M. Messick & Ann E. Tenbrunsel eds., 1996).


\textsuperscript{187.} See generally McAdams, \textit{supra} note 152, suggesting the law might help people overcome the problem of pluralistic ignorance. However, the preliminary data that come from my study suggest that the law of trade secrets, at least, is not very helpful in this regard. \textit{See infra} note 229.

\textsuperscript{188.} Because there is no gap between public behavior and private attitude when someone is violating the law, it is possible to assume his thoughts about the law; however, if someone does not violate the law, I cannot know his motivation for obedience.
attrition, no such clarity exists in the opposite scenario.\footnote{189} Even if the individual could establish that his fellow workers intentionally avoided possible gains from the violation of trade secrets, the motivation for such avoidance is ambiguous.\footnote{190} Thus, individuals are more likely to make inferences about descriptive norms of legal disobedience than about descriptive norms of legal obedience,\footnote{191} and thereby underestimate the effect of the laws governing trade secrets on people’s decisions whether or not to disclose trade secrets.

The overestimation of the amount of information being shared might be related to the dynamic described in the previous section regarding the differences in interests between the information-accepting and information-producing firms. Know-how information goes with a departing employee from Firm A to Firm B. Colleagues in Firm B are very likely to hear about the new information that has arrived, because this information could change their current methodology. The newcomer might not feel a need to conceal the disclosure because this usage is benefiting the current company.\footnote{192} Peers in the current company (Firm B) might not be able to determine how protected the information was in the previous company and how important it was to the company, so the social status of “theft” is not salient in the social interaction.\footnote{193} Hence, because the activity of disclosure occurs in the information-accepting firm, the activity will not be disguised and is likely to be widely diffused. Consequently, employees might underestimate the cost and overestimate the benefits associated with using trade secrets. Such a bias is more probable given the social influence element of learning from success.\footnote{194}

\footnote{189. Raymond C. Baumhart, How Ethical Are Businessmen?, HARV. BUS. REV., July-Aug. 1961, at 6, 19 (finding that almost half of his subjects thought that executives in the U.S. are not ethical). Overall, pluralistic-ignorance theorists argue that individuals underestimate other people’s adherence to social motives.}

\footnote{190. See Miller & Prentice, supra note 187. Miller and Prentice argue that the cause of pluralistic ignorance is related to the correspondence bias. That is, people attribute other people’s behavior to internal stimuli and not to social motives. \textit{Id.} The outcome in the context of trade secrets (or inferring any legal norm form of behavior) is that people are less likely to attribute avoidance of trade secrets usage to legal norms.}

\footnote{191. For a similar hypothesis in regards to ethics in business, see Ronald Buckley, et al., The Role of Pluralistic Ignorance in the Perception of Unethical Behavior, 23 J. BUS. ETHICS 353 (2001) (suggesting that there is an actual ethical majority in the world but a perceived ethical minority, and that society should inform young people about this fact since they will not be able to infer it without such help).}

\footnote{192. See Robert Cooter & Melvin A. Eisenberg, Fairness, Character, and Efficiency in Firms, 149 U. PA. L. REV. 1717 (2001) (discussing firm-specific fairness).}

\footnote{193. See Norbert L. Kerr, Anonymity and Social Control in Social Dilemmas, in RESOLVING SOCIAL DILEMMAS at 103 (Margaret Foddy ed., 1999) (suggesting that, lacking monitoring by those who can sanction the individual, the fact that the individual could be identified fails to ensure compliance to the norm).}

\footnote{194. Robert Cialdini, Social Influence: Social Norms, Conformity, and Compliance, in THE HANDBOOK OF SOCIAL PSYCHOLOGY 151, 155 (Gilbert, et al. eds., 1998). Cialdini concludes that, given the informative function of descriptive norms, we are much more likely to follow the steps of successful others than of others about whose behavioral outcome is unknown. \textit{Id.}}
In other words, even if taking some information could be an efficient move for some employees, other employees might get the wrong impression about the acceptability of such a move and disclose information just because they did not see any normative requirement to act in accordance with the laws regulating trade secrets. Hence, employers’ (reputation) cost of punishment diminishes with the increase in the perceived number of employees who obey the norm. Overestimation of the number of employees who take more information than the law or norm allows for will thus decrease the perceived social costs and, in the long run, might have an effect on the types of behaviors internalized by people.

Another factor contributing to the perception that certain negative norms are more salient than a positive norm is evident in research showing deviant behaviors are twice as likely to be shared publicly, especially with regard to “borderline” activities (e.g. marijuana use). Might a similar problem happen in the context of trade secrets? Given the private nature of trade secrets, the existence of a “spiral of silence” might cause people to overestimate the degree to which public expressions reflect the distribution of the private behavior of engineers in Silicon Valley.

E. Underestimation of the Morality of One’s Coworkers

The uniqueness bias is another type of documented bias, which similarly suggests that employees might overestimate the amount of trade secret violations in Silicon Valley. Although studied in few contexts, morality-related studies are of interest. According to the uniqueness bias, people have a tendency to underestimate the consensus of desirable behaviors. Goethals found that this bias was strongest with regard to moral reasoning. A legal theory, attempting to use norms as a tool to support engagement in socially benefiting behaviors, might face a huge informational obstacle, preventing norms from drawing people away from their self-interest. Similarly, it was found that people see their good behaviors as unique and their bad

195. See Robert D. Cooter, Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant, 144 U. PA. L. REV. 1643, 1671 (1996) (showing that increases in the proportion of enforcers of norms leads to decreases in the cost of punishment). In our case, it seems reasonable to assume that the cost of punishment will decrease if employers think that fewer employees will see their move of filing a lawsuit in a negative light.

196. James W. Brown, et al., Turning Off: Cessation of Marijuana Use After College, 21 SOC. PROBS. 527 (1974). However, it is questionable whether volunteering to participate in a study amounts to a public sharing of views.

197. See Miller & Prentice, supra note 187, at 808 (discussing the role of the media in the phenomenon of the “spiral of silence”).


199. Id. at 37.
This notion could mean that even people that might consider honoring trade secrets may feel that the consensus is less moral and therefore underestimate the social costs of immoral activity. Thus, the above-mentioned theories all provide grounds for a market failure in the perception of the norm. Employees are more likely to exaggerate the amount of wrongdoing in Silicon Valley, and hence, might change their behavior toward a greater level of violation rather than underestimating the amount of trade secret violations.

1. False Consensus

Individuals personally favoring the disclosure of trade secrets might manifest another type of bias when trying to ascertain the norms for trade secret violations in Silicon Valley.

According to the false consensus effect, people overestimate the number of other people in society who they believe act the same as themselves. An opportunistic employee might imagine that a greater number of colleagues would act in a manner similar to him, reducing the efficacy of acceptable norms designed to curb opportunistic behavior.

Even more problematic from a normative perspective is the fact that people who hold minority views overestimate the content of the norm, while those who hold majority views tend to underestimate it. Following the assumption that majority norms are more efficient than minority norms, overestimation of minority norms might prevent an effective conversion by holders of the minority norms. In order for social consensus to change this view, a person needs to know that he is in the minority. If we consider a norm in which the use of courts involves a loss of reputation to companies, individuals in the minority who think that their views about trade secrets are dominant might use certain types of trade secrets, even if the norm were against it.

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201. See supra Table 5 for empirical support to this point.
202. Lee Ross et al., The False Consensus Effect: An Egocentric Bias in Social Perception and Attribution Processes, 13 J. EXPERIMENTAL SOC. PSYCHOL. 279 (1977). But see Anne-Marie De la Haye, A Methodological Note About the Measurement of the False Consensus Effect, 30 EUR. J. SOC. PSYCHOL. 569 (2000). See also Robyn M. Dawes & Matthew Mulford, The False Consensus Effect and Overconfidence: Flaws in Judgment or Flaws in How We Study Judgment? 65 ORG. BEHAV. & HUM. DECISION PROCESSES 201 (1996) (questioning the existence of the false consensus effect, basically showing the opposite, i.e. that the more people thought others were like them, the more accurate they were about their behavior).
203. Thus, if someone tends to violate trade secrets, social consensus alone is not likely to lead this person to understand that he is disclosing more secrets than the norm allows.
204. But see Paul G. Mahoney & Chris Sanchirico, Competing Norms and Social Evolution: Is the Fittest Norm Efficient? (Symposium on Norms and Corporate Law), 149 U. PA. L. REV. 2027 (2001) (using evolutionary game theory perspective, they argue that the idea of efficiency of norms is overstated).
F. Avoiding or Inventing Social Reality When One Suspects that the Social Practice Might Prevent Him from Following His Own Self-Interest

1. Motivationally-Driven Constructive Social Comparison

The penumbra problem, which some refer to as inclusive of all of those biases, is a constructive social comparison. The essence of this social phenomenon is that people make up information about how other people behave in order to preserve their own self-esteem. With fewer salient and certain social sanctions imposed, people are more likely to imagine reality to preserve their own self-dignity without giving up their own self-interests.

The notion of esteem as a motivating force in obedience to norms and laws has captured the attention of many legal scholars as well as social scientists. Professor McAdams’ widely cited paper examining people’s motivation for obeying social norms focuses on what he calls “competition for esteem.” Similarly, Professor Kahan has used concepts of shaming and shunning as important factors in social enforcement of laws and social norms. Obviously, constructive social comparison does not eliminate the impact of actual social comparison on people’s behavior; however, given that in most cases people will act based on their perceived social norms, it is important to be aware of the limits of esteem-based sanctions.

First, the concept of constructive social comparison suggests that if people are interested in self-validation, they might envision changes in others’ behavior. Therefore, competition for esteem does not ensure that people will compete to engage in desired social behaviors. Second, the assumption that people will always look to society for cues is far from accurate, especially with regard to situations that might trigger embarrassment when such a comparison is made since people can

207. See McAdams, supra note 152.
209. See Chaim Fershtman & Yoram Weiss, Why Do We Care What Others Think About Us, in ECONOMICS VALUES AND ORGANIZATIONS 133 (Avner Ben-Ner & Lewis Putterman eds., 1998) (analysis of people’s quest for status).
211. For example, Batson et al. show the limitation of non-instrumental self-control by focusing on what they call moral hypocrisy. C. Daniel Batson et al., Moral Hypocrisy: Appearing Moral to
socially reward themselves both in adolescence and in adult life. Third, the possibility that people will actually perform a downward rather than an upward comparison might jeopardize the competition for esteem. In this scenario, people’s need for esteem might cause them to seek out others who act worse than they do. Finally, they show the limitation of the “esteem” line of reasoning regarding the effect of norms.

G. The Potential Effects of Overestimation on the Deterrence and Internalization Models

The importance of an accurate estimation of the norm, which is being seen mainly as a coordination perspective, is especially crucial for the expressive function of the law. From a coordination perspective, an overestimation of the number of excessive violations of trade secrets could destabilize any social equilibrium and any perceived shift in the norm could lead to an actual change in the norm. Nonetheless, a systematic bias in the perception of the norm is shown by the deterrence and internalization models that also have a potentially devastating effect.

From a deterrence perspective, an overestimation of the number of trade secrets in the Valley would cause people to think that they are less likely to be socially and/or legally punished. Similarly, if an employer overestimated the number of trade secret violations that occur in the Valley, he would be less likely to punish others. He would overestimate the reputation costs from filing a lawsuit, perceiving the behavior to be more common than it is in reality.

From an internalization perspective, an overestimation alters the psychological contract. In the context of trade secrets, it would change the perception of what a typical employee could use upon leaving a company. Employees who are told that they are not allowed to use certain types of trade secrets might feel that such demand is not fair when so many other employees do use these trade secrets. In the long run, a biased perception of the consensus will change not only the perception regarding the fairness of the prohibition, but also the morality of disobeying the legal requirement.

Oneself Without Being So, 77 J. PERSONALITY & SOC. PSYCHOL. 525 (1999) (showing that 70–80% of their subjects assigned themselves to the better assignment, though only 10% thought this was the moral thing to do).


213. See Cooter, supra note 196.

214. For a discussion of the interrelationship between the various normative aspects, especially between what would be done and what should be done, see Folger & Cropanzano, supra note 174, at 26–27.

215. Folger & Cropanzano, supra note 174, at 22–25 (“Any violation of a psychological contract is viewed as an injustice in people’s eyes, just as is a violation of any contract.”).

216. See MacCoun, supra note 140, for a discussion of the difference between the morality of the act and the morality of the behavior.
I. Empirical Evidence for the Limits of Non-Formal Controls (Bounded Rationality Perspective)

1. Overestimation of the Amount of Trade Secrets Violation in Silicon Valley

Forty-three percent of the participants in the study said that they would violate the laws of trade secrets. However, when they estimated the proportion of employees in their company who would violate the law of trade secrets, their average answer was that 56% would violate the law. When asked about the proportion of employees in Silicon Valley in general that would violate the laws of trade secrets, their average answer was that 64% would violate the law. The overestimation was significant also with regard to trade secrets that were intentionally downloaded to one’s personal computer. Thirty-seven percent said that they would download trade secrets and use them in a different company. They estimated that 50% of their peers would do so, and that 55% of the employees in Silicon Valley would do so.

This finding is not conclusive evidence of overestimation for two reasons:
1. My sample may not be fully representative. In theory, it could be that people were accurate in their perception of the norm, and I happened to survey people that are more honest.
2. Due to social desirability, employees might not have been honest about their own intentions but might have been more likely to be honest about the behavior of others.

2. Overestimation of Trade Secrets Violations (False Consensus)

The overestimation of others discussed above is related to the overestimation of one’s own views.
As can be seen from Figure 3, employees who were likely to violate the law were more likely to think that most other employees in Silicon Valley would do so as well. Employees who were less likely to violate the law were more likely to think that very few people in the Valley actually violate trade secrets. This finding is not conclusive evidence for overestimation since the causal effect might be reversed. Thus, while the false consensus says that one’s own behavior is the norm, it could be that the perceived norm leads to the behavior. Nonetheless, it demonstrates the level of importance that legal and economic analysis of social norms should give to the perception of norms.

**J. Tentative Conclusion**

The situation where the law forbids common or unavoidable acts might limit the ability of trade secrets to trigger both formal and informal social monitoring. A few changes in the law could improve the expressive function of the law and, hence, improve its role in the social monitoring of information sharing. I will focus on the ability of the law
to enforce information sharing in a level of P—the level that even the most liberal supporters of free mobility would agree on as being counter-productive. It is impossible to ignore the advantages of free-mobility. Although the proponents of that perspective all admit that some limits should be placed on the amount of information that may be passed between companies, they fail to suggest how such a limitation would be achieved. With the perspective of social enforcement in mind, I will now suggest a few preliminary changes in the law that could help to fulfill this mission.

VIII. EXPRESSIVE IMPLICATIONS: PRELIMINARY SUGGESTIONS

A. First Approach: Announce that Certain Behaviors Will No Longer Be Considered Violations of Trade Secrets

I have argued that in the current normative situation, it seems that the law defines almost all Silicon Valley employees as unlawful. I will argue that proponents of free mobility, such as Hyde and Gilson, should not leave the laws of trade secrets unchanged, satisfied with the fact that social forces have limited the use of trade secrets. People in this camp admit that at some point the cost of violating trade secrets outweighs the benefits of innovation. Since neither formal nor informal monitoring is likely to signal to people what kind of trade secrets they should keep in confidence, the law should be changed. The new law should more clearly delimit the bounds of acceptable behavior. The lawmakers should consider announcing that certain activities are no longer a violation of trade secrets. For example, the law should recognize that the highest value to innovation reaped from employee mobility is that it allows innovative employees to use previously developed know-how in new companies. An additional type of information, which might fall under the definition of ‘desirable sharing’, is negative information. It seems to be the case that the positive externalities that result from negative information are at such levels as would justify different normative treatment of these types of information sharing, to some extent. Another example relates to the question of tangibility: Merges argues that all trade secret lawsuits in California involve tangible assets that were taken from the previous employer. If this is true, and employers feel that they cannot succeed in any lawsuit without proving that tangible assets were taken, why not change the law and focus on preventing misappropriation of only tangible assets? This would reduce the social costs caused by the broad and impractical definition of trade secrets.

218. See Weiss, supra note 12.
B. Second Approach: Create a Two-Tier System of Trade Secrets:

A less extreme solution would be to create two categories for violations of trade secrets. By creating two categories with different names, employers might be able to sue for violation of excessive sharing, triggering the social sanctions for violating trade secrets in that level without the associated broad lawsuit. This solution is less extreme because it does not mean that previously forbidden activities will become legal, but that they will be named and treated differently from other types of trade secret violations.

C. Criminalizing Certain Types of Trade Secrets: The Economic Espionage Act

Another policy alternative is to target the use of criminal law in trade secrets—i.e. the recent Economic Espionage Act passed in 1996—in limited types of trade secret violations. Such an expansion could be beneficial in two distinct ways. First, it would enable another distinction among various types of trade secret violations. I suspect that if an employee is sued under the Economic Espionage Act, it will increase the reputation loss of the individual employee and, hence, decrease the reputation loss of the individual employer. This is probable because the lawsuit would get some legitimacy both from state involvement and from the notion of “general harm,” which is associated with criminal laws.

Second, it will solve the free-riding problem associated with the definition of the practice and with paying all the reputation costs alone. In criminal procedures, the individual employer does not internalize all

220. While the suggestions presented here are only preliminary, the distinctive means of treating those two tiers could be related to the evidentiary presumptions, the types of remedies, the ease with which the court will issue injunctions, assumptions with regard to third parties who receive the confidential information, and so on.

221. An additional aspect might be to reemphasize the element of wrongdoing in the process of disclosing trade secrets. Such an alteration could improve the predictability of whether violation of trade secrets has occurred and of the non-formal social enforcement. It would be another means of separating the “innocent” practices of the majority of Silicon Valley employees from those we would like to see marginalized.


223. Currently, the definition of the Economic Espionage Act is very broad and does not focus only on certain types of information. In fact, to some extent it is even broader than the definition of trade secrets in the (civil) Uniform Trade Secrets Act.

224. But see, Geraldine Szott Moohr, The Problematic Role of Criminal Law in Regulating Use of Information: The Case of the Economic Espionage Act, 80 N.C. L. REV. 853 (2002). She tends to be critical of the usage of criminal law in activities that could improve the well-being of society in general. However, it seems that part of her critique is based on the fact that the Economic Espionage Act includes all types of confidential information.

225. Robinson & Darley, supra note 126, at 479–80 suggests a critical approach to the blurring of the criminal-civil distinction. One might argue that criminalizing areas that were perceived to fall under civil law regime could threaten the creditability of criminal law. However, as mentioned before, my suggestion focuses on criminalizing only certain types of trade secrets.
of the cost (both legal and social); the employer gets some sort of subsidy from the state in return for having defined the meaning of trade secrets for other potential law-violators. Such a move is especially justified in the context of trade secrets because there are large expressive externalities involved, i.e., information to other employers. Hence, while some types of trade secrets protected under the trade secret law fall under the Economic Espionage Act, according to my suggestion, the criminal liability would apply only to the types of information that we would not like to see transferred between companies.

D. The Social Advantages of Expanding the Lawsuit to Include the New Employer

The Uniform Trade Secrets Act had made it easier for the hiring company to be sued by the trade secret owner. According to the Restatement of Torts (1939), there was no way to sue the firm unless the trade secret owners knew that the information was from their trade secrets. This requirement no longer holds true under the Uniform Act adopted by most states.

This expansion is being seen primarily as a means of expanding the “pocket” from which the plaintiff could be reimbursed and increasing the impact of the deterrence effect on the new employer. I would like to offer yet another rationale for why it would be better to sue the new employer, following Hyde’s consideration of the reputation costs at stake in filing trade secrets suits. I would argue that a bad reputation is associated with filing a lawsuit against past employees because people disapprove of a situation in which a company is attacking the sources of livelihood of its ex-employees. I am unaware of any bad reputation associated with suing for patent infringements or copyright violations. The reason for this seems to be that a property dispute between two companies is likely to be seen as less shameful for the plaintiff, much like any other patent infringement. Enabling a lawsuit against the information-accepting firm could also change the current normative situation illustrated in the study, in which participants tended to think that their employer would approve any transfer of trade secrets from the previous employer.

226. The main downside of criminal law from a reputation perspective is that the employee might find it easier to insure himself against civil law suit, but harder to do so for a criminal charge. If the reputation cost is mainly associated with “scaring away” potential employees, then an employer who is willing to get the police involved might be seen as a less attractive employer to potential employees.
227. Hyde, supra note 22.
E. Would an Increase in Formal Enforcement Decrease Informal Enforcement?

Some of the above-mentioned suggestions, which seek to narrow and clarify the laws of trade secrets in hopes of making it less costly for employers to sue their previous employees, seem to contradict some of the positions that social norms scholars are advocating. In much of the recent scholarship on social norms, one of the most discussed topics is the destruction of social capital by formal regulation. One of the most influential representatives of this approach is Bruno Frey, who discusses the notion of crowding out cooperation in a series of papers supported by empirical data. His argument, in short, is that state regulation carries the costs of reducing voluntary cooperation. Without disregarding this argument all together, I would argue that formal laws and formal deterrence could ensure an objective parameter that would avoid a situation in which people’s self-motivated comparison leads them to biased estimations. The state must ensure that norms are viewed as a means of avoiding social sanctions and future reputation loss, and not only as a source for esteem, which might be motivationally constructed without any incentives for tracking objective reality. Thus, deterrence could improve the expressive function of the law because it could cause people to engage in comparison not only when they are interested in preserving their esteem, but also when they need to calculate what will prevent them from being sanctioned. Social psychological theory teaches us that people will be more accurate in their estimation of the norm if their motivation is to avoid punishment rather than if their motivation is to gain esteem and respect. This view is especially relevant given the fact that the conflict of interests between the information-accepting and information-producing firms makes the informal enforcement of trade secrets problematic.

F. Why Change the Law if We Can Use Contracts?

Given the small number of cases that reach courts, courts cannot be trusted to give the required information to individuals. Therefore, the law needs to be changed to enable a better understanding of what people can and cannot do. The use of contracts, however, could mitigate this

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228. Yamagishi has shown that sanctioning systems are most effective in situations in which trust among group members is low and temptation not to cooperate is high. Toshio Yamagishi, The Provision of a Sanctioning System as a Public Good, 51 J. PERSONALITY & SOC. PSYCHOL. 110–16 (1986); Toshio Yamagishi, Seriousness of Social Dilemmas and the Provision of Sanctioning System, 51 SOC. PSYCHOL. Q. 32–42 (1988).


lack of guidance, thereby reducing the need for the advocated change in law.

Without limiting the informative value of contracts, I would argue that some of the problems I have mentioned above could not be solved by contracts alone and, therefore, changes and clarifications in and of the law are still needed.

From the legitimacy perspective of trade secret laws, a change in the way NDA contracts will be framed would not improve the illegitimacy problem of trade secrets law in general. It might make it easier for an individual to understand what his own company expects him to do, but it is unlikely to improve the degree of legitimacy that an employee would attribute to lawsuits initiated by other companies whose NDA contracts are not accessible to the individual.

From the information perspective, employment contracts just aggravate the difficulties involved in clearly defining trade secrets, as they could be generalized across different employment relations.

Employer-created regulations are even less likely than the law to be suitable for overall clarifications. Moreover, given the limited role of courts in trade secret enforcement, anyone outside the firm will be unable to determine whether the departing employee was actually violating any legal obligations in his behavior and will therefore be even less likely to improve his understanding of the legal status of each activity.

The inability to get accurate information from employment contracts about what is permissible after leaving demonstrates another failing of contracts; social monitoring. Potential employers and present co-employees are not in a position to know specifics, such as the incentive structure, the relationship, and how specific the requirement not to use the knowledge was. Therefore, it will be difficult for them to interpret whether their colleague’s behavior was allowed by the contract and, hence, the ability to improve non-formal enforcement by contracts is limited.

VIII. SUMMARY AND CONCLUSION

In this paper, I have questioned those who argue that the limiting of the enforcement of trade secret laws through social and cultural norms is a cause for “enthusiasm.” Discouraging employers from suing their departing employees might reduce the role of law in the place where it is most needed. The difficulties involved in getting accurate information might make the norm not only unstable, but also biased toward inefficient disclosure of trade secrets. Particularly in the context of trade

231. Transaction costs for employees will especially increase without a unifying standard due to the high mobility of employees among companies in Silicon Valley.

232. Hyde, supra note 22.
secrets, even if in some cases the innovative employer could put the trade secret to better use, without accessibility to courts and without objective and permanent costs imposed on those who disclose trade secrets, norms might lead to an inefficient situation. Thus, while I generally tend to agree that the social costs associated with preventing innovative employees from competing with their previous employers are significant, a norm based on a consistent violation of the law and a negative reputation risked in the use of courts might lead to a situation in which people excessively disclose trade secrets at an inefficient level. In the current situation, there is a good chance that many justified and welfare-maximizing lawsuits might never reach the courts due to the ambiguous normative status of trade secrets in Silicon Valley. Further, without a change in the law to help people discern unacceptable behavior, norms alone could not ensure efficient monitoring. Thus, the law should be responsive to norms in order to avoid being perceived as outdated and unclear, and thereby precluding the effects of its normative implications at all levels.

IX. APPENDIX A

A. Method (Synopsis)

The data discussed in this paper is based on empirical data that was gathered during spring 2002 in the greater Silicon Valley area. I will now discuss the sample and the procedure that was used.

1. Participants

The participants in this study work during the day in high-tech firms in the greater Silicon Valley area, either as engineers or as technical people. Seventy percent of participants were recruited from an evening MBA program at the Haas School of Business at University of California, Berkeley. The participants completed questionnaires during a break between their classes or were given a stamped envelope in which to return the questionnaire. The response-rate was approximately 60%. 30% of the participants were recruited via a snowball technique from

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233. The costs could be in the form of liability rule and not necessarily injunction rule. Without some sort of internalization of the costs by employees, norms alone could not guarantee efficient diffusion of information. That is, without any clear cost to the employee, he might transfer information without considering whether such transfer of information is really efficient. By imposing an objective cost, we force the employee to use the information only when the benefit from the disclosure is greater than the cost that he or his new company will have to pay. Ambiguity as to what constitutes a violation of trade secrets, and uncertainty about the possible social sanction, might lead people to take inefficient steps.

234. The decision to include San Francisco was done in consultation with Prof. Saxenian, who has written the major book about information sharing in Silicon Valley. See SAXENIAN, supra note 23.
three big and six relatively smaller Silicon Valley companies. The response-rate from this method was approximately 30%.

The current analysis is based on 173 participants. The average age of the participants was 34, and their average tenure was 4 years. They had been employed by 3.5 employers on average and had been in the Bay Area for 9.6 years. Eighty-eight percent of them were currently employed and 13.7% were full-time students. Twenty-four percent of the participants were female and 76% were male. The distributions of their job titles and given industries are presented in the following two tables:

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235. Only 90% of the participants have completed the demographic part in full.
Table 6

<table>
<thead>
<tr>
<th>JOB TITLES</th>
<th>Valid Percent</th>
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<tr>
<td>Valid</td>
<td>.00</td>
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<tr>
<td>consultant</td>
<td>6.2</td>
</tr>
<tr>
<td>director</td>
<td>8.3</td>
</tr>
<tr>
<td>software engineer</td>
<td>17.2</td>
</tr>
<tr>
<td>process engineer</td>
<td>3.4</td>
</tr>
<tr>
<td>manager</td>
<td>5.5</td>
</tr>
<tr>
<td>engineering manager</td>
<td>3.4</td>
</tr>
<tr>
<td>business development manager</td>
<td>6.2</td>
</tr>
<tr>
<td>product manager</td>
<td>8.3</td>
</tr>
<tr>
<td>CTO</td>
<td>1.4</td>
</tr>
<tr>
<td>VP</td>
<td>6.2</td>
</tr>
<tr>
<td>project manager</td>
<td>19.3</td>
</tr>
<tr>
<td>financial analyst</td>
<td>4.1</td>
</tr>
<tr>
<td>engineer</td>
<td>5.5</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>1.4</td>
</tr>
<tr>
<td>PR</td>
<td>1.4</td>
</tr>
<tr>
<td>marketing manager</td>
<td>.7</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
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Table 7

Distribution of participants’ given industries

<table>
<thead>
<tr>
<th></th>
<th>Valid Percent</th>
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<tbody>
<tr>
<td>professional services</td>
<td>11.4</td>
</tr>
<tr>
<td>manufacturing</td>
<td>4.7</td>
</tr>
<tr>
<td>internet</td>
<td>4.7</td>
</tr>
<tr>
<td>bio-tech</td>
<td>4.0</td>
</tr>
<tr>
<td>consulting</td>
<td>11.4</td>
</tr>
<tr>
<td>networks</td>
<td>5.4</td>
</tr>
<tr>
<td>semiconductors</td>
<td>12.1</td>
</tr>
<tr>
<td>hardware</td>
<td>9.4</td>
</tr>
<tr>
<td>airospace</td>
<td>.7</td>
</tr>
<tr>
<td>software</td>
<td>30.9</td>
</tr>
<tr>
<td>information technology</td>
<td>4.7</td>
</tr>
</tbody>
</table>
2. Procedure

Each participant received a questionnaire, which was divided into five parts. Other than Part Two, the questionnaires were identical for all participants.

B. Overview of the Questionnaires

I. Perceived practice of information sharing in Silicon Valley.

II. Six different hypothetical scenarios (one for each group) followed by scenario-specific questions.

III. General questions about the normative evaluations associated with the divulging of trade secrets by Silicon Valley employees.

IV. Familiarity with the legal meaning of the trade secret laws.

V. Employment history in Silicon Valley.

Part Two of the questionnaire had six different versions, which were randomly assigned to the participants in the study. The categories of the study are presented in Table 8. The actual text can be found in appendix B.

Table 8: Six scenario types

<table>
<thead>
<tr>
<th>Saliency of Illegality (Law of Trade Secrets)</th>
<th>Level of Violation - Behavior of Employee in Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illegality salient</td>
<td>Developed did not download (innovative employee paradigm)</td>
</tr>
<tr>
<td>Illegality salient</td>
<td>Learned did not download (controllability paradigm)</td>
</tr>
<tr>
<td>Illegality salient</td>
<td>Learned and downloaded (least justified behavior)</td>
</tr>
<tr>
<td>Illegality not salient</td>
<td>Developed did not download</td>
</tr>
<tr>
<td>Illegality not salient</td>
<td>Learned did not download</td>
</tr>
<tr>
<td>Illegality not salient</td>
<td>Learned and downloaded</td>
</tr>
</tbody>
</table>
Data was collected for the following factors (2-4 items for each factor):

- Perceived acceptability of the norm (non-compliance)
- Perceived social costs
- Perceived legal costs
- Perceived moral norm
- Perceived descriptive norm (what most other employees [in Silicon Valley/in your company] would have done in similar situation)
- Perceived injunctive norm (divided into three potential reference groups [current employers, previous employers, previous co-workers])
- Psychological contract
- Perceived acceptability of the law
- Intention to share trade secrets/confidential know-how information
- Willingness to pay for obeying the law
- Actual knowledge about the law of trade secrets
- Perceived certainty about the law of trade secrets

A second-order factor analysis was conducted. The analysis justified treating those factors as separated.

X. APPENDIX B (EXCERPTS FROM QUESTIONNAIRES)

Please answer all questions below. Do note that I am interested in your best estimation - you are not expected to know the answers to all the questions (especially in regard to the behavior of others).

In your estimation, what proportion of Silicon Valley employees share with their current employers confidential “know how” information that they were exposed to earlier in their career?

<table>
<thead>
<tr>
<th></th>
<th>%</th>
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<tbody>
<tr>
<td>0-10</td>
<td>10-20</td>
<td>20-30</td>
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<tr>
<td>30-40</td>
<td>40-50</td>
<td>50-60</td>
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<tr>
<td>60-70</td>
<td>70-80</td>
<td>80-90</td>
</tr>
<tr>
<td>90-100</td>
<td></td>
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</tr>
</tbody>
</table>

How likely is a typical Silicon Valley employee to share with her current employer confidential “know how” information that she was exposed to earlier in her career?

<p>| | | | | | | | | | |</p>
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<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

Unlikely       Likely
How frequently do you hear about people who share with their current employers confidential “know how” information that they were exposed to earlier in their career?

1  2  3  4  5  6  7  8  9  10

Rarely               Frequently

(To avoid repetition of the full text of six questionnaires, I will insert here only the text of the different scenarios)

Version one: illegality salient–employee learned and downloaded

Assume the following scenario: Amanda is an engineer in company X (located in Silicon Valley), to which she moved from company Y three months ago. In her current company, she designs a system very similar to the one she worked on in her previous company. Amanda knows that the suggested process that her current company is expecting her team to pursue is much less efficient than the confidential and uniquely designed methodology (“know-how”) that she had learned from her previous employer. Amanda remembered that, in fact, she had downloaded files describing the above-mentioned methodology to her personal laptop.

According to The Uniform Trade Secrets Act, “know-how” information that is kept in confidentiality and has economic value should not be disclosed to people outside the firm. According to trade secrets law, this methodology should not be disclosed without the permission of her previous employer.

Version two: illegality salient–employee developed did not download

Assume the following scenario: Amanda is an engineer in company X (located in Silicon Valley), to which she moved from company Y three months ago. In her current company, she is designing a system very similar to the one she worked on in her previous company. Amanda knows that the suggested process that her current company is expecting her team to pursue is much less efficient than the confidential and uniquely designed methodology (“know-how”) that she had a part in developing in her previous company.

According to Uniform Trade Secrets Act, “know-how” information that is kept in confidentiality and has economic value should not be disclosed to people outside the firm. As opposed to what you might think, the fact that she has not taken any written or compiled material with her and that she has developed the methodology herself is not relevant to the trade secret laws. According to trade secrets law, this methodology should not be disclosed without the permission of her previous employer.
Version three: illegality salient–employee learned did not download

Assume the following scenario: Amanda is an engineer in company X (located in Silicon Valley), to which she moved from company Y three months ago. In her current company, she is designing a system very similar to the one she worked on in her previous company. Amanda knows that the suggested process that her current company is expecting her team to pursue is much less efficient than the confidential and uniquely designed methodology (“know-how”) that she had learned from her previous employer.

According to The Uniform Trade Secrets Act, “know-how” information that is kept in confidentiality and has economic value should not be disclosed to people outside the firm. As opposed to what you might think, the fact that she has not taken any written or compiled material with her is not relevant to the trade secret laws. According to trade secrets law this methodology should not be disclosed without the permission of her previous employer.

Version four: illegality not salient, employee developed did not download

Assume the following scenario: Amanda is an engineer in company X (located in Silicon Valley), to which she moved from company Y three months ago. In her current company, she is designing a system very similar to the one she worked on in her previous company. Amanda knows that the suggested process that her current company is expecting her team to pursue is much less efficient than the confidential and uniquely designed methodology (“know-how”) that she had a part in developing in her previous company.

Amanda has decided to use her previous employer’s more efficient confidential methodology that she had a part in developing in order to improve the quality of the system in her current company. She has not taken any written or compiled material with her.

Version five: illegality not salient, employee learned and downloaded

Assume the following scenario: Amanda is an engineer in company X (located in Silicon Valley), to which she moved from company Y three months ago. In her current company, she designs a system very similar to the one she worked on in her previous company. Amanda knows that the suggested process that her current company is expecting her team to pursue is much less efficient than the confidential and uniquely designed methodology (“know-how”) that she had learned from her previous employer. Amanda remembered that, in fact, she had downloaded files describing the above-mentioned methodology to her personal laptop.

In light of the knowledge you now have about the practices in your own company, please answer the following questions.
Amanda decided to use her previous employer’s more efficient confidential methodology, that she had downloaded to her personal computer, in order to improve the quality of the system in her current company.

**Version six: illegality not salient, employee learned did not download**

Assume the following scenario: Amanda is an engineer in company X (located in Silicon Valley), to which she moved from company Y three months ago. In her current company, she is designing a system very similar to the one she worked on in her previous company. Amanda knows that the suggested process that her current company is expecting her team to pursue is much less efficient than the confidential and uniquely designed methodology (“know-how”) that she had learned from her previous employer.

According to Uniform Trade Secrets Act, “know how” information, which is kept in confidentiality and has economic value, should not be disclosed to people outside the firm. As opposed to what you might think, the fact that she has not taken any written or compiled material with her is not relevant to the trade secret laws. According to trade secrets law, this methodology should not be disclosed without the permission of her previous employer.

In light of the knowledge you now have about the practices in your own company, please answer the following questions.

Amanda has decided to use her previous employer’s more efficient confidential methodology in order to improve the quality of the system in her current company. She has not taken any written or compiled material with her.

What proportion of Silicon Valley employees would have behaved like Amanda?

0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100

% %

What proportion of co-workers in your current company would have behaved like Amanda?

0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100

% %
How likely are you to behave as Amanda did if you were in her shoes?

1 2 3 4 5 6 7 8 9 10

Unlikely  Likely

How likely is it that your fellow co-workers in your current company would approve of a situation in which you improve the production of the new system based on the confidential “know-how” information you had a part in developing in your previous company?

1 2 3 4 5 6 7 8 9 10

Unlikely  Likely

How likely is it that your current employer would approve of a situation in which you improve the production of the new system based on the confidential “know-how” information you had a part in developing in previous companies?

1 2 3 4 5 6 7 8 9 10

Unlikely  Likely

How likely is it that your previous employer would approve of a situation in which you improve the development of the new system based on the confidential information you had a part in developing while working in her company?

1 2 3 4 5 6 7 8 9 10

Unlikely  Likely

How likely are you to share the information in this scenario?

1 2 3 4 5 6 7 8 9 10

Unlikely  Likely

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236. In the rest of the questions in the other two scenarios (learned and downloaded) instead of using the words “had a part in developing” I have used the words “had learned about” and “had downloaded to . . . personal computer” respectively.
In this scenario, if Amanda decided to use the methodology she had a part in developing, would you expect such an incident to have a positive or a negative effect on her career?

1 2 3 4 5 6 7 8 9 10

Negative Positive

Do you think that willingness to disclose confidential know-how information of her previous employer will increase or decrease her chances to get hired?

1 2 3 4 5 6 7 8 9 10

Increase Decrease

Do you think that refusal to disclose confidential know-how information of her previous employer will increase or decrease her chances to get hired?

1 2 3 4 5 6 7 8 9 10

Increase Decrease

Regarding the previous scenario, assuming you would disclose the information as Amanda did, do you agree with the following statements?

I will not feel guilty if I use confidential “know-how” information that I had a part in developing in order to improve the development of my current employer’s new product.

1 2 3 4 5 6 7 8 9 10

Agree Disagree

Using confidential “know-how” information that I had a part in developing to improve the development of my current employer’s new product goes against my moral principles.

1 2 3 4 5 6 7 8 9 10

Agree Disagree
It would be morally wrong for me to use confidential “know-how” information I had a part in developing to improve the development of my current employer’s new product.

Agree Disagree

Assume you were looking for a job, and that many positions that you found were very likely to present the same dilemmas Amanda faced. How likely would you be to delay your employment for a month to avoid working in such companies?

Likely Unlikely

Assume you were looking for a job and that many positions you found were very likely to present similar dilemmas to those faced by Amanda. How likely would you be to give up an average salary increase of $5000 a year to avoid working in such a company?

Likely Unlikely

General questions

Do you think that a typical Silicon Valley employer expects that her employees will use in the future some of the firm’s confidential know-how information, that they had a part in developing?

Certainly not
Do you think that part of a typical Silicon Valley employee’s expectation of her employer is the permission to use some of the firm’s confidential ‘know-how’ information that she had a part in developing?

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<th>3</th>
<th>4</th>
<th>5</th>
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Certainly  Certainly not

If you had to guess, what percentage of the employees in Silicon Valley violated trade secret legal restrictions during their careers?

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How likely is a typical Silicon Valley employee to violate trade-secret laws when joining a new company?

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Likely  Unlikely

How frequently do you hear about people who have violated trade secrets when joining a new company?

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Rarely  Frequently

Overall, how fair are the laws of trade secrets from the perspective of employees?

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Fair  Unfair

Overall, how fair is it for an employer to sue his previous employee for violation of trade secret laws?

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Fair  Unfair
Do you think that trade secret laws are legitimate from a social perspective?

1 2 3 4 5 6 7 8 9 10

Legitimate Not Legitimate

How certain are you about the types of information that you are legally allowed to take with you to your next job?

1 2 3 4 5 6 7 8 9 10

Certain Uncertain

Do you find the legal definition of trade secrets to be clear?

1 2 3 4 5 6 7 8 9 10

Clear Unclear

In which of the following activities is a departing employee legally allowed to engage when joining a competing firm?

- Using confidential information she has downloaded to the personal computer.
  Legal / Illegal / Not Sure

- Programming in Java, when she learned to program while working for her former employer.
  Legal / Illegal / Not Sure

- Using confidential information as long as she doesn’t take any thing tangible with her.
  Legal / Illegal / Not Sure

- Using confidential information as long as she does not work for a competitor of her previous employer.
  Legal / Illegal / Not Sure
Demographic questions

- Age _____
- Job title (e.g. Project Manager) _______________________________________
- Are you currently employed? (Yes/No)  
- Are you a full time student? (Yes/No)  
- For how many years have you worked in your current company? ________
- By how many firms have you been employed in your career? __________
- When did you first arrive in the Bay Area? ___________________________
- Gender (F / M)  
- What type of Industry do you work for? (e.g. Manufacturing, software) ____________________________

In the scenario you have just read:

- Was the use of information by Amanda legally permitted?  
  Yes / No  
- Was the methodology used by Amanda developed by her?  
  Yes / No  
- Was the methodology used by Amanda downloaded to her computer?  
  Yes / No
The following two questions were asked only for the three legal groups:

In this scenario, how likely is Amanda’s previous employer to sue her for violating trade-secret laws?

1 2 3 4 5 6 7 8 9 10

Unlikely Likely

In your estimation, how many of the people who violate trade secrets in a similar way to Amanda will eventually be sued?

1 2 3 4 5 6 7 8 9 10

Few Many