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Good afternoon. Thank you to the chair and members of the committee for the opportunity to testify regarding research on non-compete contracts. My name is Ryan Nunn—I am the Assistant Vice President for Applied Research in the Community Development and Engagement division at the Federal Reserve Bank of Minneapolis. I am an economist with a focus on analysis of labor market institutions, including non-compete contracts, which I have worked on at the U.S. Treasury Department, the Brookings Institution, and now the Minneapolis Fed. The views I express today are my own and not necessarily those of the Minneapolis Fed or anyone else associated with the Federal Reserve System.

I am glad that the committee is focused on this important issue. Minnesota and many other states face a range of workforce challenges, and it is becoming increasingly clear that non-competes are part of that story. I will spend the bulk of my time describing what we have learned about non-competes, including how they affect workers, businesses, and the overall economy.

Non-competes are everywhere, including among lower-wage workers

Just ten years ago, it was widely believed that non-compete contracts were predominantly found among executives and high-tech workers. A number of studies focused on those groups, generating valuable information about how they affect migration patterns, career paths, and other outcomes. And to be sure, non-competes are somewhat more common among executives, high-tech workers, and those with higher wages generally.[1]

But what we did not know at that time is that non-competes are common throughout the labor market, including millions of workers without college degrees. The first researcher to discover this was Professor Evan Starr of the University of Maryland, who conducted his own survey to gain a comprehensive understanding of non-competes throughout the labor market.

Inspired by Prof. Starr, the Bureau of Labor Statistics incorporated questions about non-competes into recent rounds of a key, long-running survey. My colleagues and I used those new data to estimate that 13% of mid-career workers with just a high school degree reported having a non-compete. Similarly, 12% of workers earning less than $20 per hour reported having a non-compete.[2] These rates are likely underestimates, because many workers are unaware of having the contracts until it is pointed out to them by their employer.

Unfortunately, available sample sizes do not support a reliable state-specific estimate for Minnesota, but my best guess—extrapolating from national data—is that almost 350,000 workers have non-competes in our state.

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[1] See, for example, Marx (2011); Schwab and Thomas (2006); and Garmaise (2011).
[2] Boesch, Lim, and Nunn (2021).

These are large numbers. I believe it is this realization that non-competes are ubiquitous that has accelerated researcher and policymaker efforts to understand and address issues surrounding non-competes.

Why non-competes exist

In a few moments, I will describe research on the economic effects of non-competes. But before doing so, I find it helpful to think through the typical justifications for non-compete contracts and other reasons that researchers believe they are used.

The most typically referenced justification—and in my view, the most compelling—concerns trade secrets. In some cases, businesses must share trade secrets with workers in order for them to be productive. But if the employer fears that workers will take these valuable secrets to competing businesses, it may hesitate to share them in the first place, with negative consequences for productivity.

This is a reasonable concern. We have evidence that the relatively small group of workers with trade secrets are especially likely to have non-competes. But most workers with *non-competes* do not have trade secrets.[3] For lower-wage workers, this is particularly unlikely to be a serious issue.

What else might account for the proliferation of non-competes? This is an area of ongoing study. In research with my colleagues, we found that workers at multi-establishment firms are especially likely to have non-competes.[4] This may be because those firms have more developed HR practices and infrastructure that allow them to deploy the contracts. There are likely other differences between firms that we can connect with use of non-competes.

But the bigger picture many researchers have come to see is that non-competes are often driven by employers' desire to reduce their turnover and to gain leverage in wage negotiations. Without the possibility of easily moving to a competing firm, workers are in a weaker position when seeking better wages and working conditions. As we have learned about the conditions under which workers typically sign these contracts, this account has become more credible.

How non-competes are signed and enforced

Importantly, it appears that non-competes are typically presented to workers after the job offer was accepted. In a survey of electrical engineers, nearly half of workers actually reported having signed their non-competes on or after the first day of work.[5] This is not a moment at which workers can make an informed decision, with a reasonable opportunity to decline. Indeed, only a very small minority of all workers with non-competes report actually negotiating over them.[6]

Moreover, workers are more likely to be taken advantage of when they have limited information about how the contracts can be enforced. There is much worker confusion over this. Workers in states that

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[3] Starr, Prescott, and Bishara (2019).
[4] Boesch, Lim, and Nunn (2021).
[5] Marx (2011).
[6] Starr, Prescott, and Bishara (2019).

enforce less stringently—or not at all—are generally unaware that this is the case, and often respond to non-competes as if they are enforceable when they are not.[7]

State enforcement regimes do differ widely. California, North Dakota, and Oklahoma generally do not enforce non-competes. Other states vary in the details. For example, some states—like Minnesota—allow non-competes to be enforced even against workers who are laid off.[8] Another way that state law varies is in how willing courts are to modify unenforceable contracts, which has implications for whether employers feel comfortable writing aggressive, overly broad non-competes.

Non-competes and workers

Now I would like to turn to the research on how non-competes affect workers, businesses, and the overall economy. I'll start with effects on workers, which is the subject of some exciting new analysis.

One of the most useful studies in this area looks at a policy change in Oregon that made non-competes unenforceable for hourly paid workers. The authors of that study found that wages for those workers were higher after the change.[9] Another study examined wage changes for tech workers in Hawaii after the state made their non-competes unenforceable. Similarly, this reform boosted their wages.[10] These findings are consistent with other work showing that less stringent enforcement of non-competes is associated with higher wages.[11] Moreover, low-wage workers seem to benefit the most when non-competes are less strictly enforced.[12]

Wages aren't the only outcome one might care about. One consequence of non-competes that has been studied is the tendency for them to cause career detours. Non-competes cause some workers to leave their industries or states in order to escape their non-compete contracts.[13]

The same study of Hawaiian tech workers that I mentioned a moment ago also found that workers were more mobile after the reform. Somewhat surprisingly, non-competes also appear to reduce the mobility of workers who do *not* have non-competes. When firms are looking to hire in an industry where many workers have non-competes, there is less incentive to spend time and money recruiting, which makes it more difficult to find jobs even for those workers without non-competes.[14]

On the positive side of the ledger, stringent non-compete enforcement leads to somewhat more worker training by firms.[15] This makes sense: non-competes make it harder for workers to leave, which in turn makes employers more confident that they will reap the rewards of training their workers.

[7] Prescott and Starr, forthcoming; Starr, Prescott, and Bishara (2020).
[8] Russell Beck n.d., accessed January 28, 2023.
[9] Lipsitz and Starr (2019).
[10] Balasubramanian et al. (2022).
[11] Johnson, Lavetti, and Lipsitz (2019).
[12] Starr (2019).
[13] Marx (2011); Marx, Singh, and Fleming (2015).
[14] Starr, Frake, and Agarwal (2019).
[15] Jeffers (2019); Starr (2019).

However, the results from the wage studies I just mentioned suggest that the relatively small training increases are not enough to offset other negative effects for workers.

Non-competes and businesses

This is a good moment to switch gears and discuss effects on businesses. It is helpful to distinguish businesses in their role as employers of particular workers vs. businesses in their role as potential hirers. Obviously any given employer will have both roles, but non-competes have sharply different effects in each case.

For businesses trying to hang on to existing workers and pay them less, non-competes are helpful. The wage and turnover reductions I described a moment ago are contributions to employers' bottom lines. However, hiring is more difficult when non-competes are common, or when they are strictly enforced. This is especially a problem for entrepreneurs. When non-competes are more strictly enforced, there are fewer startups, which on average are less likely to survive. Even when they do survive, they tend to grow more slowly.[16] One study also finds that women entrepreneurs are more limited by non-competes than their male counterparts.[17]

Non-competes and the economy

What does this all mean for the overall economy? There are three main issues I worry about here: investment (in human capital and trade secrets), having productive matches between workers and firms, and the spread of new innovations.

As I mentioned a little while earlier, we do have evidence that non-competes raise investment, but the effect is small. A new paper compares the benefits of that extra investment with the costs of worse matches between workers and businesses. Intuitively, non-competes prevent workers from finding the best place for them to use their talents, and this reduces labor productivity. The author uses data on publicly listed firms to show that the costs of non-competes substantially outweigh the benefits.[18]

A different issue is that non-competes can prevent new discoveries and innovations from spreading broadly through the economy. One study demonstrates this using patent citations, finding that strict enforcement of non-competes causes a large reduction in citations within states.[19] This effect is not especially surprising, because it has long been known that workers moving across businesses is one of the ways that innovations spread.

Options for addressing non-competes

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[16] Ewens and Marx (2018); Starr, Balasubramanian, and Sakakibara (2017); Samila and Sorenson (2011).
[17] Marx (2018).
[18] Belenzon and Schankerman (2013).
[19] Shi (2022).

Having just summarized much of the new research on non-competes, I'd now like to connect it with proposals for reform.

Those proposals have taken on a variety of forms. Just weeks ago, the Federal Trade Commission proposed that non-competes be broadly prohibited. However, it remains very unclear whether this proposal will ultimately be implemented and sufficiently enforced. Other proposals and enacted reforms at the state level have tended to be more narrowly tailored, specifying groups of workers who are ineligible for non-competes. Earlier I mentioned Oregon's reform that rendered non-competes unenforceable for hourly paid workers. More recently, Washington state, Illinois, Virginia, and other states have disallowed non-competes for those earning below an income threshold.

In my view, income thresholds are common because the argument in favor of non-competes for lower-wage workers has little justification in the evidence. Lower-wage workers are unlikely to possess trade secrets, and the research finds that they are particularly vulnerable to the harms of non-competes.

Another common provision in reform proposals—garden leave—is interesting because it requires employers to have skin in the game. If a particular non-compete contract is really needed to protect vital employer interests, like trade secrets, then the employer will find it worthwhile to pay for garden leave. Conversely, if a particular contract is not safeguarding vital employer interests, the employer can elect not to use it with that worker.

What might employers do instead of using non-competes? There are a variety of alternatives to non-competes that are often more narrowly tailored to the need at hand. For example, nondisclosure and intellectual property agreements can directly address trade secrets without preventing a worker from taking new jobs. A nonsolicitation agreement can stop an employee from taking a client list to a competing firm, but again without broadly restricting the ability of the employee to work.

Thank you again for the opportunity to speak today. I would be happy to follow up with any information that the committee might find useful.