

# Noncompetes, Human Capital Policy & Regional Competition

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## Abstract

*In the past few years, human capital law has become one of the most dynamic policy fields in the United States. Multiple states have reformed their noncompete policies, passing new legislation that limits their use. New bills that would similarly limit the enforcement of noncompetes are currently before Congress. Nationwide, both the use of noncompetes and litigation over their enforcement, are on the rise. As such, several state attorneys general have taken up the issue by launching investigations into employers who require their workforce to sign unenforceable noncompetes. An equally dazzling wealth of studies, analysis, intellectual debates, and exchanges have emerged on the research side. In particular, the past few years brought a significant number of empirical, experimental, and theoretical studies offering more evidence and explanations about the key role that human capital policy, including noncompete contracts, plays in industries and regions. In this Article, written for a symposium honoring the scholarship of Professor Ronald Gilson, I present the state of the scholarly field on human capital and economic competition and develop three arguments about the future of noncompete research. First, in Part II, I unpack the multiple dynamic effects that job mobility and noncompetes have on regions. Beyond knowledge spillovers, it is important to recognize a range of distinct, though interrelated effects. These include at least ten important aspects that are supported by job mobility: behavioral, dynamic, firm-level, and regional-level effects. In particular, a neglected aspect in the literature of noncompetes is the disproportionate harmful effect noncompete clauses may have on women. Recent economic research on labor market monopsonies and the relationship between mobility and wage growth allows us to see connections between innovation policy and distributive justice. Second, I argue that while the study of noncompetes has been invaluable to understanding talent flows, mobility restrictions are far broader than merely formal covenants not to compete. Covenants that restrict employee mobility appear in many shapes and forms. I introduce the range of contractual restrictions that employers require in standard agreements and I argue that these restrictions, too, should be understood and researched through the lens of labor market competition and mobility. Third, I argue that the prevalence of practices that subvert policy requirements, such as including unenforceable restrictions in employment contracts underscores how we as scholars need to encompass market practices in the empirical research, as well as recognize comparative advantages of proactive solutions including antitrust and regulatory tools over contract doctrine.*

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## I. INTRODUCTION

Exactly two decades ago, in 1999, Ronald Gilson wrote a seminal article on human capital law—before the field existed. No one was better equipped—neither then nor now—to carve out this new policy field, which rests at the intersection of contract, corporate, employment, intellectual property, and antitrust laws. In *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, Gilson called attention to the legal infrastructure that either allows or prohibits the use of noncompete clauses in employment relationships.<sup>2</sup> He argued that the success of Silicon Valley’s high-tech industries should, in part, be linked to California’s longstanding policy rendering noncompetes unenforceable.<sup>3</sup> Since then, human capital law has become one of the most dynamic policy fields in the country.<sup>4</sup> In the past five years, multiple states have reformed their noncompete policies, passing new legislation that limits their use. New bills that would similarly limit the enforcement of noncompetes are currently before Congress. Both the use of noncompetes, as well as litigation over their enforcement, are on the rise nationwide, and several state attorneys general have taken up the issue by launching investigations into employers who require their workforce to sign unenforceable noncompetes.<sup>5</sup>

In October 2016, the White House issued a Call for Action urging states to limit the use of post-employment restrictions.<sup>6</sup> Also in 2016, the U.S. Treasury Department issued a report on noncompetes warning that when noncompetes are enforced, “innovations spread more slowly, possibly inhibiting the development of industrial clusters like Silicon Valley.”<sup>7</sup> Currently, the Federal Trade Commission is contemplating a petition submitted

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2. 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, 578 (1999).

3. *Id.*

4. See, e.g., COUNCIL OF ECON. ADVISORS, LABOR MARKET MONOPSONY: TRENDS, CONSEQUENCES, AND POLICY RESPONSES 8 (Oct. 2016), [https://obamawhitehouse.archives.gov/sites/default/files/page/files/20161025\\_monopsony\\_labor\\_mrkt\\_cea.pdf](https://obamawhitehouse.archives.gov/sites/default/files/page/files/20161025_monopsony_labor_mrkt_cea.pdf) [<https://perma.cc/DW4W-WWFB>].

5. See *id.* (“[S]tate attorneys general have begun to be active in the field of employment restrictive covenants . . . conducting proactive investigations into employers for requiring their workforce to sign unenforceable contracts.”); see generally *Illinois v. Check Into Cash, LLC*, No. 2017-CH-14224 (Ill. Cir. Ct. Oct. 25, 2017); *Illinois v. Jimmy John’s Enters.*, No. 2016-CH-07746 (Ill. Cir. Ct. June 8, 2016).

6. Press Release, The White House, The Obama Administration Announces New Steps to Spur Competition in the Labor Market and Accelerate Wage Growth (Oct. 25, 2016) <https://obamawhitehouse.archives.gov/the-press-office/2016/10/25/fact-sheet-obama-administration-announces-new-steps-spur-competition> [<https://perma.cc/NH7G-LZDF>]. I was part of the White House Working Group that resulted in this Call for Action.

7. U.S. DEP’T OF TREASURY, NON-COMPETE CONTRACTS: ECONOMIC EFFECTS AND POLICY IMPLICATIONS 6 (2016), <https://www.treasury.gov/resource-center/economic-policy/Documents/UST%20Non->

by over 40 law professors (including myself), senators, and non-profit organizations to consider regulating noncompetes.<sup>8</sup> In the two decades since Gilson published the article, an equally dazzling wealth of studies, analysis, intellectual debates, and exchanges have emerged on the research side. In particular, the past few years brought a significant number of empirical, experimental, and theoretical studies offering more evidence and explanations about the key role that human capital policy, including noncompete contracts, plays in industries and regions.<sup>9</sup> These articles attack the question of noncompetes from multiple directions: longitudinal studies, comparative regional studies, patent network mapping, surveys, behavioral lab experiments, ethnographies, simulations, and modeling.

On a personal note, Gilson's 1999 article sparked my interest in the field, and in 2013, I published *Talent Wants to be Free: Why We Should Learn to Love Leaks, Raids, and Free-Riding* (Yale University Press), which developed a thick analysis of the multiple effects of human capital law on competition, performance, innovation, and economic growth.<sup>10</sup> Alongside over a dozen articles on human capital policy, I published a second book in 2017, *You Don't Own Me: How Mattel v. MGA Entertainment Exposed Barbie's Dark Side* (Norton), in which I demonstrated how other contractual restrictions such as broad non-disclosure agreements and innovation assignment clauses effectively operate like noncompetes to prevent employee mobility, slow down innovation, prevent new entry, and concentrate industries.<sup>11</sup>

Gilson's contribution extends beyond inspiring new research and bringing noncompete policy to the forefront. His article made other contributions that have received less attention. *Legal Infrastructure* underscores the key role tacit knowledge—distinct from codified knowledge—plays in innovative settings.<sup>12</sup> Before Gilson's research, and still to a significant extent today, the field of intellectual property focused on codified knowledge. By requiring reduction to practice and concrete expressions, patent and copyright law specifically prohibit the propertization of knowledge that is abstract, purely conceptual, or still in an ephemeral phase. In several recent articles, I examine these gaps between intellectual property and contractual norms, building upon Gilson's insights on tacit knowledge.<sup>13</sup> Further, Gilson's article was an important contribution to the canon of regional comparison and experimentalism in state policy. The article sparked interest around the world as an approach to decoding essential ingredients for economic prosperity

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competes%20Report.pdf [https://perma.cc/LZJ8-6DZY]; Karen Dynan, *The Economic Effects of Non-Compete Agreements*, U.S. DEP'T OF TREASURY (Mar. 31, 2016), <https://www.treasury.gov/connect/blog/Pages/The-Economic-Effects-of-Non-compete-Agreements-.aspx> [https://perma.cc/5Z9V-2TTA].

8. *Petition to the Federal Trade Commission for Rulemaking to Prohibit Worker Non-Compete Clauses*, OPEN MKT. INST. (Mar. 20, 2019), <https://openmarketsinstitute.org/petitions/here-is-a-petition/> [https://perma.cc/9X4T-LXKG].

9. Orly Lobel, *Gentlemen Prefer Bonds: How Employers Fix the Talent Market*, 24 SANTA CLARA L. REV. (forthcoming), <http://ssrn.com/abstract=33731848> [https://perma.cc/8RJA-VHDX] (“[S]tate attorneys general have begun to be active in the field of employment restrictive covenants”).

10. ORLY LOBEL, *TALENT WANTS TO BE FREE: WHY WE SHOULD LEARN TO LOVE LEAKS, RAIDS, AND FREE RIDING* (2013).

11. ORLY LOBEL, *YOU DON'T OWN ME: HOW MATTEL V. MGA ENTERTAINMENT EXPOSED BARBIE'S DARK SIDE* (2017).

12. Gilson, *supra* note 2, at 582–86.

13. See generally Rochelle Cooper Dreyfuss & Orly Lobel, *Economic Espionage as Reality or Rhetoric: Equating Trade Secrecy with National Security*, 20 LEWIS & CLARK L. REV. 419 (2016) (examining Gilson's take on tacit knowledge).

and growth. As I argue below, on each of these frontiers, Gilson's work continues to shape key bodies of research. Needless to say, Ronald Gilson has been incredibly influential for me, as a leader and a mentor, and for so many other scholars.

Here, I develop three arguments about the future of noncompete research. First, in Part II, I unpack the multiple dynamic effects that job mobility and noncompetes have on regions. I argue that while Gilson focused on knowledge spillovers,<sup>14</sup> it is important to recognize a range of distinct, though interrelated, effects. These include at least ten important aspects that are supported by job mobility: behavioral, dynamic, firm-level, and regional-level effects. In particular, a neglected aspect in the literature of noncompetes is the disproportionate harmful effect noncompete clauses may have on women. Recent economic research on labor market monopsonies and the relationship between mobility and wage growth allows us to see connections between innovation policy and distributive justice.

Second, I argue that while the study of noncompetes has been invaluable to understanding talent flows, mobility restrictions are far broader than merely formal covenants not to compete. Covenants that restrict employee mobility appear in many shapes and forms. By the end of his article, Gilson points to the direction of human capital policy study that looks beyond formal noncompetes by raising a caveat about the doctrine of inevitable disclosure in trade secret law.<sup>15</sup> In Part III, I introduce the range of contractual restrictions that employers require in standard agreements and I argue that these restrictions too, should be understood and researched through the lens of labor market competition and mobility.

Third, while Gilson focused on California's statutory rule of non-enforcement, recent empirical findings point to the importance of understanding mobility-in-action. California's Silicon Valley is indeed an example of an industry arc that has benefited from its noncompete policy but also has sought to subvert it. In 2010, the Antitrust Division of the U.S. Department of Justice filed a complaint against major tech corporations, including Apple, Google, Intel and eBay, who colluded to refrain from hiring each other's employees.<sup>16</sup> More pervasively, recent findings show that California employers insert noncompete clauses in the employment contracts at about the same rates as enforcing states. In Part IV, I argue that the prevalence of such practices confirms how we, as scholars, need to encompass market practices in the empirical research, as well as recognize comparative advantages of proactive solutions including antitrust and regulatory tools over contract doctrine. I conclude by suggesting that Gilson's *Legal Infrastructure* continues to provide an agenda for research in several different fields, including innovation, regional development, entrepreneurship, and competition.

## II. THE MULTIPLE DYNAMIC EFFECTS OF MOBILITY

*"Hoping that similar names presage similar outcomes, regions christen themselves*

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14. Gilson, *supra* note 2, at 584–86.

15. *Id.* at 620–26.

16. See Bill Baer, Assistant Att'y Gen., Remarks at the Conference Call Regarding the Justice Department's Settlement with eBay Inc. to End Anticompetitive "No Poach" Hiring Agreements (May 1, 2014), <https://www.justice.gov/opa/speech/assistant-attorney-general-bill-baer-speaks-conference-call-regarding-justice-department> [<https://perma.cc/Y63E-JYTJ>] (describing the DOJ's settlement with eBay).

*Silicon Mountain, Silicon Alley, Silicon Forest, or Silicon Glen*” – Ron Gilson<sup>17</sup>

Before *Legal Infrastructure*, debates about noncompetes were distorted through a lens of labor versus business. The benefit of employee mobility was framed as the employee’s right to pursue her profession, while the benefit of restriction was framed as a corporation’s right to protect its investment in intangible property and training. Gilson shifted the conversation to what is beneficial for industries and regions, understanding the rule against noncompetes as solving a collective action problem.<sup>18</sup> Mobility benefits firms, but without a mobility policy, firms will attempt to prevent their employees from moving to competitors. In an optimal equilibrium of a competitive market, every firm should eschew this kind of anti-competitive impulse in advance in order for everyone to benefit from a continuous high-quality labor pool over time. Gilson’s article thus invited us to research noncompete policy as a coordination mechanism that solves the arms race that employers might face: the legal rule ensures that in the repeat game of frequent ongoing recruitment, each employer is prohibited from attempting to gain a harmful one-shot advantage.<sup>19</sup> The result is a collectively superior strategy of increased employee mobility and knowledge flow.

The past two decades since Gilson published *Legal Infrastructure* have been tremendously exciting and rewarding with the rise of numerous studies from multiple academic disciplines. Together these studies provide robust support to the historical intuition that regions and markets thrive on job mobility. As economist Evan Starr wrote in 2018 when reviewing the most up-to-date empirical studies on noncompetes, “Despite their different approaches, samples, and time frames, the results across these studies are consistent: The enforceability of noncompetes is associated with the reduced movement of workers and lower wages, both within and across jobs.”<sup>20</sup> As another 2018 article states, “[P]olicymakers, economists, and legal scholars . . . overwhelmingly conclude that the harms of noncompetes far outweigh their potential benefits.”<sup>21</sup> In my own research, I develop an explanatory dynamic lens to understand the robust evidence from multiple empirical studies.<sup>22</sup> The empirical exploration of noncompetes has allowed more confidence, comparison, and nuance about the multiple effects of mobility restrictions in

17. Gilson, *supra* note 2, at 576.

18. *Id.* at 609.

19. *Id.* at 596.

20. Evan Starr, *Are Noncompetes Holding Down Wages?* HARV. L. SCH. 4 (June 13, 2018) (emphasis omitted) [https://lwp.law.harvard.edu/files/lwp/files/webpage\\_materials\\_papers\\_starr\\_june\\_13\\_2018.pdf](https://lwp.law.harvard.edu/files/lwp/files/webpage_materials_papers_starr_june_13_2018.pdf) [<https://perma.cc/YX9P-HNFP>].

21. Rebecca Morrow, *Noncompetes as Tax Evasion*, 96 WASH. U. L. REV. 265, 268 (2018).

22. For a more in-depth look at the empirical evidence behind how noncompetes harm employers, see generally LOBEL, *supra* note 9 (describing the harms of restrictive employment covenants); Diego Puga, *The Magnitude and Causes of Agglomeration Economies*, 50 J. REGIONAL SCI. 203 (2010); Tomas Havranek & Zuzana Irsova, *Estimating Vertical Spillovers from FDI: Why Results Vary and What the True Effect Is*, 85 J. INT’L ECON. 234, 235 (2011); David B. Audretsch & Maryann P. Feldman, *R&D Spillovers and the Geography of Innovation and Production*, 86 AM. ECON. REV. 630, 632 (1996); RICHARD FLORIDA, *THE RISE OF THE CREATIVE CLASS AND HOW IT’S TRANSFORMING WORK, LEISURE, COMMUNITY AND EVERYDAY LIFE* 219 (2002) (“Not only do people remain highly concentrated, but the economy itself—the high-tech, knowledge-based, and creative-content industries that drive so much of economic growth—continues to concentrate in specific places from Austin and Silicon Valley to New York City and Hollywood, just as the automotive industry once concentrated in Detroit.”); Kenneth J. Arrow, *The Economic Implications of Learning by Doing*, 29 REV. ECON. STUD. 155 (1962); KENNETH J. ARROW, *COLLECTED PAPERS OF KENNETH J. ARROW: THE ECONOMICS OF INFORMATION* (1984).

the labor market. Much of my goal in *Talent Wants to be Free* and subsequent research has been to unpack the effects of mobility policies and show they are varied and multilayered. The benefits begin when a company hires an employee and these benefits continue over time. Of course, there are also costs to mobility and the tradeoffs between these costs and benefits vary in relation to firm, industry, and region. The comparative regional studies are aimed at understanding these tradeoffs. Gilson focused his inquiry on the comparison between Silicon Valley on the San Francisco Peninsula and Route 128 outside of Boston. The California Business and Professions Code voids “every contract by which anyone is restrained from engaging in a lawful profession, trade, or business.”<sup>23</sup> Massachusetts’ law is similar to most other states in enforcing “reasonable” noncompetes.<sup>24</sup> As Gilson explained, California’s unique policy of voiding noncompetes dates back to 1872 as “a serendipitous result of the historical coincidence between the codification movement in the United States and the new state’s efforts at developing a coherent legal system out of its conflicting inheritance of Spanish, Mexican, and English law.”<sup>25</sup> Indeed, initially this section was California’s only antitrust statute and its language shares the same terms as the federal antitrust law which prohibits restraints on trade. Gilson argued that Silicon Valley experienced higher and more rapid growth than Boston’s Route 128 high technology area, thanks in part to California’s voidance of contracts that restrain trade.<sup>26</sup>

I argue that a policy which protects the ability of employees to move freely and frequently between competitors supports at least ten distinct, albeit related, goals of economic development:

1. *Knowledge Spillovers*: Gilson focused on the explanatory power of the benefits of noncompetes’ non-enforcement on knowledge spillovers—the flow of tacit knowledge that is not codified and is enriched by the movement of employees in a region. Mobility increases knowledge exchange which in turn fuels innovation. Both sending and receiving companies gain from this approach.<sup>27</sup>

2. *Dense Networks*: Slightly different from knowledge spillovers is the densification of talent pools and professional networks. When inventive employees move more often, which Silicon Valley employees do,<sup>28</sup> they know, interact, and engage with each other more and more frequently, creating denser inventor networks.<sup>29</sup> High density creative communities enjoy a *Medici Effect*, the experience of people working within richer professional networks and becoming better positioned to innovate.<sup>30</sup> Observing patenting rates in relation to high mobility regions shows that not only is the number of co-authored patents higher, but also the absolute overall number of patents is higher.<sup>31</sup> Higher job

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23. CAL. BUS. & PROF. CODE § 16600.

24. MASS. GEN. LAWS ch. 149 §24L; *Allied Adjustment Serv. v. Heney*, 484 A.2d 1189, 1191 (N.H. 1984).

25. Gilson, *supra* note 2, at 579.

26. *Id.* at 607–09.

27. Ulrich Kaiser et al., *Does the Mobility of R&D Labor Increase Innovation?*, 110 J. ECON. BEHAV. & ORG. 91, 91 (2015).

28. Bruce Fallick et al., *Job-Hopping in Silicon Valley: Some Evidence Concerning the Microfoundations of a High-Technology Cluster*, 88 REV. ECON. & STAT. 472, 478 (2006).

29. Lee Fleming & Matt Marx, *Managing Creativity in Small Worlds*, 48 CAL. MGMT. REV. 6, 15 (2006).

30. FRANS JOHANSSON, *THE MEDICI EFFECT* (2004).

31. Adam B. Jaffe et al., *Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations*, 108 Q.J. ECON. 577, 595–96 (1993); Jasjit Singh, *Collaboration Networks as Determinants of Knowledge Diffusion Patterns*, 51 MGMT. SCI. 756, 768 (2005); Ernest Miguélez & Rosina Moreno, *Research Networks and Inventors’ Mobility as Drivers of Innovation: Evidence from Europe*, 47 REGIONAL STUD. 1668,

mobility indeed correlates with more collaboration, breakthroughs, and innovation.<sup>32</sup>

3. *Match Quality*: When people are allowed to move, employees' job search time is shortened, and talent and skill are better employed in the job market. Employers can find the best people for the job faster. Conversely, employees locked into single positions are losses for search and match pools: "In blunt economic terms, the deadweight loss from controls and restrictions over human capital is the person herself who is prevented from using her talent, skill, and passion."<sup>33</sup> Noncompetes not only reduce the overall mobility of employees but they redirect employees to non-competition, a move away from one's expertise and industry.<sup>34</sup>

4. *Agglomeration Economies*: In *Legal Infrastructure*, Gilson describes how increased mobility and knowledge spillovers contribute to the formation and growth of clusters of innovation.<sup>35</sup> Agglomeration economies benefit from economies of scale external to the firm.<sup>36</sup> The availability of a rich talent pool means that firms locating to the region will have an easier time finding skilled talent; at the same time, skilled employees are drawn to a place that has a concentration of jobs.<sup>37</sup> Notably, while *Legal Infrastructure* focused on agglomeration in Silicon Valley's tech industry, Gilson mentions in a footnote the biotech industry in San Diego—where I live and work—as another example of geographical clustering.<sup>38</sup> In Southern California, the entertainment industry is another important example of agglomeration.<sup>39</sup> Agglomeration economies result from knowledge spillovers and create an environment that sustains such ongoing information exchanges.

5. *Motivation & Behavior*: An aspect that is not contemplated in *Legal Infrastructure* is the behavioral effect of restricting human capital. When employees are asked to sign away their future employment opportunities, their career trajectories are narrowed. In an article I published together with On Amir, we find that employees who were asked to sign restrictions, including merely partial restrictions on their employment opportunities, performed worse on the tasks at hand than the non-restricted employees.<sup>40</sup> Noncompetes may discourage employees from investing in their own human capital and work performance.

6. *Carrots & Sticks*: Related to behavioral incentives are findings that carrots and

1677 (2013); Gerald A. Carlino et al., *Urban Density and the Rate of Invention*, 61 J. URB. ECON. 389, 397–401 (2006).

32. Stefano Breschi & Francesco Lissoni, *Mobility of Skilled Workers and Co-invention Networks: An Anatomy of Localized Knowledge Flows*, 9 J. ECON. GEOGRAPHY 439, 450 (2009); Morten T. Hansen, *Knowledge Networks: Explaining Effective Knowledge Sharing in Multiunit Companies*, 13 J. ORG. SCI. 232, 232 (2002).

33. Orly Lobel, *The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property*, 93 TEX. L. REV. 789, 848 (2015).

34. Evan Starr et al., *Noncompetes and Employee Mobility*, 2019 ACAD. MGMT. (2019).

35. Gilson, *supra* note 2, at 608.

36. *Id.* at 576 (citing ALFRED MARSHALL, *PRINCIPLES OF ECONOMICS* 222–30 (8th ed. 16th prtg. 1964) (1890)).

37. *Id.*

38. *Id.* at 622 n.164 (citing David B. Audretsch & Paula E. Stephan, *Company-Scientist Locational Links: The Case of Biotechnology*, 86 AM. ECON. REV. 641, 642–49 (1996)).

39. For background on spatial tendencies of knowledge spillovers, see generally Puga, *supra* note 22; Havranek & Irsova, *supra* note 22; Audretsch & Feldman, *supra* note 22; FLORIDA, *supra* note 22.

40. On Amir & Orly Lobel, *How Noncompetes Stifle Performance*, HARV. BUS. REV. 26, 26 Jan–Feb. 2014. See also generally On Amir & Orly Lobel, *Driving Performance: A Growth Theory of Non-Compete Law* 16 STAN. TECH. L. REV. 833 (2013) (describing the relationship between noncompete agreements and employee performance).

sticks—positive rewards and negative restrictions—alternate in practice as means to encourage retention. Without the availability of noncompetes, California employers use more positive retention incentives including performance-based pay, bonuses, and stock options.<sup>41</sup> These compensation structures positively incentivize performances. Thus, the gain is double: not only are employees not bound by restrictions that may diminish their motivation, they are offered positive incentives that can boost their motivation.

7. *Entrepreneurship*: While *Legal Infrastructure* described Silicon Valley's regional advantage as eschewing vertical integration, the focus was on how independent start-ups were founded and subsequently flourished because of the ease with which employees and their knowledge flowed in the region. More recent noncompete research reveals that noncompetes not only suppress mobility, but impose a particular harm on entrepreneurship.<sup>42</sup> Employee behavior is patterned by the contracts they sign beyond the question of whether they leave or stay with their employer.<sup>43</sup> Employees bound by noncompetes not only leave their current employer less frequently, but when they do leave, they are also more likely to go to larger incumbent competitors rather than risk the liability of litigation on their own. As one study concludes, "if employees are finance-constrained and hence unable to buy out their non-compete contracts, enforcement of these agreements prevents startup of socially profitable spinoff firms."<sup>44</sup> Here too, new empirical studies exploiting exogenous changes in state policies support the theoretical predictions. For example, a study looking at a change in Florida's noncompete law finds that stronger enforcement of noncompetes alters the size distribution of firms and their growth.<sup>45</sup> The study shows that the law strengthening noncompete enforcement has favored and attracted large incumbent firms.<sup>46</sup> Such firms were more likely to enter Florida after the change, and conversely, start-up establishment has been hindered.<sup>47</sup> Following Florida's law change,

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41. See generally Mark J. Garmaise, *Ties That Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment*, 27 J. L. ECON. & ORG. 376 (2011) (describing retention incentives); Robert M. Grant, *Toward a Knowledge-Based Theory of the Firm*, 17 STRATEGIC MGMT. J. 109 (1996) (exploring integrated knowledge within firms); Paul Oyer & Scott Schaefer, *Why Do Some Firms Give Stock Options to All Employees?: An Empirical Examination of Alternative Theories*, 76 J. FIN. ECON. 99 (2005) (analyzing stock options as an employee incentive); Yuval Feldman & Orly Lobel, *The Incentives Matrix: The Comparative Effectiveness of Rewards, Liabilities, Duties and Protections for Reporting Illegality*, 88 TEX. L. REV. 1151 (2010) (describing how different reporting mechanisms encourage the internal reporting of regulatory infractions).

42. Sampsa Samila & Olav Sorenson, *Noncompete Covenants: Incentives to Innovate or Impediments to Growth*, 57 MGMT. SCI. 425, 436–37 (2011); Toby E. Stuart & Olav Sorenson, *Liquidity Events and the Geographic Distribution of Entrepreneurial Activity*, 48 ADMIN. SCI. Q. 175, 183 (2003).

43. See also Matt Marx & Lee Fleming, *Non-compete Agreements: Barriers to Entry. . . and Exit?*, in 12 INNOVATION POLICY AND THE ECONOMY 39, 45 (Lerner & Stern eds., 2012) (describing how noncompetes bind employees to employers); Matt Marx, *The Firm Strikes Back: Non-compete Agreements and the Mobility of Technical Professionals*, 76 AM. SOC. REV. 695, 698 (2011) (describing how noncompetes control employees).

44. James E. Rauch, *Dynastic Entrepreneurship, Entry, and Non-Compete Enforcement 2* (CESifo Working Paper Series No. 5370, 2015); see also April M. Franco & Matthew F. Mitchell, *Covenants Not to Compete, Labor Mobility and Industry Dynamics*, 17 J. ECON. & MGMT. STRATEGY 581, 602–03 (2008) (describing how noncompetes reduce spin-outs and competition).

45. Hyo Kang & Lee Fleming, *Non-competes, Business Dynamism, and Concentration: Evidence from a Florida Case Study*, J. ECON. & MGMT. STRATEGY (Forthcoming 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3172477](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3172477) [<https://perma.cc/YZ9L-8D8D>].

46. *Id.* at 28.

47. *Id.*



the market became more concentrated.<sup>48</sup> The researchers then expanded the analysis to find that—consistent with Florida’s shift—states that strongly enforce noncompetes tend to have high industry concentration.<sup>49</sup>

8. *Brain Gain: Legal Infrastructure* encouraged interstate juxtaposition to understand the comparative advantages of different state laws. Beyond the intrinsic advantage of a certain policy, however, is the fact that a state is alone in its adoption. In other words, California benefits not only from its policy in the absolute, but also from the uniqueness of its policy compared to other states. California benefits twice: from the positive effects of mobility *within* the region, and from talent flow *from outside* of the state. States that enforce noncompetes over time will see a brain drain, as talent moves to places where it will be more valued.<sup>50</sup>

9. *Monopsonies & Wages*: Noncompetes decrease wages.<sup>51</sup> Employers calibrate compensation largely based on competing external offers. When external offers are reduced, employers face less pressure to increase wages. Search theory and research of labor market concentration provide a helpful framework to understand the wage effects of noncompetes. Even without noncompetes, the nature of job search and the inherently burdensome switching costs for employees create job markets that are prone to employer monopsonies. Alan Manning in *Monopsony in Motion* explains how workers must spend time and effort to find jobs, allowing employers to reduce compensation—including wages, benefits, and workplace amenities—or fail to increase compensation despite the worker’s performance because the employer knows that the employee will incur high switching costs finding an alternative job.<sup>52</sup> Burdett and Mortensen further show how search frictions naturally lead to employer monopsony power.<sup>53</sup> In 2016, the Council of Economic Advisors concluded that “employers may be better able to exercise monopsony power today than they were in past decades” which can “undermine competition[,] tend to reduce efficiency, and can lead to lower output, employment, and social welfare.”<sup>54</sup> The effects of noncompetes on wages are now well-documented. In 2015, Hawaii passed a law banning noncompete and non-solicitation clauses from employment contracts in the high tech industry.<sup>55</sup> The Hawaii ban increased employee mobility in the sector by 11% and

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48. *Id.* at 26.

49. *Id.* at 26, 33

50. Matt Marx et al., *Mobility Skills, and the Michigan Non-Compete Experiment*, 55 MGMT. SCI. 875, 887 (2009).

51. Evan Starr, *Consider This: Training, Wages, and the Enforceability of Covenants Not to Compete*, 72 INDUS. & LAB. REL. REV. 783, 783 (2019) (finding “an increase from non-enforcement of non-competes to mean enforceability is associated with a 4% decrease in hourly wages” even in lower skilled jobs).

52. See generally ALAN MANNING, *MONOPSONY IN MOTION: IMPERFECT COMPETITION IN LABOR MARKETS* (2003); (explaining the costs employees bear associated in landscapes with enforced noncompete agreements; Alan Manning, *Imperfect Competition in the Labor Market*, in 4 HANDBOOK OF LABOR ECONOMICS 973 (2011) (the same).

53. Kenneth Burdett & Dale T. Mortensen, *Wage Differentials, Employer Size, and Unemployment*, 39 INT’L ECON. REV. 257, 272 (1998).

54. COUNCIL OF ECON. ADVISERS, *LABOR MARKET MONOPSONY: TRENDS, CONSEQUENCES, AND POLICY RESPONSES* 1, 10 (Oct. 2016), [https://obamawhitehouse.archives.gov/sites/default/files/page/files/20161025\\_monopsony\\_labor\\_mrkt\\_cea.pdf](https://obamawhitehouse.archives.gov/sites/default/files/page/files/20161025_monopsony_labor_mrkt_cea.pdf) [<https://perma.cc/S68S-VV5D>].

55. Orly Lobel, *High Tech Hubs & Post-Employment Restrictions: Hawaii Joins California in its Ban of Non-Competes*, CASETEXT (Aug. 17, 2015), <https://casetext.com/analysis/high-tech-hubs-post-employment-restrictions> [<https://perma.cc/8H46-ZSYC>].

increased new-hire salaries by 4%.<sup>56</sup> Other studies demonstrate that noncompetes impose wage externalities on employees who have not signed them: in a market that enforces noncompetes, wages and mobility are lower even for those not bound by noncompetes.<sup>57</sup> A 2017 study looking at how noncompetes affect monopsony power via employee mobility and wages uses a matched employer-employee dataset covering the universe of jobs in 30 states.<sup>58</sup> It finds that higher enforceability of post-employment restrictions is associated with “longer job spells” and a greater chance of employees relocating to a different state.<sup>59</sup> Importantly, the study also finds persistent wage-suppressing effects that last throughout a worker’s job and employment history.<sup>60</sup> The researchers conclude that the results strongly suggest that noncompete enforceability lowers worker welfare, reduces employees’ bargaining power relative to the firm, and locks them into their jobs; it further creates monopsony power, leading to deviations from the “law of one wage” (that the same talented employee will be valued equally and offered the same salaries from different competitors in the market if the market is fully competitive), reduces the elasticity of labor supply, and dampens labor market dynamism, further reducing both wage competition and mobility.<sup>61</sup>

10. *Equality*: An overlooked aspect in studies of employee mobility and noncompete policy is the disproportionate negative effect noncompetes have on certain demographics. In 1957, Gary Becker predicted that discrimination would be eliminated with competition over employees.<sup>62</sup> Becker explained that even if some employers had a taste for discrimination, underpaid and undervalued employees would be low-hanging fruit for competitive recruitment.<sup>63</sup> Indeed, a recent en banc decision of the Ninth Circuit Court of Appeals on the Equal Pay Act cites *Talent Wants to be Free* for the proposition that employee mobility between competitors is key for eliminating the gender pay gap.<sup>64</sup> In a forthcoming article, *Gentlemen Prefer Bonds: How Employers Fix the Labor Market*, I argue that noncompetes harm equality in several ways. First, on average, women are more likely to have geographic constraints based on family and spousal obligations. Under such circumstances, a noncompete that restricts an employee’s ability to compete within a region will likely mean a professional detour, a forced sabbatical out of the labor market, or staying longer with one’s employer rather than relocating. Second, women and minorities are more likely to have non-monetary preferences for a workplace that is free of discrimination and hostility and that values diversity. For example, if a woman discovers that her employer systematically allows harassment of its female employees, she will have

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56. Natarajan Balasubramanian et al., *Locked In? The Enforceability of Covenants Not to Compete and the Careers of High-Tech Workers* (U.S. Census Bureau Ctr. for Econ. Studies, Working Paper No. CES-WP-17-09, Ross Sch. of Bus., Working Paper No. 1339, 2017), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2905782](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2905782) [<https://perma.cc/EWD2-M9F6>].

57. Starr, *supra* note 20.

58. Balasubramanian et al., *supra* note 56.

59. *Id.* at 32.

60. *Id.* at 36.

61. *Id.* at 34.

62. GARY S. BECKER, *THE ECONOMICS OF DISCRIMINATION* (1957).

63. *Id.*

64. *Rizo v. Yovino*, 887 F.3d 453, 471–72 (9th Cir. 2018) (McKeown, J., concurring) (citing ORLY LOBEL, *TALENT WANTS TO BE FREE* 49–75 (Yale Univ. Press 2013)); see Orly Lobel, *Knowledge Pays: Flipping Transparency on Its Head and the Future of Pay Equity*, 120 COLUM. L. REV. (forthcoming 2020) (describing how employee mobility is essential for pay equity).

a strong interest in examining other opportunities in the market, yet a noncompete restricting her mobility will prevent her from escaping the discriminatory workplace. Third, without the opportunity to receive outside offers, historical pay gaps will persist or even widen with internal raises.<sup>65</sup> Employees do not have full information about other job opportunities and cannot dynamically discover their true value without external offers. The more external offers available, the more equity norms and competitive pressures from mobility drive employers to raise wages as retention efforts. When an employee discovers information regarding her undervalued labor compensation by receiving an external offer from a competitor employer, the employee can use that information to negotiate a higher salary with her current employer. The process is iterative in that if her current employer offers to match the higher salary to retain her services, the competitor employer can come back with an even higher job offer.<sup>66</sup> Fourth, behavioral research consistently shows gender differences in negotiations as well as risk aversion in the face of threatened costs. Women on average negotiate less, ask for less, and—when they do negotiate—are penalized more often than men for being perceived as strong negotiators.<sup>67</sup>

These ten related but distinct effects of noncompetes help explain why, despite Gilson's correct analysis that California's mobility policy helps solve a collective action problem, not every firm will benefit from such a policy in the same way. It may well be that some firms will rationally assess that the wage gains from less mobility outweigh the benefits of agglomeration and richness of talent pools. Similarly, incumbent firms might view entrepreneurship and competition as an immediate or long-term threat. When we study the interplay of these ten effects of talent mobility, it is obvious that there will be strong regional and industry variations in designing optimal human capital policies. Clearly, there will be different optimum equilibria for different geographies and for different points in an arc of an industry. As with debates about the right lines to draw in any pillar of intellectual property (or tax or corporate law for that matter), a one-size-fits-all approach may not be appropriate, or at least a uniform rule such as California's absolute prohibition on restraints on trade may vary in its success in supporting industries as wide-ranging as software, hardware, pharma, entertainment, and apparel. Gilson emphasized that different industries might have different development trajectories and needs:

[I]t may well be that a state concerned with regional development today should not blindly seek to replicate the historical source of Silicon Valley's success. Given the opportunity to act by design rather than by historical accident, the better approach may be to craft a legal infrastructure that has the flexibility to accommodate the different balance between external economies and intellectual property rights protection that may be optimal in different industries. In contrast, for California, where the industrial distribution already reflects the long-term presence of Business and Professions Code section 16600, the best course may

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65. Orly Lobel, *Companies Compete But Won't Let Their Workers Do the Same*, N.Y. TIMES (May 4, 2017), <https://www.nytimes.com/2017/05/04/opinion/noncompete-agreements-workers.html> [https://perma.cc/GFL3-GM85].

66. *Id.*

67. See generally Lobel, *Knowledge Pays*, *supra* note 64 (describing how employee mobility is essential for pay equity); LINDA BABCOCK & SARA LASCHEVER, *WOMEN DON'T ASK: NEGOTIATION AND THE GENDER DIVIDE* (2003) (analyzing how negotiation affects the wage gap).

simply be staying the course.<sup>68</sup>

Still, in the twenty years since *Legal Infrastructure*, the research has leveraged exogenous shifts in state policy, including changes in Michigan (1980), Vermont (2005), Oregon (2008), South Carolina (2010), Georgia (2010), and Hawaii (2015).<sup>69</sup> Studies also examine enforcement differences between states that do enforce noncompetes—taking California out of the equation—finding correlation between weak enforcement, increased mobility, and positive outcomes in those regions.<sup>70</sup> In both the longitudinal and comparative regional studies, the findings support Gilson’s initial intuition: mobility is good for regions.<sup>71</sup>

The grounds are ripe for even further research. In 2018 and 2019, Massachusetts, Washington, Maryland, and New Hampshire each passed a new law voiding most noncompetes.<sup>72</sup> In Massachusetts, the reform was championed by the Alliance for Open Competition, a national group of venture capitalists, executives, and entrepreneurs dedicated to fostering innovation. According to the Alliance campaign, noncompetes were stifling the emergence of start-up companies, “forcing innovative entrepreneurs to take on tremendous legal and financial risks, and hampering the ability to meet our fullest economic potential as a nation.”<sup>73</sup> At the national level, 2016 saw the White House’s Call for Action, which urged the ban of most noncompete restrictions and promoted improved transparency and fairness for noncompete agreements, as well as the U.S. Treasury Department’s Report on Non-Competes finding that noncompetes reduce and harm innovation.<sup>74</sup> Several federal bills have also been drafted that would limit the use of noncompetes, either for low-wage workers or more broadly.<sup>75</sup>

68. Gilson, *supra* note 2, at 629.

69. See generally, Marx et al., *Mobility, Skills, and the Michigan Non-Compete Experiment*, 55 MGMT. SCI. 875 (2009) (discussing empirical results of noncompete enforcement in Michigan); Garmaise, *supra* note 41 (analyzing the effects of disparate noncompete enforcement levels around the country); Sharon Belenzon & Mark Schankerman, *Spreading the Word: Geography, Policy, and Knowledge Spillovers*, 95 REV. ECON. & STAT. 884 (2013); Kenneth A. Younge et al., *How Anticipated Employee Mobility Affects Acquisition Likelihood: Evidence from a Natural Experiment*, 36 STRATEGIC MGMT. J. 686 (2015) (utilizing strategic factor market theory to analyze the correlation between acquirers’ “expectations about employee departure on the firm post-acquisition” upon acquirers’ decisions whether to bid on a firm); Starr, *supra* note 20, at 4 (discussing the impact in Hawai’i); Michael Ewens & Matt Marx, *Founder Replacement and Startup Performance*, 31 REV. FIN. STUD. 1532 (2018) (examining the effects of “14 states’ changes to noncompete laws from 1995 to 2016” upon venture capital portfolio founder turnover).

70. Garmaise, *supra* note 41, at 376.

71. Gilson, *supra* note 2, at 577.

72. Massachusetts Noncompetition Agreement Act, MASS. GEN. LAWS ch.149, § 24L (2018); *Washington Senate Votes to Restrict Non-Compete Contracts*, U.S. NEWS (Mar. 5, 2019), <https://www.usnews.com/news/best-states/washington/articles/2019-03-05/washington-senate-votes-to-restrict-non-compete-contracts> [<https://perma.cc/RFM7-UYNV>]; Elisaveta Dolgih & Kenneth B. Walton, *United States: New Hampshire Bans Non-Compete Agreements For Low Wage Employees*, MONDAQ (July 24, 2019), <https://www.mondaq.com/unitedstates/Employment-and-HR/829186/New-Hampshire-Bans-Non-Compete-Agreements-For-Low-Wage-Employees> [<https://perma.cc/Y9PW-ME5Z>].

73. *About Us*, ALLIANCE FOR OPEN COMPETITION, <http://opencompetition.wordpress.com/about> [<https://perma.cc/52LQ-KRQW>] (last visited Aug. 19, 2019).

74. Ross Eisenbrey, *White House Issues Call to Action on Non-Compete Clauses*, EPI.ORG: WORKING ECONOMICS BLOG (Oct. 25, 2016, 3:30 PM), <http://epi.org/blog/white-house-issues-call-to-action-on-non-compete-clauses/> [<https://perma.cc/C8KD-QX55>]; Dynan, *supra* note 7.

75. *Bill Would Ban Noncompetes for Low-Wage Workers—Proposed Legislation*, Hum. Resources Mgmt.-Compensation Guide (CCH) ¶ 34,005 (2015); The Workforce Mobility Act of 2018, S.2782, 115th Cong. (2018);

## III. MOBILITY PENALTIES: A NONCOMPETE BY ANY OTHER NAME

*As a matter of culture, high-tech entrepreneurs are the cowboys of our age. In the United States, as Willie Nelson has told us, our heroes have always been cowboys.*<sup>76</sup>

*Legal Infrastructure* focused on non-compete clauses in employment agreements. As with other areas of contract law, when policy closes on a practice, other practices arise that, in essence, attempt to achieve the same negative result. In employment agreements, restrictive covenants do not simply appear as a clause formally labeled “noncompete.”<sup>77</sup> Employment contracts regularly include non-solicitation of customers and co-workers, pre-innovation assignment agreements, non-disclosure agreements, and a slew of other exit penalties: “Through this web of extensively employed mechanisms, knowledge that has traditionally been deemed part of the public domain becomes proprietary.”<sup>78</sup>

Since *Legal Infrastructure*, the research, policy initiatives, and public debates on employee mobility have also focused almost exclusively on the formal noncompete clause. And yet, California’s Section 16600 is worded simply, stating that “every contract by which anyone is restrained from engaging in a lawful profession, trade or business of any kind is to that extent void.”<sup>79</sup> Interpreting 16600, the courts have found that both non-solicitation clauses and other restrictive covenants imposing a penalty on an employee for competing are invalid.<sup>80</sup> This broader interpretation of California’s policy suggests several points. First, the regional advantage that Silicon Valley experienced from California’s policy has relied not merely on invalidating noncompetes but also on an increased scrutiny of other restrictions. Second, more research is needed to understand how other forms of mobility restrictions affect regional development. There is still a dearth of scholarship of how, for example, the enforcement of nondisclosure agreements or interpretation of trade secrecy affects employee mobility and competition. Third, if restraints on trade are defined as any contractual provision that increases an employee’s risk in accepting a job with a competitor or founding their own new company, as well as any risk imposed on a competitor when seeking to recruit an employee, then new types of contractual clauses can be analyzed with similar tradeoffs in mind. In particular, much more research should be devoted to the ways intellectual property—and tacit knowledge—are assigned, owned, and policed in the job market.

Customer non-solicits are perhaps most readily understood as effectively noncompetes because a business without clients is like a pool without water. The externalities of non-competition should also be readily understood with regard to employee non-solicitation agreements—which essentially reduce the job opportunities of every co-worker that the former employee knew—regardless of whether that co-worker agreed to be part of a restrictive regime. Co-worker non-solicit clauses are quite often drafted so broadly that they bar not just hiring or recruiting but any “encouragement” to a former co-

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Mobility and Opportunity for Vulnerable Employees (MOVE) Act, S. 1504, 114<sup>th</sup> Cong. (2015).

76. Joseph Bankman & Ronald J. Gilson, *Why Start-ups?*, 51 STAN. L. REV. 289, 290 (1999) (citing WILLIE NELSON, MY HEROES HAVE ALWAYS BEEN COWBOYS, ON THE ELECTRIC HORSEMAN ORIGINAL SOUNDTRACK (Columbia Records 1979)).

77. Orly Lobel, *The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property*, 93 TEX. L. REV. 789, 792–93 (2015).

78. *Id.* at 791.

79. CAL. BUS. & PROF. CODE § 16600.

80. *Chamberlain v. Augustine*, 156 P. 479, 480 (Cal. 1916).

worker to quit and leave. Like noncompetes, a co-worker non-solicit functions as the employer's hedge against compensation increases.<sup>81</sup> And like with noncompetes, the harm extends to the industry itself: the talent pool is diminished if employees leave the industry or the country because of a mobility restraint. Relatedly, employers attempt to list within nondisclosure agreements any information about not only customers but also co-workers, including barring knowledge about the company's pay scale to later offer a co-worker a higher salary elsewhere. The knowledge that a departed employee would use to solicit a former co-worker pertaining to a person's skills, talent, personality, experience, and salary is not and should not be the employer's trade secret.<sup>82</sup> Only very recently have the California courts recognized that employee non-solicitation clauses are unlawful restraints on trade under Section 16600.<sup>83</sup>

Another type of restrictive covenant that operates like a noncompete is the imposition of monetary penalties for post-employment competition. In *Muggill v. Reuben H. Donnelley Corp.*, the California Supreme Court examined an employment clause that terminated certain retirement benefits if a former employee engaged in competition with his former employer.<sup>84</sup> The court concluded that the provision was unenforceable, explaining that Section 16600 voids penalties and not only absolute noncompetes. The Supreme Court of North Dakota (the only other state with a statute functionally identical to California's Section 16600) reached the same conclusion, stating that requiring an employee to "purchase the freedom" to compete is a form of restraint on trade.<sup>85</sup> In a New York case involving Merrill Lynch and two employees, the Court of Appeals held that a forfeiture-for-competition clause was unenforceable, stating that "[a]n employer should not be permitted to use offensively an anticompetition clause coupled with a forfeiture provision to economically cripple a former employee and simultaneously deny other potential employers his services."<sup>86</sup> Still, such exit penalties are far less studied, and the tradeoffs their use entails call for further research and analysis.

Trade secrets, the neglected stepchild of intellectual property research, is close kin of noncompete policy. The majority of trade secret disputes are between employers and their current or former employees.<sup>87</sup> In the final section of *Legal Infrastructure*, Gilson raised the concern that the "[i]nevitable disclosure doctrine poses a serious threat to the interemployer spillover of proprietary tacit knowledge that allows Silicon Valley to reset its product cycle repeatedly."<sup>88</sup> He describes "a disturbing line of recent cases developing a doctrine of 'inevitable disclosure' that threatens to turn trade secret law into the

81. I am grateful to Charles Tait Graves for thoughtful discussions about this issue in particular.

82. Orly Lobel, *Knowledge Pays: Reversing Information Flows & The Future of Pay Equity*, 120 COLUM. L. REV. (forthcoming 2020) (manuscript at 12022); see also, e.g., *Metro Traffic Control v. Shadow Traffic Network*, 27 Cal. Rptr. 2d 573, 579 (Cal. Ct. App. 1994) (stating that hiring personnel does not convert the employee into a "trade secret").

83. *AMN Healthcare, Inc. v. Aya Healthcare Serv. Inc.*, 239 Cal. Rptr. 3d 577, 587 (Cal. Ct. App. 2018); *Barker v. Insight Glob.*, No. 16-cv-07186-BLF, 2019 U.S. Dist. LEXIS 6523, at \*8-9 (N.D. Cal. Jan. 11, 2019); *WeRide Corp. v. Huang*, 379 F. Supp. 3d 834, 851-52 (N.D. Cal. 2019).

84. *Muggill v. Reuben H. Donnelley Corp.*, 398 P.2d 147, 149 (Cal. 1965); *Frame v. Merrill Lynch*, 97 Cal. Rptr. 811, 814 (Cal. Ct. App. 1971) (citing *Muggill v. Reuben H. Donnelley Corp.*).

85. *Werlinger v. Mut. Serv. Cas. Ins. Co.*, 496 N.W.2d 26, 30 (N.D. 1993).

86. *Post v. Merrill Lynch*, 397 N.E.2d 84, 89 (N.Y. 1979).

87. *Dreyfuss & Lobel*, *supra* note 13, at 467.

88. *Gilson*, *supra* note 2, at 626.

equivalent of a judicially imposed covenant not to compete[.]”<sup>89</sup> The California courts have rejected the doctrine of inevitable disclosure, understanding it, like *Legal Infrastructure* did, as a *de facto* ex post implied noncompete.<sup>90</sup> A new study, which combines analyses of state-level trade secret laws on the doctrine of inevitable disclosure with records of job mobility from the Current Population Survey, confirms that states that have explicitly rejected the doctrine of inevitable disclosure enjoy significantly increased job mobility as well as higher returns to education compared to other states.<sup>91</sup> But the inevitable disclosure is merely one narrow aspect of the ways trade secret law and litigation shape employee mobility. In 2016, the Defend Trade Secrets Act (“DTSA”) created a federal civil cause of action for trade secret misappropriation.<sup>92</sup> The DTSA expands the secrecy ecology in several ways.<sup>93</sup> The DTSA includes very broad definitions of “trade secret” and “misappropriation.”<sup>94</sup> The remedies under the DTSA are expansive as well—and prosecutorial activity under the Economic Espionage Act, which the DTSA amended, has also risen.<sup>95</sup> In August 2019, for example, prosecutors brought criminal charges against a former Waymo employee who moved to Uber and triggered the now-settled Waymo-Uber autonomous vehicle technology dispute.<sup>96</sup> The criminalization of trade secrecy disputes and increased activity to prevent potential leaks of innovation has raised red flags and voices of concern from top research leaders. In a 2018 *New York Times* Op Ed, MIT President L. Rafael Reif wrote about a more farsighted vision in the race for innovation.<sup>97</sup> Reif wrote, “[S]topping intellectual property theft and unfair trade practices—even if fully effective—would not allow the United States to relax back into a position of unquestioned innovation leadership.”<sup>98</sup> Rather, we need to rely on a tradition of research, “rooted in a national culture of opportunity and entrepreneurship, inspired by an atmosphere of intellectual freedom, supported by the rule of law and, crucially, pushed to new creative heights by uniting brilliant talent from every sector of our society and every corner of the

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89. *Id.* at 580.

90. *Whyte v. Schlage Lock Co.*, 101 Cal. App. 4th 1443, 1462 (2002).

91. I. P. L. Png & Sampsa Samila, *Trade Secrets, Non-Competes, and Mobility of Engineers and Scientists: Empirical Evidence* 25 (last revised Feb. 2015) <http://ssrn.com/abstract=1986775> [<https://perma.cc/6SBK-ALG3>] or <http://dx.doi.org/10.2139/ssrn.1986775> [<https://perma.cc/KH5A-K5VL>] (as of Dec. 2, 2013). *See also* Deqiu Chen et al., *Human Capital Driven Acquisition: Evidence from the Inevitable Disclosure Doctrine* (Univ. of Int’l. Bus. & Econ., 2020), <https://ssrn.com/abstract=2713600> [<https://perma.cc/6FWJ-V865>] or <http://dx.doi.org/10.2139/ssrn.2713600> [<https://perma.cc/5GZB-LWVS>] (finding a significant increase in the likelihood of being acquired for firms headquartered in states that recognize such a doctrine relative to firms headquartered in states that do not).

92. Defend Trade Secrets Act of 2016, Pub. L. No. 114-153, 130 Stat. 376.

93. 18 U.S.C. § 1836, 1839 (2016); Orly Lobel, *The DTSA and the New Secrecy Ecology*, 1 BUS. ENTREPRENEURSHIP & TAX L. REV. 369 (2017).

94. Bret A. Cohen et al., *Explaining the Defend Trade Secrets Act*, AM. BAR ASS’N (Sept. 20, 2016), [https://www.americanbar.org/groups/business\\_law/publications/blt/2016/09/03\\_cohen/](https://www.americanbar.org/groups/business_law/publications/blt/2016/09/03_cohen/) [<https://perma.cc/SH5K-BRZB>].

95. Dreyfuss & Lobel, *supra* note 13; Orly Lobel, *NDAs Are Out of Control. Here’s What Needs to Change*, HARV. BUS. REV. (Jan. 30, 2018), <https://hbr.org/2018/01/ndas-are-out-of-control-heres-what-needs-to-change> [<https://perma.cc/LKT5-M6D2>].

96. *Waymo LLC v. Uber Technologies*, No. 3:17-cv-00939 (N.D. Cal. Feb. 6, 2020).

97. L. Rafael Reif, *China’s Challenge Is America’s Opportunity*, N.Y. TIMES (Aug. 8, 2018), <https://www.nytimes.com/2018/08/08/opinion/china-technology-trade-united-states.html> [<https://perma.cc/V2NC-SHQC>].

98. *Id.*

world.”<sup>99</sup> The inevitable disclosure doctrine was debated in the enactment of the DTSA and the language adopted in the DTSA is a compromise. The Act states that an injunction issued under its authority may not “prevent a person from entering into an employment relationship” and that any conditions placed on a former employee’s employment in an injunction must be based on “evidence of threatened misappropriation and not merely on the information the person knows.”<sup>100</sup> Needless to say, this new law introduces further uncertainty for the ability of knowledge workers to move from one competitor to another.

Most broadly, bringing noncompete policy to the forefront, Gilson’s contribution was in recognizing the key role that tacit knowledge plays, as distinct from codified knowledge. Gilson concludes *Legal Infrastructure* “by offering a cautionary note” on “standard law and economics prescription to protect fully intellectual property rights.”<sup>101</sup> Intellectual property focuses on codified knowledge: knowledge that has been reduced to concrete expressions that can be filed or documented. At the same time, contracts have extended beyond these definitions to gain ownership in intangible tacit knowledge. In *You Don’t Own Me*, which centers around the content and entertainment industries in Southern California, I find that dominant actors in a concentrated industry combine intellectual property claims, their employees’ contractual assignment clauses, and the threat of litigation as a sledgehammer to prevent employees from pursuing their careers and also to exclude new and smaller competitors from competing in the industry. In particular, I find that in the toy industry, the use of such restrictive clauses in employment agreements helped concentrate the industry, and that in turn, market concentration follows precisely Kenneth Arrow’s predictions: the dominant actor (Mattel) had little incentive to innovate and to “self-cannibalize” its own successful products (Barbie).<sup>102</sup>

The same year Gilson wrote *Legal Infrastructure*, he also published an article with Joseph Bankman titled *Why Start-ups?*.<sup>103</sup> The article begins with a puzzle about entrepreneurship: Most start-ups are founded by employees who leave their company to spinoff a new venture in the same field, so why aren’t more employers developing their employees’ ideas? The puzzle is even greater than it first appears since, as Bankman and Gilson point out, companies have information advantages and tax incentives that would give them an edge over venture capitalists and new competitors.<sup>104</sup> So, they write with wit, “Having demonstrated that elephants can’t fly, what accounts for Dumbo?”<sup>105</sup> Or otherwise put, why are there start-ups? Bankman and Gilson’s answer is that an employer’s decision to bid for an employee’s idea can create an ex ante incentive for employees to invest in entrepreneurial payoff, diverting energy away from the company’s core research and development.<sup>106</sup> They suggest that because of this dynamic, employers must clarify internal property rights to prevent employees from hoarding their information from other

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99. *Id.*

100. 18 U.S.C. § 1836 (2016).

101. Gilson, *supra* note 2, at 580.

102. See Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609, 620 (1962) (describing the formula to decide market concentration and the incentive to innovate).

103. Joseph Bankman & Ronald J. Gilson, *Why Start-ups?*, 51 *STAN. L. REV.* 289 (1999).

104. *Id.* at 289.

105. *Id.* at 299.

106. *Id.* at 304.



team members and from the company.<sup>107</sup> But *Why Start-ups?* does not consider the converse problem: that companies will develop such strongholds on employees' knowledge, ideas, and potential for innovation that entrepreneurship will be severely impeded. California courts have deemed "trailer clauses" or "holdover clauses" that assign employee inventions post-employment to the employer to be the functional equivalent of noncompetes and thereby void under Section 16600. In *Applied Materials, Inc. v. Advanced Micro-Fabrication Equipment, Inc.*, the Court held an employer's assignment clause invalid because it required assignment of inventions related to the employee's work with the employer within one year after termination of employment.<sup>108</sup> The Court held that the assignment clause was void under Section 16600 as an unlawful restriction on employee mobility because the assignment clause operated to restrict the employee's job opportunities after he left the employer.<sup>109</sup> In California, employers work around *Applied Materials* by inserting a reporting clause, requiring that for one year after leaving the company, the employee must report to the former employer any inventions they have made in the field.<sup>110</sup> But again, more pervasive and impactful than trailer clauses is the use of standard broad assignment agreements and standard IP claims to prevent employee mobility and spinoffs. Today, standard employment contracts include far more than what intellectual property statutes have defined as proprietary. Such clauses regularly define "inventions" broadly, including items such as "all discoveries, improvements, processes, developments, design, know-how, computer data programs, and formulae, whether patentable or unpatentable."<sup>111</sup>

When employees bind themselves to a contract that pre-assigns their innovation potential, the likelihood that they will leave and become an entrepreneur—coming from the French word *entreprendre*, "one who undertakes innovations"—is severely decreased. The issue then becomes not why start-ups, but rather, why not more start-ups? Here again, evidence is emerging that women face higher costs in defending against litigation and in returning to paid employment if they leave to found startups, further suggesting a disproportionate harm to equality when human capital is constrained.<sup>112</sup>

Two decades after *Legal Infrastructure*, the article can continue to set an agenda of expanding the inquiry and lessons from noncompete scholarship to the research of human capital policy and intellectual property law more broadly.

#### IV. BEYOND ENFORCEABILITY: PERVASIVE NONCOMPLIANCE WARRANTS A REGULATORY APPROACH TO MOBILITY

As Gilson wrote in *Legal Infrastructure*, Silicon Valley has been the subject of national and international envy. Gilson's article compared Boston's tendencies of vertical

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107. *Id.* at 305–07.

108. *Applied Materials, Inc. v. Advanced Micro-Fabrication (Shanghai) Equip., Inc.*, 630 F. Supp. 2d 1084, 1091 (N.D. Cal. 2009).

109. *Id.*

110. Charles Tait Graves, *Is the Copyright Act Inconsistent with the Law of Employee Invention Assignment Contracts?*, 8 N.Y.U. J. INTEL. PROP. & ENT. L. 1, 16 (2018).

111. LOBEL, *supra* note 10.

112. Matt Marx, *Employee Non-compete Agreements, Gender, and the Timing of Entrepreneurship* 3 SSRN (2018), <https://ssrn.com/abstract=3173831> [<https://perma.cc/E5AA-7NEJ>].

integration with the benefits of a culture of entrepreneurship and dissemination of knowledge across firms: “With this local industry structure, a single company need not be a technological leader in every stage of a product’s manufacturing process.”<sup>113</sup> But when we look today at the Valley, a puzzle persists. In many new, so-called disruptive fields, we see clear winners, or “category kings.”<sup>114</sup> Vertical integration and dominance of companies like Google, Amazon, and Uber are still very much a pattern.

While there are many reasons for market dominance, one explanation should be considered relevant to our inquiry: that California’s policy of non-enforcement of noncompetes is underenforced. If this is the case, even in California, mobility is overly restricted and suboptimal. This explanation is supported by recent findings indicating that California employers insert noncompetes into their employment contract at similar rates as non-California employers.<sup>115</sup> Invalid noncompetes still chill the movement of employees. The vast majority of invalid contracts will not be tested in court. Rather, they will have in terrorem effect on employees. A recent study of 11,500 labor force participants finds that signing a noncompete results in less mobility and redirects mobility away from competitors to noncompetitors whether the noncompete was signed in a state that enforces noncompetes or not.<sup>116</sup> Another new paper, by Sarath Sanga, examines executive contracts and finds that in California, where noncompetes are void, firms pay severance in discretionary installments to induce their executives to comply with the non-enforceable noncompete agreements that still appear in these contracts.<sup>117</sup> By contrast, Sanga finds that outside California, the same firms pay non-discretionary severance up front because the noncompetes are enforceable.<sup>118</sup> Moreover, enforcement of such restrictions, including the threat of enforcement of unenforceable restrictions, will vary systematically with different types of companies. For example, larger companies with sufficient legal and financial resources can be more aggressive in driving out competition even when their legal claims are on weak grounds.<sup>119</sup> Incumbents may use litigation as a reputation strategy to deter other employees from leaving.<sup>120</sup>

In a footnote in *Legal Infrastructure*, Gilson considers “a Coasian response to section 16600.”<sup>121</sup> He suggests that Silicon Valley employers have likely not taken the route of contracting around 16600 because of “the employers’ experience that the net effect of high velocity employment was positive.”<sup>122</sup> But this positive calculation may well change once

113. Gilson, *supra* note 2, at 591.

114. Kenneth A. Bamberger & Orly Lobel, *Platform Market Power*, 32 BERKELEY TECH. L.J. 1051, 1085 (2017).

115. Evan Starr et al., *Noncompetes in the U.S. Labor Force* 14 (U MICH. L. & ECON., Research Paper No. 18-013, 2019); Norman Bishara et al., *An Empirical Analysis of Noncompetition Clauses and Other Restrictive Postemployment Covenants*, 68 VAND. L. REV. 1, 30 (2015).

116. *See generally id.* (explaining how noncompetes redirect mobility).

117. Sarath Sanga, *Incomplete Contracts: An Empirical Approach*, 34 J.L. ECON. & ORG. 650, 650 (2018).

118. *Id.*

119. *See generally* Patrick Bolton & David S. Scharfstein, *A Theory of Predation Based on Agency Problems in Financial Contracting*, 80 AM. ECON. REV. 93 (1990) (showing how larger companies use lawsuits to suffocate competition).

120. Rajshree Agarwal et al., *Reputations for Toughness in Patent Enforcement: Implications for Knowledge Spillovers Via Inventor Mobility*, 30 STRATEGIC MGMT. J. 1349, 1350 (2009); Jamal Shamsie, *The Context of Dominance: An Industry-Driven Framework for Exploiting Reputation*, 24 STRATEGIC MGMT. J. 199, 199–206 (2003).

121. Gilson, *supra* note 2, at 610 n.105.

122. *Id.*

a region like Silicon Valley reaches a certain stage in its development and once certain companies reach a dominant position in their industry. Then it may well be that the tradeoffs between the different effects of job mobility are weighed in favor, from the perspective of the employer, of non-mobility. In particular, the gains from depressed wages may well outweigh the marginal gains of agglomeration, knowledge flows, and innovation. Some of the largest high-tech companies in the Valley blatantly violated California's mobility policy, as well as federal antitrust law, in reaching gentlemen's agreements not to hire each other's employees. In 2010, upon the discovery of these informal agreements, the Antitrust Division of the U.S. Department of Justice filed a complaint against these companies, including Apple, Google, Intel, eBay, and Pixar, deeming such do-not-hire agreements to be collusive restraints on trade and competition.<sup>123</sup> Calling these practices "blatant and egregious," the DOJ concluded that these agreements were *per se* violations of American antitrust law.<sup>124</sup> Following the settlement with the DOJ, in 2013 the Ninth Circuit certified a private class of 64,000 former employees claiming that these agreements depressed wages.<sup>125</sup> The lawsuit settled for over \$400 million, and the DOJ announced that in the future it will criminally investigate allegations that employers have agreed amongst themselves on employee compensation or not to solicit or hire one another's employees.<sup>126</sup>

Again, these kinds of horizontal do-not-hire agreements are merely the tip of the iceberg, given the pervasive practices of inserting unenforceable noncompetes and other broad restrictions in employee contracts. When contracts involve unilateral terms and unequal parties, retrospective defensive litigation—proving that clauses are unenforceable—at the stage of a contract breach lawsuit is often inadequate. Several state attorneys general have taken a more proactive approach. In 2016, N.Y. Attorney General Eric Schneiderman announced settlements with three companies with overly broad noncompetes and proposed a bill that would allow employees a private right of action for damages if they are asked to sign an overly broad covenant.<sup>127</sup> A proactive approach could also impose duties on the attorneys who draft clearly unenforceable provisions, deeming such practice a violation of the Rules of Professional Conduct.<sup>128</sup> In 2019, the Center for Public Interest Law (CPIL) at the University of San Diego School of Law sent a letter to

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123. Complaint, *United States v. Adobe Systems*, (D.D.C. Sept. 24, 2011) (No. 1:10-CV-01629) 2010 WL 11417874.

124. Bill Baer, Assistant Att'y Gen., Remarks at the Conference Call Regarding the Justice Dep't's Settlement with eBay Inc. to End Anticompetitive "No Poach" Hiring Agreements (May 1, 2014), <https://www.justice.gov/opa/speech/assistant-attorney-general-bill-baer-speaks-conference-call-regarding-justice-department> [<https://perma.cc/4J2Q-FZBD>].

125. *In re High-Tech Employee Antitrust Litigation*, 856 F.Supp.2d 1103 (N.D.Cal.2012); *United States v. eBay, Inc.*, 968 F.Supp.2d 1030 (N.D.Cal.2013); see also *In re Animation Workers Antitrust Litigation*, 123 F.Supp.3d 1175 (N.D. CA, 2015).

126. *Id.*

127. Press Release, N.Y. State Office of Att'y Gen., A.G. Schneiderman Proposes Nation's Most Comprehensive Bill to Curb Widespread Misuse of Non-Compete Agreements (Oct. 25, 2016), <https://ag.ny.gov/press-release/ag-schneiderman-proposes-nations-most-comprehensive-bill-curb-widespread-misuse-non> [<https://perma.cc/894S-2GHR>].

128. Letter from Robert C. Fellmeth, Exec. Dir., Univ. of San Diego Ctr. for Pub. Interest Law, & Bridget Fogarty Gramme, Admin. Dir., Univ. of San Diego Ctr. for Pub. Interest Law, to Andrew Tuft, Staff Counsel, State Bar of Cal. (June 5, 2019), [https://www.sandiego.edu/cpil/documents/2019\\_0605\\_COPRAC\\_Ethics\\_Opinion\\_Noncompetes.pdf](https://www.sandiego.edu/cpil/documents/2019_0605_COPRAC_Ethics_Opinion_Noncompetes.pdf) [<https://perma.cc/5FFX-E99Q>] (on file with author); Robert C. Fellmeth, *Attorney Ethics and Unenforceable Employment Contracts*, L.A. & S.F. DAILY J. (June 11, 2019), <https://www.dailyjournal.com/articles/352891> [<https://perma.cc/JF7M-HZ5Q>].

that effect to the California Bar asking for an ethical opinion: “We all know that it is unethical for an attorney to file a clearly frivolous case, but the law as enforced is less clear on the ethics of an attorney drafting a clearly unenforceable contract—especially as they proliferate across the marketplace.”<sup>129</sup> The letter calls for a State Bar rule that allows attorneys seeking compliance with the law to explain to clients that they are prohibited from drafting such clauses.<sup>130</sup>

At the federal level, the FTC and the Antitrust Division in the DOJ have only recently begun to consider anti-competitive practices in the labor market within their scope of regulating competition and unfair trade practices.<sup>131</sup> A petition to the FTC was filed in 2019 by the Open Markets Institute, the AFL-CIO, and over forty legal scholars, including myself. The petition calls on the FTC to interpret Section 5 of the FTC Act’s prohibition on “unfair methods of competition”<sup>132</sup> to promulgate a rule to ban noncompetes.<sup>133</sup> Similarly, the Workforce Mobility Act of 2018 is a bill that seeks to prohibit noncompetes. The bill would fine employers who require such clauses from their employees. As noted above, California’s Section 16600 and Section 1 of the federal Sherman Act share the language of prohibiting contracts “in restraint of trade.”<sup>134</sup> Antitrust law is designed to solve a collective action problem and as Gilson’s pioneering work taught us, this is the goal of California’s prohibition on noncompetes. The time is ripe for an antitrust lens and regulatory solutions to human capital policy.

#### V. CONCLUSION

Human capital law has become a dynamic field of both scholarly inquiry and policy reform. A critical mass of recent studies suggests that job mobility and noncompetes have significant effects on regional growth, competition, and innovation. These include behavioral, dynamic, firm-level, and regional-level effects. While the harms of noncompetes on employee wages and mobility are well-documented, these restrictions have a disproportionately harmful effect on certain types of workers, primarily women and racial minorities. Moreover, employers restrict mobility not merely through formal noncompete clauses but through a myriad of human capital contractual restrictions and corporate practices, including broad non-disclosure agreements and innovation assignment clauses. Finally, beyond the shaping of formal human capital law on the books, scholars and policymakers must be attentive to human capital policy in action. The prevalence of unlawful practices, such as the inclusion of unenforceable restrictions in employment contracts, calls for proactive policies, including antitrust and regulatory reforms to support a competitive labor market.

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129. Fellmeth, *supra* note 128.

130. *See id.* (asking the state of California to create an ethics rule allowing attorneys to explain to clients they cannot file clearly frivolous cases).

131. *Antitrust Guidance for Human Resource Professionals*, DEP’T OF JUSTICE & FED. TRADE COMM’N (Oct. 2016), <https://www.justice.gov/atr/file/903511/download> [<https://perma.cc/3W2P-HUB7>].

132. 15 U.S.C. § 45 (2006).

133. OPEN MKT. INST., *supra* note 8.

134. 15 U.S.C. § 1 (2004).