FIX FOR $15

A Closer Look at New York's Minimum Wage
Increase for Fast Food Workers

Mike Cassidy | August 6, 2015

ISSUE BRIEF

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Overview:

New York's $15 Fast-Food Minimum Wage

On July 22, 2015, the Fast Food Wage Board empaneled by New York Governor Andrew Cuomo recommended a $15 minimum wage for the employees of the national chains who dominate the industry in the state. The move was the latest in a string of high-profile, big city victories for low-wage workers and their advocates—a winning streak that has included Seattle ($15), San Francisco ($15), Los Angeles ($15), Chicago ($13), and Washington, D.C. ($11.50). With the Wage Board's report having formally been filed on July 31, 2015, New York's Acting Labor Commissioner Mario J. Musolino now has until mid-September to accept, reject, or modify the Board's recommendations.

In this issue brief, The Century Foundation explains who earns the minimum wage in New York and assesses what proportion will benefit from Governor Cuomo's proposed increase for fast-food workers, to be phased

in between 2015 and 2021 (see Figure 1). We then make two key policy recommendations to improve the New York minimum wage plan.

Our findings:

1. Four times as many New Yorkers earn the minimum wage as reported by official government statistics—some 560,000 workers in all.

2. Fewer than one in five minimum wage earners in New York are employed by national fast-food chains.

3. New York's minimum wage workforce defies stereotypes, with many workers struggling both to support families and to overcome the longstanding labor market disadvantages their demographic groups have endured.

This brief with hyperlinks can be found online at: https://apps.tcf.org/fix-for-15

FIGURE 1

NEW YORK FAST FOOD WAGE BOARD PROPOSAL
$15 minimum wage phase-in schedule

DATE	CURRENT LAW	WAGE BOARD PROPOSAL	
		New York City	Rest of State
12/31/14	$8.75	$8.75	$8.75
12/31/15	$9.00	$10.50	$9.75
12/31/16	$9.00	$12.00	$10.75
12/31/17	$9.00	$13.50	$11.75
12/31/18	$9.00	$15.00	$12.75
12/31/19	$9.00	$15.00	$13.75
12/31/20	$9.00	$15.00	$14.50
7/1/21	$9.00	$15.00	$15.00

Source: New York State Department of Labor

4. Wide variation in prices—across place, but also over time—mean that minimum wages that do not respect cost-of-living differences put workers on uneven and unstable footing.

Our recommendations:

1. *New York should pursue an across-the-board minimum wage increase that applies to all workers, regardless of industry.* Confining the minimum wage raise to a narrow sector is neither economically justified nor is it required by law.

2. *New York's new minimum wage should be continuously adjusted for cost-of-living differences.* Prices and purchasing power vary predictably across place and over time. Prudent minimum wage policy anticipates and proactively accounts for this variation.

Finding 1:

Over Half a Million New Yorkers Earn the Minimum Wage, Far More Than the 137,000 Reported by Official Government Statistics

The simplest question we can ask about the minimum wage is: who earns it? Surprisingly, most discussions about this seemingly straightforward policy parameter are quite limited.

According to official data published by the Bureau of Labor Statistics (BLS), New York is home to 137,000 minimum wage workers. Yet this estimate is nowhere near the full story—for two reasons.

First, BLS includes only hourly workers in its minimum wage estimates. The justification is that the data source used to derive these estimates, the Current Population Survey (CPS), is based on self-reported earnings, and BLS worries that workers who do not report an hourly

FIGURE 2

HOW MANY NEW YORKERS MAKE THE MINIMUM?
In thousands, 2014
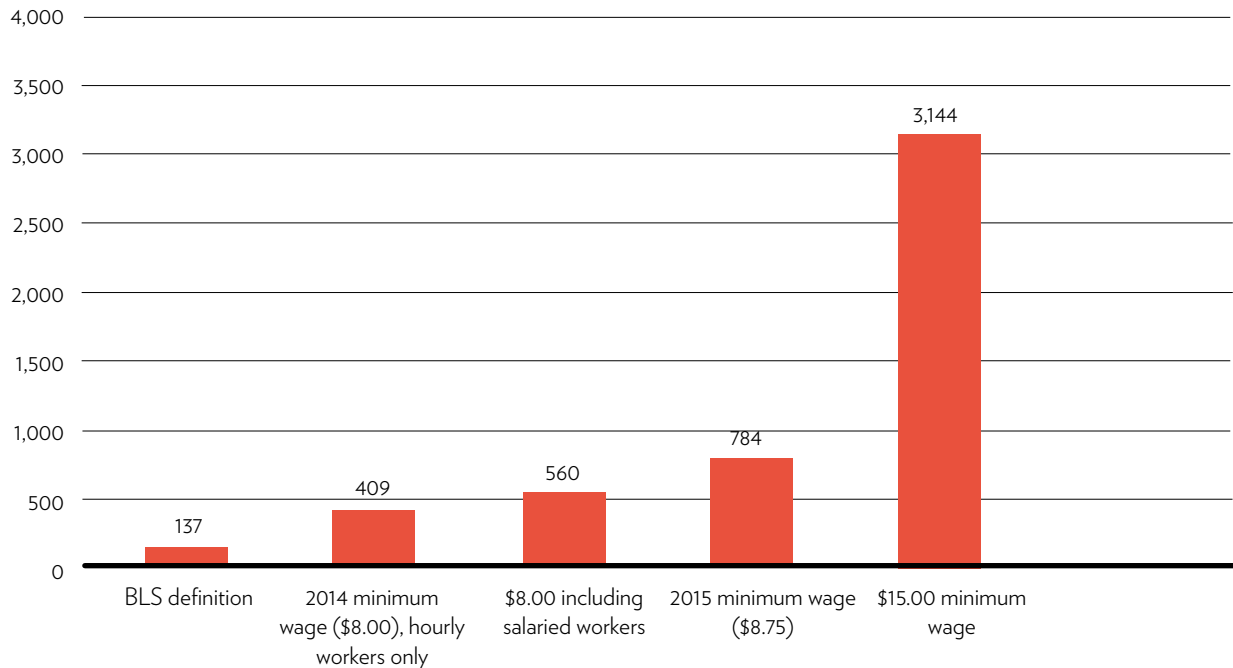
Notes: Author's calculations based on 2014 Current Population Survey Merged Outgoing Rotation Group data, as assembled by the National Bureau of Economic Research.

rate of pay may have difficulty accurately recalling earnings and hours worked.

Nevertheless, whatever this approach gains in accuracy, it loses in representativeness: more than two in five American workers are salaried or otherwise paid on a nonhourly basis. Omitting these workers is to ignore the full scope of minimum wage law: both federal and state minimum wage statutes apply to workers regardless of their frequency of pay (though there are some exemptions, including for executive, administrative, and professional employees making more than $455 a week). For workers paid other than hourly, determining the relevant wage standard requires just one extra step: dividing weekly earnings by weeks worked.

The second challenge with BLS data is that it is based on the federal minimum wage standard, which has been set at $7.25 since 2009. New York, like twenty-eight other states and D.C., has chosen to set its minimum above the federal standard, at $8.00 in 2014, $8.75 in 2015, and $9.00 in 2016. Applying a static federal benchmark in the face of evolving state policy generates misleading trends: states that proactively raise the minimum wage have their counts of minimum wage workers, as measured by the federal standard, artificially reduced—despite the fact that these workers are still earning the lowest possible legal rate of pay.

So how do the numbers change if we use a more comprehensive definition of minimum wage workers?

Fortunately, monthly data from the Current Population Survey's Outgoing Rotation Group (ORG) allow us to answer this question. The CPS, which is a joint effort of the Census Bureau and BLS, is the most important source of household-level information about the labor force in the United States. In this issue brief, we use a merged sample consisting of all twelve months of CPS ORG data for 2014, as compiled by the National Bureau of Economic Research (NBER). (Readers interested in learning more about the CPS or our methodology can consult the Appendix.)

By the standard of New York's 2014 minimum ($8.00/hour), an additional 274,000 workers are added to the ranks of minimum wage earners, bringing the total to 409,000. Including nonhourly workers boosts the minimum wage workforce further still, to 560,000, or 7 percent of New York's workforce. *It's a point that bears repeating: four times as many New Yorkers earn the minimum wage as official government statistics suggest.* (To be precise, this means that in an average month in 2014, 560,000 of New York's 8 million workers for whom earnings and hours data were available earned a rate of pay of $8.00 or less. Note that our analysis in this issue brief excludes self-employed workers, as well as those working in agriculture.)

We can also consider the range of workers likely to be impacted by increases in the minimum wage. In 2014, 784,000 New Yorkers earned $8.75 per hour or less, which is what New York's minimum wage rose to in 2015. While this is an imperfect measure—because changes in the minimum wage can have effects on who earns it—it nonetheless gives us a sense of the magnitude of workers subject to the minimum wage in 2015.

If we take it a step further, to the proposed $15 minimum wage, we see that 3.1 million New Yorkers earned at or below this level in 2014—fully 39.2 percent of the workforce. Again, this is a rough estimate given the

labor market dynamics associated with the minimum wage, as well as the fact that New York's workforce will change between 2014 and 2021, when the proposed wage is expected to be phased-in. (It's also worth noting that most estimates of the impact of minimum wage increases, including those by the Congressional Budget Office (CBO), assume that some portion of workers currently earning above a new minimum wage would also see their earnings rise, as firms seek to maintain well-established wage hierarchies. Thus, 3.1 million is a lower bound estimate of the number of impacted New Yorkers.)

Finding 2:
Fewer Than One in Five Minimum Wage Earners in New York Work for National Fast-Food Chains

By these more comprehensive measures of earning the minimum wage, it is clear that New York is home to a considerable number of minimum wage workers. Of course, the proposed increase applies only to workers in limited-service "fast-food establishments" with thirty or more locations nationally. So the next question to consider is: where do fast-food workers fit in?

The figure below shows the share of New York's minimum wage workforce—those earning $8.00 per hour or less in 2014—employed in each industry. Food services, the broad sector of which fast-food is a part, takes the top spot, accounting for 27 percent of minimum wage earners. It's not hard to see why much of the attention given to the minimum wage in recent years has focused on this industry.

However, it is also the case that roughly three-quarters of minimum wage workers work in a sector other than food services. These workers, who face the same challenges as food services workers, will miss the direct benefits of the Wage Board's proposal. Leading the way is retail trade, which employs a fifth of minimum wage workers. The other largest such uncovered

FIGURE 3
NEW YORK'S LARGEST MINIMUM WAGE INDUSTRIES
Percent of statewide minimum wage workforce by industry, 2014
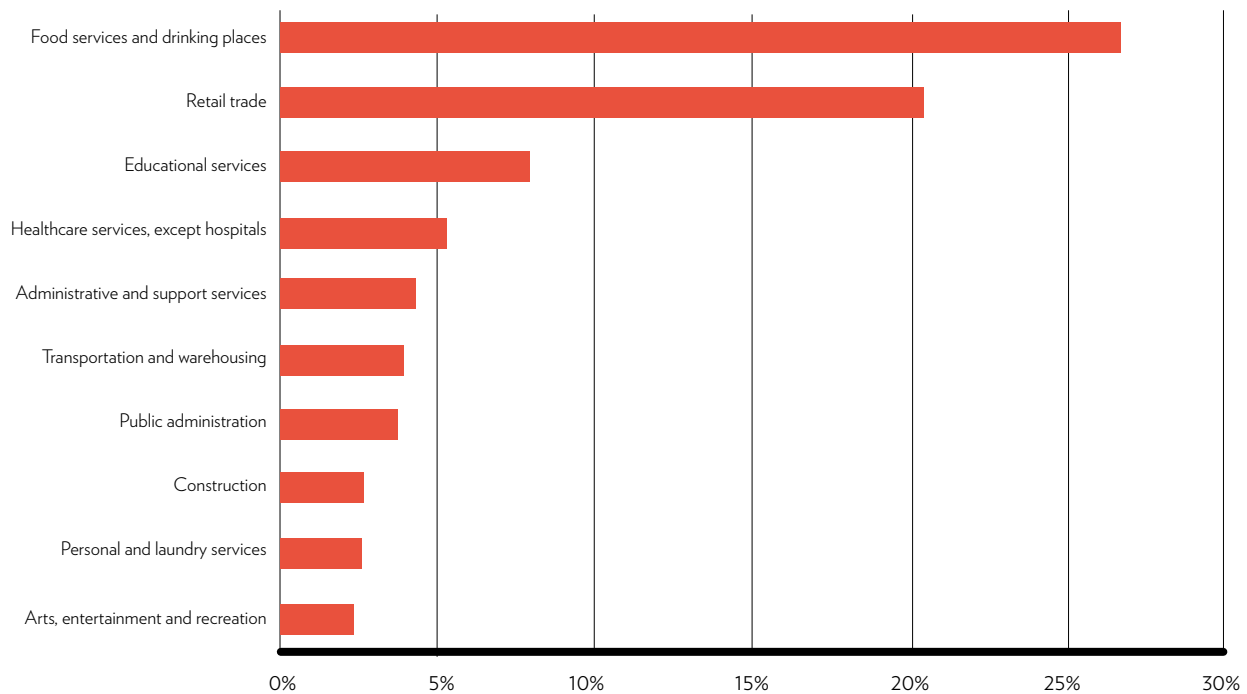
Notes: (1) Author's calculations based on 2014 Current Population Survey Merged Outgoing Rotation Group data, as assembled by the National Bureau of Economic Research.
(2) Minimum wage is NYS 2014 standard of $8.00hour, and includes nonhourly workers.

sectors include education (7.9 percent), health care (5.3 percent), and administrative support (4.3 percent). Notably, 3.8 percent of New York's minimum wage earners work in public administration—that is, government.

The upshot is that if you were forced to pick one industry upon which to focus minimum wage reform, food services is the way to go. Nevertheless, this choice leaves out the vast majority of minimum wage workers. Indeed, the Wage Board's proposal applies only to a more narrow niche still—workers employed by national fast-food chains.

Figure 4 below places the employees of national fast-food chains in the context of New York's overall labor market. Of the approximately 8 million workers in New York's active workforce, 471,000 work in food services. Based on additional data from BLS's Quarterly Census of Employment and Wages (QCEW), we estimate about 27 percent of these food services workers work in fast-food, and, further, that 75 percent of fast food workers—about 94,000—are employed by national chains. Given that, according to the QCEW, average wages in the fast-food industry are about equal to the minimum wage for full-time work, we assume all 94,000 would be subject to the Wage Board's $15 proposal. (For further details about this estimate, see the Appendix.)

Thus, while fast-food workers are the largest—and perhaps most visible—subset of minimum wage workers, they represent but a fraction of all workers who could be helped by sensible minimum wage reforms.

FIGURE 4

WHERE DO FAST FOOD WORKERS FIT IN?
In thousands, New York State, 2014
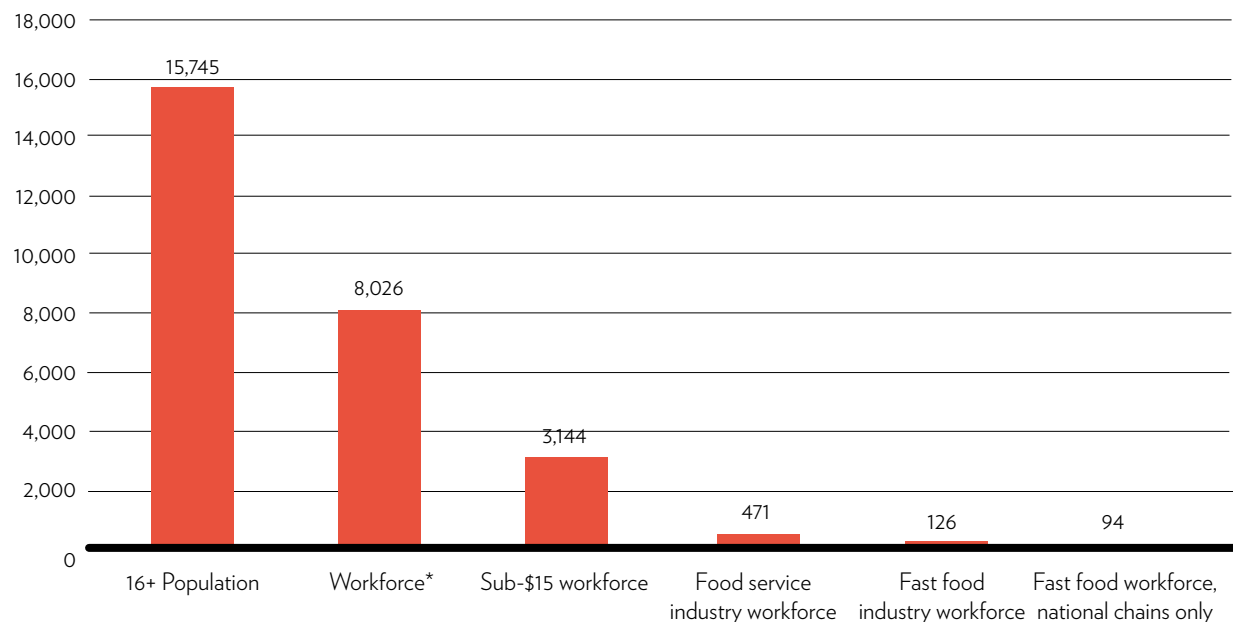
Notes: Author's calculations based primarily on 2014 Current Population Survey Merged Outgoing Rotation Group data, as assembled by the National Bureau of Economic Research. See text for details.
*Employed with reported earnings.

As it stands, the 94,000 fast-food workers employed by national chains in New York account for less than a fifth of the state's minimum wage workers, just 3 percent of its sub-$15 workforce, and a scant 1.2 percent of its overall workforce.

Finding 3:
New York's Minimum Wage Workforce Defies Stereotypes—But Is Disadvantaged
Beyond understanding the scope of minimum wage work in New York, it is also important to appreciate just who these workers are. In Figure 5, we summarize their key demographic traits, comparing New York's overall minimum wage workforce with those in the food services industry (which we take as a proxy for the fast-food workers targeted by the Wage Board's proposal).

To generalize, minimum wage workers in New York tend to be young, less-educated minorities. Sixty-two percent are thirty-four years old or younger. Half have a high school degree, or less, and more than four in five have not completed college. Twenty-three percent are Hispanic, and 16 percent are African American; both groups are overrepresented relative to their population shares. A third are immigrants. Women, at 54 percent of the minimum wage workforce, are also overrepresented.

Perhaps not surprisingly, these are exactly the groups that have traditionally faced labor market discrimination. Further underscoring the disadvantages these workers face, more than half work part-time—so that inadequate wages are often compounded by

FIGURE 6

DISTRIBUTION OF MINIMUM WAGE EARNERS

Percent of minimum wage workers with each characteristic, 2014

CHARACTERISTIC	NEW YORK OVERALL	NEW YORK FOOD SERVICE
SEX		
Male	46.3%	45.2%
Female	53.7%	54.8%
AGE		
16-24	38.9%	50.5%
25-34	23.0%	27.8%
35-44	16.3%	10.1%
45-54	10.7%	4.9%
55-64	8.1%	5.2%
65+	3.0%	1.5%
RACE		
White	49.1%	62.7%
Black	16.4%	7.1%
Asian	10.0%	8.5%
Hispanic	22.8%	20.0%
Other	1.7%	1.7%
EDUCATION		
Less than high school	24.7%	24.0%
High school	26.6%	30.8%
Some college	31.8%	32.6%
Bachelor's degree	14.0%	11.6%
Advanced degree	2.9%	0.9%
MARITAL STATUS		
Married	32.4%	20.2%
Widowed	1.1%	1.6%
Divorced	4.4%	5.8%
Separated	1.9%	0.0%
Never married	60.3%	72.3%

CHARACTERISTIC	NEW YORK OVERALL	NEW YORK FOOD SERVICE
CHILDREN		
No Children	73.6%	78.5%
Children	26.4%	21.5%
CITIZENSHIP		
Citizen	68.5%	74.0%
Naturalized	12.6%	6.5%
Noncitizen	18.9%	19.5%
HOUSEHOLD SIZE		
1	7.6%	5.6%
2	18.8%	20.7%
3	25.0%	25.7%
4	24.2%	30.7%
5+	24.5%	17.3%
WEEKLY WORK HOURS		
0		
1-19	18.6%	21.3%
20-34	38.4%	46.5%
35-40	36.5%	26.2%
41+	6.6%	6.1%
USUAL WORK SCHEDULE		
Part-time	55.1%	65.1%
Full-time	44.9%	34.9%
METRO AREA		
Non-metro	9.1%	12.0%
Metro area	90.9%	88.0%
UNION COVERAGE		
Nonunion	88.2%	97.6%
Union	11.8%	2.4%

Notes: (1) Source: Author's calculations based on pooled Current Population Survey Outgoing Rotation Group for 2014, as assembled by the National Bureau of Economic Research. (2) Minimum wage is NYS 2014 standard of $8.00/hour, and includes nonhourly workers.

insufficient hours—compared to just 14 percent who earn more than the minimum wage. Only 12 percent are covered by unions. And nine in ten minimum wage workers live in cities, where living costs are high and competition for jobs can be fierce.

As much as these statistics confirm well-established stereotypes about minimum wage workers—patterns, which, in and of themselves, can be indicative of profound unfairness—they also help highlight trends that may run contrary to conventional wisdom. Although minimum wage workers do tend to be young, for example, about half of minimum wage workers fall into the prime-age category of twenty-five to fifty-four years. Half have at least some college experience. A third are married and more than a quarter have children. And as we've noted, three-quarters work outside of food services.

Notably, demographic patterns among minimum wage workers in the food services industry differ from the overall minimum wage population in several important ways. Food services minimum wage earners are considerably younger—nearly 80 percent are under thirty-five years old, compared with 62 percent among minimum wage earners overall—and they are a lot whiter, 63 percent versus 49 percent among all minimum wage workers. Three-quarters are native citizens. Just a fifth are married. Fully two-thirds work part-time, and only 2.4 percent are unionized.

In other words, if the goal is to improve the welfare of families whose living standards are dependent on low-wage work, changes need to be applied beyond the food services industry. This is our first recommendation.

Finding 4:
Failure to Account for Cost-of-Living Is Unfair to Minimum Wage Workers

Under New York State Labor Law—specifically, Section 654—the standard a Wage Board must abide by in setting the minimum wage is that such a wage be "sufficient to provide adequate maintenance and to protect health," while also taking into consideration "the value of the work or classification of work performed, and the wages paid in the state for work of like or comparable character."

At the least, then, a reasonable threshold for the minimum wage in New York is one that allows a worker to provide for the health and basic needs of herself and her dependents. But calculating what constitutes such a living wage is by no means straightforward, implicating not only economics, but also value judgments and a nuanced appreciation of the idiosyncrasies of the market and policy environments in which it is to be implemented. Underscoring these complexities, the Wage Board considered "a range of measures and methodologies" from experts, including the Department of Labor's Division of Research and Statistics, in formulating its $15 recommendation.

Rather than debate the merits of $15 as a definition of a livable wage—an exercise that would veer into speculative territory beyond the scope of this issue brief—our intent is to emphasize a principle any such valid measure ought to abide by: cost-of-living.

As New Yorkers know, New York tends to be an expensive place to live. The data confirm this intuitive impression. According to "regional price parities," published by the Bureau of Economic Analysis (BEA), New York was the third most expensive place to live as of 2013, trailing only D.C. and Hawaii. On average, prices in New York are 15.3 percent higher than they are for the nation as a whole. This high cost-of-living is driven entirely by New York City, where prices are 22.3 percent higher than average (and second in the nation only to Honolulu). Ithaca and Kingston are also slightly more expensive than average, though the vast nonmetropolitan portion of New York is actually 5.5 percent cheaper than the United States norm.

A sensible self-sufficiency wage should respect these price differences. To their credit, the Wage Board incorporated cost-of-living differences in their $15 proposal—but they did so only partially. The new minimum phases in more rapidly in NYC. But after July 2021, all is again equalized, and fixed, at $15—which has little empirical justification. This leads to our second recommendation: New York's minimum wage should respect the cost-of-living.

There's also a second dimension to cost-of-living: time. Indeed, the temporal evolution of prices—more commonly known as inflation—is traditionally what gets most of the attention when it comes to purchasing power adjustments. As is the case with the federal minimum wage, neither New York's existing minimum wage nor the Wage Board's proposal is indexed for inflation. This is a mistake: the failure of the minimum wage to maintain consistent purchasing power over time is why legislative battles about raising it recur so regularly.

Recommendations for Strengthening Governor Cuomo's Minimum Wage Proposal

Recommendation 1: New York's Minimum Wage Increase Ought to Cover All Workers. In terms of coverage, the policy recommendation is clear: New York's proposed minimum wage needs more of it. Beyond symbolism, there is little rationale for confining a minimum wage increase to employees of national fast-food chains alone.

There is nothing in New York State law that precludes Governor Cuomo from appointing a Wage Board to set the minimum wage for *all workers* at once. As Section 653 of the State's Labor Law puts it, "The [Labor] commissioner shall have power *on his own motion* to cause an investigation to be made of the wages being paid to persons employed in any occupation *or*

occupations to ascertain whether the minimum wages established in accordance with the provisions of this article are sufficient" [emphasis added].

If $9.00 is too low for fast-food workers, it is also too little for everyone else. Further, overselling the importance of a $15 fast-food minimum wage may lull would-be reformers and concerned citizens into a false sense of security, allowing the benefits for a visible minority to substitute for the good of all low-wage workers.

Recommendation 2: New York's Minimum Wage Should Respect Cost-of-Living. Rather than simply take an extra year and a half to phase in the new minimum wage in upstate counties, the Wage Board ought to provide wage standards that permanently respect regional price differences—and which are able to adapt as place-based living costs vary in the future.

Section 655 of New York's Labor Law explicitly allows a Wage Board to recommend a minimum wage "varying with localities if, in the judgment of the board, conditions make such variation appropriate." That prices in New York City are about 29 percent higher than they are in the rest of the state is one clearly appropriate justification. If the minimum wage is defined as a liveable wage, as it is under New York law, then, then it should be able to purchase the same standard of living, regardless of where it is earned.

If $15.00 is the right wage for NYC, the rest of the state would be on equal footing with about $11.50. Nor need the distinction be confined to NYC versus the rest of the state (though this is the simplest division); the minimum wage could be set at the county level, or by another reasonable geographic standard.

Similarly, with inflation running at about 2 percent annually (at least, that is the Fed's goal), the minimum wage begins losing value the day it is enacted into law. By 2021, for example, when the Wage Board's proposal

is currently scheduled to be fully implemented, 2 percent annual inflation will have made $15.00 worth just $13.32—an 11 percent loss in purchasing power. This unfortunate situation could be easily avoided by setting the minimum wage to automatically adjust with changes in a relevant price index (the Consumer Price Index (CPI) and the Personal Consumption Expenditures (PCE) index are the two most common measures for inflation). A forward-thinking policy of this sort is exactly what the Wage Board ought to recommend.

Conclusion

In summary, New York's Fast Food Wage Board can significantly improve its proposal by taking two simple steps—both of which are explicitly authorized by New York State law.

> 1. Extend the minimum wage increase to all workers.

> 2. Provide for permanent purchasing power parity across regions and automatically index the minimum wage for inflation.

New York's 560,000 minimum wage workers cannot afford anything less.

Mike Cassidy is a policy associate at The Century Foundation. His research focuses on using economics to understand human behavior, especially as it relates to poverty, inequality, performance, and progress.

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The Current Population Survey & Its Outgoing Rotation Group

Our main data source is the Current Population Survey (CPS). Conducted monthly by the Census Bureau, in consultation with the Bureau of Labor Statistics (BLS), the CPS is the primary source of information about the labor market experiences of American households. Although it is perhaps best known for producing the much-tracked unemployment rate figures BLS publishes on the first Friday of every month, but the CPS is far more comprehensive than unemployment alone, providing a nearly real-time description of the demographics, social structure, and economic circumstances of America's labor force.

The CPS is a household survey, and the information it contains is obtained through interviews with some 60,000 households selected through a probability-based stratified random sampling scheme so as to be representative of the the civilian, noninstitutional population age sixteen years and older, at both the national and state levels. (Much more detail about the CPS methodology can be found here.)

Participating households are placed into one of eight "rotation groups," each of which is interviewed for four consecutive months, out of the sample for the next eight months, and then interviewed again for four straight months before leaving the sample. This rotating design is intended to ease the burden on respondents while adding continuity to the data for analytical purposes; 75 percent of the sample remains consistent from one month to the next, while half is repeated from the same month in the preceding (and succeeding) year.

Earnings data in the CPS comes from a subset of respondents known as the "Outgoing Rotation Group" (ORG), so named because they are in their fourth or eighth interview month and therefore do not participate in the survey during the following month. Once again, the rationale for the rotation is to ease respondent burden. In any given month, just a quarter

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of the survey sample is asked the additional questions about earnings; overall, each household is only asked twice about earnings during its CPS tenure.

ORG respondents are asked to report their usual earnings. "Earnings" is defined as salaries (a fixed payment covering a given period) and wages (a rate of pay), before taxes, other deductions, and government transfers (such as tax credits or Social Security), but including regular overtime, commissions, and tips. "Usual" is left up to the interpretation of the respondent (though, if queried, Census interviewers define the term as "more than half the weeks during the past four or five months"). It's important to emphasize that, as its definition makes clear, "earnings" are not the same as "income"; the latter concept is much broader, and encompasses the total flow of financial resources to an economic unit during a given time period.

Respondents may report their usual earnings over any time period they choose (for example, hourly, biweekly, annually), but responses are later standardized into weekly terms by Census staff. (All earnings variables are subject to various edits and imputations by Census researchers to control for data quality.) In addition, workers who do not report an hourly rate of pay are asked if they are paid hourly, and if so, how much; this hourly sample is what BLS uses to estimate the characteristics of the minimum wage workforce.

By allowing respondents to directly report earnings in hourly terms—or another recent, familiar timeframe—Outgoing Rotation Group earnings are thought to be more accurate than alternative surveys of household finances, which typically ask people about earnings in a previous year, a recollection subject to faulty memories. Thus, the timeliness of the CPS ORG earnings data, as well as its coverage, makes it the preferred data source among researchers studying the minimum wage.

ORG earnings data is available as part of the Basic CPS microdata the Census Bureau makes available monthly. However, because researchers are often interested in using an extract consisting solely of Outgoing Rotation Groups aggregated over a period of time, the National Bureau of Economic Research helpfully compiles and publishes, with documentation, merged annual rotation group extracts (which they refer to as the "CPS Annual Earnings File" or "Merged Outgoing Rotation Groups" (MORG)). In this issue brief, we use the NBER's Merged Outgoing Rotation Group file for 2014. The data covers the United States as a whole, though we focus only on New York in this issue brief.

Calculating Who Earns The Minimum Wage

So what do we do with the data? Since the minimum wage is a rate of pay per hour, we need to define an inclusive hourly earnings variable that covers as many workers as possible. Our method is as follows. For workers reporting an hourly wage, our hourly earnings variable is set equal to this self-reported hourly wage. For all other workers, hourly earnings is set equal to usual weekly earnings divided by usual weekly hours (in cases where usual weekly hours are missing, usual hours are set equal to hours worked last week).

While this process works well to determine the hourly pay of most workers, for a sizeable minority of workers, hourly earnings are implausibly low—less than even the $2.13 per hour federal minimum for tipped workers. In most cases, these very low wages are simply errors—respondents incorrectly, or inconsistently, report hours or earnings. For example, a respondent may report earning $10 per week when she really means $10 per hour, or she may report usual weekly earnings (say, $100) while simultaneously reporting hours, based on an unrepresentative reference week, that are five times higher than normal (say, fifty hours instead of

ten). Although the Census Bureau has many checks in place for data quality, these safeguards don't catch all mistakes and they don't always prevent recording or recoding mistakes by Census staff.

One way to deal with unrealistic earnings is to simply omit cases where errors are suspected. But our goal in this issue brief is to develop a broadly inclusive minimum wage measure, and omitting those at the lower end of the wage spectrum, where misreporting may be more likely—due, for example, to greater instability in employment situations, more irregular earnings, or a higher likelihood of misunderstanding interviewers—is an unsatisfying solution.

Instead, we attempt to correct for suspected mistakes by imputing wages for such respondents. To do so, we run a regression of log hourly earnings on key demographic and labor market variables—highest grade completed, a quartic in years of potential experience, log weekly hours, and indicators for sex, race (six categories), citizenship (three categories) marital status (five categories), having children, industry (50 categories), occupation (23 categories), union coverage, metropolitan residence, state (50 states plus D.C.), and month—to predict weekly earnings for everyone in our sample. (The regression is weighted by the ORG weight and standard errors are heteroskedasticity robust.) This model explains 43 percent of the overall variation in wages, a fairly good fit as far as wage regressions go.

Using the results of the regression, we then replace reported earnings with predicted earnings for those respondents meeting the following criteria: the respondent did not directly report hourly earnings; the respondent's (computed) hourly earnings are less than $2.13; and the respondent does not usually receive overtime, tips, or commissions. In effect, we are estimating that the true hourly earnings of respondents

with implausibly low earnings are well-represented by the average earnings of workers that share their demographic and labor market characteristics.

Respondents whose predicted hourly earnings remain less than $2.13 after this procedure are dropped from our sample. We also drop respondents whose hourly earnings are implausibly high, which we define as greater than ten times the median. Although the upper end of the earnings distribution is not our focus in this issue brief, doing so allows us to calculate statistics for the earnings distribution with greater fidelity. In sum, we believe our procedures strike an appropriate balance between inclusion and accuracy, so as to give us a representative portrait of minimum wage workers.

Key Terms

Beyond earnings, we there are several other technical terms whose definitions are important to clarify.

- *Industry*. Industry, or sector, refers to the type of work an individual's *employer* does. The CPS classifies industries according to the North American Industry Classification System (NAICS), which is periodically revised; since January 2014, the CPS has used the 2012 Census industry classification, based on the 2012 NAICS update. Industries are organized into 270 categories comprising twenty sectors. To simplify things and to provide consistent definitions over time, NBER summarizes this scheme by recoding industries into fifty moderately detailed NAICS-based categories. We use NBER's industry classification.

- *Occupation*. In contrast to industry, which pertains to employers, occupation describes the type of work *employees* perform. The CPS codes occupations based on the 2010 Census occupational classification, which is derived from the 2010 Standard Occupational Classification

(SOC). There are 509 occupations summarized by twenty-three major occupational groups. NBER recodes the detailed responses into twenty-three occupational categories based on the 2000 Census occupation codes. We use NBER's occupational classification.

• *Hourly Worker*. Respondents who report being paid on an hourly basis. Nonhourly workers are those who receive pre-defined pay (e.g., salary) that is not incremental to hours worked.

• *Hours*. We define work hours to be self-reported usual hours, or, if the response to that question is missing, hours worked last week.

• *Employment Status*. We define three categories: (1) employed (those who are currently: working at least one hour per week for pay; or working fifteen or more unpaid hours in a family enterprise; or on temporary leave), (2) unemployed (those who are currently: (a) without a job, but have actively searched for one during the prior four weeks (job seekers), or (b) those who are awaiting recall from layoff (people on layoff)), and (3) not in the labor force (those who are currently unemployed and not actively looking for work, including discouraged workers who would like to work but have given up looking for a job).

• *Labor Force*. The labor force is the sum of people who are employed or unemployed. The labor force plus those not in the labor force equals the total population. As is standard practice in analysis of minimum wage workers, we exclude self-employed workers and those in agriculture in this issue brief. To distinguish between the quite formal concept of "labor force" and more colloquial references to our

sample, which is the 2014 monthly average population of Americans who worked (in the private or public sectors) and whose hourly earnings could be determined, we use the terms *"workforce"* or *"earners"* (as well as "minimum wage workforce/earners" to specifically refer to minimum wage earners in our sample).

• *Work Schedule*. We define full-time as those respondents who report usually working full-time (regardless of if they were in the reference week), and part-time as those who usually work part-time. The CPS defines full-time as thirty-five hours of work per seven-day period. They hours can be accumulated over multiple jobs.

• *Union Status*. We define a worker as "unionized" if they report either being a union member or being covered by one.

• *Race*. We use a two-step procedure to define race, based on the two race-relevant questions the CPS poses. First, respondents that identify as Hispanic/Latino are classified as such. (Note that this is distinct from federal standards, which consider Hispanic/Latino to be an ethnicity rather than a race.) We then group non-Hispanic respondents by self-identified race into the following categories: white, black, Asian, and other (which included mixed race). Thus, we have five race categories in total, of which Hispanic is one.

• *Citizenship*. We define three citizenship categories: (native) citizen, naturalized citizen, and noncitizen (foreign).

• *Education*. We create five educational categories, based on respondents' answers to the question of highest grade completed: less

than high school (12th grade or less, without degree), high school graduate (includes GED), some college (includes associate degree), bachelor's degree (college graduate), and advanced degree (master's, professional, or doctorate).

The Fast Food Industry

In our discussion of the fast food industry, we supplement our CPS analysis with data from a second source, the Quarterly Census of Employment and Wages (QCEW). Published by BLS, the QCEW is a (near) census, not a sample, of virtually all workers covered by Unemployment Insurance laws and entails quarterly reports from some 9.2 million business establishments. Data on monthly employment and quarterly wages is available, by industry, at the national, state, and county levels. The industry-level data is what makes the QCEW valuable for our purposes: unlike our CPS ORG sample from NBER, which doesn't provide detail beyond the food services industry as a whole, the QCEW gives us employment and earnings specific to the fast food sector.

According to the QCEW, New York's food services industry had average annual employment of 616,000 in 2014. Of these, about 27 percent, or 165,000 workers, are employed in limited-service restaurants, as fast food establishments are officially designated. Applying this ratio to our CPS-based estimate of food services workers gives us 126,000 fast food employees.

Several important differences between the CPS and the QCEW are worth noting, and explain the gap between our CPS-based 471,000-person food services industry estimate and the QCEW's 616,000 employment count: (1) The QCEW counts jobs, not workers, so a worker holding multiple jobs will be counted more than once. By contrast, the CPS includes each worker once, according to their primary job. (2) The CPS classifies

people based on place of residence, while the QCEW does so based on place of work (and more people work in New York than live there). (3) The CPS is limited to people 16 years and older, while the QCEW includes all covered workers. (4) Our 471,000 estimate refers to food services workers who are employed and for whom earnings data is available; as a census of administrative records, the QCEW is less likely to have missing or erroneous data. Nevertheless, we prefer using the CPS in our analysis because its coverage gaps are fairly minor and it provides worker-level data in much greater detail.)

The last step of our fast food analysis is to estimate national chains' employment share within the fast food industry. Although detailed data on employment by company within the fast food industry is generally not available, industry data on sales volume and number of establishments published by Nation's Restaurant News and IBISWorld, as well as the Census Bureau's Economic Census, suggest that large national chains with thirty or more establishments dominate the industry. Based on this data, we estimate 75 percent of New York's fast food workforce—about 94,000 workers—is employed by national chains subject to the Wage Board's proposal. Given that, according to the QCEW, average wages in the fast food industry are about equal to the minimum wage for full-time work, we assume all 94,000 earn less than the $15 per hour proposed minimum wage. (By comparison, the Wage Board's report estimates 62 percent of fast food workers are employed by national chains. Though the Board doesn't cite the source of this figure, it suggests our estimate is conservative, in the sense of assuming wider coverage for the minimum wage increase.)

Cost-of-Living

Finally, to account for how living costs vary within New York state, as well as to compare New York's wages and prices with those in the United States as a whole, we

use [Regional Price Parity](#) (RPP) data from the Bureau of Economic Analysis (BEA).

RPPs are spatial price indices that allow us to express earnings (or other economically significant variables) in purchasing power parity (PPP) terms: a PPP-adjusted dollar buys the same value of goods and services everywhere, no matter where it was earned. Such cost-of-living adjustments are essential to making fair comparisons of the economic well-being of workers across diverse places of residence, whose prices vary widely.

Although analogous purchasing power indices that account for how prices vary over time—i.e., inflation—have long been in use; it was only in April 2014 that the BEA officially published RPPs for the United States, for each of the years 2008 to 2012. [BEA calculates RPPs](#) by combining data on prices and expenditure shares from the Consumer Price Index (CPI), Consumer Expenditure Survey (CE), and American Community Survey (ACS). The most recent estimates, for 2013, were released July 1, 2015, as part of BEA's now-annual "Real Personal Income for States and Metropolitan Areas" release.

RPPs work as follows. The average price level in the United States is indexed at 100 percent, and state (or local) price levels are expressed as a percentage of this national price level. States where prices are higher than the United States average have RPPs over 100, while those where the cost of living is cheaper have RPPs under 100. A particular state's RPP gives the percent above or below the U.S. average is its price level. For example, New York has an RPP of 115.4 percent, which means its prices are 15.4 percent higher than the American average, while Arkansas has an RPP of 0.876, which means its prices are 12.4 percent lower than average.

To express a state's prices or wages in purchasing power parity terms, all that is necessary is to divide a price or a wage by that state's RPP. For example, earning $1,000 per week in New York is equivalent to earning $867 weekly in the average state, while earning $1,000 in Arkansas is the same as earning $1,142 in the average state. To convert directly from one state to another, say from New York to Arkansas, multiply the earnings in New York—say, $1,000—by the ratio of Arkansas' RPP to New York's (87.5 / 115.3 = 0.759), to get $759. To go from Arkansas to New York, simply flip the RPP ratio ($1,000 x (115.3 / 87.5) = $1,318).

Mike Cassidy is a policy associate at The Century Foundation. His research focuses on using economics to understand human behavior, especially as it relates to poverty, inequality, performance, and progress.