

Problem Statement

Post-employment covenants not to compete (hereafter, “non-competes”) are frequently used in a variety of high- and low-tech industries, ostensibly as a means of helping firms to protect their investments in intellectual property and human capital. As currently sanctioned, however, non-competes impose substantial costs on workers for which they are not clearly compensated. If firms are to be allowed to continue to use non-competes, how can these be managed so as to minimize the costs to workers?

Summary of Policy Recommendations

1. If non-compete agreements are to be permitted, workers must be able to reasonably negotiate their terms. In order to enable such a negotiation, workers must be
 - a. Notified *at the time of the job offer* that they will be required to sign a non-compete as part of their employment.
 - b. Given a copy of the non-compete they will be asked to sign, or at least the firm is obligated to furnish it upon request
 - c. Given a copy of current state law regarding the enforceability of the contract
 - d. Allowed sufficient time to seek legal review of the non-compete
2. If an employer wishes to add a non-compete to the term of employment for someone who has already accepted a job offer or has already started working, they must have the right to refuse to sign the agreement unless they receive “consideration” acceptable to them. The same applies in the case where an employer wishes to update the terms of an existing non-compete.
3. Abolishing “blue pencil” practices whereby firms can require workers to sign overbroad and unenforceable non-competes given that a judge can simply rewrite the contract to suit the law.
4. Facilitating awareness/education programs for workers, especially young workers, to understand non-compete agreements and their implications.

Expected Impact of These Recommendations

- If workers are notified in the job offer letter that they will be expected to sign a non-compete, they can compare offers (including from states where non-competes are vs. are not allowed) and make an informed decision regarding whether to accept post-employment restriction. Promoting such awareness is especially important for young workers, including fresh college graduates, just entering the workforce.
- Requiring “consideration” for a non-compete requested after they start work guards against workers feeling threatened with job loss if they refuse to sign.
- Requiring judges to make up-or-down decisions on non-competes *as written* removes incentives for firms to be careless—or even strategic—in drafting non-competes that have a strong chilling effect but can be simply rewritten by a judge to conform with state law.

Motivation

The year 1414 is not a particularly auspicious one among historians but for purposes of this Report marks a sharp divide in the evolution of employer-employee relations. Surely it was not the first time that an employer and an employee entered into a dispute over the terms of employment, but the *Dyer's* case was the first recorded instance of lawsuit against a former employee for unlawful competition. Mr. John Dyer, who had apprenticed with the plaintiff and covenanted not to engage in his trade for six months, was sued for breaking his covenant. Judge Hull dismissed the case, owing perhaps in part given the need for skilled labor in the wake of the Bubonic Plague, as the Ordinance of Labourers passed several decades earlier required all those under the age of 60 to work. Restrictions on the employability of workers have remained controversial ever since.

More recently, the U.S. Department of Justice sought action against several technology companies that allegedly attempted to restrict the mobility of workers in the California Bay Area. At issue were alleged bilateral “non poaching” agreements under which one company promised not to cold-call employees of the counterparty. “The agreements challenged here restrained competition for affected employees without any procompetitive justification and distorted the competitive process,” said Molly S. Boast, Deputy Assistant Attorney General in the Department of Justice’s Antitrust Division (US DOJ, 2010). Although the non-poaching agreements referenced above were found by the Department of Justice to be anticompetitive, and an associated class-action lawsuit was settled for \$415MM, other post-employment restrictions of ex-employees by their former employers are legally sanctioned in the U.S. and much of the world. Employment contracts routinely contain a variety of stipulations governing the sorts of activity that employees can engage in after separating from their employer. These include

- *Non-disclosure agreements (NDA)*. Workers covenant not to share information confidential to the company, although the contract does not specifically enjoin them from working at any organization.
- *Customer non-solicitation agreements*. Workers covenant not to solicit customers of their former employer after leaving the company. As with an NDA, the contract does not specifically restrict their choice of a job.
- *Employee non-solicitation agreements*. Workers covenant not to recruit their former colleagues or any employee of their former employer after leaving. Again, this contract does not constrain their choice of subsequent employer.
- *Employee non-competition agreements*. Workers covenant not to join or found a “rival” firm for a certain period of time after leaving. May or may not include geographic restrictions.

The fourth of these, non-competes, have attracted particular attention from policymakers in the past quarter-century. During this period, many U.S. states adopted new legislation regarding non-competes or have had judicial practice materially altered via state supreme court decisions. At the national level, Senators Franken and Murphy have proposed legislation aimed at curbing the use of non-competes for low-wage workers, a bill endorsed by the Obama administration (Franken, 2016).

The optimal policy prescription for non-compete agreements is hardly straightforward, as evidenced by some states tightening non-compete policy (whether legislatively or judicially) whereas others have loosened relevant policy. This ambiguity exists in part given that there are multiple stakeholders (workers, firms, and regions) for whom the theoretical impact of non-competes is non-obvious; moreover, the interests of these parties may be opposed. For example, it might seem straightforward that firms would benefit from the use of non-competes because they worry less about employees leaving, but there may be a countervailing effect of not being able to “poach” workers from rival firms. It might be that non-

competes penalize startup companies, which need to hire aggressively, whereas established firms mostly benefit. Industry differences may exist. Even if there is a clear set of firms that benefit from non-competes, these must be weighed against the interest of workers and/or would-be entrepreneurs.

Given both the importance of the policy issue and its theoretical ambiguity, empirical evidence is essential to help illuminate productive legislative initiatives. Of course, policy is not enacted in a vacuum but is subject to anecdotal testimony and behind-the-scenes lobbying, as evidenced by a single Massachusetts-based corporation paying lobbyists \$85,500 to block reform during a two-year period (Borchers, 2014). The stakes are clearly high, both for firms and for individuals.

Peer-reviewed papers detailed in this article

Social scientists have published at least seventeen articles that empirically document the prevalence of non-compete agreements or estimate their impact on individuals, firms, and regions. These employ disparate research methods including interviews, surveys, and large-sample analysis using possibly-exogenous policy shocks. A few studies utilize data on the actual usage of non-competes whereas most others infer the impact of non-competes from changes in the legal treatment of such contracts. Others focus on generating stylized facts regarding the implementation of these contracts.

Because this review focuses on peer-reviewed articles containing empirical evidence, there are three categories of work not addressed here. First, many legal scholars have theorized extensively regarding the appropriate use of “partial restraints” including non-competes. With a few exceptions, however, these writings do not provide or address data. Second, some economists have provided mathematical models addressing the likely impact of non-competes but have not yet linked these to empirical analysis. Third, there are several working papers under development, including by the author, but which have not yet completed the peer-review process. Where relevant, unpublished working papers are summarized briefly (but not critiqued) in footnotes.

The peer-reviewed articles reviewed herein are as follows, listed in chronological order:

1. Stuart, Toby E., and Olav Sorenson. "Liquidity events and the geographic distribution of entrepreneurial activity." *Administrative Science Quarterly* 48.2 (2003): 175-201.
2. Kaplan, S. and P. Stromberg (2003). "Financial Contracting Theory Meets the Real World: A Empirical Analysis of Venture Capital Contracts." *Review of Economic Studies* 70.
3. Fallick, Bruce, Charles A. Fleischman, and James B. Rebitzer. "Job-hopping in Silicon Valley: some evidence concerning the microfoundations of a high-technology cluster." *The Review of Economics and Statistics* 88.3 (2006): 472-481.
4. Schwab, S. and R. Thomas. "An Empirical Analysis of CEO Employment Contracts: What Do Top Executives Bargain For?" *Washington & Lee Law Review* 231 (2006).
5. M. Marx, D. Strumsky, and L. Fleming, "Mobility, Skills, and the Michigan Non-compete Experiment." *Management Science* 55(6):875-889 (2009).
6. Garmaise, Mark J. "Ties that truly bind: Noncompetition agreements, executive compensation, and firm investment." *Journal of Law, Economics, and Organization* (2011).
7. M. Marx, "The Firm Strikes Back: Non-Compete Agreements and the Mobility of Technical Professionals." *American Sociological Review* 76(5):695-712 (2011).
8. Samila, Sampsa, and Olav Sorenson. "Noncompete covenants: Incentives to innovate or impediments to growth." *Management Science* 57.3 (2011): 425-438.

9. Belenzon, Sharon, and Mark Schankerman. "Spreading the word: Geography, policy, and knowledge spillovers." *Review of Economics and Statistics* 95.3 (2013): 884-903.
10. Conti, Raffaele. "Do non- competition agreements lead firms to pursue risky R&D projects?" *Strategic Management Journal* 35.8 (2014): 1230-1248.
11. M. Marx, J. Singh, and L. Fleming, "Regional Disadvantage? Employee Non-compete Agreements and Brain Drain." *Research Policy* 44(2):394-404 (2015).
12. Younge, Kenneth A., Tony W. Tong, and Lee Fleming. "How anticipated employee mobility affects acquisition likelihood: Evidence from a natural experiment." *Strategic Management Journal* 36.5 (2015): 686-708.
13. Buenstorf, Guido, et al. "Non-compete clauses, employee effort and spin-off entrepreneurship: A laboratory experiment." *Research Policy* 45.10 (2016): 2113-2124.
14. Prescott, J. J., Norman D. Bishara, and Evan Starr. "Understanding Noncompetition Agreements: The 2014 Noncompete Survey Project." *Michigan State Law Review* 2016.2 (2016): 369.
15. K. Younge and M. Marx, "The Value of Employee Retention: Evidence from a Natural Experiment." *Journal of Economics & Management Strategy* 25(3):652-677 (2016).
16. Starr, Evan, Natarajan Balasubramanian, and Mariko Sakakibara. "Screening Spinouts? How Noncompete Enforceability Affects the Creation, Growth, and Survival of New Firms." *Management Science* (2017).
17. Ewens, M. and M. Marx, "Founder Replacement and Startup Performance." *Review of Financial Studies* (forthcoming).

Review of Empirical Literature on Employee Non-compete Agreements

This review of the empirical literature is organized by the outcome variable. These are moreover grouped by the level of analysis: individuals, firms, and regions. Within each group and subgroup, papers with different data and methodological approaches are investigated side by side.

Direct evidence on use of non-competes

Before proceeding to papers that analyze the impact of non-compete agreements, an important question is understanding how prevalent they are. If for example non-competes are only rarely used, they may not merit policymakers' attention even if they have deleterious effects. Five peer-reviewed articles have gathered data regarding the prevalence or incidence of non-compete agreements.

Schwab & Thomas (2006) report that 67.47% of executives at public companies had signed non-competes, based on surveys from S&P 500, midcap 400, and Small Cap 600 by the Corporate Library. Their results closely parallel the 70.2% rate of non-competes in the employment contracts of Execucomp executives found by Garmaise (2011) and also the incidence rate found by Kaplan and Stromberg (2003) among venture-backed startups. Marx (2011) reports results from a broader survey of the Institute of Electrical and Electronics Engineers (IEEE). Marx found that 43.3% of engineers in a wide variety of industries had signed a non-compete within the past 10 years. However, his survey does not report whether the worker is *currently* subject to a non-compete.¹

¹ In an unpublished working paper, Lavetti, Simon and White report survey evidence on the use of non-competes among 1,967 primary care physicians in five states. They find that slightly fewer than half of physicians (45.1%) are subject to a non-compete.

The broadest survey to date was conducted by Prescott et al (2016), whose online survey of more than 100 questions sent to 700,000 people yielded a 1.5% response rate and data on 11,505 workers. In order to deal with possible bias due to self-selection, the authors reweight responses in an effort to make the profile of responses match the population more closely, but there remains the question of who is willing to fill out such a survey. Their survey asks both whether the worker is currently subject to a non-compete as well as whether the worker has *ever* signed a non-compete. Moreover, they offer the option to report that the worker is not sure whether they signed a non-compete, which is approximately 30% of all respondents. They undertake a multiple-imputation process to estimate what percentage of unsure respondent might have actually signed, based on observables. During their full career, 43% of respondents said they had signed a non-compete. This is similar to Marx's response when he asked the worker whether had signed in the past 10 years, although Marx reports data only from engineers. As for current contracts, approximately 15% of respondents replied that they were currently subject to a non-compete. The authors then estimated that an additional 3% of respondents—approximately one tenth of those who were not sure whether they had signed a non-compete—probably had signed, for a total of 18%.

These surveys also report data about the contracts themselves and the process by which companies get workers to sign them. The majority of non-competes in the Schwab & Thomas sample were two years in duration; 21.33% were one year. Most of Marx's survey respondents indicated that their non-compete lasted no longer than one year, but more than one-third of respondents claimed that the non-compete they signed was longer than one year.

Regarding the process by which employers obtain signatures from employees, one key finding is that this bears little resemblance to "negotat[ing] contracts of mutual benefit" as some have sought to portray it. In Marx's (2011) survey of engineers, more than two-thirds of respondents (69.5%) reported that the request for a non-compete came after the offer letter. Note that after accepting an offer of employment (and turning down other offers, if any), the new hire loses negotiating leverage. Nearly one-quarter of respondents (24.5%) were shown the non-compete on their first day at work. The lack of notice contributes to the fact that barely one in ten (12.6%) of those who signed a non-compete sought legal advice before doing so; in fact, less than one in twenty (4.6%) of those who signed the non-compete on their first day of work sought legal advice. Of those who did not seek legal advice, nearly half reported that they felt time pressure to sign or that they were told the non-compete was non-negotiable.

Implications of non-competes

1. Individual level

The bulk of evidence regarding the implications of non-compete agreements has been gathered at the individual level. Scholars have investigated how non-competes affect the mobility of workers from one firm to another, from one state to another, and from one industry to another. The implications for wages and motivation have also been studied. Overall, the weight of evidence supports the notion that non-compete agreements constrain mobility, although (as noted above) none of these studies has the advantage of longitudinal data regarding the individual-use of non-competes.

a. Interorganizational mobility

The most-oft studied issue regarding non-compete agreements is their effect on the ability of individuals to move from one organization to another. To some extent it is not surprising that this issue would receive

the most attention as this is the claimed effect of non-competes; on the other hand, it may seem obvious that non-competes should have this effect. That said, if there are so few non-compete lawsuits it may be that the contracts have little effect. Alternatively, it may be that the effect is wrought not in the courtroom but via the expectation or threat of a lawsuit.

Fallick, Fleischman, and Rebitzer (2006) were the first to study the connection between non-competes and worker mobility. They marshal month-by-month data from the Current Population Survey (CPS) administered by the U.S. Census, comparing levels of worker mobility between states and industries. Relevant to this discussion is their finding that mobility is considerably higher in the California IT sector than in similar sectors in other states. Noting California's longstanding ban on non-competes² the authors suggest that this differential in mobility may be attributable to the state's distaste for such contracts. However, the authors are careful to note that theirs is not a causal result: "[We] have no direct evidence that the California effect on mobility is due to the absence of enforceable non-compete agreements. As a result we cannot assess the role that other factors (such as local culture) may play in sustaining high rates of employee turnover (Fallick, et al., 2006:481). It may be that many California-specific factors contribute to higher mobility.

Building explicitly on Fallick et al (2006), Marx et al. (2009) claim a causal result of non-competes on worker mobility. Their empirical approach involves leveraging an inadvertent reversal of law regarding non-competes in Michigan during 1985. The authors utilize a difference-in-differences setup to compare Michigan mobility rates before and after the policy reversal with a set of control states whose existing restrictions on non-competes did not change during the period of analysis. Mobility is inferred from patent data. They find that the mobility of Michigan-based patent holders dropped by about 8% following the tightening of non-compete policy compared to the control states (which experienced no change in enforcement policy), with the effect about twice as strong for inventors with firm-specific or specialized skills. Moreover, they implement synthetic control matching and find no evidence of difference in pre-reversal trends between Michigan and the control states.

One limitation the authors acknowledge is that the patent data "enable only imperfect matching of inventors across patents and imperfect observations of job changes." (p. 886).³ Inventors are hardly required to patent at regular intervals, so using patent data to track mobility is inherently imperfect; ideally, such results would be replicated using employee-employer matched data such as available from the U.S. Census Bureau's Longitudinal Employee Household Data (LEHD). Moreover, the authors test whether the effect is moderated by the specialization level of the worker or their firm-specificity, but an important test would seem to be whether interorganizational mobility is moderated by the similarity of the current and new employer (non-competes should not affect mobility to dissimilar firms). The patent data contain information about the nature of the technology but not necessarily the employer's industry—especially not for private firms. Although the authors control for the auto industry overrepresented in Michigan, it remains nonetheless focused on a single state, leaving open the possibility that other

² California's Business and Professions Code Section 16600 states "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." This provision dates back to 1872, when California sought statehood, and has been reaffirmed repeatedly including in the state Supreme Court ruling in *Edwards v. Arthur Andersen*.

³ In an unpublished working paper, Jeffers finds a causal link between non-competes and mobility using LinkedIn data and several state supreme court decisions affecting non-compete policy.

unobserved characteristics of (or changes in) Michigan might explain the relative changes in rates of interorganizational mobility.⁴

Garmaise (2011) also addresses interorganizational mobility. Using data from the five most highly paid executives in 2610 publicly traded U.S. firms tracked by Standard & Poor's from 1992-2004, he takes advantage of non-compete policy shifts in three states: Florida, Texas, and Louisiana. In contrast to the Michigan experiment, none of these states experiences a wholesale change in the legal treatment of non-competes. Instead, Garmaise compiles an index based on 12 factors identified by Malsberger (2016) and notes when the index in each of the three states increased or decreased. Two of the states enacted changes via a state Supreme Court decision, which is both exogenous and retroactively applicable, and one is based on a legislative change (as in Michigan) which tightened the law in Florida. Garmaise finds that executives are less likely to change jobs after a state adopts tighter non-compete laws and moreover breaks down the effect by same- vs. different-industry moves. No effect is found for moves to different industries, but within-industry moves are 47% less likely.

That Garmaise uses non-compete changes in multiple state obviates the concern of the Marx et al. (2009) paper relying on Michigan alone. Although the legislative change in Florida, unlike Michigan, may not have been unanticipated, the results are robust to using only Texas or Louisiana. However, the nature of the dataset facilitates tracking only moves to other public companies. If an executive moved to a privately-held company, such as assuming a leadership role at a startup or a private-equity buyout, that move would be missed in the analysis. In addition, Garmaise does not establish whether interorganizational mobility trends in Texas, Louisiana, and Louisiana paralleled those in states that did not alter non-compete policy between 1992 and 2004, leaving open the possibility that, for example, executives in Texas were generally less likely to leave for companies in the same industry and that this trend was simply exacerbated following the policy change.

Finally, although Garmaise collects information on the use of non-compete agreements among a random sample of the Execucomp firms in his sample, reporting that at least 70.2% of such firms use non-competes, this information is not used in the analysis. The only published work to specifically correlate job mobility with the signing of a non-compete is Marx (2011),⁵ which presents evidence from interviews with 52 patent holders in the speech recognition industry. He finds that speech recognition engineers who moved were almost three times as likely to leave the industry when they were subject to a non-compete.^{6,7} Of course, workers may change industries for reasons having nothing to do with non-competes; however, one-third of those who left the industry specifically cited the non-compete as the reason for doing so. Although Marx's (2011) sample is extremely small compared to that of Garmaise (2011) or Marx et al.

⁴ In an unpublished working paper, Marx replicates the core finding of Marx, et al. (2009) without using patent data, relying on Michigan, or using the Stuart and Sorenson (2003) control group. He analyzes the impact of three non-compete policy reversals in Vermont, South Carolina, and Georgia on workers in 24 states and the District of Columbia using matched employer-employee data from the U.S. Census.

⁵ In an unpublished working paper, Starr, Prescott, and Bishara also consider direct evidence from workers who have signed non-competes in the context of job mobility.

⁶ In an unpublished working paper, Marx also finds evidence of workers switching fields using patent data and the Michigan policy reversal.

⁷ In an unpublished working paper, Arts and Fleming find that inventors were more likely to explore new fields after Michigan adopted enforceable non-competes.

(2009), it serves as direct evidence that non-competes discourage interorganizational mobility within an industry.^{8,9,10}

b. *Compensation*

If non-compete agreements make it difficult for workers to find attractive employment within their current industry, this restriction could impact wages in two ways. First, those who move to jobs in other industries may accept lower pay because their skills are less valuable. Second, those who stay with their current employer—perhaps in part because they fear running the risk of litigation if they accept an offer from a rival firm—have less leverage and consequently accept fewer pay raises.

The only peer-reviewed evidence to date regarding the effect of non-competes on compensation comes also from Garmaise (2011). His data on Execucomp executives contains information regarding salary, bonus, stock and stock options, as well as long-term incentive compensation. All of these are combined into a single figure, the growth of which is measured from year to year. The Texas and Louisiana policy shifts are again applied, as is the Florida policy shift but with a delay of one year (in case executives renegotiated their contracts the year after the non-retroactive law was enacted). Executives in states that tighten non-compete policy experience 8.2% lower compensation growth. Moreover, the basis of that growth appears to shift away from incentive compensation to salary-based compensation.

One question regarding these compensation findings involves the role of Florida. Garmaise suggests that because the law was not retroactive, “Florida executives may have negotiated higher compensation in 1997 (the year after the law change) in exchange for signing new, more restrictive covenants not to compete.” (p.27) But it is also possible that firms may have required executives to sign new non-competes, as continued employment suffices as consideration in Florida (Beck, 2017). As noted above, firms have clear incentives to adopt stricter non-competes among their workforce, and the widespread use of non-competes among senior executives would provide additional motivation for doing so. Thus estimates without the one-year delay for Florida would be informative.

Moreover, the unique character of executive compensation questions how generalizable Garmaise’s result is beyond executives.^{11,12,13,14} To be clear, Garmaise does not attempt to generalize this finding; however, policymakers must be careful not to assume that his findings on executives necessarily apply to all workers. Finally, salary growth is not split out as a separate dependent variable, we cannot say that non-competes impact *wages* as this has not been specifically tested. Especially given Garmaise’s companion finding that compensation becomes more salary based given tighter non-compete laws, it may in fact be the case the wages grow while incentive compensation shrinks.

⁸ In an unpublished working paper, Balasubramanian et al. find that technical workers whose careers began in a state with stricter non-compete regimes stayed in their jobs longer than those who did not.

⁹ In an unpublished working paper, Prescott et al. find that workers who reported signing non-competes stay in their jobs longer and when they move, move to non-rival firms. Moreover, these workers specifically cite the non-compete as their reason for turning down offers from rival firms.

¹⁰ In an unpublished working paper, Jeffers finds that state-level shifts toward stricter non-compete regimes are responsible for lower levels of job mobility among workers with LinkedIn profiles.

¹¹ In an unpublished working paper, Lavetti et al find that physicians subject to non-competes have higher earnings.

¹² In an unpublished working paper, Balasubramanian et al. find that technical workers who started their careers in a state with a stricter non-compete regime were paid lower wages than those who did not.

¹³ In an unpublished working paper, Starr finds that workers who signed a non-compete received lower wages.

¹⁴ In an unpublished working paper, Kang and Fleming find that Florida’s 1996 tightening of non-compete law did not affect overall wages in the state.

c. *Motivation*

A third possible implication of non-competes for individuals is motivation and productivity. If non-compete agreements limit outside options and reduce compensation, workers could find themselves demoralized. On the other hand, if workers know that it is difficult to move and that the non-compete is not automatically abrogated by termination, they may work harder in order to avoid being fired or laid off. The only published evidence to date is from Buenstorf, Engel, Fischer, and Gueth (2016).¹⁵

In contrast to the rest of the published work on non-competes, which relies on observational data, Buenstorf et al. undertake a lab experiment in order to ascertain the effect of non-competes on effort exerted by workers. In the experiment, a manager chooses to pay a set wage to an employee, who then decides how much effort to invest. If the employee's "project" succeeds (at random, but depending on effort), then the employee may ask for payout in order to stay with the manager. In some treatments, the payout is immaterial because the employee is subject to a non-compete agreement (for which s/he has been compensated). The authors find no difference in effort expended by employees who were subject to a non-compete, regardless of how much they were compensated in exchange for the agreements.

Naturally, a laboratory experiment must abstract away many real-world conditions to facilitate a feasible interaction and to hold many factors constant. However, the setup of Buenstorf et al. (2016) diverges in some ways from documented non-compete practice. First, the presumption that workers are compensated for signing a non-compete may not resemble most workers' experience. Marx (2011) finds that most non-competes are signed after the worker accepts the job offer and thus may have been unaware at the time of accepting that a non-compete would be required and thus would not have had the opportunity to bargain for a higher wage.¹⁶ Second, the experiment assumes that the worker chooses the effort level with full awareness of whether a non-compete applies, but non-competes are frequently entered into after the worker starts at the company. But many workers cannot recall whether they signed a non-compete as documented by Bishara, et al. (2016), raising the question of whether "forgotten" non-competes would impact productivity *during* employment as opposed to career flexibility *following* employment, as soon-to-be-ex-employees may well be reminded of their obligations upon leaving.

In sum, it is unclear whether similar results would obtain under real-world conditions. However, given that (with some exceptions, at least in the U.S.) non-competes can be enforced even against a worker who was terminated, any reduction of effort associated with the disenchantment engendered by the non-compete may be offset by the fear of being fired.^{17,18}

2. *Firm level*

Less work has been conducted to document the effects of non-competes on firms. This may be because non-competes are presumed to be effective for the firms that ask their employees to sign them. That said,

¹⁵ In an unpublished working paper, Amir and Lobel conduct a similar experiment in which they find that subjects bound by non-competes spent less time on the task and were more likely to abandon the task.

¹⁶ In an unpublished working paper, Starr also finds that most employers do not notify the prospective employee about the requirement to sign a non-compete.

¹⁷ In an unpublished working paper, Lavetti et al finds that physicians of similar quality have higher productivity when subject to non-compete agreements.

¹⁸ In an unpublished working paper, Starr finds that workers who report having signed non-compete agreements receive more training from their employer.

scholars have investigated the impact of non-competes on firm-level financial performance, investment, innovation, and acquisition.

a. *Financial performance of established firms*

Garmaise (2011) was the first to explore the implications of non-competes for financial performance. Again leveraging state-level policy changes in Texas, Florida, and Louisiana, he finds no discernable effect on either the market-to-book ratio or return on equity among Execucomp firms, although firms in states with tightened non-compete laws expend more per employee in order to achieve this result.¹⁹

Younge and Marx (2016) however find a connection between non-competes and firm value as measured by the market value of Tobin's q . Again leveraging the inadvertent Michigan policy reversal, they find that Tobin's q rose nearly 10%, albeit somewhat less for firms with strong patent portfolios. The differences between their result and Garmaise's non-result may be explained in several ways. First, Younge and Marx examine only the short-term (i.e., three-year) impact of non-competes whereas Garmaise examines all years following the policy changes.

If Garmaise's conjecture is correct that the direct benefits to firms of paying lower wages and retaining employees are offset by negative externalities, it is possible that these externalities take longer to arise and thus the long-term implications of non-competes for firm performance are unclear. It could also be that unobserved changes in Michigan having nothing to do with non-competes are responsible for the short-term run-up in Tobin's q . The authors conduct a series of placebo tests including a contemporaneous antitrust reform in Texas, but this possibility remains in the absence of multiple treatments.

b. Innovation

Conti (2014) proposes that non-competes lead firms to pursue pathbreaking inventions because the ability to retain inventors lessens their concerns that knowledge may leak to competitors. He explores this possibility by analyzing the impact of the Texas and Florida reforms discovered by Garmaise for the period 1990-2000. The dependent variables include whether a given patent is highly cited, not cited, or is in a new technological area. Core to his analysis is that the loosening of non-compete laws in Texas lead to fewer breakthroughs whereas the tightening of such laws in Florida was followed by more breakthroughs. Year-by-year effects are shown for the post-treatment periods in both Texas and Florida. However, pre-trends are not shown, so it is difficult to rule out that the observed effects were not already underway prior to the policy reforms.

Conti (2014) restricts the sample period to 1990-2000 and acknowledges that this time period excludes the use of both Louisiana and Michigan. The notion that non-competes enable firms to take greater risks and inventor more breakthroughs would be strengthened if the results could be replicated in Michigan, Louisiana, and other states that have experienced policy reforms.

c. Mergers & acquisitions

A final area of analysis at the firm level concerns mergers & acquisitions. Younge, Tong, and Fleming (2015) utilize the Michigan policy reversal to examine whether non-competes affect the likelihood that a firm will be acquired. They propose an affirmative answer to this question, especially for firms with more knowledge workers and facing stiffer competition but less so for firms with stronger intellectual property

¹⁹ In an unpublished working paper, Jeffers finds greater investment on the part of firms in states that have shifted to a stricter non-compete regime.

protection (presumably as an offset to knowledge leakage). Michigan and the control states appear to be on similar trajectories before 1985.

The dependence of this analysis on a single state's change in policy has been discussed for prior papers, and similar concerns apply here. The authors do however test alternative control groups instead of relying only on the classification of Stuart and Sorenson (2003). Perhaps of greater concern is unobserved heterogeneity in the treatment of non-competes following the acquisition of a firm. The paper implicitly assumes that a non-compete is effectively owned by the acquiring company even though the firm that required signature by the employee no longer exists. However, states differ in their treatment of the "assignability" of a non-compete following an acquisition, and more than a dozen states have changed their non-compete assignability policies since 1997 (Bauer 2016).

3. Regional level

Many policy makers will be principally concerned with the overall or regional effects of non-competes. Although most studies to date have focused on individual- or firm-level outcomes, a series of scholars have also paid attention to the broader implications of non-competes, particularly relating to entrepreneurship.

a. Flow of talent

The aforementioned studies regarding interorganizational mobility, taken together, deliver substantial evidence that non-competes limit the flow of talent within a region. As documented by many scholars, the free flow of talent may promote the flow of information as well as entrepreneurial activity, both discussed below. Another aspect of talent flow of particular interest to policymakers is the regional retention of talent. If non-competes help local companies to retain talent and thereby keep talent in the region, policymakers may be eager to implement stronger regimes.

However, Marx, Singh, and Fleming (2015) find the opposite to be the case.²⁰ Again leveraging the Michigan policy reversal and measuring mobility via patent data, they find that inventors in Michigan were twice as likely than those in control states to leave for states that continued to have weaker non-compete regimes. Moreover, this "brain drain" effect is stronger for more valuable inventors (as measured by total number of citations to their patents) or those with stronger network ties, either of which could lead to more out-of-state attention. However, they do not find similar migration patterns to all U.S. states, only to those with supposedly weaker regimes. The effect is moreover not driven by California and is not limited to Michigan industries in decline. The result is also not replicated for within-firm transfers across state lines. But the paper still relies on a single treatment (Michigan).

b. Flow of knowledge

Given that much tacit information is carried about in the minds of workers who "walk out the door every night" it might seem straightforward that non-compete agreements would throttle the flow of knowledge. Belenzon and Schankerman (2013) investigate the impact of non-compete agreements on knowledge flow. Their larger aim is to understand factors that condition spillovers from academia, measured both by

²⁰ In an unpublished working paper, Balasubramanian et al. find that technical workers whose first job was in a state with a stricter non-compete regime were more likely to leave the state than those who did not.

citations to university-owned patents and published articles. Their first finding is that knowledge flow from academia is muted in states with tighter non-compete laws, as measured in the cross-section.

Given the unobserved characteristics that may confound inference, they also apply the Michigan policy reversal. Their regressions estimate more knowledge flow within Michigan in the first four years after the policy reversal, but that the magnitude of that effect is ameliorated in subsequent years. The authors interpret this pattern of coefficients as evidence that knowledge flow within the state was reduced following the imposition of enforceable non-compete agreements, arguing that citations may take time to accrue so that the full effect can be captured and so the relevant comparison is post-1989 vs. 1985-1989. They also propose that that reduced knowledge flow in the years following the policy reversal could result from the departure of Michigan inventors to other states as found by Marx, et al. (2015).

c. Entrepreneurship

Aside from the interorganizational mobility of workers, the topic that has received more academic attention than any other is the impact of non-competes on entrepreneurial activity. In some ways, that these employment contracts should impact entrepreneurship should seem straightforward as they bar workers from undertaking any competitive activity, including joining or founding a rival.

The earliest study of non-competes and entrepreneurship was conducted by Stuart and Sorenson (2003). Their approach is to draw an association between MSA-level counts of liquidity events (i.e., acquisitions or IPOs) and new startups in the biotech industry. They find that IPOs are positively correlated with subsequent startup, as are the acquisition of biotech startups by non-biotech firms. However, acquisition by non-biotech companies is negatively correlated with new biotech startups.

The connection to non-compete agreements is drawn by comparing the above associations by the strength of non-compete laws in various states. This index is compiled from Malsberger (1996), which denotes ten states that have a specific law restricting or regulating non-compete enforcement. The connection between new startups and IPOs is stronger in states with weak non-compete regimes as well as the connection between new startups and acquisitions by non-biotech companies. Non-competes are found to amplify these effects. IPOs are more strongly correlated with subsequent startup activity in states with weaker non-compete regimes, as are acquisitions by non-biotech companies. Startups are less likely to follow acquisitions by biotech companies in states with strong non-compete regimes (but not more likely in states with weak non-compete regimes).

One question is whether, in the absence of exogenous variation in non-compete regimes, some characteristic of the weak-regime states explains greater startup activity. The authors control for population, universities with biotech programs, and the number of venture capital firms, but other factors may also affect new business starts. Moreover, the lack of individual-level data means that the authors cannot verify that the underlying mechanism is that the founders of new biotech companies leave acquired or recently-IPO firms.

Sorenson revisits the issue of non-competes and entrepreneurship with Samila (2011), again analyzing MSA-level entry but not limited to biotech. Again, a cross-sectional view of non-compete policy is utilized, although in addition to the binary classification of Stuart and Sorenson (2003) the graduated classification of Garmaise (2011) is also employed. The primary finding of the paper is that an increase in the number (not the dollar value) of venture capital investments is associated with an increase in new business starts (of all types), as well as an increase in patenting and employment in regions that do not enforce non-competes. The authors move beyond correlation by instrumenting for the supply of venture capital using the national average returns to college and university endowments, arguing that the balanced

investment strategies of endowments will result in more (less) local investments into venture capital funds when nationwide performance has been better (worse).

Samila and Sorenson (2011) present compelling evidence that non-compete agreements throttle the ability of venture capital investments to fuel entrepreneurship more broadly in a region. Given that venture-backed companies represent only a small fraction of business starts, their finding implies some sort of positive externality, such as that venture-backed companies spur demand for non-venture-backed suppliers, collaborators, or downstream customers. This seems plausible, although the reported finding does not entail that non-compete agreements act as a brake on entrepreneurship more generally but only in the presence of venture capital.

Starr, Balasubramanian, and Sakakibara (2017) also investigate the impact of non-compete agreements on entrepreneurial entry.^{21,22} Summoning employer-employee linked data from 30 U.S. states, they assess whether the founding of new firms is influenced by strong vs. weak non-compete regimes. As in the Stuart & Sorenson (2003) and Samila & Sorenson (2011) studies, they employ a cross-sectional measure of non-compete regime (refining the Garmaise (2011) index). However, they add a layer of comparison between startups in the legal field vs. others, exploiting the impermissibility of non-competes among attorneys. They find that non-competes indeed act as a brake on entrepreneurship, but only through the channel of interorganizational mobility. They find no impact of non-competes on the formation of non-law startups as compared to law startups except where at least one founder of the startup had their previous job in the same industry (defined as 4-digit NAICS). Moreover, these “spinoff” startups that arise in states with tighter non-compete regimes tend to survive longer and grow larger. The authors attribute these results to a “screening” effect whereby non-competes discourage would-be entrepreneurs of lower quality from striking out on their own.

Starr et al. (2017)’s approach of comparing startup law firms vs. startups in other industries relies on the identifying assumption that law firms represent a reasonable counterfactual for startups in other industries. The authors claim but do not show that “entry behavior” of law firms resembles that of non-law startups and moreover show that their results hold when comparing law startups only with startups in services-based industries. These limitations might be obviated by exploiting shifts in non-compete regimes,^{23,24} but the authors report that “[d]ue to the timespan of our data and restrictive disclosure requirements... we cannot pursue this longitudinal identification strategy.”

Starr et al. (2017) address not only entrepreneurial entry but also subsequent performance. Although the impact of non-competes on entry appears to be strictly negative, their impact of subsequent performance is theoretically ambiguous. Non-competes may make it difficult for startups to hire talent,²⁵ but they also make it easier for startups to retain talent, especially in the face of attractive offers from larger rivals who are able to pay more. If the results of Younge, et al. (2015) for publicly traded firms can extrapolate to

²¹ In an unpublished working paper, Kang and Fleming find that Florida’s 1996 tightening of non-compete laws acted as a brake on entrepreneurship. Entrepreneurs and establishments of small firms experienced less entry, whereas large firms added more establishments. Overall market concentration increased.

²² In an unpublished working paper, Lavetti and Hausman find that a tightening of non-compete laws regarding physicians led to higher concentration of physician markets and a 9.6% increase in average physician prices.

²³ In an unpublished working paper, Jeffers finds that state-level shifts toward stricter non-compete regimes lead to lower levels of entrepreneurship among workers with LinkedIn profiles.

²⁴ In an unpublished working paper, Marx finds that state-level shifts toward stricter non-compete regimes discourage entrepreneurship among women using employer-employee matched data from 25 U.S. states.

²⁵ In an unpublished working paper, Marx finds that smaller firms hire fewer workers under strong non-compete regimes.

privately-held startup companies, a strict non-compete regime may facilitate a robust market for acquisitions as would-be acquirers believe that they can retain not only physical but also human capital.

Ewens and Marx (2017) also examine the connection between non-competes and startup performance. Although the main thrust of their paper is to investigate the impact on startup performance of replacing member of the founding team, their instrument for doing so involves non-compete agreements. They leverage fourteen state-level shifts in non-compete enforcement policy, not including Michigan. In the first stage of their instrumental variable regressions, they report that it is easier for investors to find executives to replace founders in weak non-compete regimes. They assemble data on career histories of replacement executives to show that these tend to come from existing companies in similar industries and in the same state, all critical identifying assumptions for non-competes to affect the replacement rate. One critique of their approach is that, following Garmaise (2011) they classify each of the 14 policy changes in a binary fashion, either *weakening* or *strengthening*. Doing so may mask subtleties in the magnitude of the likely impact of various types of policy changes.

Summary of Peer-Reviewed Research; Avenues for Future Work

The table below summarizes the current state of empirical work on non-compete agreements. (Again, theoretical papers are not addressed.) For each level of analysis—individual, firm, and region—the number of studies on each topic is presented with a breakdown by methodology. Methodologies include the following:

- *Direct evidence*: article draws conclusions from data where it is known whether a given worker had signed a non-compete agreement.
- *Cross-sectional policy comparison*: article draws conclusions based on differences in state-by-state policies regarding non-competes but without direct evidence on whether non-competes were used among the firms or workers in question.
- *Policy shocks*: article estimates a difference-in-differences model based on one or more longitudinal shifts in non-compete policy but without direct evidence on use of non-competes.
- *Instrumental variable*: article draws inferences based on cross-sectional policy comparison but with an instrument either for non-compete policy or variables interacted with such.
- *Laboratory experiment*: article is based on a randomized controlled trial in a non-real-world setting.

An article may be listed more than once if it addresses multiple topics (for instance, Garmaise (2011) addresses five topics). Unpublished working papers, if any, are listed in parentheses.

		<i>Direct evidence</i>	<i>Cross-sectional policy comparison</i>	<i>Policy shocks</i>	<i>Instrumental variable</i>	<i>Laboratory experiment</i>	Total
Individual	Prevalence of contracts	4(1)					5(1)
	Process of obtaining signatures	1(1)					1(1)
	Mobility between firms and industries	1	1	2(5)			4(5)
	Compensation	(3)		1			1(3)
	Motivation/productivity	(1)				1(1)	1(2)
Firm	Performance			2			2
	Investment	(1)		1(1)			1(2)
	Innovation			1			1
	M&A			1			1
Region	Flow of talent		(1)	1			1(1)
	Flow of knowledge			1			1
	Entrepreneurship		2	1(4)	1		3(4)

The table above brings into relief several points regarding the empirical evidence to date, regarding both topics and methodologies.

Topics

The topics having received the most attention are a) the prevalence of non-compete contracts b) individual mobility c) entrepreneurship. Each of these topics has been addressed by three or more peer-reviewed studies. The individual level of analysis has more studies than the firm and regional level combined.

The relative lack of firm-level studies may be due to two reasons. First, data on firm-level use of non-competes are scant. Surveys that have been conducted to date ask *workers* whether they were asked to sign, but we have very little data on firm-level policies. One might possibly extrapolate firm-level policies from public statements on the use of non-competes with executives in the Execucomp data reported by Garmaise (2011), though doing so might be misleading as it is possible that companies use non-competes more aggressively with senior executives than with rank-and-file employees. Original data should be collected from firms regarding non-compete practices, though HR managers may prove uncooperative.

Second, because firms ask workers to sign non-competes, it may be assumed that non-competes are in the best interests of firms as Conti (2015) and Young & Marx (2016) would suggest. But might there be unintended, possibly negative consequences for firms of using non-competes? Although non-competes make it easier for firms to retain their existing employees, they also make it more difficult for firms to hire experienced workers from within the industry. Young & Marx (2016) analyze only the short-term impact of the Michigan policy reversal, leaving open the question of longer-term effects (which Garmaise (2011) fails to find in a longer time horizon). Work demonstrating that non-competes have any negative implications for firms would be newsworthy.

The regional level likewise suffers from lack of attention. This gap is particularly alarming given that non-compete laws in the U.S. are currently enacted at the state level, so policymakers must balance the interests of individuals, existing firms, and firms that do not yet exist. The research to date suggests that non-competes are generally negative for individuals and entrepreneurs but positive for existing firms; how should policymakers strike that balance? These opposing interests may help explain the diversity of policy changes, as policymakers try to optimize for local needs. For instance, in 2015 Hawaii fully banned non-competes in the IT sector, explicitly citing the risk of “driving skilled workers to other jurisdictions” and instead wanting to “provid[e] opportunities for technology employees to establish new technology companies and new job opportunities in the State” (Hawaii, 2015). By contrast, despite many public hearings there has been no change in Massachusetts legislation, owing perhaps in part to the preferences and lobbying efforts by large firms in the state. Of particular interest to policymakers would be the impact of non-competes on total factor productivity or other measures of social welfare.

Even though the bulk of research has focused on individuals, there are aspects that remain unexplored. Most studies have focused on high-tech workers such as patent holders, leaving open the question of how non-technical and low-wage workers are affected. This is particularly important given interest from national policymakers regarding the impact of non-competes on “vulnerable” workers. More generally, whether the use or impact of non-competes varies according to demographics has not been studied.²⁶

Methodologies

Regarding methodologies, the chart above makes clear that the bulk of peer-reviewed articles fall into two main categories. The first category consists of descriptive statistics and correlations based on direct evidence regarding whether workers had signed a non-compete or not. These studies are informative in that they provide insight into the prevalence and characteristics of non-competes as well as the process by which firms obtain signatures from their employees. Aside from primary fieldwork including interviews, it can be difficult to make causal claims from these data.

The second category of research exploits exogenous variation in state-level policies in order to draw causal inferences on the impact of non-competes. Although such studies are arguably better equipped to establish causality, important to note is that these studies lack direct evidence on the use of non-compete agreements. One reason for this is that the difference-in-differences setup typically employed in such studies depends on both pre- and post-treatment observations, but no longitudinal data yet exists on whether a given person was bound by a non-compete.²⁷ Rather, all surveys to date are conducted at a point in time. Thus the existing studies that exploit policy shocks are best interpreted as establishing the effect of laws that *permit* the enforcement of non-competes.

But non-competes may have an effect independent of whether they are enforced. None of the workers in Marx’s (2011) field study were sued or went to court; they took “career detours” out of fear that they *might* be sued. From the current peer-reviewed research it is hard to determine whether the effects of non-competes are due to the chilling effect, actual enforcement, or some other factor.

²⁶ In an unpublished working paper, Marx finds that non-competes have a stronger negative effect on would-be women entrepreneurs.

²⁷ In an unpublished working paper, Starr, Frake, and Agarwal find that the mobility of workers who have *not* signed a non-compete is constrained by the fact that other workers did sign. Thus the aforementioned concern of not knowing who signed a non-compete in longitudinal studies may be somewhat ameliorated if binding constraints on signers “spill over” to non-signers in the same state.

The ideal experiment for establishing the impact of employee non-compete agreements on individuals, firms, and regions would involve one of two approaches. One approach would be to randomly select firms to implement non-competes with their employees or randomly select workers within firms to be bound by non-competes. This approach is especially important if one accepts the *in terrorem* effect that signing a non-compete can have (and independent of whether a court enforces the agreement, or whether the worker is even sued). Of course, such a research design is in all likelihood unrealizable.

Second, one could evaluate the impact of random changes in non-compete policy upon workers who are bound by them. This is similar in spirit to the approach taken by the bulk of published empirical studies but with one critical difference. Because studies using policy shocks demand longitudinal data, but the only data available on who signs a non-compete is at a single point in time, it is currently infeasible to execute such a study. The addition of a non-compete question to the National Longitudinal Survey of Youth in the coming years may facilitate such analyses—at least at a small scale—in the coming decade. Of course, the new data collected must be concurrent with new state-level non-compete policy changes to be useful in such a difference-in-differences setup.

More generally, the peer-reviewed research has yet to combine direct evidence on non-compete usage with differences in state-level enforcement laws.^{28,29} Of course, one limitation of using direct evidence is that non-competes are not randomly assigned. Firms have discretion as to whether to ask individual employees to sign non-competes, and workers (to the extent they are aware) may incorporate the likelihood of signing a non-compete into their decision whether to join a particular firm.

Policy Recommendations

Policy debates about employee non-compete agreements tend to focus on whether firms should be allowed to enforce such contracts. California’s Business and Professions Code 16600 is often cited, which states: “Every contract by which anyone is restrained from engaging in a lawful profession, trade or business of any kind is to that extent void.” Michigan’s Public Act 321 of 1905 instituted an enforcement regime similar to California’s, which endured until March of 1985, when the state’s policy became more aligned with most other states. Hawaii adopted a California-style policy in 2015, rendering non-competes unenforceable for the information technology industry. However, determining the ideal enforcement policy requires weighing the interests of individuals existing firms, and firms not yet founded.

In Massachusetts, existing firms and trade associations have spent nearly six figures lobbying state legislators against reforming non-compete governance (Borchers, 2014) whereas workers lack organized representation. “Unborn” companies are perhaps best represented by those would fund them, such as venture capitalists, but venture capital represents only a tiny fraction of potential companies. Thus most would-be entrepreneurs lack a voice in the policy debate. However, whether or not courts should enforce non-compete agreements may not be the most important policy aspect.

²⁸ In two unpublished working papers, Starr combines individual-level signing data from Prescott et al. (2016) with state-level non-compete policies. Also with Prescott and Bishara, he investigates individual mobility. With Frake and Agarwal, he investigates whether individual mobility constraints for signers “spill over” to non-signers.

²⁹ In an unpublished working paper, Lavetti et al perform several analyses using state-level policies and observations on whether particular physicians signed non-competes. They find that physicians in states that permit tighter enforcement of non-competes are more productive and earn higher wages.

Notice, negotiation, and compensation

One aspect of non-compete practice that should be regulated is the process by which employees *sign* non-competes, regardless of whether they can be enforced. A non-compete is a contract between an employer and an employee, so employers must obtain signatures from employees. Some have characterized the process as workers bargaining over terms with potential employers, but as described above little negotiation actually takes place. Workers are frequently told the non-compete is non-negotiable, or that they must sign quickly (and thus can't find a lawyer to review). Low-wage workers may not be able to afford legal counsel. Most often, workers do not find out about the non-compete until after they accepted the offer—or even after they started working at the firm. At that point they lack leverage, and any supposed “negotiation” is more of an ambush.

Worse, in most states employers can require existing employees to sign a new or revised non-compete under threat of termination. The company is not obligated to give the worker anything in exchange for agreeing to new restrictions on their subsequent mobility.

At the very least, public policy should enable workers to consciously enter into such agreements and with sufficient legal guidance so that they understand the contract they are signing. Workers must be notified in the offer letter that they will be asked to sign a non-compete agreement as a condition of employment. Moreover, they need to be provided a copy of the proposed agreement for them or counsel to review. Finally, sufficient time must be allowed for such review to take place.

Employers who want current (not prospective) employees to sign a(n updated) non-compete must likewise provide enough time for legal review. More importantly, the worker must have the right to refuse the non-compete without being terminated.

“Up or down” decisions from judges

A peculiar feature of non-compete enforcement is the discretion many judges enjoy in deciding whether or not to uphold the contract. Typically, one would simply assess whether the terms of a contract had been met. In the case of non-competes, however, many states actually afford the judge an opportunity to *change the contract* in order to bring it into conformance with existing state law. Such actions are typically referred to as “reformation” or “blue-pencil” modifications.

Blue-pencil reformations to non-competes may at first glance appear favorable to workers as the terms of the non-compete are reduced, but this is incorrect. Consider the case where an overbroad non-compete would be ruled as unenforceable by the judge. Using the blue pencil, the judge is able to transform an otherwise-unenforceable non-compete into an enforceable one, to the detriment of the worker.

Moreover, because the judge can reduce the scope of an overbroad and otherwise unenforceable non-compete, firms can afford to be careless in crafting their agreements. Worse, they can be strategic in asking employees who may not know better to sign non-competes that would eventually be reduced in scope if a lawsuit were ever brought. Meanwhile, the firm enjoys the “chilling effect” of their employees believing that they are subject to a more broad constraint. A clear policy step is to abolish modification of the terms of a non-compete contract.

The “chilling effect”

Blue-pencil reformation enables firms to maximize concern and worry on the part of employees, even though the overbroad terms of the agreement will not be enforced. This is another example of the *in terrorem* “chilling effect” of non-competes. Barely a thousand non-compete lawsuits are filed each year in the U.S. Given that there are nearly 150MM people in the workforce, if the impact of non-competes were limited to legal proceedings then these contracts could only have a miniscule impact. Why would firms bother to include non-competes in employment contracts if they rarely if ever attempt to enforce them legally?

If non-competes have a chilling effect even in the absence of a lawsuit, then it may not be sufficient to govern the behavior of a judge in a courtroom. Workers may avoid breaking their non-compete even if their employer would not sue them to enforce the contract. For example, even if a job at another company were not clearly in violation, the worker might avoid pursuing the opportunity for fear that they might be sued.

The chilling effect derives from uncertainty regarding the outcome of potential litigation. In many cases, the worker may be at little risk of ever being sued. For example, if a California-based firm asked an employee to sign a non-compete, the employee might be unaware of Section 16600 and thus worry about leaving to found or join a rival when there is little if any risk of being sued over the non-compete. One step that might ameliorate such misunderstandings is to require employers to provide a copy of the current state law relevant to the agreement when asking for a signature.

Another, broader initiative would be to focus on educating the workforce regarding non-competes. Such initiative might be easiest to implement in the placement offices of colleges and universities. In order to fully inoculate workers against the chilling effect, policymakers might focus not just on whether judges should enforce non-competes but whether firms are allowed to require workers to sign them at all. However, all states seem unlikely to adopt California’s rigid anti-non-compete stance.

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