Comments Filed with the Federal Trade Commission on the Matter of "Non-Compete Clause Rule"

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April 2023

Before the
U.S. Federal Trade Commission
Washington, D.C. 20580

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In Re:)
Non-Compete Clause Rule) Matter No. P201200
) Regs.gov No. FTC-2023-0007-0001
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Comments of

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April 19, 2023

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I.   Executive Summary

The empirical evidence on non-compete agreements cited by the FTC shows mixed results in studies on earnings, job creation, firm formation, entrepreneurship, training, investment, and firm value, and does not support an economy-wide ban. Additionally, while the FTC says alternatives to non-competes, such as non-disclosure agreements and non-solicitation agreements, are comparably effective, research on this question is virtually non-existent.

The FTC's cost-benefit analysis is also flawed and incomplete, as it assumes away uncertainty, ignores costs, and fails to show that earnings effects are real, not transfers. The Commission concludes that the proposed rule would yield net benefits even though by its own admission it lacks the information necessary to conduct a cost-benefit analysis.

Instead of an economy-wide ban, the FTC should focus on more targeted inquiries in industries or occupations where evidence is more conclusive, such as those involving low-wage workers.

II.   Introduction

The FTC proposes a rule to declare virtually all non-compete agreements to be unfair methods of competition under Section 5 of the FTC Act and therefore illegal.[1] Employers would be barred from including non-compete clauses in contracts and would be required to retroactively remove non-competes from existing contracts. The FTC defines a non-compete clause as one "that typically blocks the worker from working for a competing employer, or starting a competing business, within a certain geographic area and period of time after the worker's employment ends."[2]

To support its argument, the Commission relies upon a research literature that yields mixed results, yet it interprets and interpolates results in ways that support the proposed rule while dismissing results that contradict its narrative. No objective review of the literature supports a conclusion that a ban on non-competes across the entire economy would be net positive. Additionally, it performs a flawed cost-benefit analysis that conflates transfers with economic effects and assumes certainty where there is none.

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[1] FTC, Non-Compete Clause Rule, NPRM, at 3,
https://www.ftc.gov/system/files/ftc_gov/pdf/p201000noncompetenprm.pdf [hereinafter "NPRM"].
[2] *Id.*

The literature and news stories do show that in some circumstances firms can abuse non-competes. The Commission provides examples at the beginning of the NPRM highlighting how individuals, particularly in low-wage occupations, can be subject to non-competes that hardly seem justified and take advantage of workers' lack of information or bargaining power. Employers have used non-competes where they are hard to justify and make them broader than necessary. Investigations into the use of non-competes in examples like those and in certain sectors may be justified.

But non-competes can serve important roles in employment contracts. They can protect trade secrets, for example, and encourage firms to invest more in training if they know a new employee will not simply take training or sensitive knowledge elsewhere. Some jobs entail a lot of worker investment, including out-of-pocket costs for advanced training. Firms may be less willing to make these investments if they cannot reap the returns over some reasonable period. Non-competes can lower labor costs by lowering costs associated with replacing workers, or in other words, eliminating non-competes can raise labor costs by raising the costs associated with replacing workers. By restricting non-competes, employers may have increased incentives to automate these jobs away from humans to machines. The NPRM acknowledges the additional incentive to invest in human capital through more training that is protected by non-competes, and the creating and sharing of trade secrets as primary justifications for non-competes.[3]

The Commission argues that other mechanisms such as non-disclosure and non-solicitation agreements can achieve those results for employers, but the research simply has not yet estimated the effectiveness of different mechanisms on employer investment in different sectors or occupations.

The NPRM frequently cites the prevalence of non-competes across the economy as a justification of its proposed rule, with the FTC estimating that one in five American workers – approximately 30 million workers – is covered by a non-compete clause.[4] It is understandable that regulators might want to examine non-competes given the large share of workers they cover. At the same time, that large share of workers covered also means that a federal administrative rule would affect a large share of the economy. That should cause the Commission to be especially humble about the state of knowledge and be even more careful about considering the

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[3] NPRM at 47.
[4] NPRM at 76.

effects of its proposed rule. In this NPRM, the Commission shows no such humility or desire to learn more before seeking to impose its rule on nearly all employment contracts across all states, industries, and occupations.

The policy question is whether such a sweeping prohibition would enhance welfare.[5] Banning non-competes because some employers abuse non-competes is not sensible. We don't outlaw all mergers because some are anti-competitive. An outright ban should be reserved for practices that are almost always anti-competitive and have no significant pro-competitive rationales. It is highly unusual for a rulemaking to be the vehicle for such a change to employment practices absent adjudicatory or legislative intervention. In an adjudicatory proceeding, an accused employer's behavior could be analyzed under the rule of reason to determine whether potential harms are outweighed by pro-competitive benefits. Instead, the FTC presumes illegality on all employers for all non-compete clauses without regard for length of time or employer motivations for contract terms.

In this comment, we discuss the state of the literature and the Commission's interpretation of it, highlighting the uncertainty inherent in the literature and the problems of assuming away that uncertainty. To be clear, we are not criticizing the authors of the cited literature or the research itself. In most cases, the work is careful, assumptions and results reported clearly, and weaknesses discussed honestly. The issue is that the Commission selectively relies on results that support its proposed rules and dismisses contradictory results, uncertainties, and caveats, behaving as if the research is settled, when it is not.

We hope that these comments can help the FTC think more about its proposed rule, whether the research justifies such far-reaching mandates across the economy, and whether it can instead focus its attention more narrowly on research that specifically identifies where non-competes may be problematic and where targeted interventions could lead to desired effects in labor markets.

III.   Empirical Evidence Does Not Support an Economy-Wide Ban on Non-Competes

The FTC proposes a rule that, with some limited exceptions, would apply to the entire economy. No research cited by the FTC shows that non-competes are always harmful everywhere.

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[5] We do not address the question of whether the FTC has legal authority to promulgate its proposed rule.

A. Empirical Evidence is Mixed and Heavily Caveated

The FTC cites a few dozen empirical studies from this literature in the NPRM. In this literature, scholars caveat the strength of their conclusions on the causal impacts of non-competes. The literature is rather recent in vintage and we agree with scholars who themselves encourage more research and data-gathering on unanswered questions. Instead, the FTC treats these findings as conclusive enough for an economy-wide rule, while researchers themselves have not yet confirmed causal effects or impacts of non-competes on the entire economy.

1. Earnings

The NPRM claims that non-competes adversely affect competition in labor markets, reducing wages for workers across the labor force. It places great weight on evidence of lower wages, although even in the agency's analysis, the evidence on this is mixed,[6] and appears to depend to a great extent on whether employees are well-informed.

The FTC cites several studies on the effects of non-competes on earnings, claiming that they "found that increased enforceability of non-compete clauses reduces workers' earnings across the labor market generally and for specific types of workers."[7] Several studies do reach this conclusion, although with caveats. But some studies that the FTC cites actually conclude the opposite. The table below shows the studies the FTC cites, what the FTC claims, caveats by the authors, and other results the FTC does not discuss.

Table 1: Caveats about Earnings in the Literature

Study	Results FTC Cites	Caveats
Starr (2019)[8]	"If a state that does not enforce non-compete clauses shifted its policy to that of the state with an average level of enforceability, earnings would fall by about 4%."[9]	[By author]: "I cannot disentangle whether the observed effects are driven by those who are bound by non-competes, by changes in the use of non-competes, or by indirect effects on the

		market as a whole."[10] "Results suggest that the incidence of training is 14% higher in an average enforceability state relative to a non-enforcing state. The positive relationship between enforceability and training is strongest when the training content is meant to upgrade skills and when it is firm-sponsored."[11]
Lipsitz and Starr (2020)[12]	"When Oregon stopped enforcing non-compete clauses for workers who are paid hourly, their wages increased by 2-3%"[13]	[By FTC]: "Caution is recommended in interpreting this extrapolation [extrapolating beyond low-wage workers in Oregon], however, since results from one segment of the workforce within one state may not necessarily inform outcomes that would occur in the rest of the country."[14]
Johnson, Lavetti, and Lipsitz (2020)[15]	"Decreasing non-compete clause enforceability from the approximate enforceability level of the fifth-strictest state to that of the fifth-most-lax state would increase workers' earnings by 3-4%."[16]	[By authors]: The overall effect of NCA enforceability on earnings is ambiguous.[17]
Balasubramanian, Chang, Sakakibara, Sivadasan, and Starr (2022)[18]	"When Hawaii stopped enforcing non-compete clauses for high-tech workers, earnings of new hires increased by about 4%."[19]	[By FTC]: "Caution is recommended in interpreting this extrapolation, however, since results from one sector within one state may not necessarily inform outcomes that would occur in the rest of the country."[20]
Starr, Frake, and Agarwal (2019)[21]	"When the use of non-compete clauses in a given state and industry combination increases by 10%, the earnings of workers who do not have non-compete clauses, but who work in that same state	[By FTC]: "Available data does not allow for an estimate of the magnitude of transfers versus the total increase in economic benefit."[23]

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[10] Starr (2019), *supra* note 8, *id*. at 795

[11] *Id.* at 780. Starr notes that "firms in higher enforceability states do provide more training to their workers but that the workers do not experience the returns to such training; rather, they experience wage losses." *Id.* While consistent with the FTC's claim of lower wages, additional training is an economic benefit of non-competes that the FTC should include in its cost-benefit analysis, but does not.

[12] Michael Lipsitz & Evan Starr, *Low-Wage Workers and the Enforceability of Non-compete Agreements*, 68 Mgmt. Sci. 143, 144 (2021).

[13] NPRM at 20.

[14] NPRM at 167.

[15] Matthew S. Johnson, Kurt Lavetti, & Michael Lipsitz, *The Labor Market Effects of Legal Restrictions on Worker Mobility* 2 (2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3455381.

[16] NPRM at 19-20.

[17] Johnson, Lavetti, & Lipsitz, *supra* note 15 at 11.

[18] Natarajan Balasubramanian, Jin Woo Chang, Mariko Sakakibara, Jagadeesh Sivadasan, & Evan Starr, *Locked In? The Enforceability of Non-Compete Clauses and the Careers of High-Tech Workers*, 57 J. Hum. Res. S349, S349 (2022).

[19] NPRM at 21.

[20] NPRM at 165.

[21] Evan Starr, Justin Frake, & Rajshree Agarwal, *Mobility Constraint Externalities*, 30 Org. Sci. 961, 6 (2019).

[23] NPRM at 171.

	and industry, go down by about 6.12% more when that state has an average enforceability level, compared with a state which does not enforce non-compete clauses."[22]	

At least one other study addresses the question of the effect of non-compete on wages, although it reaches a different conclusion (Rothstein and Starr, 2021).[24] The FTC cites this study to support its point that non-competes are common throughout the economy. The FTC notes that the study is based on "an often-used labor survey conducted by the Bureau of Labor Statistics, rather than a one-off survey directed solely at calculating the prevalence of non-compete clauses."[25] However, the Commission neglects to report that this study found that use of non-competes was associated with *higher* wages, which is inconsistent with the FTC's discussion of the literature in its section on non-competes and wages.[26]

Mixed results are not surprising given that non-competes, particularly when viewed across the entire economy, can have positive *and* negative effects. The NPRM argues that non-competes impede labor mobility and the efficient matching of openings with workers. However, banning non-competes can also prevent the efficient matching of openings with workers. If non-competes are available and if workers are fully informed before accepting employment that comes with a non-compete, workers can then match themselves better with jobs according to their preference for mobility. Workers who value mobility more will be less willing to sign restrictive non-competes. Workers who agree to non-competes would, other things equal, receive a wage premium for giving up some mobility (in the same way that workers who take physically risky jobs get a risk premium).

In addition, banning non-competes would impede the efficient matching of workers with firms through acquisition. The purpose of many acquisitions, particularly in the tech sector, is to acquire the human capital – the expertise of the employees. A potential acquirer will be less interested in acquiring a firm if its employees can go elsewhere or even start a new firm to

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[22] NPRM at 25.

[24] Donna S. Rothstein & Evan Starr, *Mobility Restrictions, Bargaining, and Wages: Evidence from the National Longitudinal Survey of Youth 1997*, BLS Monthly Labor Review (2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3974897.

[25] NPRM at 17.

[26] Rothstein & Starr (2021), *supra* note 24 at 14. The authors also note "the NCA-wage differential is lower for workers that do not bargain over wages, have less education, have lower ability, or live in a state that enforces NCAs." *Id*.

compete with their former employer. To the extent that the Commission considers acquisitions, whether nascent or mature, to be pro-competitive or welfare-enhancing, it should view human capital as an asset that produces economic value through profitable output. Firms may be able to find alternative contractual arrangements to incentivize it to invest in human capital, but other arrangements could possibly be more expensive or less efficient. The NPRM acknowledges the incentive effects as it includes an exception for founders and key employees who have at least a 25% ownership interest in the acquired firm, but this is a limited exception. Many key employees many have less than a 25% ownership interest.

The proposed ban may increase wages for a subset of workers. But, as the FTC acknowledges and we discuss in more detail below, some of this increase represents a transfer rather than a real economic benefit. To the extent that increased wages are not accompanied by increased efficiencies, the earnings changes would lead to increased consumer prices.

Other workers may see lower wages due to an inability to earn a wage premium associated with agreeing to a non-compete. Workers would be unable to match themselves with firms according to the strength of their preferences for mobility.

A structural model for the effect of a ban on non-competes on labor markets would take into account effects on investment, acquisition, wages, and labor mobility. Without recognition of these effects, the Commission treats the labor market as a monolith in which all workers in all occupations in all locations are identical and presumes that effects of a ban on non-competes are entirely predictable and one-directional. The reality, of course, is far more complicated.

2. Job Creation and Entrepreneurship

The FTC "believes, with respect to job creation rates, the evidence is inconclusive."[27] We agree that the results are inconclusive given that only two studies examine the question and each is heavily caveated. However, two cited studies find that non-competes are associated with *more*, not *less*, job creation:

- "One study… estimates the job creation rate at startups increased by 7.8% when Michigan increased non-compete clause enforceability."[28]

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[27] NPRM at 29.
[28] NPRM at 28, citing Gerald A. Carlino, *Do Non-Compete Covenants Influence State Startup Activity? Evidence from the Michigan Experiment* at 16 (Fed. Reserve Bank of Phila. Working Paper 21-26, 2021).

- "Another study finds that several increases in non-compete clause enforceability were associated with a 1.4% increase in average per-firm employment at new firms (though not necessarily total employment)."[29]

The FTC theorizes one possible explanation for these results that would support its proposed rule. It argues that if total employment does not necessarily increase (per Starr, et al., 2018), then "this increased the average job creation rate at new firms, because the average entering firm was relatively larger."[30]

Unlike the Commission, the authors of the studies do not suggest that the results show causality. That is, they do not suggest that non-competes themselves create jobs. They discuss many possible explanations for their results. Starr, et al. (2018), note that studying the issue requires careful consideration to many factors that affect employment and firms:

> Also, our results indicate that, to understand the overall effect of enforceability, we need to not only examine individual-level mobility … but also consider firm-level outcomes, because enforceability affects new firm formation and their growth in ways different from those at the individual level. Furthermore, our results highlight how studying the aggregate effect on employee mobility may mask important differential effects across different types of firms.[31]

The Commission notes that Jeffers (2022)[32] found that "decreases in non-compete clause enforceability were associated with an 8.6% increase in departure rates of workers, and a 15.4% increase in within-industry departure rates of workers."[33] However, the author also discusses a tradeoff. She notes that "increases in the enforceability of non-compete agreements lead to widespread declines in employee departures, specifically in knowledge-intensive occupations. Established firms that rely more on these knowledge-intensive occupations increase their investment rate in physical capital. However, new firm entry in corresponding sectors declines."[34]

The Commission cites a conclusion by Samila and Sorenson (2011), who "found when non-compete clauses are more enforceable, rates of entrepreneurship, patenting, and employment

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[29] NPRM at 28, citing Evan Starr, Natarajan Balasubramanian, & Mariko Sakakibara, *Screening Spinouts? How Noncompete Enforceability Affects the Creation, Growth, and Survival of New Firms,* 64 Mgmt. Sci. 552, 561 (2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2523418.

[30] NPRM at 29, citing Starr, Balasubramanian, Sakakibara (2018), *supra* note 29, *id*.

[31] Starr, Balasubramanian, Sakakibara (2018), *supra* note 29 at 29-30.

[32] The NPRM cites a 2019 version of the paper; the most recent appears to be 2022, *see* Jessica Jeffers, *The Impact of Restricting Labor Mobility on Corporate Investment and Entrepreneurship* 22 (2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3040393.

[33] NPRM at 31, citing *id*.

[34] Jeffers (2022), *supra* note 32, *id*.

growth slow."[35] Those authors, however, also say "the overall effect of non-compete clauses on outcomes other than mobility therefore remains an open question."[36]

3. Training and Investment

The Commission acknowledges that the evidence suggests that non-competes increase investments in training and other types of investment, noting that, "Any investment which is lost due to the inability of firms to use non-compete clauses would likely represent the greatest cost of the proposed rule."[37] Indeed, the NPRM cites a study that found the value of publicly traded firms increased by nine percent due to an increase in non-compete enforceability.[38] The Commission should not be so quick to disregard this number, given that the market cap just of the firms in the S&P 500 is more than $30 trillion.[39] We are not suggesting the value of the market would fall by nine percent due to the proposed rule; simply that, as the FTC acknowledges, the costs may be high and it should spend some effort to explore this question further.

4. Large Share of the Evidence Relies on a Single Survey

The NPRM relies heavily on the 2014 Noncompete Survey Project, which is a unique survey of 11,505 people about non-competes conducted by Evan Starr, J.J. Prescott, and Norman Bishara.[40] The authors described the survey methodology in a follow-on paper.[41] The Qualtrics survey was conducted online between April 22, 2014, and July 25, 2014, over a three-month period.[42] The 100-question survey took, on average, of 27 minutes to complete and subjects were

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[35] NPRM at 38, citing Sampsa Samila & Olav Sorenson, *Noncompete Covenants: Incentives to Innovate or Impediments to Growth*, 57 Mgmt. Sci. 425, 432 (2011), https://www.jstor.org/stable/41060682.

[36] Samila and Sorenson, *supra* note 35, *id*. at 425.

[37] NPRM at 47.

[38] Kenneth A. Younge & Matt Marx, *The Value of Employee Retention: Evidence from a Natural Experiment*, 25 J. Econ. & Mgmt. Strategy 652 (2016).

[39] S&P 500 Market Cap, https://ycharts.com/indicators/sp_500_market_cap.

[40] Evan P. Starr, James J. Prescott, & Norman D. Bishara, *Noncompete Agreements in the U.S. Labor Force*, 64 J. L. & Econ. 53, 53 (2021).

[41] Prescott, James J., Bishara, N.D., Starr, E., *Understanding Noncompetition Agreements: The 2014 Noncompete Survey Project,* 2016 Mich. St. L. Rev. 369-464 (2016), https://repository.law.umich.edu/articles/1796/.

[42] Prescott, Bishara, Starr (2016), *supra* note 41, *id*. at 61 ("In the end, we settled on using Qualtrics, a reputable online survey company with access to more than 10 million verified panel respondents. The target size for this data-collection project was 10,000 completed surveys. We were able to control the characteristics of the final sample through the use of quotas." Eight subcontractors of Qualtrics administered the survey questions, including ClearVoice, GMI, Sample Strategies, SSI, Innovate, Toluna, Precision Sample, and Samplify. "Only 35.3% of the

paid $1.50 to complete the questions.[43] Of 700,000 invitations, 79,328 began taking the survey, 28,824 were not in the sample of interest, 28,906 (57.2%) did not finish the survey, and 11,505 survey responses remained after self-employed, public employees, and other categories were dropped, for a 1.5% response rate.[44] The authors spent considerable time with weights and imputation methods to clean the data. The data was weighed to reflect 2012 American Community Survey (ACS) demographics and oversamples, or over-represents, the survey responses from residents of Colorado, Oregon, Massachusetts, and Florida.[45]

This dataset is the basis of three other papers cited in the NPRM, and one additional paper that repeats statistics from it:

- Michael Lipsitz & Evan Starr, *Low-Wage Workers and the Enforceability of Non-compete Agreements*, 68 Mgmt. Sci. 143, 144 (2021)
- J.J. Prescott & Evan Starr, *Subjective Beliefs About Contract Enforceability,* 10, J. of Legal Stud. (2022)
- Evan Starr, Justin Frake, & Rajshree Agarwal, *Mobility Constraint Externalities*, 30 Org. Sci. 961, 6 (2019)
- Rachel Arnow-Richman, Gretchen Carlson, Orly Lobel, Julie Roginsky, Jodi Short, Evan Starr, *Supporting Market Accountability, Workplace Equity, and Fair Competition by Reining In Non-Disclosure Agreements*, UC-Hastings Research Paper Forthcoming at 2–6 (January 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4022812

A significant portion of the empirical evidence cited in the NPRM is derived from this survey:

- Prevalence —18% work under non-competes, 38% at some point; same rate as states that enforce (Starr, Prescott, Bishara, 2021)[46]
- Prevalence —53% workers are hourly (Lipsitz & Starr, 2021)[47]
- Knowledge of Enforceability —37% did not know, 11% misinformed (Prescott & Starr, 2022)[48]
- Bargaining Power — 10.1% bargained, 7.9% consulted lawyer (Starr, Prescott, Bishara, 2021)[49]
- Earnings — non-compete usage is associated with 6.6% higher earnings in the model (Starr, Prescott, Bishara, 2021)[50]

ClearVoice panel and 51% of the Sample Strategies panel is employed full-time relative to the 82% full-employment rate for the whole of the U.S. labor force."). *Id.*

[43] *Id.* ("Respondents who attempted the survey but did not finish it were paid only 10¢. By comparison, respondents who actually completed the survey either received $1.50, were entered into a sweepstakes drawing for various online rewards, or were awarded credits to play a particular online game.").

[44] *Id.*

[45] *Id.*

[46] NPRM at 15.

[47] NPRM at 16.

[48] NPRM at 18.

[49] NPRM at 18.

[50] NPRM at 22.

- Indirect Earnings — when the use of non-compete clauses by employers increases, that drives down wages for workers who do not have non-compete clauses but who work in the same state and industry (Starr, Frake, Agarwal, 2019)[51]
- Labor Mobility — a non-compete clause was associated with a 35% decrease in the likelihood a worker would leave for a competitor (Starr, Prescott, Bishara, 2021)[52]
- Training: no statistically significant impact on either training or the sharing of trade secrets (Starr, Prescott, Bishara, 2021)[53]
- Knowledge of Enforceability — where non-compete clauses are unenforceable, workers are covered by non-compete clauses at roughly the same rate as workers in other states (Starr, Prescott, Bishara, 2021)[54]
- Non-Disclosure Agreements — 33% and 57% of U.S. workers are subject to at least one NDA (Arnow-Richman, Carlson, Lobel, Roginsky, Short, Starr, 2022, citing Starr, Prescott, & Bishara, 2021)[55]
- Transfer or Social Benefit — though available data does not allow for an estimate of the magnitude of transfers versus the total increase in economic benefit (Starr, Frake, Agarwal, 2019)[56]

We are not criticizing the 2014 survey. To the contrary, it provides valuable new information on non-competes. However, relying so extensively on a single survey for such a sweeping proposal seems unwise. All surveys have weaknesses, so nobody should expect perfection. Selection bias, framing, and truthful responses are general survey challenges, as the authors acknowledge. Self-reporting by respondents means that the authors could not validate or verify the accuracy of their responses. And the authors had to make decisions and assumptions that could affect results, as is true in all surveys and research. They filled in missing data for "maybe" responses and added a question while the survey was already in the field[57] and excluded "all self-employed individuals, government employees, and those who indicated that they were both unemployed and not looking for work."[58]

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[51] NPRM at 25.
[52] NPRM at 32.
[53] NPRM at 46.
[54] NPRM at 85.
[55] NPRM at 98.
[56] NPRM at 171.
[57] Prescott, Bishara, Starr (2016), *supra* note 41 ("Our goal was to impute values for many different variables (see Table 18 in Prescott et al. (2016) for details), some of which were missing because of the cleaning process we describe above in Section OF4 and others because we added the relevant question to the survey while the survey was in the field. In addition, as we explain in the article, we also aimed to impute whether the 'maybe' individuals are currently or have ever been bound by a non-compete. Because we sought to impute missing values across multiple variables, we employed Stata's chained multiple imputation command, which imputes missing values for all variables in one step.").
[58] *Id*.

The novelty of the Starr, Prescott, Bishara (2021) paper and the 2014 Non-compete Survey Project show that the labor economics literature on non-competes has considerable room for additional study and research. Funding additional survey work, perhaps using other methods like discrete choice experiments, would go a long way to building our understanding of non-competes in the economy.[59]

B.   Research is Silent on Whether Alternatives are Equally Effective

The Commission acknowledges that non-competes can, at least in theory, have benefits, pointing out that "the most common justification for non-compete clauses is they increase employers' incentive to make productive investments in, for example, trade secrets, customer lists, worker training, and capital investment."[60] To add a bit more detail, firms may be reluctant to share information with employees if they can walk out the door with those secrets the next day, reducing the value of the intellectual property and therefore the incentive to create it in the first place. Sharing less information internally would make operations less efficient, raising costs. Those costs are presumably passed on to consumers in the form of some combination of higher prices, lower quality, and fewer new products. Other forms of intellectual property protection, such as non-disclosure requirements, may be less efficient and more difficult to enforce.[61]

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[59] The NPRM also relies on a 2017 phone survey by Alexander Colvin and Heidi Sierholz to determine that 49.4% of establishments have at least some employees under a non-compete agreement. NPRM at 184, citing Alexander J.S. Colvin & Heidi Sierholz, Economic Policy Institute, *Noncompete Agreements* (2019), https://files.epi.org/pdf/179414.pdf. The telephone survey conducted between March to July of 2017 included 634 establishments in its sample size. Colvin & Sierholz estimate that "somewhere between 27.8% and 46.5% of private-sector workers are subject to non-competes. Applying this share to today's private-sector workforce of 129.3 million means that somewhere between 36 million and 60 million private-sector workers are subject to non-compete agreements." *Id*. at 2. Not only is the range of this estimate overly broad, but the estimate is also 2x another estimate that 18% of employees are under a non-compete agreement in the peer-reviewed Starr, Prescott, Bishara (2021) study. In their survey, Colvin & Sierholz claim that the difference in the estimates is explained by a change in the incidence of non-compete agreements in just the last 3 years and that self-reported results in the 2014 online survey were biased downwards by forgetful or unknowledgeable workers:

> The difference likely is attributable to the fact that the surveys were three years apart, suggesting that the use of noncompetes is growing. It also likely is attributable to the fact that ours was a survey of business establishments, while the earlier instrument was a survey of workers in the private sector or in a public health care system. While businesses know whether their workers are subject to non-compete agreements, workers may not know or remember they are covered by a non-compete, and thus may underreport being subject to them.

Id. at 2. The Colvin & Sierholz survey has not been peer-reviewed as far as we can tell.
[60] NPRM at 104.
[61] Kobayashi, *supra* note 6 at 712.

Another way of looking at this, as described in a report by the U.S. Treasury, is that non-competes solve "a 'hold-up' problem: *ex ante*, both worker and firm have an interest in sharing vital information, as this raises the worker's productivity. But *ex post*, the worker has an incentive to threaten the firm with divulgence of the information, raising his or her compensation by some amount equal to or less than the firm's valuation of the information. Predicting this state of affairs, the firm is unwilling to share the information in the first place unless it has some legal recourse like a non-compete contract."[62]

The Commission acknowledges the existence of evidence supporting this theory in the NPRM:

> …there is evidence non-compete clauses ***increase*** worker training and capital investment (e.g., investment in physical assets, such as machines). Non-compete clauses may ***increase*** an employer's incentive to train their workers or invest in capital equipment because workers bound by non-compete clauses are less likely to leave their jobs for competitors.[63]

Nevertheless, the Commission believes that alternatives to non-competes, such as non-solicitation agreements, non-recruitment agreements (no-poaching), and non-disclosure agreements, can be equally effective in providing employers the incentive to invest in training and capital investment.[64] Yet, no literature seems to exist comparing the effectiveness of these other mechanisms to non-competes. The sole support for the FTC's belief in the effectiveness of other mechanisms stems from:

> three states in which non-compete clauses are generally unavailable to employers today: California, North Dakota, and Oklahoma. In these three states, employers generally cannot enforce non-compete clauses, so they must protect their investments using one or more of the alternatives described above. The [enforcement] experiences of these states suggest the alternatives described above are fundamentally viable for protecting valuable firm investments.[65]

These statements are correct; however, it does not necessarily follow that other mechanisms for protecting investments and trade secrets are equally effective. The economic literature has started to investigate the bundled nature of other employment restrictions with non-compete agreements, but it has only just begun to investigate the incidence of other types of

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[62] U.S. Department of the Treasury, Office of Economic Policy, *Non-Compete Contracts: Economic Effects and Policy Implications*, March 2016, at https://home.treasury.gov/system/files/226/Non_Compete_Contracts_Econimic_Effects_and_Policy_Implications_MAR2016.pdf [hereinafter "Treasury Report"], at 7.
[63] NPRM at 91-92 (emphasis added).
[64] NPRM at 99-101.
[65] NPRM at 100.

clauses. One paper cited by the NPRM investigates the impact of these other restrictions in natural experiments of non-compete agreements.

Balasubramanian, Starr, Yamaguchi (2022) embark on one of the only studies that look at the interaction of these different types of employment restrictions by gathering data in a 2017 study of Payscale.com employees. They write, "However, the literature has largely ignored other closely related and widely discussed contract terms that firms can use to achieve similar goals…"[66] The NPRM acknowledges the variety of other types of provisions[67] but does not cite studies other than Balasubramanian, Starr, Yamaguchi (2022) that isolate the effect of non-competes alone.

Based on this paper, the NPRM estimates that "97.5% of workers with non-compete clauses are also subject to a non-solicitation agreement, non-disclosure agreement, or a non-recruitment agreement, and 74.7% of workers with non-compete clauses are also subject to all three other types of provisions."[68] The potential interaction of employment restrictions other than non-competes is important for conclusions regarding non-competes alone. Table 2 and Figure 1 show results from Balasubramanian, Starr, Yamaguchi (2022) that reveal heterogeneity in the incidence of each of four alternatives of employment restrictions. Table 3 shows variation in the distribution of restrictions by occupation and industry.

Event studies, natural experiments, and difference-in-differences studies should include controls for these alternative restrictions in order to isolate the causal effect of non-compete clause. Without incorporating these other possible causes of labor outcomes, the existing literature may be missing important results through omitted variable bias.

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[66] Natarajan Balasubramanian, Evan Starr, & Shotaro Yamaguchi, *Bundling Employment Restrictions and Value Appropriation from Employees* 35, 17 (2022), renamed, *Employment Restrictions on Resource Transferability and Value Appropriation from Employees*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3814403, at 1 (estimating 24.2% of workers from a 2017 Payscale.com survey were subject to NCA but that all three of the other restrictive employment covenants were bundled with non-competes 74.7% of the time).
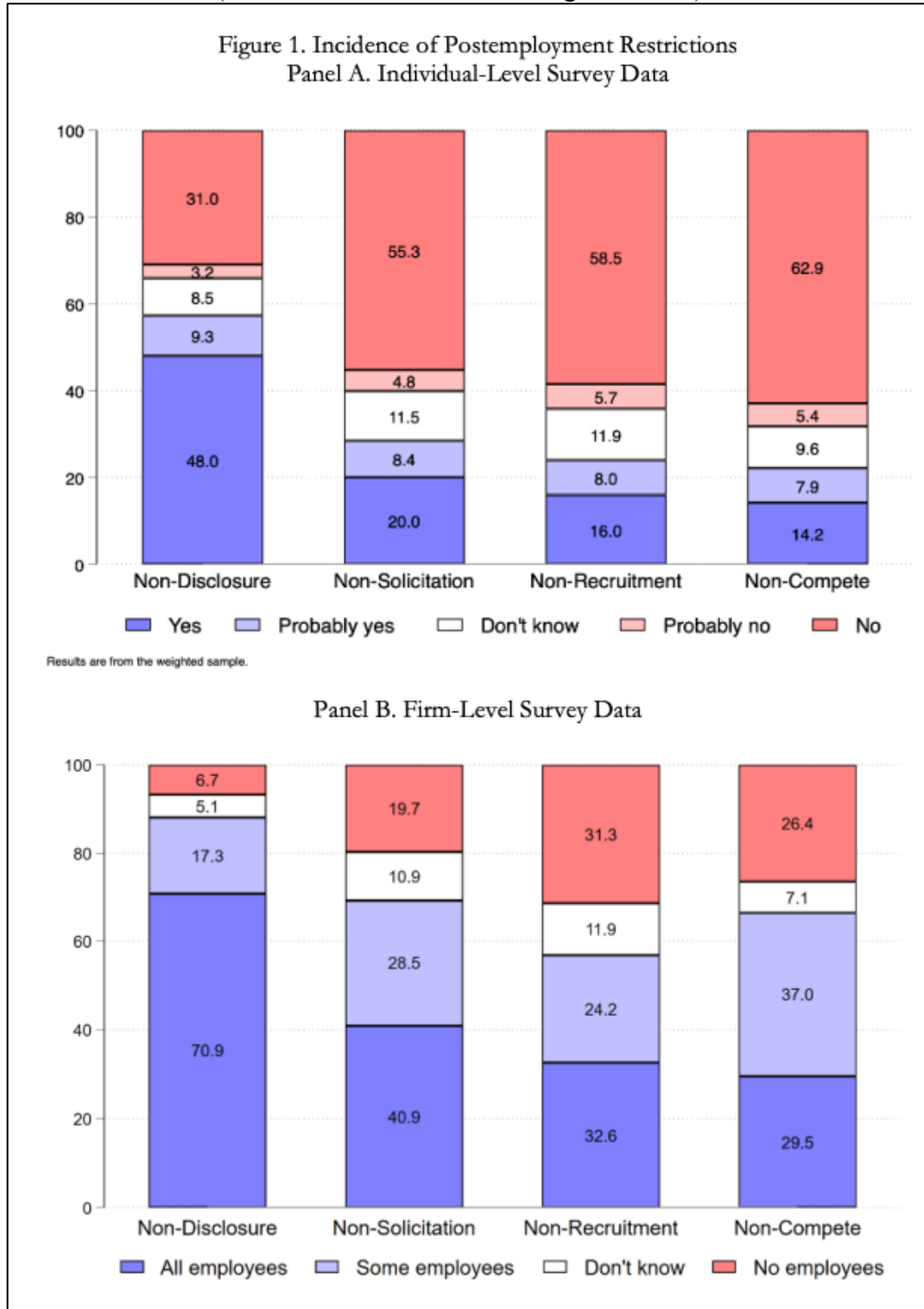[67] NPRM at 10-11.
[68] NPRM at 185 n.185.

Table 2: Four Postemployment Restrictions
(Balasubramanian, Starr, Yamaguchi, 2022)[69]

Table 1. Description of the Four Postemployment Restrictions

Restriction	Prohibited action	Capital Protected	Willingness of court to enforce	Typical difficulty in proving violation	Typical duration in time	Typical Geographic scope
Non-compete agreement (NCA)	Move to or start a direct competitor	Firm, employee, and jointly developed capital	Low	Low	Six months – two years	Narrow
Non-solicitation agreement (NSA)	Solicit former clients or vendors after leaving a company	Client relationships	Moderate	Low–High	Six months – two years	Broad
Non-recruitment agreement (NRA)	Recruit former co-employees after leaving a company	Coworker relationships	Moderate	Low–High	Six months – two years	Broad
Non-disclosure agreement (NDA)	Share confidential information learned at the employer	Firm informational capital	High	Low–High	Indefinite	Broad

While most NCAs have some geographic restrictions (Starr et al. 2021), NSAs, NRAs, and NDAs may simply restrict the behavior at issue, without a geographic scope condition (see e.g., Exhibit A1). It can be difficult to prove a violation of NSAs, NRAs, and NDAs restrictions if the employee is clandestine in their behavior.

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[69] Balasubramanian, Starr, Yamaguchi (2022), *supra* note 66 at 37 tbl.1.

Figure 1: Postemployment Restrictions
(Balasubramanian, Starr, Yamaguchi, 2022)[70]

Figure 1. Incidence of Postemployment Restrictions
Panel A. Individual-Level Survey Data

Panel B. Firm-Level Survey Data

[70] Balasubramanian, Starr, Yamaguchi (2022), *supra* note 66 at 34 fig.1.

Table 3: Restrictions by Occupation, Industry
(Balasubramanian, Starr, Yamaguchi, 2022) [71]

Table A8. Distribution of Restrictions by Occupation and Industry				
Panel A: Incidence by Industry	NDA	NSA	NRA	NCA
Agriculture, Hunting	54.7	23.8	18.0	20.8
Mining, Extraction	63.5	26.4	26.4	21.5
Utilities	67.0	26.2	22.9	23.9
Construction	46.1	24.9	21.2	15.6
Manufacturing	60.5	29.5	24.2	28.7
Wholesale Trade	53.0	27.2	23.5	27.3
Retail Trade	49.9	22.2	20.8	17.6
Transportation, Warehousing	52.5	25.2	22.2	21.4
Information	65.1	33.2	25.8	27.0
Finance, Insurance	68.5	36.7	29.2	22.2
Real Estate	51.4	25.5	24.9	15.9
Prof., Scientific, Technical	69.2	39.7	31.3	30.9
Management of Companies	65.1	23.2	19.7	23.2
Admin, Support, Waste Man.	59.8	35.4	27.5	27.3
Health Care, Social Assistance	55.9	24.2	20.5	15.2
Arts, Entertainment, Rec.	52.1	19.8	21.1	12.7
Accommodation, Food Services	44.1	19.5	19.3	17.2
Other Services	47.6	23.3	20.7	18.5
Panel B: Incidence by Occupations	NDA	NSA	NRA	NCA
Management	62.8	29.8	25.2	25.4
Business and Financial Operations	64.0	30.0	24.4	22.3
Computer and Mathematical	72.8	37.9	31.1	32.7
Architecture and Engineering	61.7	26.7	22.2	24.0
Life, Physical, and Social Science	64.2	30.3	22.4	25.2
Community and Social Services	50.3	28.2	22.1	8.0
Legal	61.5	25.4	21.3	11.7
Education, Training, and Library	55.7	21.3	19.7	13.7
Arts, Design, Entertainment, Sports, Media	57.4	33.0	27.4	25.5
Healthcare Practitioners and Technical	54.5	23.5	19.3	15.4
Healthcare Support	55.7	30.4	24.4	15.4
Protective Service	55.9	24.4	18.5	16.7
Food Preparation and Serving Related	39.5	22.6	20.7	16.9
Building and Grounds Cleaning Maintenance	44.6	23.6	22.7	18.6
Personal Care and Service	55.3	33.0	27.3	22.8
Sales and Related	54.0	30.8	26.4	26.2
Office and Administrative Support	56.8	27.1	23.0	20.3
Construction and Extraction	37.8	25.0	20.2	13.6
Installation, Maintenance, and Repair	44.3	24.4	22.2	17.6
Production	45.5	22.0	19.4	18.1
Transportation and Material Moving	42.0	25.2	21.8	19.7

Notes: This table shows the incidence of non-disclosure agreements (NDAs), non-solicitation agreements (NSAs), non-recruitment agreements (NRAs), and non-compete agreements (NCAs) measures are calculated from the 2017 Individual-Level Payscale data. An individual is recorded as agreeing to one of these restrictions if they definitely or probably agreed.

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[71] Balasubramanian, Starr, Yamaguchi (2022), *supra* note 66 at 50 tbl.A8.

C. Scholars of Non-Competes Do Not Appear to Support a Full Ban

Several of the researchers the FTC cites apparently do not agree that the state of the literature supports an overall ban.

University of Maryland Professor Evan Starr, the most-cited scholar in the NPRM, co-authored a March 2023 *Slate* op-ed about non-competes, in which he concluded that "policymakers probably shouldn't be too concerned about banning non-competes for at least 80 percent of workers, because firms aren't either. Rather, the debate over non-competes should probably be limited to the top wage earners, perhaps just the top 5 to 10 percent."[72]

But the proposed rule does not focus only on low wage workers or exempt the top wage earners from the rule, nor does it even allow that there should be a debate. The proposal has one exception, "where the party restricted by the non-compete clause is an owner, member, or partner holding at least a 25% ownership interest in a business entity."[73] If an author of research the FTC cites to support its proposed ban cannot conclude that his research supports a total ban, it is likely that the Commission is extrapolating conclusions that are not justified.

In a 2020 review of the literature, Ringeling, et al. (2020) point out two other cases in which authors of studies on non-competes commented on the uncertainty remaining in the literature.[74]

One comment made in 2020 noted that scholars do not yet have a baseline for concluding that non-competes are detrimental for overall economic welfare and that tradeoffs may be context-specific and heterogeneous. During a 2020 FTC conference on non-compete agreements, Ohio State professor Kurt Lavetti, also cited in the NPRM, presented a slide stating: "Empirical evidence has convincingly shown that strengthening NCA laws reduces average earnings and worker mobility; Still far from reaching a scientific standard for concluding NCAs are bad for overall welfare; Also don't yet fully understand the distribution of effects on workers; Welfare tradeoffs are likely context-specific, and may be heterogeneous…"[75]

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[72] Evan Starr and Tayuka Hiraiwa, "Companies Say They Need Non-compete Clauses. Here's How We Know That's Not True," *Slate*, Mar. 16, 2023, https://slate.com/business/2023/03/-clauses-washington-research-ban-ftc.html (accessed 6 April 2023).

[73] NPRM at 5.

[74] Ringeling, et al., *supra* note 6.

[75] FTC, Presentation by Kurt Lavetti, *Economic Welfare Aspects of Non-Compete Agreements*, Workshop Presentations, Non-Compete Clauses in the Workplace: Examining Antitrust and Consumer Protection Issues, Jan. 9, 2020, at 55, https://www.ftc.gov/system/files/documents/public_events/1556256/non-compete-workshop-slides.pdf.

Figure 2: Slides From 2020 FTC Conference[76]
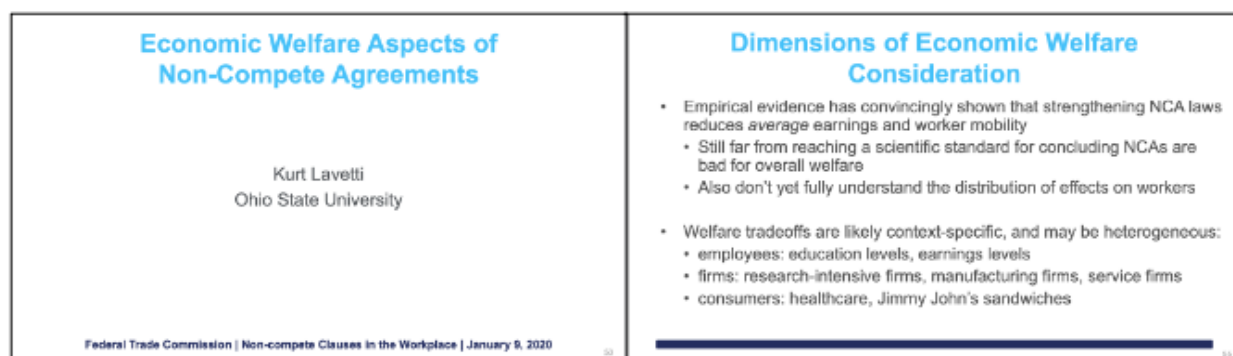
In another comment on the literature made in late 2019, an economist noted the necessity of further research that could take into account new sources of data to determine causal impacts of non-competes on labor markets. In a review of the non-compete literature, FTC economist John McAdams (whose work the NPRM does not cite) explains the lack of evidence for likely effects of broad prohibitions and the need to gather more evidence that is better than the datasets in the current literature. He notes that the more credible studies are narrowly focused on particular occupations or specific policy changes that may be difficult to generalize to the entire U.S. labor market:

> Although the literature has made important strides in studying non-competes and their effects on workers, firms, and end consumers, further work is needed. Due to the limited availability of data and a paucity of natural experiments (e.g., law changes) to assess the impact of non-competes, much of the literature relies on cross-sectional comparisons of signers and non-signers, or high-enforceability states and low-enforceability ones. ***The more credible empirical studies tend to be narrow in scope***, ***focusing on a limited number of specific occupations (e.g., executives) or potentially idiosyncratic policy changes with uncertain and hard-to-quantify generalizability (e.g., banning non-competes for technology workers in Hawaii).*** There is little evidence on the likely effects of broad prohibitions of non-compete agreements. Further research, perhaps exploiting more recent law changes or new sources of data, is necessary to establish the causal impact such agreements have on market participants.[77]

None of these scholars suggest that current research supports the kind of rule the FTC is proposing.

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[76] *Id.*

[77] John McAdams, *Non-Compete Agreements: A Review of the Literature*, Dec. 2019, Working Paper, at 4, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3513639.

IV.   FTC's Cost-Benefit Analysis is Flawed and Incomplete

The NPRM estimates a benefit of $250 billion from a 3.3% increase in wages across the labor force from the ban on non-compete agreements.[78] This is the lower end of a range between 3.3%-13.9% increase in wages, which, at the upper end of 13.9% increase would amount to a $1.053 trillion increase in annual wages across the entire labor market. It estimates the costs of rewriting contracts to comply with the rule across the economy to be about $1.5 billion.[79] It also acknowledges that "firm investment in worker training and capital assets would fall," but does not attempt to quantify the effect.

The FTC's cost-benefit analysis (CBA) is flawed and incomplete.[80] It concludes the CBA yields net benefits even though, by its own acknowledgment, it lacks the information necessary to do the calculation. It assumes away all uncertainty and calculates benefits as if completely certain they will appear. Finally, while the FTC acknowledges that "some" of the earnings increases are transfers rather than economic benefits, it simply counts the entire estimated increase as an economic benefit.

A.   FTC Assumes CBA Yields Net Benefits but Acknowledges It Lacks Information to Calculate Costs and Benefits

The FTC notes that it is difficult to quantify many of the costs and benefits: "The nature of the estimates, however, creates substantial difficulty in calculating a bottom-line present value of the net benefit to the economy of the proposed rule."

Yet, despite its acknowledgement of an incomplete CBA and an inability to calculate a "bottom-line present value" the Commission "believes the substantial labor and product market benefits of the proposed rule would exceed the costs, and additionally would persist over a substantially longer time horizon than some of the one-time costs of compliance and contract updating." By its own acknowledgment, the Commission's belief is just that—a belief not confirmed by analysis.

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[78] NPRM at 162.
[79] NPRM at 187.
[80] NPRM at 159.

B. CBA Assumes Away All Uncertainty

The Commission calculates the benefits as if it knows with certainty what the effects of the rule will be:

> The Commission finds substantial benefits of the proposed rule: workers' earnings would likely increase by $250-$296 billion annually (though some portion of this represents an economic transfer from firms to workers), new firm formation and competition **would** increase, health care prices **would** fall (and prices in other markets may fall), and innovation **would** increase…[81]

The Commission itself acknowledges the uncertainty in the literature, which is particularly scanty on firm formation, competition, health care prices, and innovation, yet in its analysis, the Commission simply assumes that all those effects will occur regardless of the state of the literature. The many caveats and mixed results in the research make such certainty inappropriate. A large literature on coping with uncertainty in cost-benefit analysis exists; the Commission should take it into account, or at least acknowledge it.[82]

C. CBA Must Show that Earnings Effects are Real, Not Transfers

A cost-benefit analysis distinguishes between monetary transfers and real economic effects. A change in earnings is a transfer—either from employers to workers, or vice-versa, not a change in real economic output unless it causes a change in behavior or reflects real labor market changes. To be sure, increased wages are a real benefit to workers and a real cost to employers (some or all of which is likely to be paid by consumers in the form of higher prices), but it is not, in itself, an economic effect in the sense of the gain or loss of real resources.[83]

Economic effects, whether costs or benefits, occur through changes in labor mobility, investment, firm formation, and innovation which do create changes in the gain or loss of productivity. The NPRM acknowledges this issue of defining economic goals for its proposed rule, particularly whether a *transfer* of wages from employers to employees could generate *economic* benefits to the economy as a whole:

> It is difficult to determine the extent to which the earnings effects discussed above represent *transfers versus benefits*. In the context of this analysis, *transfers* refer to "monetary payments from one group to another that do not affect total resources available to society." *In other words, transfers do not represent a net benefit or cost to the economy as a whole.* Broad increases in earnings when non-compete clauses are prohibited may simply represent a transfer of income from firms to workers (or, if firms pass labor costs on to consumers, from consumers to workers). There may, however, be

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[81] NPRM at 159 (emphasis added).

[82] Daniel A. Graham, *Cost-Benefit Analysis Under Uncertainty*, 71 Am. Econ. Rev. 715-725 (1981), https://www.jstor.org/stable/1806192.

[83] Wage changes can have indirect real effects, however, by changing the relative price of different inputs.

a related benefit if the earnings increase of workers is related to market power or efficiency in the labor market. In other words, if a prohibition on non-compete clauses leads to a more efficient allocation of labor in the market, *perhaps* due to a rebalancing of power between workers and employers which decreases monopsony power, then the resulting earnings increases *may* represent a net benefit to the economy.[84]

In other words, the earnings increases the FTC believes will flow from the rule are economic benefits only to the extent they improve the functioning of the labor market and, therefore, the behavior and productivity of workers and firms. While the FTC acknowledges this issue, it does not incorporate it into its cost-benefit analysis, but instead, simply classifies all earnings increases as benefits.

Whether these earnings increases are benefits hinges almost entirely on the extent to which eliminating non-competes changes worker and firm behavior and productivity rather than, say, changes in wage negotiation outcomes. Of all the research the FTC cites, apparently only "two studies suggest there are market-level dynamics governing the relationship between earnings and the enforceability of non-compete clauses: that restrictions on the enforceability of non-compete clauses impact competition in labor markets by alleviating frictions and allowing for more productive matching."[85]

One, by Starr et al. (2019), the FTC notes, "demonstrates when the use of non-compete clauses by employers increases, that decreases wages for workers who do not have non-compete clauses but who work in the same state and industry."[86] Previously, however, the Commission noted that the methodology this paper uses makes assigning causality difficult and "as a result…the Commission gives these studies minimal weight."[87]

The NPRM discusses the Commission's views on the validity of different research methods early in the report:

> …the Commission *does not believe that studies* examining the association between non-compete clause use—rather than enforceability—and earnings *are sufficiently probative* of the effects of non-compete clauses on earnings. *The Commission's concern is that non-compete clause use and earnings may both be determined by one or more confounding factors*. It may be the case, for example, that employers who rely most on trade secrets both pay more and use non-compete clauses at a high rate (which would not necessarily be captured by the control variables observed in studies of non-compete clause use). This means these studies do not necessarily inform how restricting the use of non-compete clauses through a rule would impact earnings. This methodological limitation contrasts with studies examining enforceability of non-compete clauses, in which changes in enforceability are "natural experiments" that allow for the inference of causal effects, since the

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[84] NPRM at 170 (emphasis added).
[85] NPRM at 172.
[86] NPRM at 171, citing Starr, Frake, Agarwal, *supra* note 21.
[87] NPRM at 24.

likelihood that other variables are driving the outcomes is minimal. A "natural experiment" refers to some kind of change in the real world that allows researchers to study the impact of the change on an outcome. In a natural experiment, the change is effectively random, uninfluenced by other factors which could have simultaneously affected the outcome. In such situations, it is therefore most likely the change itself caused any impact that is observed on the outcomes.

The belief that studies of non-compete clause use ***do not reflect causal estimates*** is shared by the authors of at least one of the studies of non-compete clause use. As noted in Starr et al., 'Our analysis of the relationships between non-compete use and labor market outcomes . . . is best taken as descriptive ***and should not be interpreted causally***.' As a result, the Commission gives these studies ***minimal weight***."[88]

The FTC relies on the study by Starr, et al. (2019) to link earnings changes to real productivity changes, but earlier in the report notes that the study's findings are not conclusive. The NPRM noted that, "this study relies on use of non-compete clauses, as well as cross-sectional differences in enforceability of non-compete clauses, to arrive at their conclusions. While this approach calls into question the causal relationship outlined in the study, the authors employ tests to increase confidence in the causal interpretation; however, the tests rely on what data the authors have available, and therefore cannot rule out explanations outside of the scope of their data."[89]

In other words, of the two studies on which the FTC hangs its link between increased earnings and real economic effects, one uses a methodology the FTC believes cannot determine causality.

V.   FTC Should Focus on Areas Where Evidence is More Conclusive

Just as the research does not demonstrate that non-competes are always harmful, it also does not demonstrate that they always yield benefits. The prevalence of non-competes differs across parts of the economy, as do their effects. The NPRM fails to discuss in detail the heterogeneity in NCA usage across industries and occupations.[90] Figure 3 shows a graphic included in the Supplemental Materials Appendix of Starr, Prescott, Bishara (2021) that includes incident rates of non-competes.[91] The graphic shows that some industries such as professional,

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[88] NPRM at 23-24 (emphasis added).
[89] NPRM at 25-26, citing Starr, Frake, Agarwal (2019), *supra* note 21.
[90] The NPRM also does not address heterogeneity in length of NCAs. Non-competes can vary by length of time by 12 months, 18 months, 1 years, 2 years, or more.
[91] Starr, Prescott, Bishara (2021), *supra* note 40, Supplemental Materials Appendix, https://www.journals.uchicago.edu/doi/suppl/10.1086/712206/suppl_file/9564Appendix.pdf.

scientific, and technical and information industries have higher rates of non-competes, particularly for managers and computer or mathematical occupations. The incidence of non-competes is less frequently observed in other occupations such as grounds maintenance, legal occupations, and farm, fish, or forestry occupations.

Figure 3: Incidence of Non-Competes: Industry, Occupation
(Starr, Prescott, Bishara 2021)[92]
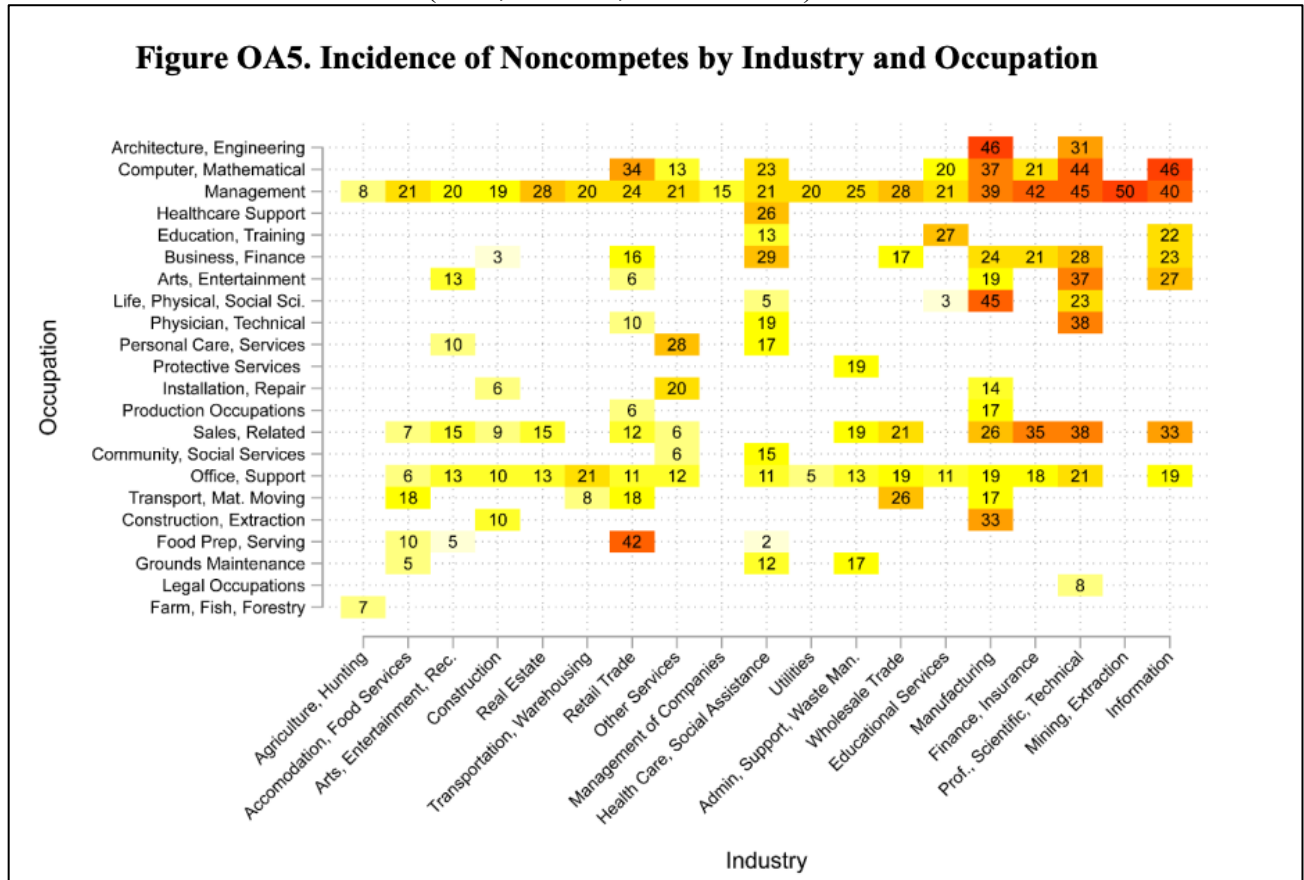
While NCA use varies widely by industry and occupation, the literature does not, however, know much about different effects in each of these industries or occupations. The NPRM cites studies in four specific labor markets: high tech workers in Hawaii, physicians, hourly workers, and CEOs.[93] The Commission provides advice that it should take to heart itself

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[92] *Id*.
[93] NPRM at 165 (high tech workers in Hawaii, but FTC extrapolates results from a ban only on new non-competes to a total ban in the U.S. to estimate an increase in worker wages); NPRM at 177 (earnings growth among physicians, but taking the effect of enforceability into account, the estimated effects could differ); NPRM at 167-168 (hourly worker wages, but FTC caveats that results from one segment in one state "may not necessarily inform

when it notes when discussing the Hawaii example, that "Caution is recommended in interpreting this extrapolation, however, since results from one sector within one state may not necessarily inform outcomes that would occur in the rest of the country."[94]

Still, these few sector-specific studies are instructive in-so-far as they narrowly focus on the context of a particular labor market. The differing institutional details in each occupation and geographic location highlight the danger of assuming that all labor markets are identical. Comparing the studies with each other, we also see that the effects of non-competes may differ substantially across occupation and industry.

Narrower investigations may be justified. It makes sense to investigate where theory supporting non-competes is weak, reasons for believing workers do not necessarily understand what they are signing are strong, and empirical evidence suggests they are problematic. Such instances do not imply problems everywhere. Research that examines the effects of non-competes across the economy without separating out the different effects by sector and worker type shows, at best, averages across the economy, which do not mean that the results are identical across the economy.

The NPRM addresses the sector-specific studies in short sections on four groups, citing one paper for each except for CEOs, which has two papers. With the exception of the hourly wage study, either the FTC or the authors heavily caveat the results even for the sector discussed.[95] If the Commission believes these highlight problems in specific areas it should investigate further.

For example, both theory and empirical evidence suggest that low-wage workers are the most likely to be harmed by non-competes. Such workers generally have less education and may be less able to understand the nature of a contract they are signing. While employers of even low-wage workers invest in training, it is probably less costly than in higher wage jobs and employees less likely to possess sensitive information. Lipsitz and Starr (2021) find that non-

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outcomes that would occur in the rest of the country"); NPRM at 168 (wages of CEOs are held down, but in studies that ignore heterogeneity and implement linear extrapolation, and that saw non-compete usage decreased as enforceability decreased, among other effects).

[94] NPRM at 165.

[95] Of the two papers on CEOs, one found that lower enforcement of non-competes led to lower wages, implying a wage premium for enforceable non-competes and seemingly undercutting the FTC's own argument. Additionally, it is difficult to believe that CEOs lack information about the contracts they sign or need FTC rules to help them get the best deal for themselves in compensation negotiations.

competes may significantly reduce earnings of hourly workers.[96] This combination of theory and empirical findings may highlight real problems.

But it is difficult to believe the same problems always exist for high-wage workers at the other end of the spectrum. The effect of non-competes on wages depends significantly on whether workers are well-informed. The evidence shows that, in higher wage settings, workers who are informed that their job offer entails a non-compete have 9.7% higher earnings. They also are 4.3% more likely to have information shared with them, 5.5% more likely to have received training in the previous year, and are 4.5% more likely to report job satisfaction compared with employees without non-competes.[97] At the very top, one would expect CEOs to carefully study contracts they sign when choosing to lead an organization. And one of the two studies the FTC cites found that higher enforceability of non-competes was associated with higher CEO earnings.

The potential major market failure appears to be due to asymmetric information, which suggests that a disclosure requirement could be a preferable alternative to banning the use of non-competes. The Commission acknowledges that "disclosure of non-compete clauses to workers prior to acceptance of a job offer may increase earnings, increase rates of training, and increase job satisfaction for that worker," but rejects the disclosure alternative on the ground that non-compete clauses "in the aggregate…are negatively affecting competitive conditions in labor markets – including impacts on workers who are not bound by non-compete clauses – and in markets for products and services."[98] This is a *non-sequitur*. Especially given the pro-competitive effects of non-competes, the evidence doesn't support the conclusion that when workers are properly informed non-competes will have ubiquitous adverse effects on markets. In fact, there is good reason to believe the opposite – that the effect could be positive.

VI.   Conclusion

The FTC seeks comment on the empirical evidence cited to support a categorical ban on non-compete agreements on nearly all U.S. labor sectors, across occupations and industries. The

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[96] Michael Lipsitz & Evan Starr, *Low-Wage Workers and the Enforceability of Noncompete Agreements*, 68 Mgmt. Sci. 143, 144 (2021).
[97] *Id.* at 710.
[98] NPRM at 155.

FTC admits the current state of the empirical literature is inconclusive and its cost-benefit analysis is incomplete. The Commission nevertheless seeks to ban non-competes across all industries and occupations. Investigations into the use of non-competes in certain areas, like among low-wage workers, may be justified, but the research does not support such an extensive ban.