



**THE PUBLIC ADVOCATE
FOR THE CITY OF NEW YORK
Letitia James**



**POLICY REPORT:
Improving Transit
Access to NYC Airports**

New York City Public Advocate
Letitia James

November 2016

TABLE OF CONTENTS

INTRODUCTION	4
MOST AIRPORT TRAVELERS USE TAXIS	5
EXPRESSWAYS TO THE AIRPORTS ARE CONGESTED, LEADING TO UNPREDICTABLE TRAVEL TIMES	6
TAXIS CAN BE EXPENSIVE	7
TRANSIT SERVICE TODAY	10
IMPROVING AIRPORT ACCESS	11
REDUCE WAIT TIMES BY INCREASING FREQUENCY OF SERVICE	11
REALIZE THE FULL POTENTIAL OF ENHANCED BUS SERVICE	12
CONCLUSION	17
ACKNOWLEDGMENTS	18
ENDNOTES	19



Introduction

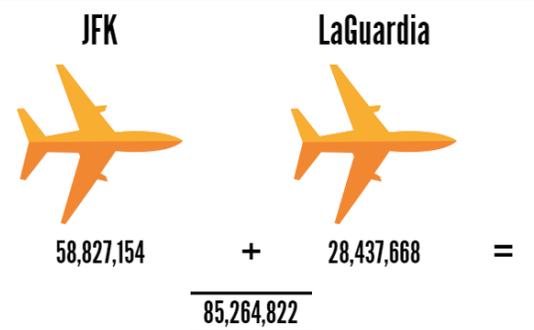
Many New York City neighborhoods lack a convenient mass transit link to the two airports within City limits: LaGuardia Airport (LGA) and John F. Kennedy International Airport (JFK). As a result, the most popular way to get to these airports is by taxi or other car service. This heavy reliance on taxis is problematic for several reasons: taxis can be expensive, they are subject to long traffic delays, and they contribute to traffic congestion. As the population of New York City and the number of airline passengers at JFK and LGA continue to grow, it will be necessary to shift a larger share of airport travelers to mass transit. For New Yorkers on a budget, improving transit access could save them from another expense piled on top of airfare and other costs associated with air travel.

This report provides an overview of the current landscape for public transportation to New York City's two airports, identifies the problems and missed opportunities with the current system, and recommends several policy changes that could ensure better transportation to the airports without significant infrastructure investments, including increasing frequency of service for existing mass transit routes and exploring the full potential of enhanced bus service.¹

Most Airport Travelers Use Taxis

Eighty five million passengers traveled through New York City’s two airports last year, and about three quarters of these passengers were traveling either to or from the five boroughs.² There were 178,000 trips by airline passengers a day, on average, between the two airports and the five boroughs. Additionally, just over 50,000 people work at LGA or JFK, and 29,000 of them live in New York City. We estimate that on an average day just under 200,000 airline passengers and airport workers make the trip to or from one of the City’s two airports and one of the five boroughs.³

Annual Airport Passenger Traffic, 2015



The most common way for travelers to access the airport is by hiring a taxi, limo, or black car (including e-hail services like Uber and Lyft). Forty one percent of JFK airport travelers and 63 percent of LGA airport travelers said that is how they arrived at the airport.⁴ Twenty seven percent of JFK travelers said they were dropped off in a private car by a friend or relative, compared to 16 percent of LGA passengers.⁵

Mass transit was the third most popular mode of transportation, with 24 percent of JFK and 14 percent of LGA travelers. Only nine percent of JFK and seven percent of LGA passengers drove themselves in a private car.

How airport passengers arrive at the airport, percent by mode, 2015

		JFK	LaGuardia
Dropped off, car		27%	16%
Private car, driver/passenger		9%	7%
Taxi, black car, limo, shared van		41%	63%
Public transit		24%	14%



Expressways to the Airports are Congested, Leading to Unpredictable Travel Times

The major expressways leading to the two airports are congested for most of the day, and anything that interferes with the normal operation of the roadway—from higher than usual traffic volumes to construction or fender benders—can lead to significant delays. The Van Wyck Expressway (which leads to JFK) and the Grand Central Parkway (which leads to LGA) have a very low “level of service,” a term used by traffic engineers to describe traffic conditions. Whereas an “A” describes free-flowing traffic and an “F” describes stop-and-go traffic, the Van Wyck Expressway scores an “F” on average and the Grand Central Parkway scores an “E” on average.⁶

It is difficult to predict how much time is needed to make it to the airport on time as trip times can vary widely. An analysis of 1.1 billion taxi trips taken between January 2009 and June 2015 provides detailed information about the variability in the time it takes to get to JFK or LGA from dozens of New York City neighborhoods at all hours of the day.⁷ For example, leaving at 4 p.m. from Battery Park to get to JFK by taxi will most often take about 63 minutes. But the same trip can also take as little as 45 minutes or as long as 82 minutes, the analysis shows. Similarly, leaving Mott Haven in the Bronx to get to JFK at 10 a.m. can take as little as 21 minutes and as much as 50 minutes, but the median travel time is 28 minutes.⁸

When traffic delays are factored in, mass transit becomes a more viable alternative. Travel time from Union Square, Manhattan to Terminal 5 at JFK using mass transit takes about an hour and ten minutes in the middle of the afternoon, comparable to the time it would take via automobile. But the amount of time spent waiting for a train to arrive must also be factored in, and this time can be significant.

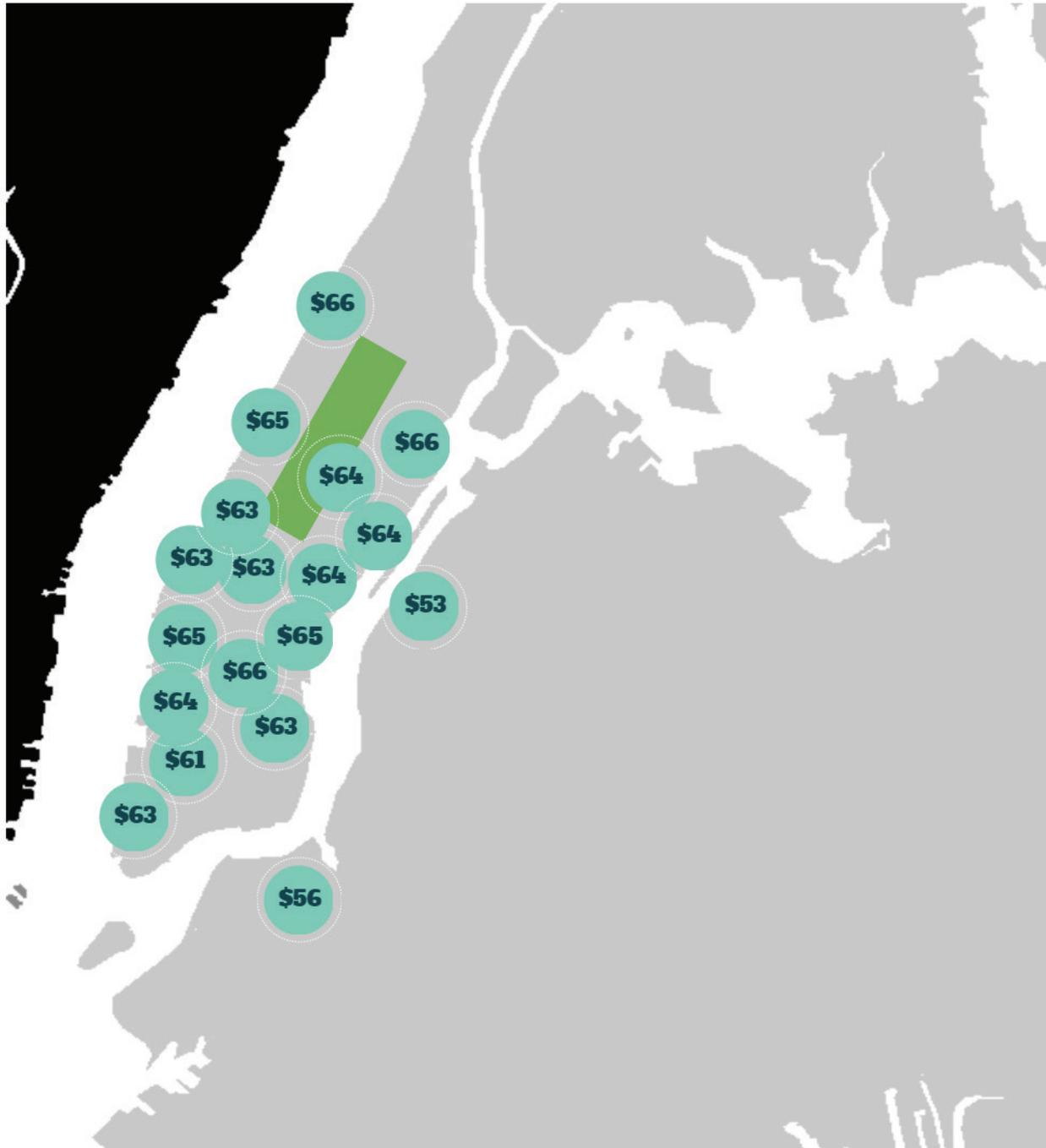
Taxis can be Expensive

The cost of transportation to the airport is just one among many that is tacked on top of the price of an airline ticket. From neighborhoods like Port Morris in the Bronx to Maspeth in Queens, a taxi ride to JFK can cost over \$60. Taxi trips to LGA are generally less expensive, though from certain neighborhoods they can still top \$50 at 6 PM on a weekday.⁹ A taxi trip from JFK to Manhattan costs a base flat rate of \$52. The actual fare is higher, as taxi passengers must pay tolls, some surcharges, and a \$4.50 rush-hour surcharge if traveling between 4PM and 8PM.

An analysis of all yellow and green taxi trips taken to the City's two airports in 2015 found that, for the neighborhoods that had the most of these trips, fares to LGA were lower than those to JFK. For neighborhoods with at least 10,000 weekday trips to LGA in 2015, the average taxi fare ranged from \$13.80 in Steinway, Queens to \$50.30 in Battery Park City, Lower Manhattan. For neighborhoods with at least 10,000 weekday trips to JFK, the average fare ranged from \$52.70 in Hunter's Point – Sunnyside – West Maspeth to \$65.80 for trips originating in Morningside Heights.¹⁰

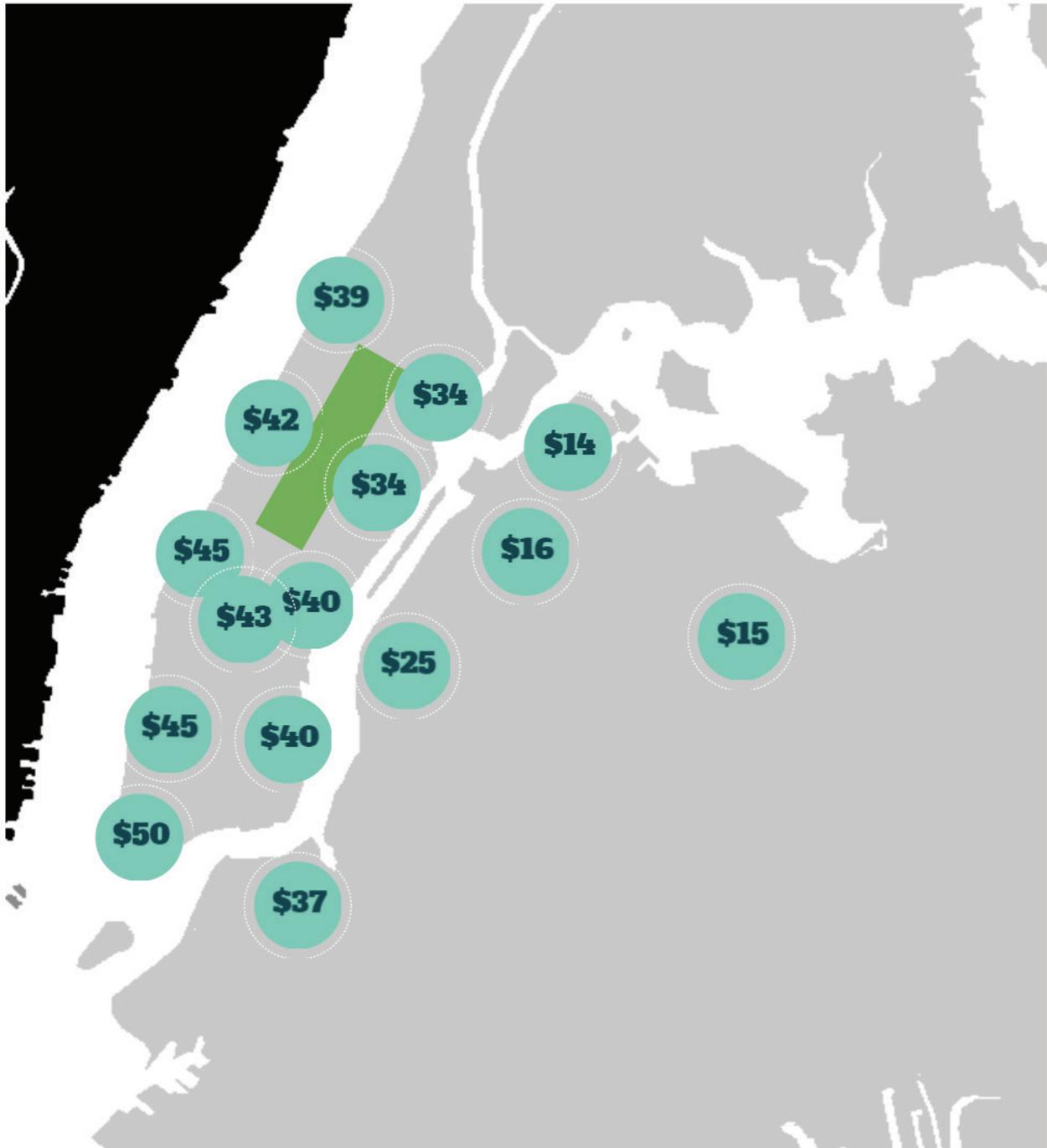


Average weekday taxi fares to JFK Airport from NYC neighborhoods,* 2015



*NYC neighborhoods with at least 10,000 annual weekday trips. Figures rounded to the nearest dollar.

Average weekday taxi fares to LaGuardia Airport from NYC neighborhoods,* 2015



*Select NYC neighborhoods with at least 10,000 annual weekday trips. Figures rounded to the nearest dollar.



Transit Service Today

The City's two airports were developed at a time when the automobile was ascendant and mass transit access was an afterthought. In the decades that followed, planners sought ways to rectify this oversight. The opening of the AirTrain to JFK in 2003 was a huge improvement, and last year a record-high 7.1 million passengers took the AirTrain.¹¹ Still, only 14 percent of JFK passengers used the AirTrain to get to the airport, connecting from either the subway or the Long Island Railroad (LIRR). Three buses also serve JFK, which are used more by employees than by airport travelers: the B15 from Bedford Stuyvestant, the Q10 from Kew Gardens, and the Q3 from Jamaica. LGA is served by several bus lines: the M60 Select Bus Service (SBS) from upper Manhattan, the LaGuardia Link from the Woodside LIRR station and the subway hub at Jackson Heights, the Q47 (which serves the marine terminal), the Q72 from Rego Park, and the Q48 from Flushing.

Several different proposals for a rail link to LGA have been dreamed up over the years, but cost and community opposition prevented any from being built. In January 2015, New York Governor Andrew Cuomo announced his plan to build a rail link to LGA at a cost of \$450 million. Questions quickly arose over the proposed route—a circuitous journey that would require travelers to and from Manhattan, Brooklyn, western Queens, and the Bronx to backtrack several miles—and about the project's cost, which some experts suggested could cost significantly more.^{12,13} Despite these criticisms, the Governor's plan aims to fulfill a goal that has been long held by City boosters, business groups, and urban planners: a public transit link to LGA equal in its level of service to that found in other global cities like London, Paris, Tokyo, or Hong Kong.

The percent of passengers reaching New York's airports by transit or shared vans is much lower than its peer cities around the globe. The international airport with the highest percentage of transit users is Oslo, Norway at 64 percent, followed by Hong Kong (63 percent), Narita airport outside Tokyo (59 percent), Shanghai (51 percent), and Zurich (47 percent).¹⁴ It is important to note that at all of these airports, both rail and bus services play important roles. In Shanghai, 45 percent of airport passengers use the bus, in Hong Kong it is 35 percent. If convenient bus service is offered, airport passengers will take it.¹⁵

Improving Airport Access

Following just a few key principles, the City, with the cooperation of state authorities like the Metropolitan Transit Authority (MTA) and Port Authority, can take steps to improve access to JFK and LGA. The two most critical steps are:

1. Reduce wait times by increasing frequency of service
 - a. Double the frequency of subway service to the JFK AirTrain at Howard Beach
 - b. Increase JFK AirTrain frequencies
2. Realize the full potential of enhanced bus service
 - a. Prioritize bus access on airport grounds and at the curb
 - b. Eliminate the fare on the LaGuardia Link
 - c. Enhance the M60 Select Bus Service and the LaGuardia Link with exclusive lanes
 - d. Help airport employees by improving service on the B15 and the Q10 to JFK

Reduce Wait Times by Increasing Frequency of Service

Reducing the amount of time waiting for a train or bus to arrive can greatly improve mass transit service. Transit experts suggest that wait times of ten minutes or less are preferred and any more can deter otherwise amenable potential riders.¹⁶

1. Double the frequency of subway service to the JFK AirTrain at Howard Beach

Those traveling to or from JFK can access the JFK AirTrain from one of two subway stations: *Sutphin Blvd – Archer Ave*, on the E, J, and Z lines or *Howard Beach – JFK Airport* on the A line. Of the two, the *Howard Beach – JFK Airport* station is more convenient for travelers coming to or from lower Manhattan or Downtown Brooklyn (the City's second and third-largest business districts).

However, because of the way A train service is structured, travelers may have to wait a long time for an A train that will take them to the AirTrain at Howard Beach. After reaching *Rockaway Blvd*, A train service splits, with half of the trains terminating in Ozone Park and the other half terminating in the Rockaways. The *Howard Beach – JFK Airport* station is along the Rockaway branch of the A train, and only one out of every two A trains pass through this station.



"The A train "split." Image from mta.info."

mainly to replace the remaining 1970s-era cars on the A, F, and R lines, as well as rail cars on the Rockaway Shuttle and Staten Island Railroad.¹⁹

Another feasible option to double the frequency is to extend the Rockaway Park shuttle trains north from the *Broad Channel* station to the *Rockaway Blvd* station. The MTA conducted this extension during the summer of 2016 to facilitate riders traveling to the Rockaway beaches so that all A riders, on both the Far Rockaway- and Ozone Park-bound trains, could cut down on travel times by transferring to the shuttle.²⁰

Not only is the A train split confusing, it also causes travelers to wait up to 20 minutes during the middle of a weekday for a Far Rockaway-bound train. On Sunday morning the wait can be up to 24 minutes between scheduled trains. This is highly inconvenient for travelers rushing to catch a flight or who are returning from an exhausting journey.

By running every A train out to *Far Rockaway – Mott Av*, the MTA would double the number of trains reaching the Howard Beach AirTrain and cut wait times in half. C train service would be extended to Ozone Park rather than terminating the service at *Euclid Av*. This would allow for transfer to the Q10 bus to JFK.

There may be concerns raised by A train commuters currently traveling to or from *104 St.*, *111 St.* or *Ozone Park/Lefferts Blvd.* because they will need to transfer to the C train. An alternative could be to make this change effective only during the weekends when air travel is high. In order to achieve this level of service, more rail cars will be necessary to make the extended C train run.¹⁷ The MTA's 2015-2019 Capital Program includes \$2.775 billion for 940 new railcars to run on the lettered lines.¹⁸ However, the discussion has focused on using the funds

2. Increase JFK AirTrain frequencies

The AirTrain utilizes fully automated, computer-controlled trains that operate without conductors. Since there is little to no extra labor cost associated with running more trains, the Port Authority should aim to have wait times of ten minutes or less at all times of the day and weekends.²¹ Currently, trains run every 7-12 minutes from 4 a.m. to 7:30 a.m., then every 10-15 minutes until 3 p.m., then 7-12 minutes until 8 p.m., and finally every 15-20 minutes after that. On weekends, trains run every 16 minutes.

Realize the full potential of enhanced bus service

It is not just about rail; buses and vans can accommodate a large number of airport travelers if they are fast and convenient. In the cities around the globe with the highest percentage of travelers using mass transit, buses play a major role. Oslo, Hong Kong, Narita Tokyo, and Shanghai—the top four airports in terms of transit usage—all have over 20 percent of travelers using buses to get to or from the airport. Currently, 10 percent of LGA travelers and four percent of JFK travelers use the bus.²²

New York City has the potential to do much more with its bus service to the airports. JFK airport is served by two bus lines that each has over 20,000 riders a day. LGA now has two express buses, the M60 SBS service and LaGuardia Link, running directly to its terminals. To attract more riders, bus service needs to be faster, more convenient, and offer true advantages over taxis and private automobiles.

1. Prioritize bus access on airport grounds and at the curb

The \$4 billion redevelopment of LGA airport is welcome news, and it represents a tremendous opportunity to create quality bus facilities that will make the bus a more appealing and convenient option.²³ The new LGA will feature a single central terminal, making connections to bus service much easier than in a scenario with several decentralized terminals. This opportunity could easily be missed if proper accommodations are not made for buses on airport grounds during the planning phase of the redevelopment.

According to an expansive study of airport ground access by the Transportation Research Board, “All too frequently, the traveler who chooses more efficient, higher occupancy modes from the airport is sent to an outer curb, unprotected from weather, with little in the way of accurate information or services.”²⁴ The report recommends that drop-off locations be located adjacent to check-in and pick up locations or be next to the baggage claim. Curb space must be dedicated for buses and vans in a way that makes them visible and convenient. The redesign of LGA should incorporate these principles.

JFK has six separate airline terminals spread across the airport grounds, but the buses serving the airport stop only at Terminal 5. Travelers must connect to the AirTrain to reach the other terminals. To improve access, the MTA and Port Authority should add bus stops at each terminal, with drop offs close to the check-in counters.



2. Eliminate the fare on the LaGuardia Link

In September 2016, buses running on the Q70 Limited line to and from LGA were renamed and rebranded the LaGuardia Link. Governor Cuomo had announced the initiative months earlier as part of his administration's plans for a major overhaul and redevelopment of the airport. The LaGuardia Link bus is just one route among several to serve LGA, but it has tremendous potential to attract more riders seeking an alternative to taxi cabs or private cars. Ultimately, the LaGuardia Link may offer a faster and more convenient link to the subway system than the proposed LGA AirTrain.

In 2013, the MTA revamped bus service to LGA with the introduction of the Q70 limited stop service. The Q70 originated at the *Woodside* LIRR station and makes one stop at the *Jackson Heights - Roosevelt Avenue / 74 Street - Broadway* subway station before running express to LGA, with a 21 minute travel time between the subway station and Terminal B.²⁵ In 2015, this route had 1.3 million annual riders, equal to five percent of LGA's annual passenger total.²⁶

Now rebranded the LaGuardia Link, buses on the line feature distinct markings that distinguish them from regular MTA buses. The Link is also one of the city's growing number of SBS routes, featuring off-board fare technology that allows customers to pre-pay their fare and enter and exit through any bus door, eliminating the need to wait to pay at a single fare box, and decreasing dwell time at stops.²⁷

More can be done to increase the appeal of the LaGuardia Link and to make the service more convenient and easier to use. The Riders Alliance—a grassroots membership organization dedicated to improving transit service—has proposed several measures that would significantly increase the appeal of the LaGuardia Link that go beyond the improvements that have already been made.

The Riders Alliance and Global Gateway Alliance propose making the LaGuardia Link a free service, which they estimate could result in a net gain in revenue for the MTA. Providing free MTA bus service to the subway would attract more riders to the subway, thereby bringing in more fares to the MTA and offsetting the cost of eliminating fares on the Link. The net increase in revenue would occur as follows:

- Eighty five percent of riders already transfer to or from the subway, meaning that these riders bring in no additional revenue to the MTA due to the existing free transfer between buses and subways.
- The remaining 15 percent of riders brought in approximately \$489,000 in fares in 2014.
- Riders Alliance estimates that if just an additional one percent of City-bound LGA travelers switched to the LaGuardia Link service, rather than take a taxi, it would result in \$663,000 in new revenue for the MTA, offsetting any revenue lost by making the Link a free service.²⁸

Eliminating the fare on the LaGuardia Link is a bold proposal and would do much to increase the appeal of the service, despite the fact that most new riders would still end up paying a MetroCard fare once they connect to the subway. In a survey of LGA travelers, 49 percent of those who use private transport would “reconsider their choice if there were a free shuttle to the subway,” according to the Riders Alliance.

3. Enhance the M60 Select Bus Service and the LaGuardia Link with exclusive lanes

The M60 is one of the City’s SBS routes, meaning that measures were put in place to speed up buses along the route. These measures include off-board fare payment and all-door boarding—riders purchase paper tickets at sidewalk ticket machines and then board using any door, rather than queuing up at the front door to dip their MetroCards one at a time. In some locations buses have exclusive lanes and signal priority, allowing them to bypass other traffic or to make a green light that might otherwise switch over to the yellow phase. SBS buses also make fewer stops, with stops spaced farther apart.

The M60 is the best transit option to LGA for residents of uptown Manhattan and the Bronx. It runs from 110th street in Morningside Heights, then along 125th Street, over the Robert F. Kennedy Bridge, onto Astoria Boulevard, and then finally through to LaGuardia. It connects to the A, B, C, D, 2, 3, 4, 5, and 6 trains in Upper Manhattan and to the N and Q trains in Astoria, Queens. It has 12 stops in Queens, including five on airport grounds. According to the MTA’s published timetable, it takes between 25 and 30 minutes to get from 125th and Lenox Avenue to Terminal D at LGA airport, depending on the time of day.



Graphic by Urban Omnibus <http://urbanomnibus.net/2016/03/an-easy-way-to-give-east-new-york-a-new-subway-stop/>

On some portions of 125th Street, the M60 runs in an exclusive bus lane. These lanes have allowed buses to run much faster along these stretches, and travel times are now 32 percent faster on the stretch with the exclusive lanes than they were before they were installed.²⁹ But once in Queens, the M60 has to navigate traffic, slowing the buses significantly. The MTA and the City should review the feasibility of installing bus-only lanes along Astoria Boulevard, which parallels the Grand Central Parkway, and replicate this success.



4. Help airport employees by improving service on the B15 and the Q10 to JFK

The B15 and Q10 are especially important for those who work at JFK. They both run through the zip codes that have the highest concentration of airport workers as residents, according to Census Bureau statistics.³⁰ Both lines have more than 20,000 riders a day.³¹ Speeding up these buses by employing the characteristics of SBS, such as off-board fare payment, would make a great difference for both JFK passengers and employees.

The B15 runs along Linden Boulevard and Conduit Avenue for several miles. These are wide roads that have adequate room for bus lanes. But along a certain segment of its route, the B15 diverts onto New Lots Avenue, which is much narrower, presumably to connect to the 3 train.

A proposal to extend the 3 train would eliminate the need for the B15 to make this diversion while still allowing for a connection to the subway.³² Currently, the 3 train terminates at New Lots Avenue, but the train tracks actually extend a half-mile farther to the Livonia Train Yard. The proposal is to convert this segment of track into passenger service and create a new subway stop at Linden Boulevard. The originator of this proposal, a Ph.D. planning student at Columbia, notes that this type of extension has a precedent: the Harlem 148 Street station was once a rail yard but was converted into passenger service in the late 1960s.

In addition to extending the subway system at relatively low cost, this would also allow for an express bus service to serve the entire Linden Boulevard corridor, providing fast service to the airport, while still connecting to the 3 train.

Conclusion

New York City's population is growing, tourist visits are at an all-time high, and there are more jobs in New York City now than at any time in its history. All of this means that there are more people using the City's airports than ever before. As the City continues to grow and prosper, it is essential that the City provide better access to the airports and that more travelers choose this transit.

To this end, the city, MTA, and Port Authority can pursue the following strategies to make the transit connections to the airport more convenient and attractive.

- Increase frequency of service to the airports:
 - Double the frequency of subway service to the JFK AirTrain at *Howard Beach*;
 - Increase JFK AirTrain frequencies.
- Focus on buses:
 - Prioritize bus access on airport grounds and at the curb;
 - Eliminate the fare on the LaGuardia Link;
 - Enhance the M60 Select Bus Service and the LaGuardia Link with exclusive lanes;
 - Help airport employees by improving service on the B15 and the Q10 to JFK.



Acknowledgements

Writing and research for this policy report was led by John Petro, Policy Associate. Additional support was provided by Bich Ha Pham, Director of Policy; Anna Brower, Communications Director; and Molly Thomas-Jensen, Deputy Counsel.

ENDNOTES

¹ For proposals involving significant infrastructure investments, see AECOM Consulting Transportation Group report, JFK One-Seat Ride Feasibility Study. February 2001. <http://origin-states.politico.com.s3-website-us-east-1.amazonaws.com/files/JFK%20One-Seat.pdf>.

² Port Authority of New York and New Jersey. 2015. Airport Traffic Report, 2015. http://www.panynj.gov/airports/pdf-traffic/ATR_2015.pdf

³ 132,735 daily average airport passengers with NYC origin or destination, plus 5/7ths (21,137) of airport employees that live in NYC.

Port Authority of New York and New Jersey. 2015.

U.S. Census Bureau. 2016. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. <http://onthemap.ces.census.gov/>

⁴ Port Authority of New York and New Jersey. 2015.

⁵ Port Authority of New York and New Jersey. 2015.

⁶ Jeffrey Zupan, Richard E. Barone, and Matthew H. Lee. 2011. Upgrading to World Class: The Future of New York Region's Airports. Regional Plan Association. <http://www.rpa.org/pdf/RPA-Upgrading-to-World-Class.pdf>
Data observations for the year 2007. Level of service varies depending on the time of day. The scores used here represent the average level of service.

⁷ Todd W. Schneider. 2015. "Analyzing 1.1 Billion NYC Taxi and Uber Trips, With a Vengeance," toddschneider.com, November 17. <http://toddschneider.com/posts/analyzing-1-1-billion-nyc-taxi-and-uber-trips-with-a-vengeance/#airport-traffic>

⁸ Ibid

⁹ NYC Taxi and Limousine Commission. TLC Trip Record Data, 2015. http://www.nyc.gov/html/tlc/html/about/trip_record_data.shtml

Original analysis by Todd Schneider with additional analysis by the Office of the Public Advocate.

¹⁰ NYC Taxi and Limousine Commission. 2015

¹¹ Port Authority of New York and New Jersey. 2015.

¹² Yonah Freemark. 2015. "For LaGuardia, an AirTrain that will save almost no one any time," The Transport Politic, January 1. <http://www.thetransportpolitic.com/2015/01/21/for-laguardia-an-airtrain-that-will-save-almost-no-one-any-time/>

Philip M. Plotch and Nicholas D. Bloom. 2015. "The LaGuardia Vapor Train," Gotham Gazette, September 17. <http://www.gothamgazette.com/index.php/opinion/5889-the-laguardia-vaportrain> ;

Henry Grabar. 2016. "Andrew Cuomo Keeps Pushing Ahead With One of the Worst Transit Ideas in America," Slate, June 14. http://www.slate.com/blogs/moneybox/2016/06/14/laguardia_airport_renovation_still_includes_that_dumb_air_train_why.html

¹³ Ross Barkan. 2015 "Transit Experts Doubt Andrew Cuomo's \$450 Million Price Tag for LaGuardia AirTrain," Observer, February 5. <http://observer.com/2015/02/transit-experts-question-cuomos-450-million-price-tag-for-laguardia-airtrain/>

Dana Rubenstein and Jimmy Vielkind, 2015. "On Cuomo's AirTrain, More Questions than Answers," Politico, January 30. <http://www.capitalnewyork.com/article/albany/2015/01/8561259/cuomos-airtrain-more-questions-answers>

¹⁴ Matthew A. Coogan. 2008. Ground Access to Major Airports by Public Transportation. Airport Cooperative Research Program, Transportation Research Board of the National Academies. <http://onlinepubs.trb.org/>



onlinepubs/acrp/acrp_rpt_004.pdf

¹⁵ Share of travelers accessing JFK via transit compares favorably with other U.S. cities, according to data from 2008. Since then, transit share at JFK has grown. See Matthew A. Coogan. 2008.

¹⁶ Matthew A. Coogan. 2008.

¹⁷ New York City Transit. 2015. Review of the A and C Lines, December 11. http://web.mta.info/nyct/service/pdf/AC_LineReview.pdf

¹⁸ Metropolitan Transportation Authority. 2014. MTA Capital Program 2015-2019, September 24. http://web.mta.info/capital/pdf/Board_2015-2019_Capital_Program.pdf

¹⁹ Press Release, NYPIRG Staphangers Campaign, News Release. 2015. “Mock Funeral Held for Nearly 1,000 Hi-Tech Subway Cars; MTA Has Proposed New Cars Replace Clunkers on A, F and R,” June 10. http://www.straphangers.org/releases/061015_R211MockFuneral.pdf

²⁰ Dan Rivoli, 2016. “MTA to give Rockaways and Orchard Beach beachgoers better shuttle service, more buses,” NY Daily News, May 27. <http://www.nydailynews.com/new-york/queens/mta-give-beachgoers-better-shuttle-service-buses-article-1.2652420>

²¹ Waits of ten minutes or less is what is recommended by experts. See: Matthew A. Coogan. 2008.

²² Port Authority of New York and New Jersey. 2015.

²³ Press release, Office of New York Governor Andrew Cuomo. 2014. “Governor Cuomo, Joined by Vice President Je Biden, Announces Groundbreaking on New LaGuardia Airport.” June 14. <https://www.governor.ny.gov/news/governor-cuomo-joined-vice-president-joe-biden-announces-groundbreaking-new-laguardia-airport>

²⁴ Matthew A. Coogan. 2008.

²⁵ MTA Bus Company Bus Timetable, Q70. Effective Summer 2016. <http://web.mta.info/busco/schedules/q070cur.pdf>

²⁶ Metropolitan Transportation Authority, Annual MTA Bus Ridership. Accessed August 31, 2016. http://web.mta.info/nyct/facts/ridership/ridership_busMTA_annual.htm

Port Authority of New York and New Jersey. 2015.

²⁷ Press release, Office of New York Governor Andrew Cuomo. 2014.

²⁸ John Raskin. 2015. LaGuardia by Transit: An immediate, free proposal to bring LaGuardia to the subway. Riders Alliance. <http://www.ridersny.org/wp-content/uploads/2015/11/LGA-report-web-version.pdf>

²⁹ Stephen Miller. 2015. “Bus Lanes Worked Wonders on East 125th. Now What About the West Side?” Streetsblog NYC, January 12. <http://www.streetsblog.org/2015/01/12/bus-lanes-boosted-buses-on-125th-street-but-what-about-west-harlem/>

³⁰ Five of the top seven ZIP codes in terms of the number of residents that work at JFK airport fall within one or the other of these bus routes: 11208, 11419, 11420, 11207, and 11212.

U.S. Census Bureau. 2016. OnTheMap Application. Longitudinal-Employer Household Dynamics Program.

³¹ Metropolitan Transportation Authority, Annual MTA Bus Ridership. Accessed August 31, 2016.

³² Jonathan English. 2016. “An East Way to Give East New York a New Subway Stop.” Urban Omnibus, March 16. <http://urbanomnibus.net/2016/03/an-easy-way-to-give-east-new-york-a-new-subway-stop/>



THE PUBLIC ADVOCATE FOR THE CITY OF NEW YORK Letitia James

1 CENTRE STREET
15TH FLOOR
NEW YORK, NY 10007

WWW.PUBADVOCATE.NYC.GOV
(212) 669 - 7200



FACEBOOK.COM/PALETITIAJAMES



[@TISHJAMES](https://TWITTER.COM/@TISHJAMES)

November 2016