



# **AN UNHEALTHY COMMUTE**

## The Transit Challenges Facing New York City's Healthcare Sector

**AN UNHEALTHY COMMUTE** is a publication of the Center for an Urban Future. Researched and written by Arlene Weintraub. Edited by Eli Dvorkin and Jonathan Bowles. Additional research by Elsa van Latum, Sarah Goodyear, Gail Hankin, Nicholas Hoynes, Naomi Sharp, Rania Siddique, and Katherine Surko. Designed by Rob Chabebe.

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TransitCenter is a foundation that works to improve urban mobility. We believe that fresh thinking can change the transportation landscape and improve the overall livability of cities. We commission and conduct research, convene events, and produce publications that inform and improve public transit and urban transportation.



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# AN UNHEALTHY COMMUTE

## **Frustration with New York City's subway system has reached a tipping point.**

Delays are rampant, trains are seriously overcrowded, and the core components of the network—from signal systems to tracks and train cars—are breaking down at an alarming rate.

But the city's transit system faces another crisis affecting the daily lives of millions. Subway and bus service in the four boroughs outside Manhattan has not kept pace with massive increases in the number of New Yorkers living and working there.

No part of the city's economy has been more deeply affected by these transit gaps than the healthcare sector.

Unlike most other sectors of New York's economy, jobs in healthcare are not concentrated in Manhattan's central business districts. Roughly two-thirds of all healthcare jobs—65 percent—are located in the boroughs outside Manhattan. The boroughs are also where much of the industry's meteoric growth is occurring. Over the past decade, healthcare jobs increased by 55 percent in Brooklyn, 39 percent in Queens, 18 percent in the Bronx, and 10 percent on Staten Island. The sector grew by 15 percent in Manhattan.

Hospitals, urgent care centers, nursing homes, and doctors' offices are spread across the five boroughs, with many of the sector's largest employers located in areas with severely limited transit options. The result is that healthcare workers today experience some of the worst commutes in the city. Healthcare employees who rely on mass transit face a median commute of 51.2 minutes—the longest travel time of any workers in the private sector. For healthcare workers living in Queens, the median commute is 56 minutes.<sup>1</sup>

Commutes for workers in the healthcare sector have also been increasing faster than those of any other industry. Between 1990 and 2015, the average healthcare worker's commute increased by almost eight minutes, compared to a three-minute increase for all workers in the city. During this period, the commutes of finance workers actually decreased by three minutes.<sup>2</sup>

Although many straphangers face long commutes, those who work in the city's healthcare sector experience unique challenges. Not only is healthcare a 24/7 business, it is one in which workers are required to be on time, alert, and enthusiastic—qualities that are necessary for providing life-saving services, but that are difficult to sustain when transit shortcomings take a grinding toll multiple times per day.

This report identifies the many specific transit challenges facing employers and workers in the healthcare sector and offers several practical recommendations to address these gaps. By working hand in hand with hospitals and other health providers, New York City can develop solutions benefiting the city's world-class healthcare system and ensure that this critical source of employment and opportunity can continue to grow.

**This report, made possible by a grant from TransitCenter,** provides the first comprehensive study of the transportation challenges facing the nearly half-million health workers in New York City. It draws on extensive analysis of demographic and commuting data, as well as discussions with more than 80 hospital administrators, home health care executives, union officials, community leaders, transit experts, and front-line healthcare workers serving hospitals, urgent care centers, and home health agencies across all five boroughs.

It's not just the well-publicized subway delays and derailments that cause problems for workers in the health industry. It's that the century-old radial design of the public transit system—intended to get workers in and out of Manhattan—is not equipped to carry essential health workers to the patients they need to serve in all corners of the city. Layer on slow buses, inconvenient scheduling, and rising fares, and healthcare workers end up with a difficult commute that is getting more challenging by the day.

It's a situation that's unacceptable and unsustainable, health experts say. "It's not as though our five boroughs are rural America, but for some workers they might as well be," says Barbara Glickstein, a public health nurse and co-director of the Center for Health Policy and Media Engagement at George Washington University School of Nursing. Glickstein is a born-and-bred New Yorker who lives in SoHo and is a major user of public transportation. "The inability of the healthcare workforce to get to work is a disruption to them and to those they are serving. It has a ripple effect."

And when the commute is a struggle, patients suffer, say many healthcare administrators. "An employee has to be able to come to work rested and feeling good," says Stacy Coleman, former vice president of employee performance management for Mount Sinai Health System. "When transportation in New York City leaves an employee tired and frustrated, the result is someone who's going to have a much harder time being engaged in work throughout the day."

Transit gaps abound in the healthcare system. Of the 105 hospitals and major medical centers we identified across New York City, at least 21 are more than eight blocks from a subway stop, as are 39 percent of the city's 173 major nursing homes and long-term care facilities. Altogether, 32 percent of the major healthcare employers we documented in this study are more than eight blocks from a subway stop, representing the workplaces for tens of thousands of employees.

But even for those healthcare employers in the boroughs outside Manhattan that are near a subway station, many still experience daunting transportation challenges. That's because a significant share of the workers commuting to hospitals, urgent care centers, and other healthcare employment hubs live in neighborhoods that require intraborough commutes between neighborhoods that aren't connected by a single subway or bus line.

For instance, Interfaith Medical Center in Bedford-Stuyvesant is only a short walk from the A and C trains. But Francesca Tinti, senior vice president for human resources at Interfaith, says that while a majority of the hospital's employees live in Brooklyn, most reside in more affordable neighborhoods south of the hospital that aren't on the same subway line. According to Tinti, of the hospital's 1,400 employees, 119 live in Canarsie and 69 live in Flatlands. For those workers—and many more in similar predicaments—commutes to the hospital typically require two bus rides or one lengthy bus ride and a considerable walk.

In the Bronx, many major hospitals are served by the subway. But since most of the subways in the borough run north to south, workers that need to commute across the borough are left with significantly fewer transit options. We found a similar mismatch in Brooklyn and Queens, with consequences for thousands of healthcare commuters.

Our analysis of census data reveals that a significant number of the city's healthcare workers live in neighborhoods on the city's periphery that aren't well served by subways. For instance, four of the New York City census districts with the highest number of resident healthcare workers—two in Brooklyn and two in Queens—are largely lacking in reliable rapid public transportation options. The 11,235 healthcare workers who commute from Queens Village, Cambria Heights, and Rosedale do not have a single subway station in their neighborhood. The 17,721 healthcare workers who live in Canarsie and Flatlands have just one station at the very northern tip of their district's geographic boundary—too far for most residents.

As a result of these transit shortcomings, many of the city's healthcare workers drive to work. Indeed, one Staten Island hospital administrator we interviewed estimates that 75 percent of their workers drive a car to work because transit options within the borough are so limited.

## NYC's Major Healthcare Employers, 2016

Red dots indicate that the job site is located more than eight blocks from the nearest subway station



Source: Center for an Urban Future

## New York City Mass Transit Commuting Times, All Private Sector Jobs

Industry	Minutes
<b>1. Healthcare</b>	<b>51.2</b>
2. Transportation and Warehousing	51.1
3. Construction	50.7
4. Admin/Support and Waste Management Services	50.6
5. Social Assistance	49.7
6. Manufacturing	48.4
7. Wholesale Trade	48.3
8. Other Services, except Public Administration	47.7
<b>City Average</b>	<b>47.3</b>
9. Real Estate and Rental and Leasing	46.6
10. Accommodation and Food Services	46.4
11. Educational Services	46.4
12. Retail Trade	46.2
13. Arts, Entertainment, and Recreation	45.8
14. Finance and Insurance	43.9
15. Professional, Scientific, and Technical Services	42.5
16. Information	41.6

Source: CUF analysis of data from the 2011–2015 5-Year American Community Survey (ACS).

But for tens of thousands of healthcare workers in lower-wage jobs that either can't afford a car or can't afford the cost of parking, taking a bus to and from work is the only viable option. And for a large share of those commuters, the city's bus network is wholly inadequate.

Many of the healthcare workers we interviewed report having to take two or more buses to work, with connections that sometimes take 15 minutes or longer as the line of waiting passengers grows. Several workers cited the particular frustrations of waiting for a poorly timed transfer or watching packed buses arrive and then depart, unable to squeeze any more passengers on board. "The bus is so packed most of the time when it gets to us that you can't get on," says Betty, an administrator at New York–Presbyterian/Queens, in southern Flushing, who asked to be identified by her first name only. "You fight every morning."

These issues stem from the fact that too few of the city's existing bus routes connect places where large numbers of healthcare workers live with hospitals, nursing homes, and other employment centers—and when they do, the service is insufficient to meet the demand. Numerous other workers say that buses don't run frequently enough, especially during late night or early morning hours when shifts end for many hospital workers.

Our analysis of census data on commuting patterns reveals there are more daily bus commuters in the healthcare sector than in any other industry. Across the city, 17.3 percent of healthcare workers commute by bus, the second-highest share of any industry (18.5 percent of workers in the social assistance sector commute by bus).<sup>3</sup> But the healthcare sector has nearly triple the number of daily bus commuters as does social assistance. In fact, more workers in healthcare take the bus to work every day (80,706) than do all retail and food service workers combined (78,291).

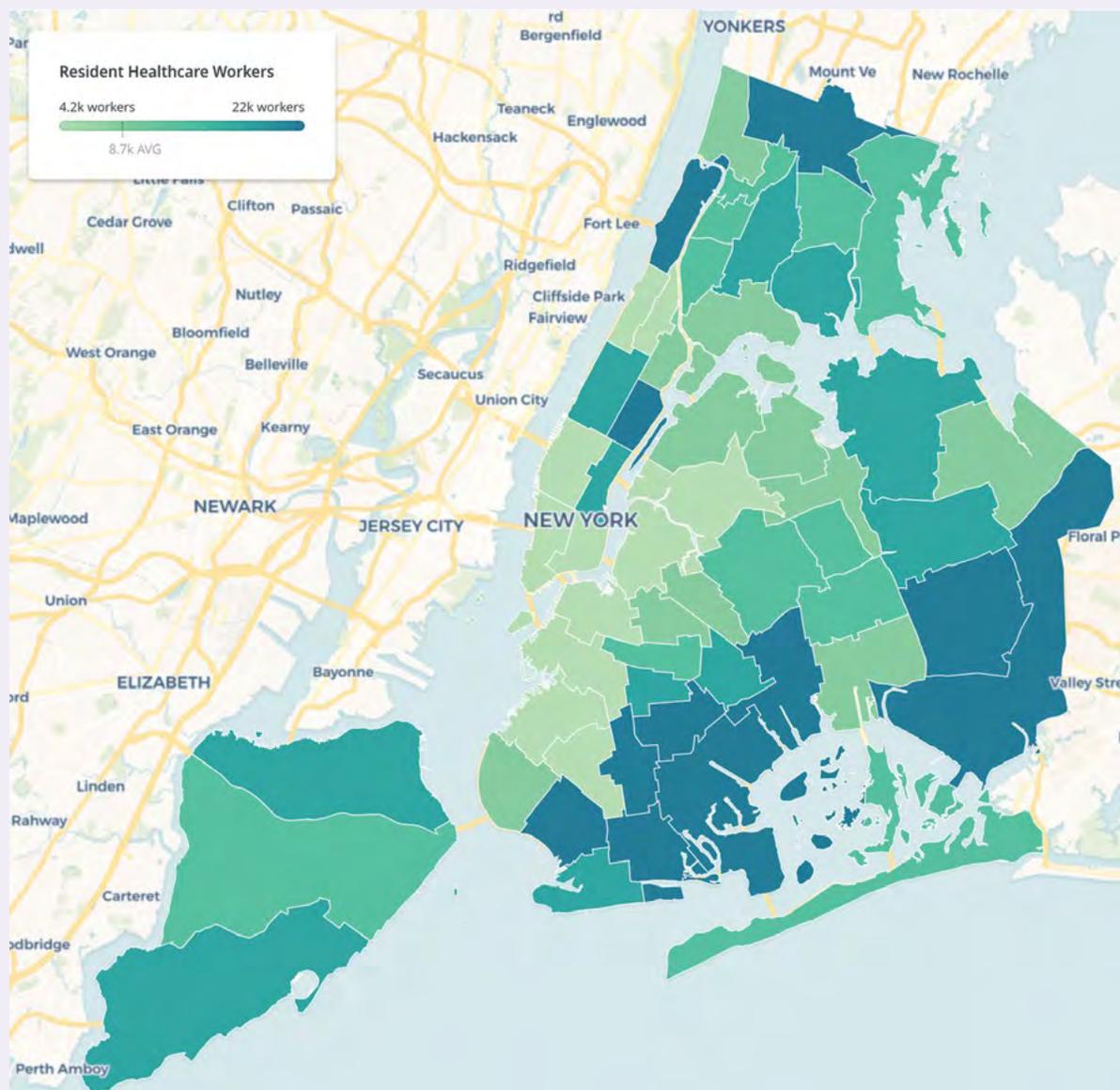
Indeed, while bus ridership has declined in Manhattan, it has increased significantly in many of the communities where healthcare employers are growing. In Brooklyn, four of the five fastest-growing bus routes provide service to major healthcare providers. For instance, ridership on the B4—which serves many healthcare workers and employers in south Brooklyn—grew 39 percent between 2011 and 2016. Bus routes in Queens and the Bronx have experienced double- and triple-digit growth in areas where they serve a number of large healthcare employers.<sup>4</sup> In fact, while bus ridership has plunged more than 15 percent in Manhattan since 2011, ridership is up 1 percent in the Bronx and nearly 4 percent on Staten Island.

Many of these bus routes are experiencing ridership increases in part because the healthcare sector has been expanding. But another factor is that the subway system was originally built to take people in and out of Manhattan. It's clear, particularly in the healthcare sector, that commuters need much more than that now.

The number of healthcare workers who are both living in the Bronx and working there, for example, has risen 44 percent since 1990, while the volume of commuters from the Bronx to other outer boroughs has skyrocketed 151 percent. In Brooklyn, the number of healthcare workers staying in that borough for work has increased more than 65 percent in that time, while the number of people who live there but work in a different outer borough has risen 125 percent.<sup>5</sup>

Although many healthcare workers struggle with long commutes, home health aides arguably have it the worst. Home healthcare is the fastest-growing seg-

## Where NYC's Healthcare Workers Live, 2016



Source: Center for an Urban Future

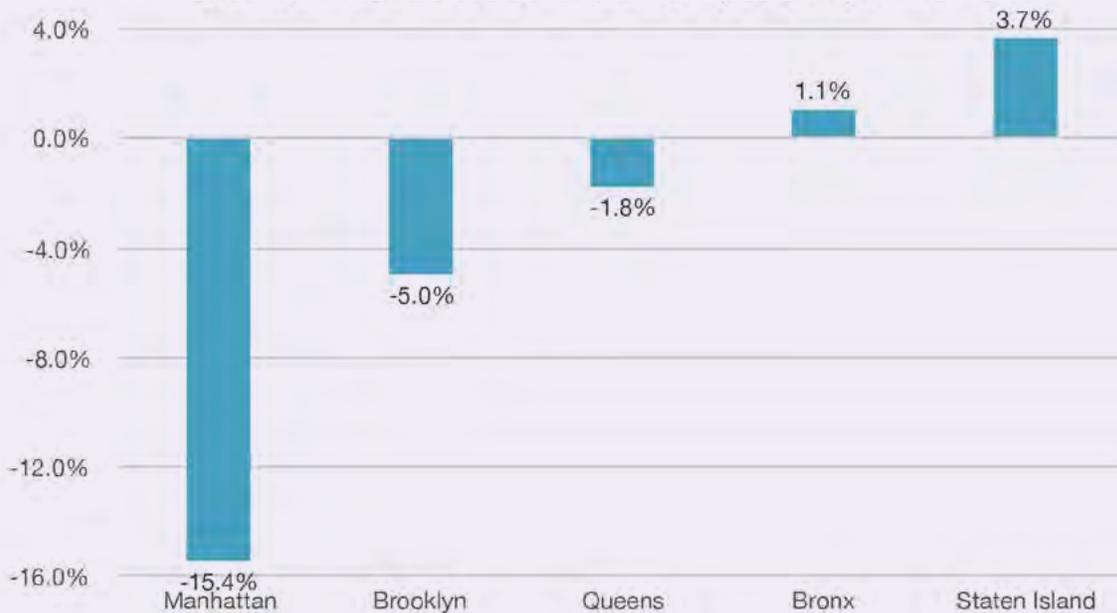
ment of the city's healthcare industry, with the number of employees increasing by a staggering 146 percent over the past decade—from 61,700 workers in October 2007 to 151,700 in October 2017. But with the average home health aide earning less than \$25,000 annually, most live in working-class neighborhoods in Brooklyn, Queens, and the Bronx, far from the homes of their more well-heeled patients.<sup>6</sup>

For home health aides commuting to any of the five boroughs by mass transit, the average time spent commuting is 53 minutes—five minutes longer than the city's average transit commute. Aides in the Bronx, Queens, and Staten Island have it even tougher, travel-

ing over 57 minutes on average to get to work.

"If I have a home health aide who lives in the Bronx and a client who lives in Riverdale, it's hell getting the aide over there," says Carla Holub, vice president and co-owner of SelectCare Home Care Services. Holub first moved to New York in the 1980s to start a home-care agency, and since then, she says, it has become increasingly difficult to get workers where they need to go, particularly as the demand for health services expands outside Manhattan. "You either have to take a bus, or if you take the subway, you have to go back down into Manhattan and cross over and take it back uptown. It is very difficult."

## Change in Annual Bus Ridership by Borough, 2011–2016



Source: CUF analysis of data from New York City Transit

The city's Department of Transportation (DOT) and the Metropolitan Transportation Authority (MTA) have taken some steps to ease the commute in a handful of neighborhoods. In recent years, the agencies have made improvements to the bus system, expanding Select Bus Service (SBS) express routes to a total of 15 corridors over the past decade, although this falls short of DOT's plan to operate 20 routes by the end of 2017. Today, nearly half of the system's SBS routes are in Manhattan, despite greater demand from commuters in the other boroughs.

To its great credit, the administration of Mayor Bill de Blasio has allocated \$270 million to fund Select Bus Service and announced a further expansion of SBS along 21 new routes over the next decade, most of which will be in the boroughs outside Manhattan. Meanwhile, the long-awaited opening of the Second Avenue subway extension in January 2017 improved subway access to the neighborhood often referred to as "Bedpan Alley," home to several major hospitals, including Memorial Sloan-Kettering and New York–Presbyterian.

For more than a year, DOT has been conducting a series of public workshops to gather information about how transit can be improved across the five boroughs. Part of DOT's ongoing Citywide Transit Plan, the process is aimed at providing reliable rapid transit to all New Yorkers regardless of their socioeconomic background.<sup>7</sup> Also in 2017, the MTA rolled out an extensive

plan to improve the bus system in Staten Island, with the goal of speeding commutes for workers traveling across the island and to other boroughs.<sup>8</sup>

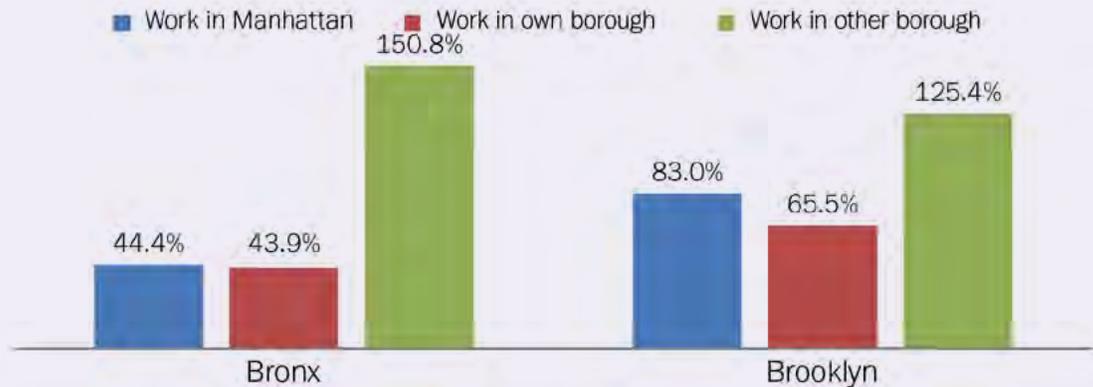
But these changes have done little to ease the pain of commuting for healthcare workers. There are still limited transit options for people who need to commute from one of the boroughs outside Manhattan to another—an increasingly common demand in healthcare. That fundamental shortcoming, coupled with the ever-increasing frequency of delays and breakdowns, is causing monumental frustrations for workers in this growing sector.

Jenny Tsang-Quinn, chief of clinical programs and network development at Maimonides Medical Center, for example, needs a bus and three subways to get from her home in Kew Gardens Hills to her off-campus office in Sunset Park. When everything is working, that trip takes at least an hour and a half each way, she says. But frequent delays make that commute highly unreliable. Cascading transit problems can pose real threats to healthcare providers and timeliness, she says, with consequences for the entire organization.

"One rainy morning, maybe two years ago, for whatever crazy reason, it was like the entire staff who lived in Queens was late," says Tsang-Quinn. "Our patients were also running late. Their aides couldn't get them to the site on time. We had to reschedule appointments. It was just a mess. This is just one example of

## New York City Healthcare Workers' Commuting Patterns, 1990–2015

The growth of healthcare workers commuting to another outer borough from the Bronx and Brooklyn has far outpaced the growth in commutes to their own borough and to Manhattan.



Source: CUF analysis of data from the 1990 U.S. Census, 5% Sample and 2011–2015, 5-Year ACS

what happens when the weather isn't perfect. We have staff and patients coming from Flatlands, from Canarsie, from Central Brooklyn. Some have to go north and south to reach us—there's no diagonal transportation. Others have long bus rides as the subway line in Flatlands doesn't travel through Borough Park. Transit is a huge problem in Brooklyn."

When it comes to investing in transit across the boroughs outside of Manhattan, New York City has come up short. Although commuting patterns have been shifting away from the city's outdated radial system for decades—with nearly all of the growth in population and jobs occurring outside Manhattan—the city and state have failed to tackle these transit gaps, rethink and reinvest in bus service, or analyze these issues through the lens of any specific industry, including healthcare.

To maintain New York City's leadership role in the health industry and sustain economic opportunities across all five boroughs, the MTA and DOT must band together with local healthcare organizations to make essential changes to the transit system. This report lays out 15 achievable recommendations to find and fix transit gaps across all five boroughs and bolster transit service for the city's critical healthcare sector.

Mayor de Blasio and Governor Cuomo need to prioritize identifying and fixing transit gaps in the boroughs outside Manhattan. This will require systematically evaluating existing transit gaps and shortcomings, providing new transit service in areas that are difficult to access today or poorly connected to major centers

of employment, and upgrading the bus and subway systems to reduce overcrowding and speed up the commute.

The governor, the mayor, and the MTA should work together to make planning and investing in the bus system a top priority. This means rethinking and redesigning the bus network, which has changed little in decades; adding new SBS routes across Brooklyn, Queens, and the Bronx; improving speed and reliability by adopting a host of established best practices; and implementing new ideas to keep buses on schedule and close service gaps.

In addition, the city should create a healthcare-transit working group to further explore the key transit challenges affecting the healthcare system and advance potential strategies to improve access and reliability. This group should pay particular attention to the severe transit problems facing the city's swelling ranks of home health aides, who experience some of the most painful commutes in New York.

When it comes to transit, the struggles facing healthcare workers and employers are severe but not unique. Transit gaps persist throughout the boroughs outside of Manhattan, with serious consequences for hundreds of thousands of workers in the healthcare sector and beyond. It's time for New York to invest in the health of its transit system and improve mobility across all five boroughs for the benefit of all.

# HEALTHCARE TRANSIT GAPS: CHALLENGES MOUNT AS EMPLOYERS, SERVICES, AND WORKERS INCREASE CITYWIDE

Healthcare is the city’s largest industry, employing nearly 500,000 New Yorkers. It’s also one of the fastest growing sectors, with the overall number of healthcare workers in the city increasing by 82 percent since 1990, more than double the pace of job growth in the city’s other sectors.

On the surface, it may appear that most of the healthcare jobs in New York City are concentrated in Manhattan, which boasts an array of high-profile institutions like New York–Presbyterian Hospital, Bellevue Hospital Center, NYU Langone Medical Center, and Memorial Sloan Kettering. But in fact, roughly two-thirds of the city’s healthcare jobs are in the boroughs outside of Manhattan.

Overall, the four boroughs outside of Manhattan are home to 319,000 healthcare workers. In Brooklyn alone, more than 132,000 people work in the sector. Meanwhile, Queens is home to 99,500 healthcare workers, while the Bronx has 64,300 and Staten Island, 22,400. In each of these boroughs, healthcare

is the largest source of employment, accounting for 27 percent of all private sector jobs in the Bronx, 23 percent in both Brooklyn and Staten Island, and 18 percent in Queens.<sup>9</sup>

The sector has also been growing fastest outside of Manhattan. Between 1990 and 2015, Queens gained 54,120 healthcare workers—a rate of growth that’s seven times faster than that of workers in other industries. Brooklyn, meanwhile, added 63,234 healthcare workers between 1990 and 2015, which is almost 30 percent of the total number of workers gained in that borough.

“The bulk of Brooklyn’s economy, the driver of Brooklyn’s economy, is healthcare,” says Andrew Hoan, president and CEO of the Brooklyn Chamber of Commerce. “Healthcare is the number one employer—bigger than retail and tourism combined. Everyone talks about us being the tech borough, but the bones of the economy are healthcare.”

## NYC Neighborhoods with the Largest Increase in Resident Healthcare Workers, 1990–2015

The neighborhoods with the largest increases in the population of healthcare workers are mostly located along the city’s periphery.

Neighborhood	Borough	Increase
East Flatbush, Farragut & Rugby	Brooklyn	366%
Queens Village, Cambria Heights & Rosedale	Queens	308%
Brownsville & Ocean Hill	Brooklyn	277%
Crown Heights So., Prospect Lefferts & Wingate	Brooklyn	249%
Flatbush & Midwood	Brooklyn	242%
Washington Heights, Inwood & Marble Hill	Manhattan	235%
Wakefield, Williamsbridge & Woodlawn	Bronx	184%
Ridgewood, Glendale & Middle Village	Queens	162%
Greenpoint & Williamsburg	Brooklyn	156%
Briarwood, Fresh Meadows & Hillcrest	Queens	154%
City total		57.2%

Source: CUF analysis of data from the 1990 U.S. Census, 5% Sample and 2011–2015, 5-Year ACS

Indeed, NYU Langone Hospital–Brooklyn and Mount Sinai have dozens of clinics sprinkled across Brooklyn, Hoan says, and virtually every neighborhood of the borough is anchored by a hospital. Bedford-Stuyvesant has NYC Health + Hospitals/Woodhull, with 320 beds.<sup>10</sup> Bay Ridge has SUNY Downstate Medical Center, with 18,800 inpatient visits per year and 8,000 employees.<sup>11</sup> But many of these hospitals are served only by bus lines, Hoan says. “There hasn’t been a single new subway system completed in Brooklyn since the ’50s. You’re talking about a place that’s starved of transit.” Indeed, despite the growing economic importance of the healthcare sector, transit options are woefully inadequate.

Part of the problem is that many of the city’s largest healthcare employers are not on a subway line. In Brooklyn, we found more than a dozen major hospitals and nursing homes that are at least eight blocks from a subway stop. These include Mount Sinai Hospital Brooklyn, New York Community Hospital, Kingsbrook Jewish Medical Center, Coney Island Hospital, and Sea Crest Nursing and Rehab Center. In the Bronx, more than 20 healthcare facilities are at least eight blocks from the subway.

Queens is even worse off, with more than 25 major health facilities located at least eight blocks from a subway, including Flushing Hospital Medical Center, NYC Health + Hospitals/Queens, St. Mary’s Hospital for Children, Long Island Jewish Medical Center, New York–Presbyterian/Queens, and Springfield Gardens Medical Center.

The more than 22,000 New Yorkers working in the

healthcare sector on Staten Island also face extremely limited transit options. Few major healthcare employers in the borough are located along the route of the Staten Island Railway, which provides the only rapid public transit in the borough. Even those healthcare providers on the rail network typically require a bus ride and a transfer to reach them, since most of the borough’s residents don’t live near the train. Lou Tobacco, associate executive director of government affairs at Staten Island University Hospital, estimates that 75 percent of the hospital’s 6,500 workers drive a car to work because transit options within the borough are so limited.

Interfaith Medical Center in Central Brooklyn is near a subway line. But Francesca Tinti says that because of the lack of public transit options, more than 300 of its 1,400 employees drive to work. However, many cannot afford the monthly \$90 fee to park in the hospital’s lot, so they park on the street. “Then they have to run out and move their cars, which is very disruptive to everybody,” Tinti says.

Although some workers can afford the cost and hassle of driving to work, a significant share of the those working in healthcare have no choice but to rely on public transportation. For too many of them, the options are extremely limited and result in lengthy commutes.

Nearly one in six workers living in Queens Village, Cambria Heights, and Rosedale is employed in healthcare. Yet not one of those neighborhoods has a single subway station close by. In addition, more than 20 percent of these healthcare commuters are traveling

### NYC Neighborhoods with the Largest Decrease in Resident Healthcare Workers, 1990–2015

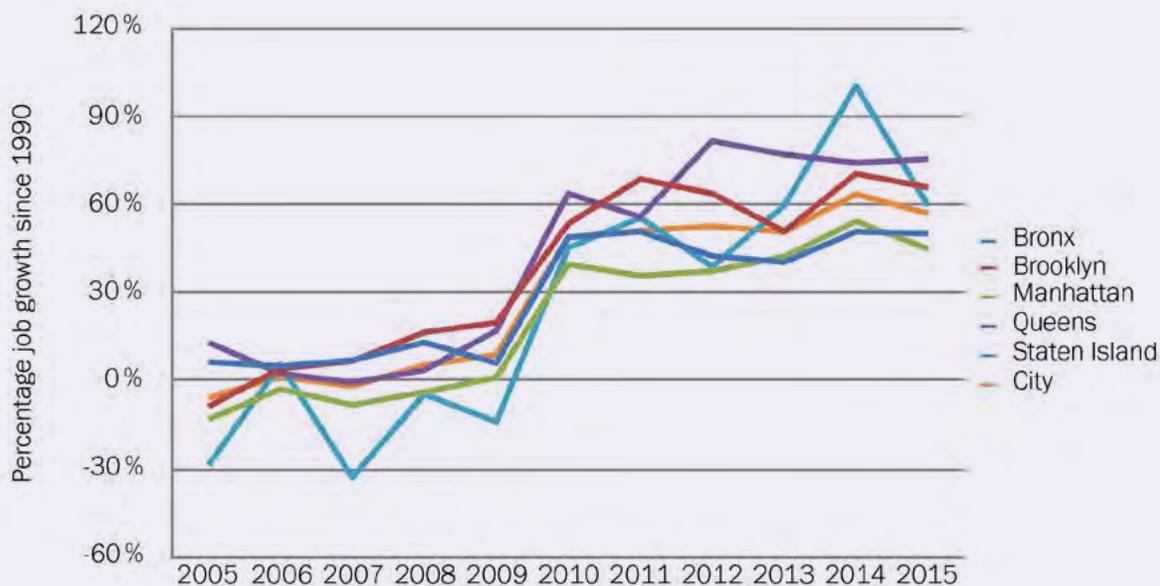
A third of the neighborhoods with a decrease in resident healthcare workers are in Manhattan.

Neighborhood	Borough	Decrease
Howard Beach & Ozone Park	Queens	-43.1%
Hunts Point, Longwood & Melrose	Bronx	-40.7%
Upper West Side & West Side	Manhattan	-40.3%
East Harlem	Manhattan	-29.8%
Borough Park, Kensington & Ocean Parkway	Brooklyn	-28.0%
Bensonhurst & Bath Beach	Brooklyn	-26.4%
Battery Park City, Greenwich Village & SoHo	Manhattan	-23.1%
Park Slope, Carroll Gardens & Red Hook	Brooklyn	-16.4%
Elmhurst & South Corona	Queens	-6.0%

Source: CUF analysis of data from the 1990 U.S. Census, 5% Sample and 2011–2015, 5-Year ACS

## Change in NYC Healthcare Jobs, 2005–2015

Healthcare jobs are growing citywide, but Manhattan has been outpaced by all other boroughs in relative job growth.



Source: CUF analysis of data from 1-Year ACS, 2005 to 2014. 2015 data is from the 2011–2015, 5-year ACS. All data refers to healthcare jobs within the five boroughs that employ NYC residents.

to a job in another borough outside Manhattan. The result: The 11,235 health workers who commute from those three areas need more than 71 minutes to get to work, versus 66 minutes for the average commuter in that area.

Then there's Canarsie and Flatlands in Brooklyn, home to 17,721 healthcare workers. They have access to just one subway station, located at the far northern tip of their neighborhood, with service only on the L line. That makes for a difficult commute, not only for the 23 percent of workers from the neighborhood who commute to Manhattan, but also for the 69 percent who commute to jobs scattered across the borough, including clusters in downtown and central Brooklyn.

Even traveling between another borough and Manhattan can pose huge obstacles for large numbers of healthcare workers. We analyzed the twelve census-defined neighborhoods across New York City where the most healthcare workers live, and found that median commute times into Manhattan far exceed the average commute across the healthcare sector, clocking in at well over an hour each way. For those workers who commute from one borough outside Manhattan to another—roughly one in five healthcare workers on the north shore of Staten Island and in East New York, for instance—all commutes exceed the median commute time for healthcare workers overall, and seven of ten commutes are regularly above an hour.

Tough commutes are that much more challenging for health workers making under \$40,000 per year. Emily Davis, director of human resources at New York–Presbyterian Hospital, estimates that the average commute to all of the hospital's facilities is an hour, but says that the workers with the lowest incomes have the longest commutes.

Our analysis of commuting data finds plenty of evidence that this is the case. Moreover, lower-income workers in the healthcare sector have longer commutes than similarly paid workers in other industries. Overall, healthcare workers who earn less than \$40,000 annually have a commute that is five minutes longer, on average, than those in that same income group working in other industries. Lower-paid health workers are not only devoting a larger proportion of their paychecks to commuting than are employees in higher income brackets, but they also have it worse than other commuters with low incomes.

"These are physical jobs," Davis says. "People are on their feet seven to eight hours for work, and then they have this two-hour commute. They're exhausted."

In many cases, healthcare workers routinely work 12-hour shifts, which leaves little time for anything other than sleep—especially after coping with an arduous commute. Hae, who asked to be identified by her first name only, typically works from 7 p.m. to 7 a.m. in the maternity ward at NYC Health + Hospitals/

Jacobi. She takes the Q50 from her home in Flushing and then transfers to the Bx12, a trip that almost always takes far longer than its scheduled one-hour travel time. Still, Hae explains that she has no other option, even though she has access to a family car. “I can’t drive myself home [after 12 hours on the job],” she says, “because I get sleepy, so sleepy.”

Many home health aides report having to get off slow trains and take a taxi or private car service like Uber to get to their patients on time. If they are traveling from one client to the next, they can ask their employers to reimburse the cost of a private car—but not if they’re traveling to or from their own homes.

“If you have two patients in one day, the agency reimburses for traveling from A to B. But from your house to the patient—that’s your responsibility to get there,” says Elizabeth Tavarez, an organizer who works with 5,000 home health aides who are members of the 1199 SEIU healthcare union. “The agency will not get reimbursed for that money by the insurance or the state, so the aides cannot get reimbursed. If you’re making \$11 an hour, you cannot afford it.”

Hospital workers who make low hourly wages can get stung by unreliable transit, too, in more ways than one. In fact, they can get docked pay for being late, says Maria Castaneda, secretary-treasurer of 1199 SEIU and a longtime organizer of nurses and other healthcare workers. “Once you are late, even for 10 minutes, you are docked 10 minutes on your paycheck,” she says “And if you have excessive lateness, it can lead to discipline—even termination.”

Tavarez had to step in to prevent two of the home health aides she represents from getting fired in 2017 because of excessive lateness. One of the aides has a child who needs to be dropped off and picked up at school, she says, so she’s often unable to build in extra commuting time to account for late trains and buses. “Because she has a child, she is only able to give herself 30 minutes extra for her commute,” Tavarez says. “When you have a child who needs to be picked up, you don’t have the luxury to say, ‘I’ll leave an hour ahead.’ She’s a great aide—her clients love her—but she was put on probation. Had I not been there to represent her, she would have been fired.”

The advent of the one-day unlimited MetroCard in 1998, which cost \$4 then, was welcomed by home health aides. But the cost more than doubled to \$8.25 before the MTA eliminated the card in 2011. The monthly unlimited costs \$121—a sum many low-paid healthcare workers usually can’t afford to shell out all at one time. Even the weekly unlimited card, at \$32, can

feel out of reach for most home health aides, who are living paycheck to paycheck.

“Aides don’t have that kind of money,” says SelectCare’s Holub. That means they’re paying by the ride, which can get costly, she adds, particularly when routing changes are made and not communicated clearly. “When trains are rerouted, it’s difficult for aides that don’t have an unlimited card. This is a real problem for their finances.”

On top of having to swallow mounting transit fares, healthcare workers are getting priced out of the rental markets in areas with adequate access to transit, including much of Manhattan and the waterfront neighborhoods of Brooklyn and Queens. Our data shows that many healthcare workers have been moving away from these areas and to neighborhoods in Brooklyn such as Prospect Lefferts Gardens, Canarsie, East Flatbush, and Brownsville.

Many employees of Interfaith in Brooklyn used to live close to the hospital but have been driven out by unaffordable rental rates. “The rent in Brooklyn has skyrocketed, so employees are getting pushed out of the neighborhood,” Tinti says. “While we may not have an immediate problem, I suspect it will become a bigger issue in the not-too-distant future.”

Some hospital workers in mid-level positions are choosing to move to pricier neighborhoods closer to their jobs because they just can’t stand the hassle of commuting anymore. They include Maimonides employees Dupe Ajayi, director of practice transformation, and Kayla Spence, a program coordinator. Spence moved from Jamaica, Queens, to Forest Hills in order to shave 20 minutes off her commute, but she still needs two subways and an hour and 40 minutes to get to work.

Ajayi used to live in the Bronx. She took three trains to Maimonides, the 2 to the 5 to the N, making her commute an hour and 40 minutes each way. She experimented with a bus and train combination, but in the end got so frustrated that she’s since moved to Brooklyn. The move involved plenty of sacrifice: her rent now costs her \$500 more a month. She still takes at least two subway lines to get to work for a total of 45 minutes each way, because public transit choices in Brooklyn are not much better.

Still, she says, the move is worth it, because the longer commute was “really having an effect on my quality of life,” she says. “I had to make a decision. Do I move or have the job? I put a dollar value on my time, too, so the time I’m not commuting I’m getting back. I can spend it doing other things.”

# THE UNIQUE TRANSIT CHALLENGES FACING HOME HEALTH AIDES

The decline of public transit reliability, coupled with the paucity of subway and bus service in the boroughs, has hit the home health sector hardest of all. That's no surprise: A confluence of broad demographic trends and tremendous job growth in the home health sector has created a new and rapidly expanding health workforce that is commuting all over the five boroughs.

The demand for home health aides is being driven by the desire to age in place—a choice made by more and more seniors to experience older adulthood at home rather than in long-term care facilities or retirement communities. About 87 percent of adults over age 65 are choosing to stay at home, according to AARP.<sup>12</sup>

New York City's senior population is outpacing the national aging trend, and choosing to remain at home in even larger numbers. The number of city residents 65 and older jumped 13 percent between 2010 and 2015 to 1.13 million. The growth of the senior population is evenly spread across most boroughs, except for Staten Island, which has seen its population of adults over 65 grow even more—19 percent in that time.

An analysis by the Center for an Urban Future finds that the number of city residents 65 and older is expected to grow by 35 percent over the next two decades, increasing from 12 to 15 percent of the city's population. According to a report from New York City Comptroller Scott Stringer, a whopping 96 percent of those New York City seniors are choosing to age in place.<sup>13</sup>

“Generally people prefer to remain in their homes,” says Lindsay Goldman, director of healthy aging for the New York Academy of Medicine (NYAM). “There are several challenges associated with that, including the ability to access healthcare.”

A lack of transit options for patients has prompted many seniors who need frequent care to hire home health aides. In New York City, the number of people employed in home health care services increased by 146 percent over the past decade, from 61,700 workers in October 2007 to 151,700 in October 2017. The New York State Department of Labor estimates that employment for home health aides in New York City

will grow by 49 percent between 2014 and 2024—far outpacing employment growth for each of the more than 60 other healthcare occupations.

The population of seniors is highest in several Queens and Brooklyn neighborhoods with some of the most limited transit options. Queens, in fact, has three of the top five census-defined neighborhoods with the largest number of seniors: Flushing/Whitestone, Jamaica, and Bellerose/Rosedale. This creates major problems accessing healthcare. A May 2016 survey of older NYC residents conducted by NYAM revealed that 37 percent of older adults say that primary care services are “not very available” or “not available at all” in their communities.<sup>14</sup>

Home health aides are distinct from other workers in the health services sector for several reasons. First and foremost, they don't go to the same workplace every day. They visit patients in their homes—sometimes traveling to two or more clients in a single day. That means the average five-day workweek for a home health aide could involve up to 20 different trips to and from their patients' homes. Given the cost of owning and maintaining a car—not to mention the challenge of finding convenient parking—all of the home health aides we surveyed for this report rely on public transportation to get them to work.

Compounding the challenge is the fact that most home health aides live in parts of the city that lack ready access to public transit or make for extremely long and complex commutes. For example, a Center for an Urban Future analysis of census data shows that the largest concentrations of health aides live in poorly served neighborhoods such as East Flatbush and Canarsie in Brooklyn; East Tremont/Crotona Park in the Bronx; and Jamaica, Hollis, and St. Albans in Queens. Nearly 20 percent of the city's entire population of health aides lives in one of these three census-defined neighborhoods.

Public transportation options are sparse in these parts of the city, as is the case in many neighborhoods where New York's aging population is clustered, which makes it difficult for home health aides to travel to

## Health Aides Driving the Growth of NYC's Healthcare Jobs, 2005–2015

Occupation	% of total
<b>Nursing, Psychiatric, and Home Health Aides</b>	<b>48.5%</b>
Registered Nurses	10.3%
Health Practitioner Support Technologists and Technicians	7.1%
Medical Assistants	6.1%
Medical and Health Services Managers	5.3%
Dental Assistants	3.7%
Physicians and Surgeons	2.7%
Speech Language Pathologists	2.6%
Other Healthcare Practitioners and Technical Occupations	2.3%
Diagnostic Related Technologists and Technicians	2.1%
Physical Therapists	2.0%
Emergency Medical Technicians and Paramedics	2.0%
Pharmacists	1.6%
Other Therapists, Including Exercise Physiologists	1.6%
Dentists	1.6%
Dental Hygienists	1.5%
Clinical Laboratory Technologists and Technicians	1.5%
Physician Assistants	1.2%
Medical Records and Health Information Technicians	1.2%
Optometrists	0.9%
Chiropractors	0.9%
Miscellaneous Health Technologists and Technicians	0.7%
Physical Therapist Assistants and Aides	0.3%
Ambulance Drivers and Attendants, Except Emergency Medical Technicians	0.3%
Radiation Therapists	0.2%
Respiratory Therapists	0.1%
Audiologists	-0.1%
Health Diagnosing and Treating Practitioners, All Other	-0.2%
Recreational Therapists	-0.2%
Opticians, Dispensing	-0.2%
Occupational Therapy Assistants and Aides	-0.6%
Massage Therapists	-0.6%
Occupational Therapists	-0.6%
Podiatrists	-0.6%
Medical, Dental, and Ophthalmic Laboratory Technicians	-0.8%
Industrial Engineers, including Health and Safety	-1.2%
Dietitians and Nutritionists	-1.3%
Licensed Practical and Licensed Vocational Nurses	-1.5%
	<b>100.0%</b>

Source: CUF analysis of data from 2000 U.S. Census, 5% sample and 2011–2015, 5-Year ACS.

# A survey of home health aides found that transit was the number two cause of stress, second only to the death of a family member.

their clients. Flushing, Murray Hill, and Whitestone in Queens—which together have the largest concentration of seniors in the city—are all served by a single subway station and a single line, the 7. Jamaica, Hollis, and St. Albans workers have access to just one subway station, served by the E and J/Z lines. There are no subway connections to Queens Village, Cambria Heights, and Rosedale, which together have the third-highest concentration of healthcare workers and the fifth-largest concentration of seniors.

In many cases, the distances between home health aides and their patients are relatively short, but transit connections can be frustratingly inefficient. For example, a trip from Hollis, Queens—where thousands of home health aides live—to Rosedale, a hub for eldercare, is just a 20 minute drive. But the journey takes over an hour by public transit, including 22 stops on the Q3 bus and another 17 stops on the Q85.

At the same time, of all the healthcare workers who interface directly with patients, home health aides are the lowest paid. Our analysis of census data finds that home health aides in New York City earn, on average, less than \$25,000 annually. Compare that to such occupations as medical records and health IT workers (\$38,000), laboratory technicians (\$51,000), and registered nurses (\$69,000) and it's clear that home health aides are shouldering much of the financial burden for taking multiple trips on public transit.

Furthermore, the demand for home health aides is rising far faster than are wages in that sector. Between 2001 and 2016, employment for home health aides in the Bronx rose 220 percent, while wages inched up just 7 percent. In Queens, employment exploded 380 percent in that time, but wages remained flat. In Brooklyn, wages for home health aides rose 28 percent over those 15 years, but that growth was far outpaced

by the 558 percent increase in jobs for home health aides in that borough.

That means the average home health aide—who needs to make several transfers on trains and/or buses just to get to her clients—must devote a far bigger chunk of her paycheck to her commute than do other health workers. And if the buses and trains don't get her to work on time, she's looking at giving up even more of her earnings to pay for taxis or private cars.

"They cannot afford to take a taxi. They don't make that kind of money," says 1199's Tavarez. "But at times they are forced to have to get off the train and take a taxi to make it to clients on time. Imagine the amount of pressure they face."

In fact, in 2017, 1199 SEIU conducted an informal survey of major causes of stress among home health aides and found that transit was the number two stressor, second only to the death of a family member.

Bus service is so unreliable that home health agencies have to put contingency plans in place to get their workers to clients on time. For example, only eight of Alliance Homecare's 157 New York City-based home health aides live in Manhattan, with the rest in Queens, Brooklyn, and the Bronx. Many of the workers living in the boroughs outside Manhattan are in transit deserts. So the company is resorting to using Uber and other private car services, which is causing a financial burden.

Alliance spent more than \$3,400 in 2016 reimbursing home health aides who had to resort to taxis or private car services to get to their clients on time. That number was projected to grow exponentially in 2017, as the company had already laid out more than \$2,300 on those charges just in the first four months of 2017, according to Amanda Frey, Alliance's director of human resources.

## NYC Neighborhoods with Largest Population of Health Aides, 2016

Borough	Neighborhood	Number of Health Aides
Brooklyn	East Flatbush, Farragut & Rugby	7,686
Brooklyn	Canarsie & Flatlands	7,065
Bronx	Wakefield, Williamsbridge & Woodlawn	6,672
Queens	Jamaica, Hollis & St. Albans	6,428
Manhattan	Washington Heights, Inwood & Marble Hill	5,823
Bronx	Belmont Crotona Park East & East Tremont	5,815
Brooklyn	Flatbush & Midwood	5,458
Brooklyn	Brownsville & Ocean Hill	5,324
Brooklyn	East New York & Starrett City	5,265
Bronx	Morris Heights, Fordham South & Mount Hope	5,037
Bronx	Concourse, Highbridge & Mount Eden	5,022

Source: CUF analysis of data from 2011–2015, 5-Year ACS.

“Getting from one place in Brooklyn to another is definitely harder than getting from Brooklyn to Manhattan,” Frey says. “In Queens, we have people taking the bus to the last stop of the N/W train. They wait 10 minutes, then have to take another three buses. We have our own staff pick them up sometimes.”

Home health agencies go to great lengths to get their workers to clients on time for reasons related to both patient safety and job security for their workers. “Sometimes it’s about life and death. The patient is waiting for medication or to get meals at a certain time because they’re diabetic. That can really be a liability,” Tavarez says. “That person can go into a coma, they could pass out or their blood pressure could go up.”

Agencies that rely on insurance reimbursement are under pressure from insurers to justify lateness among home health aides. Even private-pay agencies have to go through contortions to get aides to clients on time. SelectCare, for example, will reimburse aides who need to take private car services like Uber when public transit isn’t an option, but then they have to pass the bill along to the clients. “Our aides make minimum wage, our clients are middle income,” says SelectCare’s Holub. “We don’t have tremendously rich clients. The impact of increased cost of service will be an added burden to them.”

Home health aides are often called upon to work shifts at odd hours, perhaps because an elderly patient needs a medication at a specific time, or a client with a disability simply wants a helping hand at certain times

of the day. But those demands often clash with public transit schedules, which are designed to cater to nine-to-five workers.

Sheron Smith, a home health aide for SelectCare, regularly travels from Brooklyn to a client in Rego Park, Queens, and even though she doesn’t have to be there until 11 a.m., she has to leave a full two hours in advance “just to be in rush hour,” she says. If she leaves later, she explains, the trains run less often and are sometimes so crowded she has to let one or two pass until she’s able to squeeze herself into one.

Many home health aides complain that irregular transit schedules in off hours leave them between a rock and a hard place: They need to leave early to arrive on time, but their clients often don’t want to see them prior to the start of their shifts. And they don’t get paid for any unscheduled time they spend with their clients.

Fatima, an aide working for Partners in Care who asked to be identified by her first name only, lives and works on Staten Island. But because she does not have a car, she has to rely on multiple buses to get to her clients. “A prime example: Park Hill is actually literally 10 minutes away. But I have to take two buses to get there,” she says. “I’ll walk through a big football field sometimes, because it doesn’t make sense to wait for the bus to go all the way around. I lose time. I’ve learned to leave extra early, but I don’t get paid for that.”

So Fatima often gets to her client at 11:20 for a shift that starts at noon. “I can’t stand outside in the middle of the woods. So I have to come in,” she says.

“Sometimes it’s about life and death. The patient is waiting for medication or to get meals at a certain time because they’re diabetic. That can really be a liability.”

“And sometimes they don’t want you there too early.”

Weekend shifts present a whole separate set of challenges. Service on most subway and bus lines is infrequent at best, and at worst it’s not available at all because of repairs or other service interruptions. Jacquelin Rivera, a home health aide for SelectCare, travels from Brooklyn to Whitestone, Queens, and often works on the weekends. “I take the J to the Q54 select bus. But on a weekend sometimes the J doesn’t run to Queens. If it stops at Crescent Street, I have to take the shuttle to the E train to take the 44 bus.” The trip regularly takes more than an hour and a half each way if everything is running smoothly.

Arriving to a client’s home even as little as 15 minutes late can carry harsh disciplinary ramifications for aides and their managers. Partners in Care often collects payments for its services from insurance carriers, who will take notice of when aides are clocking in, and they will protest if they’re not on time. “Between 9 and 9:15 anything could happen—a client could fall, anything—and our company is held responsible,” says Elizabeth, a home health aide supervisor for Partners in Care who asked to be identified by her first name only. “Insurance companies want to know what happened. What am I going to say? It was the fault of transit?”

Some insurance companies may reduce their reimbursement amounts, Elizabeth says, even if the aide stays an extra 15 minutes at the end of her shift. “The company loses money because of transit issues.”

Several home health aides we spoke to for this report suggested that the MTA expand Access-A-Ride so it can be used to transport healthcare workers to their clients, as well—although the current system suffers from high costs and significant reliability issues. Currently, home health aides can only take

Access-A-Ride if they are accompanying patients to appointments. It’s not a bad idea, suggests Mandu Sen, a program manager for Regional Plan Association (RPA) in New York, although the system itself needs significant improvements. “Rethinking the paratransit system for different uses—broader uses—should be part of the solution,” Sen says.

Improving and expanding Access-A-Ride—or supplementing the current system with a more cost-effective alternative—wouldn’t just ease the job for home health aides; it could potentially enhance the entire healthcare system in New York City, Sen says. A ride-sharing service could also be used, for example, to get workers to hospitals during emergencies, such as major weather events. “Being able to deploy a paratransit system to particular routes that need to be prioritized during emergencies would be extremely valuable.”

# A BUS SYSTEM OUT OF STEP WITH THE NEEDS OF HEALTHCARE

New York City’s bus network was originally developed to supplement the Manhattan-centric design of the subway system. In other words, most of the subway lines are laid out in a radial pattern—fanning in and out of Manhattan, with no lines serving Staten Island and limited service in the rest of the boroughs. There are 238 local bus routes in the five boroughs designed to transport riders on short trips within those boroughs.

But poor reliability, limited connections, and a network that hasn’t changed to accommodate shifts in demand have resulted in a system that is failing to meet the growing needs of healthcare workers.

“Getting people through Manhattan above ground is not easy. And in the other boroughs, traffic patterns and bus schedules present problems—particularly for people doing off-hour shifts,” says health policy expert and nurse Barbara Glickstein. “We need to be looking at providing adequate service that connects people more quickly to large healthcare providers.”

Slow and unreliable bus service makes commuting a daily guessing game for the thousands of healthcare workers with no other options. “Every day is a different story,” says Elyse, a neonatal care worker at NYC Health + Hospitals/Jacobi in the Bronx, who asked that she be identified by her first name only. “Buses don’t have service, they come late, they never show up on time.”

But for many healthcare workers, bus service is

essential. Across New York City, we found dozens of hospitals, clinics, and nursing homes that are only accessible by bus rather than by subway, particularly in the boroughs outside Manhattan. And most home health aides who are serving clients outside of Manhattan have no choice but to take buses to get to those patients’ homes.

Although overall bus ridership has nosedived in Manhattan, falling more than 15 percent since 2011, ridership has fallen more slowly in Brooklyn (-5 percent) and Queens (-1.8 percent) and is up in the Bronx (1.1 percent) and Staten Island (3.7 percent). A closer look at commuters in the healthcare sector reveals a surge in demand for buses among lower-income riders in the boroughs outside Manhattan.

The growth in demand for health services outside of Manhattan is helping drive record bus ridership on multiple routes. In Brooklyn, for example, four of the five fastest growing bus routes provide service to major healthcare providers. Ridership on the B4 grew 39 percent between 2011 and 2016. That bus originates in Sheepshead Bay, home to the city’s 11th-largest population of healthcare workers, 10,349 to be exact. Its route takes it past Coney Island Hospital, Sheepshead Nursing, and Shore View Nursing and Rehabilitation. However, service on the B4 is highly unreliable at night, when many hospital workers are

## Brooklyn’s Fastest-Growing Bus Routes, 2011–2016

Route	2011 Ridership	2016 Ridership	Growth	% Change	Healthcare Service
B4	1,380,277	1,919,457	539,180	39.06%	Yes
B69	907,228	1,236,017	328,789	36.24%	Yes
B48	931,292	1,218,214	286,922	30.81%	No
B57	1,814,694	2,293,279	478,585	26.37%	Yes
B13	1,581,718	1,948,419	366,701	23.18%	Yes

Source: CUF analysis of data provided by New York City Transit.

# A closer look at commuters in the healthcare sector reveals a surge in demand for buses among lower-income riders in the boroughs outside Manhattan.

left with no other option. For example, after 6:45 p.m., the bus serves Coney Island Hospital on average only once every 31 minutes, and there’s no service at all between 12:45 a.m. and 4:45 a.m.

The B69 bus in Brooklyn, which connects the Brooklyn Hospital Center in downtown Brooklyn and Brooklyn Methodist Hospital in Park Slope, has seen its ridership jump 36 percent in five years. Ridership on the B13 is up 23 percent. This route begins in East New York, one of the city’s top ten neighborhoods with the largest concentration of healthcare workers, and serves Wyckoff Heights Medical Center, which employs more than 1,800 people. Like the B4, however, the B13 leaves only once every half hour after 8 p.m., and there is no service between 12:17 a.m. and 4:35 a.m.

Three of the fastest-growing bus routes in Queens also serve major healthcare providers. One of those routes is the Q20, which has experienced a 9 percent increase in ridership since 2011. The Q20 originates in Jamaica, home to 18,773 healthcare workers—the second-highest concentration of health professionals

in all of NYC—and runs past New York Presbyterian/Queens, Centerlight Healthcare, and Silvercrest Center for Nursing and Rehabilitation. New York Presbyterian/Queens alone employs 3,000 people.

A similar trend can be seen in the Bronx. Ridership on the Bx24—which serves Calvary Hospital and Williamsbridge Manor nursing home—is up a whopping 134 percent since 2011. And the Bx41 is now the third fastest-growing bus route in the Bronx, with ridership up 21.4 percent since 2011. It provides direct access to Lincoln Hospital, Union Community Health Center, and the Triboro Center Nursing Home.

The Bx41 is among the bus routes with an SBS option, which was added in 2013. The Bx41 SBS operates on Webster Avenue, extending five miles from East 149th Street to Gun Hill Road. Almost the entire route has dedicated bus lanes, and customers pay before boarding, both of which are features designed to speed service.

In addition to challenges with speed and efficiency, critical service gaps make relying on the bus difficult for

**The Bronx’s Fastest-Growing Bus Routes, 2011–2016**

Route	2011 Ridership	2016 Ridership	Growth	% Change	Healthcare Service
Bx24	97,059	226,963	129,904	133.84%	Yes
Bx15	7,003,272	8,952,781	1,949,509	27.84%	Yes
Bx41L/SBS	6,223,338	7,554,613	1,331,275	21.39%	Yes
Bx13	3,282,088	3,897,006	614,918	18.74%	No
Bx35	4,907,198	5,611,615	704,417	14.35%	Yes

Source: CUF analysis of data provided by New York City Transit.

many health workers. This is particularly true on Staten Island, where the bus is often the only viable option for people who both live and work there.

In June 2017, the MTA concluded a two-year study of Staten Island’s express bus service and recommended a series of changes designed to simplify the service and reduce travel times. They include dividing the existing network into two separate systems—one that transports commuters to midtown Manhattan and the other to Lower Manhattan—and boosting the frequency of some lines.

Prior to recommending those changes, the MTA surveyed 2,000 riders on Staten Island. Among the findings: 96 percent of respondents travel to Manhattan, and 83 percent of riders use the busiest 50 percent of stops. The agency determined, therefore, that the other half—the underused stops—are slowing down

the majority of commuters. So its recommendations included eliminating those stops.<sup>15</sup> This valuable process should be applied to other neighborhoods across the city where express bus corridors are already in operation.

The MTA also plans a second phase of the Staten Island redesign focused on improving local bus service, but no timeline has been established. Tackling this phase will be essential for Staten Island’s large healthcare workforce, which is mostly commuting from across the island and other boroughs. This phase could help transit planners understand how commuters from different industries use the buses on Staten Island and whether service issues may be affecting their decisions when it comes to where they live and work. Unlike the express bus overhaul, which focused almost entirely on getting commuters on and off the island, the second

### Queens’ Fastest-Growing Bus Routes, 2011–2016

Route	2011 Ridership	2016 Ridership	Growth	% Change	Healthcare Service
Q42	231,599	303,658	72,059	31.11%	No
Q76	1,477,697	1,648,960	171,263	11.59%	Yes
Q58	8,827,434	9,678,563	851,129	9.64%	Yes
Q48	881,758	966,699	84,941	9.63%	No
Q20	4,070,272	4,442,586	372,314	9.15%	Yes

Source: CUF analysis of data provided by New York City Transit.

### Staten Island’s Fastest-Growing Bus Routes, 2011–2016

Route	2011 Ridership	2016 Ridership	Growth	% Change	Healthcare Service
S93	418,051	936,211	518,160	123.95%	Yes
S79L/SBS	2,943,691	3,680,588	736,897	25.03%	Yes
S76/86	1,126,845	1,366,816	239,971	21.30%	Yes
S52	1,006,585	1,067,692	61,107	6.07%	Yes
S44/94	2,117,938	2,208,126	90,188	4.26%	Yes

Source: CUF analysis of data provided by New York City Transit.

## Manhattan's Fastest-Growing Bus Routes, 2011–2016

Route	2011 Ridership	2016 Ridership	Growth	% Change	Healthcare Service
M106	508,563	696,383	187,820	36.93%	Yes
M9	1,259,349	1,626,799	367,450	29.18%	Yes
M21	318,422	407,070	88,648	27.84%	Yes
M116	2,811,637	3,241,353	429,716	15.28%	Yes
M60L/ SBS	5,355,448	5,539,186	183,738	3.43%	Yes

Source: CUF analysis of data provided by New York City Transit.

phase is needed to address the emerging needs of local employers and the people who both live and work in the borough.

The limitations of Staten Island's local bus service are clear. For example, the S52, which serves Staten Island University Hospital, has seen its ridership grow 6 percent since 2011. But the S52 only stops at Staten Island University Hospital every 30 minutes after 6:40 p.m., and it doesn't run at all between 12:45 a.m. and 4:10 a.m. That's why the vast majority of workers there drive instead of taking the bus, says hospital executive Lou Tobacco.

What's more, Tobacco says, the bus may be accessible to the hospital, but it's not so accessible to peoples' homes. "Most people have to get in their car to go drive to another section of Staten Island to get on an express bus, which kind of defeats the purpose of public transportation," he says. "Bus access should be more walkable within people's communities."

Unreliable and unpredictable service is also a turn-off for many health workers. Caroline Davis, director of patient engagement and community outreach at St. Barnabas Health System in the Bronx, has to take three buses from her home in Co-Op City—a trip that takes more than an hour. One of those buses is the Bx15, which has seen its ridership grow nearly 28 percent in the last five years. Lately, Davis says, she's been so disgusted with the Bx15, which usually takes her right to the hospital, that she'll take two buses to the closest point and then walk the rest of the way. Forthcoming data analysis by TransitCenter corroborates Davis's account. The Bx15 is characterized as a poor performing route, dragged down by an "on time" rating of less than 40 percent.

"There will be no buses in sight between 8:45 and 9 a.m., and then suddenly there will be seven buses," Davis says. "But only one or two of those buses will stop, and then they'll be crowded." Virtually every day, she says, several buses will pass by the stop with their "not in service" signs illuminated. "I don't know if it's because they're running behind schedule, or someone didn't get a break, but this is like a consistent problem." A letter of complaint she sent to the MTA went unanswered.

Former Bronx resident and Maimonides employee Dupe Ajayi used to take the Bx12 SBS to the subway but had to stop because the bus was frequently delayed, not just by traffic, but also by congestion on the bus itself. "It was always very crowded," she says. "Then officers had to come all the time to check tickets." This seems to defeat the purpose of the expedited boarding processes that were put in place to speed up the SBS buses.

Many home health aides worry that poor bus service is hampering their job security. Barbara Rodriguez, a member of 1199 SEIU, commutes from Hunts Point in the Bronx to the Upper East Side home of a 97-year-old client. She has tried to take the Bx19 to the A subway, but "it was a total failure," she says. "They send one bus every half-hour or 45 minutes, and there's congestion, and people want to kill each other. It's ridiculous. Clients are waiting for me. I have a 97-year-old waiting for me."

Vivian de la Cruz, another member of the 1199 union, repeatedly tried taking buses from the Upper West Side of Manhattan, where she lives, to the Upper East Side, but the service was so unreliable she was disciplined for repeated lateness. She was even taken off one case, and had to bring in her union rep, Tavarez, to

“They send one bus every half-hour or 45 minutes, and there’s congestion, and people want to kill each other. It’s ridiculous. Clients are waiting for me. I have a 97-year-old waiting for me.”

fend off threats that she would be fired.

“No matter how much time I give myself ahead, I will still be late to work, because the MTA makes its own schedule,” de la Cruz says.

The MTA has announced several improvements to the bus system over the past few years. In addition to the redesign of the Staten Island express buses to Manhattan, the MTA began rolling out new buses equipped with Wi-Fi and USB charging ports—a \$1.3 billion investment.<sup>16</sup> In the spring of 2017, a new SBS bus was deployed on 79th Street in Manhattan to provide faster crosstown service.<sup>17</sup>

And the Q52 Limited route serving the Rockaways in Queens was extended by one mile towards the east, ending at Beach 54th Street and Beach Channel Drive. SBS service was planned to start by the end of 2017. All told, the extensions were estimated to cost \$510,000 a year.<sup>18</sup>

But these were all enhancements made to existing lines, rather than an effort to redesign routes in ways that might benefit the growing population of commuters traveling among and within the boroughs outside Manhattan. And even with the addition of the new SBS routes on 79th and in Queens, the MTA has fallen short of its promise to have 20 SBS lines up and running by the end of 2017.

“They only did 15 out of the 20 [SBS] lines,” says Gene Russianoff of the New York Public Interest Research Group’s Straphangers Campaign. “We have been pressing them, but it was clear about two years ago they weren’t going to make it.”

By not embarking on a serious redesign of the bus system, New York is lagging behind other major cities that have reimagined bus service in ways designed to benefit commuters in many industries. For example,

the Houston metro bus system moved away from a radial route map, which centered on moving people to and from downtown, to a regional grid system in 2015. The new bus system was designed to align more closely with regional travel patterns, bringing workers directly to major employment centers—including many that are nowhere near downtown.<sup>19</sup>

A similar redesign was implemented recently in Baltimore. The system, called BaltimoreLink, includes three levels of bus service: The first operates 24 hours a day from downtown out toward the suburbs. The second runs only on neighborhood streets in a ring pattern that makes transferring to the downtown buses easy. The third offers express service between outlying areas and downtown Baltimore.<sup>20</sup>

The potential benefits to commuters of such enhancements were seen immediately. In Houston, for example, the number of people with easy access to buses that arrive every 15 minutes, seven days a week, more than doubled to 1.16 million. That’s expected to drive a 20 percent increase in ridership within two years.<sup>21</sup>

RPA’s Sen believes New York could be at the forefront of innovation in city bus planning. Improvements could run the gamut from speeding up fare collection to reduce dwell times at bus stops to planning new bus routes around major destinations that are projected to grow in the coming years, such as hospitals. The MTA could even partner with hospitals to create maps of neighborhoods with large and growing healthcare needs, she says.

“New York City can be a big player in rethinking bus routes,” says Sen.

### When weather shuts down the transit system

When Hurricane Sandy was bearing down on New York City in late October 2012, Governor Andrew Cuomo suspended all subway and bus services starting the evening before the storm arrived. Noting that buses and subways were not equipped to be submerged in water, he said, “We want people to stay at home.”<sup>22</sup>

But for people working on the front lines of the healthcare industry, staying at home when the weather gets bad usually isn’t an option. There are no snow days or hurricane shutdowns at hospitals. And if a home health aide has to administer a medication to an elderly patient at the same time every day, she’s expected to be at that client’s house at that time regardless of whether the sun is shining or the city is crippled by a historic storm. “The city that never sleeps keeps taking a nap,” says Emily Davis of New York–Presbyterian.

Weather shutdowns have become so commonplace in the city that health providers have been forced to put contingency plans in place to make sure they’re adequately staffed to handle emergencies. Says Lou Tobacco of Staten Island University Hospital: “If we see a paralyzing snowstorm coming, we tell employees to pack a duffel bag and work extra shifts.”

Maria Castaneda of 1199 SEIU says some workers routinely bring overnight bags to the hospitals where they work, “Because they know they cannot commute [during bad weather].”

Several health workers have observed that the trains are shutting down much more often during weather events, even rainstorms—and for much longer—than they did in the past. Snowstorms now cause several days of disruptions. For example, a full six days after the blizzard of 2017 dumped eight inches of snow on New York City, the Bx19 bus was still running a service advisory that warned of snow-bound bus stops and service delays related to snow removal.

“I grew up in New York City, and when I was younger, even when it rained or snowed, they never really closed the subway system,” says Maimonides’ Tsang-Quinn. “Working as an adult, I rely very heavily on the public transportation system, and I find that when it rains or snows, all the lines slow down considerably. And many of the folks I supervise, because they take multiple modes of public transportation to work, they get delayed.”

Maimonides works hard to stay fully staffed every time there’s a big snowstorm. As the closest subway—the D train to the Fort Hamilton Parkway stop—runs on an elevated line, the train is “always delayed because it requires special trains” to clear snow and ice, Tsang-Quinn says. So the hospital uses its own vans to pick employees up at the last working stop during storms.

Montefiore Medical Center has developed “transportation hubs,” says Maria Castaneda of 1199 SEIU. “Workers can walk to the closest hub and get picked up by a hospital van.”

Improving transportation options during weather emergencies should be a priority both for the MTA and for healthcare employers, many workers in the industry suggest. In particular, the MTA and DOT could be doing more to help workers on the front lines of healthcare who can’t stay home during bad weather, particularly those who work overnight shifts. “During extreme weather, they will shut down the subway lines by 10 o’clock,” says Castaneda, exacerbating the already sparse scheduling of public transit during the overnight hours. “For workers whose shift goes from midnight to 8 in the morning, they have to get to work early, before the trains shut down. Workers who end shifts at 11 p.m. get stuck in the hospital. That’s the problem.”

In October 2017, Governor Cuomo signed legislation that will allow home care and hospice organizations to provide input regarding the preparation and execution of local emergency plans. This is an important step toward maintaining effective medical care during severe weather emergencies. However, healthcare providers believe that much more can be done to facilitate effective transportation during emergencies.

One promising idea is to designate emergency corridors that could be used to create healthcare shuttle services during emergencies. Some healthcare providers suggest piloting such a corridor along Bedpan Alley on the east side of Manhattan or from Grand Concourse to Lincoln Hospital and Montefiore Medical Center in the Bronx. These routes could be plowed early in the case of a snowstorm and opened only to registered vans operated by healthcare providers with the right equipment to handle severe weather conditions.

# THE CONSEQUENCES OF TRANSIT STRUGGLES: MOBILITY, STAFFING, AND MORALE ISSUES COLLIDE

Regardless of whether they work in hospitals, home health, nursing homes, or urgent care centers, health workers who endure chronic transit hassles report low morale. That can have a ripple effect on patient care, and it can make recruiting for some positions all that more difficult.

Some hospital administrators worry that commuting difficulties suffered by employees can negatively impact quality of care. New York-Presbyterian's Emily Davis explains that when one nurse does a "handoff" to the nurse taking the next shift, she has to pass along a lot of vital information so the nurse taking the next shift can best take care of the patient. Fatigue can cause "a nurse to miss something in the handoff," Davis says. "We see this."

Frequent lateness can wreak havoc on patient scheduling, too. One healthcare executive describes how scheduling of surgeries and diagnostic tests goes awry when just one health worker doesn't get to work on time. "Whether it's surgeries, or doctors, or procedures, or diagnostic testing, it's all on a tight schedule," the executive says. "The traditional wait time is 15 minutes, but when workers are delayed it delays others. Multiple delays that add up can lead to an hour of waiting or more."

Home health aides frequently complain of crushing fatigue compounded by endless waiting for subways or buses. For example, SelectCare aide Daisrey Scarlett, who regularly commutes from her home in Brooklyn to clients in Manhattan, often has a shift that ends at 8 p.m. "Then I'll be at the subway at 8:30, and sometimes it gets to 9:30 or 10 and I'm still waiting," she says. "By the time you reach home and put your head down it's time to get up again to come back out."

For home health aides, the strain of commuting often shows on their faces by the time they finally reach the homes of their infirm clients. "It definitely does not help morale," says Alliance's Frey. "If you're used

to your commute being an hour, and then it's an hour and a half, you're then walking into your client's home frazzled. You're late, and the person you're relieving is probably not going to be very pleasant to you, because they've just done a 12-hour shift and they're there, waiting for you for an extra half hour. Of course, you want to say you always put your best foot forward and check all your issues at the door before you walk in, but we're all human and that doesn't always happen."

Frequent track work, leading to shutdowns at night or on weekends, also causes problems. The shutdowns are necessary to fix the system's crumbling infrastructure, but alternatives and work-arounds are often insufficient to meet the demands of the healthcare workforce. "We have a client currently residing in Long Island City, and the 7 train now is up and running again, but for a series of weekends and weeknights it was not running between Manhattan and Queens," Frey says. "This creates a big issue when you have to get there."

Supervisors often face pressure to discipline workers who are late, but they struggle to do so when they know the cause of the tardiness is beyond everyone's control. Trevie, a supervisor for Partners in Care/Visiting Nurse Service who asked to be identified by her first name only, was getting so many complaints about commuting on Staten Island that she decided to try it herself—first in a car that started at the arrival point for the Staten Island Ferry.

"To get to one patient's home by public transportation should have taken 15 minutes but when we drove, it took us a half hour," she recalls. "Then I took the bus. Oh my lord. I went from one side of Staten Island to the other side. It took me an hour and a half. I had to ask the bus driver, 'Are you sure we're going in the right direction?' So I learned my lesson from that. That is why I don't scream at the aides. I know the situation."

Jena, a manager of customer experience for

Partners in Care who also asked to be identified by her first name only, confirms that supervisors are under pressure to write up disciplinary reports on home health aides when they're late, but they feel conflicted about doing that. "I feel for the aides because I know what they're going through in any borough," she says. "The clients don't care—they say, 'I'm paying you for this service so you need to leave earlier.' But I used to leave three hours early when I worked on Staten Island, and I was coming to work disgruntled. So how can I turn around and tell an aid they should have left earlier?"

The challenges of getting to and from work during the off-hours only compound the already unreliable public transit schedules. That can spell trouble for hospital shift workers who are expected to be on time to relieve other workers, says Staten Island University Hospital's Lou Tobacco. "They are mandated to stay and work until they're relieved. And the person who doesn't make it in to relieve them has to really justify it or they don't get paid," he says. "It's serious."

"It's affecting our department," says Harry Woods, a cleaning staff member and worker representative at Montefiore Medical Center. "You have workers coming in feeling tired, frustrated about their commute to work and their commute home. Now, if it affects our department, it affects the whole hospital because we take care of the whole hospital."

The safety of the health workers themselves is another concern. Reports of poorly lit stations, sparse security surveillance, and other deficiencies abound among health workers who rely on public transportation.

In February 2017, a home health aide from Brooklyn who was working in the Rossville neighborhood of Staten Island was hit by a car and killed while walking to the bus. "It was very devastating to us in Staten Island," says Trevie, who attributes the death to a lack of sidewalks, lighting, clear signage, and other improvements that make neighborhoods safe for pedestrians. "It was a desolate area where she was coming out from. There are a lot of wooded areas where aides have to walk on the road."

Several workers we interviewed reported feeling physically unsafe during their commutes, especially working late-night and early-morning shifts. Kayla Spence of Maimonides holds a second job at NYC Health + Hospitals/Elmhurst in Queens, working part-time as an administrator on duty. The hospital is only a few subway stops from her home, but when her shift ends at midnight, there is no police presence at the Jackson Heights subway station. Instead of riding the subway, she takes a car service home from her work.

"It's frustrating. I just worked an eight-hour shift and I have to take \$12 out of my paycheck that I worked really hard to earn so I can get home safely."

Some hospitals have come up with creative solutions to help ease the commute for workers. NYU Langone Medical Center started its own ferry service, which transports riders between 35th St. in Manhattan to the 58th St. Pier in Brooklyn, near its Lutheran Medical Center. A shuttle bus also transports workers between Lutheran and the Brooklyn pier. One NYU official reports that workers from southern Brooklyn are using the ferry service to reach their jobs in Manhattan, just to avoid having to rely on public transportation for the entire trip.

Montefiore Medical Center has a free shuttle for employees that runs between four of its facilities.<sup>23</sup> It also started a community shuttle that offers private van service for patients and visitors.<sup>24</sup> And during weather emergencies, the hospital deploys a hub system, where employees can walk to certain central locations and be picked up by hospital vans, says 1199's Maria Castaneda.

These private efforts have resulted in improved commutes for some hospital workers, but also suggest that the city's lagging transit infrastructure is pulling healthcare employers away from a single-minded focus on their missions. "When hospitals stop to think about it, there are lots of reasons to care about transit," says Larry Gould, a former New York City Transit planner and current principal at Nelson\Nygaard, a transportation consultancy. "They need to be focusing their resources on their mission, but now they're becoming a bus company."

But private transportation services are also limited when compared to the 24/7 demands of healthcare work. NYU's ferry and shuttle don't run at night. Nor do Montefiore's courtesy shuttles. And for all health providers, public transit options slow down at night.

Commuting challenges create major problems for hospitals and other providers when it comes to recruiting. "Our hospital in Brooklyn faces major transit challenges," says Stacy Coleman, speaking of Mount Sinai. "It can take 20 minutes by bus just to get there from the nearest subway station. We're unable to hire people from too far away."

That's true even for home health agencies that try to match workers with clients who live nearby. "Because our clients are typically in Manhattan, a lot of our caregivers will say, 'Oh, I can't get a train that easily comes into Manhattan. It's too far. I only want to work in Queens,'" says Frey. "Or if they lived and worked their whole life in Queens, they're not comfortable

### For workers on the late shift, a long commute home

As part of our reporting on how transit problems affect the healthcare sector, CUF spoke with a focus group of 30 workers at a hospital in the Bronx about their commutes. All of the participants were cleaning staff who worked a 3 to 11:30 p.m. shift.

At hospitals in the boroughs outside Manhattan, like the one we visited, many workers rely on buses that run infrequently at night—or not at all. As a result, employees on the late shift often take circuitous routes home that last far longer than their daytime commutes. Two-thirds of the workers in our focus group said their nightly commute took an hour or more, and seven spent an hour and a half or more in transit. Aliyah, who balances her job at the hospital with her class schedule, takes three trains if she misses the last bus. She arrives home around 2 a.m., and on some

days leaves again at 7 a.m. to make it to class. She and her coworkers were emphatic about their need for extended late-night bus service.

“The Bx39 is a problem,” says one hospital custodian who commutes across the Bronx to her hospital job. “11:40 p.m., gone, and then no service until 5 in the morning. Then I have to take the train to West Farms Square-East Tremont, where I don’t feel safe, to catch the bus. It’s 12:30 to 1 o’clock in the morning, it’s at least a half hour wait for the bus. My commute takes anywhere from an hour and forty minutes to two-and-a-half hours.”

Safety while commuting at night was a concern for every one of these employees. Infrequent late-night service means long waits at bus or train stations, which can be isolated and poorly lit. Many employees said they didn’t feel comfortable walking alone in their neighborhoods at night, and several mentioned taking Ubers or taxis they couldn’t afford to avoid dangerous areas.

commuting into Manhattan. Or they’ll say, ‘I do want to work with you but every time I do I have to commute an hour and a half each way. It’s just not worth it for me.’”

Transit issues have emerged as a major contributing factor to the constant staffing issues facing home health agencies. The Center for Health Workforce Studies conducted a survey of home health agencies in 2014 and found that 47 percent of respondents reported having difficulty hiring part-time workers and 60 percent struggled to hire people willing to work off-hour shifts and weekends.

Overnight shifts at hospitals are also challenging to fill. Says Interfaith’s Tinti: “We’re in Bed-Stuy. As much as the neighborhood has improved, you still don’t want to get out at 11 o’clock and walk four blocks to the train station and then have to wait a half an hour for the next bus or train.”

Some healthcare employers report that the transit problems facing workers on the night shift are severe enough to drive increased turnover, with spillover effects on employee and patient satisfaction. “We see a lot of prolonged commutes at night, so that the one- or one-and-a-half hour commute becomes three hours,” says one HR director at a major healthcare organization. “It gets a little frightening for some folks, so we see a huge turnover on the night shift. You’ve

got a less-skilled team working nights because they just don’t want to be there. Then we’re mandating you stay because your relief hadn’t made it in yet, so your satisfaction is decreased. Your kids are then stuck. They haven’t been picked up. Your satisfaction goes down—and the patient satisfaction is directly correlated to the employee’s satisfaction.”

For many healthcare workers, the pressure of a grinding commute makes an already stressful occupation even more challenging, although the symptoms are usually well hidden from patients and supervisors. Asked how she copes with her nearly two-hour trip to work each morning, one hospital worker, Elyse, has a simple ritual to leave the commute behind: “You take a breath. You don’t think about it. You get ready. You have to be *there*.”

# RECOMMENDATIONS

## 15 WAYS TO IMPROVE TRANSIT FOR THE HEALTHCARE SECTOR AND BEYOND

A number of pressing challenges and threats face New York City’s healthcare sector, including the uncertain fate of the Affordable Care Act. But the industry with more jobs than any other across the city is increasingly coping with a serious problem closer to home: severe shortcomings in the transit system. New Yorkers working in healthcare jobs have the longest commutes of any industry, and their commutes have been getting far worse. Moreover, the industry’s transit challenges are affecting far more New Yorkers today, following a decade in which the healthcare sector added more than 140,000 jobs in the city—roughly 80 percent of them in the four boroughs outside of Manhattan. These nightmarish commutes have become routine, contributing to an increasingly poor quality of life for the many low- and middle-income New Yorkers who work in the sector, while also leading to higher turnover for employers in the industry and negatively affecting quality of care at hospitals, nursing homes, and urgent care centers.

As this report details, the problem largely stems from two factors: inadequate transit options for people working in the four boroughs outside Manhattan and a badly neglected bus system. Addressing these two related issues would boost the healthcare sector overall and help tackle one of the biggest problems facing New York City today and in the decade to come. A combined effort to solve the transit problems bedeviling the healthcare sector would help make the boroughs a more competitive environment for businesses to grow, strengthen the city’s economy, and improve quality of life for millions of New York’s workers.

### **Make it a priority to improve transit service in the four boroughs outside Manhattan.**

New York City’s transit system has not even come close to keeping pace with the rapid growth in the number of people living and working in the four boroughs outside Manhattan. It’s time to change that. The MTA needs to make a bold new commitment to improving

transit service in the Bronx, Brooklyn, Queens, and Staten Island. This should include new investments that increase the frequency of subway and bus service, as well as new efforts to address some of the biggest gaps in transit service. Top city and state officials—including Governor Cuomo, Mayor de Blasio, and members of both the City Council and State Legislature—need to make this a priority as well, and commit new funds that enable the MTA to take these steps.

To be sure, the city’s subway system requires significant new public investment simply to address the rampant delays and overcrowding issues that are now regularly disrupting service in the five boroughs. But it would be a mistake and missed opportunity to only focus on addressing these core transit infrastructure problems. MTA leaders and New York’s top policymakers must also prioritize investments that improve transit service for New Yorkers who live and work in the boroughs outside of Manhattan—including the 319,000 healthcare employees who live in the Bronx, Brooklyn, Queens, and Staten Island.

### **Support congestion pricing to create a sustainable, dedicated revenue stream to invest in transit gaps.**

New York City’s transit system desperately needs a dedicated revenue stream if it is going to make a bold new commitment to improving transit service in the four boroughs outside of Manhattan. The governor’s Fix NYC proposal would do just that. All state legislators from the five boroughs should get behind Fix NYC, a congestion-pricing plan that offers a fair balance between revenues raised from Manhattan residents and from residents of the other four boroughs, while directing crucial investment to improve service beyond Manhattan and fix transit gaps. The revenue generated—estimated at more than \$1.7 billion annually—should be used to invest in transit improvements across all five boroughs, including bolstering the MTA Capital Plan and creating a Transit Gap Investment Fund.

### **Improve and expand bus service.**

For so many of those working in New York City's healthcare sector—and for the New Yorkers who take more than 2.5 million daily bus rides—buses remain the only viable transit option. This wouldn't be a problem if the city's bus system was up to par. But it's not even close. Throughout the city, buses are unreliable and slow. They don't run frequently enough, and transferring from one bus to another is rarely efficient. Additionally, too many routes simply haven't been updated to align with the actual commutes that working New Yorkers take today within their own borough or from one borough to another. New York's top policymakers and transportation officials need to make improving and expanding the city's bus network a higher priority. Specifically, they should commit to the following steps:

- **Launch a Bus Rescue Plan to improve the speed and reliability of bus service.**

For hundreds of thousands of workers in the boroughs outside Manhattan, especially the masses of workers in the booming healthcare sector, commuting by bus can be agonizing. When buses fall behind schedule and bunch together, the result can be long waits even at rush hour and even longer gaps at night. For commuters who rely on multiple buses, like many workers in eastern Queens and southern Brooklyn, the transfers are rarely coordinated, leading to unexpected delays and overcrowding as riders pack the bus stops waiting for their next ride. Even though bus ridership has fallen over the past 15 years, ridership is up on most of the routes serving major healthcare employers—especially those in the boroughs outside Manhattan. For these thousands of workers, relief can only come in the form of faster and more reliable bus service.

To tackle these system-wide problems, the MTA and DOT should move quickly to implement a host of best practices that have demonstrated results in other cities and systems. Strategies should include adding new routes between population centers and job hubs, redesigning indirect routes, breaking up overly long routes, and rightsizing the distance between bus stops. In addition, an improved boarding process—including a tap-and-go fare collection system and all-door boarding for all routes—could dramatically reduce the wait at each stop. Lastly, the MTA should work with DOT to implement more dedicated bus lanes that can dramatically speed up bus travel on crowded streets.

Both new and existing lanes also need to be properly enforced to ensure that lanes remain clear and violators are fined.

- **Implement new ideas to keep buses on schedule, improve multi-bus commutes, and close service gaps.**

For commuters who depend on buses, the posted schedules are considered wishful thinking. Healthcare workers interviewed for this study described frustration over the fundamental unpredictability of bus service, which forces stressed workers to allocate the maximum possible time to their commutes on the assumption that something will always go wrong. The problem stems from the fact that once a bus falls off schedule, it almost never recovers, resulting in buses that are chronically late, bunched together, or poorly coordinated. To fix this problem, the role of the bus dispatcher needs to change. Dispatchers should be empowered to intervene when buses fall behind schedule, working with drivers to modify service based on real-time location data, and tasked with ensuring that connections and transfers are efficiently coordinated to improve the reliability of multi-bus commutes. The MTA has taken one major step forward over the past year by equipping its entire bus fleet with signal priority capability, so that buses can benefit from optimized traffic signal coordination along busy routes. Now DOT needs to prioritize rolling out this feature along as many routes as possible, starting with a goal of at least ten routes over the next year.

- **Expand Select Bus Service in the boroughs.**

The most cost-effective way to increase mass transit access and improve bus service is through the expansion of Select Bus Service, New York City's version of bus rapid transit. For workers traveling from affordable neighborhoods on the periphery of the city to jobs that are often located on the opposite side of a borough or in an adjacent one, bus rapid transit could significantly shorten and improve commutes that are often among the worst in the city. That's why it's so essential for the MTA and DOT to make good on their promise to complete the 20 future SBS routes first outlined in 2009, while continuing to develop proposals for additional routes. Today, the city has just 15 SBS corridors, of which there are just two in Brooklyn and three in Queens. None of those five corridors provide crucial crosstown service. In October 2017, the

New York City Department of Transportation announced plans to expand SBS along 21 new routes, including several that would provide much-needed crosstown service in Brooklyn and Queens. The MTA should work closely with the city to implement these routes and set a goal of completing at least seven by 2020.

- **Apply the lessons of the MTA's Staten Island bus overhaul to other areas of the city.**

The MTA's ambitious plan for Staten Island, set for implementation in 2018, marks the first major reimagining of bus routes in decades. The plan includes four crucial components that could be broadly applicable to other parts of the city. First, the plan will divide the network into two routes serving either Lower Manhattan or Midtown, reducing redundancy and increasing clarity for commuters. The plan will also eliminate underused stops while boosting frequency of buses on a smaller number of routes. In addition, the plan streamlines all routes in Staten Island, using highways instead of local roads wherever possible. The MTA should choose three other areas for a similar reimagining, with a focus on the neighborhoods that are most reliant on bus travel. At the same time, the MTA needs to prioritize the second phase of the Staten Island redesign, which is intended to improve local bus service within the borough and will be essential for addressing the transit challenges facing Staten Island's healthcare employers and workforce.

- **Rethink and redesign the bus network.**

Despite massive changes in the city and its economy over the past several decades, much of the bus route network mirrors the trolley lines laid out in the mid-20th century and hasn't changed since the 1980s. To modernize the bus network, the MTA needs to determine how and where the current bus system is failing and redesign as needed. The MTA should develop plans to redesign the bus network to focus on speed, efficiency, and coverage—a strategy that can lead to an increase in ridership while bridging some of the city's worst transit gaps. Houston offers a model of a highly successful, full-scale redesign, which transformed a peak-oriented radial network into a high-frequency, 24/7 grid.

### **Create a healthcare-transit working group to identify and solve transit challenges.**

The pressing transit challenges facing workers in the healthcare sector demonstrate the disconnect between transit planning and the needs of the city's economy. The city and state should convene a working group—comprised of the MTA, DOT, major healthcare employers, and the largest healthcare unions—to understand the transit issues facing healthcare workers and employers and develop plans to address these issues with targeted improvements to the transit network. As part of DOT's Citywide Transit Plan, the department should partner with hospitals and other health providers to better understand how the city's half-million healthcare workers use the transit system. Armed with this information, transit officials can better plan additions and enhancements to both subway and bus service that will alleviate problems for the city's largest sector. This model could then be applied to other key industries across New York City that face significant transit challenges, such as the educational services sector.

### **Improve transit options for night-shift workers.**

The MTA should work with health providers to determine when the demand for bus service by workers on night shifts is high, and which routes carry large numbers of passengers at those times. From there, schedules could be enhanced to provide more frequent pick-ups and drop-offs along routes that directly serve hospitals, urgent care centers, and nursing homes, as well as better coordination at popular transfer points. The MTA should also consider surveying home health agencies to determine where the need for more frequent bus service at off-hours is the highest, and then make scheduling changes to fill in the gaps.

### **Explore strategies to target the needs of home health aides.**

This report makes clear that home health aides suffer some of the longest and most challenging commutes of any workers in New York City, with serious consequences for the workers themselves and the quality of care they can provide. With more than 100,000 new jobs created in the past decade alone and a growing population of older adults, home health will continue to be a major component of the healthcare ecosystem for decades to come. The MTA and city transportation officials should work with representatives of the home health industry and unions to better understand the needs of workers and employers in the sector and develop specific interventions that could help improve these brutal commutes. Transit officials could consider forming partnerships with carshare and on-demand transit services, leveraging the existing paratransit system, and

creating specialized shuttle services along high-demand routes, among other options.

**Make transit more affordable for low-income workers.**

The cost of commuting has become a major burden for low-income workers, particularly for those in the healthcare sector—such as home health aides—who routinely face difficult commutes involving multiple modes of transportation. The rollout of a “contactless” MetroCard in 2018 offers a crucial opportunity to shift toward a more equitable model for fares. The MTA should implement a capped payment structure, which would address the issue that wealthy commuters consistently pay less per ride than the city’s poorest workers. This happens because many low-income commuters can’t afford the upfront cost of weekly and monthly MetroCards, which come with a significant discount. In a capped system, pay-as-you-go cards are tracked each time they are used, and the total cost is capped at the price of a weekly or monthly pass. If a user exceeds the cost of a weekly pass through individual rides, the system automatically refunds the difference to the user’s bank or credit account. The MTA should build in backend processing capacity for the next-generation MetroCard, to allow for a more flexible system to be implemented.

**Be better prepared for weather emergencies.**

If buses and elevated subway lines must be shut down during heavy snow or rainstorms, the MTA should provide alternate transit options for healthcare workers. MTA and DOT researchers should work hand-in-hand with administrators in the healthcare sector to establish emergency travel plans, such as shuttle buses from working subway stops to nearby hospitals. The MTA’s recently announced division focused on weather issues should make contingency planning for the healthcare sector a priority and partner with healthcare employers to understand their needs in the event of weather emergencies.

One option would be to establish emergency corridors that could be used to create healthcare shuttle services during emergencies. DOT should consider piloting such a corridor along Bedpan Alley on the east side of Manhattan or from Grand Concourse to Lincoln Hospital and Montefiore Medical Center in the Bronx. These routes could be plowed early in the case of a snowstorm and opened only to registered vans operated by healthcare providers with the right equipment to handle severe weather conditions. Healthcare employers can do their part, too. In addition to improving planning for getting front-line employees to work when large parts of the transit system shut down, employers should

also consider implementing work-at-home policies for administrative and other non-medical staff during weather emergencies.

**Invest in technology to help health workers track and plan their commutes and improve communication.**

As with other key sectors of the economy, one problem for transit planners is that most healthcare employers are not keeping track of their commuting patterns. To help job centers participate in transit planning, the city could develop and pilot an app that would make it easy for administrators and workers to track commuting distances, modes, and times for their employees. In addition, workers report that a lack of consistent information from the MTA makes it difficult to cope with service interruptions. Despite advances such as WiFi service on subway trains, the MTA app, and subway countdown clocks, most health workers we spoke to report that they don’t have enough advance notice to plan an alternate route to work when something goes wrong on their bus or subway. The MTA should work to improve communication between subway operators, bus drivers, and dispatchers. That will allow conductors and drivers to provide better information to passengers about what’s causing the delays, and what alternate routes they should consider.

**Pursue the next generation of transit expansion across all five boroughs.**

New York City’s transit system needs substantial investment just to achieve a state of good repair, but policymakers and transit planners should think beyond a rescue plan. By bonding a portion of the revenue generated by Move NY, the city can raise billions for forward-thinking transit system expansion that better integrates all five boroughs. Ideas could include the proposed Triboro line, which would connect the Bronx, Queens, and Brooklyn; real bus rapid transit along dedicated cross-county bus lanes; LIRR-to-subway conversion along underutilized tracks in Brooklyn and Queens; and new service options for Long Island and the Hudson Valley to better integrate New York City to regional transit networks.

# APPENDIX I

## Mean Travel Time for NYC Healthcare Occupations, 2015

	Mean	Occupation	Workers	Yearly Income
1	46.03	Nursing, Psychiatric, and Home Health Aides	141,251	\$24,597.96
2	46	Diagnostic Related Technologists and Technicians	5,504	\$57,069.99
3	45.93	Licensed Practical and Licensed Vocational Nurses	14,365	\$40,239.22
4	45.84	Phlebotomists	2,097	\$35,137.06
5	45.74	Healthcare Support Workers, All Other, Including Medical Equipment Preparers	3,439	\$30,060.28
6	44.17	Recreational Therapists	475	\$37,168.37
7	44	Pharmacy Aides	1,271	\$25,088.05
8	43.06	Medical Transcriptionists	249	\$26,637.80
9	42.56	Nurse Practitioners, and Nurse Midwives	2,400	\$90,716.03
10	42.21	Other Healthcare Practitioners and Technical Occupations	2,022	\$59,714.96
11	42.16	Clinical Laboratory Technologists and Technicians	7,810	\$51,071.72
12	41.97	Industrial Engineers, including Health and Safety	685	\$76,999.72
13	41.67	Audiologists	208	\$78,444.80
14	41.6	Miscellaneous Health Technologists and Technicians	2,612	\$55,300.82
15	41.43	Medical, Dental, and Ophthalmic Laboratory Technicians	1,927	\$34,987.20
16	41.23	Miscellaneous Community and Social Service Specialists, Including Health Educators and Community Health Workers	3,870	\$40,070.93
17	41.06	Medical Assistants	10,945	\$26,812.79
18	40.92	Health Diagnosing and Treating Practitioners, All Other	1,193	\$37,280.93
19	40.54	Dental Hygienists	1,951	\$50,697.77
20	40.41	Dietitians and Nutritionists	2,628	\$50,823.10
21	40.38	Dental Assistants	6,392	\$26,512.32
22	39.81	Respiratory Therapists	1,055	\$60,817.77
23	39.76	Medical and Health Services Managers	16,148	\$82,458.00
24	39.52	Registered Nurses	55,472	\$69,216.30
25	39.51	Medical Records and Health Information Technicians	2,133	\$37,969.45
26	39.51	Physician Assistants	3,907	\$81,096.04
27	39.3	Emergency Medical Technicians and Paramedics	4,270	\$40,097.04
28	39.08	Health Practitioner Support Technologists and Technicians	7,217	\$38,859.35
29	38.63	Physical Therapist Assistants and Aides	1,373	\$30,155.94
30	38.38	Opticians, Dispensing	656	\$36,692.21
31	37.27	Other Therapists, Including Exercise Physiologists	3,983	\$37,178.05
32	36.96	Chiropractors	720	\$54,054.59
33	36.72	Massage Therapists	2,514	\$17,849.89
34	36	Pharmacists	5,694	\$92,912.69
35	35.92	Radiation Therapists	305	\$77,015.60
36	33.51	Physical Therapists	5,183	\$63,949.91
37	32.24	Speech Language Pathologists	3,322	\$53,706.68
38	32.19	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	1,102	\$29,345.11
39	31.94	Occupational Therapy Assistants and Aides	111	\$34,774.75
40	31.64	Optometrists	622	\$76,538.91
41	30.6	Occupational Therapists	2,481	\$61,648.81
42	29.96	Dentists	4,027	\$87,127.21
43	28.89	Physicians and Surgeons	31,124	\$165,439.24
44	22.92	Podiatrists	289	\$96,472.09
45	22.86	Nurse Anesthetists	264	\$160,672.89

# APPENDIX II

## *Healthcare Practitioners and Technical Occupations*

- 3000 - Chiropractors
- 3010 - Dentists
- 3030 - Dietitians and Nutritionists
- 3040 - Optometrists
- 3050 - Pharmacists
- 3060 - Physicians and Surgeons
- 3110 - Physician Assistants
- 3120 - Podiatrists
- 3255 - Registered nurses
- 3256 - Nurse anesthetists
- 3258 - Nurse practitioners and nurse midwives
- 3140 - Audiologists
- 3150 - Occupational Therapists
- 3160 - Physical Therapists
- 3200 - Radiation Therapists
- 3210 - Recreational Therapists
- 3220 - Respiratory Therapists
- 3230 - Speech Language Pathologists
- 3245 - Other Therapists, Including Exercise Physiologists
- 3260 - Health Diagnosing and Treating Practitioners, All Other
- 3300 - Clinical Laboratory Technologists and Technicians
- 3310 - Dental Hygienists
- 3320 - Diagnostic Related Technologists and Technicians
- 3400 - Emergency Medical Technicians and Paramedics
- 3500 - Licensed Practical and Licensed Vocational Nurses
- 3510 - Medical Records and Health Information Technicians
- 3520 - Opticians, Dispensing
- 3420 - Health practitioner support technologists and technicians
- 3535 - Miscellaneous health technologists and technicians

- 3540 - Other Healthcare Practitioners and Technical Occupations  
*Healthcare Support Occupations*
- 3600 - Nursing, Psychiatric, and Home Health Aides
- 3610 - Occupational Therapy Assistants and Aides
- 3620 - Physical Therapist Assistants and Aides
- 3630 - Massage therapists
- 3640 - Dental assistants
- 3645 - Medical assistants
- 3646 - Medical transcriptionists
- 3647 - Pharmacy aides
- 3649 - Phlebotomists
- 3655 - Healthcare support workers, all other, including medical equipment preparers  
*Other categories*
- 0350 - Medical and health service managers
- 1430 - Industrial Engineers, including Health and Safety
- 2025 - Miscellaneous Community and Social Service Specialists, Including Health Educators and Community Health Workers
- 8760 - Medical, Dental, and Ophthalmic Laboratory Technician
- 9110 - Ambulance Drivers and Attendants, Except Emergency Medical Technicians

# ENDNOTES

1. CUF analysis of data from the 2011–2015, 5-Year American Community Survey. This data applies to workers that both live and work within New York City.
2. 1990 data is from the 1990 U.S. Census, 5% Sample.
3. 2011–2015, 5-Year American Community Survey. The data reflects people living and working in New York City who rely on buses as their primary mode of transportation to work. Industries with fewer than 10,000 workers were omitted.
4. CUF analysis of MTA average annual bus ridership data, available from [http://web.mta.info/nyc/facts/ridership/ridership\\_bus.htm](http://web.mta.info/nyc/facts/ridership/ridership_bus.htm).
5. CUF analysis of data from the 1990 U.S. Census, 5% Sample and 2011–2015, 5-Year ACS. Data accessed using IPUMS USA (<http://usa.ipums.org>). Occupation codes used to define healthcare workforce can be found in Appendix II.
6. NYS Labor Department, Occupational Employment Statistics (OES) survey, 2017.
7. NYC Department of Transportation, “New York City Department Of Transportation Launches Citywide Transit Plan Workshops Throughout the Five Boroughs,” January 2017, <http://www.nyc.gov/html/dot/html/pr2017/pr17-005.shtml>.
8. MTA, “New Vision for Staten Island Express Bus Service,” June 2017, <http://www.mta.info/news/2017/06/01/new-vision-staten-island-express-bus-service>.
9. NYS Labor Department, Quarterly Census of Employment and Wages (QCEW), 2016.
10. NYCHealth + Hospitals, “About Woodhull,” accessed October 2017, <http://www.nychealthandhospitals.org/woodhull/about-woodhull>.
11. SUNY Downstate Medical Center, “Facts at a Glance,” accessed October 2017, [http://www.downstate.edu/sunyintro/suny\\_facts.html](http://www.downstate.edu/sunyintro/suny_facts.html).
12. AARP, “Livable Communities Baby Boomer Facts and Figures,” <http://www.aarp.org/livable-communities/info-2014/livable-communities-facts-and-figures.html>.
13. New York City Comptroller Scott M. Stringer, Bureau of Policy and Research, “Aging with Dignity: A Blueprint for Serving NYC’s Growing Senior Population,” 2017, <https://comptroller.nyc.gov/reports/aging-with-dignity-a-blueprint-for-serving-nycs-growing-senior-population>.
14. New York Academy of Medicine, “Aging: Health Challenges and the Role of Social Connections,” [http://www.nyam.org/media/filer\\_public/ae/4d/ae4da51a-c41e-43e5-a0db-6253fd78d305/cityvoicesagingfinal7-16.pdf](http://www.nyam.org/media/filer_public/ae/4d/ae4da51a-c41e-43e5-a0db-6253fd78d305/cityvoicesagingfinal7-16.pdf).
15. MTA, “New Vision for Staten Island Express Bus Service,” June 2017, <http://www.mta.info/news/2017/06/01/new-vision-staten-island-express-bus-service>.
16. MTA, “Governor Cuomo Announces Roll Out of New Buses with Wi-Fi and USB Charging Parts in Brooklyn and Manhattan,” April 2017, <http://www.mta.info/press-release/nyc-transit/governor-cuomo-announces-roll-out-new-buses-wi-fi-and-usb-charging-parts>.
17. MTA, “Improved Bus Service Coming to the Upper East Side; Select Bus Service Starts on M79 Route,” February 2017, <http://www.mta.info/press-release/nyc-transit/improved-bus-service-coming-upper-east-side-select-bus-service-starts-m79>.
18. MTA. “Q52 Route to be Extended Further East in the Rockaways,” February 2017, <http://www.mta.info/press-release/nyc-transit/q52-route-be-extended-further-east-rockaways>.
19. Traffic Engineers, Inc., “Metro Transit System Reimagining,” <http://trafficengineers.com/houston-metro-transit-system-reimagining/>.
20. Maryland Transit Administration, “Network Redesign,” <http://mta.maryland.gov/baltimorelink/service/network-redesign>.
21. Estimates are from Traffic Engineers, Inc., the lead planners of the Houston redesign.
22. Alyssa Newcomb and Genevieve Shaw Brown, “Hurricane Sandy: Hundreds of Flights Canceled,

Mass Transit Systems Shutting Down Ahead of Storm,” ABC News, October 2012, <http://abcnews.go.com/US/hurricane-sandy-mass-transit-systems-closing-ahead-storm/story?id=17582687>.

23. Montefiore Medical Center, “North Division Shuttle Schedule,” accessed October 2017, <http://www.montefiore.org/documents/North%20Division%20Schedule.pdf>.
24. Montefiore Medical Center, “Community Shuttle Service Schedule,” accessed October 2017, <http://www.montefiore.org/community-shuttle-service>.



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