Uber for Nursing

How an Al-Powered Gig Model Is Threatening Health Care

By Katie J. Wells and Funda Ustek Spilda



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Executive Summary

The gig economy's labor model and its algorithmic management technologies now have a foothold in one of the largest labor sectors in the country: health care. On-demand nursing companies such as CareRev, Clipboard Health, ShiftKey, and ShiftMed have promised hospitals more control and nurses more flexibility. Through original interviews with 29 "gig" nurses and nursing assistants, this brief finds that these apps encourage nurses to work for less pay, fail to provide certainty about scheduling and the amount or nature of work, take little to no accountability for worker safety, and can threaten patient well-being by placing nurses in unfamiliar clinical environments with no onboarding or facility training. On-demand nursing platforms are also using the Uber playbook to lobby state legislatures in an attempt to exempt themselves from existing labor regulations. In the wake of the COVID-19 pandemic, nurses have fled the profession as a result of poor working conditions, creating what some have incorrectly identified as a "nursing shortage." As gig nursing platforms falsely promise to empower workers and meet their needs, it is up to legislators, policymakers, civic leaders, and community organizations to act to solve the real problems at the root of this crisis.



Introduction: Uber for Nursing

The gig economy's labor model and its algorithmic management technologies now have a foothold in one of the largest labor sectors in the country: health care. Since 2016, some of the largest US hospital systems have integrated "gig" nurses into their day-to-day health-care operations (Evans 2023). New Uber-style apps use algorithmic scheduling, staffing, and management technologies—software often touted by companies as cutting-edge "AI," or artificial intelligence—to connect understaffed medical facilities with nearby nurses and nursing assistants looking for work.

On-demand nursing firms such as CareRev, Clipboard Health, ShiftKey, ShiftMed (which has no business relationship to ShiftKey), and nearly a dozen others are attractive to nurses and nursing assistants who seek more control over their work hours and schedules, especially in the wake of the COVID-19 pandemic. Promotional materials for ShiftKey, one of the largest firms in this new sector, promise workers the ability to "set your own schedule," transform the way you work," and "opt for independence and work on your own terms." The advertisements for Clipboard Health, CareRev, and ShiftMed use similar language of freedom, flexibility, and autonomy: "Change the way you work," "work the way you want," "no midnight calls needed," and (a personal favorite) "you call the shifts." After a nurse downloads an on-demand nursing app and submits the requisite documents, they can use the app to indicate their interest in a 6-, 8-, or 12-hour shift at a hospital, nursing home, assisted living facility, surgical center, dental office, or, in some states, correctional facilities. An algorithmic scheduling software program, which is the heart of these new companies, then approves the worker for a shift, notifies both the medical facility and the worker, allows the worker to clock in and out, and, finally, sends a paycheck.¹

The on-demand nursing industry promises hospitals and medical administrators a different set of controls, namely the capacity to seamlessly staff facilities, reduce manager workloads, and lower labor costs. ShiftMed promises that its algorithmic management software can "transfor[m] nurse scheduling with the power of AI" and "empower healthcare providers to intelligently route labor needs to the lowest-cost workforce" (ShiftMed 2024). ShiftKey advertises that its software program, called SAMI (Schedule Automation Marketplace Integration), will "streamline the scheduling process" (ShiftKey 2024a), help maintain staff-to-patient ratios (some of which are mandated by state and federal laws), and lessen the need for administrators (ShiftKey n.d.). CareRev describes its software, "Smart Rates" (2024), as a health-care workforce management system that uses "AI-driven" labor pricing.

The idea of "gig nursing"—the term we'll use in this brief to refer to this app-managed, on-demand, largely contractor-dependent style of labor—has begun to garner widespread praise. FastCompany named ShiftKey one of the most innovative companies

¹ In some cases, hospitals opt for manual selection and assignment of available workers.



of 2024 (<u>Hess 2024</u>) and Business Insider recognized Clipboard Health as one of the most promising start-ups of 2023 (<u>Torrence et al. 2023</u>). But the attention that these firms receive stands in stark contrast with an inattention to the people who work for and receive care from these apps. This brief asks: What are the impacts of on-demand nursing firms on their workforces and on the quality of patient care?

To answer this question, we examine policy reports, scholarly publications, government documents, business filings, media stories, online forums (Reddit, Facebook, and Better Business Bureau), and, most significantly, transcribed interviews and detailed surveys from 29 individual workers (all but 2 of whom are female) who entered and, in some cases, left gig nursing jobs between November 2023 and September 2024. These informants, whose average age is 33 years old, shared with us their experiences working as registered nurses (n=15) or certified nursing assistants (n=14) for one or more of the following companies: ShiftMed, ShiftKey, Clipboard Health, and CareRev. Data collection for this study was part of an international research project—Fairwork, which is based at the University of Oxford and WZB: Berlin Social Science Center and spans 39 countries in five continents—to assess digital labor firms across principles of fair work, namely on issues of pay, contracts, management, and representation.

Analysis of these various data identify serious safety and health risks for workers and patients. The nurses and nursing assistants who use these apps must pay fees to bid on shifts, and they win those bids by offering to work for lower hourly rates than their fellow workers. Poor internet or cell service in rural areas can cause the apps to fail, resulting in missed paychecks for work performed. These apps also rate the nurses they hire based on facility feedback and internal algorithmic determinations. If a worker must cancel a shift due to sickness or personal conflict, their rating goes down, and they often lose out on future shifts or can be banned from the app altogether. In at least one case, a nursing assistant went into work at a hospital while sick with COVID-19 because she could not figure out how to cancel a shift without lowering her rating. At most hospitals and medical facilities, no orientations are required for gig nurses and nursing assistants. Workers do not know where supply closets are located, how to access patient portals with medical histories and current medication lists, and whom to contact in the chain of command. With gig nursing, there is often little to no continuity of care. Despite hospitals' attempts to automate nursing, care work is inherently tricky to de-skill and predict. Shifts do not neatly end when the apps say they do as, of course, patients' health-care needs do not end just because the clock says they should. Human frailty—the essential subject of nursing—defies algorithmic management.

This brief outlines the existing research on health-care-focused algorithmic scheduling, staffing, and management technologies, provides a labor history of nursing and working conditions, and presents the results of our interviews with nurses and nursing assistants. Alongside these findings, we highlight private equity's involvement with both health-care staffing agencies and medical facilities in worsening health-care work and patient safety. Finally, we call for policymakers and community organizations



to address the identified challenges and improve labor conditions and the quality of care in the health-care industry. We warn that Wall Street's takeover of US health-care infrastructure and Silicon Valley's introduction of gig nursing apps are a dangerous duo that is eroding our health-care system and eviscerating our ability to take care of each other.

Background

A Shortage of Decent Workplaces

The US health-care industry has long struggled to employ as many nurses as patients need (<u>Bonczek et al. 2024</u>). During World War II, for instance, a significant number of nurses left hospitals to join the armed forces. In response to this workforce gap, the federal government established the Cadet Nurse Corps to increase funding and education for future nurses (<u>Gallagher 2023</u>). These struggles have often been referred to as "nursing shortages," a phrase that suggests a dwindling supply of nurses.

Today, Jean Whelan (2021) argues, the phrase "nursing shortage" is a misleading description of what ails the health-care industry. The US currently has more than 5 million licensed registered nurses, which is more than the country has ever had (Smiley et al. 2023; Seow 2023), and 1.4 million nursing assistants (Data USA n.d.). Of those 5 million registered nurses, about 3.3 million are employed (BLS 2024a). For the current openings of 187,000 nursing jobs (BLS 2024a), there are more than enough nurses. In fact, the US Department of Health and Human Services (HHS) predicts that 43 US states will have a surplus of registered nurses in 2030 (HRSA 2017; NCSBN 2018).

And yet, 94 percent of nurses reported moderate to severe levels of understaffing in their workplaces (<u>Diaz 2023</u>; see also <u>Plescia and Gooch 2022</u>). HHS found "monumental" staffing issues in nursing homes (<u>Grimm 2024</u>), and the International Council of Nurses suggested that the current nursing crisis should be treated as "a global health emergency" (<u>AACN 2024</u>).

The problem, then, is not a shortage of available nurses and nursing assistants, explains Karen Lasater (2024). The problem is a growing number of nurses and nursing assistants who refuse to accept chronically understaffed, underpaid, unsafe, and high-stress workplaces (Muir et al. 2024). In other words, many nurses are not unwilling to work or unwilling to work full-time; they are simply unwilling to work with hazardous conditions, organizational failures, ill-maintained facilities, scheduling rigidity, and low pay (Muir et al. 2024; Lasater et al. 2024). During the COVID-19 pandemic, more than 100,000 registered nurses left the industry due to workplace stresses (Seow 2023; Auerbach et al. 2024). But this pandemic-induced exodus of mostly

² For discussion of chronic understaffing, see <u>Andel et al. 2021</u>.



older workers was more than made up for by the arrival of younger workers, and the nursing workforce has not suffered any long-term shrinkage post-pandemic (<u>Auerbach et al. 2024</u>).

Over the last 50 years, financialization, consolidations, and the rise of business administrators in medicine have built a new for-profit health-care empire organized around capital-intensive procedures, consolidated corporate power, and risk-intensive working conditions. In 1965, there were nearly no investor-owned hospitals in the US. But by the mid-1980s, about 15 percent of all US hospitals were owned by investors (Ermann and Gabel 1986). Forty years later, the percentage of investor-owned, for-profit hospitals had nearly doubled to 30 percent of community hospitals in 2022

Wall Street's takeover of US health-care infrastructure and Silicon Valley's introduction of gig nursing apps are a dangerous duo that is eroding our health-care system and eviscerating our ability to take care of each other.

(<u>Lingel et al. 2022</u>). Alongside this expansion of corporate ownership in the health-care industry, hospital profits ballooned by 411 percent from 1999 to an all-time high of \$88 billion in 2017 (<u>National Nurses United 2020</u>). At the same time, rural areas have seen more than 100 hospitals close in the last decade and 700 more at risk of imminent closure (<u>Olsen 2024</u>). New management practices such as decreased lengths of stay for patients and increased responsibilities for nurses have taken hold across the health-care industry (<u>Brewer 1998</u>). Business endeavors to cut costs have kept nursing wages stagnant and led to an increasing number of medical facilities that are purposefully understaffed (<u>Brewer 1998</u>).

The threats posed by corporate ownership in the health-care industry have worsened since the entry of private equity firms, which have bought up record levels of medical facilities and medical staffing agencies in the last four years (Bugbee 2022; Gallagher 2023; American Hospital Association 2021). Private equity firms, which are distinct from venture capital firms that focus only on start-ups, use money from wealthy individuals and institutions to purchase and take direct control over the management and operations of an established business (Stienon and Boteach 2024; Appelbaum and Batt 2014). Their goal is to restructure businesses in ways that will maximize returns for investors, not improve the long-term health of businesses themselves (Stienon and Boteach 2024). Often, this restructuring involves dismantling the businesses altogether to sell them piece by piece. Private equity-controlled medical facilities are usually saddled with debt, lower and unpaid wages, unsafe work environments, and declining quality of patient care (Gupta et al. 2021; Appelbaum and Batt 2020; Rafiei 2022). As Adam Gaffney and coauthors (2024) note, "Nationwide, private equity acquisition causes a 24 percent fall in hospitals' assets and a 25 percent rise in patients' hospital-acquired complications, such as infections and falls."



In little over a decade, the country's largest for-profit hospital chain—Steward Health Care—bought, ravaged, and then shuttered six hospitals in Massachusetts (<u>Brangham et al. 2024</u>). In response, US Senator Elizabeth Warren introduced in mid-2024 a bill to stop such "legal looting" of the US health-care system. She explained her rationale for action: "A private equity firm bought Steward Health Care, sold the land from under the hospitals, and walked away with a fat profit while the hospitals failed and workers and patients suffered" (<u>Serres 2024</u>). When the US Senate Health, Education, Labor and Pensions Committee sought answers about the company's operations in a summer hearing, Steward Health Care's CEO defied the subpoena and the committee voted unanimously to hold the CEO in contempt (<u>Vogel 2024</u>).

Private equity's acquisition and subsequent raiding of two of the largest health-care staffing agencies in the country is an important piece of any story about why so many nurses turn to gig nursing. When the private equity companies Ares Management and Leonard Green and Partners acquired a majority stake in CHG Healthcare, a health-care staffing agency, the private equity companies did two things. First, they followed a routine private equity move of adding hundreds of millions of new debt to the staffing agency as a way to finance the acquisitions of other companies. Then, they extracted more than \$1.5 billion in dividends from the staffing agency. Not long after, Moody's lowered CHG's credit rating from stable to negative. Just as private equity is looting and closing hospitals across the country, so too is it raiding travel nursing agencies (Bugbee 2022).

Researchers across the social sciences and public health disciplines argue that a new political economy of medicine has arrived (<u>Apaseo-Varano and Varano 2004</u>; Whelan 2021; <u>Gallagher 2023</u>). Gabriel Winant explains the dangers of this new model and its chronic understaffing of nurses and nursing assistants: "Health care is run increasingly on a 'lean' basis, at the bare minimum of staffing, and then, when there is a need to increase supply, firms like CareRev are positioned to profit; it's good for them and good for hospitals but bad for workers and bad for patients" (<u>Vicks 2022</u>).

It is in this context that new on-demand nursing companies have attracted significant venture capital investment. ShiftKey, which says it operates in 10,000 health-care facilities in the US, raised \$300 million in 2023 and is now valued at \$2 billion (Vedantam and Metinko 2023). Clipboard Health's latest valuation was \$1.3 billion after having raised \$90 million in capital (Wiggers 2022). ShiftMed raised \$47 million in 2024 and \$200 million the year before (Citybiz 2024; Hall 2023).

Existing Research on Gig Nursing

A small number of scholars and journalists have begun to examine the nature, genesis, and effects of the on-demand nursing industry and its new algorithmic management technologies on nurses and nursing assistants (<u>Lien 2023</u>; <u>Hilgers 2023</u>; <u>Gallagher 2023</u>; <u>Sumagaysay 2023</u>; <u>Lecher 2023</u>; <u>Asher-Shapiro 2023</u>; see also <u>Khan 2016</u>). Current



nursing demographic data suggests that gig nursing roles are primarily filled by women and people of color (see below) and have little to no worker protections or benefits. Given this reality, there is deep concern that gig nursing companies are exacerbating gender and racial inequalities (<u>Yang et al. 2023</u>).

In a foundational study about the gig nursing industry, Chia Yu Lien (2023) finds that the consequences of gig nursing include "negatively impacting facility operations, nursing staff cooperation, and quality of care" by, for instance, inducing higher rates of catheter use and medical errors. Lien does not mince words: Gig nursing services have worsened, rather than alleviated, the quality and quantity of nursing jobs. In using gig nursing services, nursing home managers make a Faustian bargain: To offset the premium costs for gig nurses (who often command higher rates than in-house staff), a nursing home takes in more clients, resulting in more work for its employed staff. Employed staff then find "themselves receiving lower salaries, having higher caseloads, working on weekends and holidays and often providing extra services for which they [are] not compensated." Lien concludes that gig nursing jobs hurt the quality of care in health-care facilities, ignite workplace tensions between gig nurses and full-time staff, and eliminate much-needed managerial oversight in these facilities.

Many nurses are *not* unwilling to work or unwilling to work full-time; they are simply unwilling to work with hazardous conditions, organizational failures, ill-maintained facilities, scheduling rigidity, and low pay.

Other observers of this new industry—which, worldwide, we have only found evidence of in the US and France³—offer similar warnings about the risks that gig nursing poses to patient care: "Hospital clinicians often express concerns that gig nurses, due to their transient nature and relative unfamiliarity with specific hospital systems, equipment, and protocols, may not provide the same level of high-quality care as longer-term, full-time nurses" (Yang et al. 2023). On-demand gig nursing "drops uninitiated strangers into already stressful situations and can have the paradoxical effect of making work harder for full-time staff trying to care for their patients while also bringing new staff up to speed" (Vicks 2022).

Collectively, this emerging research suggests that on-demand nursing firms are part of a long-term and well-documented erosion of worker rights and an ongoing shift of risk from employers to low-wage workers (for discussion, see <u>Dubal 2022</u>; Schor 2021; Ravenelle 2019; Wells et al. 2023; Dolber et al. 2021; Smith and Pinto 2020). While on-demand nursing companies claim they are disrupting the health-care industry, the underlying algorithmic management technologies they rely on are posed to reinforce and exacerbate existing inequalities for nurses and nursing assistants as well as worsen the quality of patient care. Kim A. Aquino (<u>2021</u>) is explicit about the dilemma that the US health-care industry faces with regard to staffing: It is a "dilemma of reconciling the

 $^{^3}$ Mediflash is one such French company.



cost-cutting concerns of corporations in the industry with the potential cost-saving solution that the exploitative platform economy offers."

A Brief Labor History

The emergence of gig nursing firms for medical facilities is novel with its use of algorithmic scheduling and management technologies. But third-party staffing firms themselves are not new to nursing work. For the first half of the 20th century, most nurses who worked in hospitals did so through a third party called a private-duty registry. In the 1930s, private-duty registries organized ongoing contracts for local nurses en masse; these were collective agreements, not individual ones. By contrast, contemporary travel nurse agencies, such as CHG Healthcare mentioned above, facilitate short-term contracts for individual workers to cover the shifts of full-time nurses who are on parental or medical leaves (Lien 2023; Zhavoronkova et al. 2022). The private-duty registries were women-run and helped level the playing field for an overwhelmingly female workforce in a male-dominated medical field. They also established a substantial vehicle for nurses to negotiate pay, schedules, and working conditions (Whelan 2021).

In the 1950s, nursing employment underwent a significant shift. Hospitals began to directly hire and manage their own pools of staff nurses (Whelan 2021), which led to the demise of private-duty registries and their strong workplace standards (<u>D'Antonio et al. 2010</u>). This shift meant a collective loss of workplace power for women, especially for Black female private-duty nurses (Whelan 2021). Hospitals, which for decades had systematically discriminated against Black nurses (Hine 1989), now had the upper hand in the workplace.

Hospitals also had the loudest voices in policy debates. Discussion about nursing routinely overlooked quality-of-workplace issues like low pay, discrimination, and poor conditions (<u>D'Antonio et al. 2010</u>). In the 1960s, hospitals lobbied successfully for federal intervention to expand nursing education (<u>Yett 1966</u>). Rather than asking why so many nurses had left their jobs in the 1950s, federal action focused on increasing the supply of new nurses to take open spots or using student nurses who would toil long hours for little or no pay.

The struggle for workplace rights for nurses and "professional recognition," write Jessa Lingel et al. (2022), was always wrapped up in the masculinized medical field and a society that framed nursing as "women's work." The gendered nature of the nursing workforce contributed to a notion that nurses were "predominantly temporary workers for whom attractive working conditions were an unnecessary luxury" (Whelan 2021).

⁴ Travel nursing agencies, which emerged in the 1970s as a way for hospitals to supplement their lean staffing models with travel nurses, are typically given multi-week contracts at the same facility by an intermediary staffing agency. But their future is unclear in the era of the gig nurse.



Beyond the medical field, nurses also struggled for a voice within feminist movements, which historically "undervalued the agency of women in feminized career paths" (<u>Lingel et al. 2022</u>). Racial discrimination additionally hindered labor activism among nurses. White nurses created organizations such as the American Nurses Association, which explicitly excluded Black nurses until the mid 1960s (Hine 1989).

Today, about 20 percent of US nurses are unionized, which is higher than the 12 percent unionization rate of the general working population (<u>Lingel et al. 2022</u>). Unionization rates correspond with better patient outcomes, such as lower mortality rates and "fewer hospital-acquired illnesses" (<u>Krachler et al. 2021</u>; see also <u>Dube et al. 2016</u>; <u>Sojourner et al 2015</u>). During the pandemic, nursing homes with unionized workers had fewer rates of COVID-19 infection among staff and patients and fewer patient deaths in comparison to nonunionized nursing homes (<u>Dean et al. 2022</u>).

In recent years, a number of campaigns by unionized nurses have made important contributions to the labor movement by demanding decent patient care (<u>Hirsch et al. 2024</u>; <u>Krachler et al. 2021</u>; but see Givan 2016 on the fraught relationship between labor movements and nurses).⁵ National Nurses United, the largest union for registered nurses, held a June 2022 webinar on the topic of gig nursing and later warned that gig nursing firms will harm all nurses in the long run (<u>National Nurses United n.d.</u>; <u>Coleman-Lochner 2023</u>). However, when the union released in 2024 a guiding set of principles "for AI Justice in Nursing and Health Care," the issue of gig nursing did not appear. Initial research suggests that gig nursing is most common in nonunionized medical facilities, which may contribute to the smaller amount of attention the issue has received so far from existing unions, whose workplace concerns for employed nurses are already considerable.

Current Nursing Demographics

The US health-care industry's largest workforce is made up of registered nurses and certified nursing assistants (CNAs) (Committee on the Future of Nursing 2021). Registered nurses hold bachelors or associate degrees after completing multiple years of postsecondary education, while nursing assistants must complete high school plus a one- to two-month training program. There are significant differences between the demographics of these two groups, but one similarity is stark: Both professions are still disproportionately staffed by female workers. In 2022, about 88 percent of nurses and 89 percent of nursing assistants were women (Buerhaus et al. 2017; Data USA n.d.; Norris 2023). While the share of men in nursing steadily increased over the last 20 years, that percentage has now plateaued (AACN n.d.).

⁵ In this way, nursing activism can be seen as precursor of sorts to the <u>Bargaining for the Common Good</u> labor activism model.



Racially, the US registered nurse population largely mirrors the country's racial demographics. According to 2022 data, nurses are 80 percent white or Caucasian, 6.3 percent Black or African American, 7.4 percent Asian, 2.5 percent more than one race, and less than 1 percent each for Native American or Alaska Native, and Native Hawaiian or Pacific Islander (AACN 2024b). In addition, 6.9 percent of the nursing workforce report their ethnicity as Hispanic (AACN 2024b). In contrast, more than half of certified nursing assistants identify as Black or as people of color (Data USA n.d.; Squillace et al. 2009) and hold some of the lowest-paid jobs in health care (Asher-Shapiro 2023).

Worker Experiences

The Black Box of On-Demand Nursing Apps

Ashley, a 31-year-old certified nursing assistant in rural Pennsylvania, has worked in hospitals and nursing homes through the ShiftKey app. Though Ashley has worked on the app for the last two years, there's a lot she doesn't know about it—like how the company allocates shifts. She is not the only one in the dark. In the gig nursing world, there is zero transparency about how jobs are algorithmically allocated or automatically scheduled. Different shifts will show up on different workers' phones—often for different amounts of pay. On the same day, at the same hour, in the same hospital, two different gig nurses can be paid different amounts by the same app. The gig nursing industry looks more like a black box than a clear process or a fair set of rules. The industry's opaque and personalized pay structures create what Veena Dubal (2023) terms "algorithmic wage discrimination," a kind of discrimination in which workers are paid different hourly amounts based on ever-changing calculations and informational asymmetries. Gig nursing apps may determine pay by what the firm knows about how much a nurse was willing to accept for a previous assignment, how often they bid for shifts, or how much credit card or other kinds of debt they might hold. These uncertainties combine to create frustrating and precarious conditions for the workers who rely on these apps.

Competing for a Shift

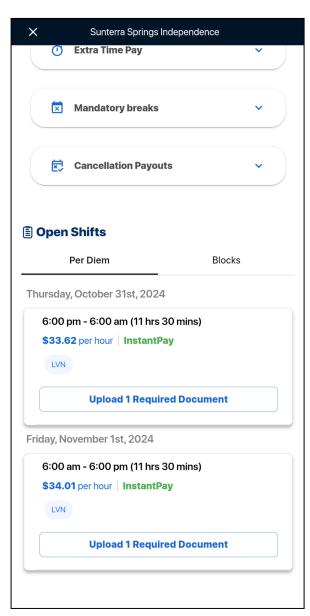
To sign up for shifts on a gig nursing app, workers agree to a background check and upload three sets of documents about (1) their active professional licenses or certificates, (2) their vaccine records for, in most cases, hepatitis B and COVID-19, and

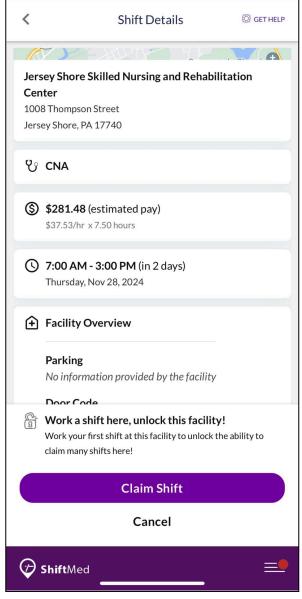
⁷ In discussion with authors, February 9, 2024.



⁶ Between 2000 and 2018, the nursing workforce became less white and more Black and Hispanic (Committee on the Future of Nursing 2021).

(3) negative test results for tuberculosis and a drug urine screening. There are no interviews as part of the job application—the hiring process has been relegated to algorithmic software systems that screen and evaluate applicants. Performance management, too, has been reduced to a series of metrics that are difficult if not impossible for workers to contest. Gig nurses—like Uber drivers and DoorDash delivery couriers—also receive a series of ratings. Some of these ratings are given by the medical facilities for attendance, timeliness, and onsite performance. Other ratings—which have similarly little transparency—are given by the on-demand nursing companies. ShiftMed, for instance, gives a reliability score to workers based on how many shifts they complete, how early they cancel shifts, and whether they stay late on a job (which can, oddly, hurt one's score). Higher reliability scores lead to earlier access to shifts while lower ratings result in temporary or permanent suspensions and, workers suspect, lower pay offerings.





These screenshots of the ShiftKey and ShiftMed apps show how workers can view and select open shifts.



For Dana, a 29-year-old nurse in St. Louis, Missouri, one of the hardest parts of working on the CareRev app is not knowing whether she will actually get to work a shift that she accepted. Even after she is matched with a shift at a nearby hospital and arranges childcare for her son, she won't know for sure if she'll be able to earn money that day. She says, "It's a gamble . . . I'll wake up at 5:00 in the morning and I'll find out if I'm canceled or not." If a hospital cancels her shift more than two hours before the start time, CareRev does not compensate her at all. If the cancellation is closer to the planned start time, she sometimes earns two to four hours of what she was supposed to have earned if she worked the entire shift. Hospitals may also shorten shifts while a nurse is on the job; in these cases, the app does not pay the nurse for any of the unworked hours. (Of course, nurses are not paid for any unexpected additional hours they may work.) If Dana were to cancel a shift at the last minute or leave in the middle of a shift, she would be penalized. Her attendance rating would dip, which would negatively impact her access to future shifts or the app itself.

To work on the CareRev app, Dana must be on-call for all of the shifts she selects but is only paid for her actual hours worked. Almost all of the workers we interviewed shared frustrations about the way gig nursing companies do not compensate nurses for canceled or shortened shifts. Several workers described with resentment the experience of receiving a cancellation notice in the app just as they arrive at a facility's parking lot. When this happened to Robin, a 41-year-old health-care worker living near Miami, Florida, she couldn't find another shift and did not work that day.¹⁰

A Race to the Bottom for Wages

For workers, the old adage of equal pay for equal work has gone out the window. Personalized pay is all the rage (<u>Teachout 2023</u>). On-demand nursing companies such as Clipboard Health and ShiftKey encourage workers to join in on personalized pay schemes by bidding against each other. On ShiftKey, Ashley not only expresses her availability for a shift but bids for one against peers by indicating the lowest hourly rate for which she will work. To win the shift, she lowers and lowers her rate until it's well below a living wage. Like other gig workers who spend a considerable amount of work time not being paid (see <u>Attoh et al. 2024</u>), Ashley is not paid for the time she spends each month updating her profile, reviewing available positions, bidding for shifts, and sending messages in the app about errors in her wages. Some days, she says, ShiftKey feels like a race to the bottom. Others agree—four workers in this study earn so little as gig nurses or nursing assistants that they qualify for Medicare or Medicaid. Two others had no health insurance at all—Ashley is one of them.¹¹

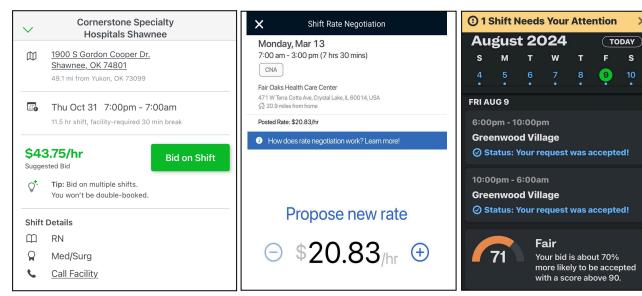
¹¹ Clipboard Health, ShiftKey, ShiftMed, and CareRev do not require workers to obtain any health insurance for themselves.



⁸ In discussion with authors, April 3, 2024.

⁹ The cancellation policies vary from company to company, and even within an app, some shifts may guarantee cancellation pay while others do not.

¹⁰ In discussion with authors, February 6, 2024.



Screenshots show how workers bid for gigs. Left to right: ShiftKey, Clipboard Health, ShiftKey.

On ShiftKey, Ashley earns an average of \$23 per hour, which is more than what she earned as a substitute teacher. For each shift, Ashley is required to pay \$6 in fees. For many workers on gig nursing apps, the withdrawal of these oft-hidden fees from their paychecks is a surprise. Each day Ashley works, she is required to pay \$3.67 for a "safety fee" (which the company describes as "costs associated with background checks, drug screens [if applicable], verification of credentials, and fraud detection and prevention"), \$2.14 for occupational accident insurance, and \$0.21 for medical malpractice insurance (ShiftKey 2024b; 2024c). It is not clear why these fees are priced per day, given that nurses do not get background checks or drug screens each day they work on the app. By the end of 2024, these fees will increase to a new total of \$7 per shift. Ashley is also charged \$2 per shift if she elects to cash out immediately rather than waiting a week for her pay to be transferred. Workers wish they could find out exactly what amount the facility pays to the gig nursing firm for their labor and whether it is therefore gratuitous for the firm to extract fees from both the worker and the facility for each hour of a nurse's labor.

When all of these costs are taken into consideration, Ashley's actual take-home pay as a nursing assistant drops sharply to roughly \$13 per hour. She is not alone with these kinds of low-wage earnings. Of the 29 workers in this study, 14 say they could not make a living if on-demand nursing apps were their only source of income.

Still, the rates on ShiftKey can be higher than what both employed nursing assistants and nurses earn, and it is this higher rate that often attracts these workers to gig nursing jobs. The average hourly rate for employed nursing assistants is \$18.33 and for nurses is \$45.42 (BLS 2024a; 2024b). By contrast, in this study, the average hourly rate reported by gig nursing assistants is \$22; for gig nurses, it is \$59. While the nursing app

¹² In previous years, ShiftKey charged workers lower fees—roughly \$72 per year—for background checks and drug screenings.



wages are often well-above most cities' and states' minimum pay rates, average nursing wages, and even travel nursing wages, the payout from on-demand nursing apps does not take into consideration the material expenses, such as equipment, licenses, and uniforms, for which workers are responsible. Gig nurses, for instance, must pay for and maintain differently colored scrubs (and sometimes shoes) for different facilities. Moreover, the payout does not account for the significant payroll taxes for which workers are responsible. ShiftMed is a welcome outlier in this regard as it treats its workers as W-2 employees with some basic labor rights.

High Risk, Low Rewards

The risks of gig nursing are also higher than that of employed work. For nurses and nursing assistants, ShiftKey and its peer companies provide no paid sick leave or unemployment insurance. As Ashley puts it: "You get treated differently [because] you're not an employee." By contrast, traditional health-care staffing agencies often treat temp nurses and nursing assistants as employees. When companies like CareRev, ShiftKey, and Clipboard Health classify nurses and nursing assistants as self-employed, many of the costs and risks of doing business are shifted onto the workers. These workers are excluded from the protections of local, state, and federal law on minimum wage, overtime pay, workers' compensation, retirement benefits, employment-based health insurance, and paid sick days.

Workers must also agree to be tracked on their smartphones to clock in and clock out at facilities, and to keep their location tracker on while en route to a facility. Some workers expressed frustrations about not getting full pay for shifts worked if the internet or cell service in a specific area is weak or prevents them from logging into the app and officially beginning their workday.

Dana wishes she could find a full-time job as a nurse that would pay decently and wouldn't require weekends. ¹⁴ She feels as if hospitals like to hire new nursing school graduates rather than pay more for mid-career or senior positions that would be a better match for nurses like herself. She explains:

The only reason that I'm doing this right now is because I have no choice. This is what I went to school for and this is what is going to [do to] pay my bills in this . . . scary economic, you know, crisis that we have going on right now where you can barely afford to be alive . . . So, this is what I have to do in order to survive, even though, you know, it's not what I really want to do. But I hate saying that because I love being a nurse. But I hate being a nurse right now with [what] these greedy, immoral, corporate companies have done to health care.

¹⁴ In discussion with authors, April 3, 2024.



¹³ In discussion with authors, February 9, 2024.

Safety and Health Risks for Workers

For the past year, Kristin, a 40-year-old certified nursing assistant who lives near Portland, Oregon, has earned most of her income from Clipboard Health.¹⁵ She also does accounting work for her father's construction business and data entry at a friend's small business. She has always been involved in care work, but it wasn't until the pandemic wreaked havoc on her day care for kids with disabilities that she turned to nursing. Though Kristin appreciates the ability on Clipboard Health to not pick up shifts when she isn't available, such as when her kids are home from school or have doctor's appointments, she has been surprised by how much physical risk she routinely faces—and how little the company cares for her well-being.

One time, while moving a patient, Kristin developed a hernia: "I was on the floor in tears and throwing up from just the pain. And I could not get ahold of anybody. They called the paramedics for me. And then I couldn't get approval to leave, and the paramedics left without me." She was eventually able to speak with a facility director who assigned her duties to someone else and let her go. To make matters worse, Clipboard Health did not pay her for any hours of that shift because, the company said, she walked out. Her account was then deactivated for two weeks. Kristin says, "It sucks that there's nobody that you can get ahold of immediately . . . If there's an emergent need, you're not getting help."

She also wishes there had been easier channels for communication when she tested positive for COVID-19. When Kristin couldn't figure out how to cancel her shift on Clipboard Health's app without losing attendance points (which would affect her ability to access work later in the month), she contacted the facility and asked them to cancel her shift. They refused. And so Kristin, despite being sick with COVID-19, showed up for the nursing job.

Her story is not unique. Almost every worker in this study reported frustrations with the lack of supervision and management for jobs on Clipboard Health, ShiftKey, CareRev, and ShiftMed. Aisha, a 24-year-old certified nursing assistant in Atlanta, Georgia, works full-time at a long-term care facility. For years she has supplemented her income with work for DoorDash or UberEats. Two years ago, she signed up to work for ShiftKey at area nursing homes and found a palpable amount of isolation:

You really have no one to talk to if . . . you're needing help . . . It's really no communication with anybody other than yourself . . . There's no one for you to complain to if there's any mistreatment . . . or abuse [of patients] there. You really don't know the chain of command. . . .

¹⁶ In discussion with authors, March 21, 2024.



¹⁵ In discussion with authors, June 11, 2024.

Aisha compares the risks of gig nursing work to those of app-based food delivery, which often takes her to strange neighborhoods at night. For ShiftKey, she has shown up late at night to facilities where the doors are locked and she can't get in contact with anyone to open them. Even inside certain hospitals or nursing homes, she sometimes feels unsafe: "You really don't know anything about the facilities." Gig nurses are not required to complete any paid training or onboarding at most facilities. They are dropped into facilities like new avatars in a survivalist video game. The result of gig nurses' isolation isn't just a lack of solidarity with peers (be it other gig workers or employed staff) but exclusion from any sort of professional development or professional culture that maintains shared norms and practices.

While on-demand nursing companies claim they are disrupting the health-care industry, the underlying algorithmic management technologies they rely on are posed to reinforce and exacerbate existing inequalities for nurses and nursing assistants as well as worsen the quality of patient care.

Worker after worker voiced similar concerns with communication and the lack of supervision by both facilities and gig nursing companies. One even admitted that in these nonsupervised workplaces, she has to be careful not to lower her own standards of care. Crystal, a 32-year-old nurse for ShiftMed in upstate New York, says: "Ideally, there should be a nursing supervisor [on site] that should check you in and tell you where to go . . . It's not very often that I'm even in the building with a manager."17 Six other workers expressed the desire for there to be a phone number instead of a chatbot on the app for workers to contact if they had any questions or concerns while on the job. Three workers who experienced racial discrimination on a shift did not know to whom to report the infractions and ultimately did not. (However, as contractors rather than employees, most gig nurses are not covered by antidiscrimination laws.)

Collectively, 13 of the 29 workers in this study report taking excessive risks to their own health and safety while on a job for Clipboard Health, ShiftKey, CareRev, or ShiftMed. Crystal, who picks up shifts on ShiftMed to supplement her earnings from a full-time job at a hair salon, says she is often assigned to care for 30 residents at a time in a nursing home. She, like several other workers in this study, brings her own vitals equipment—such as a blood pressure cuff, pulse oximeter, and thermometer—because, she has learned, not all facilities have those tools available. "Nobody actually works for these facilities because they are poorly run," she thinks. A ShiftKey worker agrees about the difficulty of the job: "I have 30 people that I'm responsible for toileting every two hours. That's a lot of work for one person." Two workers we interviewed shared upsetting experiences of being floated to areas of a hospital for which they had little

¹⁹ In discussion with authors, February 9, 2024.



¹⁷ In discussion with authors, August 27, 2024.

¹⁸ In discussion with authors, August 27, 2024.

training. In these cases, the workers were not paid extra for the more difficult assignment; they were only paid for their original assignment.

Most concerning was the experience of a certified nursing assistant who had just completed a double shift (16 hours) at a long-term care facility when her supervisor told her that there was no one to relieve her so she would have to stay an additional 4 hours. She called ShiftMed, which is the only on-demand nursing company in this study with a phone number for workers to easily contact, and was told that she could be required by the facility to stay and that the extra hours were not against the law.²⁰

Gig nursing jobs are made harder by the fact that workers largely work them without supportive colleagues. The tension between gig workers and regular staff at facilities was a common theme across all 29 interviews. One worker says, "I would get a lot of like, snarky comments like under their breath like, 'Well, you're making the big bucks, so you should do that [task]." Another says, "They just don't like us 'cause we'll get paid more than them." As a reminder, gig nurses and gig nursing assistants are often paid higher wages per hour than employed staff, but, unlike most employed staff, are responsible for significant expenses and earn no benefits.

Several other workers say that regular staff sometimes ignore gig nurses and that gig nurses are assigned the toughest hospital wings and the hardest patients, some of whom are verbally abusive. Dana, who we quote above, tells us: "Yesterday, I felt like I was given a very difficult assignment because of my position [as] a gig nurse . . . I felt like I was given the worst patients. I had such a hard day yesterday. I left, and I cried." 23

"It's a gamble . . . I'll wake up at 5:00 in the morning and I'll find out if I'm canceled or not." Workers repeatedly said in interviews that they often do not have time to go to the bathroom or get a drink of water while working for apps. There is no one looking out for them. Aisha, the CNA from Atlanta, says, "I just feel like I am on an island by myself a lot." Such isolation, which is rampant in the gig economy, discourages worker solidarity (see Wells et al. 2021).

Legally, workers also face risks as gig nurses. CareRev and Clipboard Health require their health-care workers to arbitrate any issues outside of a court of law. In a rare move that a former Department of Labor attorney has called "crazy" (Adams 2023), workers for CareRev and Clipboard Health are also required to indemnify the companies and the facilities that use the companies. In doing so, gig workers are agreeing to pay for any potential losses or damages that they may cause, thus protecting the company, not the worker. Additionally, gig nursing companies require

²⁴ In discussion with authors, March 21, 2024.



²⁰ In discussion with authors, March 1, 2024.

²¹ In discussion with authors, January 10, 2024.

²² In discussion with authors, July 29, 2024.

²³ In discussion with authors, April 3, 2024.

workers to waive their right to class action, which effectively prevents workers from bringing claims collectively. ShiftKey's contract stipulates that termination is allowed for any reason and, in an unusual move, bans workers from using any third-party apps or data-scraping tools to gain insight into the ShiftKey app. ShiftKey's contract is also remarkable in another regard: It says that if a nursing licensure board or hospital takes a disciplinary action against the worker, it is the responsibility of the worker to tell ShiftKey. As a result, if a worker loses their license and still works on the ShiftKey app, the worker is liable—not the ShiftKey company itself. The ongoing transfer of risks from companies to workers is unmistakable.

Safety and Health Risks for Patients

Shakayla, a 38-year-old nurse in Los Angeles, California, sees risks in patient safety when she works through the ShiftMed app. For the last year, she has picked up shifts using ShiftMed to supplement her income as a regular travel nurse for a health-care staffing agency. The difference between the kinds of facilities where she works as a travel nurse and a gig nurse are stark. On ShiftMed shifts, she says: "There have been times when I've been unable to access patient records or find supply closets." There are also broken machines and missing equipment, she says. By contrast, "You go to a hospital in a different area that has funds and resources . . . It's just like night and day, honestly." Shakayla likes the stability, benefits, and rapport with her coworkers at her regular job and dislikes how work booked through ShiftMed can pose risks to patient safety, but inflation and increases in the cost of living mean that she keeps opening the ShiftMed app.

Other workers report that the lack of management and resources can result in major safety lapses for patients, such as gig nurses not being able to get updated information on patient medications or instructions about whether patients need help with feeding. One nurse for ShiftKey called the circumstances "a rotten situation because [the patients] just have all these random folks taking care of them." Since no orientation or paid safety training is usually required for shifts on Clipboard Health, ShiftKey, ShiftMed, and CareRev, there is no continuity of care. Workers report hospitals, surgical centers, and long-term care facilities breaking all sorts of rules, such as not properly locking up controlled substances and medications or looking the other way when workers show up to a shift under the influence of drugs. The most difficult part of the job, a different worker on Clipboard Health shared with us, is "seeing the care that is provided is not adequate." A CareRev nurse said that hospitals use the apps because they are "desperate" and "have no staff at all." She continued: "I think it's just a Band-Aid

²⁷ In discussion with authors, July 29, 2024.



²⁵ In discussion with authors, August 29, 2024.

²⁶ In discussion with authors, March 27, 2024.

because once hospitals can't pay these high rates . . . no one's going to do [this care work]." 28

In this study, only one worker reported taking a shift at a unionized medical facility. It is not clear how much, if at all, major unionized facilities are using gig labor. It is also not clear where gig nursing is geographically concentrated in the US, if it is at all, despite worker claims of its high concentration in poor and rural areas.

Gig Nursing Retention

Crystal, who we quote earlier, tried to pursue a staff job outside of the ShiftMed app after finding a facility that she felt was better run than the rest, but she wasn't able to apply for the posted job because the facility had a noncompete clause in its contract with ShiftMed.²⁹ Other gig nurses in Wisconsin report a similar problem with CareRev and noncompete clauses, which have impinged on their ability to take full-time or even part-time work at hospitals that had contracts with gig nursing companies.

The vast majority of workers in this study (19 out of 29) said that they plan to continue working for Clipboard Health, ShiftKey, ShiftMed, or CareRev because, overall, they like the job. Two of these workers even said they would leave health care altogether if they weren't able to continue with gig nursing jobs. The gig nurses and nursing assistants we interviewed said over and over again how important flexible schedules are to their lives, especially their own caregiving, be it for children, spouses, or elders. These responses complicate the picture of gig nursing, but they do not negate the concerns expressed above. On Reddit threads, in Facebook groups, and on the Better Business Bureau's website, hundreds of workers echo the frustrations outlined in this study.

Out of the 29 workers in this study, 14 say they could not make a living if on-demand nursing apps were their only source of income. The fact that many workers are willing to take on the risks of the health-care sector via unregulated technology should be a reflection of the failures of the existing labor market in general and the erosion of labor standards in the health-care industry in particular—not merely the design failures of gig nursing. In other words, the risks and concerns that workers expressed will not be automated away if the current algorithmic systems are replaced by better ones and trained on more data with

more use cases. For many workers, the possibility of employment that involves flexible schedules is enticing and worth pursuing. The question before civic leaders and government officials is how to balance the flexibility that attracts gig nurses while also addressing the workplace concerns of those same workers and patients who need care.

²⁹ Noncompete clauses are now prohibited by a September 2024 rule of the Federal Trade Commission (<u>FTC 2024</u>).



²⁸ In discussion with authors, May 23, 2024.

In other workplaces, the varying concerns expressed by the nurses we interviewed are often addressed by regulators who evaluate and regulate labor standards, public safety hazards, and patient safety.

Policy Landscape

While litigation, legislation, and political debates about gig nursing are largely nascent, on-demand nursing companies have joined the robust and ongoing lobbying effort to enact minimal, and sometimes zero, government oversight of app-based work. Uber has been at the forefront of this decade-long and nationwide campaign to minimize federal, state, and municipal regulation, especially around labor standards (Wells et al. 2023; <u>2024</u>). One of the biggest legal issues on the table before Uber as well as on-demand nursing companies is the question of whether workers are being correctly classified as independent contractors, as the companies contend.

Since 2022, a number of laws and legal amendments have been drafted to define digitally dispatched health-care workers as independent contractors. Just as Uber convinced municipal regulators in 2012 that digitally dispatched chauffeurs needed a new business category and exemptions from existing regulatory structures, so too are on-demand nursing companies trying to convince state-level regulators that there is something magically different about their business operations and thus they should be exempted from existing legislation. A California ballot initiative in 2022 to define digitally dispatched health-care workers as independent contractors was withdrawn (Sherer and Poydock 2023), but the campaign around it was not an aberration. That same year, a Minnesota omnibus bill put forward the phrase "health care worker platform" to describe on-demand nursing companies that use "an internet platform" to assign workers to jobs. Minnesota Governor Tim Walz declined to sign the bill into law, which would have specified that workers for these companies act as independent contractors. Similarly, a draft Ohio appropriations bill tried to do nearly the same thing with nearly identical language.

However, not all efforts to establish "health-care worker platforms" as unique business entities that should be excluded from existing labor standards and public safety regulations have stalled. In 2022, the state of Colorado adopted a bill that does just that. Colorado now defines a "health-care worker platform" as:

Any person, firm, corporation, partnership, or association that maintains a system of technology that provides a media or internet platform for a health-care worker to be listed and identified as available for hire by health-care facilities seeking health-care workers. Under a platform, the health-care facility sets the hourly rates and other terms of hire and the health-care worker, as an

³¹See draft of Ohio H.B. 33.



³⁰ See Minnesota S.F. No. 4410 (2nd Engrossment) and bill tracking.

independent contractor and not as an employee or agent of the entity that maintains the platform, decides whether to agree to the hourly rates and other terms of hire (emphasis added) (Colo. S.B. 22-210 2022; NALTO 2023).

This new Colorado law tries to preempt both local regulation³² and the kinds of misclassification lawsuits that have entangled ShiftKey and Clipboard Health. In several states, ShiftKey workers contend that nursing homes have wrongly withheld their wages and overtime pay. What's important to keep in mind about these legal battles is that the cases are not being brought directly against ShiftKey. The workers, who are prevented from filing class action lawsuits, are suing the nursing homes that treated them as employees (i.e., asked workers to stay late) but did not compensate them as such with overtime pay (Henreckson 2024). Of course, ShiftKey, as the entity that facilitates the recruitment, hiring, and scheduling of these workers, is implicated in the cases. In California, Clipboard Health has seen numerous wage claims filed against it and, in 2022, agreed to a \$2.2 million settlement over unpaid overtime to its workers (Sumagaysay 2023).

What is often lost in debates about the costs of misclassification is that it is not just workers who lose, but the public and our federal, state, and local governments too. Gig companies avoid contributions to social programs and force the public to pay for essential services for their workforce. These misclassification schemas also hurt businesses such as ShiftMed and Gale Healthcare Solutions (another popular on-demand nursing app) that play by the rules—actually classifying gig nurses as employees—and fairly pay into Social Security, unemployment insurance, and paid family leave programs (Staffing Industry Analysts 2023).

"Yesterday, I felt like I was given a very difficult assignment because of my position [as] a gig nurse . . . I felt like I was given the worst patients. I had such a hard day yesterday. I left, and I cried."

To make this case, Gale Healthcare Solutions has built a coalition of other W-2-based on-demand nursing companies and pushed the Department of Labor "to clarify that most temporary nurses be considered W-2 employees, not independent contractors, of the agency they work through" (Payne et al. 2023). These gig nursing companies offer their W-2 health-care workers both the flexibility to choose their own shifts and the protections inherent in being an employee. But, it is impractical and unsustainable for these companies to have to compete with ShiftKey and other firms that shirk their responsibilities to workers and the public. Moreover, the risks posed by gig nursing to worker safety and patient well-being will not be remedied alone by the reclassification

 $^{^{32}}$ For a discussion on gig work preemption trends, see Wells et al. ($\underline{2024})$.



of workers into employees. As interviews with ShiftMed workers reveal, significant problems remain even when workers are classified correctly.

Conclusion

Across the US, gig companies present themselves as quick fixes to what many have argued are really structural problems in the contemporary health-care industry. In the wake of the COVID-19 pandemic, companies like ShiftKey, Clipboard Health, CareRev, and ShiftMed have seized an opportunity and appealed to our common sense. Just as the gig economy sold itself as offering workers some control over their lives, gig nursing companies promise to empower nurses. As such, we must see the rise of on-demand nursing as a symptom of a problem—not the problem itself. Nursing professor Karen Lasater (2024) is explicit:

Policymakers need not solve for a low workforce supply issue; the US has a robust and growing supply of registered nurses with enough new nurses to more than replace retiring nurses through 2035. Instead, policies are needed to address the low retention caused by employers' chronic understaffing, rigid scheduling options, and lack of responsiveness to clinicians' recommendations to improve care, which drives nurses to burnout and [to] depart for better working conditions.

The real problem is twofold: Health-care institutions are suffering, and the workforce is struggling to find decent jobs. Is there a problem with health-care staffing? Yes. Is gig nursing the answer? Likely not. Even with apps that treat workers as part-time employees, as ShiftMed does, considerable risks remain for workers and patients, especially regarding continuity of care. Still, gig labor models have been deployed at a wide scale in the health-care industry. To expand upon the findings based on companies studied in this brief, future research should consider the nature of the Mercy hospital system, one of the 25 largest systems in the US, and its development of an employee-based app scheduling system for its established workforce (Lewis 2023).

On-demand nursing companies exercise employer-like control over their workers yet ascribe to workers a "second-class status of nonemployees" (Sherer and Poydock 2023). These companies want the power that comes with being an employer while disowning the duties and responsibilities enacted over the past century by federal and state lawmakers. The companies, however, frame the question of worker misclassification not as an issue of eroded labor rights but as a referendum on freedom, empowerment, and progress. According to the then-CEO of CareRev, "Nurses are ultimately empowered by becoming independent contractors" (Reed 2022). An executive of ShiftKey put it this way: "You're seeing a lot of tension between people who are ready to embrace empowered work and people who are still fighting the old guard, the old way of working" (Fast Company Executive Board 2023).



We are not opposed to technological change in the health-care sector. What we argue is for the inclusion of worker voices and patient well-being in decisions about when, where, and under what conditions technology makes sense in the health-care industry. As policy researcher Beth Gutelius (2024) reminds us, "One powerful way to shape the impacts of new technologies on an ongoing basis is to advance a set of policies that expand the right to organize and bargain collectively, increase protections at work, and enforce existing regulations." If we do not, the health-care workplace will continue to degrade, and, as Rachel Norris (2023) warns, "The next pandemic could be far more deadly, not because the virility of the next virus is higher but because we will have fewer caregivers to save us."

13 of the 29 workers in this study report taking excessive risks to their own health and safety while on a job for Clipboard Health, ShiftKey, CareRev, or ShiftMed.

The results of the study presented here are important and they should be taken in a wider context. Even though we have studied care work in several countries to date and have been in conversations with policymakers about the de-skilling of care, the case of gig nurses is the first time we see direct threats to a health-care workforce, let alone a workforce of this size and importance. Although others have documented the Uberization of child- and eldercare (Ticona and Mateescu 2018), gig nursing companies suggest an important turn in the US: the erosion of not only shifts and wages, but regulation of the profession

itself. The immediate risks to public safety, worker rights, and urban infrastructure posed by Uber could pale in comparison to the risks posed by new on-demand nursing companies, which engage major public and private health-care institutions. That a person who is not familiar with a hospital, its patients, its patient histories, or its management structures, can just arrive one day and pick up from the previous worker who finished their shift would be unimaginable only a few years ago.

In the context of the wider technological turn in the health-care industry, this brief offers a warning. It is important to not lose sight of the enormous amount of skill, coordination, understanding of human vulnerability and frailty, and treatment of patients with utmost decency required to provide good quality care. Technology could provide solutions to automate and unburden the nurses and health-care workers from the everyday management tasks of their work; however, decision-making around such solutions should include the nurses themselves, from design to deployment.

Our conclusion is straightforward. The patterns identified in this study raise questions about the extent to which working conditions and patient well-being in the on-demand nursing industry conform to contemporary labor standards and safeguard patient care. We call for legislators, policymakers, civic leaders, and community organizations to intervene in assessing, evaluating, and regulating the US health-care system in the face of the rising threat of gig work in nursing.



References

- Adams, Katie. 2023. "Labor Department Is Cracking Down on Providers' Use of 1099 Contractors, Lawyer Warns." MedCity News, March 6, 2023.
 - https://medcitynews.com/2023/03/labor-department-is-cracking-down-on-providers-use-of-10 99-contractors-lawyer-warns.
- American Association of Colleges of Nursing (AACN). 2024a. "Nursing Shortage Fact Sheet." News & Data. Last updated May 2024. https://aacnnursing.org/news-data/fact-sheets/nursing-shortage.
- 2024b. "Nursing Workforce Fact Sheet." News & Data. Last updated April 2024. https://aacnnursing.org/news-data/fact-sheets/nursing-workforce-fact-sheet.
- n.d. "Data Spotlight: Men in Nursing: Five-Year Trends Show No Growth." Last updated April 3, 2024.
 - https://aacnnursing.org/news-data/all-news/data-spotlight-men-in-nursing-five-year-trends-sh ow-no-growth.
- Andel, Stephanie A., Archana M. Tedone, Winny Shen, and Maryana L. Arvan. 2022. "Safety Implications of Different Forms of Understaffing Among Nurses During the COVID-19 Pandemic." Journal of Advanced Nursing 78, no. 1: 121-30. https://pubmed.ncbi.nlm.nih.gov/34240461.
- Appelbaum, Eileen, and Rosemary Batt. 2014. Private Equity at Work: When Wall Street Manages Main Street. New York: Russell Sage Foundation.
- Appelbaum, Eileen, and Rosemary Batt. 2020. "Private Equity Buyouts in Healthcare: Who Wins, Who Loses?" Institute for New Economic Thinking Working Paper Series no. 118. New York, NY: Institute for New Economic Thinking.
 - https://ineteconomics.org/research/research-papers/private-equity-buyouts-in-healthcare-who -wins-who-loses.
- Apesoa-Varano, Ester C., and Charles S. Varano. 2004. "Nurses and Labor Activism in the United States: The Role of Class, Gender, and Ideology." Social Justice 31, no. 3: 77–104. https://jstor.org/stable/29768259.
- Aquino, Kim. 2021. "Freedom Without Opportunity: Using Medicare Policy and CMS Mechanisms to Anticipate the Platform Economy's Pitfalls and Ensure Healthcare Platform Workers Are Fairly Paid." Brooklyn Law Review 86, no. 2: 661. https://brooklynworks.brooklaw.edu/blr/vol86/iss2/12.
- Asher-Shapiro, Avi. 2023. "Uber for Nurses? US Health Workers Turn to Gig Work." Context News, December 13, 2023.
 - https://context.news/digital-rights/uber-for-nurses-us-health-workers-turn-to-gig-work.
- Attoh, Kafui, Katie J. Wells, and Declan Cullen. 2024. "The Work of Waiting: Migrant Labour in the Fulfillment City." Journal of Ethnic and Migration Studies 50, no. 15: 3839-54. https://doi.org/10.1080/1369183X.2024.2379649.
- Auerbach, David I., Peter I. Buerhaus, Karen Donelan, and Douglas O. Staiger. 2024. "Projecting the Future Registered Nurse Workforce After the COVID-19 Pandemic." JAMA Health Forum 5, no. 2. https://doi.org/10.1001/jamahealthforum.2023.5389.



- Bonczek, Mary Ellen, Stephanie R. Duea, Terri Veneziano, and Heather Robinson. 2024. "Implementing a Team-Based Model of Care in a Rural Hospital Emergency Department: An Evidence-Based Practice Strategy." Nursing Management 55, no. 9: 49–54. https://pubmed.ncbi.nlm.nih.gov/39212473.
- Brangham, William, Karina Cuevas, and Azhar Merchant. 2024. "Investigation Reveals How Investors Made Millions as Steward Health Care System Collapsed." PBS, September 12, 2024. https://pbs.org/newshour/show/investigation-reveals-how-investors-made-millions-as-steward-health-care-system-collapsed.
- Brewer, Carol S. 1998. "The History and Future of Nursing Labor Research in a Cost-Control Environment." Research in Nursing & Health 21, no. 2: 167–77. https://pubmed.ncbi.nlm.nih.gov/9535408.
- Buerhaus, Peter, Lucy Skinner, David Auerbach, and Douglas Staiger. 2017. "State of the Registered Nurse Workforce as a New Era of Health Reform Emerges." Nursing Economics 35, no. 5 (October): 229–37. https://aaacn.org/sites/default/files/documents/StateoftheRegisteredNurseWorkforce.pdf.
- Bugbee, Mary. 2022. Profiting in Crisis: Exploring Private Equity's Investments in Travel Nursing Amidst a Critical Nursing Shortage and a Pandemic. Private Equity Stakeholder Project. https://pestakeholder.org/wp-content/uploads/2022/10/PE travelnursing FINAL-1.pdf.
- Bureau of Labor Statistics (BLS). 2024a. "Registered Nurses: Occupational Outlook Handbook." https://bls.gov/ooh/healthcare/registered-nurses.htm#tab-6.
- _____ 2024b. "Nursing Assistants and Orderlies: Occupational Outlook Handbook." https://bls.gov/ooh/healthcare/nursing-assistants.htm.
- CareRev. 2024. "Introducing Smart Rates: How Healthcare Facilities Are Cutting Labor Costs & Filling Shifts Faster." Last updated June 23, 2023. https://carerev.com/blog/introducing-smart-rates-how-healthcare-facilities-are-cutting-labor-costs-filling-shifts-faster.
- Citybiz. 2024. "Audacious Capital-Backed ShiftMed Raises \$47 Million." May 24, 2017. https://citybiz.co/article/559804/audacious-capital-backed-shiftmed-raises-47-million.
- Coleman-Lochner, Lauren. 2023. "Hospitals Turn to Gig Work, Others to Fill Nursing Shortage." San Diego Union-Tribune, April 23, 2023. https://pressreader.com/usa/san-diego-union-tribune-sunday/20230423/282531547709582?srsltid=AfmBOordDk5TatGn_CRHodjxmOKEHftalL3HhKfTA8i9IRay4Tp1pBBN.
- Colo. S.B. 22-210 (2022): License Supplemental Health-Care Staffing Agencies. https://leg.colorado.gov/sites/default/files/2022a_210_signed.pdf.
- Committee on the Future of Nursing 2020–2030, National Academy of Medicine, and National Academies of Sciences, Engineering, and Medicine. 2021. The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity. Edited by Mary K. Wakefield, David R. Williams, Suzanne Le Menestrel, and Jennifer Lalitha Flaubert. Washington, D.C.: National Academies Press. https://doi.org/10.17226/25982.
- D'Antonio, Patricia, Cynthia Connolly, Barbra Mann Wall, Jean C. Whelan, and Julie Fairman. 2010. "Histories of Nursing: The Power and the Possibilities." *Nursing Outlook* 58, no. 4: 207–13. https://pmc.ncbi.nlm.nih.gov/articles/PMC2907354.



- Data USA. n.d. "Nursing Assistants." Accessed December 3, 2024. https://datausa.io/profile/soc/nursing-assistants.
- Dean, Adam, Jamie McCallum, Simeon D. Kimmel, and Atheendar S. Venkataramani. 2022. "Resident Mortality and Worker Infection Rates from COVID-19 Lower in Union Than Nonunion US Nursing Homes, 2020–21." Health Affairs 41, no. 5: 751–59. https://doi.org/10.1377/hlthaff.2021.01687.
- Diaz, Jaclyn. 2023. "Crisis in Nursing: Nurses Say Staffing Shortage Is Worse Than Five Years Ago." NPR, May 2, 2023. https://npr.org/2023/05/02/1173107527/nursing-staffing-crisis.
- Dolber, Brian, Michelle Rodino-Colocino, Chenjerai Kumanyika, and Todd Wolfson, eds. 2021. The Gig Economy: Workers and Media in the Age of Convergence. Abingdon, Oxfordshire: Routledge.
- Dubal, Veena. 2022. "Economic Security and the Regulation of Gig Work in California: From AB5 to Proposition 22." European Labour Law Journal 13, no. 1: 51–65. https://doi.org/10.1177/20319525211063111.
- _____ 2023. "On Algorithmic Wage Discrimination." Columbia Law Review 123, no. 7: 1929–92. https://columbialawreview.org/content/on-algorithmic-wage-discrimination.
- Dube, Arindrajit, Ethan Kaplan, and Owen Thompson. 2016. "Nurse Unions and Patient Outcomes." ILR Review 69, no. 4: 803–833. https://doi.org/10.1177/0019793916644251.
- Ermann, Dan, and Jon Gabel. 1986. "Investor-Owned Multihospital Systems: A Synthesis of Research Findings." In For-Profit Enterprise in Health Care, edited by Bradford H. Gray, 474–91. Washington, DC: National Academies Press.
- Evans, Melanie. 2023. "Nurse Shortage Pushes Hospitals into the Gig Economy." Wall Street Journal, April 18, 2023. https://wsj.com/articles/nurse-shortage-hospitals-hiring-gig-economy-dc94bdb2.
- Fast Company Executive Board. 2023. "Driving the Era of Empowered Work." Fast Company, June 7, 2023. https://fastcompany.com/90906252/driving-the-era-of-empowered-work.
- Federal Trade Commission (FTC). 2024. "FTC Announces Rule Banning Noncompetes." Press release, April 23, 2024. https://ftc.gov/news-events/news/press-releases/2024/04/ftc-announces-rule-banning-noncompetes.
- Gaffney, Adam, David U. Himmelstein, and Steffie Woolhandler. 2024. "The Only Way to Fix US Healthcare." New York Review of Books, November 7, 2024.

 https://nybooks.com/articles/2024/11/07/the-only-way-to-fix-us-health-care-weve-got-you-co-vered.
- Gallagher, Conor. 2023. "Healthcare Systems Increasingly Turn to Gig Nurses to Remedy Their Self-Created Nurse 'Shortages." Naked Capitalism, January 26, 2023. https://nakedcapitalism.com/2023/01/healthcare-systems-increasingly-turn-to-gig-nurses-to-remedy-their-self-created-shortages.html.
- Givan, Rebecca Kolins. 2016. The Challenge to Change: Reforming Health Care on the Front Line in the United States and the United Kingdom. Ithaca, NY: ILR Press.



- Grimm, Christi A. 2024. Lessons Learned During the Pandemic Can Help Improve Care in Nursing Homes. Washington, DC: US Department of Health and Human Services. https://oig.hhs.gov/documents/evaluation/9808/OEI-02-20-00492.pdf.
- Gupta, Atul, Sabrina T. Howell, Constantine Yannelis, and Abhinav Gupta. 2023. "Owner Incentives and Performance in Healthcare: Private Equity Investment in Nursing Homes." The Review of Financial Studies 37, no. 4 (April): 1029–77. https://doi.org/10.1093/rfs/hhad082.
- Gutelius, Beth. 2024. "Good Labor Policy Is Good Technology Policy: Worker Voice in Technological Change." Roosevelt Institute, February 22, 2024.

 https://rooseveltinstitute.org/publications/good-labor-policy-is-good-technology-policy.
- Hall, Christine. 2023. "Labor Marketplace ShiftMed Secures \$200M to Solve Nursing Shortage." TechCrunch, February 6, 2023. https://techcrunch.com/2023/02/06/shiftmed-nursing-shortage-200-million.
- Health Resources and Services Administration (HRSA). 2017. "National and Regional Supply and Demand Projections of the Nursing Workforce: 2014-2030." US Department of Health and Human Services. https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/nchwa-hrsa-nursing-report.pdf.
- Henreckson, Josh. 2024. "Gig App CNAs Can Pursue 'Gap Time' Wages from Nursing Home: Court." McKnight's Long-Term Care News, February 20, 2024. https://mcknights.com/news/gig-app-cnas-can-pursue-gap-time-wages-from-nursing-home-court.
- Hess, AJ. 2024. "The Most Innovative Human Resources Companies of 2024." Fast Company, March 19, 2024. https://fastcompany.com/91040139/human-resources-most-innovative-companies-2024.
- Hilgers, Lauren. 2023. "When Your Boss Is an App." New York Times, April 20, 2023. https://nytimes.com/2023/04/13/magazine/gig-jobs-apps.html.
- Hine, Darlene Clark. 1989. Black Women in White: Racial Conflict and Cooperation in the Nursing Profession, 1890–1950. Bloomington, IN: Indiana University Press.
- Hirsch, Barry, David Macpherson, and William Even. 2024. "Union Membership, Coverage, Density and Employment by Occupation, 2020." http://unionstats.com.
- Khan, Fazal. 2016. "The 'Uberization' of Healthcare: The Forthcoming Legal Storm Over Mobile Health Technology's Impact on the Medical Profession." Health Matrix 26, no. 1: 123–72. https://scholarlycommons.law.case.edu/healthmatrix/vol26/iss1/8.
- Krachler, Nick, Jennie Auffenberg, and Luigi Wolf. 2021. "The Role of Organizational Factors in Mobilizing Professionals: Evidence from Nurse Unions in the United States and Germany." *British Journal of Industrial Relations* 59, no. 3 (September): 643–68. https://doi.org/10.1111/biir.12556.
- Lasater, Karen B. 2024. "Addressing the Nurse Retention Crisis—Leveraging Policies Supported by Evidence." JAMA Network Open 7, no. 7. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2821344.
- Lasater, Karen B., K. Jane Muir, Douglas M. Sloane, Matthew D. McHugh, and Linda H. Aiken. 2024. "Alternative Models of Nurse Staffing May Be Dangerous in High-Stakes Hospital Care." *Medical Care* 62, no. 7 (July): 434–40. https://pubmed.ncbi.nlm.nih.gov/38848137.



- Lecher, Colin. 2023. "What Happens When Nurses Are Hired Like Ubers." The Markup, October 5, 2023. https://themarkup.org/working-for-an-algorithm/2023/10/05/what-happens-when-nurses-are-hired-like-ubers.
- Lewis, Nicole. 2023. "How Mercy Health 'Uberized' Its Nursing Staff." SHRM, May 15, 2023. https://shrm.org/topics-tools/news/technology/how-mercy-health-uberized-nursing-staff.
- Lien, Chia Yu. 2023. "Temp Nurses Go Digital: Examining Gig Care in US Nursing Homes." Sociology of Health & Illness 45, no. 3 (March): 542–59. https://pubmed.ncbi.nlm.nih.gov/36575601.
- Lingel, Jessa, Rosemary Clark-Parsons, and Kim Branciforte. 2022. "More Than Handmaids: Nursing, Labor Activism and Feminism." *Gender*, Work & Organization 29, no. 4 (July): 1149–63. https://doi.org/10.1111/gwao.12816.
- Muir, K. Jane, Joshua Porat-Dahlerbruch, Jacqueline Nikpour, Kathryn Leep-Lazar, and Karen B. Lasater. 2024. "Top Factors in Nurses Ending Health Care Employment Between 2018 and 2021." JAMA Network Open 7, no. 4 (April). https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2817317.
- National Association of Locum Tenens Organizations (NALTO). 2023. State Health Care Staffing Laws Guide. Orlando, FL: NALTO. https://nalto.memberclicks.net/assets/docs/memberresourcespage/NALTO%20-%20State%20Health%20Care%20Staffing%20Laws%20Guide%20Dec%202023.pdf.
- National Council of State Boards of Nursing (NCSBN). 2018. "Progress and Precision: The NCSBN 2018 Environmental Scan." *Journal of Nursing Regulation* 8, no. 4: S3-S48. https://journalofnursingregulation.com/article/S2155-8256(18)30014-0/fulltext.
- National Nurses United. 2020. "New Study Hospitals Hike Charges by up to 18 Times Cost." Press release, November 16, 2020. https://nationalnursesunited.org/press/new-study-hospitals-hike-charges-18-times-cost.
- _____ n.d. "Nursing Is Not a Side Job. Protect Patients. Reject 'Gig' Nursing." Accessed December 3, 2024. https://nationalnursesunited.org/gig-nursing.
- Norris, Rachel Elana. 2023. "Are America's Caregivers on the Brink of Extinction? The Pandemic Straw that Broke the Nurses' Back." Neurologic Clinics 41, no. 2 (February): 415–23. https://pubmed.ncbi.nlm.nih.gov/37030967.
- Olsen, Emily. 2024. "More Than 700 Rural Hospitals at Risk of Closing: Report." Healthcare Dive, August 7, 2024.
 - https://healthcaredive.com/news/hundreds-rural-hospitals-risk-closing-center-healthcare-quality-payment-reform/723555.
- Payne, Daniel, Carmen Paun, Evan Peng, and Erin Schumaker. 2023. "What the Future Holds for Traveling Nurses." *Politico*, August 17, 2023. https://politico.com/newsletters/future-pulse/2023/08/17/what-the-future-holds-for-traveling-nurses-00111595.
- Plescia, Marissa, and Kelly Gooch. 2022. "19% of US Hospitals Critically Understaffed, 21% Anticipate Shortages: Numbers by State." Becker's Hospital Review, January 10, 2022. https://beckershospitalreview.com/workforce/19-of-us-hospitals-critically-understaffed-21-anticipate-shortages-numbers-by-state.html.



- Rafiei, Yasmin. 2022. "When Private Equity Takes Over a Nursing Home." New Yorker, August 25, 2022. https://newyorker.com/news/dispatch/when-private-equity-takes-over-a-nursing-home.
- Ravenelle, Alexandrea. 2019. Hustle and Gig: Struggling and Surviving in the Sharing Economy. Oakland, CA: University of California Press.
- Reed, Tina. 2022. "The Gig Economy Is Trying to Solve Health Care's Burnout Crisis." Axios, January 26, 2022. https://axios.com/2022/01/26/the-gig-economy-is-trying-to-solve-health-cares-burnout-crisis.
- Schor, Juliet B. 2021. After the Gig: How the Sharing Economy Got Hijacked and How to Win it Back. Oakland, CA: University of California Press.
- Seow, Beiyi. 2023. "US Hospitals Turn to Gig Platforms on Nurse Shortage." Barron's, November 7, 2023. https://barrons.com/news/us-hospitals-turn-to-gig-platforms-on-nurse-shortage-913fcc59.
- Serres, Chris. 2024. "Elizabeth Warren Seeks to Rein in Private Equity, Citing Steward." Boston Globe, October 10, 2024.

 https://bostonglobe.com/2024/10/10/business/elizabeth-warren-private-equity.
- Sherer, Jennifer, and Margaret Poydock. 2023. Flexible Work Without Exploitation: Reversing Tech Companies' State-by-State Agenda to Unravel Workers' Rights and Misclassify Workers as 'Contractors' in the Gig Economy and Beyond. Washington, DC: Economic Policy Institute. https://epi.org/publication/state-misclassification-of-workers.
- Center. Last updated November 1, 2024. https://help.shiftkey.com/s/article/Occupational-Accident-and-Medical-Malpractice-Insurance.

__ 2024c. "Occupational Accident and Medical Malpractice Insurance - FAQs for Professionals." Help

- _____n.d. "Transform Your Operations with SAMI." Accessed December 4, 2024. https://shiftkey.com/facilities/sami.
- ShiftMed. 2024. "ShiftMed Launches ShiftAdvisor, an AI-Powered Personalized Scheduling Solution for Nurses." Last updated January 9, 2024. https://shiftmed.com/press-releases/shiftmed-launches-shiftadvisor.
- Smiley, Richard A., et al. 2023. "The 2022 National Nursing Workforce Survey." *Journal of Nursing Regulation* 14, no. 1 (April): S1–S90. https://doi.org/10.1016/S2155-8256(23)00047-9.
- Smith, Rebecca, and Maya Pinto. 2020. "Rewriting the Rules: Gig Companies' Drive for Labor Deregulation" in Beyond the Algorithm: Qualitative Insights for Gig Work Regulation, edited by Deepa Das Acevedo, 189–207. Cambridge, UK: Cambridge University Press.



- Sojourner, Aaron J., Brigham R. Frandsen, Robert J. Town, David C. Grabowski, and Min M. Chen. 2015. "Impacts of Unionization on Quality and Productivity: Regression Discontinuity Evidence from Nursing Homes." ILR Review 68, no. 4 (August): 771–806. https://jstor.org/stable/24812007.
- Squillace, Marie R., Robin E. Remsburg, Lauren D. Harris-Kojetin, Anita Bercovitz, Emily Rosenoff, and Beth Han. 2009. "The National Nursing Assistant Survey: Improving the Evidence Base for Policy Initiatives to Strengthen the Certified Nursing Assistant Workforce." *The Gerontologist* 49, no. 2 (April): 185–97. https://doi.org/10.1093/geront/gnp024.
- Staffing Industry Analysts. 2023. "Coalition of 30 Healthcare Staffing Firms Seeks Employment Status Clarification from DOL." August 17, 2023. https://staffingindustry.com/news/global-daily-news/coalition-30-healthcare-staffing-firms-seeks-employment-status-clarification.
- Stienon, Audrey, and Melissa Boteach. 2024. *Children Before Profits: Addressing the Risks of Private Equity in the Child Care Industry*. Washington, DC: National Women's Law Center. https://nwlc.org/resource/private-equity-and-child-care.
- Sumagaysay, Levi. 2023. "Clipboard Health Promises Fast Pay. A Nursing Assistant Had to Chase Down \$21K." MarketWatch, July 7, 2023. https://marketwatch.com/story/clipboard-health-promises-fast-pay-for-gig-workers-a-nursing-assistant-had-to-chase-down-21-000-she-says-she-was-owed-57e88c0d.
- Teachout, Zephyr. 2023. "Algorithmic Personalized Wages." Politics & Society 51, no. 3: 436–58. https://doi.org/10.1177/00323292231183828.
- Ticona, Julia, and Alexandra Mateescu. 2018. "Trusted Strangers: Carework Platforms' Cultural Entrepreneurship in the On-Demand Economy." New Media & Society 20, no. 11. https://doi.org/10.1177/1461444818773727.
- Torrence, Rebecca, Samantha Stokes, and Julie Bort. 2023. "VCs Name the Most Promising Healthtech Startups in 2023." Business Insider, July 19, 2023. https://businessinsider.com/vcs-most-promising-startups-healthtech-2023-6.
- Vedantam, Keerthi, and Chris Metinko. 2023. "Healthcare Employment 'Matchmaker' ShiftKey Raises \$300M, Valued At \$2B." Crunchbase News, January 11, 2023. https://news.crunchbase.com/health-wellness-biotech/employment-shiftkey-fundraise.
- Vicks, Akil. 2022. "Big Tech Is About to Make Our Terrible Health Care System Even Worse." *Jacobin*, January 22, 2022. https://jacobin.com/2022/01/nurses-travel-apps-uber-flexibility-lean-production.
- Vogel, Susanna. 2024. "Senate Committee Unanimously Votes to Hold Steward CEO in Contempt." HealthcareDive, September 19, 2024. https://healthcaredive.com/news/senate-committee-unanimously-votes-to-hold-steward-ceo-in-contempt/727509.
- Wells, Katie J., Kafui Attoh, and Declan Cullen. 2021. "Just-in-Place' Labor: Driver Organizing in the Uber Workplace." Environment and Planning A: Economy and Space 53, no. 2: 315–31. https://doi.org/10.1177/0308518X20949266.
- _____ 2023. Disrupting D.C.: The Rise of Uber and the Fall of the City. Princeton, NJ: Princeton University Press.



- _____ 2024. "Inside Uber's Political Machine." New York Review of Books, May 9, 2024. https://nybooks.com/online/2024/05/09/inside-uber-political-machine.
- Whelan, Jean C. 2021. Nursing the Nation: Building the Nurse Labor Force. Rutgers, NJ: Rutgers University Press.
- Wiggers, Kyle. 2022. "Clipboard Raises \$80M to Match Nurses with Facilities." TechCrunch, April 18, 2022. https://techcrunch.com/2022/04/18/clipboard-health-which-matches-health-workers-with-facilities-raises-80m.
- Yang, Tony Y., Deborah Stamps, and Patricia Pittman. 2023. "Navigating the Crossroads of Opportunity and Challenge in On-Demand Nursing." *Health Affairs Forefront*, October 2, 2023. https://healthaffairs.org/content/forefront/navigating-crossroads-opportunity-and-challenge-demand-nursing.
- Yett, Donald E. 1966. "The Nursing Shortage and the Nurse Training Act of 1964." ILR Review 19, no. 2 (January): 190–200. https://doi.org/10.2307/2521005.
- Zhavoronkova, Marina, Bradley Custer, and Anona Neal. 2022. How to Ease the Nursing Shortage in America. Washington, DC: Center for American Progress. https://americanprogress.org/article/how-to-ease-the-nursing-shortage-in-america.



Appendix A: Methodology

Data collection for this study was part of an international research project ("Fairwork")—spanning 39 countries in five continents—to assess gig labor firms across principles of fair work.

From November 2023 to September 2024, the research team conducted and transcribed 29 interviews with gig nurses and nursing assistants for ShiftMed, ShiftKey, Clipboard Health, and CareRev. The researchers enlisted workers through online recruitment on the LinkedIn website as well as snowball techniques. To mitigate any possible coercion, the researchers did not conduct interviews or surveys as patients or at any health-care facilities. Workers received a small financial reward for participation.

The interviews were conducted remotely through Microsoft Teams and were roughly an hour in length. Workers were asked questions about their employment histories, workplace experiences, and feelings about the gig economy in general. Demographic and educational information was also collected. The data was then anonymized and coded for emergent themes.

There is insufficient evidence to assess whether the workers who participated in this study are representative of all gig health-care workers in the US. To date, there are no robust estimates of the size and characteristics of this new sector's workforce. But the data collected and reviewed here is evidence of the structures that gig nurses and nursing assistants, however many, navigate and the kinds of worker challenges that they face in one of the newest and possibly largest sectors of gig work.

To contextualize these findings, this report draws on analyses of policy documents, media stories, lobbying records, business filings, scholarly publications, and online forums (Reddit, Facebook, and Better Business Bureau). In addition, the research team interviewed outside stakeholders, including journalists and union representatives.



Appendix B: Participant Summary Chart

| Pseudonym | Age and Gender | Current State | CNA or Nurse | Time on the App(s) | Interview Date |
|-----------|----------------|----------------------|--------------|--------------------|----------------|
| Aisha | 24F | Georgia | CNA | 2–3 years | 21-Mar-24 |
| Alice | 31F | California | CNA | 1 year or less | 2-Feb-24 |
| Amber | 38F | Illinois | nurse | 2–3 years | 12-Mar-24 |
| Ashley | 35F | Indiana | CNA | 2–3 years | 9-Feb-24 |
| Audrey | 33F | California | nurse | 1 year or less | 4-Mar-24 |
| Beatrix | 34F | Washington | nurse | 2–3 years | 4-Sep-24 |
| Bertha | 22F | Maryland | CNA | 1 year or less | 3-Sep-24 |
| Carey | 31F | Georgia | CNA | > 3 years | 27-Nov-23 |
| Crystal | 32F | New York | nurse | > 3 years | 27-Aug-24 |
| Dana | 29F | Missouri | nurse | 2–3 years | 3-Apr-24 |
| Darlene | 30F | California | CNA | 2–3 years | 1-Mar-24 |
| Jasmine | 43F | Missouri | nurse | 1 year or less | 22-Mar-24 |
| Jenia | 28F | California | nurse | 2–3 years | 23-May-24 |
| Kristin | 40F | Oregon | nurse | 1 year or less | 11-Jun-24 |
| Kyle | 48M | Oklahoma | nurse | 2–3 years | 27-Mar-24 |
| Layla | 29F | Wisconsin | nurse | > 3 years | 6-Mar-24 |
| Leticia | 31F | Pennsylvania | CNA | 2–3 years | 9-Feb-24 |
| Marjorie | 31F | South Carolina | CNA | 2–3 years | 28-Mar-24 |
| Melanie | 53F | Maine | CNA | 1 year or less | 30-Aug-24 |
| Paola | 30F | Missouri | CNA | 2–3 years | 29-Jan-24 |
| Ricardo | 22M | Massachusetts | CNA | 1 year or less | 29-Jul-24 |
| Robin | 41F | Florida | nurse | > 3 years | 6-Feb-24 |
| Seneca | 30F | New York | CNA | 2–3 years | 1-Mar-24 |
| Serena | 21F | Wisconsin | CNA | 2–3 years | 5-Mar-24 |
| Shakayla | 38F | California | nurse | 1 year or less | 29-Aug-24 |
| Sharon | 35F | Wisconsin | nurse | 1 year or less | 29-Nov-23 |
| Suri | 30F | Florida | nurse | 2–3 years | 5-Mar-24 |
| Tracey | 33F | Wisconsin | nurse | > 3 years | 10-Jan-24 |
| Yasmine | 26F | California | CNA | 1 year or less | 1-Aug-24 |
| | | | | | |



