



May 2023

NONCOMPETE AGREEMENTS

Use Is Widespread
to Protect Business'
Stated Interests,
Restricts Job Mobility,
and May Affect Wages

Accessible Version

GAO Highlights

Highlights of [GAO-23-103785](#), a report to congressional requesters

Why GAO Did This Study

NCAs are provisions in employment contracts that can restrict workers from seeking employment with a competitor. Employers historically have applied NCAs to highly skilled workers and executives with access to proprietary information, such as trade secrets. NCAs generally are governed by state law. Questions have been raised about employers' use of NCAs, and their effects on lower-wage workers who may not have access to protected proprietary information.

GAO was asked to review the use and effects of NCAs. This report examines (1) the prevalence of NCAs, including for various types of workers; (2) what factors influence employers' and employees' decisions to enter into NCAs; (3) the effects of NCAs on the workforce and firms; and (4) steps states have taken to regulate NCAs.

GAO reviewed empirical studies on the prevalence and economic effects of NCAs. GAO also conducted a nongeneralizable survey of private sector employers on the reasons they use and enforce NCAs; 446 employers responded to the survey. GAO conducted a separate survey of state attorney general offices on state statutes related to NCAs; 25 states and the District of Columbia responded. GAO also interviewed stakeholders, such as worker advocates, employer groups, and researchers, and reviewed relevant federal laws.

The Department of Justice and Federal View [GAO-23-103785](#). For more information, contact Thomas Costa at (202) 512-4769 or costat@gao.gov.

May 2023

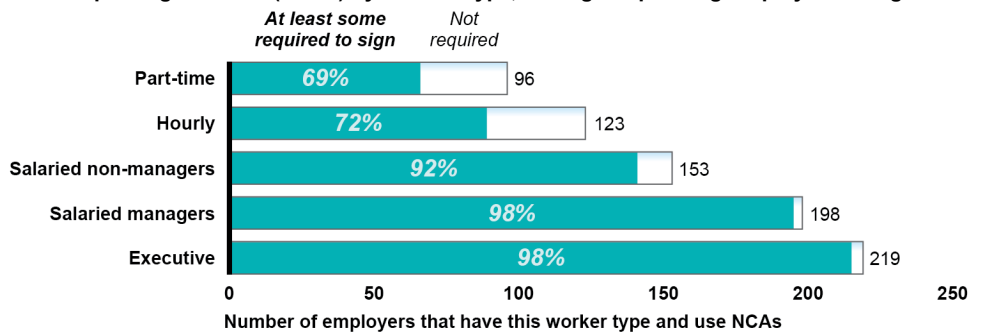
NONCOMPETE AGREEMENTS

Use Is Widespread to Protect Business' Stated Interests, Restricts Job Mobility, and May Affect Wages

What GAO Found

Two recent nationally representative studies GAO reviewed estimated that 18 percent of workers were subject to noncompete agreements (NCAs), and one of the studies estimated that 38 percent of workers had been subject to an NCA at some time in their careers. Over half of the 446 private sector employers responding to GAO's survey reported that at least some of their workers had NCAs. Studies and GAO's employer survey also found that different types of workers are required to sign NCAs, including executives and hourly workers. For example, over 70 percent of respondents that use NCAs and that employed hourly workers used NCAs for at least some of them (see fig.).

Noncompete Agreements (NCAs) by Worker Type, among Responding Employers Using NCAs



Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Data for Noncompete Agreements (NCAs) by Worker Type, among Responding Employers Using NCAs

	Number of employers that have this worker type and use NCAs		
	Total number of employers	Number of employers with at least some required to sign	Percentage of employers with at least some required to sign
Part-time	96	66	69%
Hourly	123	89	72%
Salaried non-managers	153	141	92%
Salaried managers	198	195	98%
Executive	219	215	98%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Employers GAO surveyed most often reported using NCAs to protect certain confidential information from competitors, regardless of worker type. However, several stakeholders GAO interviewed said that lower-wage workers generally do not have access to such information. Evidence suggests that workers who sign NCAs often do so as a condition of employment. Evidence also suggests that few workers who sign NCAs negotiate the terms, because they are unaware of what NCAs are, they want the job regardless, or the NCA is introduced after a job is accepted. Most surveyed employers reported rarely or never enforcing NCAs in

the past 5 years. Employers that reported enforcing NCAs reported doing so for all worker types, though most often for executives and managers.

Studies GAO reviewed found that NCAs restrict job mobility, and may reduce wages and new firm creation. Two of these studies found that even when NCAs are not legally enforceable in a state, NCAs reduce job mobility and workers with NCAs are less likely to search for new jobs. Studies also found that NCAs lower workers' earnings, on average, though certain groups like executives may experience mixed effects. In addition, studies found that NCAs may discourage workers from starting new firms.

Of the 26 attorney general offices that responded to GAO's survey, 6 reported not having NCA-related statutes, 3 reported a statute that generally allows NCAs, and one reported a statute that generally does not allow NCAs. In addition, 16 reported a statute that allows NCAs, subject to certain provisions; for example, exempting workers who earn less than a certain wage from NCAs or requiring employers to provide written notice of an NCA to workers before they start a job.

Contents

GAO Highlights	ii
Why GAO Did This Study	ii
What GAO Found	ii
Letter	1
Background	3
Evidence Suggests NCAs Are Widespread across the U.S. Labor Market	4
Employers Reported Using NCAs to Protect Their Interests, and Evidence Suggests Workers Who Sign NCAs Are Often Required to Do So and May Not Be Able to Influence the Terms	13
Studies Show NCAs Restrict Job Mobility, and May Reduce Wages and New Firm Creation	28
Responding States Reported Various Statutory Provisions Regarding Noncompete Agreements	37
Agency Comments	42
Appendix I: Objectives, Scope, and Methodology	45
Appendix II: Empirical Studies GAO Reviewed	52
Appendix III: Additional Results from GAO Survey of Private Sector Employers	56
Appendix IV: Additional Studies Regarding the Effects of Noncompete Agreements on Firm Activities	67
Appendix V: Summary of Survey Responses from State Attorney General Offices	69
Appendix VI: Comments from the Federal Trade Commission	72
Text for Appendix VI: Comments from the Federal Trade Commission	75
Appendix VII: GAO Contact and Staff Acknowledgments	79
Tables	
Table 1: Employer Use of Noncompete Agreements (NCAs) among Responding Employers, by Employer Size, 2022	7
Table 2: Noncompete Agreement (NCA) Use by Worker Type, among Responding Employers that Use NCAs, 2022	8
Table 3: Employer Use of Noncompete Agreements (NCAs) among Responding Employers, by Industry, 2022	13

Table 4: Employer Reasons for Having Workers Sign Noncompete Agreements (NCAs) among Responding Employers, 2022	14
Table 5: Employer Reasons for Having Workers Sign Noncompete Agreements (NCAs) among Responding Employers, by Worker Type, 2022	15
Table 6: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), 2022	19
Table 7: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), by Employer Size, 2022	20
Table 8: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), by Worker Type, 2022	21
Table 9: Reasons Responding Employers Reported Enforcing Noncompete Agreements (NCAs) in the Past 5 Years, 202225	
Table 10: Percentage of Responding Employers Using Noncompete Agreements (NCAs) for Each Worker Type That Reported Enforcing NCAs in the Past 5 Years, 2022	26
Table 11: Employer Use of Noncompete Agreements (NCAs) among Responding Employers, 2022	56
Table 12: Noncompete Agreement (NCA) Use by Worker Type, among Responding Employers that Use NCAs, 2022	58
Table 13: Employer Reasons for Having Workers Sign Noncompete Agreements (NCAs) among Responding Employers, by Worker Type, 2022	58
Table 14: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), 2022	60
Table 15: Terms Responding Employers Reported Including in Noncompete Agreements (NCAs), 2022	62
Table 16: When Responding Employers Reported First Informing Workers of Noncompete Agreements (NCAs), 2022	63
Table 17: Responding Employers That Reported Enforcing Noncompete Agreements (NCAs) in the Past 5 Years, 202264	
Table 18: Responding Employers That Reported Enforcing the Terms of Noncompete Agreements (NCAs) in the Past 5 Years for Each Worker Type, 2022	65

Table 19: Reasons Responding Employers Reported Enforcing Noncompete Agreements (NCAs) in the Past 5 Years, 2022

Table 20: Statutes Reported by Responding States' Attorney General Offices, Categorization of Whether NCAs Are Allowed, and Whether Statutes Included Selected Provisions

69

Figures

Figure 1: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Wage Level

9

Data for Figure 1: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Wage Level (Estimated incidence of noncompete agreements (at 95% confidence interval))

9

Figure 2: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Occupation

10

Data for Figure 2: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Occupation (Estimated incidence of noncompete agreements (at 95% confidence interval))

10

Figure 3: Percentage of Responding Employers with Noncompete Agreements (NCAs) That Reported Enforcing NCAs in the Past 5 Years, 2022

25

Data for Figure 3: Percentage of Responding Employers with Noncompete Agreements (NCAs) That Reported Enforcing NCAs in the Past 5 Years, 2022

25

Abbreviations

FTC Federal Trade Commission

NAAG National Association of Attorneys General

NCA noncompete agreement

SHRM Society for Human Resources Management

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



May 11, 2023

Congressional Requesters

Noncompete agreements (NCAs) are provisions in employment contracts that may restrict workers from seeking employment with certain employers or starting a competing business.¹ Employers traditionally have used noncompete agreements for executives and highly skilled workers who have access to trade secrets and other protected proprietary information, such as client lists. State law generally governs employers' use and enforcement of NCAs. Recently, questions have been raised about employers' use of NCAs, including their effects on lower-wage workers who may not have access to protected proprietary information in their job responsibilities, as well as the effects of NCAs on the broader economy.

Economic theory suggests that the use of noncompete agreements may affect economic efficiency in different ways.² For example, the use of noncompete agreements may enhance economic efficiency by incentivizing firms to invest in worker training and other types of human capital. On the other hand, noncompete agreements may limit economic efficiency by constraining workers' ability to move to jobs where they may be more productive.

You asked us to review the use of NCAs and their effects on the workforce. This report examines (1) the prevalence of NCAs, including for various types of workers; (2) what factors influence employers' and employees' decisions to enter into such agreements; (3) the effects of the agreements on the workforce and firms; and (4) what steps states have taken to regulate the use of such agreements.

To examine the prevalence of NCAs and their effects on the workforce and firms, we conducted a comprehensive literature review of empirical

¹Noncompete agreements are one type of employment-related restriction; others include nondisclosure agreements and nonsolicitation agreements. This report examines noncompete agreements exclusively.

²Economic efficiency is a measure of the overall benefits from market exchanges for goods and services. Policies can enhance economic efficiency by reducing the cost of producing goods and services or increasing their value.

studies regarding NCAs.³ As part of our systematic approach, we identified studies through a multi-step process, and then multiple analysts including economists and social science specialists reviewed each study for relevance and rigor.⁴ We identified 31 studies that met our criteria. We completed structured reviews of these 31 studies' methodologies and findings (see appendix I for more details about how we identified and reviewed studies, and appendix II for the final list of 31 studies).

To examine the factors that influence employers' and employees' decisions to enter into NCAs, we conducted a survey of private sector employers to better understand their reasons for using NCAs and their efforts to enforce them. Of the 14,351 employers that were sent the survey, we received 446 valid responses (see appendix I for more details about our survey methods).⁵ Respondents were knowledgeable about the employer's noncompete agreement policies and practices. The survey results are not representative of all private sector employers; however, they provide insight on employers' use of NCAs. To help supplement our survey results and corroborate the information gathered from this nongeneralizable survey, we also used relevant information from the empirical studies we reviewed as part of our examination of the prevalence and effects of NCAs.

To examine state actions to regulate NCAs, we conducted a survey of attorney general offices of 50 states and the District of Columbia regarding the regulation of NCAs. We received responses from 25 states and the District of Columbia (for purposes of this report, we refer to these collectively as states). The survey results are not generalizable or

³The empirical studies we reviewed did not comprehensively examine the effects of NCAs on the overall economy. Researchers we spoke with said that challenges, such as data limitations, make it difficult to determine the economic impact of NCAs on measures like productivity, consumer prices, and gross domestic product (GDP).

⁴We identified 217 studies published from 1981 through 2022 through a multi-step process of database searches, online research, and reviewing bibliographies of studies.

⁵We contracted with the Society for Human Resource Management (SHRM) to administer the survey to a selection of private sector employers in its organization that had agreed to take part in surveys sent by SHRM. According to a SHRM official, the 446 employers that responded to our survey were broadly representative of SHRM membership characteristics from a size and industry perspective, though had an overrepresentation of technology companies.

representative of all states but provide insight on the regulation of NCAs by states.

For all objectives, we conducted interviews with 27 stakeholders familiar with noncompete agreements. The stakeholders included worker advocates (e.g., attorneys), employer-affiliated groups (e.g., human resource policy advocates), researchers, and a union. We also reviewed relevant federal laws and regulations. See appendix I for more detailed information about our scope and methodology.

We conducted this performance audit from September 2019 through May 2023 in accordance with generally accepted government auditing standards.⁶ Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

In general, noncompete agreements (NCAs) are contracts between a worker and an employer in which the worker, upon departure from employment, agrees to not join a competing employer in a similar position or launch a competing business, generally for a specified period. NCAs are generally bound by (1) time—a period restricting certain types of related employment (e.g., 1 year); (2) geography—a defined territorial area in which the employee is restricted from working; and (3) scope—a prohibition limiting the nature of the work in which an employee can engage. For example, an NCA might

- prohibit an individual leaving a job in sales from taking a similar position with a rival company or soliciting former clients within a given geographic area for a specified time; and
- prohibit an individual from starting a competing business within a specific geographic distance of their former employer as well as prohibit contact with former clients for a specific period of time.

State law generally governs employers' use and enforcement of noncompete agreements, including what NCA provisions are allowed and

⁶Our work was temporarily affected by other high-priority work related to the COVID-19 pandemic.

what professions or types of workers can be covered by NCAs. Employers may promote compliance with NCAs without going through the legal system. For example, employers may remind workers of their NCAs verbally or in writing, or might reach out to prospective new employers about a worker's NCA. As with other contractual disputes, employers also may enforce or defend their use of NCAs through litigation. In these cases, state courts may be involved in determining the enforceability of noncompete agreements.

In January 2023, the Federal Trade Commission (FTC) issued a notice of proposed rulemaking that, among other things, generally would prohibit employers and contractors from entering into noncompete agreements with workers, rescind existing NCAs, and inform affected workers that their NCAs had ended.⁷

Evidence Suggests NCAs Are Widespread across the U.S. Labor Market

Studies and Our Employer Survey Suggest That a Substantial Proportion of Workers Have Been Subject to an NCA

Empirical research suggests noncompete agreements affect a substantial proportion of the U.S. labor force. We reviewed two studies that provided national estimates of the proportion of workers covered by noncompete agreements.⁸ Both studies estimated that about 18 percent of workers were subject to an NCA at the time of their analyses, and one estimated that about 38 percent of workers had been subject to an NCA at some point in their careers.

⁷Non-compete Clause Rule, 88 Fed. Reg. 3482 (proposed Jan. 19, 2023). The FTC invited the public to submit comments on the proposed rule by March 20, 2023, later extended to April 19, 2023.

⁸Of the 31 studies we reviewed, we found 12 that examined the prevalence of noncompete agreements; three of these provided national estimates of prevalence—two estimated the number of workers subject to NCAs and one estimated the number of employers that use NCAs. The other nine focused on other aspects of prevalence, such as examining specific occupations or professions or worker behavior.

- One of the studies, using survey data collected in 2014, estimated that 18.1 percent (+/- 1.2) of labor force participants—or 28 million workers—were subject to an NCA at that time.⁹ The authors further estimated that 38.1 percent (+/- 1.7) of workers had been subject to a noncompete agreement at some point in their careers.¹⁰
- The other study, using 2017-2018 data from the National Longitudinal Survey of Youth 1997, also estimated that 18.1 percent (+/- 1.4) of workers ages 32 to 38 were subject to an NCA at that time.¹¹ In addition, the study estimated that in states that prohibit employment-related NCAs, 15.2 percent (+/- 3.5) of workers had an NCA (compared to 18.5 percent of workers in other states, +/- 1.5).¹²

Both studies relied on surveys of workers, which researchers have noted might underestimate prevalence because some workers may be unaware they are subject to an NCA. For example, the study that used 2014 data estimated that 29.7 percent (+/- 0.9) of workers did not provide enough

⁹Evan Starr, J.J. Prescott, and Norman Bishara, “Noncompete Agreements in the U.S. Labor Force,” *Journal of Law and Economics*, vol. 64, no.1 (2021). Surveyed workers were between ages 18 and 75 and were employed in the private sector, public health care system, or were unemployed.

¹⁰Throughout this report, unless otherwise noted, when we present estimates from survey data, we also present the applicable margins of error at the 95 percent confidence level. This is the interval that would contain the actual population value for 95 percent of the samples the researchers could have drawn.

¹¹Donna Rothstein and Evan Starr, “Noncompete Agreements, Bargaining, and Wages: Evidence from the National Longitudinal Survey of Youth 1997,” *Monthly Labor Review* (U.S. Bureau of Labor Statistics, June 2022). The National Longitudinal Survey of Youth 1997 collects information on the employment experiences, among other things, of a nationally representative sample of individuals born from 1980 through 1984. Questions on noncompete agreements first appeared in the 2017-2018 survey. The study takes the 3,589 wage-earners who responded to the 2017-18 survey and who resided in the U.S., were employed in the private sector, and were working at their main job for at least 30 hours a week, and then drops respondents for various reasons, such as not answering the questions about NCAs and wage bargaining. The final sample of respondents analyzed was 3,090. The respondents were aged 32 to 38 when surveyed in 2017-2018.

¹²The three states the study identified as prohibiting NCAs are California, North Dakota, and Oklahoma.

information for the researchers to know for certain whether they were subject to an NCA, and some of these workers may have been.¹³

Although workers may experience some uncertainty regarding their NCAs, employers generally know whether their workers are subject to an NCA. The third study we reviewed with national estimates of prevalence used results from a 2017 survey of private sector human resources professionals to estimate that 49.4 percent of private sector employers used NCAs for at least some of their workers, including 31.8 percent that reported requiring all of their workers to sign an NCA.¹⁴ The study used these findings to further estimate that between 27.8 percent and 46.5 percent of private sector workers were subject to an NCA in 2017.¹⁵

Our 2022 nongeneralizable survey of private sector employers similarly found that 55.4 percent (247 of 446) of responding employers reported having NCAs for at least some of their workers. Small employers responding to our survey were less likely to report using NCAs for at least some of their workers than mid-size and large employers (see table 1).

¹³This includes workers who had never heard of an NCA (24.8 percent, +/- 0.8), those that could not remember or did not know whether they had an NCA (2.5 percent, +/- 0.3 and 2.2 percent, +/- 0.3, respectively), or did not want to answer (0.2 percent, +/- 0.1). Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force."

¹⁴The surveyed employers were private-sector businesses with 50 or more employees from Dun & Bradstreet's national marketing database, and are representative of the private sector nonunion worker population. According to the study, the survey had a 47.6 percent response rate before adjustments; the sample size analyzed was 634 employers. In addition, according to the study, top-line estimates had a confidence interval of +/- 3.9 percentage points at the 95 percent confidence level. Alexander J.S. Colvin and Heidi Shierholz, "Noncompete Agreements Ubiquitous, Harmful to Wages and to Competition, and Part of a Growing Trend of Employers Requiring Workers to Sign Away Their Rights," Economic Policy Institute, accessed December 19, 2019, <http://www.epi.org/179414>.

¹⁵The study notes it is unable to determine the precise number of workers that are subject to a noncompete agreement nationally because 17.6 percent of the respondents who reported using noncompete agreements for some workers did not provide information on the proportion of workers subject to noncompete agreements. The study developed the lower bound and upper bound estimates by adding the workers in businesses where all employees are subject to an NCA to a share of workers from the businesses where a proportion of workers have an NCA, then making adjustments such as to account for employer size.

Table 1: Employer Use of Noncompete Agreements (NCAs) among Responding Employers, by Employer Size, 2022

Employer size	Employers that reported using NCAs for at least some workers
Small employers (less than 20 workers)	40.7% (22 of 54 employers)
Medium-small employers (20-99 workers)	57.3% (71 of 124 employers)
Medium-large employers (100-499 workers)	52.3% (78 of 149 employers)
Large employers (500 or more workers)	63.9% (76 of 119 employers)
All employers	55.4% (247 of 446 employers)

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

NCAs Cover a Range of Workers, from Executives to Lower-Wage Workers and Workers in Various Professions

Studies we reviewed and our employer survey found that NCAs are common among executives, though workers at all wage levels have NCAs—including hourly workers and those who earn minimum wage. Three of the studies we reviewed found that NCAs are common among executives. For example, one study that examined executive employment contracts for publicly traded firms found that 64 percent had a noncompete agreement.¹⁶ Additionally, the study found the incidence of noncompete agreements for executives increased from 57 percent in the 1990s to 67 percent in the mid-2010s. Similarly, another study of chief executive officer employment contracts in place from 1996 to 2010 at 500 publicly traded firms found that 80 percent contained a noncompete agreement.¹⁷

Our 2022 nongeneralizable employer survey found that most of the responding employers using NCAs reported that they have them for each of the worker types they employed (see table 2), though more commonly for executives. These responding employers reported having NCAs less frequently for hourly and part-time workers (72 and 69 percent of employers with NCAs, respectively) than for executive and salaried

¹⁶The study examined 13,363 executive contracts from 2,157 publicly listed firms. The contracts were filed between 1992 and 2015. Liyan Shi, “Optimal Regulation of Noncompete Contracts” (working paper, September 2022).

¹⁷The study examined the contracts of certain executives at each of the selected large publicly traded firms from the Standard and Poor’s 1500. Norman D. Bishara, Kenneth J. Martin, and Randall S. Thomas, “An Empirical Analysis of Noncompetition Clauses and Other Restrictive Postemployment Covenants,” *Vanderbilt Law Review*, vol. 68, no. 1 (2015).

management and non-management workers (more than 90 percent of employers with NCAs). In addition, about 85 percent of responding employers using NCAs reported that all of their executives were subject to an NCA. Over half of responding employers using NCAs reported that all of their hourly and part-time workers were subject to an NCA.

Table 2: Noncompete Agreement (NCA) Use by Worker Type, among Responding Employers that Use NCAs, 2022

Worker type	Number of employers with this worker type	Percentage of employers reporting that all of these workers are subject to an NCA	Percentage of employers reporting that some of these workers are subject to an NCA	Percentage of employers reporting that none of these workers are subject to an NCA
Executive workers (i.e., chief executive officers, chief financial officers, etc.)	219	84.5%	13.7%	1.8%
Salaried workers (management)	198	69.7%	28.8%	1.5%
Salaried workers (non-management)	153	60.1%	32.0%	7.8%
Hourly workers	123	55.3%	17.1%	27.6%
Part-time workers	96	53.1%	15.6%	31.3%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

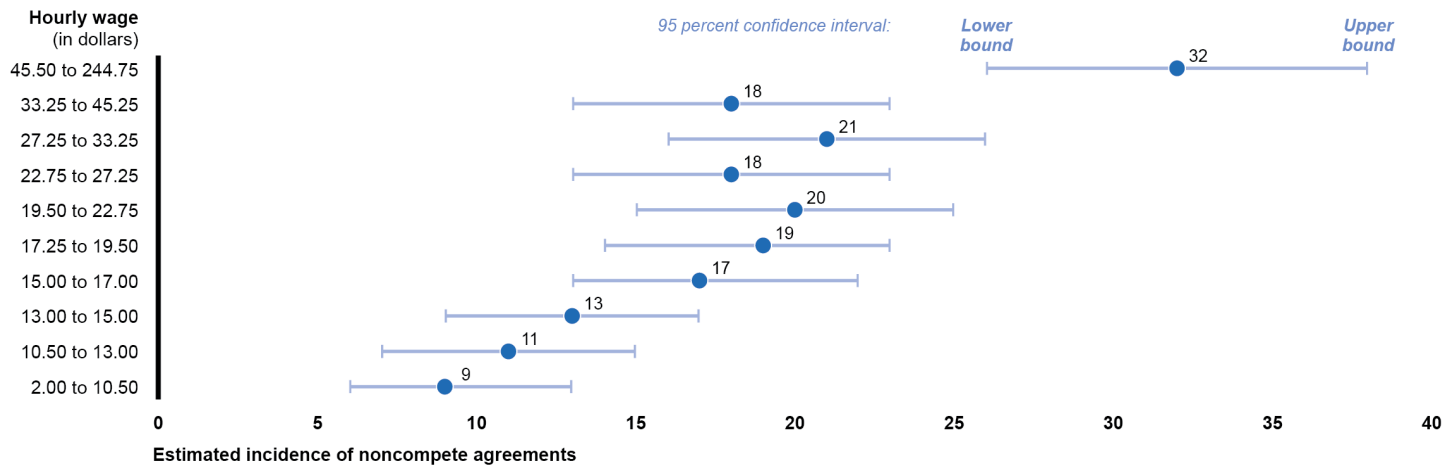
Notes: Only the 247 employers that reported having NCAs for at least some of their workers were asked to report what types of workers they employed. Not all of these 247 employers reported having each type of worker.

Studies we reviewed suggest that NCAs also cover lower-wage workers. The two nationally generalizable studies on NCA prevalence we reviewed estimated that small but significant proportions of lower-wage workers are subject to noncompete agreements. For example, the study that surveyed workers in 2014 estimated that 13.3 percent (+/- 1.8) of workers who reported earning less than \$40,000 annually had a noncompete agreement.¹⁸ The study that used 2017-2018 data on workers aged 32 to 38 estimated that 9 percent (+/- 4) of workers who reported hourly wages of \$10.50 or less and 11 percent (+/- 4) of workers with reported hourly wages between \$10.50 and \$13.00 were subject to a noncompete agreement (see fig. 1).¹⁹

¹⁸Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force."

¹⁹Rothstein and Starr, "Noncompete Agreements, Bargaining."

Figure 1: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Wage Level



Source: GAO presentation of a figure published in Donna Rothstein and Evan Starr, "Noncompete Agreements, Bargaining, and Wages: Evidence from the National Longitudinal Survey of Youth 1997," Monthly Labor Review (U.S. Bureau of Labor Statistics, June 2022). This study uses 2017-18 data from the National Longitudinal Survey of Youth 1997. | GAO-23-103785

Data for Figure 1: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Wage Level (Estimated incidence of noncompete agreements (at 95% confidence interval))

Hourly wage (in dollars)	Lower bound	Estimate	Upper bound
45.50 to 244.75	26	32	38
33.25 to 45.25	13	18	23
27.25 to 33.25	16	21	26
22.75 to 27.25	13	18	23
19.50 to 22.75	15	20	25
17.25 to 19.50	14	19	23
15.00 to 17.00	13	17	22
13.00 to 15.00	9	13	17
10.50 to 13.00	7	11	15
2.00 to 10.50	6	9	13

Source: GAO presentation of a figure published in Donna Rothstein and Evan Starr, "Noncompete Agreements, Bargaining, and Wages: Evidence from the National Longitudinal Survey of Youth 1997," Monthly Labor Review (U.S. Bureau of Labor Statistics, June 2022). This study uses 2017-18 data from the National Longitudinal Survey of Youth 1997. | GAO-23-103785

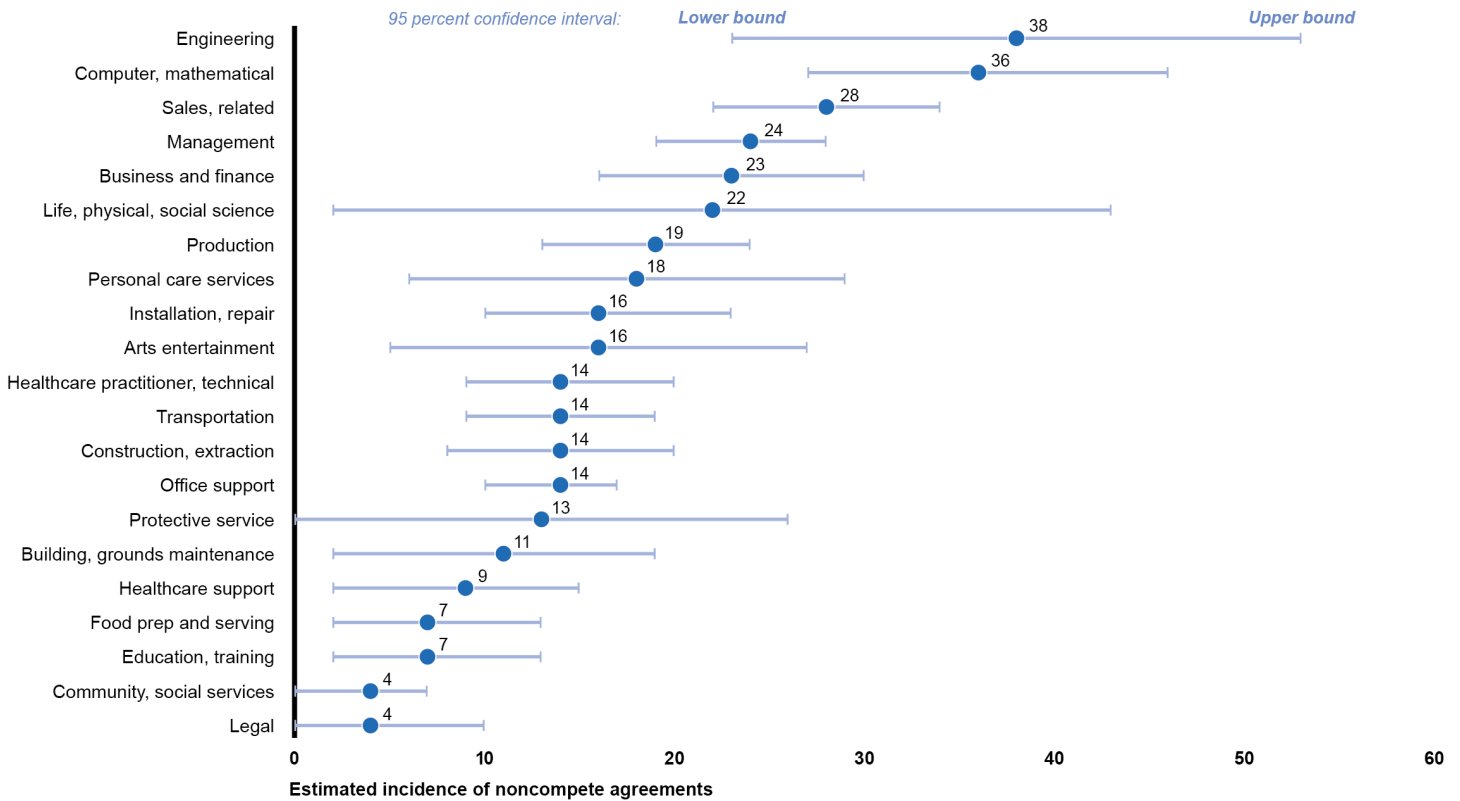
Notes: Values shown are in inflation adjusted 2017 dollars, and wage decile groups are taken from the source and rounded to the nearest \$0.25. Estimates with confidence intervals were extracted from the study, and are at the 95 percent confidence level.

Studies we reviewed and our employer survey found that workers in a range of professions and with different education levels are subject to NCAs.²⁰ The two nationally representative studies that

²⁰Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force"; Rothstein and Starr, "Noncompete Agreements, Bargaining"; and Colvin and Shierholz, "Noncompete Agreements Ubiquitous."

estimated the number of workers subject to NCAs found that workers across a range of occupations are subject to NCAs, though a higher proportion of workers in technical occupations such as engineering and computer sciences have NCAs than workers in certain other occupations. For example, the study that used 2017-2018 data on workers ages 32 to 38 estimated that 38 percent of engineers and 36 percent of computer science and mathematics workers had an NCA (see fig. 2).²¹

Figure 2: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Occupation



Source: GAO presentation of a figure published in Donna Rothstein and Evan Starr, "Noncompete Agreements, Bargaining, and Wages: Evidence from the National Longitudinal Survey of Youth 1997," Monthly Labor Review (U.S. Bureau of Labor Statistics, June 2022). This study uses 2017-18 data from the National Longitudinal Survey of Youth 1997. | GAO-23-103785

Data for Figure 2: Percentage of Workers Ages 32 to 38 with Noncompete Agreements, by Occupation (Estimated incidence of noncompete agreements (at 95% confidence interval))

	Lower bound	Estimate	Upper bound
Engineering	23	38	53

²¹At the 95 percent confidence level, the confidence interval for the engineering estimate is 23 to 53 percent and for the computer science and mathematics estimate is 27 to 46 percent. Rothstein and Starr, "Noncompete Agreements, Bargaining."

Letter

	Lower bound	Estimate	Upper bound
Computer, mathematical	27	36	46
Sales, related	22	28	34
Management	19	24	28
Business and finance	16	23	30
Life, physical, social science	2	22	43
Production	13	19	24
Personal care services	6	18	29
Installation, repair	10	16	23
Arts entertainment	5	16	27
Healthcare practitioner, technical	9	14	20
Transportation	9	14	19
Construction, extraction	8	14	20
Office support	10	14	17
Protective service	0	13	26
Building, grounds maintenance	2	11	19
Healthcare support	2	9	15
Food prep and serving	2	7	13
Education, training	2	7	13
Community, social services	0	4	7
Legal	0	4	10

Source: GAO presentation of a figure published in Donna Rothstein and Evan Starr, "Noncompete Agreements, Bargaining, and Wages: Evidence from the National Longitudinal Survey of Youth 1997," *Monthly Labor Review* (U.S. Bureau of Labor Statistics, June 2022). This study uses 2017-18 data from the National Longitudinal Survey of Youth 1997. | GAO-23-103785

Notes: Estimates with confidence intervals were extracted from the study, and are at the 95 percent confidence level. For clarity, we chose to truncate the lower bound at zero for the legal occupation; however, this estimate produced a negative lower bound because the variance was high relative to the point estimate near 0.

Two occupation-specific studies we reviewed examined health care workers, and both found that substantial proportions of certain health care workers are subject to NCAs. One of the studies presented results of a 2007 survey of primary care physicians in five states, and estimated that 45.1 percent (+/- 2.7) of primary care physicians in group practices had an NCA.²² In addition, a 2015 study used results from a survey of 242

²²Kurt Lavetti, Carol Simon, and William D. White, "The Impacts of Restricting Mobility of Skilled Service Workers: Evidence from Physicians," *The Journal of Human Resources*, vol. 55, no. 3 (2018). The five states examined were California, Georgia, Illinois, Pennsylvania, and Texas.

Certified Registered Nurse Anesthetists nationwide and found that 30.2 percent of respondents were subject to an NCA.²³

One of the nationally representative studies on prevalence we reviewed and our employer survey also found that workers across a range of industries are subject to NCAs. The study that used 2017-2018 data on workers ages 32 to 38 estimated that 33 percent (+/- 5) of workers in the professional services industry had an NCA, which was among the highest of the industries reported; the study also estimated that at least 10 percent of workers had an NCA in each of 11 other industries.²⁴ Our nongeneralizable 2022 employer survey similarly found that responding employers across multiple industries reported using NCAs for at least some workers (see table 3).

²³The study also found that 9.1 percent of the 242 Certified Registered Nurse Anesthetists were not sure if they had an NCA. Briana K. Meseroll, Nathaniel M. Apatov, and Carolyn M. Rutledge, "The Noncompete Clause and the Nurse Anesthetist: An Assessment of Knowledge, Perception, and Experience," *AANA Journal*, vol. 83, no. 5 (2015). Certified Registered Nurse Anesthetists have specialized training and can administer anesthesia for procedures and surgeries.

²⁴Of the 13 industries reported, the authors also estimated that 30 percent (+/- 13) of information and communication workers and 28 percent (+/- 11) of wholesale trade workers had an NCA. The estimated percentage of workers with an NCA in other industries ranged from 6 to 23 percent. Rothstein and Starr, "Noncompete Agreements, Bargaining."

Table 3: Employer Use of Noncompete Agreements (NCAs) among Responding Employers, by Industry, 2022

Industry	Employers that reported using NCAs for at least some workers
Transportation and warehousing	69.2% (18 of 26 employers)
Manufacturing	68.6% (48 of 70 employers)
Professional, scientific, and technical services	58.2% (82 of 141 employers)
Health care and social assistance	57.1% (32 of 56 employers)
Wholesale trade	57.1% (12 of 21 employers)
Construction	56.8% (25 of 44 employers)
Finance and insurance	50.0% (19 of 38 employers)
Retail trade	45.0% (9 of 20 employers)
Educational services	18.2% (4 of 22 employers)

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: The nine industries with at least 20 employers are shown. Employers self-identified their industries and could select multiple industries.

The two nationally representative studies that estimated the number of workers subject to NCAs also found that workers at all education levels were subject to NCAs, and workers with a bachelor’s degree more often reported having an NCA than those with less than a bachelor’s degree. For example, the study that used 2017-2018 data on workers ages 32 to 38 estimated that 26 percent of workers with a bachelor’s degree had an NCA, compared to an estimated 13 percent of those with a high school diploma and 16 percent of those with some college.²⁵

Employers Reported Using NCAs to Protect Their Interests, and Evidence Suggests Workers Who Sign NCAs Are Often Required to Do So and May Not Be Able to Influence the Terms

Employers and workers enter into NCAs for different reasons. Employers that responded to our survey reported having various types of workers, such as executives and hourly workers, sign NCAs to protect their

²⁵The differences between workers with a bachelor’s degree and those with less education are statistically significant at the 95 percent confidence level. Rothstein and Starr, “Noncompete Agreements, Bargaining.”

business interests, including trade secrets and client lists, and to keep staff from working for competitors. Regarding workers’ reasons for signing NCAs, our employer survey and a study we reviewed suggest that while some workers may be offered financial compensation in exchange for signing NCAs, many workers who sign NCAs are required to do so as a condition of their employment without additional compensation. In addition, according to the study and stakeholders we spoke with, workers who sign NCAs often are unaware of what NCAs are when they sign them, which can result in few workers negotiating the terms. Although many employers require workers to sign NCAs, fewer employers reported taking enforcement action, according to our employer survey. We do not, however, have data on the rate at which workers fail to comply with NCAs, which could lead employers to take enforcement action.

Responding Employers Reported Having NCAs to Protect Their Business Interests

Firms can use NCAs to protect their business interests, such as keeping sensitive or confidential information from falling into the hands of an employer’s competitors or ensuring an employer’s workforce remains in place. Consistent with this, almost all of the 247 responding employers that used NCAs reported having them to protect trade secrets, intellectual property, and proprietary information, or to protect client and customer information from departing workers (see table 4).

Table 4: Employer Reasons for Having Workers Sign Noncompete Agreements (NCAs) among Responding Employers, 2022

Reason for having workers sign NCAs	Percentage of employers
To protect trade secrets, intellectual property, or proprietary information	95%
To protect client and customer contacts from departing workers	91%
To prevent the recruiting of staff, investors, or other resources	67%
To protect research and development expenditures	57%
To protect investment(s) in additional worker training and other worker resource expenditures	44%
To minimize worker turnover	34%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Of the employers we surveyed, 247 reported having workers sign NCAs; percentages shown are of that 247. Our questionnaire allowed employers to pick from a list of reasons why they had workers sign NCAs; employers could select more than one.

Consistent with the reasons selected by responding employers, some stakeholders we interviewed said NCAs prevent workers from harming their former employers' business interests by taking their knowledge to a competitor. Officials from an employer advocacy group said NCAs are an important shield that can protect employers from workers sharing details of business strategies or other proprietary information with competitors, such as ideas about future products and client lists. An official from a labor management group said workers also could share information on failed strategies their former employer tried, giving the new employer the advantage of avoiding unnecessary investment in the same failed strategies.

In contrast, several stakeholders told us that many workers do not have access to employers' more sensitive information, which, according to these stakeholders, often makes this reason for having NCAs irrelevant. For example, one researcher said lower-wage workers are unlikely to have access to trade secrets. Similarly, one worker advocate told us that some health care workers subject to NCAs, such as nurses and nursing assistants, would not have access to proprietary information that would give another hospital a competitive advantage. As shown in table 5, protecting trade secrets, intellectual property, and proprietary information was responding employers' most frequently selected reason for having NCAs for all worker types, including hourly and part-time workers. Although our survey results cannot distinguish whether hourly and part-time workers are lower-wage workers, these workers might be less likely to have access to trade secrets than executives and managers, as noted by stakeholders we spoke with.

Table 5: Employer Reasons for Having Workers Sign Noncompete Agreements (NCAs) among Responding Employers, by Worker Type, 2022

Reason for having workers sign NCAs	Percentage of employers that had executives sign NCAs	Percentage of employers that had salaried management sign NCAs	Percentage of employers that had salaried non-management sign NCAs	Percentage of employers that had hourly workers sign NCAs	Percentage of employers that had part-time workers sign NCAs
To protect trade secrets, intellectual property, or proprietary information	95%	90%	90%	88%	86%
To protect client and customer contacts from departing workers	85%	87%	87%	77%	75%
To prevent the recruiting of staff, investors, or other resources	59%	63%	65%	57%	61%
To protect research and development expenditures	56%	53%	50%	48%	48%

Reason for having workers sign NCAs	Percentage of employers that had executives sign NCAs	Percentage of employers that had salaried management sign NCAs	Percentage of employers that had salaried non-management sign NCAs	Percentage of employers that had hourly workers sign NCAs	Percentage of employers that had part-time workers sign NCAs
To protect investment(s) in additional worker training and other worker resource expenditures	38%	43%	44%	35%	39%
To minimize worker turnover	27%	31%	31%	27%	31%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Of the 247 employers we surveyed that reported having workers sign NCAs, 214 reported having executives sign noncompete agreements, 194 reported salaried workers (management), 139 reported salaried workers (non-management), 88 reported hourly workers, and 64 reported part-time workers. Our questionnaire allowed employers to pick from a list of reasons they had workers sign NCAs; employers could select more than one.

Smaller, though still sizable, proportions of responding employers reported having workers sign NCAs to prevent the recruitment or turnover of their workforce, and these percentages were similar for all worker types (see table 5). One employer that responded to our survey provided additional context, noting that hiring has become more competitive due to the pandemic and the company has increased its use of NCAs with new hires to avoid having to replace the workers later. Another responding employer noted that they had a former management level employee recruit several of their workers within a year after leaving the company. This resulted in months of recruiting costs to replace the workers and decreased productivity for 2 years. Several stakeholders also said employers may require workers to sign NCAs to prevent turnover, rather than to just protect sensitive information; two stakeholders noted this was, in part, because replacing workers is expensive.

Reasons for having workers sign NCAs, by employer size and industry. Employers that responded to our nongeneralizable survey reported somewhat differing reasons for having workers sign NCAs, depending on the employer’s size and industry. Employers of all sizes and across the five largest industries we analyzed most frequently reported having workers sign NCAs to protect trade secrets, intellectual property, and proprietary information, or to protect client and customer information from departing workers. We also observed the following differences:

- 75 percent of the largest responding employers with NCAs (57 of 76) reported having workers sign them to prevent the recruiting of staff, investors, and other resources, while over 60 percent of medium-large

employers and medium-small employers and 50 percent of small employers had NCAs for this reason.²⁶

- 77 percent of manufacturers with NCAs (37 of 48) reported having workers sign them to protect research and development, compared to much smaller proportions of the other four most common industries among the responding employers—e.g., 56 percent of employers in the professional, scientific, and technical services industry (46 of 82) and 32 percent of employers in the finance and insurance industry (6 of 19).
- 78 percent of responding employers with NCAs in the health care and social assistance industry (25 of 32) and 79 percent in the finance and insurance industry (15 of 19) reported having NCAs to prevent recruitment of their staff, investors, or other resources, compared to smaller proportions of the other most common industries among the responding employers—e.g., 54 percent of manufacturers (26 of 48).
- Although fewer employers overall reported having workers sign NCAs to minimize worker turnover, 41 percent of responding large employers (31 of 76) and almost half of responding employers that work in the finance and insurance (9 of 19) and health care and social assistance industries (15 of 32) reported having them at least in part for this reason.

Employers reported using different kinds of NCA provisions in employment contracts to protect their business interests. Of the 247 surveyed employers with NCAs, employers most frequently reported their NCAs included provisions that prohibit workers from taking jobs with direct competitors (152 of 247) or starting a new company that would be a direct competitor (120 of 247), and most frequently reported their NCAs restricted workers from taking these actions for 1 year (126 of 247).²⁷ Some stakeholders said requiring workers to wait for a period of time before joining a competitor increases the likelihood that workers will no longer possess or remember businesses' current proprietary information, or that former employers will have time to solidify their client base. Although our survey found fewer instances of employers including geographic provisions in their NCAs—for example, specifying boundaries

²⁶For the purposes of this report, we categorized the employers that responded to our survey as small if they reported having less than 20 workers, medium-small if they reported having 20-99 workers, medium-large if they reported having 100-499 workers, and large if they reported having 500 or more workers.

²⁷See appendix III for the full list of provisions surveyed employers reported including in NCAs.

where workers can or cannot seek new jobs—almost one-third of stakeholders (8 of 27) we spoke with said employers included such provisions to prevent their workers from seeking jobs with a competitor (see text box below).

Stakeholder Perspective: Geographic Restrictions in Noncompete Agreements

A worker advocate and a researcher told us that geographic restrictions in noncompete agreements are changing because of recent increases in employees working remotely, and in businesses operating on a regional, national, and global scale. New geographic provisions often require that employees not compete with the business wherever it operates. The advocate also said that, in their view, courts seem willing to accept and enforce noncompete agreements' broader geographic restrictions.

Source: GAO analysis of interviews with stakeholders knowledgeable about noncompete agreements. | GAO-23-103785

Evidence Suggests Workers Who Sign NCAs Largely Do So as a Condition of their Employment and May Not Understand the Terms, Limiting Their Ability to Negotiate

Employers may offer certain workers compensation, training, or other incentives in exchange for signing NCAs, but evidence suggests that workers who sign NCAs often are required to do so to get a job, and not all workers have equal opportunities to negotiate the terms of their NCAs. Workers' opportunities to negotiate NCA terms can be limited because (1) employers may require workers to sign NCAs as conditions of employment and may only offer incentives to certain types of workers; (2) workers may not understand what NCAs are or may sign NCAs because they need the job; or (3) workers are informed that NCAs are required after they have started working with an employer, leaving workers little time to decide whether to sign the agreements or increasing the potential cost of declining the agreements (e.g., losing the job).

NCAs as a Condition of Employment and Incentives for Signing

Our nongeneralizable employer survey and a study we reviewed found that employers may require workers to sign NCAs as a condition of employment with no other incentives offered in exchange. Most employers responding to our survey that used NCAs (216 of 247)

reported that they required at least some workers to sign NCAs as a condition of employment without providing additional compensation, training, or additional consideration (see table 6). In addition to our employer survey, a study we reviewed that surveyed workers' reasons for signing NCAs similarly noted that few workers were offered incentives in exchange for signing them.²⁸ Specifically, the study estimated that 86 percent (+/- 3) of workers who signed NCAs were not explicitly or implicitly promised something additional in exchange for signing, such as compensation, job security, training, or trust by the employer. Likewise, several stakeholders we spoke with said employers frequently required workers to sign NCAs to get or keep a job.

Table 6: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), 2022

Incentives for signing NCA	Percentage of employers
Signing an NCA is a condition of employment. (No additional compensation, training or additional consideration offered.)	87%
Signing an NCA is a condition of continued employment. (No additional compensation, training or additional consideration offered.)	44%
Signing an NCA is linked to additional specialized training	10%
Signing an NCA is linked to additional financial compensation upon signing (i.e. signing bonus, performance bonus, stock options, and/or long-term incentives)	23%
Signing an NCA is linked to post-separation financial compensation (i.e. garden leave) ^a	30%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Of the employers we surveyed, 247 reported having workers sign NCAs; percentages shown are of that 247. Our questionnaire allowed employers to pick from a list of incentives they offered workers for signing NCAs; employers could select more than one. These incentives were selected by the employer and do not indicate whether workers viewed these as incentives.

^a"Garden leave" provisions generally require an employer to pay departing workers for the period an NCA restricts them from working.

Although relatively few responding employers reported offering additional compensation or other incentives in exchange for signing NCAs, the largest responding employers more often reported doing so in comparison to smaller employers. For example, almost half of responding large employers with 500 or more workers (36 of 76) reported offering post-separation financial compensation upon signing an NCA (i.e., "garden leave," during which an employer pays a departing worker for the period an NCA restricts them from working) and roughly 40 percent (31 of

²⁸Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force."

76) offered other types of financial compensation (i.e., signing bonus, performance bonus, stock options, and/or long-term incentives). Much smaller proportions among the other employer sizes reported offering these incentives for signing NCAs (see table 7).²⁹

Table 7: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), by Employer Size, 2022

Incentives offered to workers for signing NCAs	Percentage of small employers that offered incentive	Percentage of medium-small employers that offered incentive	Percentage of medium-large employers that offered incentive	Percentage of large employers that offered incentive
Signing a noncompete agreement is linked to additional specialized training	14%	11%	6%	12%
Signing a noncompete agreement is linked to additional financial compensation upon signing (i.e., signing bonus, performance bonus, stock options, and/or long-term incentives)	18%	14%	14%	41%
Signing a noncompete agreement is linked to post-separation financial compensation (i.e., garden leave) ^a	27%	25%	17%	47%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Of the 247 employers we surveyed that reported having workers sign NCAs, 22 reported employing between 1 and 19 workers (small employer), 71 reported employing between 20 and 99 workers (medium-small employer), 78 reported employing between 100 and 499 workers (medium-large employer), and 76 reported employing more than 500 workers (large employer). Our questionnaire allowed employers to pick from a list of incentives they offered workers for signing NCAs; employers could select more than one. When asked about incentives offered, responding employers most frequently reported that signing an NCA is a condition of employment or continued employment, but because these responses do not represent incentives beyond the job itself, they are not shown in the table. These incentives were selected by the employer and do not indicate whether workers viewed these as incentives.

^a"Garden leave" provisions generally require an employer to pay departing workers for the period an NCA restricts them from working.

Although responding employers generally did not report offering additional incentives for signing NCAs, those that reported offering additional financial compensation more frequently reported doing so for executives and salaried management than for hourly and part-time workers. About 20 percent or more of responding employers that reported using NCAs for executives (47 of 204) and salaried management workers (37 of 186) reported offering these workers additional financial compensation in exchange for signing NCAs. In comparison, of the

²⁹Our analysis of the types of incentives offered by the five largest industries among our survey respondents found no substantial differences between industries. For example, similar percentages of these industries reported offering no additional compensation in exchange for signing NCAs. See appendix III for a list of compensation, training, or other incentives, surveyed employers offered in exchange for signing NCAs, by industry.

employers that reported using NCAs for hourly or part-time workers, about 7 percent or less (3 of 82 and 4 of 58, respectively) reported offering such workers additional financial compensation (see table 8).

Table 8: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), by Worker Type, 2022

Incentives offered to workers for signing NCAs	Percentage of employers that offered incentive to executives	Percentage of employers that offered incentive to salaried management	Percentage of employers that offered incentive to salaried non-management	Percentage of employers that offered incentive to hourly workers	Percentage of employers that offered incentive to part-time workers
Signing a noncompete agreement is linked to additional specialized training	7%	8%	8%	5%	7%
Signing a noncompete agreement is linked to additional financial compensation upon signing (i.e. signing bonus, performance bonus, stock options, and/or long-term incentives)	23%	20%	12%	4%	7%
Signing a noncompete agreement is linked to post-separation financial compensation (i.e. garden leave) ^a	29%	22%	18%	12%	10%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Percentages for each worker type are out of the total number of employers that reported using NCAs for that worker type. Of the employers we surveyed that reported using NCAs and that responded to the question about incentives offered by worker type, 204 reported having NCAs for executives, 186 for salaried management workers, 131 for salaried non-management workers, 82 for hourly workers, and 58 for part-time workers. Our questionnaire allowed employers to pick from a list of incentives they offered workers for signing NCAs; employers could select more than one. These incentives were selected by the employer and do not indicate whether workers viewed these as incentives.

^a"Garden leave" provisions generally require an employer to pay departing workers for the period an NCA restricts them from working.

Similar to the employers that responded to our survey, stakeholders told us that executives or senior management more typically received additional financial compensation from employers for signing NCAs. Several stakeholders said that employers can offer equity agreements or stock options to executives such as chief executive officers and senior vice presidents for signing NCAs. According to another employer advocate, in cases where workers accept compensation or other incentives, a court may be more likely to uphold the NCA.

Worker Awareness and Understanding of NCAs

Evidence suggests that few workers negotiate the NCAs they sign because they are generally unaware of what NCAs are or what they mean, or because they just need the job. The study we previously

mentioned that surveyed workers about the reasons they signed NCAs estimated that just about 10 percent (+/- 2) of the workers negotiated their NCA terms or received additional benefits in exchange for signing NCAs. The majority of workers who did not negotiate (52 percent, +/- 4) found the NCA terms to be reasonable. In contrast, an estimated 41 percent (+/- 4) of workers assumed they could not negotiate, 20 percent (+/- 4) worried they would be fired if they did not sign the NCA, and 19 percent (+/- 3) wanted to avoid creating tension with their employer.³⁰

According to one worker advocate, few people understand NCAs, and they just assume they have to sign the document if they want the job. An official from a public policy group said workers sign NCAs from a position of limited information and ability to influence the terms of their employment, and that workers have little sense of what signing the NCA means, or what their rights are, or whether they can negotiate. The same official said that workers have inherent trust that whatever their employer is asking them to sign is acceptable. Many stakeholders we spoke with said workers will sign NCAs regardless of what they entail because they want the job. For example, an official from a worker advocacy group said lower-wage workers rarely negotiate over NCAs, and often have no choice but to sign the NCA because they need the job, and may not have other job opportunities readily available to them.

According to stakeholders, the relatively few workers who negotiate the terms of the NCAs they sign are able to do so because of their positions or access to resources. Several worker advocates and one employer advocate noted that some executives and workers with highly desirable skills are able to hire attorneys, or have access to other resources to help with negotiations. One official explained that executives and some skilled, experienced workers can have better NCA terms because they tend to earn more and can afford legal representation, which provides them with more opportunities to negotiate their NCAs, along with their compensation and benefits.

Timing of Informing Workers about NCAs

Employers might inform workers at any point that their jobs require them to sign NCAs, including after workers start at the company. Because some employers wait to share information about required NCAs until after

³⁰The survey questionnaire allowed respondents who did not negotiate their NCA to select multiple reasons for why they did not negotiate. Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force."

workers accept job offers, workers could have fewer opportunities to reconsider the job offer or negotiate NCA terms, according to stakeholders. For example, one stakeholder said some employers will make workers sign an NCA days, weeks, or months after starting a job, because by then the workers are invested in the job and the employer. The stakeholder said that if employers ask workers to sign an NCA earlier, workers may take another job offer from an employer that does not require an NCA.

The previously discussed study that surveyed workers' reasons for signing NCAs estimated that 29 percent (+/- 4) of workers who signed NCAs first learned about their NCA after accepting a job offer.³¹ About a quarter of these workers (+/- 5) said they would have reconsidered accepting the offer had they known about the NCA earlier. The study also estimated that 6 percent (+/- 3) of workers who were informed about an NCA after accepting a job negotiated NCA terms, compared to the 12 percent (+/- 4) of workers who were informed about an NCA before accepting a job and then negotiated.

In addition, although most employers with NCAs that responded to our survey reported first informing workers about NCAs while extending job offers, many employers reported waiting until after workers accepted the offers. Almost two-thirds of responding employers that use NCAs (160 of 247) reported informing at least some workers about the NCAs before they accepted the job offer. However, almost half of responding employers that use NCAs (116 of 247) reported waiting to notify at least some workers until they started the job, such as during the onboarding process.³² Some responding employers selected more than one response about timing, which might indicate that the timing of notifying workers may vary by worker type.

³¹Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force."

³²Our analysis of when employers first informed workers about NCAs found that large employers reported first informing workers about NCAs after a promotion more often than smaller employers.

Most Responding Employers Reported Never or Rarely Enforcing NCAs, Though Reported Instances of Enforcement Affected all Types of Workers

Frequency of and Reasons for Enforcing NCAs

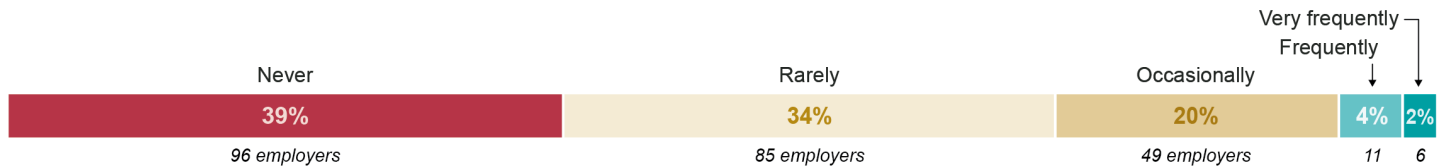
Although many employers responding to our nongeneralizable survey reported having workers sign NCAs to protect their business interests, relatively few employers reported enforcing NCAs regularly (i.e., taking some action—formal or informal—to ensure compliance with the terms of the NCA).³³ Of the 247 employers that reported using NCAs, almost three-quarters reported that they had either not enforced the terms of a worker's NCA (96 of 247) or rarely enforced them (85 of 247) in the past 5 years (see fig 3).³⁴ However, large employers were more likely to report enforcing NCAs compared to medium and smaller employers. Over 40 percent (31 of 76) of large employers (those with 500 or more workers) reported enforcing NCAs at least occasionally over the past 5 years, compared to about one-quarter or fewer for medium and smaller employers (those with 499 or fewer workers). It may be that most responding employers reported never or rarely enforcing NCAs because NCAs may influence worker behavior without an employer having to take any action. Two studies we reviewed suggest that workers with NCAs may be less likely to search for or take a job with a rival employer.³⁵

³³We asked employers how often they sought to enforce the terms of one of their noncompete agreements. Employers could interpret enforcement in different ways—from litigation, to reminding workers that they signed NCAs. Employers also interpreted frequency descriptions—e.g., rarely, occasionally, frequently, and very frequently.

³⁴Our survey focused on the number of employers that enforced NCAs and their reasons. We did not ask how many workers at each of the employers had an NCA enforced.

³⁵Evan Starr, J.J. Prescott, and Norman Bishara, "The Behavioral Effects of (Unenforceable) Contracts," *Journal of Law, Economics and Organization*, vol. 36, no. 3 (2020) and J.J. Prescott and Evan Starr, "Subjective Beliefs About Contract Enforceability" (working paper, July 19, 2022).

Figure 3: Percentage of Responding Employers with Noncompete Agreements (NCAs) That Reported Enforcing NCAs in the Past 5 Years, 2022



Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Data for Figure 3: Percentage of Responding Employers with Noncompete Agreements (NCAs) That Reported Enforcing NCAs in the Past 5 Years, 2022

	Number of employers	Percentage of employers
Very frequently	6	2%
Frequently	11	4%
Occasionally	49	20%
Rarely	85	34%
Never	96	39%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Of the employers we surveyed, 247 reported having workers sign NCAs; percentages shown are of that 247. Employers could interpret enforcement in different ways—from litigation, to reminding workers that they signed NCAs. Employers also interpreted frequency descriptions—e.g., rarely, occasionally, frequently, and very frequently.

Responding employers that reported enforcing NCAs most frequently reported doing so to protect their business assets or to prevent workers from moving to new jobs (see table 9). For example, of those employers that reported enforcing NCAs in the past 5 years, more than three-quarters (131 of 151) reported enforcing them to protect their trade secrets, intellectual property, and proprietary information. Less than two-thirds of these employers (94 of 151) reported enforcing NCAs to prevent their current workforce from being recruited by former workers (e.g., to work for a competitor) and one-third of employers (50 of 151) reported enforcing NCAs to minimize worker turnover.³⁶

Table 9: Reasons Responding Employers Reported Enforcing Noncompete Agreements (NCAs) in the Past 5 Years, 2022

Reasons employers reported enforcing NCAs (among the 151 responding employers that reported enforcing NCAs at least once in the past 5 years)	Percentage of employers
To protect client and customer contacts and investors	87%

³⁶Employers could select multiple reasons why they enforced the terms of NCAs. As such, employers reporting that they enforced NCAs to prevent their workforce from being recruited by a competitor could also report enforcing NCAs to minimize worker turnover. These responses should not be added together.

Reasons employers reported enforcing NCAs (among the 151 responding employers that reported enforcing NCAs at least once in the past 5 years)	Percentage of employers
To protect trade secrets, intellectual property, or proprietary information	79%
To protect current workforce from recruitment by former worker(s)	62%
To protect research and development expenditures	43%
To protect from worker turnover	33%
To protect investment in worker training and other worker resources	32%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Our questionnaire allowed employers to pick from a list of reasons why they enforced NCAs; employers could select more than one. Employers could interpret enforcement in different ways—from litigation, to reminding workers that they signed NCAs.

Enforcement of NCAs across Worker Types and Industries

Responding employers reported more frequently enforcing NCAs on executives and certain salaried workers. Of the responding employers that reported using NCAs for each worker type, more than 40 percent reported they had enforced them on executives (101 of 214) and salaried management (108 of 194) (see table 10). Consistent with our survey, a few stakeholders said that employers did not often enforce NCAs, but that employers who did so usually enforced NCAs on executives, high-tech workers, and high-level workers at sales-oriented companies. Stakeholders said that employers enforce NCAs more for these skilled or high-level workers due to the concern that they could leave their jobs and share critical information with competitors. One employer advocate said that businesses enforced NCAs because they did not want their executives transferring proprietary knowledge to competing businesses.

Table 10: Percentage of Responding Employers Using Noncompete Agreements (NCAs) for Each Worker Type That Reported Enforcing NCAs in the Past 5 Years, 2022

Type of worker	Percentage of responding employers using NCAs for worker type that reported enforcing NCAs for those workers in the past 5 years
Executive workers (i.e., chief executive officers, chief financial officers, etc.)	47%
Salaried workers (management)	56%
Salaried workers (non-management)	54%
Hourly workers	38%
Part-time workers	31%

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Of the 247 employers we surveyed that reported having workers sign NCAs, 214 reported having executives sign noncompete agreements, 194 reported salaried management workers, 139 reported salaried non-management workers, 88 reported hourly workers, and 64 reported part-time workers. Our questionnaire allowed employers to pick from a list of reasons they enforced NCAs, by worker type. We then identified the number of employers that reported enforcing NCAs for any reason for each worker type and divided that by the total number of employers that reported having NCAs for that worker type. Employers could interpret enforcement in different ways—from litigation, to reminding workers that they signed NCAs.

In addition, though few stakeholders said they had observed employers enforcing NCAs against lower-wage workers, our employer survey suggests employers may enforce NCAs against these workers. Although our survey results cannot identify how many workers had an NCA enforced against them, as previously noted, of the responding employers that reported using NCAs for different worker types, more than 30 percent reported having enforced NCAs against hourly (33 of 88) and part-time workers (20 of 64). Our survey cannot distinguish whether hourly and part-time workers are lower-wage workers, though some may be.

Although our employer survey did not contain enough responses to allow us to report on any differences or similarities in NCA enforcement between industries, several stakeholders said they have observed NCAs being enforced in a variety of professions, such as financial services, home health aide companies, nail salon studios, and janitorial services.

How Employers Enforce NCAs

According to many stakeholders we spoke with, employers who choose to enforce NCAs through formal or informal action to ensure compliance usually do so by reminding workers that they signed the agreements. For example, a representative for a worker advocacy group told us that if employers believe an NCA is being breached, they will first try “soft” measures, such as reminding former workers that they are subject to an NCA, before they take further action, such as sending cease and desist letters to the former workers or the new employers. Such enforcement actions could lead to negotiations between the former and new employers, or the former employer and worker negotiating to resolve the dispute. If informal enforcement mechanisms are not effective, employers or workers may litigate an NCA dispute. However, some stakeholders told us that employers rarely sue workers for breaching their NCAs because the parties involved usually resolve the issue without engaging in litigation, which could be expensive. An employer that provided additional context in our survey similarly noted that they rarely enforce NCAs because of the potential legal costs needed to do so effectively. In addition, one stakeholder said that workers rarely take NCA disputes to

litigation because they are not aware they can challenge the NCA in court.

Studies Show NCAs Restrict Job Mobility, and May Reduce Wages and New Firm Creation

Studies Show that NCA Enforcement Generally Reduces Job Mobility and Wages, but Can Have Mixed Effects for Certain Workers

Studies suggest that NCAs, in principle, may affect workers' job mobility and earnings in different ways. By design, NCAs limit workers' ability to move from one job to another. Job mobility can be a significant source of wage increases for workers, as they find higher-paying jobs or leverage job offers to negotiate wage increases with their current employer. Inhibiting job mobility with NCAs thus may reduce future wages, as workers cannot freely seek higher paying employment opportunities or bargain for raises in their current job. On the other hand, studies suggest that by allowing workers and employers to commit to longer job stability, NCAs, in principle, may encourage employers to increase investments in human capital (e.g., through training). Such investments could, under certain circumstances, result in workers having longer tenures and higher wages in their current job. Studies we reviewed examined these potential effects of NCAs.

Job Mobility

Studies show NCA enforcement generally restricts job mobility. Ten studies we reviewed generally found that stronger state NCA enforcement environments (see sidebar) reduce workers' job mobility, particularly in occupations where NCAs are used more frequently (e.g., technical professions).³⁷ For example, one study found that, in industries more likely to use NCAs, job mobility would decrease by 6 percent, on average, where there was a large increase in the strength of a state enforcement environment.³⁸ Another study found that after Oregon banned NCAs in 2008 for hourly workers and workers below a certain wage threshold, job mobility for hourly workers increased by 12 to 18 percent, which was driven mostly by increases for workers who sought jobs within the same industry as their previous employment.³⁹

Four studies found similar effects of NCAs on job mobility for specific groups of workers. For example, one study found that strengthening an NCA enforcement environment led to a 7 to 11 percent decline in job mobility for workers in knowledge-intensive occupations (i.e., those in which most workers have a bachelor's degree or higher).⁴⁰ However, the study found no effect for workers outside knowledge-intensive occupations. Another study found that executives with NCAs have lower job mobility than their peers without NCAs, and that the effect on job mobility is larger in states with stronger enforcement environments.⁴¹

State Enforcement Environments and Enforcement Indices

Employers may choose to enforce the noncompete agreements (NCAs) their workers sign, and state law generally governs NCA enforcement.

A professor from the University of Michigan developed an NCA enforcement index to characterize how strong NCA enforcement can be in each state, and to study the effect of enforcement on workers and firms. The index seeks to summarize key dimensions where legal variation across states is most significant, but does not indicate the likelihood of any particular NCA litigation

³⁷We use the term "enforcement environment" to refer to state provisions that define the enforceability of NCAs, as characterized by the studies.

³⁸Matthew Johnson, Kurt Lavetti, and Michael Lipsitz, "The Labor Market Effects of Legal Restrictions on Worker Mobility" (working paper, Oct. 12, 2021).

³⁹Michael Lipsitz and Evan Starr, "Low-Wage Workers and the Enforceability of Noncompete Agreements," *Management Science*, vol. 68, no. 1 (2022).

⁴⁰Jessica Jeffers, "The Impact of Restricting Labor Mobility on Corporate Investment and Entrepreneurship" (working paper, 2022).

⁴¹Shi, "Optimal Regulation."

outcome. This index has been used, and sometimes modified, by multiple researchers in the studies we reviewed.

The enforcement indices used in the studies evaluate the applicability of state statutes relating to NCAs, factors state courts consider when determining the enforceability of NCAs, and how courts treat overbroad or prohibited terms in an NCA, among other factors. Researchers have used different approaches to construct and apply the indices, but generally assign an enforcement value to each state based on their characteristics. For example, in one approach, a state received a score of 10 points if it had a statute that the study categorized as favoring enforcement, 5 points if it had no statute or had a neutral statute, and 0 points if its statute disfavors enforcement (e.g., prohibits NCAs). Each state's scores across characteristics were then combined and used to characterize the continuum of the NCA enforcement environments across states, from those with no enforcement to the strongest enforcement environments. We use the term "enforcement environment" to refer to the studies' characterization of state statutes and other factors affecting the enforceability of NCAs.

Source: GAO analysis of Norman Bishara, "Fifty Ways to Leave Your Employer: Relative Enforcement of Covenants Not to Compete, Trends, and Implications for Employee Mobility Policy," *University of Pennsylvania Journal of Business Law*, vol. 13, no. 3 (2011). | GAO-23-103785

Studies show NCAs may reduce job mobility even when not legally enforceable in a state. Two studies we reviewed found NCAs may reduce worker job mobility even when the NCAs are not legally enforceable in their state. Workers often are unaware of the legal effect of their NCAs and fear litigation, according to stakeholders. Consequently, the existence of an NCA may influence worker behavior regardless of its enforceability. One study found that workers who received reminders about their NCAs from their employer were more likely to believe the employer would enforce the NCAs, regardless of the strength of the enforcement environment in their state.⁴² Another study suggests that even unenforceable NCAs may influence employees' decisions to seek jobs with other employers.⁴³ The study estimated that 70.2 percent (+/- 6.3) of workers with unenforceable NCAs mistakenly believed the NCAs were enforceable, and an additional 8.4 percent (+/- 3.8) of workers were uninformed about the law regarding NCAs. The study suggests that these workers were less likely to search for employment with a rival employer. In addition, the study estimated that 12 to 25 percent (+/- 9 and 13, respectively) of workers who have unenforceable NCAs and who believe their NCAs are unlikely to be enforced still reported accounting for the NCA when considering taking a job with a rival employer. The study also found that even after being informed their NCAs are unenforceable, many

⁴²Evan Starr, J.J. Prescott, and Norman Bishara, "The Behavioral Effects of (Unenforceable) Contracts," *Journal of Law, Economics and Organization*, vol. 36, no. 3 (2020).

⁴³The study identified whether the NCAs of respondents were enforceable. J.J. Prescott and Evan Starr, "Subjective Beliefs About Contract Enforceability" (working paper, July 19, 2022).

respondents reported they would still consider their NCAs when deciding whether to take a job at a rival employer.

Navigating NCA restraints on job mobility. To avoid NCA enforcement, workers subject to NCAs might seek other employment opportunities by switching occupations or industries (sometimes referred to as career detours), or might move from a state with a strong enforcement environment to a state with a lesser enforcement environment and continue to work in their previous field (i.e., migration). Two studies we reviewed found that strengthened NCA enforcement environments led to or were associated with an increased incidence of workers in technology professions taking a job in a different industry.⁴⁴ A more recent study of technology workers from 1991 to 2008 found that, controlling for other factors, workers in states with stronger enforcement environments were less likely to switch industries, but these workers were more likely to switch states.⁴⁵ Another study also found that, on average, technical workers in states with stronger NCA enforcement environments were more likely to switch states than those in states with lesser enforcement environments, and cautioned that such moves may create a “brain-drain” of skilled workers in certain areas.⁴⁶ Although switching industries or states may enable workers to avoid unemployment while NCA restrictions are in place, stakeholders we interviewed said such moves may also have other consequences (see text box below).

Reported Challenges with Changing Industries or States

Stakeholders we interviewed noted that changing industries is necessary for some workers who leave their jobs and who cannot afford to be unemployed for the duration of a noncompete

⁴⁴One study analyzed changes in Michigan after a 1984 change in law that the study found strengthened the NCA enforcement environment. Thor Berger and Carl Benedikt Frey, “Regional Technological Dynamism and Noncompete Clauses: Evidence From a Natural Experiment,” *Journal of Regional Science*, 57, no. 4 (2017). The other study relied on the experiences of 36 inventors in the automatic speech recognition industry. Among these inventors, the study found a statistically significant association between NCAs and workers switching to a different industry when changing jobs, controlling for other factors. The study corroborated this finding with self-reported data from a cross-industry survey conducted with the Institute of Electrical and Electronics Engineers. The survey had a 20.6 percent response rate. Matt Marx, “The Firm Strikes Back: Non-compete Agreements and the Mobility of Technical Professionals,” *American Sociological Review*, vol. 76, no. 5 (2011).

⁴⁵Natarajan Balasubramanian, Jin Woo Chang, Mariko Sakakibara, Jagadeesh Sivadasan, and Evan Starr, “Locked In? The Enforceability of Covenants Not to Compete and the Careers of High-Tech Workers,” *The Journal of Human Resources*, vol. 57 (supplement) (2020).

⁴⁶Matt Marx, Jasjit Singh, and Lee Fleming, “Regional Disadvantage? Employee Non-compete Agreements and Brain Drain,” *Research Policy*, vol. 44 (2015).

agreement (NCA). One stakeholder explained that workers may be unable to afford going months without a job, so they take whatever job opportunity is available.

However, stakeholders noted that such career detours can have consequences. For example, a stakeholder we spoke with said workers who intend to return to their previous occupations may encounter challenges if their skills become out of date.

In addition, a study of technical professionals in Michigan found that those who switched industries after Michigan strengthened its NCA enforcement environment in 1984 (i.e., took a career detour) earned lower wages than similar workers in other states.

Source: GAO analysis of interviews with stakeholders knowledgeable about noncompete agreements and Thor Berger and Carl Benedikt Frey, "Regional Technological Dynamism and Noncompete Clauses: Evidence From a Natural Experiment," *Journal of Regional Science*, vol. 57, no. 4 (2017). | GAO-23-103785

Wages

The nine studies we reviewed that examined the effects of NCAs on wages generally found that NCA enforcement decreases worker earnings, on average, but for certain workers, NCAs may increase earnings or have mixed effects on earnings. Two of these studies also suggested that NCAs may exacerbate wage disparities between certain worker groups.

Stakeholder Concerns about Noncompete Agreements (NCAs) for Lower-Wage Workers

Various stakeholders we interviewed expressed concerns about the effects of NCAs on lower-wage workers. Specifically, in 10 of the 27 stakeholder interviews we held—including officials from two research organizations, six worker advocacy groups, and two employer groups—officials discussed lower-wage workers in the context of NCAs. In all 10 interviews, officials said that lower-wage workers or hourly workers should not be subject to NCAs. For example, stakeholders from a worker advocacy group and an employer group said lower-wage workers are less likely to cause material harm to an employer and are the most negatively affected by NCAs.

Other stakeholders also have suggested that lower-wage workers should not be subject to NCAs. For example, in responding to our survey of state attorneys general, Maryland, New Hampshire, and Rhode Island each reported having statutes that prohibited NCAs for lower-wage workers, defined as workers earning \$15 an hour or less, those earning 200 percent of the federal minimum wage, and those earning 250 percent of the federal poverty level for individuals, respectively. In July 2021, the Uniform Law Commission—a nonprofit association with representation from states—proposed prohibiting NCAs for lower-wage workers, defined as those making less than a state's annual mean wage.

Source: GAO analysis of interviews with stakeholders knowledgeable about noncompete agreements, survey responses and documents from state attorneys general, and information from the Uniform Law Commission. | GAO-23-103785

Studies show NCAs generally lower wages. Several studies we reviewed found that NCAs have a negative effect on wages; these studies analyzed the effect in different ways.

- **Studies show limiting use of NCAs increases wages.** Two studies we reviewed found that state bans of NCAs for certain workers increased those workers' wages, on average. One study estimated that Oregon's ban on NCAs for workers below a particular wage threshold increased the earnings of hourly workers by 2.2 to 3.1

percent, on average.⁴⁷ Additionally, the study found that the ban increased the wages of hourly workers in high-NCA-use occupations in Oregon by 4.5 percent. A second study that examined Hawaii's ban on NCAs for technology workers found that the wages of newly hired technical workers increased by 4.2 percent, on average, after the ban.⁴⁸

- **Studies show stronger NCA enforcement reduces wages.** Three studies we reviewed found that workers in states with stronger NCA enforcement environments had lower wages than those in other states. For example, one study found that increases in the NCA enforcement environment decreased worker earnings on average, with larger reductions for workers in industries, occupations, and demographic groups in which NCAs are used more frequently.⁴⁹ A different study found that technology workers in states with strong NCA enforcement environments earned less over their careers, on average, than those in states with lesser enforcement environments.⁵⁰ The study estimated that 8 years after starting a job in a state with an average NCA enforcement environment, a technology worker had, on average, 4 percent lower cumulative earnings than a worker who started a job at the same time in states with the lowest enforcement environments.

Studies show NCAs are associated with increased wages or have mixed wage effects for certain workers, though the evidence is somewhat inconclusive. Several studies we reviewed found that NCAs can be associated with (though not necessarily the cause of) higher wages for executives, physicians, and workers who may have more opportunities to negotiate the terms of their NCAs.⁵¹

- **Studies show mixed effects for executives.** One study found that, on average, executives with NCAs had higher starting salaries but

⁴⁷Michael Lipsitz and Evan Starr, "Low-Wage Workers and the Enforceability of Noncompete Agreements."

⁴⁸Balasubramanian, et. al., "Locked In?"

⁴⁹Johnson, Lavetti, and Lipsitz, "The Labor Market Effects of Legal Restrictions."

⁵⁰Balasubramanian, et. al., "Locked In?"

⁵¹To measure the effect of NCAs, each of these studies tried to control for differences between workers and firms that do and do not use NCAs, but ultimately could not rule out that such differences may have affected the relationship they found between NCAs and wages for these workers.

experienced less wage growth than those without NCAs.⁵² The study estimated that the average starting salary for executives with NCAs was 13 percent higher than for executives without NCAs. However, the study estimated that during the first 10 years of their tenure, wages for executives with NCAs grew 1 percent less annually than wages for executives without NCAs. Another study found that executive compensation is lower and more salary-based (i.e., less based on bonuses and other incentives) in states with strong NCA enforcement environments than in states with lesser enforcement environments.⁵³

- **One study found increased wages for primary care physicians.** The study we reviewed that examined primary care physicians found that those with NCAs experienced higher earnings growth, on average, than those without NCAs.⁵⁴ The study estimated that NCAs increased the annual rate of earnings growth for physicians by an average of 8 percentage points each of their first 4 years at work. Cumulatively, the study estimated that physicians with NCAs had 35 percentage points greater earnings growth after 10 years on the job. The study also estimated that the earnings differences between physicians with and without NCAs were even larger in states with stronger NCA enforcement environments.
- **One study found mixed effects for workers who learned about NCAs before accepting the job.** According to one study, NCAs are associated with higher wages when the worker reported learning of the NCA prior to accepting the job.⁵⁵ These workers were twice as likely to report negotiating with their employer as those who learned about the NCA after accepting the job, suggesting these workers may have additional bargaining power. Specifically, the study found that workers who learned of their NCA before accepting a job had 9.7 percent higher earnings, on average, as compared to similar workers without NCAs. However, the study also found that NCAs were

⁵²Shi, "Optimal Regulation."

⁵³Mark J. Garmaise, "Ties that Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment," *Journal of Law, Economics & Organization*, vol. 27, no. 2 (2011). The study defined compensation as the sum of salary, bonuses, total value of restricted stock granted, total value of stock options granted, long-term incentive payouts, and all other payments.

⁵⁴Lavetti, Simon, and White, "The Impacts of Restricting Mobility of Skilled Service Workers."

⁵⁵Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force."

associated with lower earnings in states with stronger enforcement environments, regardless of when the worker was notified of the NCA.

Studies show strong NCA enforcement may exacerbate wage disparities among certain demographic groups. One study we reviewed found that strengthening NCA enforcement environments led to significantly larger earnings reductions, on average, for Black men and non-White women (including Black women and those of other races) than for White men.⁵⁶ Another study found that after Oregon banned NCAs for lower-wage workers, women experienced a wage increase of 3.5 percent compared to a 1.5 percent increase for men, suggesting that women's earnings had been more affected by the NCAs than men's earnings.⁵⁷ Neither study identified a specific cause for the differences.

Studies Show that NCA Enforcement May Encourage Firm-Sponsored Training and Restrain New Firm Creation

Studies show stronger NCA enforcement may be associated with firms providing training for workers. Two studies we reviewed found that workers in occupations that use NCAs frequently are more likely to receive firm-sponsored training in states with stronger NCA enforcement environments.⁵⁸ For example, one study estimated that—among workers in occupations more likely to use NCAs—training availability is 14 percent higher in states with average NCA enforcement environments than in states that do not enforce NCAs.⁵⁹

Employers Offering Training to Workers with Noncompete Agreements (NCAs)

Employers might offer training to workers with NCAs for various reasons, including offering the training as an incentive for signing an NCA or because an NCA makes it more likely that an employer will receive the benefits of a worker's increased skills. Eight

⁵⁶Johnson, Lavetti, and Lipsitz, "Labor Market Effects of Legal Restrictions." The differences were significant at the 90 percent confidence level.

⁵⁷Lipsitz and Starr, "Low-Wage Workers and the Enforceability of Noncompete Agreements." This difference was significant at the 95 percent confidence level.

⁵⁸Evan Starr, "Consider This: Training, Wages, and the Enforceability of Covenants Not to Compete," *ILR Review*, vol. 72, no. 4 (2019); and Starr, Prescott, and Bishara, "Noncompete Agreements in the U.S. Labor Force."

⁵⁹Starr, "Consider This."

of the 12 stakeholders we spoke with who commented on the issue said they were aware of employers that offered training to workers who signed NCAs. Of the 247 employers that responded to our survey and reported using NCAs, 25 reported that signing an NCA is linked to additional specialized training. One employer that provided additional context in the survey noted that it spends a significant amount on training, and that NCAs allow it to recoup the investment by encouraging employees not to leave shortly after they are hired.

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022 and interviews with stakeholders knowledgeable about noncompete agreements. | GAO-23-103785

Studies show NCA enforcement may restrain new firm creation in certain circumstances.⁶⁰ Studies noted that workers with NCAs may be discouraged from founding new firms due to an increased probability of litigation and greater costs of recruiting and hiring staff. For example, one study noted that established firms may have the resources to negotiate the NCA of a potential recruit, but new firms may have limited resources.⁶¹ On the other hand, a new firm may use NCAs to secure its own trade secrets and other protectable interests.

Three studies we reviewed found that stronger NCA enforcement environments restrain new firm creation in certain circumstances. For example, one of the studies found that stronger NCA enforcement environments negatively affect the creation of new firms within an industry (i.e., founders starting a new firm in the same industry as the job they left), but has no effect on the creation of new firms in other industries.⁶² Another study of nonfinancial private sector firms found that strengthened NCA enforcement environments led to declines in the creation of knowledge-intensive firms; however, the study found no effect on the creation of other types of firms.⁶³ The study explains that NCAs may affect the recruitment of early start-up workers.

Contrary to the prior studies, one study found that stronger NCA enforcement environments had no effect on the creation of new firms. The study examined new firm creation in Michigan after the state strengthened its NCA enforcement environment in 1984, and found that the change had little to no effect on the rate of firm creation in the state.⁶⁴

⁶⁰Studies we reviewed suggest differing effects of strong NCA enforcement on other firm activities, such as investment in physical capital, inventions, and research and development, though the research is somewhat inconclusive. See appendix IV for a discussion of these studies.

⁶¹Matt Marx, "Employee Non-compete Agreements, Gender, and Entrepreneurship," *Organization Science* (September 3, 2021).

⁶²Evan Starr, Natarajan Balasubramanian, and Mariko Sakakibara, "Screening Spinouts? How Noncompete Enforceability Affects the Creation, Growth and Survival of New Firms," *Management Science*, vol. 64, no. 2 (2018).

⁶³The study defines knowledge-intensive firms as those in technology and in professional, scientific, and technical services industries. Jeffers, "Impact of Restricting Labor Mobility."

⁶⁴Gerald A. Carlino, "Do Noncompete Covenants Influence State Startup Activity? Evidence From the Michigan Experiment," (working paper WP 21-26, Federal Reserve Bank of Philadelphia, July 2021).

Responding States Reported Various Statutory Provisions Regarding Noncompete Agreements

State laws generally govern employers' use and enforcement of NCAs against workers.⁶⁵ We surveyed states' attorneys general to find out more about the types of parameters state statutes have placed on the use and enforcement of NCAs. We received responses from 25 states and the District of Columbia.⁶⁶ Of these respondents, 14 reported that their states enacted or modified general NCA statutes in the last decade, including 10 states that enacted or modified their statutes after 2016.

States reported varied approaches to regulating NCAs. States reported a few different statutory approaches for regulating NCAs, including: (1) generally not allowing NCAs, (2) allowing NCA use subject to specific statutory provisions, (3) generally allowing NCAs, and (4) not having a statute related to NCAs.

- **NCAs generally not allowable:** One state (California) reported a statute that generally does not allow NCAs for workers.⁶⁷
- **NCAs allowable subject to specific statutory provisions:** Sixteen states reported a statute that includes specific provisions for allowable NCAs, such as identifying which worker populations may be covered

⁶⁵Courts may determine in some cases whether employers can enforce NCAs; for example, courts may adjudicate the enforceability of NCAs with overly broad or prohibited terms in three ways: rule the NCA is unenforceable, strike the unenforceable provisions, or rewrite the NCA to conform to state statute (reformation). State statutes may provide guidance to courts regarding overly broad or prohibited NCA terms and provisions.

⁶⁶For the purposes of this report, we refer to the 25 responding states and the District of Columbia as responding states. We did not conduct an independent legal review to identify relevant state laws to supplement survey responses. Additionally, we did not verify the completeness of the information reported by the states, or any other methods states might use to regulate the use of NCAs. States may have enacted or modified new NCA statutes after their survey was submitted. The following states' attorney general offices responded to our survey: Alabama, Arkansas, California, Colorado, Delaware, District of Columbia, Hawaii, Idaho, Illinois, Iowa, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Vermont, Washington, and Wisconsin. See appendix V for a table summarizing responses received, by state.

⁶⁷California reported a statute that generally does not allow NCAs for workers, but permits NCAs related to the dissolution or sale of a business by business owners, members of a limited liability company, or partners in a partnership.

by NCAs and setting requirements related to notifying workers about NCAs.⁶⁸

- **NCAs generally allowable provided they are reasonable, as defined under state law:** Three states reported a statute that allows NCAs that are reasonable, as defined under state law.
- **No statute reported:** Six states reported not having a statute related to NCAs.⁶⁹

States may choose to regulate NCAs for a variety of reasons, though protecting workers was the primary consideration reported among our survey respondents. Of the 20 states reporting a statute related to NCAs, 11 identified factors that may have prompted the state to enact or modify a statute related to NCAs.⁷⁰ Ten of these states reported that protecting workers from potentially unfair noncompete practices was a factor, and nine of these states reported this was a major factor. Five states also reported that declining worker mobility was a factor. The District of Columbia identified two additional reasons not listed in the survey as major factors: (1) “to enhance the local economy and business creation,” and (2) “to protect victims of discrimination or other unlawful conduct who needed to leave their jobs.”

Attorney general offices that responded to our survey reported that their states had NCA statutes that included provisions to protect certain workers, such as lower-wage workers, and increase the transparency of NCAs, among other things. Specifically, states reported statutes that included provisions related to: exempting specific workers from NCAs based on profession or wage level, notifying workers, providing incentives to workers for signing or while the NCA is in effect after leaving a job, restricting enforcement for workers who are laid off, limiting NCA duration, and assessing penalties for employer use of prohibited NCAs. The

⁶⁸Some states did not report having a general NCA statute, but reported having a statute that specifically prohibited NCAs for workers in certain professions. We categorize these states as having a statute related to NCAs and as allowing NCAs subject to specific provisions (e.g., NCAs are allowed except for those professions in which they are specifically prohibited).

⁶⁹The absence of a statute does not mean the state does not regulate NCAs.

⁷⁰The survey provided a list of factors and asked respondents to check all that apply, as well as categorize the factors as major, moderate, or minor.

following paragraphs include the number of states that reported each of these types of statutory provisions along with selected examples.

NCAs not allowed for workers in specific professions (6 states).⁷¹

These states most frequently reported a statute that prohibits NCAs for physicians, nurses, or other health care workers, but also identified broadcasters, lawyers, and high-tech workers among professions for which NCAs are prohibited.

Wage thresholds or employee classifications determine which workers may be subject to NCAs (11 states). These states reported a statute that uses workers' earnings or employee classifications to exempt certain workers from NCAs. Some reported statutes specify that workers who earn less than a certain wage (see text box below), or defined groups of workers such as those paid on an hourly basis or lower-wage workers, cannot be subject to an NCA. For example:

- Washington reported a statute that prohibits NCAs for workers who earn less than \$100,000 per year, adjusted annually for inflation after 2020.⁷²
- Rhode Island reported a statute that prohibits NCAs for, among others, undergraduate or graduate students participating in a paid or unpaid internship or other short-term work while in school, workers 18 or younger, and lower-wage workers (defined as those who earn less than 250 percent of the federal poverty level for individuals).
- Idaho reported a statute that allows employers to apply NCAs only to key employees or key independent contractors; the highest paid 5 percent of the employers' workers are presumed to be in these groups.

Stakeholder Perspective: Challenges with Using Certain Wage Thresholds

Stakeholders we spoke with discussed specific challenges related to using certain wage thresholds. For example, one stakeholder at a policy research organization told us that using the poverty level as a criterion is challenging because workers do not understand how it is calculated. Staff with a human resource management organization noted that Oregon's wage threshold requires that workers with noncompete agreements be salaried. This led many Oregon employers to convert their hourly workers to a salary, according to a stakeholder within a worker advocacy group.

⁷¹States that reported prohibiting NCAs for specific occupations or professions may allow NCAs for other workers.

⁷²According to the Washington State Department of Labor and Industries, the wage threshold for 2023 is \$116,593. Washington reported that its statute has a separate wage threshold for independent contractors, which according to the Department of Labor and Industries is \$291,483 for 2023.

Source: GAO analysis of interviews with stakeholders knowledgeable about noncompete agreements. | GAO-23-103785

Notifications of NCAs to workers are required, generally in writing (7 states). These states reported a statute that includes requirements for employers to provide notice to workers about NCAs (see text box below). Illinois reported a statute that requires the employer to advise the worker in writing to consult an attorney prior to signing an NCA, and the employer must provide the worker with a copy of the NCA at least 14 calendar days before taking the job; existing employees are allowed 14 calendar days to review an NCA before signing (e.g., if an NCA is required after a promotion or after a worker is hired). The District of Columbia reported a statute that specifies the notice language an employer must provide to workers 14 days before they start a job or 14 days before the employer seeks to impose an NCA on existing workers. Further, the District of Columbia reported a statute that also authorizes liability for a violation of the notice requirement, which would allow monetary relief of \$250 to each employee who does not receive the requisite notice. Additionally, New Hampshire reported a statute that provides that an NCA is unenforceable if the employer failed to provide notice in accordance with the statute.

Stakeholder Perspective: Importance of Worker Notification

One study we reviewed found that a substantial proportion of workers were unaware of whether they had a noncompete agreement, and that many workers received their noncompete agreements after they accepted a job. Some stakeholders we spoke with told us that workers often have to sign noncompete agreements with no advance notice, including lower-wage or lower-skilled workers, and that workers need time to consider the noncompete agreement and seek advice. In addition, the Uniform Law Commission—a nonprofit association with representation from states—noted that the requirement that employers notify workers about a noncompete agreement is one of the most important aspects of potential NCA legislation.

Source: GAO analysis of interviews with stakeholders knowledgeable about noncompete agreements, information from the Uniform Law Commission, and Evan Starr, J.J. Prescott, and Norman Bishara, "Noncompete Agreements in the U.S. Labor Force," *Journal of Law and Economics*, vol. 64, no.1 (2021). | GAO-23-103785

Additional consideration required for signing an NCA (4 states). These states reported a statute that includes various requirements for employers to provide additional consideration to have workers sign NCAs. For example, Illinois reported a statute that requires employers to provide workers who sign NCAs with 2 years of continued employment after signing the NCA, or a period of employment plus additional professional or financial benefits, or adequate professional or financial benefits by themselves.

"Garden leave" provisions (2 states). Garden leave provisions generally require the employer to compensate departing workers for the period of time the NCAs restrict them from working. Massachusetts reported a statute that generally requires employers to pay workers granted garden leave a pro-rata amount of at least half of their recent salary upon separating. Oregon reported a statute that requires

employers to pay departing workers the greater of either half of their annual gross salary and commissions at the time of separation or half of \$100,533 (adjusted annually for inflation) for the full time the NCA restricts them from working.

Restrictions on NCA enforcement for workers laid off because of reductions in force or similar circumstances (4 states).⁷³ Workers in some states may be subject to their NCAs when they are laid off through no fault of their own. Nevada, however, reported a statute that provides that when workers are terminated as a result of a business setback, employers may only enforce NCAs if they pay the workers' salaries, and benefits or equivalent compensation, including severance pay. Similarly, Washington reported a statute that requires employers to pay laid-off workers their base salary, minus any compensation from another job, for as long as the NCA restrictions apply.

Allowable duration of NCAs is specified (7 states). These states reported a statute that allowed NCAs only for specified periods of duration. Oregon and South Dakota reported statutes requiring that NCA restrictions not exceed 12 months and 2 years, respectively.

Penalties for employers that use prohibited NCAs (4 states). These states reported a statute that included the explicit authority for the state to penalize employers for using prohibited NCA provisions (see text box below). Colorado reported a statute that allows for employers that violate its NCA statute to compensate workers for actual damages and pay a penalty for each worker or prospective worker who is harmed.

Stakeholder Perspective: Employer Use of Prohibited Noncompete Agreement Provisions

A few stakeholders we spoke with noted that there generally is no downside for employers to include overly broad or prohibited terms in their noncompete agreements. These stakeholders said that employers include such terms because they understand that the courts can rewrite the noncompete agreements in the unlikely event workers sue to challenge the provisions. The stakeholders noted that employers rarely receive sanctions for using prohibited noncompete agreements.

Source: GAO analysis of interviews with stakeholders knowledgeable about noncompete agreements. | GAO-23-103785

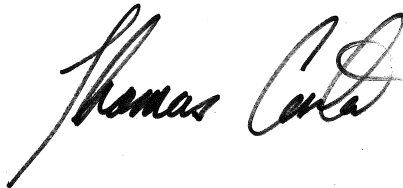
⁷³Illinois reported a statute that includes a provision related to workers laid off due to the COVID-19 pandemic or similar circumstances.

Agency Comments

We provided a draft of this report to the Department of Justice and the FTC for review and comment. In FTC's comments, reproduced in appendix VI, the commission provided context from its research on noncompete agreements. The Department of Justice and the FTC also provided technical comments, which we incorporated as appropriate.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the appropriate congressional committees, the U.S. Attorney General, the Chair of the Federal Trade Commission, and other interested parties. In addition, the report will be available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-4769 or costat@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VII.

A handwritten signature in black ink that reads "Thomas Costa". The signature is written in a cursive style with a large, sweeping initial "T".

Thomas Costa
Director
Education, Workforce, and Income Security Issues

List of Requesters

The Honorable Ron Wyden
Chairman
Committee on Finance
United States Senate

The Honorable Elizabeth Warren
Chair
Subcommittee on Economic Policy
Committee on Banking, Housing, and Urban Affairs
United States Senate

The Honorable Tim Kaine
United States Senate
The Honorable Christopher Murphy
United States Senate

The Honorable Marco Rubio
United States Senate
The Honorable Todd Young
United States Senate

Appendix I: Objectives, Scope, and Methodology

This report examines (1) the prevalence of noncompete agreements (NCAs), including for various types of workers; (2) what factors influence employers' and employees' decisions to enter into such agreements; (3) the effects of the agreements on the workforce and firms; and (4) what steps states have taken to regulate the use of such agreements.

To answer our questions, we took a multi-pronged approach that included (1) a literature review of empirical studies on the prevalence and economic effects of noncompete agreements; (2) a survey of private sector employers that asked about the reasons they have and enforce NCAs; (3) a survey of state attorney general offices that asked about the steps they had taken to regulate NCAs; and (4) interviews with stakeholders representing the viewpoints of researchers, workers, and employers on the prevalence and economic effects of NCAs. Our review focused only on NCAs and did not include other restrictive covenants such as nondisclosure agreements.

Literature Review

To examine the prevalence of NCAs and their effects on the workforce and firms, we conducted a comprehensive literature review focusing on studies that examined (1) the prevalence of NCAs in the U.S. economy and (2) the economic effects of NCAs on the U.S. labor market. We used a multi-step approach to identify studies. We conducted a database literature search in December 2020 using ProQuest, Dialog, EBSCO, Harvard Kennedy Think Tank Search, and Scopus. While reviewing these publications, we identified additional studies in their bibliographies. We also conducted online searches to identify additional studies, including those published after the date of our database search. Through this process, we identified a total of 217 potentially relevant studies published from 1981 through 2022.

We screened all 217 studies using a multi-stage approach. During the initial stage, we reviewed the studies' abstracts to determine whether they focused on the prevalence or economic effects of NCAs, and whether they contained evidence of empirical research. We removed studies that did not meet these criteria from further review. A separate team of

economists and/or social science specialists then reviewed the contents of each remaining study. These reviewers concurred or disagreed with the initial review's determination on whether the studies focused on the key issue areas and whether the paper contained empirical research. This review also assessed the studies' empirical research to determine whether the research methodologies were appropriate and sufficiently rigorous for the purposes of our review. Of the 217 studies we identified, we selected 31 that met our criteria to be part of our final review. See appendix II for the list of the 31 studies we used in our review.

We developed a data collection instrument that described each of the articles and studies we selected and the reasons we selected them to be part of our review. Each instrument required the reviewers to complete a bibliography and summarize information from the study, including a brief background, the study's objectives and empirical findings that were relevant to our report, a description and analysis of how the study was designed and implemented, and any limitations for how its results could be interpreted.

We determined these 31 studies and articles were appropriate and sufficient for the purposes of our review. However, we also identified limitations or important context to include when interpreting the studies' findings for our report. In addition, the empirical studies we reviewed did not comprehensively examine the effects of NCAs on the overall economy. Researchers we spoke with said that challenges such as data limitations make it difficult to determine the economic effect of NCAs on measures like productivity, consumer prices, and gross domestic product.

Survey of Private Sector Employers

To examine the factors that influence employers' and employees' decisions to enter into NCAs, we contracted with the Society for Human Resource Management (SHRM) to conduct a survey of private sector employers in its organization. The agreement between GAO and SHRM consisted of several phases, including generating the list of private employers to be part of the survey, reviewing and providing comments on the survey questionnaire, pretesting the questionnaire, distributing the final questionnaire, and collecting the results.

SHRM has a membership of more than 300,000 human resource professionals. According to an official, SHRM distributed the survey to 14,351 of these members that had agreed to take part in surveys sent by

SHRM. According to SHRM officials, these members were located throughout the United States and worked for employers of different sizes and in various industries.

We took several steps in designing and refining the survey questionnaire. During the initial design, we developed questions in collaboration with stakeholders, and informed by various studies on NCAs. We collaborated with GAO stakeholders and SHRM officials who provided comments on the extent to which the questions and multiple choice response options would be clear and understandable to the employers that received the questionnaire. We made changes to the questionnaire after each review based on the comments we received. We conducted three pretests of the questionnaire with employers to further ensure (1) the questions were clear and unambiguous, (2) terminology was used correctly, (3) the questionnaire did not place an undue burden on respondents, and (4) the questionnaire was comprehensive and unbiased. We conducted all three pretests virtually. Following each pretest, we refined the content and format of the questionnaire based on the feedback we received, including following up with individuals who pretested the survey, as appropriate, to review the revisions.

The questionnaire focused on several topic areas, including (1) whether employers have workers sign NCAs, (2) the reasons employers have their workers sign NCAs, (3) the incentives employers offer their workers in exchange for signing NCAs, (4) when employers first inform workers about having to sign NCAs, (5) how frequently employers enforce NCAs, and (6) the reasons employers enforce the terms of NCAs. The questionnaire also asked employers to respond to some of these topic areas separately by type of worker, including for executives (i.e., chief executive officers, chief financial officers, etc.), salaried management, salaried non-management, part-time workers, and hourly workers. The questionnaire also collected information on employer characteristics, such as employer size and industry. Examples of the key questions we asked in our questionnaire include the following:

- What business interests, if any, is your company trying to protect by using a noncompete agreement, as it applies to worker type?
- What compensation, training, or additional consideration, if any, does your company generally offer a worker in exchange for signing a noncompete agreement?
- Generally, when would a potential or current worker first be informed of the requirement to sign a noncompete agreement?

- In instances that your company has enforced the terms of former workers' noncompete agreements, which business interests was your company seeking to protect?

For all of the questions in the survey, we provided a list of responses from which employers could select. We developed response options in collaboration with stakeholders and informed by various studies on NCAs. For most questions, we also provided an "other" option to allow employers to write in information beyond the options we provided. For many questions, employers could select more than one response.

The survey was administered in Qualtrics, a web-based survey platform. Through this platform, SHRM distributed the finalized questionnaire to its list of private sector employers on April 19, 2022. We asked recipients to complete the questionnaire within one month. SHRM officials reported sending two emails to survey recipients reminding them to complete the questionnaire. Completed questionnaires were accepted until May 20, 2022. All responses were collected by SHRM and stored within SHRM's database. After the questionnaire closed, SHRM sent us a copy of the raw survey data, representing that it was provided without any modifications, summarizations, or analysis.

Of the 14,351 private sector employers that were sent the survey, according to SHRM, a total of 447 employers responded to the survey. Of those respondents, we excluded one because the respondent indicated it had workers sign NCAs, but later in the survey noted it did not have workers sign them. The removal of the one respondent resulted in a total of 446 respondents. Since the pool of possible respondents was a membership list of private sector employers that volunteered to respond to surveys sent by SHRM, we are not able to generalize the results to all private sector employers nationwide. However, according to a SHRM official, our survey respondents were broadly representative of SHRM membership characteristics from a size and industry perspective, though our group of respondents did include an overrepresentation of technology companies.

Because this was not a sample survey, it has no sampling errors. However, the practical difficulties of conducting any survey may introduce errors, commonly referred to as nonsampling errors. For example, difficulties in interpreting a particular question, sources of information available to respondents, or entering data into a database or analyzing them can introduce unwanted variability into the survey results. The steps we took to develop and test the questionnaire were designed to minimize

such nonsampling errors. In addition, when we analyzed the data, an independent analyst verified that the data we received from SHRM were complete and unmodified and checked all analysis programs.

Survey of State Attorney General Offices

To determine the steps states have taken to regulate NCAs, we conducted a survey of attorney general offices in all 50 states and the District of Columbia. We conducted the survey in several phases, including identifying attorney general contacts, developing and pretesting the questionnaire, distributing the final questionnaire, and collecting the results.

To identify the attorney general contacts and distribute the survey, we collaborated with the National Association of Attorneys General (NAAG), an association that works with the 56 state and territory attorneys general. NAAG sent our questionnaire to their list of contacts on our behalf. During the design of the questionnaire, we reviewed information from our literature review and collaborated with GAO stakeholders with subject matter expertise. We conducted pretests of the questionnaire with three attorney general offices to ensure (1) the questions were clear and unambiguous, (2) terminology was used correctly, (3) the information could feasibly be obtained, and (4) the questionnaire was comprehensive and unbiased. We refined the content and format of the questionnaire after each pretest, based on the feedback we received, including following up with the attorney general offices that pretested the survey, as appropriate, to review the revisions.

The finalized questionnaire was formatted into a locked document that attorney general offices could return electronically after marking checkboxes or entering responses into open answer fields. On March 24, 2022, NAAG distributed the questionnaire with a cover letter to the attorney general offices. NAAG sent reminder emails to offices on April 11, 2022 and April 19, 2022. Separately, starting in May 2022 we also reached out to the offices that had not yet responded, asking them to participate. We accepted completed surveys through August 2022. We

received responses from 25 states and the District of Columbia.¹ The results are not generalizable.

The questionnaire focused on collecting detailed information on the states' statutes related to NCAs. We analyzed responses from the attorney general offices to identify the variety of approaches states reportedly took to regulating NCAs (e.g., whether NCAs are allowed or not allowed) and examples of the kinds of NCA-related provisions state statutes included (e.g., related to NCA duration).²

Because this was not a sample survey, it has no sampling errors, but as discussed above, the practical difficulties of conducting any survey may introduce nonsampling errors. Similar to the employer survey discussed above, the steps we took to develop and test the questionnaire were designed to minimize such nonsampling errors.

Interviews with Stakeholders

We conducted 27 stakeholder interviews with a mixture of worker advocates (e.g., attorneys), employer-affiliated groups (e.g. human resource policy advocates), researchers, and a union. During these interviews, we asked questions related to the use of NCAs, such as reasons employers and workers enter into the agreements, the economic effects of NCAs, and other issues.³ During our interviews with researchers, our questions also covered the challenges they face in collecting data on the effects of NCAs.

¹We also received a completed survey from a U.S. territory because NAAG distributed the survey to its full list of attorney general offices. For this objective, our scope was to examine 50 states and the District of Columbia, so we did not analyze the survey received from the territory.

²We did not conduct an independent legal review to identify relevant state laws to supplement survey responses. Additionally, we did not verify the completeness of the information reported by the states, or any other methods states might use to regulate the use of NCAs. States may have enacted or modified new NCA statutes after their survey was submitted.

³We generally use the terms "one," "a few," "some," and "many" to describe how many stakeholders shared certain views. Presenting exact counts could be misleading because our stakeholders represented a wide variety of perspectives, and the open-ended nature of discussion questions meant that they may not have discussed all of their views. For example, one stakeholder might have an opinion about an issue another stakeholder raised even though it did not come up in their conversation with us.

Related to multiple objectives, we also reviewed relevant federal laws and regulations.

We conducted this performance audit from September 2019 through May 2023 in accordance with generally accepted government auditing standards.⁴ Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁴Our work was temporarily affected by other high-priority work related to the COVID-19 pandemic.

Appendix II: Empirical Studies GAO Reviewed

To examine the prevalence of noncompete agreements and their effects on the workforce and firms, we reviewed the following 31 empirical studies.

Aobdia, Daniel. "Employee Mobility, Noncompete Agreements, Product-Market Competition, and Company Disclosure," *Review of Accounting Studies*, vol. 23 (2018).

Anand, Smriti, Iftekhar Hasan, Priyanka Sharma, and Haizhi Wang. "State Enforceability of Noncompete Agreements: Regulations That Stifle Productivity!" *Human Resources Management*, vol. 57 (2018).

Balasubramanian, Natarajan, Jin Woo Chang, Mariko Sakakibara, Jagadeesh Sivadasan, and Evan Starr. "Locked In? The Enforceability of Covenants Not to Compete and the Careers of High-Tech Workers." *The Journal of Human Resources*, vol. 57 (supplement) (2020).

Berger, Thor, and Carl Benedikt Frey. "Regional Technological Dynamism and Noncompete Clauses: Evidence From A Natural Experiment." *Journal of Regional Science*, vol. 57, no. 4 (2017).

Bishara, Norman D., Kenneth J. Martin, and Randall S. Thomas. "An Empirical Analysis of Noncompetition Clauses and Other Restrictive Postemployment Covenants." *Vanderbilt Law Review*, vol. 68, no. 1 (2015).

Carlino, Gerald A. "Do Non-Compete Covenants Influence State Startup Activity? Evidence From the Michigan Experiment." Working paper WP 21-26, Federal Reserve Bank of Philadelphia, July 2021.

Colvin, Alexander J.S., and Heidi Shierholz. "Noncompete Agreements Ubiquitous, Harmful to Wages and to Competition, and Part of a Growing Trend of Employers Requiring Workers to Sign Away Their Rights." Economic Policy Institute. Accessed December 19, 2019. <http://www.epi.org/179414>.

Conti, Raffaele. "Do Non-competition Agreements Lead Firms to Pursue Risky R& D Projects?" *Strategic Management Journal*, vol. 35, no. 8 (2014).

Garmaise, Mark J. "Ties That Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment." *Journal of Law, Economics & Organization*, vol. 27, no. 2 (2011).

Gurun, Umit G., Noah Stoffman, and Scott E. Yonker. "Unlocking Clients: The Importance of Relationships in the Financial Advisory Industry." *Journal of Financial Economics*, vol. 141, no. 3 (September 2021).

Huang, Hsini. "Invisible Constraints: The Relationship Among Non-Competition Agreements, Inventor Mobility, and Patent Commercialization." *Science and Public Policy*, vol. 44, no. 3 (2017).

Jeffers, Jessica S. "The Impact of Restricting Labor Mobility on Corporate Investment and Entrepreneurship." Working paper, 2022.

Johnson, Matthew S., Kurt Lavetti, and Michael Lipsitz. "The Labor Market Effects of Legal Restrictions on Worker Mobility." Working paper, October 12, 2021.

Johnson, Matthew S., and Lipsitz, Michael. "Why are Low-Wage Workers Signing Noncompete Agreements?" *Journal of Human Resources*, vol. 57, no. 3 (May 2022).

Lavetti, Kurt, Carol Simon, and William D. White. "The Impacts of Restricting Mobility of Skilled Service Workers: Evidence from Physicians." *Journal of Human Resources*, vol. 55, no. 3 (2018).

Lipsitz, Michael, and Evan Starr. "Low-Wage Workers and the Enforceability of Noncompete Agreements." *Management Science*, vol. 68, no. 1 (2022).

Marx, Matt. "Employee Non-compete Agreements, Gender, and Entrepreneurship." *Organization Science* (September 3, 2021).

Marx, Matt. "The Firm Strikes Back: Non-compete Agreements and the Mobility of Technical Professionals." *American Sociological Review*, vol. 76, no. 5 (2011).

Marx, Matt, Jasjit Singh, and Lee Fleming. "Regional Disadvantage? Employee Non-compete Agreements and Brain Drain." *Research Policy*, vol. 44 (2015).

Marx, Matt, Deborah Strumsky, and Lee Fleming. "Mobility Skills, and the Michigan Non-compete Experiment." *Management Science*, vol. 55, no. 6 (2009).

Meseroll, Briana K., Nathaniel M. Apatov, and Carolyn M. Rutledge. "The Noncompete Clause and the Nurse Anesthetist: An Assessment of Knowledge, Perception, and Experience." *AANA Journal*, vol. 83, no. 5 (2015).

Prescott, J.J., and Evan Starr. "Subjective Beliefs About Contract Enforceability." Working paper, July 19, 2022.

Rothstein, Donna S., and Evan Starr. "Noncompete Agreements, Bargaining, and Wages: Evidence From the National Longitudinal Survey of Youth 1997." *Monthly Labor Review* (June 2022).

Samila, Sampsa, and Olav Sorenson. "Noncompete Covenants: Incentives to Innovate or Impediments to Growth." *Management Science*, vol. 57, no. 3 (2011).

Shi, Liyan. "Optimal Regulation of Noncompete Contracts." Working paper, September 2022.

Starr, Evan. "Consider This: Training, Wages, and the Enforceability of Covenants Not to Compete." *ILR Review*, vol. 72, no. 4 (2019).

Starr, Evan, Natarajan Balasubramanian, and Mariko Sakakibara. "Screening Spinouts? How Noncompete Enforceability Affects the Creation, Growth, and Survival of New Firms," *Management Science*, vol. 64, no. 2 (2018).

Starr, Evan, J.J. Prescott, and Norman Bishara. "The Behavioral Effects of (Unenforceable) Contracts." *Journal of Law, Economics and Organization*, vol. 36, no. 3 (2020).

Starr, Evan P., J.J. Prescott, and Norman D. Bishara. "Noncompete Agreements in the U.S. Labor Force." *Journal of Law and Economics*, vol. 64, no. 1 (2021).

Yin, Desheng, Iftekhar Hasan, Nada Kobeissi, and Haizhi Wang. "Enforceability of Noncompetition Agreements and Firm Innovation: Does State Regulation Matter?" *Innovation Organization & Management*, vol. 19, no. 2 (2017).

Younge, Kenneth, and Matt Marx. "The Value of Employee Retention: Evidence From A Natural Experiment." *Journal of Economics & Management Strategy*, vol. 25, no. 3 (2016).

Appendix III: Additional Results from GAO Survey of Private Sector Employers

To examine the factors that influence employers' and employees' decisions to enter into noncompete agreements (NCAs), we conducted a survey of private sector employers. Of the 14,351 employers that were sent the survey, 446 employers responded.¹ Our results are not generalizable to all private sector employers nationwide. The following tables provide additional information not included in our main report, including the counts of employer responses underlying the percentages presented in our report.

Our survey found that of the 446 responding employers, 247 reported using NCAs for at least some workers and 199 reported not using NCAs. Table 11 shows the number of responding employers that reported using NCAs for at least some workers, including by employer size and by industry. Our survey questionnaire asked employers, "Does your company currently require any of its workers to sign noncompete agreements?"

Table 11: Employer Use of Noncompete Agreements (NCAs) among Responding Employers, 2022

		Employers that reported using NCAs for at least some workers	Employers that reported not using NCAs
Employers responding that they use NCAs for at least some workers		247	199
By employer size	Small employers (less than 20 workers)	22	32
	Medium-small employers (20-99 workers)	71	53
	Medium-large employers (100-499 workers)	78	71
	Large employers (500 or more workers)	76	43

¹We received one additional response that we excluded because the respondent indicated it had workers sign NCAs, but later in the survey noted it did not have workers sign them.

**Appendix III: Additional Results from GAO
Survey of Private Sector Employers**

By industry	Employers that reported using NCAs for at least some workers	Employers that reported not using NCAs
Professional, scientific, and technical services	82	59
Manufacturing	48	22
Health care and social assistance	32	24
Construction	25	19
Finance and insurance	19	19
Transportation and warehousing	18	8
Wholesale trade	12	9
Retail trade	9	11
Educational services	4	18
Information	7	5
Real estate and rental and leasing	4	8
Accommodation and food services	5	6
Management of companies and enterprises	5	5
Arts, entertainment, and recreation	5	3
Mining, quarrying and oil and gas extraction	5	3
Utilities	5	2
Agriculture, forestry, fishing and hunting	2	4
Administrative support & waste management & remediation services	2	2

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Note: Our questionnaire allowed responding employers to pick from a list of industries; employers could select multiple industries.

Responding employers reported having various types of workers sign NCAs. Table 12 shows the number of employers that use NCAs by type of worker they employ, among the 247 responding employers that reported using NCAs for at least some workers. Our survey questionnaire asked, “Which, if any, of the following types of workers are required to sign noncompete agreements with your company?”

**Appendix III: Additional Results from GAO
Survey of Private Sector Employers**

Table 12: Noncompete Agreement (NCA) Use by Worker Type, among Responding Employers that Use NCAs, 2022

Worker type	Employers with this worker type	Employers reporting that all of these workers are subject to an NCA	Employers reporting that some of these workers are subject to an NCA	Employers reporting that none of these workers are subject to an NCA
Executive workers (i.e., chief executive officers, chief financial officers, etc.)	219	185	30	4
Salaried workers (management)	198	138	57	3
Salaried workers (non-management)	153	92	49	12
Hourly workers	123	68	21	34
Part-time workers	96	51	15	30

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Note: Only those 247 employers that reported having NCAs for at least some of their workers were asked to report what types of workers they employed.

Our survey found that the 247 responding employers that reported using NCAs did so to protect various business interests. Table 13 shows the number of employers that reported using NCAs, by reason and by worker type. Our survey questionnaire asked, “What business interests, if any, is your company trying to protect by using a noncompete agreement, as it applies to worker type?”

Table 13: Employer Reasons for Having Workers Sign Noncompete Agreements (NCAs) among Responding Employers, by Worker Type, 2022

		Any reason	To protect trade secrets, intellectual property, or proprietary information	To protect client and customer contacts from departing workers	To prevent the recruiting of staff, investors, or other resources	To protect research and development expenditures	To protect investment(s) in additional worker training and other worker resource expenditures	To minimize worker turnover
Number of employers that reported having any worker type sign NCAs		247	234	226	165	140	109	83
By worker type	Number of employers that reported having executives sign NCAs	214	203	181	127	119	82	58
	Number of employers that reported having salaried management sign NCAs	194	175	169	122	102	84	60

**Appendix III: Additional Results from GAO
Survey of Private Sector Employers**

	Any reason	To protect trade secrets, intellectual property, or proprietary information	To protect client and customer contacts from departing workers	To prevent the recruiting of staff, investors, or other resources	To protect research and development expenditures	To protect investment(s) in additional worker training and other worker resource expenditures	To minimize worker turnover
Number of employers that reported having salaried non-management sign NCAs	139	125	121	91	69	61	43
Number of employers that reported having hourly workers sign NCAs	88	77	68	50	42	31	24
Number of employers that reported having part-time workers sign NCAs	64	55	48	39	31	25	20
By employer size							
Small employers (less than 20 workers)	22	21	19	11	12	8	4
Medium-small employers (20-99 workers)	71	70	65	44	40	29	23
Medium-large employers (100-499 workers)	78	71	71	53	38	37	25
Large employers (500 or more workers)	76	72	71	57	50	35	31
By industry							
Professional, scientific, and technical services	82	80	75	54	46	34	21
Manufacturing	48	47	45	26	37	21	17
Health care and social assistance	32	29	28	25	17	17	15
Finance and insurance	19	17	19	15	6	11	9
Construction	25	22	23	17	13	11	8

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Note: Our questionnaire allowed responding employers to pick from a list of reasons they had workers sign NCAs and from a list of industries; employers could select more than one reason and could select multiple industries.

The 247 responding employers that reported using NCAs reported offering workers certain incentives in exchange for signing NCAs. Table 14 shows the incentives employers reported offering workers in exchange for signing NCAs, including by worker type, employer size, and industry.

Appendix III: Additional Results from GAO
Survey of Private Sector Employers

Our survey questionnaire asked, “What compensation, training, or additional consideration, if any, does your company generally offer a worker in exchange for signing a noncompete agreement?”

Table 14: Incentives Responding Employers Reported Offering Workers in Exchange for Signing Noncompete Agreements (NCAs), 2022

	Number of employers reporting using NCAs	Signing an NCA is a condition of employment. (No additional compensation, training or additional consideration offered)	Signing an NCA is a condition of continued employment. (No additional compensation, training or additional consideration offered)	Signing an NCA is linked to additional specialized training	Signing an NCA is linked to additional financial compensation upon signing (i.e., signing bonus, performance bonus, stock options, and/or long-term incentives)	Signing an NCA is linked to post-separation financial compensation (i.e., garden leave)
Number of employers reporting offering incentive to at least some workers	247	216	109	25	56	73
By worker type^a						
Executive workers (i.e., chief executive officers, chief financial officers, etc.)	204	175	88	15	47	60
Salaried workers (management)	186	159	82	15	37	40
Salaried workers (non-management)	131	117	61	10	16	24
Hourly	82	75	40	4	3	10
Part-time	58	52	26	4	4	6
By employer size						
Small employers (less than 20 workers)	22	21	13	3	4	6
Medium-small employers (20-99 workers)	71	64	27	8	10	18
Medium-large employers (100-499 workers)	78	68	35	5	11	13
Large employers (500 or more workers)	76	63	34	9	31	36

**Appendix III: Additional Results from GAO
Survey of Private Sector Employers**

By industry^b	Number of employers reporting using NCAs	Signing an NCA is a condition of employment. (No additional compensation, training or additional consideration offered)	Signing an NCA is a condition of continued employment. (No additional compensation, training or additional consideration offered)	Signing an NCA is linked to additional specialized training	Signing an NCA is linked to additional financial compensation upon signing (i.e., signing bonus, performance bonus, stock options, and/or long-term incentives)	Signing an NCA is linked to post-separation financial compensation (i.e., garden leave)
Professional, scientific, and technical services	82	72	33	7	12	17
Manufacturing	48	44	20	4	11	17
Health care and social assistance	32	28	18	7	10	11
Finance and insurance	19	16	10	3	7	6
Construction	25	22	8	3	5	6

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Our questionnaire allowed employers to pick from a list of incentives they offered workers for signing NCAs; employers could select more than one. These incentives were selected by the employer and do not indicate whether workers viewed these as incentives.

^aNot all employers responded to the question about incentives offered by worker type.

^bThe five industries with at least 30 employers are shown. Our questionnaire allowed responding employers to pick from a list of industries; employers could select multiple industries.

The 247 responding employers that reported using NCAs reported including different terms within the NCAs workers were asked to sign. Table 15 shows the number of employers that reported including each term in NCAs for at least some workers. Our survey questionnaire asked: (1) “After departing your company, what length of time, if any, is a former worker, who signed a noncompete agreement, required to wait before seeking employment with a competitor”; (2) “After departing your company, what geographic limitations, if any, would a former worker, who signed a noncompete agreement, be subject to”; and (3) “After departing your company, what, if any, additional work restriction(s) are imposed on a former worker who signed a noncompete agreement?”

Appendix III: Additional Results from GAO
Survey of Private Sector Employers

Table 15: Terms Responding Employers Reported Including in Noncompete Agreements (NCAs), 2022

		Number of employers
Employers that reported using NCAs		247
NCA term included in NCAs for at least some workers		
Duration of NCA	6 months	24
	1 year	126
	1.5 years	15
	2 years or more	80
	No time limitations ^a	16
Geographic provisions	Within 25 miles from company headquarters or any office location	20
	Statewide	22
	Regional (including two or more states)	33
	Anywhere within the United States	45
	No geographic limitations included ^b	80
Type of work restrictions	The former worker is prohibited from taking a similar position with a direct competitor	152
	The former worker is prohibited from starting a directly competing company	120
	The former worker is prohibited from taking any position with a direct competitor	85
	No work restrictions included ^c	37

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Our questionnaire allowed responding employers to pick from lists of different of NCA terms; employers could select multiple responses from each list. Some responding employers selected more than one response, which might indicate that the terms of NCAs varied vary by worker type.

^aEmployers may have reported including geographic or work restriction provisions in their NCAs.

^bEmployers may have reported including duration or work restriction provisions in their NCAs.

^cEmployers may have reported including duration or geographic provisions in their NCAs.

Our survey found that the 247 responding employers that reported using NCAs reported informing workers about the NCAs at different times. Table 16 shows the number of employers that reported when they first informed workers about the requirement to sign an NCA. Our survey questionnaire asked, “Generally, when would a potential or current worker first be informed of the requirement to sign a noncompete agreement?”

Table 16: When Responding Employers Reported First Informing Workers of Noncompete Agreements (NCAs), 2022

		Number of employers
Employers that reported using NCAs		247
When workers were first informed of an NCA	Before accepting the job offer	160
	When starting the job (i.e., during the on-boarding process)	116
	After a promotion	63
	In the job announcement	16
	After starting the job	12

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Our questionnaire allowed responding employers to pick from a list of when they inform workers about NCAs; employers could select more than one. Some responding employers selected more than one response about timing, which might indicate that the timing of notifying workers may vary by worker type.

Our survey found that of the 247 responding employers that reported using NCAs, 151 reported enforcing the terms of the NCAs at least once in the past 5 years. Table 17 shows the number of employers that reported enforcing NCAs, by frequency and by employer size. Our survey questionnaire asked, “In the past five years, how often, if at all, has your company sought to enforce the terms of one of your noncompete agreements (i.e., for a potential violation of time duration, geographic limitation, taking a similar position at rival company, and/or violating a no-contact list)?”

**Appendix III: Additional Results from GAO
Survey of Private Sector Employers**

Table 17: Responding Employers That Reported Enforcing Noncompete Agreements (NCAs) in the Past 5 Years, 2022

		All employers	Small employers (less than 20 workers)	Medium- small employers (20-99 workers)	Medium- large employers (100-499 workers)	Large employers (500 or more workers)
Number of employers that reported using NCAs		247	22	71	78	76
How frequently employers reported enforcing NCAs	Very frequently	6	0	1	3	2
	Frequently	11	2	1	3	5
	Occasionally	49	2	9	14	24
	Rarely	85	4	26	27	28
	Never	96	14	34	31	17

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Employers could interpret enforcement in different ways—from litigation, to reminding workers that they signed NCAs. Employers also interpreted frequency descriptions—e.g., rarely, occasionally, frequently, and very frequently.

In addition, Table 18 shows the number of employers that reported enforcing NCAs at least once in the past 5 years for each worker type, among the 247 responding employers that reported using NCAs.

**Appendix III: Additional Results from GAO
Survey of Private Sector Employers**

Table 18: Responding Employers That Reported Enforcing the Terms of Noncompete Agreements (NCAs) in the Past 5 Years for Each Worker Type, 2022

		Number of employers reporting using NCAs for worker type	Number of employers reporting enforcing terms of NCA on worker type in the past 5 years
Employers that reported using NCAs for any worker type		247	147
By worker type	Executive workers (i.e., chief executive officers, chief financial officers, etc.)	214	101
	Salaried workers (management)	194	108
	Salaried workers (non-management)	139	75
	Hourly workers	88	33
	Part-time workers	64	20

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: We derived these results from a question about what business interests employers were seeking to protect when enforcing NCAs, which was asked in reference to each worker type. We analyzed the number of employers that reported enforcing NCAs for any reason for each worker type. Employers could interpret enforcement in different ways—from litigation, to reminding workers that they signed NCAs. We do not, however, have data on the rate at which workers fail to comply with NCAs, which could lead employers to take enforcement action.

The 151 responding employers that reported using NCAs and enforcing the terms at least once in the past 5 years reported enforcing the NCAs for different reasons. Table 19 shows the number of employers selecting each reason for enforcing the terms of NCAs. Our survey questionnaire asked, “In instances that your company has enforced the terms of former workers’ noncompete agreements, which business interests was your company seeking to protect?”

**Appendix III: Additional Results from GAO
Survey of Private Sector Employers**

Table 19: Reasons Responding Employers Reported Enforcing Noncompete Agreements (NCAs) in the Past 5 Years, 2022

		Number of employers
Employers that reported enforcing NCAs in the past 5 years		151
Reasons employers reported enforcing NCAs	To protect client and customer contacts and investors	131
	To protect trade secrets, intellectual property, or proprietary information	119
	To protect current workforce from recruitment by former worker(s)	94
	To protect research and development expenditures	65
	To protect from worker turnover	50
	To protect investment in worker training and other worker resources	49

Source: GAO analysis of nongeneralizable survey of private sector employers conducted in 2022. | GAO-23-103785

Notes: Our questionnaire allowed responding employers to pick from a list of reasons; employers could select more than one reason. Employers could interpret enforcement in different ways—from litigation, to reminding workers that they signed NCAs.

Appendix IV: Additional Studies Regarding the Effects of Noncompete Agreements on Firm Activities

We reviewed additional studies that examined the effects of noncompete agreements (NCAs) on firm investments in physical capital, inventions, and research and development. Although these studies suggest contrasting effects of strong NCA enforcement on such firm activities, the research is somewhat inconclusive.¹

Investment in physical capital. One study we reviewed found that strengthened NCA enforcement environments led firms that rely more on knowledge-intensive occupations to increase investments in physical capital (e.g., computers).² However, the study did not find a similar effect for other firms. A different study found no relationship between NCA use and firm investments in physical capital.³

Inventions. Three studies we reviewed related to innovation examined the effects of NCAs on patents. One study found that stronger NCA enforcement environments may lead companies to choose riskier research projects, which in turn could increase the probability that an invention would be valuable (e.g., a breakthrough or a new technology).⁴ The study cautions that this correlation may reflect other factors at the state level that affect NCA enforcement or invention success. In contrast,

¹We use the term “enforcement environment” to refer to state provisions that define the enforceability of NCAs, as characterized by the studies.

²Jessica Jeffers, “The Impact of Restricting Labor Mobility on Corporate Investment and Entrepreneurship” (working paper, 2022).

³Liyan Shi, “Optimal Regulation of Noncompete Contracts” (working paper, September 2022).

⁴The study also found that the riskier nature of research projects in these circumstances could increase the probability of a poor outcome. Raffaele Conti, “Do Non-Competition Agreements Lead Firms to Pursue Risky R&D Projects?” *Strategic Management Journal*, vol. 35, no. 8 (2014).

Appendix IV: Additional Studies Regarding the Effects of Noncompete Agreements on Firm Activities

another study found that publicly traded manufacturing firms in states with stronger NCA enforcement environments produced fewer patents overall and fewer patents of great importance (as measured by the number of subsequent patent applications that cited them) than states with lesser enforcement environments.⁵ Similarly, a third study found that job mobility for scientists and engineers is positively correlated with inventor productivity as measured by patent commercialization.⁶ As such, mobile inventors commercialized fewer patents, on average, in states with stronger NCA enforcement environments.

Research and development. One study we reviewed found that stronger NCA enforcement environments have no effect on research and development investment.⁷ In contrast, another study found that firms with a higher percentage of executives with NCAs had higher investment rates in research and development.⁸

⁵Desheng Yin, Iftekhar Hasan, Nada Kobeissi, and Haizhi Wang, "Enforceability of Noncompetition Agreements and Firm Innovation: Does State Regulation Matter?" *Innovation Organization & Management*, vol. 19, no. 2 (2017).

⁶Hsini Huang, "Invisible Constraints: The Relationship Among Noncompetition Agreements, Inventor Mobility, and Patent Commercialization," *Science and Public Policy*, vol. 44, no. 3 (2017).

⁷Jeffers, "Impact of Restricting Labor Mobility."

⁸Shi, "Optimal Regulation."

Appendix V: Summary of Survey Responses from State Attorney General Offices

Of the 25 states and the District of Columbia that responded to our survey of state attorney general offices, six reported not having a statute related to noncompete agreements (NCAs): Iowa, Minnesota, North Carolina, Ohio, Pennsylvania, and Vermont.¹ The remaining 19 states and the District of Columbia reported having statutes that regulated NCAs in various ways. Table 20 below summarizes the information these states reported about their statutes.²

Table 20: Statutes Reported by Responding States' Attorney General Offices, Categorization of Whether NCAs Are Allowed, and Whether Statutes Included Selected Provisions

State	Statute	NCAs generally not allowable ^a	NCAs generally allowable provided they are reasonable, as defined under state law ^b	NCAs allowable subject to specific statutory provisions ^c	Wage thresholds or employee classification determine which workers may be subject to NCAs ^d	NCAs not allowed for workers in specific professions	Notifications of NCAs to workers are required ^e	Allowable duration of NCAs is specified
Alabama	Ala. Code §§ 8-1-190 to -197	—	—	YES	—	—	YES	YES
Arkansas	Ark. Code Ann. § 4-75-101	—	YES	—	—	—	—	YES

¹The absence of a statute does not mean the state does not regulate NCAs. In addition, some states did not report having a general NCA statute, but reported having a statute that specifically prohibited NCAs for workers in certain professions. We categorize these states as having a statute related to NCAs.

²We did not conduct an independent legal review to identify relevant state laws to supplement survey responses. Additionally, we did not verify the completeness of the information reported by the states, or any other methods states might use to regulate the use of NCAs. States may have enacted or modified new NCA statutes after their survey was submitted.

**Appendix V: Summary of Survey Responses
from State Attorney General Offices**

State	Statute	NCAs generally not allowable^a	NCAs generally allowable provided they are reasonable, as defined under state law^b	NCAs allowable subject to specific statutory provisions^c	Wage thresholds or employee classification determine which workers may be subject to NCAs^d	NCAs not allowed for workers in specific professions	Notifications of NCAs to workers are required^e	Allowable duration of NCAs is specified
California	Cal. Bus. & Prof. Code §§ 16600 - 16602.5	YES	—	—	—	—	—	—
Colorado	Colo. Rev. Stat. § 8-2-113	—	—	YES	YES	—	—	—
Delaware	Del. Code Ann. tit. 6 § 2707	—	—	YES	—	YES	—	—
District of Columbia	D.C. Code §§ 32-581.01 to -.05	—	—	YES	YES	—	YES	—
Hawaii	Haw. Rev. Stat. § 480-4(d)	—	—	YES	—	YES	—	—
Idaho	Idaho Code §§ 44-2701 to -2704	—	—	YES	YES	—	—	YES
Illinois	820 Ill. Comp. Stat. §§ 90/1 -90/97	—	—	YES	YES	—	YES	—
Maryland	Md. Code Ann., Lab. & Empl. § 3-716	—	—	YES	YES	—	—	—
Massachusetts	Mass. Gen. Laws ch.149, § 24L	—	—	YES	YES	YES	YES	YES
Michigan	Mich. Comp. Laws § 445.774a	—	YES	—	—	—	—	—
Nevada	Nev. Rev. Stat. § 613.195	—	—	YES	YES	—	—	—

**Appendix V: Summary of Survey Responses
from State Attorney General Offices**

State	Statute	NCAs generally not allowable ^a	NCAs generally allowable provided they are reasonable, as defined under state law ^b	NCAs allowable subject to specific statutory provisions ^c	Wage thresholds or employee classification determine which workers may be subject to NCAs ^d	NCAs not allowed for workers in specific professions	Notifications of NCAs to workers are required ^e	Allowable duration of NCAs is specified
New Hampshire	N.H. Rev. Stat. Ann. § 275.70	—	—	YES	YES	YES	YES	—
New York	N.Y. Lab. Law § 202-k	—	—	YES	—	YES	—	—
Oregon	Or. Rev. Stat. § 653.295	—	—	YES	YES	—	YES	YES
Rhode Island	28 R.I. Gen. Laws §§ 28-59-1 to -3	—	—	YES	YES	—	—	—
South Dakota	S.D. Codified Laws §§ 53-9-8, 53-9-11, 53-9-11.1	—	—	YES	—	YES	—	YES
Washington	Wash. Rev. Code §§ 49.62.020-.100	—	—	YES	YES	—	YES	YES
Wisconsin	Wis. Stat. § 103.465	—	YES	—	—	—	—	—

Legend: YES indicates the state reported a statute that contains the provision; — indicates the state did not report a statute that contains the provision.

Source: GAO analysis of survey responses from state attorneys general. | GAO-23-103785

^aThe state reported a statute that prohibits nearly all employment-related NCAs.

^bThe state reported a statute that allows NCAs that are reasonable, as defined under state law; for example, NCAs that are tailored to a legitimate employer interest, are reasonable in duration, geographical area, and scope, and pose no harm to public policy.

^cThe state reported a statute that imposes specific requirements on NCAs, such as a wage threshold. Some states did not report having a general NCA statute, but reported having a statute that specifically prohibited NCAs for workers in certain professions. We categorize these states as allowing NCAs subject to specific provisions (i.e., NCAs are allowed except for those professions in which they are specifically prohibited).

^dThe state reported that a group of workers is exempted from NCAs based on stated criteria, such as earnings or employee classification (e.g. interns or hourly workers).

^eThe state reported employers are required to provide notice to an employee of the use of NCAs; for example, the statute may specify time and form of notice (e.g., written), or signature of parties.

Appendix VI: Comments from the Federal Trade Commission



Office of Policy Planning

UNITED STATES OF AMERICA

FEDERAL TRADE COMMISSION

WASHINGTON, D.C. 20580

May 3, 2023

Sent via Email

Thomas Costa
Director
Education, Workforce, and Income Security
Government Accountability Office
(202) 512-4769
costat@gao.gov

Re: GAO Engagement No. 23-103785

Dear Mr. Costa:

The Federal Trade Commission (“FTC”) appreciates the opportunity to engage with GAO on your report titled *Noncompete Agreements: Use Is Widespread to Protect Business’ Stated Interests, Restricts Job Mobility, and May Affect Wages*, (GAO-23-103785). The FTC has longstanding and unique expertise on competition issues. Our recently published Non-Compete Clause Rule Notice of Proposed Rulemaking (“NPRM”) closely examines the use and economy-wide effects of non-compete clauses (“non-competes”) as well as alternatives businesses can use to achieve their goals.¹ FTC staff writes to highlight preliminary findings from the NPRM on the market effects of non-competes and on the alternatives available to employers, and to provide context for the reported enforcement rates of non-competes.

Through its survey of employers and careful analysis of empirical research, the GAO report confirms many of the NPRM’s key findings: businesses use non-competes to prevent workers from moving to new jobs; non-competes are common across income brackets, job types, and industries; non-competes reduce job mobility, wages, and new firm creation; and they increase wage disparities across gender, race, and ethnicity. The report also confirms that most workers are unable to negotiate non-competes.

There are significant externalities associated with the widespread use of non-competes. The Commission has preliminarily found substantial economic effects beyond the effects on the workers bound by non-competes and the businesses that bind them. These effects include harms to competition in labor markets and in product and services markets, as well as harms to innovation.

For example, the NPRM preliminarily finds that non-competes inhibit optimal matches from being made between employers and workers across the labor force, possibly reducing

¹ NPRM, 88 Fed. Reg. 3482 (proposed Jan. 19, 2023) (to be codified at 16 CFR pt. 910) (hereinafter “NPRM”). The NPRM provides, among other things, that it is an unfair method of competition for an employer to enter into, attempt to enter into, or maintain a non-compete with a worker.

Appendix VI: Comments from the Federal Trade Commission

overall productivity.² This also materially reduces wages for workers—not only those subject to non-competes but for other workers in a labor market as well.³ Many jobs that would be a better match for a worker who is not bound by a non-compete are filled by workers subject to one. In the aggregate, the Commission preliminarily finds that prohibiting employers from using non-competes would increase workers’ total earnings by between \$250 and \$296 billion per year.⁴

Evidence also suggests that non-competes seem to increase industrial concentration.⁵ In the health-care sector, there is evidence that non-competes increase consumer prices as well.⁶ As discussed in our NPRM, studies examine several possible explanations for this, including that non-competes prevent workers from starting competing businesses and foreclose competitors’ access to talented workers.⁷ Additionally, the NPRM preliminarily finds that non-competes affect innovation, likely by reducing the movement of workers, which decreases knowledge flow.⁸ They also prevent workers from starting businesses in which they can pursue innovative new ideas.

Given the harms to workers and competition that the Commission preliminarily finds in the NPRM, FTC staff believes it is especially important to contextualize the survey responses of private sector employers asked which, if any, of their business interests non-competes serve. The NPRM concludes that businesses have alternatives to non-competes for protecting valuable investments that reasonably accomplish the same purposes as non-competes while burdening competition to a less significant degree.⁹ These alternatives include, for example: trade secret law, intellectual property law, patents, non-disclosure agreements, non-solicitation agreements, fixed-duration employment contracts, limited training repayment programs, and offering higher pay and/or better working conditions to encourage workers to stay.

Finally, FTC staff believes it is important to consider that the survey results regarding the rates at which employers enforce non-competes may obscure certain market effects. The report finds that “[m]ost surveyed employers reported rarely or never enforcing [noncompete agreements],” a potential implication being that non-competes are generally dormant.¹⁰ At the same time, the report acknowledges a potential *in terrorem* effect of non-competes.¹¹ In fact, as noted in the NPRM, evidence shows that workers in states where non-competes are unenforceable are covered by non-compete clauses at approximately the same rate as other

² NPRM, 88 Fed. Reg. at 3484-85, 3500-01.

³ NPRM, 88 Fed. Reg. at 3485, 3501.

⁴ *Id.* at 3501, 3508, 3522-23.

⁵ *Id.* at 3490, 3502; Hyo Kang & Lee Fleming, *Non-Competes, Business Dynamism, and Concentration: Evidence From a Florida Case Study*, 29 J. Econ. & Mgmt. Strategy 663, 673-74 (2020); Michael Lipsitz & Mark Tremblay, *Noncompete Agreements and the Welfare of Consumers*, at 4, 6 (2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3975864.

⁶ NPRM, 88 Fed. Reg. at 3490, 3502; Naomi Hausman & Kurt Lavetti, *Physician Practice Organization and Negotiated Prices: Evidence from State Law Changes*, 13 A.M. Econ. J. Applied Econ. 258, 278, 284 (2021).

⁷ NPRM, 88 Fed. Reg. at 3490-91.

⁸ *Id.* at 3492-93.

⁹ *Id.* at 3505-08.

¹⁰ U.S. Gov’t Accountability Off., GAO-23-103785, *Noncompete Agreements: Use Is Widespread to Protect Business’ Stated Interests, Restricts Job Mobility, and May Affect Wages*, at “What GAO Found” (2023) (hereinafter “GAO Report”).

¹¹ *Id.* at 20 (noting that non-competes “may influence worker behavior without an employer having to take action”); see also NPRM, 88 Fed. Reg. at 3512.

**Appendix VI: Comments from the Federal
Trade Commission**

workers.¹² Moreover, it is difficult to draw conclusions from enforcement rates without knowing the rate at which workers failed to comply with non-competes. The report does not indicate that rate.

Based on the potential for non-competes to dissuade workers from seeking or taking a new job and the lack of information regarding failure by workers to comply with non-competes, FTC staff believes it is important to consider whether firms that report “rarely” enforcing non-competes are more analogous to firms that “never” do so than to firms that enforce non-competes “occasionally,” “frequently,” or “very frequently.” Grouping firms that rarely enforce non-competes with other firms that have enforced non-competes to different degrees (as opposed to those who have never done so) could change the GAO’s finding from “[m]ost surveyed employers reported rarely or never enforcing [noncompete agreements] in the past 5 years,” to “most surveyed employers reported enforcing noncompete agreements at some point in the past 5 years.”¹³

Again, we thank the GAO for its contribution to the public dialogue on non-competes and appreciate the opportunity to engage meaningfully on this report. The report addresses many issues that are of great importance and confirms the Commission’s preliminary determination that non-competes are an unfair method of competition.

Sincerely,



Elizabeth Wilkins
Director
Office of Policy Planning

¹² NPRM, 88 Fed. Reg at 3485.

¹³ GAO Report at “What GAO Found.”

Text for Appendix VI: Comments from the Federal Trade Commission

Office of Policy Planning
UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

May 3, 2023

Sent via Email
Thomas Costa
Director
Education, Workforce, and Income Security
Government Accountability Office
(202) 512-4769
costat@gao.gov

Re: GAO Engagement No. 23-103785

Dear Mr. Costa:

The Federal Trade Commission (“FTC”) appreciates the opportunity to engage with GAO on your report titled *Noncompete Agreements: Use Is Widespread to Protect Business’ Stated Interests, Restricts Job Mobility, and May Affect Wages*, (GAO-23-103785). The FTC has longstanding and unique expertise on competition issues. Our recently published Non-Compete Clause Rule Notice of Proposed Rulemaking (“NPRM”) closely examines the use and economy-wide effects of non-compete clauses (“non-competes”) as well as alternatives businesses can use to achieve their goals.¹ FTC staff writes to highlight preliminary findings from the NPRM on the market effects of non-competes and on the alternatives available to employers, and to provide context for the reported enforcement rates of non-competes.

Through its survey of employers and careful analysis of empirical research, the GAO report confirms many of the NPRM’s key findings: businesses use non-competes to prevent workers from moving to new jobs; non-competes are common across

¹ NPRM, 88 Fed. Reg. 3482 (proposed Jan. 19, 2023) (to be codified at 16 CFR pt. 910) (hereinafter “NPRM”). The NPRM provides, among other things, that it is an unfair method of competition for an employer to enter into, attempt to enter into, or maintain a non-compete with a worker.

income brackets, job types, and industries; non-competes reduce job mobility, wages, and new firm creation; and they increase wage disparities across gender, race, and ethnicity. The report also confirms that most workers are unable to negotiate non-competes.

There are significant externalities associated with the widespread use of non-competes. The Commission has preliminarily found substantial economic effects beyond the effects on the workers bound by non-competes and the businesses that bind them. These effects include harms to competition in labor markets and in product and services markets, as well as harms to innovation.

For example, the NPRM preliminarily finds that non-competes inhibit optimal matches from being made between employers and workers across the labor force, possibly reducing overall productivity.² This also materially reduces wages for workers—not only those subject to non-competes but for other workers in a labor market as well.³ Many jobs that would be a better match for a worker who is not bound by a non-compete are filled by workers subject to one. In the aggregate, the Commission preliminarily finds that prohibiting employers from using non-competes would increase workers' total earnings by between \$250 and \$296 billion per year.⁴

Evidence also suggests that non-competes seem to increase industrial concentration.⁵ In the health-care sector, there is evidence that non-competes increase consumer prices as well.⁶ As discussed in our NPRM, studies examine several possible explanations for this, including that non-competes prevent workers from starting competing businesses and foreclose competitors' access to talented workers.⁷ Additionally, the NPRM preliminarily finds that non-competes affect innovation, likely by reducing the movement of workers, which decreases knowledge

² NPRM, 88 Fed. Reg. at 3484-85, 3500-01.

³ NPRM, 88 Fed. Reg. at 3485, 3501.

⁴ *Id.* at 3501, 3508, 3522-23.

⁵ *Id.* at 3490, 3502; Hyo Kang & Lee Fleming, *Non-Competes, Business Dynamism, and Concentration: Evidence From a Florida Case Study*, 29 J. Econ. & Mgmt. Strategy 663, 673-74(2020); Michael Lipsitz & Mark Tremblay, *Noncompete Agreements and the Welfare of Consumers*, at 4,6 (2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3975864.

⁶ NPRM, 88 Fed. Reg. at 3490, 3502; Naomi Hausman & Kurt Lavetti, *Physician Practice Organization and Negotiated Prices: Evidence from State Law Changes*, 13 A.M. Econ. J. Applied Econ. 258, 278,284 (2021).

⁷ NPRM, 88 Fed. Reg. at 3490-91.

flow.⁸ They also prevent workers from starting businesses in which they can pursue innovative new ideas.

Given the harms to workers and competition that the Commission preliminarily finds in the NPRM, FTC staff believes it is especially important to contextualize the survey responses of private sector employers asked which, if any, of their business interests non-competes serve. The NPRM concludes that businesses have alternatives to non-competes for protecting valuable investments that reasonably accomplish the same purposes as non-competes while burdening competition to a less significant degree.⁹ These alternatives include, for example: trade secret law, intellectual property law, patents, non-disclosure agreements, non-solicitation agreements, fixed-duration employment contracts, limited training repayment programs, and offering higher pay and/or better working conditions to encourage workers to stay.

Finally, FTC staff believes it is important to consider that the survey results regarding the rates at which employers enforce non-competes may obscure certain market effects. The report finds that “[m]ost surveyed employers reported rarely or never enforcing [noncompete agreements],” a potential implication being that non-competes are generally dormant.¹⁰ At the same time, the report acknowledges a potential *in terrorem* effect of non-competes.¹¹ In fact, as noted in the NPRM, evidence shows that workers in states where non-competes are unenforceable are covered by non-compete clauses at approximately the same rate as other workers.¹² Moreover, it is difficult to draw conclusions from enforcement rates without knowing the rate at which workers failed to comply with non-competes. The report does not indicate that rate.

Based on the potential for non-competes to dissuade workers from seeking or taking anew job and the lack of information regarding failure by workers to comply with non-competes, FTC staff believes it is important to consider whether firms that report “rarely” enforcing non-competes are more analogous to firms that “never” do so than to firms that enforce non-competes “occasionally,” “frequently,” or “very frequently.”

⁸ *Id.* at 3492-93.

⁹ *Id.* at 3505-08.

¹⁰ U.S. Gov’t Accountability Off., GAO-23-103785, *Noncompete Agreements: Use Is Widespread to Protect Business’ Stated Interests, Restricts Job Mobility, and May Affect Wages*, at “What GAO Found” (2023) (hereinafter “GAO Report”).

¹¹ *Id.* at 20 (noting that non-competes “may influence worker behavior without an employer having to take action”); see also NPRM, 88 Fed. Reg. at 3512.

¹² NPRM, 88 Fed. Reg at 3485.

Grouping firms that rarely enforce non-competes with other firms that have enforced non-competes to different degrees (as opposed to those who have never done so) could change the GAO's finding from "[m]ost surveyed employers reported rarely or never enforcing [noncompete agreements] in the past 5 years," to "most surveyed employers reported enforcing noncompete agreements at some point in the past 5 years."¹³

Again, we thank the GAO for its contribution to the public dialogue on non-competes and appreciate the opportunity to engage meaningfully on this report. The report addresses many issues that are of great importance and confirms the Commission's preliminary determination that non-competes are an unfair method of competition.

Sincerely,

Elizabeth Wilkins
Director
Office of Policy Planning

¹³ GAO Report at "What GAO Found."

Appendix VII: GAO Contact and Staff Acknowledgments

GAO Contact

Thomas Costa at (202) 512-4769, costat@gao.gov

Staff Acknowledgments

In addition to the contact named above, Kimberley Granger (Assistant Director), Michael Kniss (Analyst in Charge), Gus Fernandez, David Forgosh, Carl Nadler, Shelia Thorpe, and Walter Vance, made key contributions to this report. Also contributing to this report were James Bennett, John Bornmann, Holly Dye, Ying Long, Lydie R. Loth, Jonathan McMurray, Aaron Olszewski, Patricia Powell, Will Stupski, and Adam Wendel.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its [website](#) newly released reports, testimony, and correspondence. You can also [subscribe](#) to GAO's email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <https://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#).

Subscribe to our [RSS Feeds](#) or [Email Updates](#). Listen to our [Podcasts](#).

Visit GAO on the web at <https://www.gao.gov>.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: <https://www.gao.gov/about/what-gao-does/fraudnet>

Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

A. Nicole Clowers, Managing Director, ClowersA@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814,
Washington, DC 20548



Please Print on Recycled Paper.