



Early Effects of California's \$20 Fast Food Minimum Wage:

Large Wage Increases with No Effects on Hours, Scheduling, or Benefits

Key Points

California has been at the vanguard of progressive and innovative protections for fast food workers. Alongside establishing a first-in-the-nation Fast Food Council, the state raised the minimum wage for California fast food workers to \$20/hour effective April 1, 2024. The \$20 minimum wage represents a \$4 increase, making it the largest minimum wage increase in recent U.S. history. This brief draws on Shift Project survey data collected from 3,420 fast food workers in California, and comparison samples of 6,194 retail workers in California and 14,416 fast food and retail workers in other Western states. By comparing California fast food workers with their counterparts in retail jobs or employed at the same firms outside of California, we provide strong evidence of the effects of the new California minimum wage above and beyond industry and labor market trends. We find:

- **California fast food workers experienced substantial wage increases.** Immediately after the new minimum wage went into effect, hourly wages for California fast food workers increased by at least \$2.50, and the share of California fast food workers earning less than \$20/hour declined by about 60 percentage points.
- **We find no evidence that wage increases had unintended consequences on staffing, scheduling, or wage theft.** In response to the sizeable wage increase for California fast food workers, we do not find evidence that employers turned to understaffing or reduced scheduled work hours to offset the increased labor costs. Rather, weekly work hours stayed about the same for California fast food workers, and levels of understaffing appeared to ease. We also find that unstable scheduling practices and wage theft were unaffected by the wage increase.
- **We find no evidence that wage increases were accompanied by a reduction in fringe benefits.** In response to wage increases, California fast food employers could have looked to cut costs by reducing fringe benefits such as health or dental insurance, paid sick time, or retirement benefits. We find no evidence of reductions in any of 7 types of fringe benefits in response to the California fast food wage increase.
- **Many California fast food workers continue to contend with underemployment and just-in-time work schedules.** Although California fast food workers have experienced large wage increases, one-third of these workers are working part-time and would prefer more work hours. Nearly two-thirds of these workers receive less than two weeks' notice of their work schedule, and experience last-minute changes to the timing of their work shifts.

A \$20 Minimum Wage for California Fast Food Workers

Fast food workers in California face significant economic precarity and often cope with difficult working conditions—both of which were only exacerbated by the COVID-19 pandemic ([Huang et al. 2021](#)). Front line workers at some of the nation’s largest firms—from McDonald’s to Chipotle—contend with unstable schedules, limited benefits, and chronically low wages ([Bellew et al. 2022](#)).

To take on these issues, the state of California enacted Assembly Bill (AB) 1228 in September of 2023 and established a Fast Food Council. The Council includes members representing a diverse array of stakeholder groups—franchisors, franchisees, employees, and employee advocates—and has final authority to regulate labor standards for the state’s large fast food chains. Specifically, it has jurisdiction over most restaurant chains that have more than 60 locations nationwide and that serve food and drink for “immediate consumption” ([AB 1228](#)). The first of its kind in the nation, California’s Fast Food Council draws on concepts from sectoral bargaining, a system common in Europe in which unions negotiate working standards that are then guaranteed to all workers in a given industry rather than workplace by workplace. AB 1228 also established a new minimum wage of \$20 per hour for all workers at restaurants subject to the Fast Food Council’s regulations, effective April 1st, 2024. This constituted a significant increase from the existing statewide minimum wage of \$16 per hour for all industries. The Council has the power to continually raise this fast food minimum wage each year, by as much as the lesser of 3.5% or the annual increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). This increase of \$4 per hour is the largest instantaneous increase ever implemented by a state government, and it is further unique in that it only applies to workers of a specific industry.

Given the magnitude of this minimum wage increase, fast food firms, franchisors, and franchisees have expressed concerns and have claimed that workers

and consumers will ultimately find themselves worse off as a result of the law. The International Franchise Association, for example, argued that small franchisees would have no choice but to raise prices and reduce the number of workers they employ to account for greater labor costs ([CNBC](#)). Accordingly, anecdotal reports have emerged of affected franchisees reducing both headcount and workers’ hours ([AP](#)).

Meanwhile, the Service Employees International Union—the largest service sector union in the U.S.—has championed the new law as an overdue raise for California’s fast food workers ([SEIU](#)) and made the case that the higher minimum wage will help the fast food industry attract better workers and reduce turnover ([AP](#)). Analysis from the Roosevelt Institute contends that California’s large fast food chains have, through increasing markups, attained profit margins large enough to fully absorb the cost of higher wages without spiking prices or laying off employees ([Bustamante & Regmi 2024](#)). And Governor Gavin Newsom, who signed AB 1228 into law, has pointed to record total employment in California’s fast food sector as evidence that the \$20 per hour minimum wage has not had an adverse impact on employment in the industry ([KQED](#)).

Lessons from Prior Research

The potential effect of minimum wage increases on employment has been extensively litigated in the economics research literature, with the verdict that negative impacts, if any, are not very substantial—and especially so in the service sector. Employment in nontradable sectors—like the restaurant industry—appears to be particularly resilient to minimum wage increases, with many prominent studies finding no adverse effect of such increases on nontradable employment despite their resulting in significant wage gains ([Dube et al. 2010](#); [Allegretto et al. 2018](#); [Cengiz et al. 2019](#); [Godoy & Reich 2021](#)). This includes some recent research focused specifically on the fast food industry that similarly finds no evidence of disemployment ([Ashenfelter & Jurajda 2021](#)) or even identifies a positive employment effect ([Wiltshire et al. 2023](#)).

Existing research is less robust with respect to the effects of minimum wage increases on other worker-related outcomes, although this area has attracted increasing attention in recent years. Beyond sheer employment levels and prices, employers may reduce labor hours as well as act through other channels of adjustment to offset the costs of a higher wage floor ([Hirsch et al. 2015](#); [Clemens 2021](#)). For example, some studies find that increases in the minimum wage led to reductions in the share of workers covered by employer-sponsored health insurance (ESI) plans ([Clemens et al. 2018](#); [Dworsky et al. 2022](#); [Meiselbach & Abraham 2023](#)). Additionally, theoretical economic models suggest that employers could partially defray the cost of higher wages by increasing scheduling irregularity ([Clemens & Strain 2020](#)) and there is limited empirical evidence that firms may choose to strategically reassign hours among workers to reduce the total cost burden of employer-sponsored benefits ([Yu et al. 2023](#)), but these ideas remain largely unexplored empirically.

Is this Time Different?

How employers ultimately adjust to minimum wage increases—including the prevalence of noncompliance, i.e., paying subminimum wages—as well as action through other channels of adjustment is likely shaped by the magnitude of the increase ([Clemens 2021](#); [Clemens & Strain 2022](#)). By this metric, the April 1st California increase stands alone in mandating a \$4 per hour increase.

Perhaps the closest comparison is to the increase which occurred in Seattle when the minimum wage was raised by more than \$3 per hour for workers at large businesses between 2015 and 2016. Some early research on this reform suggested that although the net impact on earnings was positive, low-wage workers, especially those with less work experience, did incur reductions in hours ([Jardim et al. 2022](#)). However, the study's methodology attracted scrutiny ([Zipperer & Schmitt 2017](#)), and another study found no evidence of any effect on employment in Seattle's food service sector ([Reich et al. 2017](#)). In a Seattle citywide survey, 23% of employers reported reducing worker headcount or hours and just 6% reported cutting worker benefits; raising prices was by far the most popular channel of adjustment ([Romich et al. 2020](#)). The Seattle evidence then is unsettled and,

further, the minimum wage increase in California is distinct in that it is industry-specific, statewide, and even larger.

The stakes for understanding the effectiveness and any unintended consequences of the California fast food minimum wage increase are high. Yet, we have lacked timely data to understand how faithfully the wage increase has been implemented, any first-order adjustments in response to hours, staffing, or scheduling, and any further adjustments through benefits channels.

Estimating the Effects

We draw on novel data from The Shift Project collected from hourly workers in fast food and retail employed by 136 of the largest firms in these sectors in the United States. These data were collected twice-annually between fall 2016 and spring 2024, with the most recent wave of data collection fielded between April and June of 2024, immediately after the April 1st effective date of the AB 1228 minimum wage increase. The Shift data have the virtue of containing a long time series before the policy change; of having an employer-employee matched structure that allows for precise alignment of the treated population with covered employers in California; of capturing both large samples of covered fast food workers in California as well as comparison workers in other states and in similar industries; and of having detailed measurement of wages, hours, staffing, and other channels of adjustment.

We use these data to estimate a set of event-study models that provide the causal effect of the minimum wage increase on a set of first-order outcomes. First, we estimate the effects of the law on hourly wages and the share of workers earning less than \$20 per hour. Second, we estimate the effects on usual hours and on worker reports of understaffing as well as unstable scheduling and wage theft. Third, we estimate the effects on other channels of adjustment including employer-provided health insurance and sick time. Our preferred models compare hourly fast food workers at covered firms in California before and after April 1st with workers at the exact same firms in a set of neighboring western states. We also show that our results are invariant to the use of alternative reasonable comparison groups.

Large Positive Effects on Wages

The upper panel of Figure 1 shows the estimates from our preferred event-study model, plotting the estimated difference in hourly wages for fast food workers in California against those in comparison states (CO, UT, AZ, NV, OR, and WA) across the years 2017 through 2024, where the red dashed line denotes the implementation of the \$20 per hour fast food minimum wage in California on April 1st, 2024. We see that in the years prior to implementation, there is little trend in the difference between fast food workers' wages in California and in neighboring states, with California workers consistently earning about \$1 per hour more. After April 1st, we see a spike in wages in California relative to comparison states and the Fall of 2023.

The lower panel of Figure 1 plots the effect of the April 1st increase on the share of fast food workers earning

less than \$20 per hour. We see that identical shares of California and comparison group fast food workers earn less than \$20 per hour in all of the periods preceding April 1st. Immediately afterwards, the share earning less than \$20 drops by 60 percentage points in California.

In Table 1, we collapse the long pre-trend (Spring 2017 to Fall 2023) to present the two-period estimates of the effect of the law. The first estimates show the same treatment vs. comparison groups as in the event-study plots above. We estimate a \$2.50 per hour wage increase as an effect of the law and a 60 percentage-point drop in the share of workers being paid less than \$20 per hour. Those estimates are remarkably stable across alternative comparison groups. In the second panel, we compare California fast food workers against hourly workers in retail in California and find the same pattern of results. In the third panel, we estimate a triple difference of fast food vs. retail and California vs. other states, again with the same results.

Figure 1. Event Study Estimates of the Effect of California \$20 Fast Food Minimum Wage on Hourly Wages (California Fast Food Workers vs. Comparison States Fast Food Workers)

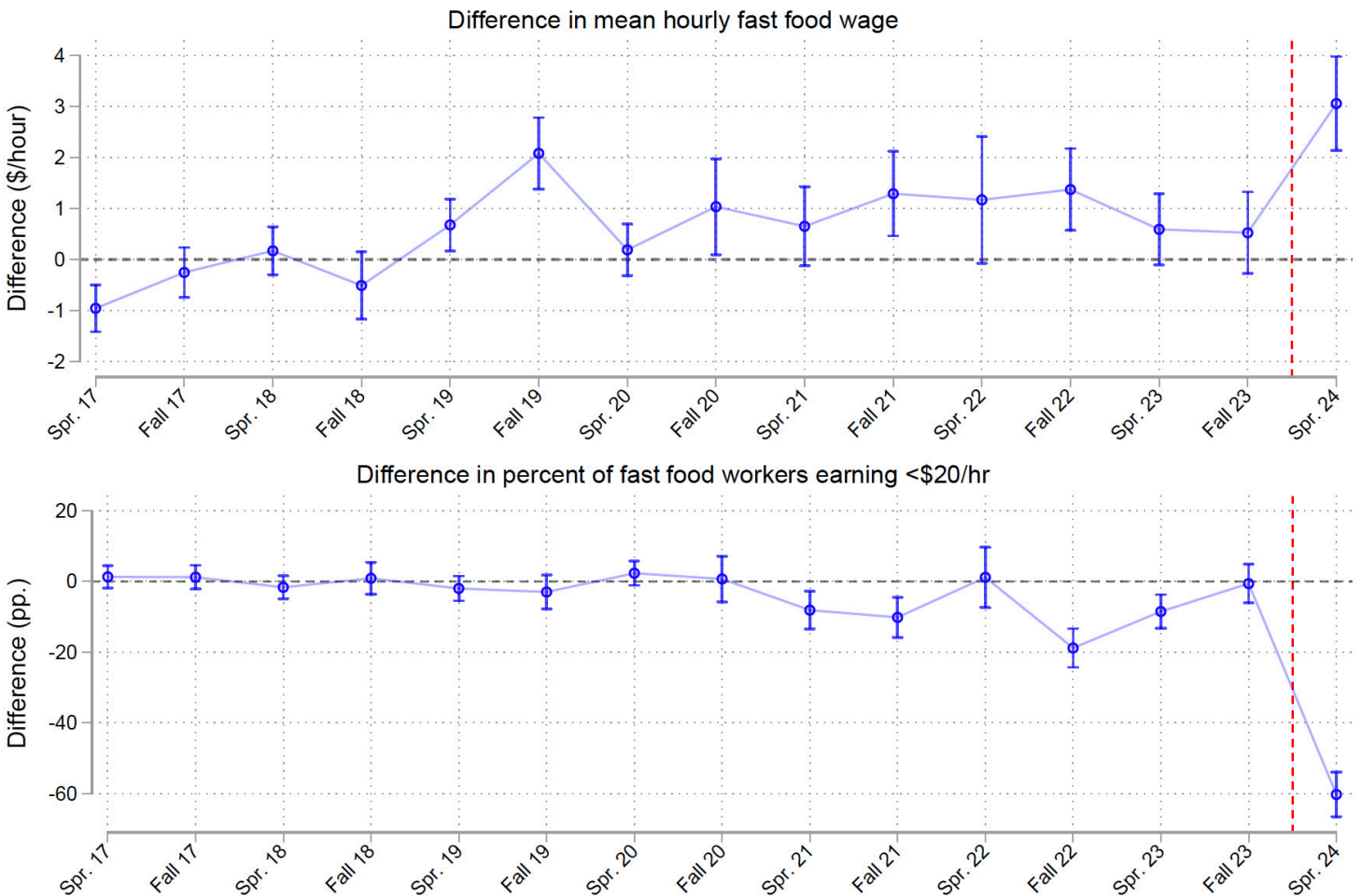


Table 1. Difference-in-Difference Estimates of the Effect of the \$20 Fast Food Minimum Wage on Hourly Wages (Alternative Comparison Groups)

	Hourly wage (\$)	Earning < \$20/hr	Earning < \$19.75/hr
Difference-in-difference: fast food in CA vs. fast food in other western states			
CA * spring 2024	2.535*** (0.593)	-0.596*** (0.041)	-0.566*** (0.041)
N	6213	6213	6213
Difference-in-difference: fast food vs. retail within CA			
Fast food * spring 2024	4.210*** (0.896)	-0.684*** (0.071)	-0.672*** (0.071)
N	6332	6332	6332
Triple difference: fast food vs. retail & CA vs. other western states			
Fast food * CA * spring 2024	2.921** (1.066)	-0.615*** (0.084)	-0.574*** (0.085)
N	17673	17673	17673

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

No Evidence of Reductions in Hours, Staffing, or Schedule Stability

The plots in Figure 2 show the event-study estimates for two other outcomes – number of usual weekly work hours and worker reports of understaffing in their workplace. In each case we can reject large reductions in work hours and in staffing. We find no significant effects of the minimum wage increase on usual hours and, if anything, the evidence is suggestive of less understaffing as a consequence of the law. As shown in Table 2, these estimates are also quite robust to alternative comparison groups.

Table 2 also shows the effects of the minimum wage increase on several measures of work schedule

stability and predictability. We find no evidence that rather than reduce hours, employers might have attempted to more tightly manage labor costs with greater use of just-in-time scheduling.

Finally, it is possible that employers responded to the increased minimum wage with non-compliance. We do find some evidence of such behavior, with about 12% of covered workers in the post-period reporting wages below \$20 per hour. In the Fall of 2023 and then again in the Spring of 2024, we fielded a special module on workers’ experiences with likely labor standards violations, such as being told to work off the clock. Comparing the pre- and post-period for California fast food workers with each of our comparison groups, we find no evidence of increases in reports of such FLSA violations.

Figure 2. Event Study Estimates of the effect of California \$20 Fast Food Minimum Wage on Usual Hours and Staffing (California Fast Food Workers vs. Comparison States Fast Food Workers)



Table 2. Difference-in-Difference Estimates of the Effect of the \$20 Fast Food Minimum Wage on Hours, Staffing, Scheduling, and FLSA Violations (Alternative Comparison Groups)

	Usual weekly hours	Less than 35 hrs/week	Store often/always understaffed	Advance notice (weeks)	Had shift canceled	Experienced FLSA violation
Difference-in-difference: fast food in CA vs. fast food in other western states						
CA * spring 2024	1.083 (2.110)	-0.036 (0.096)	-0.312* (0.122)	0.160 (0.238)	-0.058 (0.082)	-0.115 (0.119)
N	6242	6242	2033	6197	6206	352
Difference-in-difference: fast food vs. retail within CA						
Fast food * spring 2024	0.747 (2.049)	-0.018 (0.096)	-0.266* (0.112)	0.277 (0.239)	-0.012 (0.074)	-0.080 (0.100)
N	6405	6405	2273	6340	6370	463
Triple difference: fast food vs. retail & CA vs. other western states						
Fast food * CA * spring 2024	1.390 (2.534)	-0.043 (0.122)	-0.299* (0.132)	-0.019 (0.298)	-0.023 (0.090)	-0.100 (0.119)
N	17872	17872	6490	17691	17776	1182

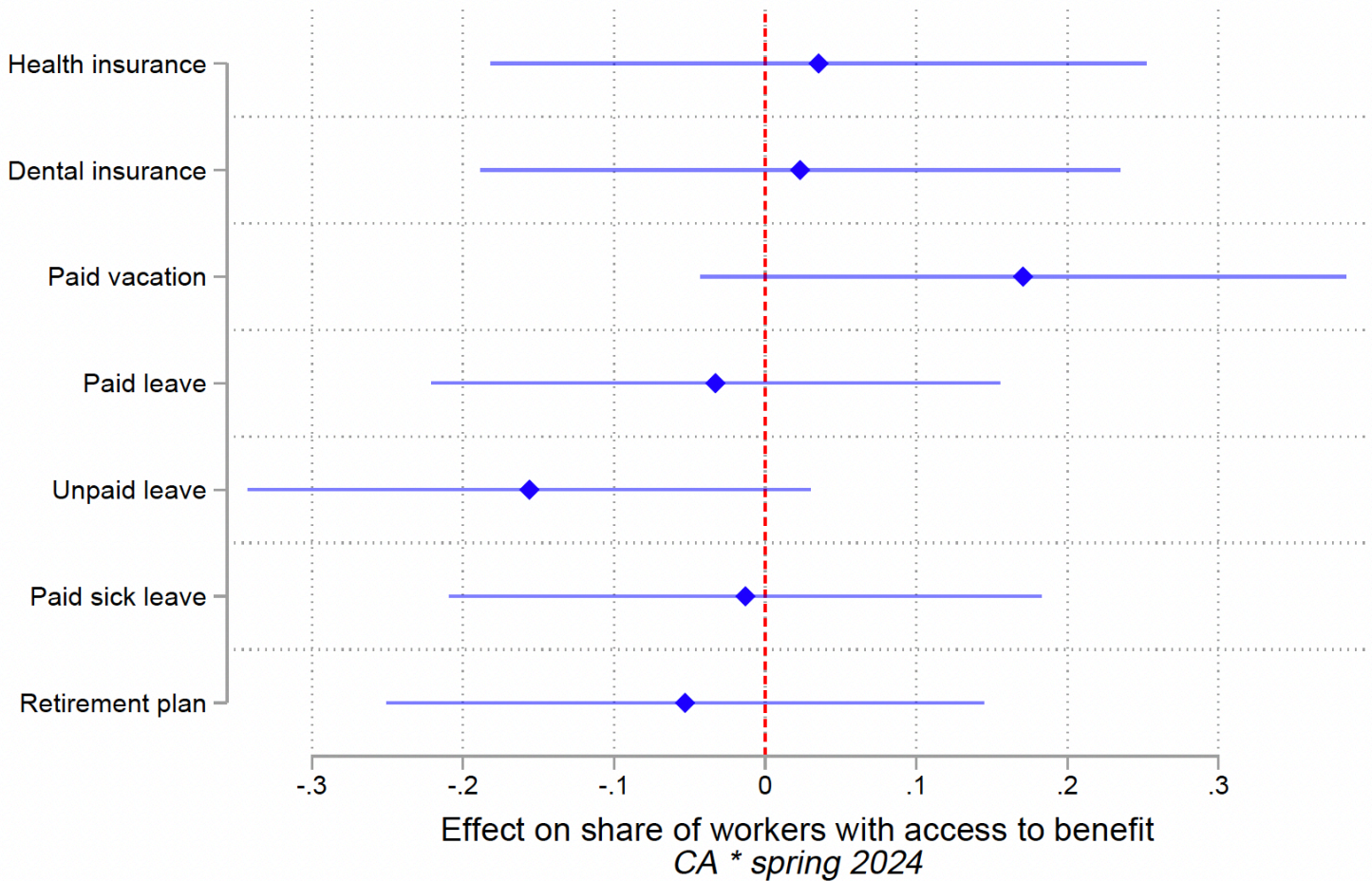
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

No Evidence of Fringe Benefit Retrenchment

Finally, we examine several other potential channels of adjustment that fast food employers might use to offset rising labor costs. In Figure 3, we plot the estimated effects of the \$20 minimum wage on workers' reports of access to a range of employer-

provided fringe benefits, based on comparing hourly fast food workers in California with those in neighboring states. We find no evidence of significant changes in workers' access to any of these benefits as a result of the law, though we also note that levels of benefits receipt are in general very low in the fast food sector.

Figure 3. Difference-in-Difference Estimates of the Effect of California \$20 Fast Food Minimum Wage on Channels of Adjustment (California Fast Food Workers vs. Comparison States Fast Food Workers)



Challenges Remain

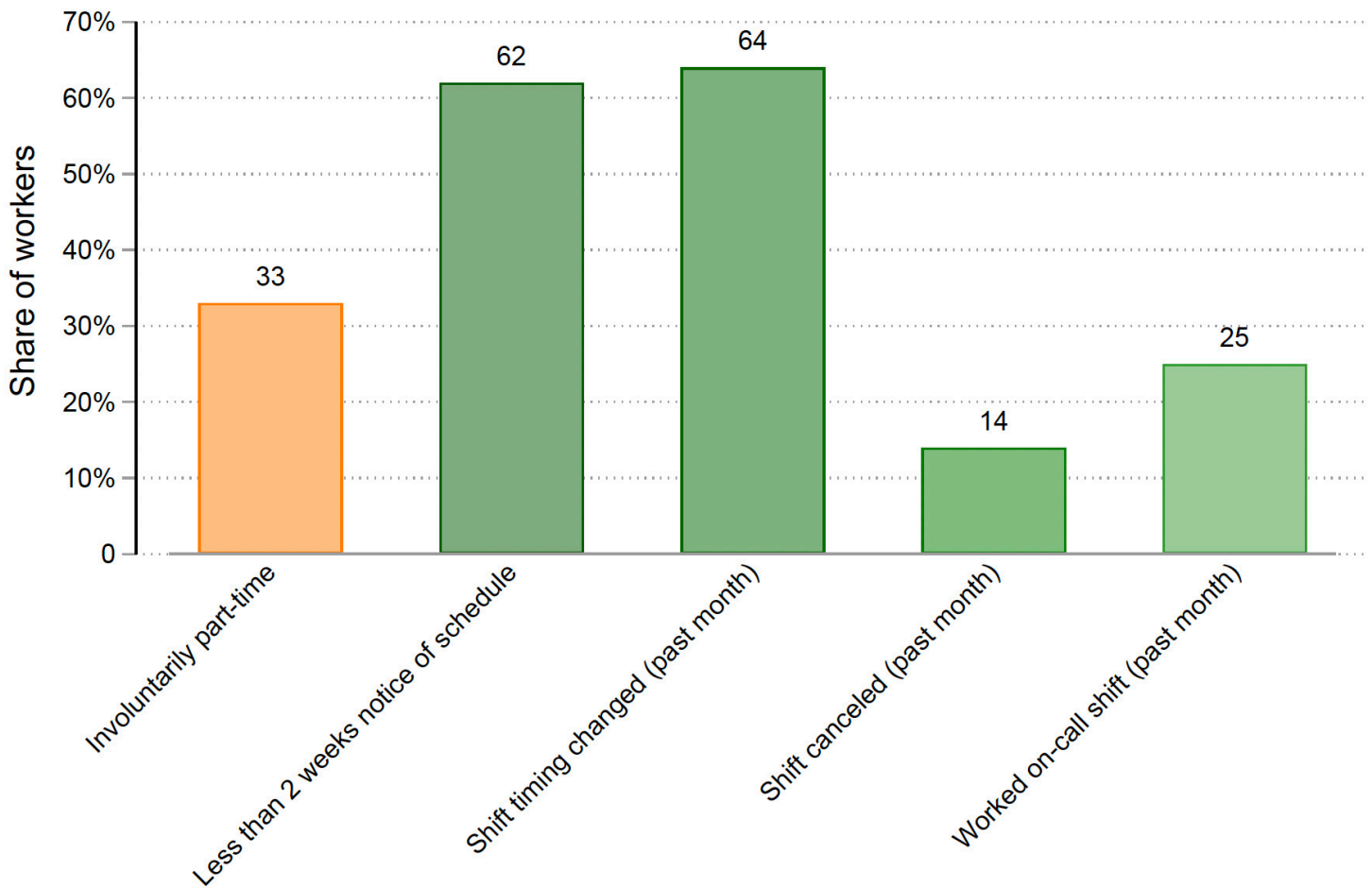
The \$20 per hour minimum wage has substantially raised wages for fast food workers in California, with no estimated negative effects on hours, staffing, work schedules, or benefits access. But, fast food workers in California continue to face challenging working conditions on multiple dimensions.

Figure 4 shows that fast food workers at large chains in California continue to cope with high rates of involuntary part-time work. A third of workers usually work less than 35 hours per week at their fast food employer and would like to work more hours. Even more commonly, fast food workers at large chains in California face unstable and unpredictable schedules.

While this kind of “just-in-time” scheduling was not exacerbated by the increase to \$20 per hour, the problem remains acute, with nearly two-thirds of workers receiving less than two weeks’ notice of their work schedules and a similar share reporting that their employer made last minute changes to their schedules, such as sending them home early or telling them to stay late. Shift cancellation and on-call shifts are also reported by significant shares of California fast food workers.

These issues of hours insufficiency and schedule instability are likely to hamper the ability of a higher minimum wage to transform the lives of fast food workers in terms of economic security and health and wellbeing. Insufficient hours and unstable schedules lead to economic hardships, work-life conflict, and diminished health and wellbeing. Action to improve these vital aspects of working conditions alongside improvements in wages is likely to yield dividends for workers and their families.

Figure 4. Scheduling Challenges Reported by California Fast Food Workers, Spring 2024



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Methodological Appendix

Data

The Shift Project has collected survey data from hourly service-sector workers employed at large retail and food establishments since the fall of 2016. In the spring and fall of each year 2017-2024, the Shift Project has recruited survey respondents using online Facebook and Instagram advertisements, targeted to workers employed at large retail and food service employers. Those who respond to the Shift survey invitation are automatically routed to a survey landing page where they are asked to consent to participate in the study, then begin the online self-administered survey using the Qualtrics platform. As an incentive, those who completed the survey and provided contact information are entered into a lottery for a \$500 gift card. For a detailed discussion of The Shift Project data collection, methodology, and data validation, see [Schneider and Harknett \(2022\)](#).

We utilize the 15 waves of survey data collected between the spring of 2017 and the spring of 2024. Our final analytic subsample is comprised of 9,614 respondents in California (3,420 in fast food and 6,194 in retail) and 14,416 respondents (5,188 in fast food and 9,228 in retail) in our six comparison states: Arizona, Colorado, Nevada, Oregon, Utah, and Washington. We identify respondents as being fast food workers if they are employed at any of 42 recognized fast food chains and identify respondents as retail workers if they are employed at any of 109 recognized retail chains (including building supplies stores, big-box stores, grocery stores, auto parts retailers, and other miscellaneous retail firms). See Appendix Tables 1 and 2 for a comprehensive list of included firms.

Appendix Table 1. Included Fast Food Firms

Fast food firms (<i>in order of frequency</i>)		
Starbucks	Panda Express	Popeye's
McDonald's	Red Robin	Jason's Deli
Subway	Dunkin Donuts	Potbelly
Chipotle	Dairy Queen	Round Table
In-N-Out Burgers	Carl's Jr.	Church's Chicken
Domino's	KFC	Qdoba
Taco Bell	Papa John's	Jersey Mike's Subs
Burger King	Arby's	Wingstop
Pizza Hut	Sonic	Rally's
Wendy's	Five Guys	Whataburger
Chick-Fil-A	Little Caesars	Checker's Drive-In
Panera	Culvers	Cold Stone Creamery
Jimmy John's	Jamba Juice	Hardee's
Jack in the Box	Papa Murphy's	Zaxby's
		Total: 42 firms

Appendix Table 2. Included Retail Firms

Retail firms (<i>in order of frequency</i>)			
Safeway	Marshalls	Big Lots	OfficeMax
Costco	Kroger/QFC	Babies 'R' Us	REI
Target	Michaels	Advance Auto Parts	Speedway
Home Depot	Barnes & Noble	Sprouts Farmers Market	Hyatt
Fred Meyer	Sams Club	Ralph's	Ritz Carlton
Whole Foods	Ace Hardware	Best Western	Publix
Walmart	Dollar General	Aldi	HEB
Trader Joe's	Hobby Lobby	Shell	Meijer
Lowe's	AutoZone	Hilton	QVC
Amazon	Bath & Body Works	Kmart	Wawa
UPS	Jiffy Lube	DHL	Days Inn
Albertsons	Ikea	HomeGoods	Sheraton
JCPenney	Family Dollar	Smith's Food and Drug	Westin
Dollar Tree	Staples	PCC Natural Markets	Kimpton Hotels
Macy's	Bed Bath & Beyond	Food Less	BJ's Restaurants
PetSmart	Sears	Tractor Supply Co.	Key Food
Petco	Office Depot	Jo-Ann Fabrics	Shaw's
Nordstrom	Burlington	Wyndham	Stop & Shop
Kohls	Dick's Sporting Goods	XPO Logistics	BJ's Wholesale
Fedex	Harbor Freight Tools	Vons	Hy-Vee
Ross	QuikTrip	Holiday Inn	Giant Eagle
T.J. Maxx	Toys 'R' Us	Sherwin Williams	Mobil
Disney	Marriott	La Quinta	
O'Reilly Auto Parts	7-Eleven	ShopRite	
			Total: 94 firms

Measures

We are able to construct a holistic array of measures reflecting workers' self-reported job quality from the wide breadth of topics covered in the Shift survey. Respondents are asked to report their hourly wage which we report as a continuous measure in addition to constructing binary indicators of earning less than \$20 per hour and earning less than \$19.75 per hour (following literature that allows for a \$0.25 margin in reporting, e.g., [Clemens & Strain 2022](#)). Respondents also report how many hours they normally work per week, which we similarly report as a continuous measure in addition to constructing a binary indicator of working fewer than 35 hours per week (i.e., part-time). With respect to schedule stability, we ask respondents if they have had a scheduled shift canceled in the past month and "how far in advance [they] usually know what days and hours [they] will need to work." For the latter, respondents choose among options of "less than one week," "at least one week but less than two weeks," etc., up to "4 weeks or more." We combine the first two options to report the share of respondents who usually have less than two weeks' notice of their schedule.

We also consider access to fringe employer-sponsored benefits. One question asks respondents to select which types of benefits they could receive as part of their job, including a “health plan or medical insurance”; “dental benefits”; “paid vacation days”; “paid maternity or paternity leave”; “unpaid maternity or paternity leave which would allow you to return to the same job, or one similar to it”; “paid sick days”; and “a retirement plan other than Social Security.” From this question we construct binary indicators of respondents’ access to each of these seven individual benefits.

Finally, we present additional measures of work-related difficulties. We define a worker as involuntarily part-time if they report working fewer than 35 hours per week but also agree or strongly agree with the statement “I would like to work more hours at [their current employer].” The Shift survey also includes numerous questions pertaining to experiencing labor violations, from which we constructed a binary indicator of suffering a “serious” FLSA violation. This indicator reflects if respondents reported having to perform tasks before clocking in or after clocking out; not being paid for all hours worked on the clock; having been automatically clocked out by a timekeeping system and not paid for work after that; having a manager change time records to reduce paid hours; not receiving full and correct tip money; not receiving commissions or bonuses that were owed; not receiving pay for paid time off; and/or not being paid accordingly for overtime hours. If respondents started working at their current firm more than one year ago, they are asked to report if they have experienced these violations in the past 12 months, whereas if they have been working at their current firm for less than one year, they are asked to report if they have experienced these violations since beginning work with that employer.

Models

Our primary difference-in-difference model compares fast food workers in California to workers at the same firms in other western states in the years prior to and then the months following the implementation of the \$20 per hour fast food minimum wage in California. We also present a difference-in-difference model that compares California fast food workers to California retail workers. Finally, we present a triple difference model that effectively combines the comparison groups of the aforementioned two models by identifying the interaction effect of being a fast food worker (rather than a retail worker) and working in California (rather than another western state) after the April 1st minimum wage increase.

In all models, we control for respondents’ key demographic characteristics: gender, race, age, educational attainment, living with a partner, and having children. We also control for certain individual work-related attributes: belonging to a labor union, being a manager, and the length of tenure with one’s current employer. At the area level, we control for a myriad of county-level economic and demographic variables, namely: unemployment rate, population, gender, race, and age. The primary difference-in-difference model—exploiting other western states as the comparison group—as well as the triple difference model both additionally control for state-level union coverage, the presence of state and county paid sick leave laws, and the presence of state and county paid family and medical leave laws. These controls are omitted from the difference-in-difference model exploiting California retail workers as the comparison group, as there is no variation on these measures between the treatment and control groups.

In supplementary models, we assess the robustness of the results to re-weighting the data to “right-size” the share of respondents in the survey data by firm in proportion to their firms’ number of workers in either California or the comparison states as a share of total employment at the firms represented in the data. Our results are robust to this correction.