TO: The Massachusetts Joint Committee on Economic Development and Emerging Technologies

FROM: Matt Marx

RE: House Bill H.4045, “An Act to Promote Growth and Opportunity”

DATE: May 29, 2014

Dear Senate Chair Candaras, House Chair Wagner, and members of the Massachusetts Joint Committee on Economic Development and Emerging Technologies:

My name is Matt Marx. I am the Mitsui Career Development Professor of Entrepreneurship, and Assistant Professor of Technological Innovation, Entrepreneurship, and Strategic Management at the Massachusetts Institute of Technology Sloan School of Management. Effective July 1, 2014 I will be promoted to Associate Professor. Prior to my academic career, I was an engineer and an executive in three small companies. I designed user interfaces and wrote C++ code at SpeechWorks International, headquartered in Boston, MA. At Tellme Networks of Mountain View, CA, I served as Vice President of Customer Solutions and managed an engineering and account-management team of 75. I hold seven U.S. patents as well as degrees from Stanford University, the MIT Media Lab, and Harvard Business School.

I write in support of House Bill H.4045, “An Act to Promote Growth and Opportunity.” I have experience with employee non-compete agreements, both in my academic research and firsthand. As both an inventor and an executive, I have experienced non-competes from both sides: I’ve asked new employees to sign them, and I’ve signed them myself. I originally became acquainted with non-compete agreements at my first job following graduate school. On my first day at work, and without prior notice, I was asked to sign a contract in which I promised not to work for any competitor for a period of two years after leaving the company. I was struck by how this provision in my employment contract could constrain my future occupational opportunities, particularly because my technical skills were rather specialized. Yet having already turned down other employment offers to accept the job, and as a young engineer without much bargaining power, I signed the agreement that same day and without having a lawyer review it. I later left the firm to attend business school, with the expectation that I would either change industries or that my non-compete would expire near graduation. As it turned out, I left business school to join another company in the same industry, which I was able to do in part because the company was located in California (where non-compete agreements are not enforced).

Much of my academic research focuses on the use of non-compete agreements as well as their implications for innovation, entrepreneurship, and the careers of scientists, engineers, and other creative professionals. I will primarily describe my own work but also will refer to studies and opinions by other professors, including:

* Olav Sorenson of Yale University
* Mark Garmaise of UCLA
* Lee Fleming of the University of California at Berkeley
* Jim Rebitzer of Boston University
* Sampsa Samila of the National University of Singapore
* Toby Stuart of the University of California at Berkeley

**Trends in the use of non-compete agreements**

Of particular relevance to the proposed bill is a survey I conducted in conjunction with the Institute of Electrical and Electronics Engineers (IEEE), a non-profit professional association founded in 1884 and with approximately 215,000 members in the U.S. In August 2008, we surveyed a group of 5,000 randomly selected members and received responses from 1,029 of them (a 20.6% response rate). The survey results speak directly to three provisions of the bill: length of term, advance notice, and the differential treatment of less senior employees.

***Term.*** Most survey respondents indicated that their non-compete lasted no longer than one year. More than one-third of respondents, however, (35.0%) claimed that the non-compete they signed was for a duration of more than one year. Moreover, 14.4% of non-competes in the survey were longer than two years. Some non-competes (2.3%) even exceeded five years in duration.

***Notice*.** Especially given the extended term of many employee non-compete agreements, it might seem reasonable that potential employees be made aware of non-compete requirements when considering a job offer. However, the survey suggests that such notice is the exception rather than the rule. More than two-thirds of respondents (69.5%) reported that the request for a non-compete came after the offer letter, with nearly one-quarter (24.5%) being 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.

***Seniority.*** Compared to more senior workers, junior employees were less than half as likely to refuse to sign a non-compete agreement, whether measured by age (11.2% of older workers refuse, compared with only 3.7% of young workers) or years of experience (10.4% vs. 5.0%). Moreover, junior employees are less than one-third as likely to seek legal advice. Perhaps this partially due to younger workers seeing the non-compete with the job offer less often (24.6% vs. 36.2%) and are considerably more likely to be asked to sign the non-compete on their first day of work (30.5 vs. 18.1%).

These findings are summed up the experience of a worker who felt blindsided by a non-compete request at his first job: *“I never received any information ahead of time. And then it was the first day when I had all the paperwork in front of me: health insurance, 401(k), and the non-compete. It was either ‘sign it and work here or don't sign it and don't work here.’”*

These findings refute the claims of those who characterize the proposed reform as limiting freedom. Brad MacDougall, Vice President of Government Affairs at AIM, was quoted in a recent article by the Associated Industries of Massachusetts ([http://blog.aimnet.org/AIM-IssueConnect/bid/103454/ Non-Compete-Agreements-Protect-Innovation](http://blog.aimnet.org/AIM-IssueConnect/bid/103454/%20Non-Compete-Agreements-Protect-Innovation)) as saying that “the non-compete issue is really about choice for both individuals and employers, who should be free to negotiate contracts of mutual benefit.” But as my research shows, in most cases there is rarely such negotiation. Companies usually wait until after the worker has accepted the job—and consequently has turned down other jobs—to ask for the non-compete. At that point, the worker has little negotiating leverage. As shown above, the vast majority do not have a lawyer review the document, which may significantly restrict their career options, largely because they are pressured by their employer not to do so. That is not being “free to negotiate.” Moreover, as the next section of this document will show, non-compete agreements do not provide “mutual benefit” but rather operate for the benefit of employers.

**The impact of non-compete agreements on individual workers**

The following findings are based on both qualitative and quantitative data. Along with Lee Fleming of the Harvard Business School, I undertook a study that examined the introduction of a law allowing firms to enforce non-compete agreements in the state of Michigan. Importantly, our study took advantage of the fact that the enforceability of non-competes was an inadvertent consequence of a Michigan revision of its antitrust statutes (this type of experimental design is referred to as a “natural experiment” in the social sciences literature). Additionally, each of the results I will describe concur with related studies in the literature, and are still present even when we account for potentially confounding factors—such as whether individuals worked in the auto industry so critical to Michigan’s economy. The before-and-after test using Michigan’s policy reversal is superior to simply comparing enforcing vs. non-enforcing states as other confounding factors may be at play (such as local culture). Our empirical research highlights three related findings:

***Reduced job mobility.*** We found that once Michigan allowed companies to enforce non-compete agreements, job mobility dropped 8.1% compared with other states that continued to prohibit non-competes. Job mobility dropped nearly twice as far for workers with highly specialized skills, given the more limited external market for their expertise. Moreover, this results is not just idiosyncratic to Michigan. Comparing job-mobility rates between enforcing and non-enforcing states yields similar results: individuals change jobs less often where non-competes are enforced.

***“Career detours”.*** Not only do non-competes discourage employees from changing jobs; they also affect the career choices of those who do leave their employers. In a set of 50 randomly-sampled interviews in a single industry, I found that one-quarter of those who signed a non-compete and then left their jobs also left the industry due to non-competes. During these “career detours”, the individuals I interviewed often accepted lower compensation because they were unable to use their skills. One worker observed that the non-compete was particularly damaging to her because it precluded use not only of training from the firm where she signed the agreement, but all prior relevant expertise: *“I've been in this industry for 20 years. I have a Ph.D in the field. I walked in the door with an enormous amount of experience, and while I worked there for a year in a half they added maybe, what, 2% to that? And now they want to prevent me from using any of what I know?”* These results are corroborated both by the Michigan policy reversal and also by the work of UCLA economist Mark Garmaise, who found that compensation for executives who changed jobs in states that enforce non-competes is lower than in non-enforcing states.

Important to note is that the above effects are not obtained solely by virtue of lawsuits but via a “chilling effect” in that individual workers stay in their jobs or take career detours because they fear that a lawsuit *might* take place. This is important because several opponents of non-compete reform have suggested that judges will do the right thing when a case comes to trial. However, there are fairly few actual lawsuits! Jay Shepherd of the Shepherd Law Group reports that there were 1,017 published non-compete decisions in 2010. The Bureau of Labor Statistics reported that there were 154,767,000 workers in the U.S. as of June 2010. If the effect of non-competes were limited to the courtroom, simple math would suggest that 0.0007% of workers were affected by non-competes. Yet data from my IEEE survey indicate that nearly half of engineers and scientists are required to sign non-competes (including states where they are unenforceable). Why are workers asked to sign non-competes when barely a thousandth of a percent of them ever involve a court case? It is because of *the chilling effect*—because non-competes affect worker behavior even in the absence of a lawsuit.

In dozens of interviews with workers whose career trajectories were affected by non-competes, none of them were actually sued. Some received threatening letters or phone calls from their ex-employers, however, including one woman whose ex-boss called her for months to ask where she was working. Others, even if they were not directly threatened, assumed that if they were sued, they would lose due to the expense of defending themselves. In some cases they felt that they were under obligation to honor the agreement they had signed—no matter how overreaching it might have been. This last point underscores the fallacy of assuming that the judicial system can fix overreaching non-competes. While it is true that a judge may in some cases “rewrite” a non-compete s/he judges to be excessive with regard to scope or duration, note that this only applies if a case is actually brought to court. Returning to my own experience, it is possible that a judge would have reduced the two-year non-compete I signed down to one year or even six months. But I have no way of knowing that ex ante and must consider the worst-case assumption that the judge might not reduce the term, not to mention the time and expense involved with going to court. Moreover, such “rewrite” provisions may ironically give companies an incentive to require employees to sign excessively broad or long non-competes: if no case ever goes to court, the chilling effect is obtained with the longer non-compete, and if the case does go to court, the judge may merely reduce the term. One lawyer has suggested to me that many non-compete agreements as written would not stand up in court, but because employees don’t know this they obey contractual terms that are in fact unreasonable.

The foregoing should emphasize that the benefits of non-compete agreements do not accrue to individuals and are hardly “mutual.” I have never come across a single person who told me that they were glad that they had signed a non-compete.

**The impact of non-compete agreements on innovation and entrepreneurship**

Some in this hearing will claim that it is difficult or impossible to operate their business and invest in R&D without employee non-compete agreements. Perhaps it is easier not to worry about people leaving, and certainly it is attractive to pay lower wages as found by Professor Garmaise, but one need look no further than California’s Silicon Valley or San Diego biotech cluster for proof that a thriving economy does not depend on non-competes. Non-competes have been banned in California (except in limited situations such as the sales of a business) for more than 100 years. On this point, it is important to note that Professor Garmaise’s study also demonstrated that R&D investment per employee is lower, not higher, when non-competes are enforced. If non-competes were truly essential to R&D, one would have long since expected an exodus of technology firms from non-enforcing states such as California. Clearly this is not true. Moreover, some of the most vigorous opponents of non-compete reform maintain extensive operations in California, as noted in a recent Boston Globe article (<http://www.bostonglobe.com/business/2014/05/17/emc-free-poach-talent-california-while-enforcing-noncompete-agreements-bay-state/znljcOqCRvm3IDWu4rPGlL/story.html>). Thus non-compete agreements cannot be essential to operating a business.

***Brake on entrepreneurship***. Non-competes also act as a brake on entrepreneurial activity, both by blocking the emergence of new companies and also by making it harder for them to grow. To the former point, Professors Olav Sorenson of Yale University and Toby Stuart of the University of California at Berkeley published a study in 2003 showing that the spawning of new startups following liquidity events (i.e., IPOs or acquisitions) is attenuated where non-competes are enforceable. Professor Sorenson followed up this study with a more recent article, coauthored with Professor Sampsa Samila at the National University of Singapore. They show that a dollar of venture capital goes further in creating startups, patents, and jobs where non-competes are not enforceable. Their finding is moreover is not just a Silicon Valley story but holds when Silicon Valley is excluded entirely.

Non-competes not only make it more difficult to start a company; they make it harder to grow a startup. One of the randomly-selected interviewees in my American Sociological Review article said that he “consciously excluded small companies because I felt I couldn’t burden them with the risk of being sued. [They] wouldn’t necessarily be able to survive the lawsuit whereas a larger company would.” Also, whereas large companies are able to provide a holding-tank of sorts for new hires to work in a different area while waiting for the non-compete to expire, this is more difficult for smaller firms.

Given the above findings, it is not difficult to see why established companies (of various sizes) generally implement non-competes when they are allowed to do so. Non-competes make it easier to retain employees and pay them less, and they reduce the threat from new entrants within the industry. Yet these benefits to firms come at the expense of workers and not-yet-founded startups.

***Exodus of talent***. Employee non-compete agreements chase some of the best talent out of a region, resulting in a “brain drain.” My research indicates that Michigan’s sudden adoption of non-compete agreements in 1985 accelerated the emigration of inventors from the state and moreover to other states that continued not to enforce non-compete agreements. This finding is not simply an artifact of the automotive industry or general westward migration; in fact, it is robust to a variety of tests including pretending that the policy change happened in Ohio or other nearby, mid-sized Midwestern states. Worse, this “brain drain” due to non-compete agreements is greater for the most highly skilled workers.

Massachusetts is particularly concerned about brain drain, as evidenced by a 2003 reported entitled *Talent Retention in Greater Boston* (Guzzi, 2003), which indicated that “fully half of graduates leave the area after receiving their degrees.” One of the key points of this report is that it the exodus of talent from Massachusetts is due not so much to weather or cost of living but career concerns. I’ll admit to being part of the problem; when students come to me with two job offers, one in the Hub and one in Silicon Valley, I remind them of the potential non-compete issue. If they want to continue in the same industry, what will happen if they become dissatisfied with the job? Just this week a student told me that a small local company wanted him to sign a 12-month non-compete in order for them to hire him for a 3-month internship. If graduates understand the non-compete issue—sadly, many do not yet—even more of them may choose the Bay Area over the Bay State because they do not wish to be concerned with future restrictions on their job mobility. Moreover, about half of my MBA students are planning to start a company after graduation; some have already started. Similarly, I advise would-be entrepreneurs that it may be harder for them to find key technical talent in a region where non-competes are enforced.

**References**

Fallick, Bruce, Charles Fleischman, and James Rebitzer, "Job-Hopping in Silicon Valley: Some Evidence Concerning the Micro-Foundations of a High Technology Cluster," *The Review of Economics and Statistics,* 88 (2006), 472-481.

Garmaise, Mark, “The Ties That Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment,” *Journal of Law, Economics, and Organization,* 27(2):376-425.

Guzzi, Paul. *Preventing a Brain Drain: Talent Retention in Greater Boston*. Study prepared by the Boston Consulting Group, sponsored by the Greater Boston Chamber and the Boston Foundation.

Marx, Matt, Deborah Strumsky, and Lee Fleming, “Mobility, Skills, and the Michigan Non-Compete Experiment,” *Management Science,* 55 (2009), 875-889.

Marx, Matt, “The Firm Strikes Back: Non-compete Agreements and the Mobility of Technical Professionals.” *American Sociological Review* 76(5):695-712.

Samila, Sampsa, and Olav Sorenson. "Noncompete covenants: Incentives to innovate or impediments to growth." *Management Science* 57.3 (2011): 425-438.

Stuart, Toby E., and Olav Sorenson. "Liquidity events and the geographic distribution of entrepreneurial activity." *Administrative Science Quarterly* 48.2 (2003): 175-201.