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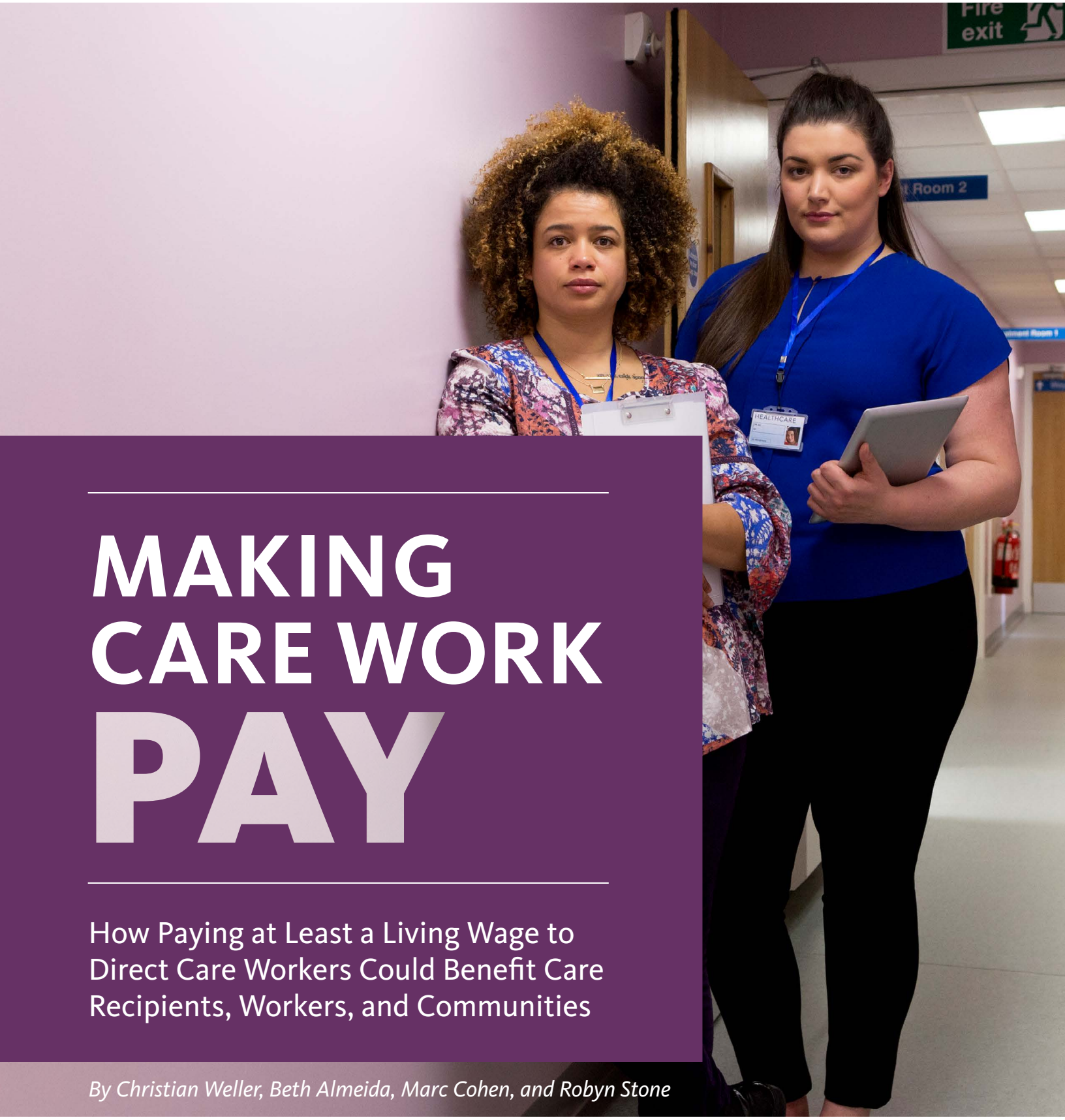

MAKING CARE WORK PAY

How Paying at Least a Living Wage to Direct Care Workers Could Benefit Care Recipients, Workers, and Communities

By Christian Weller, Beth Almeida, Marc Cohen, and Robyn Stone

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EXECUTIVE SUMMARY

Direct care workers are a critical foundation of the U.S. health care system and represent a substantial share of total employees in the nation's economy. Every day, some 3.5 million direct care workers go to work in residential care settings and homes to provide care for some of society's most vulnerable members—people who are older, live with disabilities, or have complex medical needs.

Despite the importance of direct care workers to our nation's health and economy, however, direct care work remains undervalued and poorly compensated.

Low pay, combined with difficult working conditions, leads to chronic staffing shortages in the direct care field. As a result, productivity and quality of care are lower than they could or should be. Low pay also contributes to financial instability for direct care workers, their families, and the communities in which they live.

Using publicly available data and standard economic simulation techniques, this report offers a glimpse into a different world—one in which direct care workers are paid at least a living wage. A living wage is one that would enable a full-time worker to pay for their family's basic housing, food, transportation, and health care needs out of their own earnings, without the need to rely on public assistance.

Our analysis found that raising the pay of direct care workers to the living wage in their respective states of residence would translate into meaningful wage gains for the lowest-paid aides, improve productivity, and have a significant effect on the overall economy. Specifically, raising pay so all direct care workers earn a living wage would result in:

- **Higher wages:** Raising pay to a living wage in 2022 will give 75.3% of direct care workers a higher wage than they would otherwise receive.
- **A modest overall price tag:** In 2022, the average wage gain for workers receiving a pay increase would be 15.5%. However, the overall price tag for these meaningful wage increases—estimated to be $9.4 billion—is relatively modest considering that total spending in the direct care field was already $366 billion in 2016 (Congressional Research Service, 2018) and will likely exceed $400 billion in 2022.
- **Fewer staffing shortages:** A living wage would help to relieve staffing shortages, both by encouraging those in the direct care field to work longer hours and by attracting new entrants to the direct care field. The combined effect would be equivalent to adding 330,000 direct care workers to the ranks of those already employed, or a roughly 9.1% boost to employment in 2022.
- **Lower turnover and higher productivity:** Paying direct care workers a living wage would reduce turnover and boost productivity. Higher pay would result in a modest reduction in turnover of between 0.7 and 1.7 percentage points. Even these modest effects could lead to substantial savings, possibly covering more than 10% of the total wage increase. More importantly, total productivity would increase by at least $5.5 billion. Lower turnover and higher productivity would offset most, if not all, of the costs of higher pay.

- **Robust economic growth:** Higher pay for direct care workers would add billions of dollars to local economies. By 2030, the economic "footprint" of additional spending by workers would be between $17 and $22 billion greater than it would have been in the absence of higher pay. This spending would add 65,516 to 85,990 jobs in sectors other than direct care in 2030. Communities where direct care workers live and spend their money would benefit the most from these additional jobs.
- **Financial well-being for workers:** A living wage would enhance financial well-being for direct care workers, doubling the share of direct care workers who have retirement savings, and substantially increasing the share of those who own their own homes. Higher pay also would reduce direct care workers' use of public assistance programs to the tune of $912 million to $1.6 billion per year. These savings would offset some of the additional costs of higher pay for direct care workers.

Valuing direct care work through a variety of interventions, including paying these workers a living wage, would result in a stronger foundation for the U.S. health care system, better care, and greater economic security for those who carry out this important work.

INTRODUCTION & OVERVIEW

Quality of care for frail older people and people with disabilities depends on the pay direct care workers receive, whether those workers provide care in skilled nursing and assisted living settings or in homes in the community. Undervaluing care by, for instance, paying low wages to direct care workers, contributes to staff turnover and shortages (PHI, 2020). Turnover and shortages, in turn, have a direct impact on care recipients, who suffer because they cannot get the quality care that they need (Ruffini, 2020).

This report offers a glimpse into a different world—one in which direct care workers become more valued for their work. Using standard economic simulation techniques, our analysis traces how raising wages for direct care workers in residential care and home care settings reduces turnover and staffing shortages, which boosts productivity and quality of care. Overall economic growth would also increase, alongside better pay, in communities where direct care workers live. Direct care workers would be the immediate beneficiaries of higher wages. But their care recipients and the communities where workers live would also benefit. This analysis quantifies those impacts.

THE CRITICAL ROLE OF DIRECT CARE WORKERS

Direct care workers play a critical role in the functioning of the health care system. They work as certified nursing assistants and personal care aides (PCA) in nursing homes and residential care settings, where they help residents with medications, eating, bathing, cleaning, and other activities. Their work allows older people and people with disabilities to live more safely in these care settings than would otherwise be the case. These workers are referred to in this report as "care facility aides" or CFAs.

Many direct care workers also work in people's homes as home health aides and PCAs. These workers help care recipients carry out a wide range of activities, ensuring care recipients get and take their medications, receive proper nutrition, and live in a clean environment. These workers are referred to in this report as "home care aides" or HCAs. Without the work of HCAs, more people would need to live in residential care settings, often at a greater cost and frequently with a greater risk of social isolation. HCAs also provide valuable care after a care recipient returns from a hospital stay, for example, and help reduce that person's chance of returning to the hospital (Carnahan et al., 2017; Feltner et al., 2014; Murtaugh et al., 2017).

Clearly, direct care workers contribute substantially to the health and well-being of their care recipients and the overall functioning of our health care system. Yet, the same health care system that relies heavily on direct care workers to ensure the health and safety of patients, also undervalues those workers by paying them so little that many cannot live on their wages, even when working full time. This failure to value direct care workers puts the health of care recipients at risk.

Low pay for what is widely acknowledged as physically and emotionally difficult work contributes to turnover and chronically high staffing shortages in the direct care field (Institute of Medicine, 2008). Turnover reduces the opportunity for aides to gain experience in their occupation and with particular care recipients. This

inexperience undermines care quality (Ruffini, 2020), as measured by such indicators as incidence of pressure ulcers, urinary tract infections, and/or the use of physical restraints.

Low pay also leads to staffing shortages, requiring those who work as direct care workers to fill in the gaps as best as they can, and sometimes requiring those who need care to go without it.

The coronavirus pandemic of 2020 brings into sharp focus the risks to people's health that follow from low pay for direct care professionals (Kirschner, Iezzoni, and Shah, 2020). The pandemic laid bare how staffing shortages can become deadly when a contagious disease quickly spreads among care recipients in residential care settings (Barnett and Grabowski, 2020). At the same time, underpaid, financially strapped direct care workers had few other options than to keep working during the coronavirus pandemic, even if it put at risk their own health and the health of their families and care recipients.

The pandemic highlighted an often deadly contradiction: We rely on dedicated direct care workers to provide critical services to vulnerable populations, but we do not value their work.[1] In the extreme, undervaluing the direct care workforce—the cornerstone of our health care system—may have led to many unnecessary deaths during the pandemic.

HIGHER PAY: A CRITICAL FIRST STEP

Higher pay for direct care workers is a critical first step, though not the only one, needed to improve the lives and livelihoods of these workers (PHI, 2020). This report uses standard economic simulation techniques to describe the likely effects of higher pay for direct care workers, mainly for HCAs. The analysis indicates that higher pay would reduce turnover somewhat and, more importantly, reduce labor shortages in the direct care field.

Less turnover would foster a more experienced, better qualified workforce. Higher pay would make it less likely that currently underpaid staff would leave their occupation in an effort to pay their bills. Specifically:

- Direct care workers would work more hours in their existing jobs, because they can earn more.
- People from other fields would be attracted to direct care work, easing existing labor shortages.
- Older care recipients and people with disabilities would receive more consistent and reliable care, making it easier for them to live independently.

In the end, health outcomes among vulnerable populations would improve. Care recipients would experience fewer adverse health outcomes, such as pressure ulcers, urinary tract infections, or the use of physical restraints. These care recipients would also receive more supportive care, such as physical and occupational therapy, as direct care professionals become more familiar with care recipients' needs and work with other providers to weave those therapies into daily routines.

OTHER ECONOMIC BENEFITS OF HIGHER PAY

Increasing pay for millions of direct care workers to at least a living wage would also have other economic benefits. A meaningful increase in pay would reduce financial hardships and increase financial security for many direct care workers. These workers would be able to pay their bills more regularly; avoid material hardships, such as forgoing necessary medical care; save for emergencies and retirement; and plan for buying a home. Becoming financially more secure would allow direct care workers to breathe more easily, worry less about their own finances, and focus more on their jobs.

1 Compensation is one measure of how work is valued, but there are others. For example, many observers have noted that as an overlooked segment of the health care system, direct care workers often did not have adequate access to proper personal protective equipment (PPE) during the coronavirus pandemic, even though the importance of PPE in controlling spread of the virus was widely acknowledged for hospitals and critical care providers. (Kirschner et al 2020; Pearlstein, 2020; Rau, 2020.)

Higher pay for direct care workers would provide a range of positive spillover effects, enhancing the well-being of workers and the overall economy. It would boost local economies by billions of dollars as workers quickly spend their additional pay. Many aides would rely less on public assistance, such as food stamps and Medicaid, reducing costs to governments.

THE COSTS OF INCREASING PAY

The analysis in this report shows the benefits of higher pay for direct care workers. However, the report does not detail who would bear the costs of pay increases. The emerging literature suggests that cost savings flowing from improvements in care quality may, alone, be enough to pay for wage increases (Ruffini, 2020). Additional research is needed to confirm these results, and to analyze who would bear any net costs resulting from higher pay.

In all likelihood, the net costs of higher pay would be split between private and public insurers, and families and care recipients. In comparison, the indirect benefits from higher pay would primarily accrue to care recipients because of fewer labor shortages and higher quality care. Care recipients would undoubtedly come out ahead.

ORGANIZATION OF THIS REPORT

This report is organized as follows:

Section 1 provides background information on direct care workers, showing that these workers constitute a crucial, yet also undervalued, workforce whose efforts ensure quality care for older adults and people with disabilities.

Section 2 provides additional details on the economics and demographics of the direct care workforce, showing that direct care workers are highly qualified, but vastly underpaid, as they carry out critical jobs.

Sections 3–8 present the results of simulations exploring the likely effects of raising hourly wages to at least the living wage in each state. The discussion focuses on:

- The effects of higher wages on staff turnover, hours worked, and total staffing levels.
- The benefits that higher wages bring to individual direct care professionals, particularly the role that higher wages play in increasing the financial security of this workforce.
- The benefits to the overall economy associated with increased spending by low-wage workers and cost savings to governments as improved pay reduces reliance on public assistance programs.

In sum, our analysis comprehensively investigates the economic ramifications of one crucial factor—albeit not the only factor—on efforts to create an alternative world where direct care workers are no longer undervalued for the crucial work they do.

SECTION 1

DIRECT CARE WORKERS: A CRUCIAL, YET UNDERVALUED, PART OF THE U.S. HEALTH CARE SYSTEM

Roughly 3.5 million direct care workers are employed in the U.S. as nursing assistants and other types of aides in a variety of settings.

Many work in skilled nursing and other residential care settings. Others work in hospitals, providing support and rehabilitation services. We group these workers together under the umbrella term of "care facility aides" or CFAs.

Many other direct care workers provide care in the homes of care recipients and in other community settings, such as day health programs serving older adults and people with disabilities. We refer to this group as "home care aides" or HCAs.

The variety of workplaces mentioned above reflects, in part, the varying needs of care recipients. Some care recipients need extra help for a short time before they can return to independent living—following a hospital stay, for instance. Care recipients with complex medical needs are no longer able to live independently at home and need to rely on the comprehensive care that a residential care setting can offer. Still other care recipients can live more or less independently on an ongoing basis in their own homes with the help of direct care workers.

Older people and people with disabilities in all of these circumstances rely on direct care workers to keep them healthy and safe.

The services that direct care workers provide reflect the distinct needs individuals have and highlight the skills necessary to do the job right. Those activities include:

- Helping with medications.
- Bringing care recipients to and from medical appointments.
- Providing help with hygiene, including bathing, toileting, and eating.
- Encouraging physical activities, including walking, to boost a care recipient's health and general well-being.
- Assisting with shopping and social outings to allow care recipients to maximize their independence and to increase social interactions, both of which translate into better health outcomes (National Academies of Sciences, Engineering, and Medicine, 2020).

Without the critical work that direct care workers provide, the health care system could not continue providing frail older people and people with disabilities the opportunities to live independent, healthy lives.

FACTORS LIMITING WORKERS' POSITIVE IMPACT

There are numerous factors limiting the positive impact that direct care workers have on the lives of care recipients.

TURNOVER

Turnover among direct care workers undermines the accumulation of firm-specific human capital and negatively impacts productivity and care quality (Ruffini, 2020). Workers often move between care settings (Osterman, 2017), possibly to access more suitable schedules, higher pay, better relationships with managers, or other benefits. Many workers also leave direct care work to acquire greater financial security elsewhere (Holly, 2019).

JOB VACANCIES

The field of direct care work is understaffed (Osterman, 2017). Although national data on job vacancies in direct care do not yet exist, pre-COVID-19 estimates of job vacancy rates for direct care workers range from 4% to 20%, depending on the state and job classification. Consider these examples from 3 states:

- **Minnesota:** Job vacancy data in 2017 revealed a 4% vacancy rate for home health aides and a vacancy rate of 8% for personal care aides (PHI, 2020).
- **Iowa:** A 2016 study identified a 15% vacancy rate for personal care aides and home health aides (PHI, 2020).
- **Maine:** One in 5 personal care aide positions was vacant in 2016 (PHI, 2020).
- **Massachusetts:** The vacancy rate for home health aides was 8.1% in 2013 (Gleason et al., 2018).

FILLING THE GAPS

Shortages of dedicated, well-trained CFAs and HCAs often leave care settings, care recipients, and families scrambling to fill the gaps. As a result, many care recipients may find themselves unable to live as independently as they had hoped, moving to residential care settings sooner than they had planned, and facing worsening health outcomes because shortages of direct care workers leave health needs unmet.

Many of these shortages stem from an undervaluation of direct care workers, reflected in low pay and few benefits, and the associated financial insecurity workers experience (Institute for the Future of Aging Services, 2007).

Raising pay for many direct care workers, on the other hand, would result in substantial benefits to the health and well-being of vulnerable populations, in addition to enhancing the economic security of direct care workers.

After studying the effects of minimum wage increases on resident outcomes in nursing homes, Ruffini (2020) estimated that a 10% increase in the minimum wage not only boosts pay for direct care workers, but also reduces employee separations and increases stable hires. These reductions in turnover translate into marked improvements in resident health and safety, illustrated by:

- Prevention of at least 15,000 deaths.
- Reductions of 1% to 2% in inspection violations.
- Decreases in the cost of preventable care.

Notably, Ruffini finds that higher wages in the direct care sector are fully offset by improvements in care.

SECTION 2

DIRECT CARE WORKERS: A SUBSTANTIAL SHARE OF THE U.S. LABOR FORCE

Staffing shortages notwithstanding, direct care workers account for a substantial share of the U.S. labor force in general and the health care workforce in particular. Table 1 shows that there were 3.5 million direct care workers in 2019.[2] About 1.5 million worked as CFAs in skilled nursing settings, assisted living communities, and other residential care settings. Another 1.9 million worked as HCAs.[3] These workers equaled 2.2% of all workers in the U.S. economy and 15.6% of all health care employees that year.[4]

FINANCIAL INSECURITY

Table 1 shows that, across the 50 states and the District of Columbia, the respective employment shares for direct care workers ranged from a low of 0.9% in Nevada to a high of 4% of total employment in New York. Because aides comprise such a robust share of the labor market, their aggregate pay also amounted to a substantial sum, estimated at $65 billion in 2019, as shown in Table 4.

These aggregate numbers mask the financial struggles of many direct care workers, however. These workers are paid little, even though they are often highly qualified for the wide range of tasks required of them on a daily basis. This is especially true for aides working in home care, but also holds true for many aides working in residential care settings.

Table 2, which summarizes some of the key economic characteristics of direct care workers, illustrates the financial insecurity that many direct care workers face. The table shows data for earnings, hours, and income to highlight the fairly low pay many workers receive, despite the fact that, on average, they work close to full time.

Average hourly earnings for direct care workers totaled $13.36 in 2019 and their weekly pay averaged $474.79 that year. Yet, almost half (48.2%) of all direct care workers earned less than a living wage. Based on their earnings, many aides could not afford basic living expenses like housing and health care for themselves and their families, based on their earnings.

Importantly, direct care workers also had relatively low total wage and family incomes, even though they worked an average of 36 hours per week for an average of 46.4 weeks in 2018. Direct care workers had an average wage income of $23,263. Half of them lived in families with incomes of less than $44,290 in 2018.

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2 Table 1 only counts direct care workers who said they worked, or had a job but didn't work, during the reference period. It does not include workers who were unemployed, retired, or otherwise out of the labor force. Importantly, these data likely undercount aides due to underreporting. There are 2 sources of underreporting. First, the data only count the primary occupation; some direct care workers may work in other occupations as their main job and provide care services on evenings and weekends. Second, some aides may not disclose their occupation because they are paid "under the table."

3 The numbers do not add to the total because of rounding and because a small number of direct care workers cannot be characterized as working either in residential care settings or in homes.

4 Authors' calculations based on data from the Bureau of Labor Statistics (2020).

TABLE 1: EMPLOYMENT SHARE OF DIRECT CARE WORKERS BY STATE IN 2019

State	Share of All Employees	Number of Direct Care Workers
United States	**2.2%**	**3,539,989**
Alabama	1.7%	37,876
Alaska	3.2%	10,293
Arizona	1.9%	63,589
Arkansas	2.5%	33,479
California	2.5%	474,449
Colorado	1.6%	47,634
Connecticut	2.4%	43,635
Delaware	2.2%	10,166
District of Columbia	1.0%	3,959
Florida	2.1%	208,675
Georgia	1.4%	70,242
Hawaii	1.3%	8,277
Idaho	2.1%	17,885
Illinois	1.9%	119,023
Indiana	1.7%	55,381
Iowa	1.9%	33,259
Kansas	1.9%	26,910
Kentucky	2.0%	39,498
Louisiana	2.5%	49,117
Maine	3.2%	21,248
Maryland	1.6%	50,614
Massachusetts	3.1%	114,857
Michigan	2.4%	114,494
Minnesota	2.8%	84,667
Mississippi	2.3%	27,211
Missouri	2.0%	60,792
Montana	2.4%	12,594
Nebraska	1.4%	14,254
Nevada	0.9%	13,603
New Hampshire	1.6%	12,138
New Jersey	2.0%	86,479
New Mexico	2.8%	25,570
New York	4.0%	367,619
North Carolina	2.3%	114,715
North Dakota	2.6%	10,222
Ohio	2.4%	132,222
Oklahoma	1.8%	31,768
Oregon	2.7%	55,216
Pennsylvania	2.8%	171,530
Rhode Island	2.5%	13,203
South Carolina	1.8%	42,510
South Dakota	1.8%	8,014
Tennessee	1.7%	54,986
Texas	1.9%	262,433
Utah	1.3%	20,182
Vermont	2.5%	8,424
Virginia	1.4%	59,040
Washington	2.5%	93,411
West Virginia	2.9%	22,201
Wisconsin	2.5%	75,697
Wyoming	1.7%	4,731

Notes: Direct care workers include nursing, psychiatric, home health, and personal care aides from Current Population Survey (CPS) occupational codes 3600 and 4610. Share of workers is calculated from populations reporting that they had a job in 2019. Data are pooled for all months in 2019. Source is: Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 6.0. Minneapolis, MN: IPUMS, 2018.

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Raising wages to at least the living wage would directly benefit workers currently earning below the living wage and many workers earning wages just a little above the living wage. Higher wages would have a widespread effect on economic security among direct care workers.

HOME CARE AIDES

Table 2 illustrates that although all direct workers get paid little, the situation tends to be worse among aides working in home care than among aides working in residential care settings. HCAs only get paid $12.95 per hour, on average, while CFAs received $13.87 in 2019. Well above half of all HCAs (58.9%) earned below a living wage in 2019. Only a little over one-third (34.1%) of aides working in residential care settings earned below a living wage that year.

The hourly earnings of HCAs are closer to the pay of childcare workers, another undervalued care profession, than to the hourly earnings of CFAs. However, HCAs and CFAs are paid much less than workers in a comparable occupation, health care assistants and other aides, who received $16.15 in average hourly earnings and $601.98 in average weekly pay in 2019. These other health care workers also earned more over the course of a year and lived in families with higher incomes, giving them a better chance of avoiding financial insecurity.

Table 2 also includes some data on the unpredictability of income for all direct care professionals, 6.9% of whom indicated that their weekly hours varied. The share of direct care workers with unpredictable incomes is higher among HCAs (7.6%) than CFAs (5.8%). But HCAs and CFAs have more varying hours than health care assistants and other aides. Greater variability in weekly hours can create more financial insecurity, as many direct care workers do not know from week to week how much their take-home pay will be.

POVERTY STATUS

Data on poverty status and private and public benefits further underscore how little direct care workers earn. As shown in Table 2, about 1 in 8 (12.6%) direct care workers lived in poverty in 2018, with 15.0% of HCAs and 9.7% of CFAs living in poverty. Moreover, 9.1% of all direct care workers were working poor, with 10.9% of HCAs and 6.7% of CFAs in this financially insecure category. Working poor is defined as having worked at least 27 weeks over the past year and having income below the poverty line.

Higher poverty was accompanied by fewer job-related benefits: 14.2% of all direct care workers had no health insurance in 2019 and 84.4% lacked a retirement benefit through their employer. The retirement savings gap between HCAs and CFAs is especially large: only 9.9% of HCAs had any retirement benefit at work, compared to 22.6% of CFAs.

Direct care workers often struggle financially, relying heavily on public programs and tax credits to make ends meet. More than half (56.5%) of all direct care workers received some form of public assistance in 2018. Half (51.0%) of all CFAs and 60.8% of HCAs relied on some public program or tax credit in 2018.

TABLE 2: ECONOMIC CHARACTERISTICS OF SELECT CARE OCCUPATIONS

Economic Measure	Direct Care Workers			Childcare Workers	Health Care Assistants and Other Aides
	All Aides	Care Facility Aides	Home Care Aides		
Data for 2019 from Monthly CPS					
Average Hourly Earnings in 2019	$13.36	$13.87	$12.95	$12.31	$16.15
Average Weekly Earnings in 2019	$474.79	$522.76	$437.60	$371.55	$601.98
Share with Hourly Earnings Below Living Wage in 2019	48.2%	34.1%	58.9%	60.5%	25.6%
Share with More than One Job in 2019	6.4%	6.6%	6.3%	6.6%	7.4%
Share with Variable Weekly Hours in 2019	6.9%	5.8%	7.6%	8.2%	4.7%
Average Years of Experience (Potential Years in the Labor Force) in 2019	23.7	20.3	26.2	18.9	18.3
Share with Some College Experience in 2019	36.5%	41.9%	32.5%	34.6%	54.9%
Share with College Degree in 2019	12.2%	10.3%	13.3%	17.6%	21.1%
Share with Professional License or Certification in 2019	34.6%	47.4%	25.7%	14.9%	48.3%
Data for 2018 from Annual ASEC					
Average Individual Annual Wage Income in 2018	$23,263	$27,411	$20,113	$13,639	$35,975
Median Annual Family Income in 2018	$44,290	$51,028	$39,776	$56,581	$67,619
Average Usual Hours Worked Per Week in 2018	36.0	36.7	35.5	34.6	37.4
Share Working Fewer than 30 Hours Per Week in 2018	22.2%	16.5%	26.4%	34.9%	14.1%
Average Weeks Worked in 2018	46.4	47.2	46.0	41.9	49.4
Share of Working Poor in 2018	9.1%	6.7%	10.9%	8.5%	3.1%
Share Living in Poverty in 2018	12.6%	9.7%	15.0%	12.6%	4.5%
Share Without Health Insurance in 2018	14.2%	9.7%	15.9%	16.8%	11.2%
Share Without Employer-Sponsored Retirement Benefits in 2018	84.4%	77.4%	90.1%	92.0%	71.4%
Share Receiving Some Public Assistance in 2018	56.5%	51.0%	60.8%	56.8%	39.9%

Notes: See appendix for definitions of occupations. Monthly data are pooled for all months in 2019. Dollar values are in real 2018 dollars. Individual wage income and total family income are taken from the Annual Social and Economic Supplement (ASEC). Those data are collected in March of each year and refer to the previous 12 months and, thus, reflect mainly data received in 2018. Working poor is defined as having worked at least 27 weeks over the past year and having income below the official federal poverty line. Public assistance includes food stamps, Medicaid, Earned Income Tax Credit, welfare income, and free and reduced price school lunches. Potential years in the labor force are a standard measure of experience and are the difference between age and years of schooling after kindergarten. Wages are deflated using the Consumer Price Index for Clerical Workers (CPI-W) and income is deflated using the Consumer Price Index for Urban Consumers (CPI-U) from the Bureau of Labor Statistics. Source is: Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 6.0. Minneapolis, MN: IPUMS, 2018.

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PAY AND QUALIFICATIONS

Low pay for direct care workers is out of line with their qualifications, as shown in Table 2 and discussed in more detail in other sections of this report. Many direct care workers have decades of workforce experience and at least some college education. Often, they have earned professional licenses and certificates to help them carry out the wide range of demanding tasks related to the needs of care recipients.[5]

For example, direct care workers have, on average, more than 2 decades of workforce experience—more than childcare workers and other health care aides and assistants.

- More than one-third (36.5%) of direct care workers have at least some college education.
- Another 12.2% have a college degree.
- More than one-third (34.6%) have a professional license or certificate, compared to only 14.9% of childcare workers.

This disparity between pay and qualifications persisted amid growing alternative labor market opportunities in an improving job market before the pandemic's economic crisis, suggesting that many aides are highly committed to their jobs,[6] and that there is a pressing need to improve the pay of direct care workers. Raising wages in this field could help workers, employers, care recipients, and the economy reap potentially large benefits. For example:

- Current aides would have to spend less time looking for jobs in other fields to make ends meet.
- Workers from other lower-wage occupations would be drawn into the profession, creating a new pipeline of direct care workers.

Both of these effects would serve to reduce workforce shortages in the field and improve health outcomes for care recipients.

BENEFITS TO FINANCIALLY DISADVANTAGED GROUPS

Higher pay for direct care work would benefit population groups that are often financially disadvantaged, such as women who are Black. Table 3 summarizes some of the demographic characteristics of direct care workers, and shows few differences between CFAs and HCAs.

The share of aides who are Black (32.4%) is larger than the share of childcare workers (17.6%) and health care assistants and other aides (13.7%) who are Black. The share of aides who are foreign-born workers (26.5%) is also higher than the share of childcare workers (22.5%) and health care assistants and other aides (13.1%) who are foreign born.

Most aides (54.9%) are single women, which is comparable to childcare workers but higher than health care assistants and other aides. Yet, direct care workers are also more likely to have children living with them and to be single mothers (23.9%) than is the case for either childcare workers (16.4%) or health care assistants and other aides (15.5%).

Age differences are also highlighted in Table 3. On average, direct care workers (42.6 years of age), and particularly HFAs (45.2 years of age), are older than childcare workers or health care assistants and other aides. The age of direct care workers could reflect their commitment to the job, despite their low pay.

Improving working conditions, in part by substantially raising the pay of aides, would make it easier to attract and retain committed direct care workers from other sectors of the economy.

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5 Experience and education are standard measures of labor qualifications. Formal education doesn't completely account for job-specific skills. Professional licensing and certifications better capture how well workers are trained for their current jobs.

6 Osterman (2017) estimates that the return to education for aides is a fraction of that of other occupations in the entire labor market. This supports the notion that direct care workers value the job they do and the responsibilities they have for care recipients. They do the work despite the poor pay.

TABLE 3: DEMOGRAPHIC CHARACTERISTICS OF SELECT LOW-WAGE OCCUPATIONS, 2019

Demographic Characteristic	Direct Care Workers			Childcare Workers	Health Care Assistants and Other Aides
	All Aides	Care Facility Aides	Home Care Aides		
White	56.6%	57.6%	55.6%	75.9%	76.4%
Black	32.4%	33.4%	31.8%	17.6%	13.7%
Native Indian and Alaska Native	1.9%	1.6%	2.1%	1.5%	1.2%
Asian American and Pacific Islander	6.8%	5.4%	7.9%	3.3%	6.3%
Hispanic	18.4%	14.2%	21.5%	23.0%	20.3%
Foreign Born	26.5%	22.2%	30.1%	22.5%	13.1%
Married	37.1%	33.8%	39.2%	39.0%	44.2%
Single Men	8.0%	9.0%	7.2%	4.7%	8.4%
Single Women	54.9%	57.2%	53.6%	56.3%	47.4%
Parents	47.9%	45.9%	49.5%	41.6%	41.9%
Single Mothers	23.9%	24.3%	23.8%	16.4%	15.5%
No High School/GED	11.3%	8.1%	13.8%	14.4%	3.3%
High School/GED	40.1%	39.7%	40.4%	33.8%	20.7%
Some College	36.5%	41.9%	32.5%	34.3%	54.9%
College Degree or Higher	12.2%	10.3%	13.4%	17.5%	21.1%
Average Age	42.6	39.3	45.2	38.0	38.0

Notes: See appendix for definitions of occupations. Monthly data are pooled for all months in 2019. Categories are mutually exclusive. Individual shares may not add to totals due to omitted categories. Source is: Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 6.0. Minneapolis, MN: IPUMS, 2018.

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SECTION 3

REDUCING STAFF SHORTAGES BY PAYING DIRECT CARE WORKERS A LIVING WAGE

Direct care workers provide vital services, but low pay contributes to turnover and staffing shortages. The existing economic literature, summarized in the appendix, suggests that increasing the pay of direct care workers could reduce labor shortages, lower turnover, and allow more aides to gain relevant experience, thus contributing to better quality care.

Higher pay would also substantially improve the financial status of aides and their families. Fewer direct care workers would have to rely on public assistance to make ends meet. In addition, higher pay for many aides could benefit the overall economy as aides spend their additional income in local economies.

SIMULATIONS

Section 3 undertakes a number of simulations to estimate the likely effects of raising hourly pay for all direct care workers to at least a living wage by 2022.

The simulations estimate the likely impact of higher pay for direct care workers on:

- Turnover and health care quality.
- The financial security of direct care workers.
- The economy in the aggregate, including a reduced reliance on public assistance.

This section estimates the average wage increase and the total aggregate wage gain for direct care workers, mainly HCAs. In doing so, we lay the groundwork for subsequent discussions about the key benefits that could flow from higher pay.[7]

Raising wages so direct care workers will receive at least a living wage in 2022 would give 75.3% of these workers a higher wage than they would otherwise receive. Table 4 illustrates that workers currently earning less than a living wage, and workers earning slightly above a living wage, would see a wage increase in our simulations.

The average wage gain for workers receiving a pay increase would be 15.5% in 2022. In total, wages would increase by $9.4 billion in 2022 if all direct care workers received at least a living wage. Increasing wages for direct workers, so they can pay for at least basic living expenses out of their own earnings, would translate into meaningful wage gains for the lowest paid aides and it would have a substantial effect on the economy as a whole.

7 The simulations combine data on CFAs, HCAs, and other unclassified aides to allow for sufficiently robust sample sizes. The data in Table 2 indicate that HCAs have lower pay, on average, than CFAs and are thus more likely to benefit from a wage increase. The appendix includes details on the underlying assumptions and calculations.

TABLE 4: RELATIVE AND AGGREGATE WAGE INCREASES FROM RAISING DIRECT CARE WORKER WAGES TO AT LEAST THE LIVING WAGE

Aggregate Pay for All Home Care Aides in 2019	$65,255,000,000
Aggregate Pay for All Home Care Aides Before Wage Increase in 2022	$68,415,800,000
Aggregate Direct Increase in Wages for Direct Care Workers Working for Wages Below New Threshold in 2022	$5,016,350,000
Indirect Increase in Wages for Direct Care Workers Working for Wages Just Above New Threshold in 2022	$527,705,000
Aggregate Wage Increase from Additional Hours	$2,236,420,000
Aggregate Wage Increase from Induced Employment	$1,585,671,430
Aggregate Wage Income for Direct Care Workers after Wage Increase in 2022	$77,781,946,430
Increase in Aggregate Wage Income for Direct Care Workers in 2022	$9,366,146,430
Share of Direct Care Workers with a Wage Increase in 2022	75.3%
Average Wage Increase for People with Any Increase	15.5%
Additional Employment Due to More Hours (FTE)	154,623
Additional (Induced) Employment (FTE)	177,171

Notes: See appendix for description of simulations and assumptions. FTE stands for full time equivalent. Induced employment refers to jobs generated in the local economy as a result of spending by direct care workers.

Two additional, relevant effects would follow from higher wages.

First, aides would likely work more hours since there would be a greater incentive to work more. The estimate shows that the increase in hours would be equivalent to hiring an additional 154,623 aides at the current average hours per week, if wages increased to the living wage in 2022.

Second, higher wages for direct care workers would attract more people to the profession and reduce staffing shortages. An additional 177,171 people would work as aides in 2022, according to the estimates in Table 4.

Higher pay would reduce staffing shortages among direct care workers by more than 330,000 aides in 2022, including additional employment due to more hours (154,623) and additional induced employment (177,171). This represents an increase of 9.1% over the baseline in 2022. The magnitude of this increase in labor supply would go a long way toward alleviating staffing shortages in the direct care field, given that pre-COVID, state-level job vacancy estimates for direct care work range from 4% to 20% (Gleason et al, 2018; PHI, 2020).

This increase in labor supply would come from:

- Making direct care work more attractive for people who already work in the field and who would be less likely to look for supplemental jobs elsewhere.
- Paying relatively higher wages, under this simulation, than in other sectors that would not see an increase in wages.

Basically, higher pay would make direct care work financially more rewarding for existing and potential workers, shrinking labor shortages.

SECTION 4

REDUCING TURNOVER AND LOWERING ASSOCIATED COSTS BY PAYING A LIVING WAGE

A number of additional economic benefits would flow from total direct and indirect wage gains that result from boosting the pay of direct care workers to at least a living wage. These benefits include less turnover among direct care workers and resulting quality gains in care provision.

As described in Section 3, raising wages for direct care workers can be expected to substantially improve the supply of direct care workers. Better rewards for physically and emotionally challenging care work would make it less likely that workers would want to leave the field and would simultaneously attract new people to these occupations.

These changes would have 2 effects:

- Turnover in direct care occupations would be lower, reducing the costs that nursing homes, home care agencies, and other employers incur when recruiting and training new workers.
- The average productivity of aides would increase, as discussed in more detail below. In this case, productivity would mean higher quality care for care recipients as direct care workers accrue firm-specific human capital and become more familiar with specific client needs and care-related processes. Improvements in patient safety and health reduce costly, adverse health outcomes, like hospitalizations and infections (Ruffini, 2020).

This section separately models the cost savings from lower turnover and discusses the likely increases in productivity that could result from higher pay for direct care workers. The appendix explains the underlying assumptions.

COST SAVINGS FROM TURNOVER

The effect of a higher wage on the total turnover costs for existing employees in the direct care field is theoretically ambiguous. There are 2 factors at play that can offset each other:

1. Higher pay can reduce turnover in the direct care field because it gives people more incentives to stay in direct care jobs.
2. However, turnover costs are tied to the pay of workers, so higher pay raises the costs of turnover at any given level.

Higher wages reduce turnover, but they also increase the cost of replacing each employee who leaves. Therefore, the overall effect of a higher wage on total turnover costs depends on which effect dominates: the reduction in turnover or the increase in costs of turnover for each position. Employers are more likely to save money on turnover costs if reductions in turnover are large relative to the increase in pay for each employee.

Table 5 shows 3 distinct scenarios.

- Scenario 1 assumes a starting turnover rate of 80%, a turnover elasticity of -0.25 (that is, turnover relative to wage increases), and turnover costs equal to 20% of pay.[8]
- Scenario 2 uses a starting turnover rate of 60%, an elasticity of -0.25, and turnover costs of 20% of pay.
- Scenario 3 assumes a starting turnover rate of just 40%, an elasticity of -0.2, and turnover costs equal to 16% of pay.

Table 5 then summarizes the aggregate changes in turnover costs under each scenario. A negative number in Table 5 indicates cost savings, while a positive number shows higher turnover costs due to higher pay and additional employees.

Lower turnover could reduce costs for employers. Under Scenario 2, with intermediate assumptions, employers would save a little under half a billion dollars each year from lower turnover.

Under the highest cost assumptions in Scenario 1—high turnover and high turnover costs coupled with above-average elasticity—employers could save more than $1.3 billion each year due to lower turnover.

Not all scenarios end up saving money from lower turnover. Scenario 3 shows that if initial turnover and the costs of replacing an employee are low, and if the turnover elasticity is also low, employers may end up with additional costs topping $150 million. Compared to the baseline wage bill of $68.4 billion in 2022, however, this figure would represent a small additional cost, about 0.2% of payroll.

TABLE 5: EFFECTS OF HIGHER PAY ON TURNOVER COSTS FOR EXISTING DIRECT CARE WORKERS IN 2022

Scenario 1: High-End Estimate — High Initial Turnover	
Change in Turnover Costs	-$1,337,908,848
Reduction in Turnover Rate	1.7%
Scenario 2: Intermediate Estimate — Moderate Initial Turnover	
Change in Turnover Costs	-$461,597,274
Reduction in Turnover Rate	1.0%
Scenario 3: Low-End Estimate — Low Initial Turnover	
Change in Turnover Costs	$158,384,445
Reduction in Turnover Rate	0.7%

Notes: Change in turnover is in percentage points. See text for description of simulations and assumptions.

8 See appendix for details on the underlying assumptions.

As shown in Table 5, these estimates for the effect of higher pay on turnover costs hold 2 lessons:

- Employers in the direct care field could potentially save money from paying higher wages, due to lower turnover costs.
- The cost savings are greater if initial turnover is larger.

SECTION 5

BOOSTING PRODUCTIVITY AND IMPROVING QUALITY OF CARE BY PAYING A LIVING WAGE

Employers and third-party payers would also see a clear benefit from higher productivity as aides get paid more. There are 4 channels through which higher wages affect the productivity of direct care workers.[9]

1. Employees already in the sector have incentives to stay, rather than to leave their jobs. Additional time working increases an HCA's experience, on-the-job learning, and skill in handling health issues and related care processes. As a result, quality of care should increase and costs to health insurance companies and public programs like Medicare and Medicaid for hospital admissions and readmissions, for example, can be expected to fall (Ruffini, 2020).
2. Employers, including home care agencies, nursing homes, and others, will have incentives to invest in measures that can raise the productivity of direct care professionals to offset higher labor costs. For example, these organizations could provide direct care workers with more training and technical support, which raise worker effectiveness and improve the quality of care, lowering other associated costs.
3. Higher wages will allow employers to attract direct care workers with more experience, education, and relevant certifications. This would make it easier for newly hired direct care workers to assume complex tasks more quickly.[10]
4. Higher pay gives direct care workers more financial flexibility to stay home when they get sick or have childcare and other family obligations. These workers can provide better care when they are at work because they are healthier and more concentrated on the tasks at hand.[11]

THE LINK BETWEEN HIGHER PRODUCTIVITY AND PAY

Higher pay would result in greater productivity among direct care workers, but the size of the effect is unclear. There is not a large body of research on the link between employee productivity and pay among direct care workers, but existing evidence is suggestive.

9 The pathways mentioned here address the direct productivity gains in the direct care workforce. It is possible that paying direct care workers more also has positive spillover effects for people who are currently providing unpaid care, typically family members and friends. Higher pay for direct care workers will reduce staffing shortages, thus reducing the pressure on family members to provide care, which can be disruptive to their careers. More often than not, those family members are women. Weller and Tolson (2018) provide a summary of the literature on the labor market effects of family caregiving on caregivers' earnings, hours, and labor force participation. With less pressure to fill in for the shortages among direct care workers, family caregivers will become more likely to stay in their jobs with the associated productivity gains.

10 It is unlikely that attracting employees from other sectors will increase labor shortages elsewhere. Even before the recession occurred in March 2020, many low-wage employers could fill positions without large increases in wages.

11 Labor market data during the early months of the COVID-19 pandemic show that many home care aides did not stay home, even if they were at higher risk of becoming ill. Aides who kept working were disproportionately older or had some disability, but were also less likely to be married and, thus, have a spouse's earnings to support them if they needed to stay home (Weller, 2020).

For example, in examining care outcomes in nursing homes following increases in the minimum wage, Ruffini (2020) finds that higher wages increase tenure and lead to improved patient safety and health. Importantly, the cost savings associated with improvements in care, such as savings from pressure ulcer treatment, alone offset up to half of the increased wage bill. The cost of increased wages is completely offset when the social value of increased longevity is considered.

In a similar vein, Jarrin and colleagues (2014) find that more favorable work environments in home health agencies correlated with greater productivity among registered nurses. The researchers attributed this correlation to fact that acute hospitalizations—a direct measure of health care productivity—were significantly lower, and community discharges significantly higher, when the work environment was more favorable.

Similarly, Flynn and colleagues (2010) find that better work environments for nurses working in New Jersey nursing homes reduced adverse health outcomes, such as pressure sores, for residents.

With respect to low-wage workers outside of health care, Hirsch, Kaufman, and Zelenka (2011) find that employers plan to respond to a minimum wage increase by trying to increase employee productivity. The limited evidence suggests that higher pay, as part of a more favorable work environment, would likely be accompanied by higher productivity levels among direct care workers.

HOW MUCH WOULD PRODUCTIVITY INCREASE IF WAGES GO UP?

In theory, productivity gains would accrue over time after wages increase, but not right away. It takes time for lower turnover and new hiring to show up in average productivity data.

We expect that productivity gains would ultimately mirror total wage increases, including direct and indirect pay gains, reported in Table 4. This would translate into a permanent $5.5 billion gain once all productivity gains are realized. Productivity growth afterwards could also be higher if wages for direct care workers remain higher than for other, related occupations.

In recent decades, wage gains have fallen behind productivity gains for most workers, due to diminished bargaining power of workers across the economy (Economic Policy Institute, 2019a). Specifically, productivity grew 6 times faster than total compensation over the 40-year period from 1978 to 2018 (Economic Policy Institute, 2019a). This would inversely imply that productivity would go up more than wages increase.

How could this happen? Let's assume that wages increase for aides but not for other low-wage occupations. Nursing homes, home care agencies, and other employers could attract the most productive workers from other occupations. As long as employers in other sectors are keeping wages below workers' productivity, employers in the care sector may be able to attract highly productive employees to the sector and, in the process, boost productivity more than wages.

On the flip side, this example would imply that employers are currently not fully compensating direct care workers for their qualifications, thus providing an incentive for them to leave the job. This is indeed the case. If the wages of aides increased, direct care workers would be better compensated for their work and their qualifications relative to other occupations. This would allow a larger share of qualified direct care workers to stay on the job and would allow employers to attract qualified people from other fields. The result is that productivity would go up with wages.

Alternatively, it is also possible that productivity gains would lag behind wage increases if employers either had little incentive to improve employee productivity or were unable to attract and retain more experienced workers. The data below, however, suggests that aides are relatively more qualified than workers in other, related fields, given their wage levels.

FILLING SHORTAGES THROUGH HIGHER WAGES

Employers are already able to attract qualified direct care workers, but there are substantial shortages. Higher wages can start to fill these shortages. Qualified direct care workers are likely to be more productive than workers in other, similar occupations, thus holding wages constant. This productivity likely reflects a sense of commitment to the occupation and to care recipients, in spite of poor pay.[12]

This means that raising pay for direct care workers could come with a commensurate increase in productivity and quality of care because employers are better able to retain and attract a larger number of qualified workers with higher pay into these direct care occupations.

LINKING PAY, EXPERIENCE, EDUCATION, AND LICENSING

The link between pay, experience, education, and licensing shows that higher pay will likely boost productivity by at least as much as an increase in wages. In Table 6, we present data on workers' potential years in the labor force—a standard measure of workforce experience—by wage levels.[13] Aides in the lowest wage category already have substantially more experience than similarly paid workers in childcare or other health care assistants. Moreover, aides earning less than $11 an hour have more experience than even the highest paid childcare workers or health care assistants and other aides. This indicates that aides are not compensated currently for their experience to the same degree as workers in other low-wage care occupations.

TABLE 6: POTENTIAL YEARS IN THE LABOR FORCE OF SELECT OCCUPATIONS BY WAGE LEVELS, 2019

Wage Level	Direct Care Workers			Childcare Workers	Health Care Assistants and Other Aides
	All Aides	Care Facility Aides	Home Care Aides		
Less than $11 Per Hour	23.3	19.3	25.6	11.7	13.7
$11 to $13 Per Hour	21.8	17.3	25.0	18.1	12.7
$13 to $15 Per Hour	23.2	19.7	26.7	14.3	14.7
More than $15 Per Hour	25.3	24.2	26.4	20.8	19.9

Notes: See appendix for definitions of occupations. Monthly data are pooled for all months in 2019. Potential years in the labor force are a standard measure of experience and are the difference between age and years of schooling after kindergarten. Source is: Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 6.0. Minneapolis, MN: IPUMS, 2018.

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12 This could also reflect sunk costs associated with certifications and licenses. This would make it more likely that employers will see productivity gains from higher wages if more people can afford the costs associated with licenses and certificates.

13 Experience is a standard measure of labor qualifications. It is defined as the difference between current age and age at the end of schooling. Not all workers will have spent all of that time in the labor market, but most will have.

In Table 7, we summarize data on the link between professional licensing and education—additional proxies for productivity—and average wages, as remuneration for that productivity.

Direct care workers receive fewer rewards for additional qualifications than either childcare workers or health care assistants and other aides. For instance, having a professional license or certificate goes along with wages that are, on average:

- 4.6% higher for direct care workers than for other workers without licenses or certificates.
- 8.4% higher for childcare workers with a license or certificate.
- 19.2% higher for health care assistants and other aides who have a license or certificate.

The pattern is similar when considering education wage premiums. Having a high school degree goes along with a wage bump of:

- 5.8% for direct care workers.
- 14.6% for childcare workers.
- 25.2% for health care assistants and other aides.

A college degree correlates with average wages being:

- 10.7% greater for direct care workers, compared with 2.6% greater for direct care workers with only some college.
- 25.6% greater for childcare workers.

When we consider these smaller wage premiums, on top of the fact that direct care workers have more labor market experience than either childcare workers or health care assistants and other aides, it becomes clear that direct care workers are not adequately compensated for their skills.

In a more systematic analysis, Osterman (2017) finds that only a fraction of aides return to education, compared with the return to education of other workers in general. The threshold for boosting productivity with more pay, then, is lower among aides than workers in other, related occupations. This lower threshold can be attributed to the fact that direct care workers already have significant experience, professional training, and education, but aren't compensated for those qualifications. This lack of full compensation for qualifications indicates that aides are highly committed to their care recipients. At the same time, high turnover and staffing shortages suggest that the existing pay is not enough to allow care employers to hire and retain more direct care workers.

THE BOTTOM LINE

The bottom line is that higher wages will increase average productivity and quality of care among direct care workers. Higher wages will positively impact productivity by attracting dedicated workers with relevant qualifications from other fields and reducing turnover so existing direct care workers can gain more experience with an employer.

We lack exact estimates for the link between pay and productivity among direct care workers. However, it is likely that productivity will rise in line with direct and indirect wage increases for existing direct care workers, adding about $5.5 billion in 2022 in total permanent productivity gains, as shown in Table 4.

TABLE 7: WAGES BY EDUCATION AND LICENSING OF SELECT OCCUPATIONS, 2019

Qualification Indicators	Direct Care Workers						Childcare Workers		Health Care Assistants and Other Aides	
	All Aides		Care Facility Aides		Home Care Aides					
	Average Wage	Wage Premium*	Average Wage	Wage Premium*	Average Wage	Wage Premium*	Average Wage	Wage Premium*	Average Wage	Wage Premium*
Less than High School	$12.55	—	$12.82	—	$12.44	—	$10.84	—	$12.31	—
High School	$13.28	5.8%	$13.85	8.0%	$12.87	3.5%	$12.42	14.6%	$15.41	25.2%
Some College	$13.63	2.6%	$14.15	2.2%	$13.08	1.6%	$11.94	-3.8%	$16.42	6.6%
College	$15.09	10.7%	$15.42	9.0%	$14.78	12.9%	$15.00	25.6%	$18.12	10.4%
No Certificate or License	$13.31	NA	$13.78	NA	$13.02	NA	$12.35	NA	$15.05	NA
Professional Certificate or License	$13.92	4.6%	$14.33	4.0%	$13.34	2.4%	$13.39	8.4%	$17.95	19.2%

** Change from Previous Level*

Notes: See appendix for definitions of occupations. Monthly CPS data are pooled for all months in 2019. Source is: Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 6.0. Minneapolis, MN: IPUMS, 2018.

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SECTION 6

INCREASING FINANCIAL SECURITY FOR DIRECT CARE WORKERS: NOW AND FOR THEIR FUTURE

Ensuring that all aides are paid at least a living wage would directly improve the financial security of the 75.3% of direct care workers who would see a raise.

Some workers would see a direct increase in pay because they work at wages below the living wage, which this simulation assumes to be the new minimum for direct care professionals. Others would receive an indirect bump in pay as they work at wages above, yet close, to the living wage. As detailed in the appendix, it is common for simulated calculations like these to assume that employers would want to maintain existing wage differentials and, therefore, would raise wages for workers earnings just above the living wage. This indirect wage increase would gradually phase out at an upper limit.

Table 8 illustrates how higher wages could potentially affect the financial security of care aides. The table summarizes data on health insurance coverage, retirement plan coverage, homeownership, and the share of households receiving some form of public assistance, including the Earned Income Tax Credit (EITC).[14]

Greater financial security derived from better pay at work can be expected to reinforce the positive feedback effects on employee turnover and productivity. Aides may worry less about their own financial future and, thus, have more time and energy to focus on their job. This focus would lower turnover and increase productivity growth further.

The data in Table 8 group direct care workers into 3 categories:

1. Workers who earned an hourly rate below the living wage in 2019. These workers are the main group of interest.
2. Care aides who worked at a wage between the new living wage and the upper limit for the impact of higher wages. Many of the workers who will see a wage increase would fall into this category after the threshold wage increased.
3. Workers who had a wage above the upper limit for wage increases in 2019.

As evident in Table 8, direct care workers with higher wages have more financial security. For example:

- Retirement plan participation and homeownership go up with higher wage levels.
- Health insurance coverage increases once wages go above the upper limit.
- Fewer direct care workers who earn higher wages rely on public assistance, including the EITC, compared to workers earning lower wages.

14 Table 8 does not separate out CFAs and HCAs by wage levels since some sample sizes are unreliably small.

TABLE 8: FINANCIAL SECURITY AMONG DIRECT CARE WORKERS BY WAGE LEVEL IN 2019

Share with Health Insurance	Total
Below the Living Wage	85.5%
Between Living Wage and Upper Limit	84.4%
Above the Upper Limit	90.4%

Share with Retirement Plan at Work	Total
Below the Living Wage	10.7%
Between Living Wage and Upper Limit	18.4%
Above the Upper Limit	23.1%

Share of Home Owners	Total
Below the Living Wage	44.3%
Between Living Wage and Upper Limit	47.7%
Above the Upper Limit	64.1%

Share with Public Assistance	Total
Below the Living Wage	63.2%
Between Living Wage and Upper Limit	50.8%
Above the Upper Limit	35.4%

Notes: Monthly data are pooled for all months in 2019. Source is: Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 6.0. Minneapolis, MN: IPUMS, 2018.

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We can infer from these data that paying aides more would also increase their financial security and independence in other ways. In addition, greater financial security could spill over into other benefits, such as lower turnover and more productivity gains.[15]

15 The benefits associated with a wage increase are likely greater than the benefits that come from raising total compensation by, for instance, offering better retirement benefits. The basic argument here is that workers can use earnings immediately and without restrictions, while there are limits on when and how people can use retirement benefits. Yet, even higher retirement benefits already result in more economic opportunity and less turnover (Weller and Wenger, 2019).

SECTION 7

ADDING BILLIONS TO LOCAL ECONOMIES BY PAYING HIGHER WAGES

Higher pay will increase overall economic growth and boost job creation outside of the occupations in which direct care professionals work.[16] Direct care workers can be expected to spend most of their additional income to buy more clothing, food, health care, and transportation. That additional consumption spending will create jobs and income for people in other sectors of the economy, mostly in local economies where people spend most of their incomes. This phenomenon is known as the multiplier effect of spending. The appendix details our assumptions related to the multiplier effect and other relevant factors.

EFFECTS OF HIGHER PAY ON HCAs

Table 9 summarizes calculations on the effects of higher pay for HCAs. The economic "footprint" of additional spending, in 2022 dollars, would be $17 billion to $22 billion greater in 2030 than it would be in the absence of higher pay for HCAs. The size of the impact on the economy varies with the size of the assumed multiplier, which is especially hard to predict in light of the uncertainty associated with the coronavirus pandemic and associated policy responses.

TABLE 9: RANGE OF ESTIMATES OF CUMULATIVE ECONOMIC FOLLOW-ON EFFECTS OF HIGHER PAY FOR HOME CARE AIDES IN 2030

Additional Economic Output with Multiplier of 1.6	$17,364,702,171
Additional Economic Output with Multiplier of 1.8	$19,535,289,942
Additional Economic Output with Multiplier of 2.1	$22,791,171,599
Additional Jobs with Multiplier of 1.6 in 2030	65,516
Additional Jobs with Multiplier of 1.8 in 2030	73,705
Additional Jobs with Multiplier of 2.1 in 2030	85,990

Note: See text for description of simulations and assumptions.

16 The simulations also show that higher wages for direct care professionals result in higher employment in these occupations. The appendix summarizes the relevant literature and the arguments that, in this case, higher wages will result in more jobs.

The economy would also have more jobs in sectors other than home care occupations because economy-wide spending would increase. The additional job estimates vary as much as the projected economic growth impacts. At the low end, there would be an additional 65,516 jobs in 2030, as shown in Table 9. At the other end, the estimates show that there will be 85,990 new jobs in 2030 as a result of a higher economic multiplier.

Higher wages for direct care workers will also reduce worker reliance on public assistance. Table 8 already showed that higher wages among direct care workers go along with reduced rates of public assistance receipt. In this case, public assistance refers to a range of public programs for families with low and moderate incomes. These programs include Medicaid, food stamps, free and reduced price school lunches for children, housing subsidies, and the EITC.

Table 4 already showed that as wages go up, direct care workers would see higher incomes as they are paid more for each hour they work and as they work more hours. This additional income would reduce worker reliance on public programs and tax credits while also reducing government outlays.

ESTIMATED SAVINGS FOR PUBLIC PROGRAMS

Table 10 summarizes the estimated savings from raising the wage floor for direct care workers to the living wage. According to these estimates, the total savings across programs and tax credits would amount to $1.6 billion in 2022, as 16.8% of direct care workers currently receiving such assistance would no longer receive it. The single largest reduction—$557 million—comes from reduced Medicaid outlays.

Instead of Medicaid, direct care workers would receive benefits either from their employers or from purchasing subsidized insurance through health insurance exchanges in their states. Most aides currently receiving public assistance or tax credits would continue to get public benefits, mainly because Medicaid and EITC eligibility limits are higher than limits set by other public benefit programs. As a result, the wage increases would improve the ability of direct care workers to pay their bills by raising their incomes, while also reducing their reliance on some public assistance without causing workers to fall off a financial cliff.

TABLE 10: PUBLIC PROGRAM AND TAX CREDIT SAVINGS FROM HIGHER WAGES IN 2022

Source of Reduction	Simulations	Regression Based
Free and Reduced Price Lunches	-$204,622,000	-$7,434,490
Medicaid	-$556,914,000	-$169,894,000
Food Stamps	-$384,799,000	-$136,519,000
Earned Income Tax Credit	-$298,143,000	-$486,440,000
Housing Subsidy	-$190,005,000	-$112,001,000
Total Reduction	-$1,634,480,000	-$912,289,000
Share of Home Care Aides with any Reduction in Public Assistance	9.5%	NA
Share of Home Care Aides with any Reduction in Public Assistance (Among Aides Receiving Public Assistance in 2019)	16.8%	NA

Notes: See appendix for discussion of calculations and modeling. "NA" stands for not applicable.

SECTION 8

BENEFITS OF HIGHER PAY FOR DIRECT CARE WORKERS VARY STATE BY STATE

Some states have a relatively large number of direct care workers because of their population size and demographics. For instance, direct care workers made up 4% of the total employment in New York in 2019, according to Table 1.

States where aides are more numerous can expect to experience larger economic impacts from a wage increase for direct care workers. Moreover, improvements to the pay of direct care workers and the economies of states will be larger in states where there is a substantial gap between the living wage and the existing wage for direct care workers. Some of the aggregate benefits discussed in this report will also be relatively large in these states.

Table 11 shows the state-by-state effects of higher pay in the 10 states with the largest absolute wage gains. In particular, Table 11 summarizes the:

- Total aggregate wage gain, similar to Table 4 for the country as a whole.
- Total effect on economic output, akin to Table 9.
- Reduction in public assistance, similar to Table 10.

As seen in Table 11, 10 states will see the largest absolute aggregate wage gains, ranging from $284 million in Georgia to $1.9 billion in California.

These 10 states would also experience a sizable bump in economic activity by 2030. Higher pay for direct care workers would expand the economy in Georgia by more than $500 million and would contribute $3.6 billion to California's economy by 2030.

Savings in public assistance would vary, however, depending on a number of policy parameters, such as income eligibility, and such additional economic characteristics as household income. More generous benefits and eligibility rules will translate into larger reductions in public assistance after a pay increase for direct care workers. By 2022, public assistance spending and tax credits would fall the most in New York ($386 million) and the least in Virginia ($1.2 million).

In general, all states will see some benefits from paying direct care workers higher wages. A number of factors will determine the relative size of these effects in each state. More populous states will have more care needs and, thus, more care workers. Moreover, states with older populations will likely also have more direct care workers and, thus, see greater benefits from higher pay. Alternatively, the benefits of increasing pay for direct workers will naturally be more muted if pay is already close to a living wage due to, for instance, a relatively high minimum wage.

TABLE 11: SUMMARY OF STATE-BY-STATE EFFECTS FOR 10 STATES WITH LARGEST TOTAL WAGE INCREASES BY 2022 AND 2030

State	Aggregate Wage Increase in 2022	Additional Economic Output by 2030 (with Multiplier of 1.8)	Additional Direct and Indirect Jobs	Total Public Assistance Savings in 2022
California	$1,928,040,000	$3,574,558,718	51,643	$165,000,000
New York	$1,399,030,000	$2,593,781,707	37,474	$386,000,000
Texas	$713,300,000	$1,322,448,047	19,106	$31,700,000
Virginia	$402,562,000	$746,344,218	10,783	$1,220,291
Florida	$380,200,000	$704,885,389	10,184	$47,900,000
Pennsylvania	$372,560,000	$690,720,937	9,979	$103,000,000
New Jersey	$359,000,000	$665,580,890	9,616	$19,700,000
Massachusetts	$302,560,000	$560,941,934	8,104	$45,500,000
Maryland	$290,660,000	$538,879,503	7,785	$22,300,000
Georgia	$284,070,000	$526,661,737	7,609	$30,400,000

Note: See appendix and text for discussion of underlying calculations.

CONCLUSION

Raising wages for direct care workers offers several benefits to individuals, care recipients, and the economy overall:

- Direct care workers will be financially more secure.
- Employers and care recipients will see less turnover among aides and will ultimately experience increases in the quality of care.
- The additional pay will translate into faster economic growth, more jobs in other sectors, and lower costs for public assistance programs and tax credits.

Against the backdrop of a global pandemic that disproportionately affects older adults and people with disabilities, the need for the services of direct care workers is glaringly apparent. Yet, many direct care workers have to worry about both their physical and financial health while caring for others.

Policymakers should address these oversights as soon as possible. This will require not only more personal protective equipment, but also higher compensation to ensure that direct care workers can focus their full attention on the health and safety of care recipients without having to worry about their own health, the health of their families, and their financial security.

APPENDIX 1

DATA, VARIABLES, AND METHODS

The authors of this report use the Bureau of Labor Statistics' Current Population Survey (CPS) for our analysis.[17] The Minnesota Population Center provides harmonized data across many years for all of the variables that we use in our analysis (Flood et al., 2018).

The CPS has 3 components that are relevant for our analysis:

1. Monthly data containing employment status, occupation, and demographic characteristics. This data is summarized in Tables 1, 2, and 3, for instance.
2. Data for the outgoing rotation group (ORG). The ORG is a rolling panel that includes households for 4 consecutive months, leaves those families out for 8 months, and then re-interviews them for another 4 months. The ORG data cover CPS respondents in their fourth or eighth month of the survey—that is, in groups 4 or 8 out of a total of 8 groups. Therefore, the ORG files represent one quarter of the CPS sample for any particular month. The ORG files include the most relevant data on hourly earnings and weekly hours (Economic Policy Institute, 2019b). The calculations for earnings in Table 2 and the simulation modeling in Table 4 rely on the data from the ORG.
3. The Annual Social and Economic Supplement (ASEC). This includes data on family income, annual wage income, health insurance coverage, pension participation, homeownership, and poverty status. Table 2's summary statistics on licenses and certifications, Table 8's description of the financial security of direct care workers, and Table 2's data on the receipt of public assistance draw on the ASEC. Data from the ASEC also underlie the calculation on the reduction of public assistance in Table 10. The ASEC data are backward-looking, with the reference period being the year prior to the survey year. Therefore, data collected in 2019 refer to income and other measures that applied to 2018.

Monthly data from the CPS and the ORG files for 2019 are combined to reduce the effect of short-term fluctuations due to some seasonality, and to allow for sufficiently robust sample sizes for each state.

DEFINING DIRECT CARE WORKERS

Direct care workers include nursing, psychiatric, home health, and personal care aides from the CPS and ASEC occupational codes 3600 and 4610. Our calculations then divide this combined group by industries to arrive at estimates of care facility aides (CFA) and home care aides (HCA) for the purpose of the summary statistics.

17 Osterman (2017) uses the closely related American Community Survey (ACS) for his seminal analysis of the care workforce. Both data sets have their respective advantages. The ACS uses a sampling process that is somewhat closer to the actual population than the CPS. Moreover, the ACS includes details that allow for turnover estimates in all occupations. In comparison, the CPS provides greater detail on hourly earnings, hours worked, multiple job holdings, and poverty status than the ACS does. Where comparable variables are available, such as total employment, the 2 data sets generate fairly close estimates. In addition, where necessary, this report relies on estimates from Osterman (2017) and others for relevant variables, especially turnover.

CFAs are those direct care workers that work in "elementary and secondary schools" (7860), "offices of physicians" (7970), "offices of other health care providers" (8080), "outpatient care centers" (8090), "nursing care facilities" (8190), "residential care facilities" (8270), and "hospitals" (8290).

HCAs include those who work in "employment services" (7580), "home health care services" (8170), "other health care services" (8180), "individual family services" (8370), "private households" (9290), and "administration of human resource programs" (9480). A small number of respondents identified clearly inappropriate industry codes and are thus considered neither CFAs nor HCAs.

DEFINING COMPARISON GROUPS

A number of tables include data for related occupations. These include childcare workers (4600) and health care assistants and other aides. The latter group is designed by the authors and includes "occupational therapy assistants and aides" (3610), "physical therapist assistants and aides" (3620), "massage therapists" (3630), "dental assistants" (3640), and "health care assistants and other health care support occupations, n.e.c." (3640).

MODELING THE TOTAL WAGE INCREASES ACROSS THE ECONOMY

The main simulations model the effect of a higher wage for direct care workers on total wage receipt in the economy. These calculations specifically simulate an increase in the minimum hourly pay to the living wage, which can vary from state to state, according to the living wage calculator from the Massachusetts Institute of Technology (2020).

Any wage increase has 4 separate effects:

1. Individuals working for an hourly wage that is less than the new minimum will see their hourly pay increase to the new minimum.
2. Those working at wages just above the new minimum will, in all likelihood, also see a higher wage since employers would want to maintain existing wage differentials.
3. Low-wage workers, such as the direct care workforce, will seek to work more hours in response to a wage gain.
4. A higher wage for direct care work will make that work more attractive to other people who could be recruited to work in that profession.

CALCULATING THE WAGE INCREASE

To calculate the increase in total wages that follows from higher pay per hour for care workers, a few assumptions are necessary.

1. **The first step involves calculating how many workers would see a direct increase in their hourly wage if the wage was raised to the living wage in each state.** This requires calculating hourly earnings for 2019. Most direct care workers in the ORG data report hourly pay. Some workers do not report quarterly pay, but they report weekly pay and the hours they usually work per hour. In cases where data on hourly earnings are missing but data on weekly earnings and hours exist, hourly earnings are equal to weekly earnings divided by usual hours (Economic Policy Institute, 2019b).

   The assumption is that higher wages will go into effect in 2022. Some workers would then see a direct bump from their actual wage in 2022 up to the new threshold if they had a wage below the living wage. To calculate the likely wage that a home care aide would receive in 2022, workers' wages in 2019 are

projected forward by 3 years at the average rate of wage growth for direct care workers that occurred from 1999 to 2019.

The calculations also need to adjust the total number of workers that would see a wage increase in 2022, since employment will likely increase by then. The underlying assumption is that, in the coming 3 years, employment will grow by the average rate of growth that existed from 2010 to 2019. The first year for which the detailed occupation codes exist is 2019.

2. **The simulations need to identify the group of workers that will see an indirect increase in their wage.** These are workers who earn wages just above the new threshold wage. The modeling follows the methodology of evaluating minimum wage increases from the Congressional Budget Office (CBO) (2020). CBO's methodology phases out the spillover effects between the new threshold wage and the new threshold wage plus half of the difference between the old minimum wage and the new threshold in each state.

   For example, if the minimum wage is $8 per hour and the threshold is raised to $12 per hour, the spillover effect ends at $14 per hour. In several states, the minimum wage goes up each year by the rate of inflation. To arrive at the value of the state minimum wage in those cases, the minimum wage in 2020 is adjusted upward at the rate of the number of cases needed to project state minimum wages forward at the rate of inflation assumed by the CBO for those years (Congressional Budget Office, 2020). The modeling makes the same adjustments to the living wage from 2019 to 2022 (Congressional Budget Office, 2020).

3. **Direct care workers, who see direct or indirect wage gains, will also work more hours.** McClelland and Mok (2012) conclude that labor supply elasticities tend to be positive among lower-wage workers. The researchers based their work on a review of the existing literature. The key variable of interest is the so-called elasticity, which in this case measures how sensitive hours at work are with respect to change in hourly pay. Elasticities are expressed as unitless numbers, but they show the percent change of one variable (hours worked, in this example) when another variable (wages, in this case) go up by 1%. The simulations here assume an elasticity of 0.2 for hours with respect to a wage increase, which is the upper end of the estimates for men and single women, but below the upper end for married women. That is, a 1% increase in a person's wage will result in a 0.2% increase in hours.

4. **More workers will participate in the labor market if wages go up** (McClelland and Mok, 2012). In this case, workers from other low-wage labor sectors will switch to care work if wages for care work go up. The simulations assume that this employment change has an elasticity of 0.1, which is at the upper end of McClelland and Mok's (2012) surveyed range of estimates for all workers. To calculate the hypothetical wage increase that these workers would receive, the modeling assigns them all the average wage for restaurant workers in each state in 2022 and then calculates the difference between the upper limit of wage improvements and the average wage for restaurant workers in that state in 2022. A 1% gap between these 2 wages should increase employment in care work by 0.1% by this assumption. The wage of these new employees in the care sectors would then increase by the average difference between the average new wage and the average wage in restaurants. This implicitly assumes that the wage distribution of the new employees will mirror that of existing care workers, after the increase in the threshold wage to the living wage.

TOTAL ECONOMIC EFFECT FROM HIGHER PAY

To arrive at the initial total economic effect from higher pay for care aides, the simulations make a number of additional adjustments.

- The simulations specifically multiply the hourly gains by 46.7 weeks and 36.0 hours to arrive at the annual income gain for each worker. These are the average weeks and hours per week worked by care aides in 2019. The multiplication of average hours by average hourly earnings and average weeks

generates average individual wage income that is slightly below the average reported in the CPS for direct care employees. That is, the estimates somewhat underestimate the likely impact of raising wages for care aides.

- Similarly, the calculations multiply indirect wage gains, wage gains from additional hours, and wage gains for new workers in these occupations by average hours and average weeks per year, as observed in 2019.
- Moreover, to account for total employment growth in the sector through 2022, the values for 2019 are inflated by the annual average employment growth from 2010 to 2019 for an extra 3 years. The basis of these calculations is 2019 and we project the effect of a wage increase in 2022, so they need to account for 3 years of employment growth.
- Finally, Table 4 shows the aggregate for all total wage gains in each category—direct, indirect, additional hours, and additional workers—to arrive at one total wage effect from a higher wage for direct care workers.

MODELING THE INDUSTRY EFFECTS OF HIGHER PAY

The estimates start with the impact of higher wages for direct care workers on employee turnover. Higher wages in the low-wage labor market reduce turnover and, thus, costs to employers. The calculations consider 2 separate estimates of turnover estimates.

1. **Overall occupation:** In some instances, turnover estimates apply to the occupation as a whole (Osterman, 2017). People may leave a home care agency, nursing home, or private pay employer, but they may keep working as an aide. This turnover level matters for training and experience. While individual employers may have to train aides in specific procedures, aides will be familiar with many of the issues necessary to provide quality care, regardless of who they work for in the field.
2. **Individual Employers:** Other estimates consider turnover for individual employers (Baxter, 2017; Holly, 2019). Turnover for individual employers will matter for recruitment costs, since a home care agency, for example, still has to fill a position whether an aide left to work for a nursing home or to work in a completely unrelated occupation. Importantly, turnover in the entire field likely is lower than turnover for an individual employer. We thus choose assumptions that use field-wide turnover estimates as the lower bound and firm-specific turnover as the upper end of our assumed range.

TURNOVER ESTIMATES

Field-wide estimates for turnover can vary significantly. Osterman (2017) estimates that 32% of aides leave the direct care field within one year, which appears to be one of the lower turnover estimates. In contrast, the American Health Care Association (2003) reported a 72% turnover rate for nursing home certified nursing assistants in 2002. Also, PHI (2005) reports on internal findings from the New York Association of Homes and Services for the Aging in 2000, concluding that 40% to 60% of home health aides leave the job within 1 year and that 80% to 90% leave before 2 years.

Estimates for employer-specific turnover also can vary. Maas and Buckwalter (2006) report that turnover can range from 21% to 135%, with an average of 42%, in assisted-living communities. Turnover in nursing homes averaged 71% (Decker et al., 2003). More recently, Home Care Pulse, a survey from Home Health Care News, an independent news service focused on senior home care, reported a median turnover rate of 82% for 2019 (Holly, 2019), up from 66.7% for 2017 (Baxter, 2017). The last 2 studies cover the same universe and, thus, may provide a limited indication of turnover trends in an improving labor market.

Based on these reports, turnover rates among senior care aides increased in just 2 years as the overall labor market grew. This increase may reflect the growth of employment opportunities at higher wages for aides in other sectors. As the economic fallout from COVID-19 ravages the labor market, turnover may go down as other

employment opportunities disappear. However, many people may be reluctant to work in health care for fear of infecting themselves and others with the novel coronavirus. As a result, turnover could also be higher than normal.

The baseline turnover among direct care workers may be relatively high in this context. As the relative compensation for care aides appears to fall behind other occupations, turnover goes up. This suggests that turnover in this sector is highly sensitive to compensation, so that higher pay could substantially reduce turnover. In fact, Kemper and colleagues (2008) find that improvements in compensation ranked high for aides when they were asked, "What is the single most important thing your employer could do to improve your job as a direct care worker?" It is highly likely that aides will respond positively to higher wages by staying on the job longer.

We assume 3 separate starting turnover rates to reflect the ranges of estimates in the literature. The calculations assume turnover rates of 40%, 60%, and 80% to show a range of possible outcomes consistent with the variations of the empirical evidence.

ESTIMATING TURNOVER ELASTICITIES

Next, the simulations translate higher wages into lower turnover among aides. In order to do this translation, the simulations rely on estimated turnover elasticities with respect to wages. These elasticities show how sensitive turnover is to changes in wages. An elasticity specifically shows the percent decline in turnover for each percent increase in wages.

Consistent estimates for these elasticities are difficult to find. Some studies look at:

- Exogenous wage increases, such as an increase in the minimum wage (Dube, Lester, and Reich, 2012).
- Greater wages to aides due to higher pass-through rates from Medicaid reimbursements (Baughman and Smith, 2010; Centers for Medicare & Medicaid Services, 2001).
- Differences in wage levels among aides (Baughman and Smith, 2012).
- Turnover changes as wages change (Dube, Lester, and Reich, 2012).
- Differences in turnover rates at various wage levels (Baughman and Smith, 2012).

Finally, wages and turnover determine each other and thus are endogenous, which poses additional challenges for empirical estimates (Baughman and Smith, 2012; Dube, Lester, and Reich, 2012).

The simulations use elasticities of -0.2 and -0.25 while keeping these caveats in mind. Baughman and Smith (2012) estimate that a wage that is 1% higher on average reduces turnover by 0.18% in any given month. In their minimum wage research, Dube, Lester, and Reich (2012) estimate an elasticity of -0.257 for restaurant workers.

These elasticities likely represent conservative estimates. For one, differences in monthly retention rates will likely have cumulative effects on turnover over the course of a year. For instance, assuming that monthly turnover differences by wages hold steady for the same group of people over the course of a year, annual turnover would be lower by an unreasonably large 2.2% in a year for a wage that is 1% higher. This would imply an elasticity of -2.2, rather than -0.18 as estimated by Baughman and Smith (2012).

While such a high elasticity is based on an unrealistic assumption that an additional 0.18% of people will stay in the job each month for another year, it suggests that there is a cumulative effect of lower turnover from month to month. That is, a 1% increase in wages likely reduces turnover by more than -0.18%.

Indeed, other studies have found evidence of larger turnover elasticities. For example:

- Stearns and D'Arcy (2008) estimate a turnover elasticity of -0.41, although they measure intent to leave and not actual changes in turnover.[18]
- Results from Powers and Powers (2010) show that, at the mean, increasing annual compensation by between 24% and 31% would have cut the turnover rate by one-third, suggesting a negative elasticity of less than one.
- Morris (2009) reports that a 10% increase in wages in Maine went along with a 14% reduction in turnover, implying an elasticity of -1.4.

Moreover, the simulated wage levels can be outside of the ranges estimated in previous studies. It is possible that there may be discontinuous effects of wages on turnover. If wages for the lowest-paid aides increase more than above a minimum threshold, the incentive of aides to look for employment in another occupation drastically diminishes, and the effect on turnover reduction may be larger than previously estimated.

Finally, turnover comes with a cost, and less turnover comes with lower costs. When an employee leaves the job, employers need to spend money on finding, screening, and training the new employee. In a survey of turnover costs, Boushey and Glynn (2012) find that the costs of turnover equal 16% of employees' wages in industries where employees are paid less than $30,000 annually. Costs of turnover equal 20% of wages when wages are below $50,000 annually. The calculations assume either a 16% cost or 20% cost of wages.

MODELING THE MACROECONOMIC EFFECT OF HIGHER PAY

The exact size of the spending multiplier effect associated with the total wage increase for aides depends on the type of additional spending that aides do.

For instance, the income level of recipients matters, as higher-income earners are less likely to spend their money than lower-income earners. As the multiplier effect depends on people spending their money, the effect is likely greater if wages go up for lower-income workers than if wages increase for higher-income workers. Another factor to consider is whether the sectors that will receive the additional spending are at or near full employment or whether there is capacity to increase employment.[19]

The multiplier effect is also greater in a sector with additional capacity than in a sector where there is less capacity. Following the economic crisis related to the coronavirus and the spread of COVID-19, all sectors have substantial capacity to grow. The multipliers used in the calculations in Table 9 are, thus, likely at the lower end.

There are fewer offsetting economic effects, such as inflation, when a sector has more capacity. Most importantly, there is a smaller boost to inflation and interest rates from greater demand following more spending. Since there is a labor shortage in direct care work and there are likely still a sufficiently large number of people willing to enter the labor market when wages go up, there is both capacity to absorb additional workers and likely a limited additional inflationary wage pressure. This is especially true since much or all of the additional pay would likely come from higher insurance payments, as discussed previously.

18 We should note that an earlier evaluation by Abt Associates for the Centers for Medicare & Medicaid Services did not find a robust and large effect of higher pass-through pay on turnover (Centers for Medicare & Medicaid Services, 2001).

19 Labor shortages—unmet labor demands—are the sectoral equivalent to full capacity in the macro economy. Since demand for care aides is greater than the supply of more care workers, the sector could employ additional workers attracted by higher wages.

Finally, the additional spending will only affect a small share of the overall economy. It is thus reasonable to assume that higher wages for care aides will not result in inflation accelerating and will not offset the increase in spending in a measurable way. Other economic factors will not offset the economic effect from higher wages. The multiplier effect of additional wages to direct care aides consequently lies on the higher end of the existing estimates.

TYPES OF MULTIPLIERS

Typically, researchers use 2 types of multipliers to evaluate the total economic effect of higher wages and incomes for low-wage workers, for instance, in the context of a higher minimum wage. Often, researchers use the extensive evidence on fiscal multipliers as a benchmark. The argument is that a bump in the minimum wage is similar to the added economic output that results from an increase in unemployment benefits. Both measures boost incomes of lower-income families, who are most likely to quickly spend their money.

Researchers at the Congressional Budget Office (Whalen and Reichling, 2015) have summarized multiplier estimates for a range of spending increases and tax cuts by the federal government. We assume that the bulk of additional wages would come from more Medicaid spending, so fiscal multipliers offer one possible benchmark.

The estimated multipliers for transfer payments to individuals by the federal government range from 0.4 to 2.1, while the multiplier estimates for transfer payments to state and local government spending, which include Medicaid payments, range from 0.4 to 1.8. A multiplier of 1.8, for example, indicates that the economy will grow by $1.8 for every additional dollar in wages to care aides. Transfer payments for lower-income households, such as unemployment insurance and Supplemental Nutritional Assistance Program (SNAP) spending, are on the higher end of this range because low-income households will more quickly spend that money. These payments often serve as benchmarks for the multiplier effects used in minimum wage analyses.

Alternatively, researchers use input-output multipliers from regional economic models. For instance, the Bureau of Economic Analysis (2018) uses a multiplier of 1.6 for all households, indicating that every dollar of household income supports $1.6 dollars of the economy. The incomes of households with below-average incomes will likely have a multiplier effect that is larger than that.

The evidence from both multiplier approaches suggests that the spending multiplier for higher wages for aides is likely closer to 2 than to 1. We consequently show the overall economic effects of additional wages with a multiplier of 1.6, 1.8, and 2.1.[20]

CALCULATING ECONOMIC IMPACT

Table 9 specifically reports the aggregate economic impact from higher pay and its multiplier effects. The table also shows the number of additional jobs created across the economy following the introduction of higher pay for aides. The benefits of providing higher pay will be cumulative since we assume that those increases will not disappear. The numbers in Table 9 thus calculate the impact on economic growth and job creation over the coming decade to show the longer-term impact. This is a reasonable assumption, as worries associated with caring for an aging population will only increase policy attention to providing quality care for those who need it.

Our calculations use projections from the Congressional Budget Office (2020) for gross domestic product (GDP) and civilian employment. Specifically:

- We project the total additional benefit to care aides forward at the rate of employment growth plus the rate of wage growth that we used in our simulations.

20 Bivens (2011) summarizes a range of fiscal multipliers when there are idle resources in the economy. The multiplier for more unemployment insurance benefits, which others (Hall and Cooper, 2012) have used to simulate the multiplier effect of a higher minimum wage, is 1.5 to 1.6 and falls at the lower end of the multipliers simulated here.

- Next, the calculations multiply the additional wages in 2030 by the 3 multipliers—1.6, 1.8, and 2.1—to show the range of possible outcomes. Relating the additional economy-wide spending in 2030 to forecasted GDP shows how much larger the economy would be due to the additional wages for care aides a decade after the wage benefits went into effect.

Finally, it is assumed that every 1 percentage point growth in GDP translates into a 0.75 percentage point increase in employment.[21] The results then show the spillover macroeconomic benefits—faster growth and more jobs—from providing higher pay to direct care workers.

ESTIMATING THE REDUCTION OF PUBLIC ASSISTANCE

Higher pay for direct care workers could make fewer aides eligible for public assistance programs and tax credits. The calculations in Table 10 use the following approach.

The calculations assume that a household's total wage increase is proportional to the average relative increase in wages and implied additional hours for each state. The data on public assistance receipts come from the ASEC, while hourly earnings are from the ORG. The calculations must match the data in these 2 data sources, which is done by calculating average new wages with a wage increase, and average existing wages without an increase, in 2022. The additional wage income is added to a household's total income. Importantly, these calculations overstate the likelihood that a household with direct care workers will receive a wage increase.

A household is assigned a likelihood of losing access to a public assistance program if it meets certain conditions. The household's new income will need to exceed the threshold level for qualifying for the assistance program. The household also will have to have received the public assistance or tax credit, specifically the EITC, in 2019. Since many people do not apply for some programs even if they meet the eligibility criteria, the calculations need to account for take-up rates. In addition, the existing income in 2019 needs to be less than 110% of the income threshold to qualify for specific programs.

Some households may have higher incomes but still qualify for benefits because of exceptions in program rules or misreported incomes. Setting this threshold to 110% of the eligible income allows for the possibility of misreported annual income. We assume that households that received benefits, even with incomes that exceeded eligibility thresholds in 2019, will keep those benefits even after a wage increase accommodates differential program rules.

The modeling uses the household's total family income for all calculations, other than for Medicaid simulations. In the case of Medicaid, the calculations rely on the adjusted gross income (AGI). The ASEC provides information for each individual's adjusted gross income and filing status. The calculations use the respondent's AGI if the filing status was "single" and the respondent's and their spouse's AGI if the filing status was "married filing jointly" in 2019.

The calculations then assign dollar values to those instances where households will no longer qualify for benefits. The ASEC includes this information for the EITC, free and reduced price school lunches, housing subsidies, and food stamps. The simulations assign the average dollar value for adults, scaled by household size, for Medicaid (Brooks et al., 2020). All values are inflated forward to 2022 using either the CPI-U for all goods and services or the CPI-U for medical care for Medicaid expenditures.

21 Romer and Bernstein (2009) use the same rule of thumb derived from the literature to evaluate the job growth effect of stimulus spending.

APPENDIX 2
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