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Powers and Practices in Labor Standards Enforcement

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Abstract

Wage theft remains a pervasive problem internationally and within the United States. In response, worker advocates have sought stronger laws to deter violations and promote compliance. Yet formal authority alone may be insufficient; labor departments often fail to use the full extent of their legal authority to conduct vigorous enforcement. This raises two empirical questions: to what extent do agencies deploy available enforcement tools, and with what consequences? Drawing on a novel survey of U.S. state labor departments, new measures of statutory strength in wage-hour laws, and state-level estimates of minimum wage violations, the researchers find widespread nonuse of available powers. This misalignment of powers and practices has substantive consequences: the predicted probability of minimum wage violation falls sharply as strategic enforcement practices increase, conditional on strong labor laws. However, this effect shows no measurable impact for some of the most vulnerable workers, suggesting limits in reaching those at greatest risk. The researchers conclude by outlining a forward-looking research agenda on the (mis)alignment of powers and practices.

INTRODUCTION

Internationally, wage theft – the failure of employers to pay their employees the full amount they have earned and to which they are legally entitled – remains a persistent and widespread problem (e.g., Clibborn & Hanna-Osborne 2023). Weak enforcement and few opportunities for redress have allowed employers to use underpaying or not paying their employees as a cost-reduction strategy in developed economies across the world. For example, a sample of judicial rulings revealed that at least 2 million workers in Britain were underpaid between 2012-2014 (Clark and Herman 2017). In Australia, a 2016 survey found that nearly a third of international students and other temporary migrant workers were paid \$12 or less, "approximately half the [legal] minimum wage for a casual employee in many of the jobs in which temporary migrants work" (Berg and Farbenblum 2017, p. 5).

In the U.S., despite a strong economy and historically low unemployment, minimum wage violations—one of the most common types of wage theft—affect about 17 percent of low-wage workers (about 4.2 million people) per year: these workers lose on average 20 percent of the income to which they are entitled, or about \$3,000 per year (Galvin 2024; Cooper and Kroeger 2017). The U.S. is the archetypal liberal market economy—weak employment protections, flexible labor markets, and a minimal role for the state in employment regulation—and features a strong federal structure in which most governance is decentralized and geographically fragmented (Hall and Soskice 2001; Hacker et al. 2021). As compared to more centralized regulatory systems, as in France (Kanbur and Ronconi 2018), the U.S. lacks a centralized inspectorate and is most similar to the diffuse systems of regulation one can observe in other liberal market economies like Britain (e.g., Mustchin and Martinez Lucio 2023; Piore and Schrank 2018).

To address the challenge of labor standards enforcement in the U.S., advocates have sought to strengthen employment laws—including increasing available damages and penalties for minimum wage violations and augmenting agencies' enforcement authorities—and have made significant inroads in states with political conditions favorable to workers. The underlying assumption is that state enforcement agencies will, in turn, design and implement strategies that fully leverage those statutory powers. Foundational theories of enforcement, after all, rest on the premise that regulatory agencies possess both the legal authority to engage in effective enforcement and the capacity and inclination to *exercise* that authority in their day-to-day operations. For example, Ayres and Braithwaite's (1992) solution for addressing the various motives of regulated businesses is an "enforcement pyramid" in which businesses are subject to "escalating forms of regulatory intervention" that begin with education and persuasion, advance to warning letters and then to civil penalties, and when none of this is effective, criminal penalties and ultimately license revocation. An assumption of this well-known model is that a) agencies have the power to conduct various forms of enforcement as they ratchet up to significant punishment and b) that they are willing and able to use those powers by escalating their enforcement practices.

States vary significantly in the extent of their statutory authorities (Galvin 2016). However, even in states where statutory powers are strong, there is no guarantee that regulators will make use of those powers to ratchet up enforcement in the ways presumed to be optimal for ensuring compliance (e.g. Barkow 2016). Compliance monitoring and repeat interactions with violators, for example, are extremely rare (e.g., Fine and Gordon 2010).

Consider the case of the U.S. state of Ohio. After a 2006 ballot initiative added mandatory treble damages for wage theft to the state constitution, the incidence of minimum wage violations in the state dropped precipitously. The following year, in an explicit effort to make Ohio a more "attractive venue for entities doing or seeking to do business in the state," then-Governor Ted Strickland (a Democrat) issued Executive Order 2008-04S instructing agencies to waive penalties for first-time violators or those with procedural violations (McGillivary 2011, 1930). The state Department of Labor, which employed at least 13 full-time staff and 10 "outstationed" investigators (Lurie 2011), complied with the order and the minimum wage violation rate promptly returned to its pre-constitutional amendment level (Galvin 2016). In this case, political and economic pressures produced *forbearance* in the agency's approach to enforcement (Holland 2017). Despite the existence of the law "on the books" and sufficient staff capacity to implement it, the agency's decision to *not* use its statutory authority – in response to external politics and internal policies – proved more important than its formal powers or administrative resources.

The misalignment between powers and practices is not a distinctly American phenomenon. Vosko et al. (2020), for example, find that in Ontario "for too many employees, employment standards are paper rights not realizable in practice" (p. 4). A survey of Australian hairdressing and restaurant employers found that "simply increasing the size of the penalties available . . . may not necessarily enhance deterrence in the way expected" (Hardy and Howe 2017, p. 500). In Argentina, Amengual (2014, 29) finds that "a tremendous gap exists between regulations on the books and the de facto protections afforded to workers in most of the world." Many of the factors that present enforcement challenges around the world – an increasingly fragmented labour market, deregulatory neoliberal policy agendas, interventionist approaches to social control and immigration, and employers' incentives to breach employment regulations (Mustchin and Martinez Lucio 2023) – are brought into sharp relief in the United States, which is the focus of this paper.

Examining the relationship between laws and practices points to a foundational insight of law and society scholarship: formal laws constitute only part of the story. Individuals tasked with enforcement – such as managers and staff of state labor enforcement agencies – do interpretive work to understand and apply the law (e.g., Calavita 2010, Lipsky 1980) and can make strategic use of law as a set of procedural tools to pursue various goals (Edelman and Suchman 1997). This body of scholarship suggests that, in this context, legal authority alone would be insufficient

for reducing wage theft. Regulators must also interpret the law, design strategic enforcement strategies, and fully implement those strategies if they are to achieve the substantive goals of employment laws.

Distinguishing between formal laws (what we refer to as "powers," but which is also known as law "on the books" or *de jure* law) and how they are applied (what we call "practices," also described as as "law in action" or *de facto* law) is only the first step toward understanding the sources and consequences of the disjuncture (Kanbur and Ronconi 2018). In this paper, we interrogate the misalignment and analyze its significance for workers' material outcomes. Specifically, we ask three questions. First, how widespread is the misalignment? Second, does it make a difference in workers' ability to collect the wages they are owed? And finally, how should scholars think about, and further investigate, the lack of alignment between powers and practices? Drawing on difficult-to-obtain data, we illustrate the prevalence of the misalignment between statutory authority and state-level enforcement practices and use estimates of minimum wage violations to examine the negative effect of this misalignment on workers' wage outcomes.

We find that many states do not do what they are legally able to do. Treated separately, neither statutory powers nor enforcement practices are strongly associated with rates of minimum wage violations. However, when we interact the two measures, the association of each with minimum wage violations is contingent on the other: when statutory authority is minimal, enforcement practices have little effect. And, perhaps more surprisingly, when enforcement practices are minimal, statutory authority is ineffective as well. Only when a state has both strong statutory powers and vigorous enforcement do we see a statistically significant and substantively meaningful decline in the minimum wage violation rate.

We conclude with a proposed framework and research agenda for explaining the existence of this type of misalignment, drawing scholarly attention to the factors that may make regulatory agencies more or less likely to leverage their statutory authority to improve enforcement.

BACKGROUND

Most U.S. states continue to use a reactive approach to enforcement whereby agencies rely solely on worker complaints to identify potential violations, typically addressing them in the order in which they are received. Many workers who experience violations do not submit complaints to the relevant agencies, whether due to fear of employer retaliation, immigration status, distrust of government, or simply not knowing their rights or who enforces them (Gleeson 2016; Valenzuela et al. 2006). A survey of 4,387 low-wage workers in New York, Chicago, and Los Angeles found that 43 percent of workers that had made a complaint to their employer or attempted to form a union in the last year had experienced one or more forms of illegal retaliation from their employer or supervisor, and 20 percent of surveyed workers did not make a

complaint even though they had experienced a serious workplace violation (Bernhardt et al. 2009). Relying on worker complaints to structure enforcement operations thus leaves many workers who are either unaware of or unable to access their rights with no form of recourse against employer subversion of the law.

Even when workers are able to access enforcement mechanisms and employers are found liable for back wages, agency practices often do not effectively incentivize employer compliance (Hardy 2021; Vosko et al. 2020). For example, agencies often fail to assess available penalties and ensure restitution. Stansbury (2025) shows that between 2005 and 2023, the U.S. Wage and Hour Division levied penalties in just 6.5 percent of Fair Labor Standards Act underpayment cases. This is often the case at the state level as well. For example, a study of the Texas Workforce Commission's enforcement of the Texas Payday Law found that while nearly \$99 million in wages were ordered across more than 57,000 cases from 2010 to 2020, over \$78 million (or 80 percent of wages ordered) had yet to be received by workers as of 2022 (Galvin et al. 2024). While stronger penalties across states have been found to serve as effective deterrents against employer wage theft (Galvin 2016), these penalties are underenforced (Vosko et al. 2020) and in many states remain too low to have a significant impact on employer behavior.

With low expected costs and low probability of violations being detected, employers have few practical reasons to comply with wage and hour laws (Ashenfelter and Smith 1979). As Stansbury (2025) shows, an employer who is inclined to violate the law would need to expect that there is a 47-83 percent probability that the U.S. Department of Labor (DOL) will detect the violation or that there is a 25 percent probability of a worker initiating a successful lawsuit against the employer to consider it in their interest to comply with the law. In practice, however, even in targeted industries like fast food, violating firms have only a 1.4 percent probability of being investigated by the DOL in a given year (Weil 2010). There is reason to believe that the incentive to comply is even lower at the state level, where enforcement capacity is generally low and many states have higher wage floors (Clemens and Strain 2022; Fine 2017). In such contexts, the "bite" of the higher minimum wage—i.e., the ratio of the minimum wage to the median hourly wage—can affect employers' incentives to comply with the law (Chang and Ehrlich 1985; Clemens and Strain 2022; Stansbury 2025).

In response to these evident problems, a new wave of thinking around enforcement – often called "strategic enforcement" – has emerged. Scholar and former Department of Labor Wage and Hour Administrator David Weil has argued that labor enforcement is in need of substantial renovation (Weil 2018). After years of economic restructuring, many workplaces have "fissured" as firms have shifted many of their internal activities to outside organizations to lower expenses and limit liability by converting employer-employee relationships into arm's length transactions (Weil 2014). This occurs through subcontracting, franchising, third party management, use of temporary employment agencies, and misclassification of workers as independent contractors.

When large companies shift to these practices, legal liabilities are shifted onto smaller firms at the bottom of the industrial food chain where profit margins are tighter and the pressure to cut costs is very strong. While contracting has always been an issue in the agricultural and garment industries and in construction, Weil's account shows how fissuring went mainstream and spread across many sectors.

Fissuring has complicated enforcement for under-resourced agencies and made it more difficult for them to pursue impactful enforcement. The firms at the top of the food chain often set standards for employment practices and dictate the terms to subcontractors, even though they are not the direct employers and thus not the legal entity directly committing the violations. The lack of legal liability of these lead companies (referred to as joint, or "up-the-chain" liability) means that the enforcement of these policies too often leaves what we would call the "big sharks" free to roam and conduct business as they please while leaving the least resourced and least powerful "minnows" caught in the net.

Strategic enforcement aims to address fissuring by using "the limited enforcement resources available to a regulatory agency to protect workers as prescribed by laws through changing employer behavior in a sustainable way" (Weil 2018, p. 437). Under this paradigm, labor standards offices should not simply wait until a worker has complained, but also use data and analysis to identify the types of workplaces, often based on industry, where they have reason to believe violations are common, and use that information to proactively launch targeted, "directed" investigations.

Drawing on their work with state and local agencies, Fine and Round (2021) argue that strategic enforcement is best understood as a complementary set of practices that can have a cumulative effect. Some of these key practices – and the ones we focus on in this paper – include implementing triage processes that allow agencies to prioritize resources toward the most egregious, impactful and/or high risk complaints; mapping priority industries to identify industry structure, influential employers, and widespread, noncompliant practices and then targeting those industries for proactive investigations; conducting company-wide (rather than single-complainant) investigations; investigating and penalizing retaliation (retaliation deters complaints); and assessing high damages and penalties to both restore workers and deter future violations. Most agencies can do some of these practices (e.g., triage and priority industry mapping) without express statutory power. In some cases, the ability to undertake these practices is explicitly set forward in statutes. In other cases, the ability to conduct such practices is not

¹ Other strategic enforcement practices include issuing subpoenas for key documents; exploring joint employment or upstream liability; holding successors and individuals liable; undertaking robust collections efforts; employing an aggressive press strategy aimed at incentivizing widespread compliance; and monitoring compliance even after collections are made.

expressly prohibited, meaning that proactive agencies can take the initiative to design and implement strategic enforcement practices.²

To what extent do subnational regulatory agencies take advantage of their statutory authority to design and carry out strategic enforcement? Do stronger powers and more vigorous enforcement practices make a difference in workers' ability to collect the wages they are owed? These are the questions to which we now turn.

DATA

To empirically examine the alignment of agencies' statutory enforcement authority and enforcement practices and explore the implications of this (mis)alignment for the effective enforcement of minimum wages laws, we created four novel datasets. The first two constitute our key explanatory ("treatment") variables: the first measures the statutory authority (*powers*) of state-level enforcement agencies and the second measures their enforcement strategies (*practices*). We also collected data on the number of full-time Wage and Hour investigators by state, which we use to distinguish enforcement practices from investigative capacity. Finally, we estimate minimum wage violations by state using CPS-MORG data, which serves as our dependent variable.

Measuring State Department of Labor Statutory Authority (Powers)

To measure state enforcement powers – the legal authority granted to some body to carry out enforcement of minimum wage and wage payment laws within the state – our research team hand-coded the minimum wage and wage payment statutes of all 50 states and Washington, D.C. for the years 2018-2022. Drawing on theory and experience (e.g., Ashenfelter and Smith 1979; Round 2018a; Round 2018b; Goldman 2018; Weil 2018), we pre-determined the number points to allocate to the same 32 statutory provisions in each type of law (minimum wage and wage payment). Statutory provisions were then grouped into two categories: "probability of detection" and "costs of noncompliance" to mirror the theoretical model of deterrence developed by Ashenfelter and Smith (1979). The first category tallied all statutory provisions granting the state enforcement agency its investigative authorities and the second tallied the penalties, damages, fines, and fees that the state agency or a court could assess when employers were found liable for minimum wage noncompliance. The composite measure of *powers* then weights each category and each type of law equally. This effort drew and expanded upon a similar effort undertaken by Galvin (2016) to register the strength of state laws in 2013. Categories, points, and weights are listed in **Appendix A**.

² We return to this point in the Discussion.

³ In classical models of deterrence, effectively deterring employers from violating wage standards depends on ensuring a high probability that violations will be detected. When the probability of detection is low, the expected costs of noncompliance are low as well. If the expected benefits of noncompliance (i.e., saving on labor costs) exceed the expected costs of noncompliance, employers have weak incentives to comply with the law.

⁴ Pearson's correlation of the two components is 0.51 for minimum wage laws and 0.66 for wage payment laws (p<0.000).

Measuring State Department of Labor Enforcement Strategies (Practices)

To measure enforcement practices among state departments of labor, we fielded a novel survey of state-level labor standards enforcement agencies in all 50 states and D.C. in 2022-2023. Email lists for distributing the survey were drawn from personal contacts, agency websites, and phone calls to the agency to identify the correct person within each agency to fill out the survey. The survey inquired into current agency practices. Four agencies were not responsive despite being contacted multiple times. The final response rate was 91 percent.⁵

We collected information on the four canonical strategic enforcement practices associated with scaling the impact of enforcement: proactively initiating investigations regardless of a specific complaint (outside of child labor violation cases); conducting company-wide investigations in response to individual complaints; having a procedure for prioritizing complaints (also referred to as triaging); and regularly investigating reports of retaliation.

A separate survey question asked whether agencies regularly assessed civil penalties, liquidated damages, fines and fees, and remedies for employer retaliation against workers – and if so, whether those assessments were typically on the high, medium, or low end of what was authorized by law.⁶ These questions established the extent to which agencies used the monetary sanctions available to them when employers violated the law under the assumption that levying larger sanctions would be more likely to produce changes in employer behavior. Responses were coded for whether the agency carried out these practices and to what degree (see **Appendix B**).

Like the measure of statutory powers described above, *practices* is a composite score that equally weights two categories of practices that theoretically enhance the probability of detection and raise the costs of noncompliance (Ashenfelter and Smith 1979). The first category includes: proactive investigations, company-wide investigations, complaint triage, and retaliation investigation. The second includes the reported magnitude of typical assessments for liquidated damages, civil penalties, fines and fees, and remedies for retaliation.⁷

Measuring Agency Staff

Because an oft-advanced explanation for the perennially low probability of detection in the U.S. involves the dearth of investigative staff in enforcement agencies, we submitted public document requests to collect data on the number of full-time investigators at each state agency, which we used to cross-check and supplement data that was generously shared with us by *Politico* from

⁵ Response rate refers to 42 of 46 agencies (Alabama, Florida, Georgia, Louisiana, and Mississippi lack enforcement agencies). The four states or jurisdictions that were not responsive include: Arizona, Washington D.C., Iowa, and Nebraska. The research team made multiple attempts to contact state agencies who did not respond to the survey.

⁶ Civil penalties refer to the monetary fines imposed by the government or courts on employers who violate labor laws; liquidated damages are a predetermined sum of money that an employer agrees to pay an employee if the employer breaches the wage payment terms of an employment contract or law; remedies for retaliation against employees who assert their labor rights can include reinstatement, promotion, back pay, compensatory and punitive damages, and other legal or equitable relief.

⁷ Cronbach's alpha for the practices construct is .80, which is generally considered good internal consistency among included items, meaning that the items are reliably measuring the same underlying construct.

their 2018 report on wage theft (LeVine 2018). We measure each agency's level of staffing as a ratio of investigative staff to the covered workforce (ILO 2006).

Although the number of state-level wage and hour investigators divided by the civilian labor force in the state is a rather crude measure of enforcement capacity – state agencies assign a wide variety of tasks to their investigators, develop diverse policies, routines, cultures, and expectations around enforcement, and operate within very different local economies, labor markets, and "task environments" – it serves as an important control variable in the analyses to follow.

Dependent Variable: Minimum Wage Violations

To investigate the relationship between state powers, enforcement practices, and compliance with the minimum wage, we set out to estimate the incidence of minimum wage violations. Measuring the scope and depth of violations is inherently challenging. No single data source systematically tracks the prevalence of this form of wage theft or records the precise amounts of unpaid wages. Early studies of minimum wage compliance relied on employer-provided data submitted to the Bureau of Labor Statistics (e.g., Zucker 1973), but employer-reported payroll data are unreliable, as employers who violate the law cannot be expected to disclose that information to government agencies.

Worker-generated data offer alternatives, but these too are limited. Lawsuits and complaints filed with federal, state, or local enforcement agencies capture only a small share of actual violations.

Minimum-wage workers often lack the resources to initiate lawsuits, and complaints are filed by only a fraction of affected workers. As noted, many of the most vulnerable workers are either unaware of their rights or reluctant to complain on account of language barriers, lack of knowledge, or fears of retaliation, termination, or deportation (Gleeson 2016; Valenzuela et al. 2006).

Recognizing these limitations, Bernhardt et al. (2009) conducted an innovative survey of 4,387 hard-to-reach low-wage workers in New York, Chicago, and Los Angeles. Over six months, 62 field staff conducted interviews in 13 languages. This study provided a novel portrait of the scope and depth of wage theft experienced by marginalized workers. However, the approach has not been replicated, likely due to the formidable resource demands involved. Other qualitative studies conducted in specific localities (e.g., Fritz-Mauer 2021, Carvlho-Donaldson 2023) have further enriched our understanding of how wage theft is experienced personally, socially, and physically. But such studies remain limited in scope and cannot capture cross-state or industry-level variation in violation rates.

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⁸ We thank Marianne LeVine for sharing her data with us.

To generate a rough approximation of minimum wage violations across all 50 states, we rely on the Current Population Survey Merged Outgoing Rotation Groups (CPS-MORG). This dataset has long been used by the U.S. Department of Labor's Wage and Hour Division to identify "priority industries" for investigation, and it remains the data source of choice for social scientists seeking to estimate national or industry-specific rates of minimum wage noncompliance since the 1970s (Ashenfelter and Smith 1979; Ehrenberg and Schumann 1982; Sellekaerts and Welch 1984; Trejo 1991, 1993; Weil and Pyles 2005; ERG 2014; Galvin 2016; Cooper and Kroeger 2017; Fine et al. 2020; Clemens and Strain 2022; Galvin 2024).

CPS-MORG offers several key advantages. First, it draws on interviews with approximately 60,000 households each month, providing state- and nationally representative data. Unlike alternative survey sources such as the Survey of Income and Program Participation (SIPP), it reliably captures both broad population trends and state-level variation. Second, its individual-level responses allow us to estimate minimum wage violations indirectly. Because the CPS-MORG asks respondents to report their hourly wages as part of a general battery of demographic and employment questions—and does not ask about wage theft, working conditions, or industry-specific experiences—respondents are not primed to underreport their wages. Using these data, we calculate whether each individual's reported hourly wage falls below the applicable state minimum wage as of the date (month) effective.

CPS-MORG is useful for our purposes but far from an ideal data source for more nuanced studies of wage theft. For example, CPS-MORG data do not contain detailed information about the nature of minimum wage violations; they do not tell us whether violations stem from off-the-clock work, missed rest or meal breaks, unlawful deductions, nonpayment of final wages, or other forms of noncompliance. Nor do these data offer information on the employer, company size, and so forth. If the respondent's reported hourly wage is less than the statutory minimum, it counts as a minimum wage violation, but we cannot say how, where, or why it happened.

The biggest downside with using CPS-MORG data to estimate minimum wage violations, however, is measurement error—e.g., rounding up or down or misreporting wages and hours—a problem that affects all survey data. Following ERG (2014), Galvin (2016), Cooper and Kroeger (2017), and Clemens and Strain (2022), we take steps to address measurement error, but we fully acknowledge that it still exists (for a more comprehensive analysis of the extent and impact of measurement error in CPS-MORG, see Clemens and Strain 2022). To account for rounding errors, all our analyses calculate minimum wage violations as instances in which the worker is paid less than \$0.25 less than the applicable minimum wage. To reduce measurement error on the extreme tails of the wage-hour distribution, we exclude respondents who report wages of less than \$1 per hour, less than \$10 per week, and those who usually work fewer than 10 hours per week. We also exclude from the analysis any respondents who can be identified as exempt from their state's minimum wage law based on their industry, occupation, and income level, and we exclude unemployed or self-employed workers, respondents who do not specify hourly/nonhourly status, and nonhourly workers who report that their hours vary. Our wage

variable (EPI's *wageotc_noadj*) includes overtime, tips, and commissions for all workers and contains no trimming, top-code imputations, or hours-vary imputations.

To the extent that measurement error nevertheless affects our estimates, there is reason to believe that it may bias our estimates downward, such that actual violation rates are even higher. First, despite extensive efforts to reach them, both Hispanics (Latinx) and undocumented immigrants remain underrepresented in the CPS. Because these groups are disproportionately vulnerable to minimum wage violations, their underrepresentation likely renders our estimates systematically conservative. Second, Bollinger's (1998) study of measurement error in the CPS finds "high overreporting of income for low-income men," driven by "about 10% of the reporters who grossly overreport their income." This pattern likely biases our estimates downward as well. Third, some of our methodological choices intentionally err on the side of conservatism. Because our wage variable includes overtime, tips, and commissions—but only tips and commissions count toward the minimum wage-our wage estimates are likely inflated and our violation estimates are likely understated as a result. Further, by excluding respondents on the extreme tails of the distribution as well as nonhourly workers who report varying hours-and by excluding all respondents who report, erroneously or not, that they are unemployed, self-employed, or selfincorporated—we may omit a substantial number of informal or underground economy workers who are especially vulnerable to wage theft, such as day laborers and other eligible but misclassified employees. 10 While Roemer (2002) finds that the CPS reaches more "underground" workers than other large-scale surveys and is less biased than alternatives, Bernhardt et al.'s (2009) innovative survey of hard-to-reach workers in the informal labor market uncovered violation rates higher than those presented here. Taken together, these considerations suggest that our estimates likely understate the true prevalence of minimum wage violations.

Some recent studies (e.g., Clemens and Strain 2022) exclude nonhourly and tipped workers from their primary analyses in efforts to reduce measurement error. However, nonhourly and tipped workers are among the most vulnerable groups of workers and ought not be overlooked. Nonhourly workers – those paid by piece rate, by day, by job, by project, by commission, or on salary at low levels – receive pay that is not tied directly to the number of hours they worked. In these situations, it can be difficult for workers to know if their effective hourly rate meets the minimum wage and employers may deliberately or negligently underpay them. Employers may also misclassify workers as independent contractors, incorrectly treat them as "salaried" workers, or simply fail to record all the hours they worked, creating further opportunities for minimum wage noncompliance.

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⁹ Robustness tests separately examine (a) workers who do not report earning tips, commissions, or overtime, and (b) only tipped and commission-based workers who report working 40 hours per week or less, thus "filtering out" overtime pay.

¹⁰ That said, our robustness tests examine nonhourly (and tipped workers) separately in an effort to gauge effects within this distinctly vulnerable population of workers.

Tipped work creates another set of complexities. In most states, employers are legally permitted to pay tipped workers a subminimum "cash" or "tipped" wage that is considerably less than the statutory minimum (e.g., the federal subminimum tipped wage is \$2.13 per hour), so long as tips bring the workers up to the statutory hourly minimum wage. If tips fall short, the employer is legally obligated to make up the difference. But this does not always happen. Verifying that tips actually bring workers to the minimum wage can be complicated and is not often tracked transparently. Practices such as tip pooling, credit card deductions, and informal cash payments create additional openings for wage theft. Most tipped workers, moreover, depend heavily on employer-controlled shift assignments, which may discourage them from complaining when they are underpaid.

For these reasons, we include nonhourly and tipped workers in our main analyses and conduct a series of robustness checks, reported below, to consider the relationship between powers, practices, and minimum wage violations in these distinctly vulnerable populations. Collectively, these tests help to establish the scope conditions of our findings and speak directly to central questions in the wage theft literature.

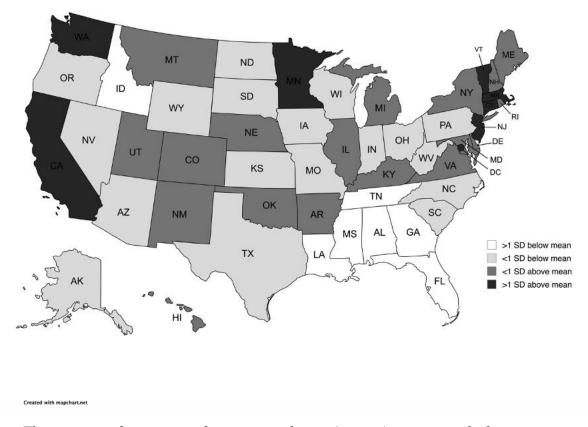
Even with these adjustments and safeguards, point estimates should be interpreted as rough approximations rather than precise measures of minimum wage violations. They are most appropriately used for comparative analyses across jurisdictions and over time. Indeed, while measurement error in self-reported wages is a concern, there is no reason to believe that such errors vary systematically across states.

RESULTS

1. Empirical Relationship between Powers and Practices

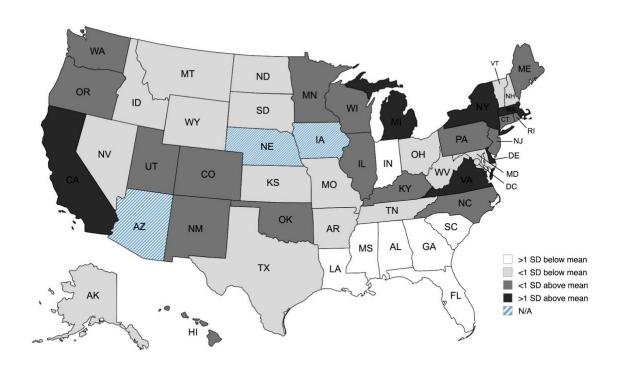
We expect *powers* and *practices* to be highly correlated. Indeed, it is an unspoken premise of most existing literature that administrative enforcement agencies will design enforcement practices that make use of their statutory authority. For example, it is assumed that agencies empowered by law to assess damages and penalties will, in fact, assess damages and penalties. According to deterrence theory, the higher the expected costs of noncompliance and the greater the probability of detection, the more likely the employer is to comply with the law (Ashenfelter and Smith 1979). If state agencies do not systematically assess those damages, the presumed link between expected costs and employer behavior is broken. Figures 1 and 2 illustrate the geographic variation in state enforcement *powers* and *practices*.

Figure 1: Statutory Powers Scores



Note: The measure of statutory enforcement authority (powers) is composed of agency powers and authority (50%) and available penalties, damages, and fees (50%) for both minimum wage and wage payment laws (50% each).

Figure 2: Enforcement Practices Scores

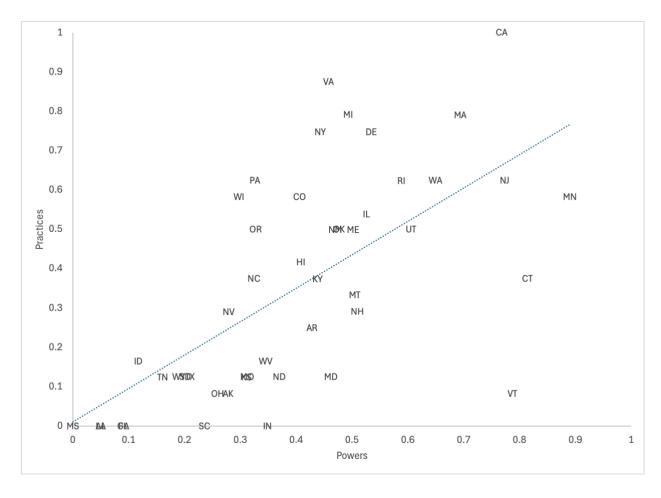


Created with mapchart.net

Note: The measure of enforcement practices is composed of proactive investigations, companywide investigations, complaint triage, and retaliation investigation (50%), and assessment of liquidated damages, civil penalties, fines and fees, remedies for retaliation (50%).

Our measures of *powers* and *practices* are indeed positively correlated (p<0.000). The Pearson correlation coefficient, which measures the strength and direction of the linear association between two variables, is r(47) = 0.66 (R-squared = .44), p<0.000. (See Figure 3.) This is a moderately strong relationship, but given theoretical expectations that statutory authority should be accompanied by practices that make use of that authority, it is surprising that the relationship is not even stronger.

Figure 3: Relationship Between State Enforcement Powers and Practices



As it turns out, many agencies do not take advantage of the powers and authorities that are "on the books" (Figure 4). We find that:

- Of the 24 state agencies that have the statutory authority to conduct proactive investigations (rather than only respond to complaints) only 10 (42%) actually do on a regular basis. 11 Proactive investigations are the core concept of "strategic enforcement."
- Of the 22 state agencies that have the statutory authority to conduct company-wide investigations (rather than investigate only the complainant), only 15 (68%) actually do.¹²
- Of the 27 state agencies that have the statutory authority to investigate retaliation, only 7 (26%) actually do.¹³

¹¹ The 8 state agencies that do not use their statutory authority to conduct proactive investigations include MD, MO, NY, NC, ND, OH, UT, and VT. The 10 state agencies that do regularly use their statutory authority include CA, CO, CT, ME, MA, MN, MT, NJ, OR, and RI. Six state agencies report that they have undertaken proactive investigations a few times before but do not do so regularly: IL, KY, NH, PA, WA, and WV. Agencies in AZ, DC, and NE have the statutory authority but did not respond to our survey.

¹² The 7 state agencies that do not use their statutory authority to conduct company-wide investigations include IL, MD, NC, ND, UT, VT, and WV. The 15 state agencies that do regularly use their statutory authority include: CA, CO, KY, MA, MI, MN, MO, MT, NH, NJ, NY, OR, PA, RI, and WA. Agencies in AZ, DC, and NE have the statutory authority to conduct company-wide investigations but did not respond to our survey.

¹³ The 20 state agencies that do not use their statutory authority to investigate retaliation include: AK, AR, CT, HI, IN, KS, KY, ME, MD, MN, MO, NV, NM, ND, OH, OR, PA, RI, VT, and WV. The 7 state agencies that use their

- Of the 30 state agencies that have the statutory authority to assess liquidated damages, only 10 (33%) do so regularly "at the high end of what is allowed by law." Nine agencies report making assessments "about in the middle" of what is allowed by law and 3 report assessing damages "at the low end." ¹⁴
- Of the 36 state agencies that have the statutory authority to assess civil penalties, fines, or fees, only 9 (25%) report regularly making assessments "at the high end of what is allowed by law." Another 8 report making assessments about "in the middle" of what is allowed, and 6 report making assessments "at the low end" of what is permitted. 15

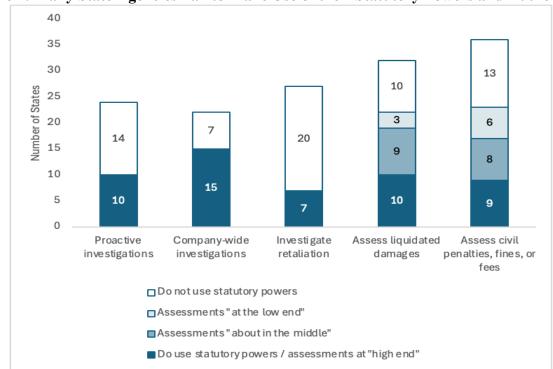


Figure 4: Many State Agencies Fail to Make Use of their Statutory Powers and Authorities

statutory authority to investigate retaliation include: CO, DE, IL, MA, MI, WA, and WI. Agencies in AZ and DC have the statutory authority but did not respond to our survey.

¹⁴ The 8 state agencies that do not use their statutory authority to assess liquidated damages include CT, IN, MO, NH, NC, SD, TX, and VT. "High end" assessments are made by agencies in CA, HI, MD, MI, MN, NM, OK, PA, UT, and VA. Assessments "about in the middle" of what is allowed by law are made in AK, ID, IL, KS, MA, MT, NJ, NY, and OH. And AR, KY, and ME report making assessments "at the low end" of what is allowed by law. Agencies in AZ, DC, IA, and NE have the statutory authority to assess damages but did not respond to our survey.

¹⁵ The 13 state agencies that do not use their statutory authority to assess civil penalties, fines, or fees include AK, CT, FL, IN, KS, MD, MO, MT, NH, ND, OH, OR, and SD. The 9 state agencies that report regularly assessing fines, fees, or civil penalties at the "high end of what is allowed by law" include: CA, HI, KY, MI, NJ, OK, PA, UT, and VA. The 8 state agencies that report making assessments "about in the middle of what is allowed by law" include DE, IL, MA, MN, NY, RI, VT, and WA. Six agencies report making assessments "at the low end of what is allowed by law," including: AR, CO, ME, NM, WV, and WI. DC and NE have the statutory authority but did not respond to our survey.

To illustrate, consider North Carolina and Missouri, both of which have the authority to initiate proactive investigations but do not exercise this power, though for different reasons. In North Carolina in 2011, after Republicans took control over both chambers of the state legislature for the first time in over a century, lawmakers enacted a carveout that exempts all but approximately 10 percent of North Carolina workers from state minimum wage protections. ¹⁶ By severely restricting the agency's jurisdiction, the legislature left little room for the agency to use its enforcement tools creatively. In Missouri, by contrast, enforcement was first undermined through a reduction in staff in 2018 after the Republican governor proposed \$572 million cuts across state government, reduced the state workforce by 188 positions and cut the number of wage and hour investigators from fourteen to two. ¹⁷ These capacity constraints made proactive enforcement in Missouri infeasible. In both states, partisanship and political ideology seemed to play a large role in creating conditions in which state enforcement agencies were unable to use the full extent of their statutory powers.

The state of Florida offers another illustration of political forces driving the mismatch between statutory authority and enforcement in practice. State law grants Florida's enforcement agency a number of important enforcement powers, including double damages and civil penalties. However, at the behest of Republican Governor Jeb Bush, who campaigned on and pursued a pro-business agenda of changes to state government, the Florida legislature dismantled the Department of Labor and Employment Security (DOLES). The Department's staff was dispersed throughout the state government and tasked with overseeing different functions (workforce development, unemployment compensation, and economic planning). As a consequence, the state government of Florida has been unable to enforce its wage and hour laws through administrative action for over 20 years. ¹⁹

In other states, different factors were at work in creating a gap between powers and practices. In Oregon, for instance, the state agency had a decades-long policy under which it opted not to require violators to pay penalties.²⁰ This institutional inertia was only overcome in the fall of 2022 when a newly elected, enterprising pro-worker commissioner launched a strategic

¹⁶ Wage and Hour Act, N.C. Gen. Stat. § 95-25.14(a)(1).

¹⁷ Personal communication during debrief of Strategic Enforcement Skills Training Session: Industry Mapping, Interstate Labor Standards Association's 54th Annual National Conference, Long Beach, CA, 8/23/18. Missouri Budget, Fiscal Year 2018, Summary.

¹⁸ Bush campaigned and governed on a platform of tax cuts, abolition of the departments of education and of labor, privatization and changes in welfare eligibility. Over the course of his governorship, Bush cut 13,000 government jobs and vetoed \$2 billion in new spending. During his second inaugural address in 2003, pointing to government offices in Tallahassee, he said "there would be no greater tribute to our maturity as a society than if we make these buildings around us empty of workers, silent monuments to a time when government played a larger role than it deserved or could adequately fill." https://www.cnn.com/2015/01/28/politics/bush-politics-analysis

¹⁹ Workforce Innovation Act of 2000, §445.001. See: "Minimum Wage Enforcement: The Unfinished Business of Florida's Constitutional Amendment," Alexis P. Tsoukalas, Jenn Round, Janice Fine, Daniel J. Galvin, Summer 2022. https://smlr.rutgers.edu/wjl-ru/beyond-bill-academic

²⁰ "State of the Worker Report 2024," Oregon Bureau of Labor and Industries, 2024, p. 7. https://www.oregon.gov/boli/about/Documents/State%20of%20the%20Worker%20Report%202024%20Oregon%20Bureau%20of%20Labor%20and%20Industries.pdf

enforcement initiative to proactively combat wage theft. As part of this effort, the agency reevaluated a number of its practices—including its penalties policy—and implemented a new protocol requiring investigators to seek penalties in all wage theft cases (Bureau of Labor & Industries 2024, p.7). In the discussion section below, we explore a fuller range of possible explanations for the failure of agencies to take advantage of their statutory powers, noting that they are likely driven by different factors in different states.

The extent to which the use and non-use of enforcement powers affects workers, however, remains an open empirical question. In places where agencies develop strategic enforcement practices that take advantage of their statutory powers, do workers experience fewer violations? That is the question to which we turn next.

2. Relationship between Agency Enforcement Powers, Practices, and State Minimum Wage Violations

We begin with descriptive statistics. ²¹ Between 2021 and 2023, we estimate that over 11 million workers, or 3.3% of all covered, nonexempt workers, suffered minimum wage violations. Among these workers, the average reported hourly wage was \$9.63. Had these workers earned their state's minimum wage, they would have earned, on average, an hourly wage of \$12.61 – amounting to an income loss of \$2.98 per hour on average, or 24% of what these workers were owed. While 3.3% of workers and an estimated income loss of 24% may seem high, these figures are comparable to, and actually more conservative than, other published estimates of minimum wage violation rates in the United States using CPS-MORG data. ²²

Which workers are at the greatest risk of suffering a minimum wage violation? Our results show significantly higher probabilities among women compared to men, noncitizens compared to U.S. citizens, and both younger (ages 15–24) and older (65+) workers compared to those in prime working age. Racial and ethnic disparities are also pronounced: Black, Hispanic, Asian, and Native American workers are at greater risk than are White workers, as are individuals without a high school diploma. Employment arrangements and industries matter as well. Nonhourly and part-time workers are more vulnerable, as are those employed in personal services (including private households), entertainment and recreation, and agriculture. Certain occupations also stand out, including food preparation and serving, farming, fishing, and forestry, healthcare support, personal care and service, and building and grounds cleaning and maintenance.

²² Estimates using CPS-MORG data include the following: ERG (2014) found that 3.5% of workers in New York and 3.8% of workers in California lost on average 37% and 49% of their expected income, respectively; Galvin (2016) found that 17% of low-wage workers lost on average 23% of the income to which they were entitled; Cooper and Kroeger (2017) found that 4.1% of workers in the ten largest states lost on average 23.9% of their income; Clemens and Strain (2022) found that affected workers lose approximately 17% of their expected wage gains from a higher statutory floor; and Galvin (2024) found that 16.6% of low-wage workers lost on average 20% of the income to which they were entitled.

²¹ Again, point estimates using CPS-MORG data must be interpreted cautiously given the data limitations described above.

To empirically assess the relationship between minimum wage violations and our measures of state enforcement powers and practices, we fit an individual-level logit model to CPS-MORG data in which the dependent variable is a binary measure of whether the respondent reported hourly earnings of less than the applicable state minimum wage by month (with a \$0.25 buffer to account for rounding errors). Our key independent variables include the measures of state agency enforcement *powers* and *practices* described above. We use person-level "earner study" sampling weights for each observation, region as our strata, and states as our primary sampling unit in order to approximate CPS's multistage stratified sampling design while clustering standard errors at the state level.²³

Because states in the U.S. differ in so many ways – their demographic compositions, their economies, and so on – control variables are necessary when making cross-state comparisons. In addition to the standard set of demographic and job-related characteristics (age, sex, race, citizenship, education, industry, occupation, and union membership), we also account for macroeconomic conditions across states with measures of the unemployment rate (Bureau of Labor Statistics) and median house price index (Federal Housing Finance Agency). We capture variation in states' wage structures with two indicators: the Kaitz index (minimum wage-to-median wage ratio), which shows how "binding" the minimum wage is in a state (how close the statutory floor is to the typical wage), and the 50/10 ratio (median-to-10th percentile), which measures the degree of compression at the lower end of the wage distribution (Kaitz 1970). Together, the latter two variables capture both the reach of statutory wage floors and the inequality that conditions their effectiveness—crucial factors given that the bindingness of the floor is highly determinative of minimum wage violations (Clemens and Strain 2022).

To account for the significant political and ideological variation that exists across U.S. states, we construct a political index that combines two elements: the partisanship of the governor (on the expectation that Democratic governors may be more supportive of enforcement) and Caughey and Warshaw's (2018) measure of mass economic liberalism, which reflects the average economic policy preferences of state publics in 2018. Each component is weighted equally. In addition, we use private sector union density as a proxy for business strength. Lower union density in the private sector signals weaker worker organization and bargaining power, which in turn suggests that employers face fewer constraints and may exercise greater political and economic influence (Hirsch et al. 2025).

Finally, we control for the number of staff positions budgeted for minimum wage enforcement per capita in 2018, discussed above. This serves as a proxy for each agency's level of resources and administrative capacities. If measures of state powers and practices are associated with minimum wage violations above and beyond this proxy, we may conclude that effective enforcement requires more than larger budgets and additional "cops on the beat."

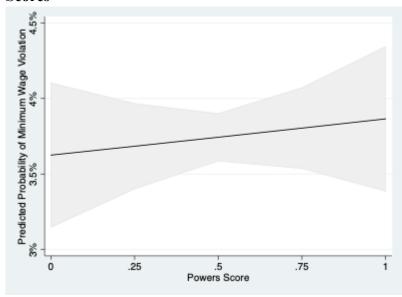
Before presenting the results, we caution that our analyses do not permit us to make causal claims about the relationship between enforcement capacity (powers and practices) and minimum wage

²³ Following Clemens and Strain 2022; Cengiz, Dube, Lindner, and Zipperer 2019; Autor, Manning, and Smith 2016.

violations. Minimum wage violations are the product of many factors. We control for as many of these as possible given data availability and degrees of freedom in an effort to isolate the independent impact of enforcement capacity on the likelihood of being paid less than the minimum wage in a given state. However, we readily acknowledge that there are still unobserved factors at the state, firm, and individual level for which our analyses are unable to account. Observational regression analysis can help to detect relationships and gauge the role that enforcement may play in shaping outcomes above and beyond demographic, economic, and political factors. Finding a statistical relationship between key variables of interest provides a reasonable basis for proceeding to the next steps of the research process. Subsequent work can then more thoroughly investigate the strength of the relationship; provide more information about heterogeneity in the relationship across states; specify and test causal mechanisms; and consider the role of context and history in shaping the relationships of interest. For now, we seek only to test the basic relationship between variables, drawing upon theory to guide the analysis.

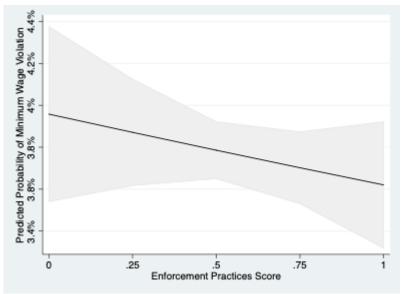
First, we assess the relationship between statutory powers and minimum wage violations. As shown in Figure 5, the relationship is statistically insignificant (p = 0.61) and positive. In other words, stronger statutory powers by themselves do not appear to reduce violation rates in the 2021-2023 period. Interestingly, states with stronger statutory powers are more likely to have higher minimum wage violation rates. This may reflect reverse causation, whereby states with higher violation rates adopt stronger statutes in response. Alternatively, these states may raise their minimum wages in response to widespread wage theft and persistently low pay, which in turn may increase the prevalence of violations (Clemens and Strain 2022). Whatever the mechanism, Figure 5 makes clear that statutory powers on their own are not statistically associated with violation rates.

Figure 5. Predicted Probability of Minimum Wage Violation across Enforcement Powers Scores



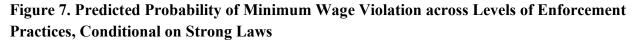
In our second model, we look at how state enforcement *practices* relate to minimum wage violations. Figure 6 suggests a slightly negative but statistically insignificant relationship (p = 0.33). In other words, violations appear to be slightly less common in states with stronger enforcement, but the association is indistinguishable from what might occur by chance.

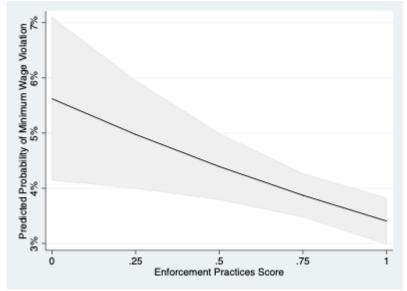
Figure 6. Predicted Probability of Minimum Wage Violation across Levels of Enforcement Practices



Finally, we consider whether *powers* and *practices* work together in shaping violation rates. There is good reason to expect that an interaction effect exists: enforcement activity should be more effective when agencies have stronger statutory authority, while weak statutes may blunt the impact of even vigorous enforcement efforts. Figure 7 shows that the combined effect of powers and practices is negative and highly significant (p = 0.008). The predicted probability of minimum wage violation falls sharply as strategic enforcement practices increase, conditional on strong labor laws. Moving from a state with strong laws but minimal enforcement to a state with strong laws and a full suite of enforcement practices reduces the predicted probability of violation from 5.6% to 3.4% - a 40% decline in the likelihood of violation. The interaction effect thus suggests that only when strong laws and active enforcement are paired do we see a corresponding meaningful reduction in violations.²⁴

 $^{^{24}}$ To assess robustness, we conducted a subsample-based robustness check with predictive marginal effects and wild-cluster bootstrap inference. We re-estimated the main specification on a subsample with powers = 0.60–0.80 (the range that most cleanly identifies the powers × practices interaction) and then projected a predicted-probability contrast evaluated at powers = 0.85. The model includes control variables and standard errors are clustered by state, as above. With only six state clusters in this band, we report wild-cluster bootstrap (Webb) p-values. The interaction is strongly negative in both the linear probability model (coef. = -4.075, SE = 0.468, wild-cluster p = 0.0097) and a logit mirror (coef. = -92.26, SE = 17.01, p < 0.001). Using the survey design, we compute survey-weighted average predicted probabilities: at powers = 0.85, moving practices from 0 to 1 reduces the predicted probability of violation



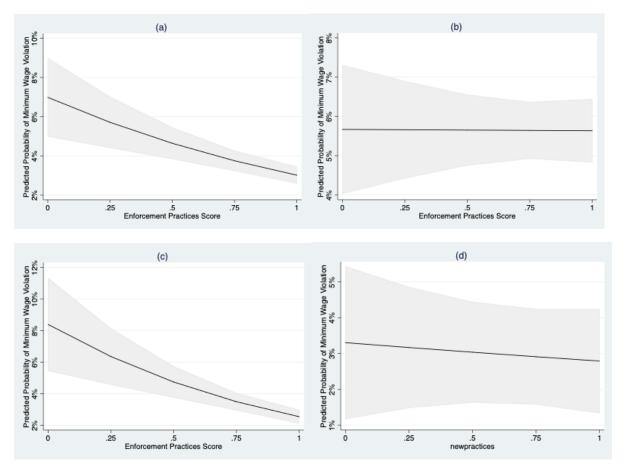


Importantly, our results indicate that strategic enforcement practices reduce violation rates independently of agency capacity (proxied by our ratio of investigators to labor force). Capacity alone is not related to violations in the fully specified model at conventional levels of statistical significance (p<0.05) (**Appendix C**), underscoring that the effectiveness of enforcement depends more on *how* agencies wield their authority than on the sheer number of investigators.

But does this powerful interaction effect hold when the analysis is restricted to the two distinctly vulnerable subgroups discussed above – nonhourly and tipped workers? By estimating the fully specified model on these two subgroups, we can assess the scope conditions of the relationship identified above. Figure 8 shows that the combined effect of powers and practices remains strong and significant for hourly workers and for those in nontipped, noncommission-based jobs (panels a and c), but disappears entirely for *nonhourly workers* and for those in *tipped* or *commission-based jobs* (panels b and d)

Figure 8: Robustness Checks: Predicted Probability of Minimum Wage Violation across Levels of Enforcement Practices, Conditional on Strong Laws, Hourly/Nonhourly and Tipped/Nontipped Workers Only

from 0.382 (SE = 0.129) to 0.0037 (SE = 0.0010), a \approx 38 percentage-point reduction (difference = -0.379, SE = 0.130, p = 0.004, 95% CI [-0.633, -0.124]).



From left to right, top to bottom: (a) hourly workers only, (b) nonhourly workers only, (c) no workers earning tips, commissions, or overtime, and (d) only tipped and commission-based workers (under 41 hours per week).²⁵

Even the combination of robust laws and vigorous strategic enforcement practices appears insufficient to shield these especially vulnerable groups from this pernicious form of wage theft. These results suggest a need to explore alternative models of enforcement that may be better tailored to addressing these workers' specific circumstances.

Overall, this analysis provides the first systematic evidence that agencies can strengthen compliance by leveraging their statutory powers—imposing penalties that increase the costs of noncompliance and adopting practices that elevate the risks of detection. At the same time, the results underscore the need for more innovative enforcement strategies to reach nonhourly and tipped workers, who remain particularly exposed to wage violations.

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²⁵ Although tips and commissions typically count toward the minimum wage, overtime wages do not. Unfortunately, the CPS aggregates overtime, tips, and commissions into a single variable. We restrict attention to workers who report tips or commissions while working 40 hours or less to help disentangle these components and allow us to evaluate whether the key relationships of interest hold for tipped/commission-based workers.

DISCUSSION

After collecting novel data on state department of labor enforcement powers and practices in the U.S., we assessed the degree to which the two are related within states. We find that having stronger laws protecting workers is associated with stronger agency enforcement practices (a correlation of r = 0.66). However, there are many states where agencies have express statutory authority to conduct specific enforcement practices but they do not report using that authority. None of the key strategic enforcement practices are regularly used by more than 60 percent of states who have the express authority to conduct such practices (and some, like regular investigations into retaliation, are used by far fewer states). Our data collection provides a map of the states for which there is more and less misalignment. We then test the association between powers, practices, and minimum wage violations. We find that neither powers nor practices, by itself, is significantly associated with a change in minimum wage violation rates. Only when powers and practices operate together do we see a significant and substantively meaningful decline in the probability of experiencing a violation. This supports the claim that strong statutes may not be sufficient; to robustly enforce minimum wage standards, enforcement agencies must also enact practices that support those standards.

Our analyses indicate that moving from a state with no enforcement practices to one where strategic enforcement practices are regularly employed—conditional on strong laws—is associated with a 2.2 percentage point reduction (a 40% decline) in the probability of experiencing a minimum wage violation. Although these point estimates should be interpreted cautiously given the limitations of the CPS-MORG data, the effect appears to be substantively meaningful.

However, our robustness tests highlight important scope conditions of both theoretical and practical relevance. As shown in Figure 8, the joint effect of powers and practices is statistically insignificant when the analysis is restricted to nonhourly and to tipped- or commission-based workers. This suggests that even the combination of strategic enforcement practices and strong laws encounters serious limits in reaching the hardest-to-reach and most vulnerable groups. Greater attention should therefore be devoted to developing innovative enforcement strategies that are better suited to addressing these subgroups' distinctive challenges. Rather than relying exclusively on command-and-control approaches to enforcement, researchers and practitioners might consider a broader array of complementary strategies that build from the bottom up, such as co-enforcement models including proactive education campaigns targeting vulnerable workers (Fine 2017), private rights of action including the use of the Private Attorneys General Act (Deutsch et al. 2020), worker-led social responsibility models²⁶, hotlines and other strategies for complaint identification and mobilization among specific sectors of workers, and supporting

²⁶ Marquis SL. I Am Not a Tractor! : How Florida Farmworkers Took on the Fast Food Giants and Won. ILR Press, an imprint of Cornell University Press; 2017.

underresourced small businesses with training, one on one coaching, back-office capacity-building and bookkeeping support to comply with labor laws.²⁷

The full model results (Appendix C) reveal that a variety of other factors are also related to higher minimum wage violation rates. Among our demographic controls, these include age, gender, race and ethnicity (Black, Hispanic, and Native American), citizenship status, educational attainment, and union membership; are all significant predictors, as are many industries and occupations. Several of our macroeconomic and wage-structure variables—including the unemployment rate, the Kaitz index, the 50/10 wage ratio, and the housing price index—also show significance, and investigators per 10,000 workers is negative and significant but only at p = 0.10. By contrast, our political index and private sector union density by state are not significant, perhaps because their effects are subsumed by other factors.

The foregoing analyses naturally raise the question: which enforcement practices matter most? Our composite measure combines two broad types of strategies: those designed to increase the likelihood of detection and those aimed at raising the costs of noncompliance. Although analytically distinct, these bundles of strategies are highly correlated both within and across categories; separating and including them in a single model in order to weigh them against each other invites unacceptable levels of multicollinearity. Considering them individually is not useful either, as no state has adopted only one practice. Nor would it make sense to compare the two composite categories directly, as no state has implemented one type (e.g., practices that increase the probability of detection) without also adopting components of the other (e.g., practices that increase the expected costs of noncompliance). In practice, states introducing strategic enforcement reforms tend to adopt unique "bundles" of practices that are tailored to their institutional context and capacity. The effectiveness of any single practice therefore depends on the broader package in which it is embedded. For this reason, we caution against interpreting individual practices in isolation. Future research should pay closer attention to the ways practices co-occur and interact across different state contexts.

As we note above, although our study is anchored in the United States, the misalignment we identify between powers and practices is not unique to the United States. In a comparative study of Ontario, Quebec, Australia, Britain, and the U.S., Vosko et al. (2020) find that "while employment standards are a key source of formal protection for many employees, they are not living up to their founding promise of providing a floor of minimum terms and conditions of employment, advancing the principles of fairness and universality, partly as the result of deficiencies in enforcement . . . For too many employees, employment standards are paper rights not realizable in practice" (p. 4). In a study of over 180 countries, Kanbur and Ronconi (2018) found a negative correlation between the number of protective employment regulations and the

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²⁷ Workplace Justice Lab@RU, Increasing Labor Standards Compliance Among Under-resourced Small Businesses: A Resource for Labor Standards Enforcement Offices and Agencies on a Community-Engaged Support Program https://smlr.rutgers.edu/sites/default/files/Documents/Centers/WJL/WorkRise%20Toolkit_%20Labor%20Standards%20Enforcement%20Offices%2010.20.25.pdf

level of enforcement, including number of inspectors and available penalties. In other words, the more worker protections a country has on the books, the fewer resources a country has – both administrative and statutory – to enforce those protections. The findings presented here support Kanbur and Ronconi's conclusion that comparative studies of regulatory regimes "should go beyond the letter of the law and focus on effective regulation" and that, ultimately, "enforcement matters" (p. 351).

A Framework and Research Agenda

Challenges of policy implementation are not specific to labor standards enforcement (e.g., Miles 2020) and the misalignment of powers and practices characterizes many areas of administrative enforcement beyond employment standards (e.g., Pressman and Wildavsky 1973; Miles 2020). Our results call attention to the need for future work to explain why enforcement agencies differ in their willingness or capacity to exercise the authority granted to them by statute. We first review the types of explanations that exist for variation in enforcement practices and then extend our own findings to suggest new directions.

Scholars and practitioners have long understood that policy implementation is a complex process featuring coordination problems, bureaucratic inefficiencies, and political influences (Pressman and Wildavsky 1973). Scholarship on regulation and implementation suggests an array of factors that contribute to how regulatory agency practices develop (van der Heijden 2021). These may be grouped in two: factors are *exogenous* to the agencies and those that are *endogenous* to the organizations carrying out regulation.

Exogenous factors that may shape regulatory style – in addition to legal design and the political environment – include the characteristics of the industry, businesses, occupations, and local labor markets that shape the nature of the task facing a regulatory agency (Kagan 1989). At times, regulatory agencies form direct relationships with the industries they are tasked with regulating, leading to lax enforcement in the industry's favor-also known as "regulatory capture" (Quirk 1981; Makkai & Braithwaite 1992). Similarly, regulators' and politicians' relationships with constituencies may incline government officials toward forbearance of the laws-the deliberate and revocable nonenforcement of law that sanctions some constituencies in order to preserve votes (Holland 2017). Even when elected officials are publicly supportive of worker protection legislation, they may be wary of allowing agencies to use the full set of enforcement tools at their disposal, lest elected officials become the target of backlash from discontented employers (who are often politically connected, influential in elections, and regular donors to campaigns). Though Alisha Holland (2017) examines this phenomenon predominantly in terms of the nonenforcement of laws that disadvantage the poor—in strategic efforts to reap electoral gains from nonenforcement—this concept may be equally fruitful in understanding the gap between law and practice in the case of labor standards regulation.

Internationally, neoliberalism and enthusiasm for deregulation has led to the under-resourcing of agencies and the fragmentation of employment laws and enforcement mechanisms; scholars have identified these factors as core parts of the explanation for why many regulators are unable to carry out the law (Mustchin & Martínez Lucio 2020; Clibborn & Wright 2018; Dickens 2014; Vosko et al., 2017). Other exogenous influences on enforcement practices include public engagement in the regulatory process and technological developments that encourage certain types of regulatory approaches.

Factors *endogenous* to organizations may also lead agencies to develop practices that do not take advantage of their full legal powers. Lipsky (1980) still provides perhaps the clearest articulation of how a gap between powers and practices can emerge through endogenous processes. According to Lipsky, street-level bureaucrats – public service workers such as labor standards investigators "who interact directly with citizens in the course of their jobs, and who have substantial discretion in the execution of their work" (3) – effectively "make policy" through both a) the discretion they exercise on a case-by-case basis and b) the way their collective actions produce agency behavior, as perceived by those with whom they interact. In other words, investigators must regularly make tough decisions as to how they use their limited time and resources on the job, and these decisions may accrue to form tendencies about how an agency does its work and its reputation.

Agencies may also be influenced by regulators' philosophies about regulation (punitive deterrence vs. cooperative compliance) or styles (Kagan 1989). Such resistance can arise for several reasons, including from worldviews (Tucker 1988) that lead regulators to interpret certain powers – such as liquidated damages – as draconian or excessive (Felsen 2022). Some agencies may also develop organizational cultures that prompt distinctive enforcement practices, including narrow rule-following as opposed to fostering greater discretion and creativity (Mustchin & Martínez Lucio 2023). Hiring practices that privilege particular experience, skills, or professional backgrounds may also lead to different approaches to enforcement (Shepherd & Fine 2024; Tucker 1988).

More recently, scholars have observed that the managers in public agencies that oversee the work of street-level bureaucrats also play a crucial role in supporting those agents as they navigate challenges, potentially improving both their performance and well-being. Managers, as Møller and Grøn (2024) show, are instrumental in "activating street-level workers' professional knowledge and building supportive communities, with the purpose of supporting professional uses of discretion, conscientious prioritizations, and the ability to handle moral dilemmas and emotional strain." While this scholarship helpfully illustrates the role that managers play in both advising and shaping the work of street-level bureaucrats, it largely does not address how these managers carry out a task that is key to understanding the degree of alignment between powers and practices: the development of agencies' organizational policies and routines regarding

specific enforcement practices. Often, agency managers are responsible for systematic decisions about the practices and policies within an agency. Shepherd and Fine (2025), for example, find that these systematic decisions are more important in determining the consistent practices and enforcement styles of an agency than are the individual decisions of investigators. This observation then raises the question of how these organizational policies are set.

Logically, the misalignment of powers and practices can take three forms. Statutes and regulations may:

- 1) mandate enforcement practices that are not carried out
- 2) expressly authorize enforcement practices that are not undertaken
- 3) implicitly permit enforcement practices that are nonetheless neglected

In the first scenario, agencies may not carry out legally mandated practices (or their enforcement may be feeble) as a response to strong political or public pressures against vigorous enforcement of the law. The case of Ohio, discussed above, seems to illustrate this possibility nicely.

In the second scenario, agencies may fail to conduct enforcement practices that are expressly permitted by law—for example, when agencies do not assess penalties for employer violations of laws—which is common. This may occur when regulators' governing philosophies are opposed to such practices or when agencies lack resources and/or expertise, which may make civil servants wary of using the laws in more creative ways for fear of reprimand. Political or public pressure against using permitted enforcement strategies is also common. The cases of Florida and Oregon mentioned above illustrate this scenario, though each state moved in opposite directions over time.

In the third scenario, agencies may not attempt creative or strategic enforcement practices that are implicitly permitted by law because they are unaware of those strategies or lack the necessary expertise to implement them. We would expect that this scenario occurs most frequently among agencies that lack information or whose training fails to encourage creativity; it also occurs when agencies are disconnected from communities of learning and practice.

In all three scenarios, then, there are many reasons an agency may not make use of their statutory authority. As discussed above, these reasons may be exogenous to the regulatory agencies, endogenous, or both.

Further research into the conditions under which agencies are more or less likely to align their enforcement practices with their statutory powers is needed. Whatever the regulatory domain (labor regulation, environmental regulation, financial regulation, etc.), we would encourage interested researchers to proceed in three steps. First, identify the misalignment between powers

and practices and map the variation, as we have done here. Second, treat the external and internal factors discussed in section two as hypotheses to be tested. Third, carefully identify appropriate cases in which to test those hypotheses and track the development of powers, practices, and their (mis)alignment over time.

For example, in Figure 3 above, Vermont emerges as a conspicuous outlier: its statutory powers are strong but its reported enforcement practices are far weaker than what one would expect given the general pattern. Why might this be? When speaking with a regulator at the Wage and Hour Program, a subunit of Vermont's Department of Labor, we were told:

"The total enforcement budget for Wage and Hour is in the neighborhood of \$200,000. Some would argue we can't do what we are supposed to do...But because [wage and hour enforcement] is one of the only things this department does that is purely generally funded, it is always a heavy legislative lift to go in and ask for more money for that program."

In this case, the requirement that the Wage and Hour Program request additional funding from the full Vermont legislature rather than simply request a larger share of the state Department of Labor's budget severely limited what the enforcement agency could do. As a result, Vermont was forced to rely more heavily on its partnership with the overburdened U.S. WHD to conduct enforcement in the state. Investigations of outlier cases can generally be illuminating (Seawright 2016), as they may point to explanatory factors that might be undertheorized or overlooked–like the structure of Vermont's funding stream for Wage and Hour or partnerships with the federal WHD.

Pursuing this line of inquiry in light of the results presented above promises several payoffs. Not least, it may help regulatory agencies and worker advocates pursue policies that are better tailored to address the misalignment of powers and practices. For instance, as we have shown, advocating for stronger policies (such as agency investigative authorities or criminal penalties) may not be enough. Advocates may wish to consider combining a push for new statutory powers with funding and support for investigator trainings, pilot projects, and mechanisms for community input, including co-enforcement initiatives and other practices tailored to the hardest-to-reach workers in high-violation industries. Because the shift to alternative enforcement models can be painstaking and challenging for regulators (Weil 2018), and because so many agencies have traditionally operated in isolation from one another, there continues to be a need for strong "communities of learning and practice" that stretch across states.²⁸

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²⁸ For example, the Workplace Justice Lab hosts the Strategic Enforcement Community of Learning and Practice, a community of two dozen state and local departments of labor that meet regularly to share best practices and strategies. Beyond the Bill: Collaborative Learning Partnerships, Workplace Justice Lab @ Rutgers University, https://smlr.rutgers.edu/wjl-ru/beyond-bill-CLPs

CONCLUSION

In the U.S., minimum wage noncompliance is one of the most pernicious forms of wage theft, as it affects the poorest and most vulnerable workers who can least afford to be underpaid. When minimum wage workers are underpaid by even a small percentage of their income, they face major hardships such as being unable to pay rent or childcare or put food on the table. Minimum wage violations also distort the market, giving a competitive advantage to those employers who do not play by the rules, which can create a race to the bottom in high-violation industries as employers compete to save on labor costs. Minimum wage violations have broader implications as well: they contribute to widening income inequality, racial and gender inequities, wage stagnation, reductions in the amount of tax revenue collected, and increasing reliance on public services, which strains government budgets. Our work is motivated by the goal of better understanding how the enforcement of minimum wage standards can identify, punish, and deter this form of wage theft.

The empirical analysis in this paper is based on collecting novel and hard-to-obtain data on the specific practices of state labor enforcement agencies and on rigorous coding of all minimum wage statutes in all 50 states and D.C., updating and expanding Galvin's (2016) efforts in this area. Using these data, we provide evidence of the extent of variation in the *use* of enforcement authority among state agencies, focusing specifically on the implementation of "strategic enforcement" and the assessment of available penalties. Far from being able to assume that strong legal enforcement authority translates into an agency's use of that authority, we find that agency enforcement practices themselves need to be a topic of further investigation.

We also present a simple conceptual framework that we hope can guide future research into the misalignment of statutory powers and enforcement practices. It is important to recognize that different factors may be more or less influential across varied contexts, and that no single policy solution will fit the diverse ways in which enforcement challenges manifest. Nonetheless, our analysis points toward a pathway for systematically understanding the factors that shape enforcement practices and their association with lower minimum wage violation rates.

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Appendix A: Measure of State Statutory Authority (Powers)

Statutory authority granted to state enforcement agency (50% of powers measure):

- Enforcement by state agency (1), attorney general (0.5), or both (1.5)
- Agency has unfettered access to documents (1)
- Agency has unfettered access to place of business or employment (1)
- Agency can require interviews/testimony (1)
- Agency can do company-wide investigation (not just single employee) (1)
- Agency can do directed (i.e. proactive) investigations (1)
- Agency can enforce/implement law independently/make final determinations? (1)
- Agency or court can issue injunction/stop order (1)
- Penalties/fees used to fund agency? (1)
- Agency can bring court action to seek remedies on behalf of employee (1)

Penalties, Damages, Fees (50% of powers measure):

Damages:

- ER liable only for back wages owed, % of wages, interest, or < amount (0)
- ER liable for double damages (back wages + an additional equal amount) (1)
- ER liable for treble damages (back wages + twice the underpaid wages) (2)
- ER liable for quad damages (back wages + three times the underpaid wages) (3)
- ER must pay interest (1)

Discretion in awarding damages?:

- Damages are mandatory (1)
- Agency has discretion (0)
- Good faith excuse or bona fide dispute = (-1)
- Must be willful, egregious, or repeat offender = (-1)

Penalties/Fees:

- Misdemeanor or Prison (1)
- Interference with investigations (1)
- Highest amount is over \$5,000 (2)
- \$1,001-\$5,000(1)
- <=\$1,000 (0.5)
- Additional subsequent penalties (1)
- Each week/day constitutes a separate offense (1 or 2)
- If penalty requires criminal conviction (point deductions, -1)

Discretion in awarding penalties:

- Penalties are mandatory (1)
- Agency has discretion (0)
- Good faith excuse or bona fide dispute (-1)
- Must be willful, egregious, or repeat offender (-1)

Measure of State Enforcement Practices

Investigations (50% of measure):

- Proactively initiate investigations (vs respond only to complaints received)
- Conduct company-wide investigations
- Triage complaints

• Investigate retaliation

Assessment of penalties (50% of measure):

- Liquidated damages (is assessment typically on the high, medium, or low end?)
- Civil penalties (is assessment typically on the high, medium, or low end?)
- Fines and fees (is assessment typically on the high, medium, or low end?)
- Remedies for retaliation (regularly assess?)

Appendix B: Measure of State Enforcement Practices

Question	Text	Points
Agency	Please tell us which state and agency you work for.	
Company-wide investigations	Does your agency ever conduct a company-wide investigation into a workplace when you receive a complaint at that workplace? -"Yes, we do this now" -"No, we currently investigate on the specific complaints we receive"	[0, 1]
Directed (proactive) investigations	Does your agency conduct directed (or proactive) investigations, where you identify target industries or employers regardless of whether you have received a specific complaint (excluding child labor cases)? -"Yes, we now do this regularly" -"Yes, we have done a few times before but we do not do it regularly" -"No, we have never done this"	[0, 0.33, 1]
Triage complaints	Does your agency have a procedure for making decisions about which complaints to prioritize for investigation (triaging complaints)? -"Yes, we have a procedure for prioritizing complaints" -"No, we investigate all complaints in the order in which they were received"	[0, 1]
Investigate retaliation	Does your agency regularly investigate allegations of retaliation? -"Yes, we regularly investigate retaliation cases" -"No, we do not and have not regularly investigated retaliation cases"	[0, 1]
Liquidated damages	Does your agency regularly assess any of the following against employers for violations? - Liquidated damages/Other penalties paid to the worker -"Yes, we regularly assess these" -"No, we do not regularly assess these" If yes: "We are interested in the amounts offices assess employers for violations. Currently in your agency, are assessments against employers for violations generally at the low end, about in the middle, or at the high end of what is allowed by your laws?"	[0, 0.33, 0.66, 1]
Fines/fees	Does your agency regularly assess any of the following against employers for violations? - Fines/Fees -"Yes, we regularly assess these" -"No, we do not regularly assess these" If yes: "We are interested in the amounts offices assess employers for violations. Currently in your agency, are assessments against	[0, 0.33, 0.66, 1]

	employers for violations generally at the low end, about in the middle, or at the high end of what is allowed by your laws?"	
Civil penalties	Does your agency regularly assess any of the following against	[0, 0.33,
	employers for violations? - Civil penalties	0.66, 1]
	-"Yes, we regularly assess these"	
	-"No, we do not regularly assess these"	
	If yes: "We are interested in the amounts offices assess employers	
	for violations. Currently in your agency, are assessments against	
	employers for violations generally at the low end, about in the	
	middle, or at the high end of what is allowed by your laws?"	
Retaliation remedies	Does your agency secure remedies to workers when their	[0, 1]
	employers are found to have retaliated against them?	
	-"Yes, we regularly secure remedies for retaliation cases"	
	-"No, we do not and have not secured remedies in retaliation	
	cases"	

Appendix C

	(1)
	Full model
Year (2022)	-0.283***
((0.0537)
Year (2023)	-0.557***
	(0.0950)
25–34: Early career	-0.618***
	(0.0505)
35–44: Mid-career	-0.825***
	(0.0475)
45–54: Late mid-career	-0.805***
55 CA T .	(0.0642)
55–64: Late career	-0.737***
65.05 B () /B ()	(0.0568)
65–85: Post-career/Retirement	-0.132**
F1.	(0.0647)
Female	0.325***
Black	(0.0389) 0.412***
Біаск	(0.0500)
Hispanic	0.118**
Trispanic	(0.0548)
Asian	0.0479
Asian	(0.0602)
Native American	0.426**
rative / microan	(0.166)
Multiple races	-0.0363
	(0.0716)
U.S. Citizen	-0.275***
	(0.0399)
High school	-0.568***
	(0.0437)
Some college	-0.621***
	(0.0972)
College	-1.025***
	(0.134)
Advanced	-1.365***

	(0.0960)
Construction	-0.481***
	(0.109)
Manufacturing, durable goods	-0.716***
	(0.189)
Manufacturing, nondurable goods	-0.519***
	(0.131)
Transportation	-0.321**
	(0.153)
Communications and utilities	-0.481**
	(0.180)
Wholesale trade	-0.582***
	(0.185)
Retail trade	-0.335**
	(0.127)
Finance, insurance and real estate.	-0.284**
	(0.138)
Personal services, including private household	0.116
	(0.140)
Entertainment and recreation	-0.0201
	(0.112)
Hospital	-0.587***
	(0.183)
Medical, except hospital	-0.544***
	(0.105)
Educational	-0.263*
	(0.150)
Social Services	-0.331***
	(0.105)
Public administration	-0.241
	(0.168)
Business and financial operations occupations	-0.256**
	(0.124)
Computer and mathematical science occupations	-0.178
	(0.128)
Architecture and engineering occupations	-0.185
	(0.159)
Life, physical, and social science occupations	-0.0466
	(0.169)
Community and social service occupations	0.536***

	(0.147)
Legal occupations	0.0276 (0.188)
Education, training, and library occupations	0.188)
Education, training, and notary occupations	(0.119)
Arts, design, entertainment, sports, and media occupations	0.578***
This, design, entertainment, sports, and media occupations	(0.167)
Healthcare practitioner and technical occupations	0.258*
The manufacture and the manufacture of the manufacture and the man	(0.143)
Healthcare support occupations	1.371***
11 1	(0.153)
Protective service occupations	1.072***
•	(0.109)
Food preparation and serving related occupations	1.581***
	(0.124)
Building and grounds cleaning and maintenance occupations	1.231***
	(0.128)
Personal care and service occupations	1.389***
	(0.155)
Sales and related occupations	1.083***
	(0.136)
Office and administrative support occupations	0.917***
	(0.124)
Farming, fishing, and forestry occupations	1.438***
	(0.141)
Construction and extraction occupations	0.478***
	(0.118)
Installation, maintenance, and repair occupations	0.155
Des landing a seconding	(0.163) 0.594***
Production occupations	
Transportation and material moving occupations	(0.183) 0.810***
Transportation and material moving occupations	(0.111)
Union member	-0.468***
Cilion member	(0.0468)
Investigators per 10,000 workers	-0.936*
	(0.544)
Unemployment	0.0862***
• •	(0.0261)
Housing price index	0.708***

	(0.110)
Kaitz index	8.451***
	(0.369)
50/10 wage ratio	2.108***
	(0.371)
Political index	-0.0358
	(0.151)
Private sector union density	0.408
	(1.263)
Powers score	0.633***
	(0.211)
Practices score	0.222
	(0.167)
Powers#Practices	-0.809***
	(0.290)
Constant	-7.090***
	(0.712)
Observations	740,259

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1