



**02**

**FINDINGS**



# Major Findings

Although there is a common perception that most workers are concentrated in the Manhattan Central Business District (CBD), the opposite is true. Manhattan does have the greatest concentration of employment and it draws more workers from throughout the region than any other area. More than 880,000 New York City residents commute from the other four boroughs into Manhattan where they join 628,000 workers who reside in Manhattan and another 540,000 from outside the city. But when looked at on a borough-to-borough basis, more people live and work in the same borough than commute to any other borough—more than 1 million workers in total live and work in the same borough in the Bronx, Brooklyn, Queens and Staten Island. In addition, there are a significant number of New York City residents that commute between the boroughs to work. Excluding journeys to Manhattan, there were more than 323,000 interborough journeys-to-work of which 143,000 (44 percent) were between Queens and Brooklyn. (Almost 243,000 employed New York City residents, including Manhattan residents, worked outside of the city.)

## Residents

Residents of the Bronx, Brooklyn and Queens predominantly rely on transportation other than cars when traveling to work. This holds true both for workers living and working in the same borough and those commuting to work in another borough (when including journeys-to-work to employment in Manhattan). For those commuting outside their borough of residence, Subway/Railroad/Ferry is the predominant mode of travel, reflecting the widespread, though not universal, use of the subway system for travel to the CBD. Among those working and living in the same borough, the predominant mode (the mode with the highest share) in Brooklyn is Other (which includes walking, biking, taxi, motorcycle and work at home). In Queens and the Bronx, the predominant mode is auto, though the combined transit share exceeds that for cars. In contrast, residents of Staten Island rely on cars for journey-to-work trips both for commutes within the borough and to other boroughs. (Figure 3)

Just as more people work in the borough in which they reside than work in Manhattan, among people that live and work in the same borough, more people tend to live and work in the same study area (Super Puma) than any other. (Figures 5, 6, 7)

- In both Bronx study areas
- In all four Queens study areas
- In four of the five Brooklyn study areas

Among residents that do not live and work in the same study area, a plurality of residents commuting outside of their study area of

residence tend to work in the adjoining study area.

For residents who work in the same study area they reside in, the Other mode of travel is the most common method of travel in about half of the study areas. The four highest shares of Other mode were in Brooklyn, including central Brooklyn and denser areas closest to Manhattan, all exceeding 40 percent. For these areas, the Other share exceeds the combined transit share. (Figure 4) These and the Southwest Bronx, Northwest Queens and the remaining Brooklyn study area (Gravesend/East New York) have the largest Other modal split. All but the last are typically the densest study areas and are located closest to the Manhattan core. When residents of these areas located closest to the Manhattan core commute to other study areas to work, Subway/RR/Ferry is the dominant modal split with relatively similar total transit shares (including bus) among them. (Figures 8, 9)

## Workers

Most workers in boroughs outside of Manhattan also reside in the borough they work in. In Brooklyn, Queens and the Bronx between 61 and 65 percent of the borough's workforce live in the borough they work in. In Staten Island, more than 72 percent of the workforce are Staten Island residents.

While residents of the Bronx, Brooklyn, and Queens predominantly do not drive to work, the majority of workers arriving to work in study areas in the Bronx, Brooklyn, Queens, and Staten Island boroughs travel by car. In only four study areas, do cars account for less than half of a study area's workers means of commuting. (Figure 10).

In every study area, at least a plurality of workers arriving to work in locations outside of Manhattan arrive by auto. The size of this group exceeds the combined Subway/Railroad/Ferry and bus share in every study area except Ft. Greene/Bay Ridge, where Downtown Brooklyn is located. (Figure 10) Downtown Brooklyn has the most extensive subway service of the study areas – 16 lines in 2000 connecting with more locations within the city and is therefore most similar to Manhattan locations in drawing people via subway. Still, Subway/Railroad/Ferry always accounts for less than one third of workers working in every study area, and in most areas accounts for 20 percent or less. (Figure 11) This is true for both for workers residing in New York City and those from the city's suburbs. (Figure 14)

Cars are the most common means of transportation among 4 of the 5 highest inter-study area commuter flows (Figure 16) and

among residents of study areas outside of the five closest to Manhattan and Boro Park/Coney Island. (Figure 8, 9)

The study areas that are closer to Manhattan and have more residents that use subways to travel to work also have the highest concentration of “Other” as the mode for journey-to work travel.

Workers who reside outside New York City and work in New York City exceed the number of workers who make inbound trips into each borough from any other borough, with the exception of Brooklyn. (Figure 13) Workers from outside of New York City rely extensively on automobiles for journey-to-work in locations in all four boroughs. (Figure 12) Most of Brooklyn’s workers that reside outside Brooklyn commute from Queens.

### Travel Time

Excluding Manhattan residents and considering all destinations, residents in Southeast Queens (both drivers and transit riders), located the furthest from subway lines and most major employment centers, have the highest mean travel time (48.0 minutes) whereas the Ft. Greene/Bay Ridge residents (located closer to Manhattan and served by extensive subway coverage) have the shortest mean travel time (38.8 minutes) for work trips. (Figure 15)

Among workers working in study areas, those in Staten Island have the shortest average commute times, those in Fort Greene/Bay Ridge the longest. In contrast, workers residing in the Fort Greene/Bay Ridge study area and traveling to work both inside and outside of the study area have the shortest average commute times while workers residing in Southeast Queens have the longest commute times. Staten Island residents, when compared on a countywide basis, have the longest commute times in the City and one of the longest in the nation. (Figure 16)

### Peripheral Interborough Flows

#### Brooklyn-Queens

- The biggest flow of workers coming from a Queens Study Area into a Brooklyn Study Area is from Southeast Queens to Ft. Greene/Bay Ridge (11,115 workers) but this is less than half the largest intra-Queens flow (NE Queens to NW Queens, 23,919). Brooklyn’s Ft. Greene/Bay Ridge study area contains Downtown Brooklyn with its many city departments, health care, and universities located in the area.
- The biggest flow of workers coming from a Brooklyn Study Area into a Queens Study Area is from Greenpoint/Brownsville to the adjoining Northwest Queens (5,784 workers) (Figure 17).

However, this is less than one-third the flow from Greenpoint/Brownsville to Ft. Greene/Bay Ridge (19,862) and less than the largest intra-Brooklyn flow of 31,637 (Crown Heights/Flatbush to Ft. Greene/Bay Ridge).

#### Bronx-Queens

- The biggest flow of workers coming from a Queens Study Area into a Bronx Study Area is from Northeast Queens to Southwest Bronx (2,861 workers, Figure 17).
- The biggest flow of workers coming from a Bronx Study Area into a Queens Study Area is from Northeast Bronx to Northwest Queens (4,743 workers, Figure 17).
- In contrast, the flows between Bronx study areas are much greater. From NE Bronx to Southwest Bronx 39,424 travel to work (the largest inter-study area flow) and in reverse direction 19,294 travel to work..

#### Brooklyn-Staten Island

- The biggest flow of workers coming from Staten Island into a Brooklyn Study Area is from Staten Island to Ft. Greene/Bay Ridge (13,829 workers, Figure 18). They constitute 12 percent of workers on Staten Island and the 12th largest interstudy area flow.
- Conversely, the biggest flow of workers coming from a Brooklyn Study Area to Staten Island is 2,322 workers from Ft. Greene/Bay Ridge to Staten Island (Figure 18).

#### Bronx-Brooklyn

- The biggest flow of workers coming from a Bronx Study Area into a Brooklyn Study Area is from Northeast Bronx to Ft. Greene/Bay Ridge (5,229 workers, Figure 18)
- The biggest flow of workers coming from Brooklyn Study Area into a Bronx Study Area is from Crown Heights/Flatbush to Southwest Bronx (2,087 workers, Figure 18).



Figure 3. NYC Residents - Modal Split

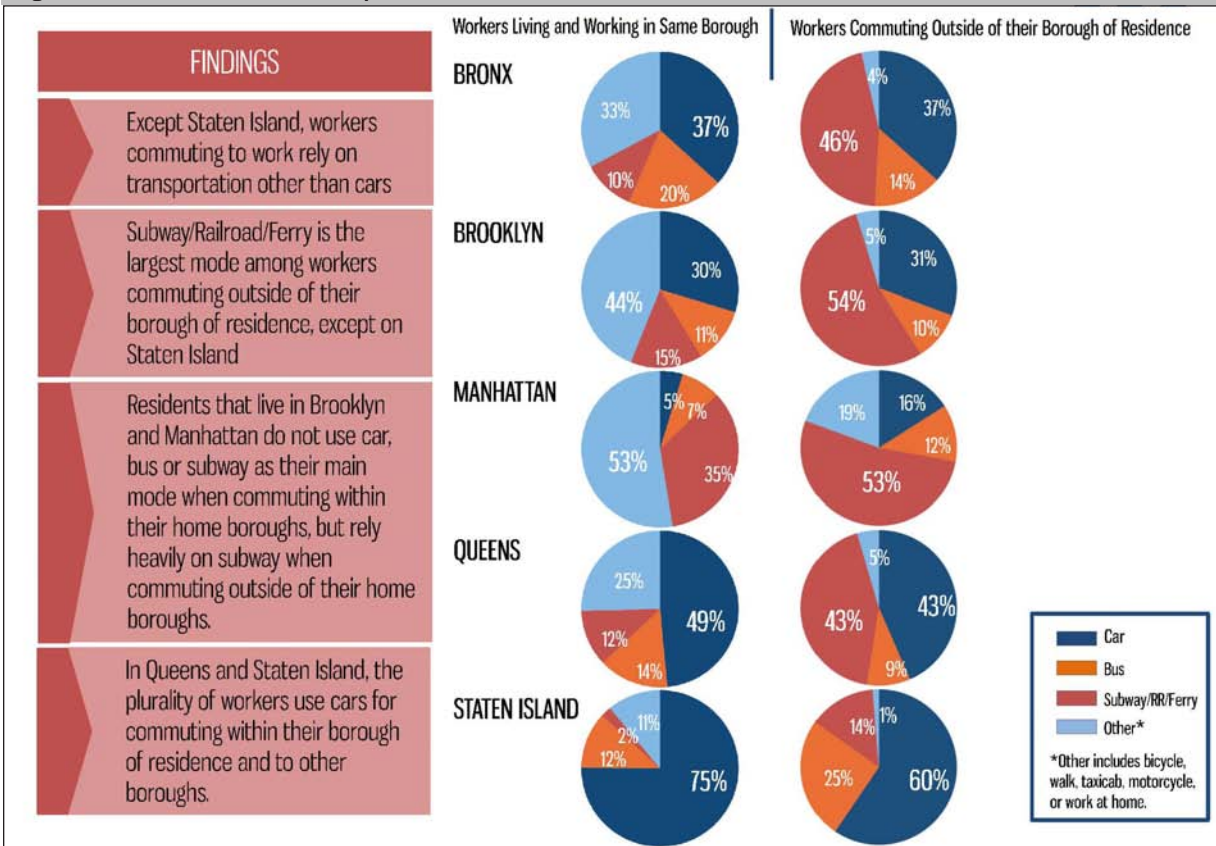


Figure 4. Intraborough - Bronx

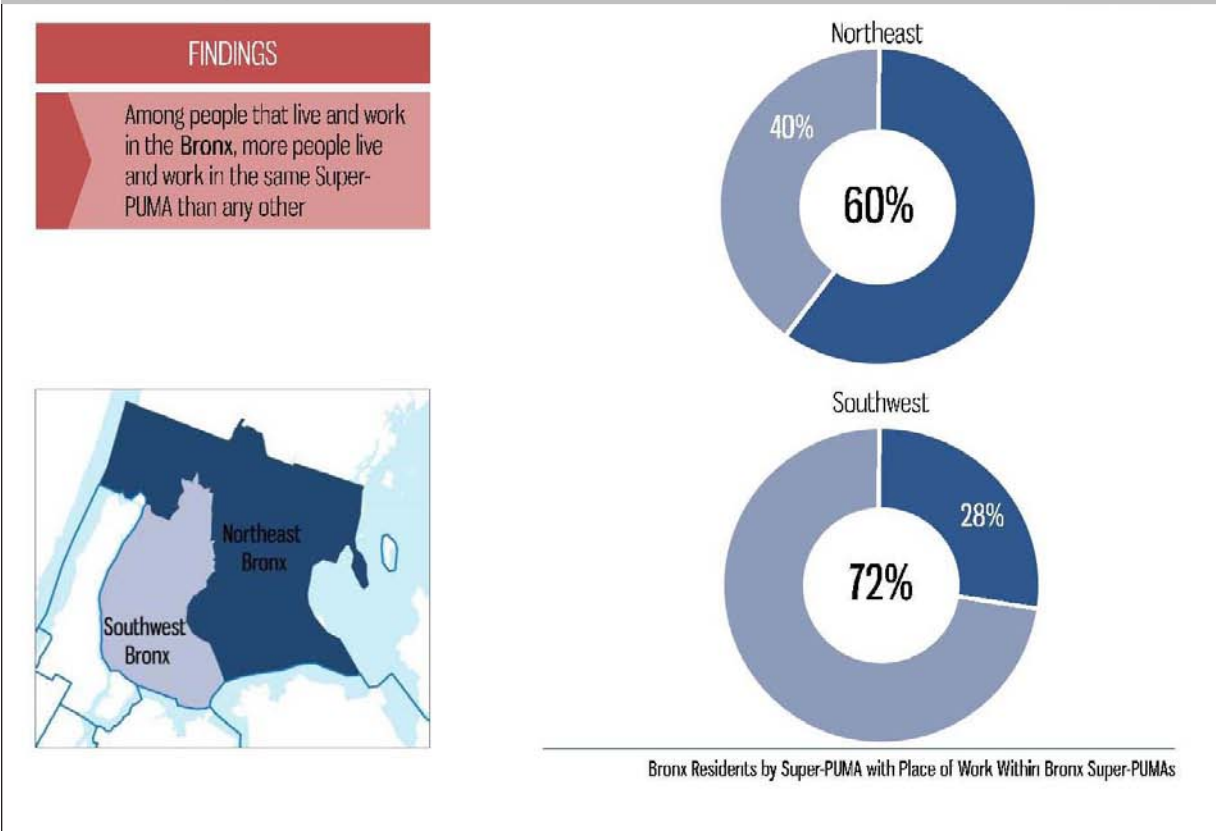


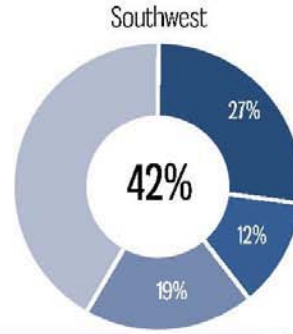
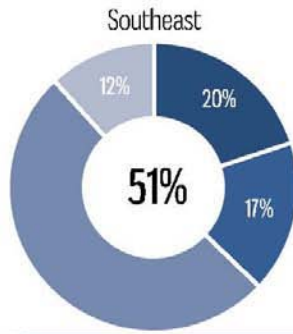
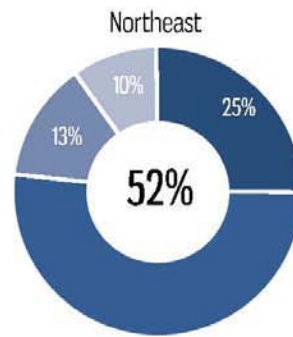
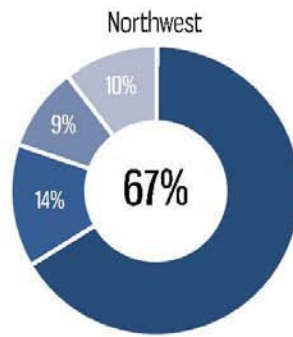


Figure 5. Intraborough - Queens

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Among people that live and work in **Queens**, more people live and work in the same Super-PUMA than any other

Queens residents tend to work locally - the second highest intra-borough commute is to an adjacent Super-PUMA



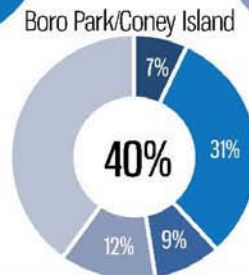
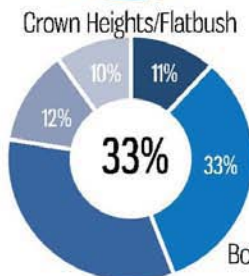
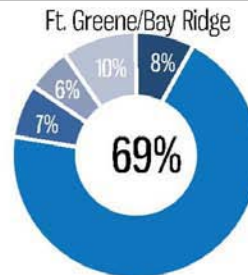
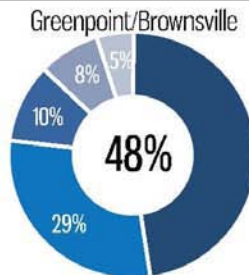
Queens Residents by Super-PUMA with Place of Work Within Queens Super-PUMAs

Figure 6. Intraborough - Brooklyn

**FINDINGS**

Among people that live and work in **Brooklyn**, generally more people live and work in the same Super-PUMA than any other

Brooklyn residents tend to work locally - the second highest intra-borough commute is to an adjacent Super-PUMA, except in Gravesend/East New York



Brooklyn Residents by Super-PUMA with Place of Work Within Brooklyn Super-PUMAs

Figure 7. Workers Living and Working in Same SuperPuma - Modal Split (Other)

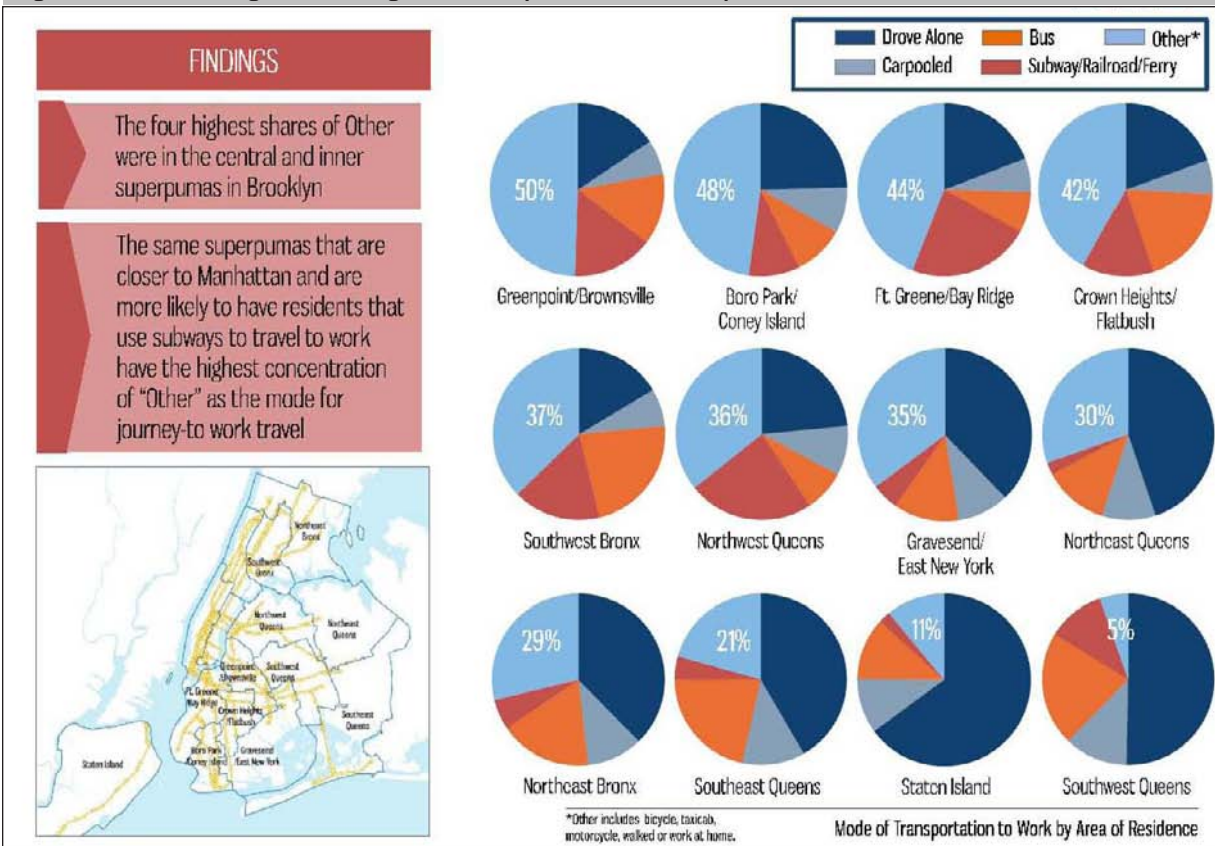


Figure 8. Area of Work Modal Split (Auto)

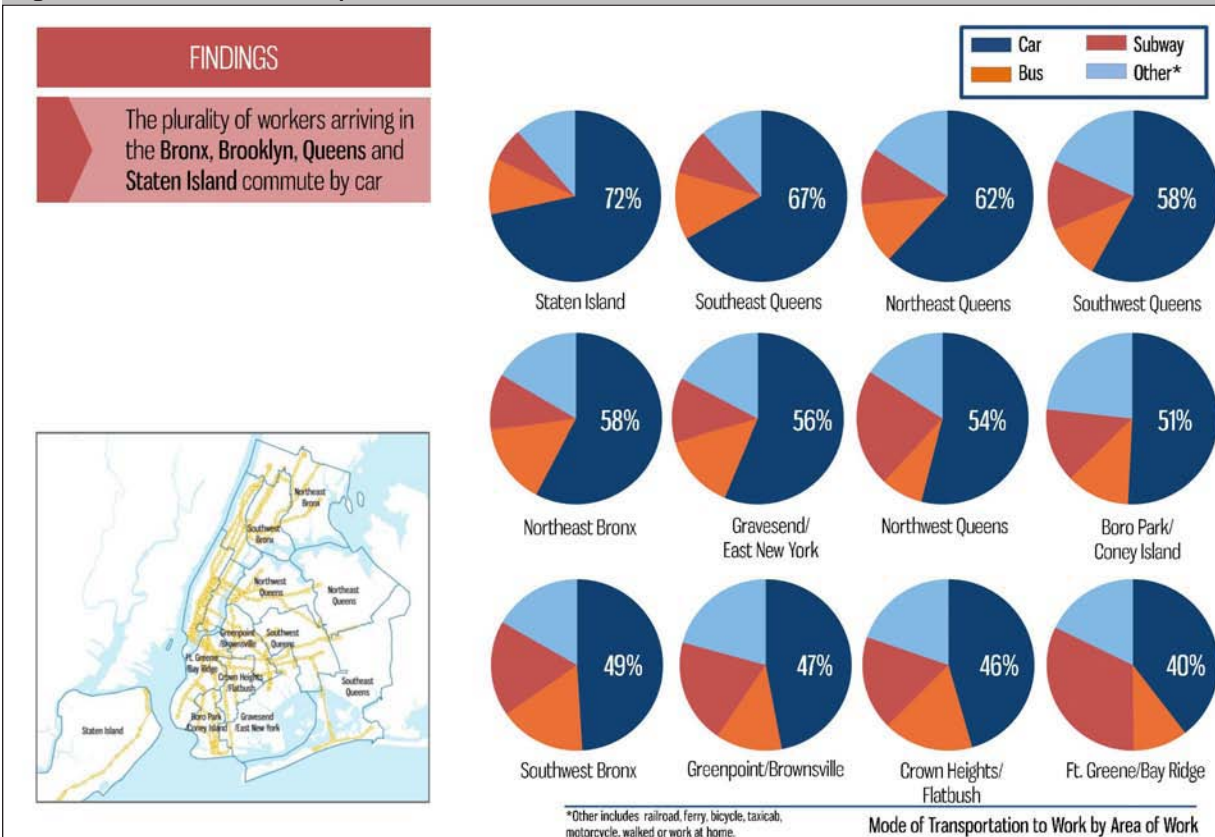




Figure 9. All Workers - Area of Residence Modal Split (Subway)

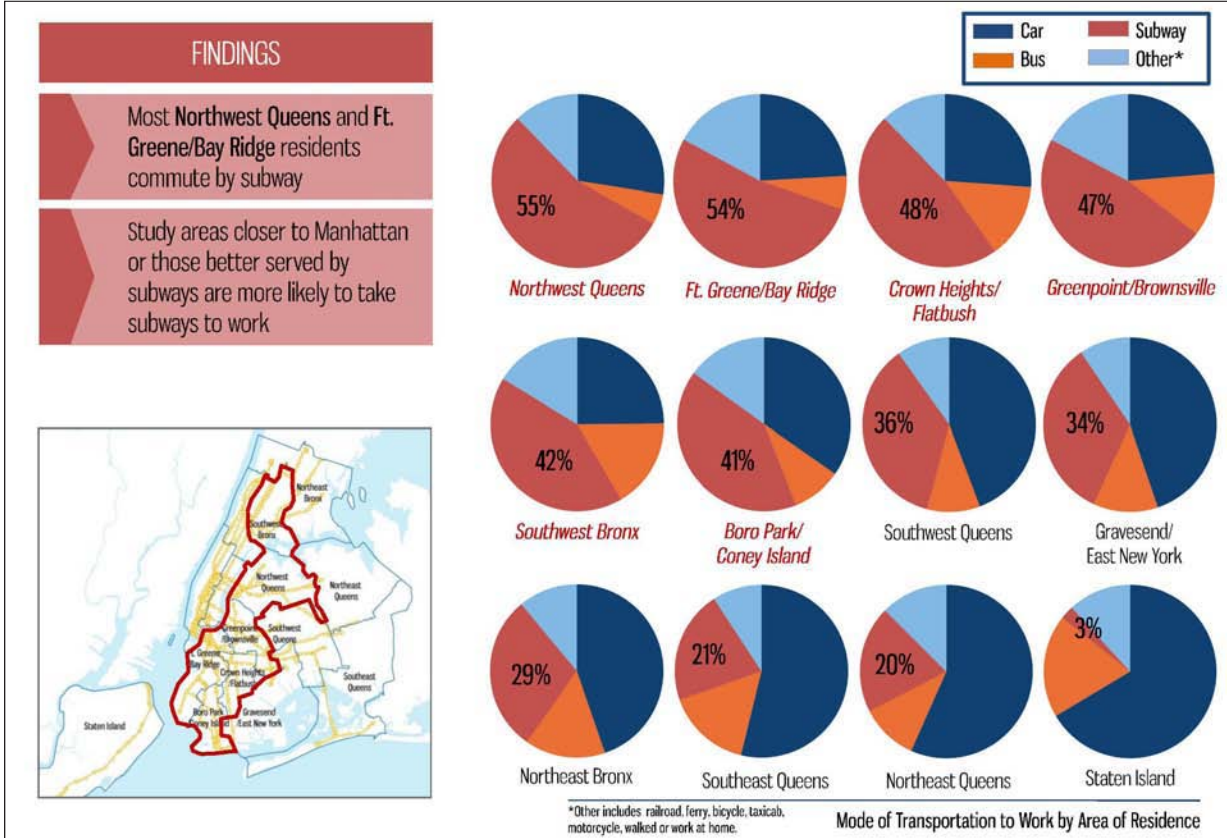


Figure 10. Area of Work Modal Split (Auto)

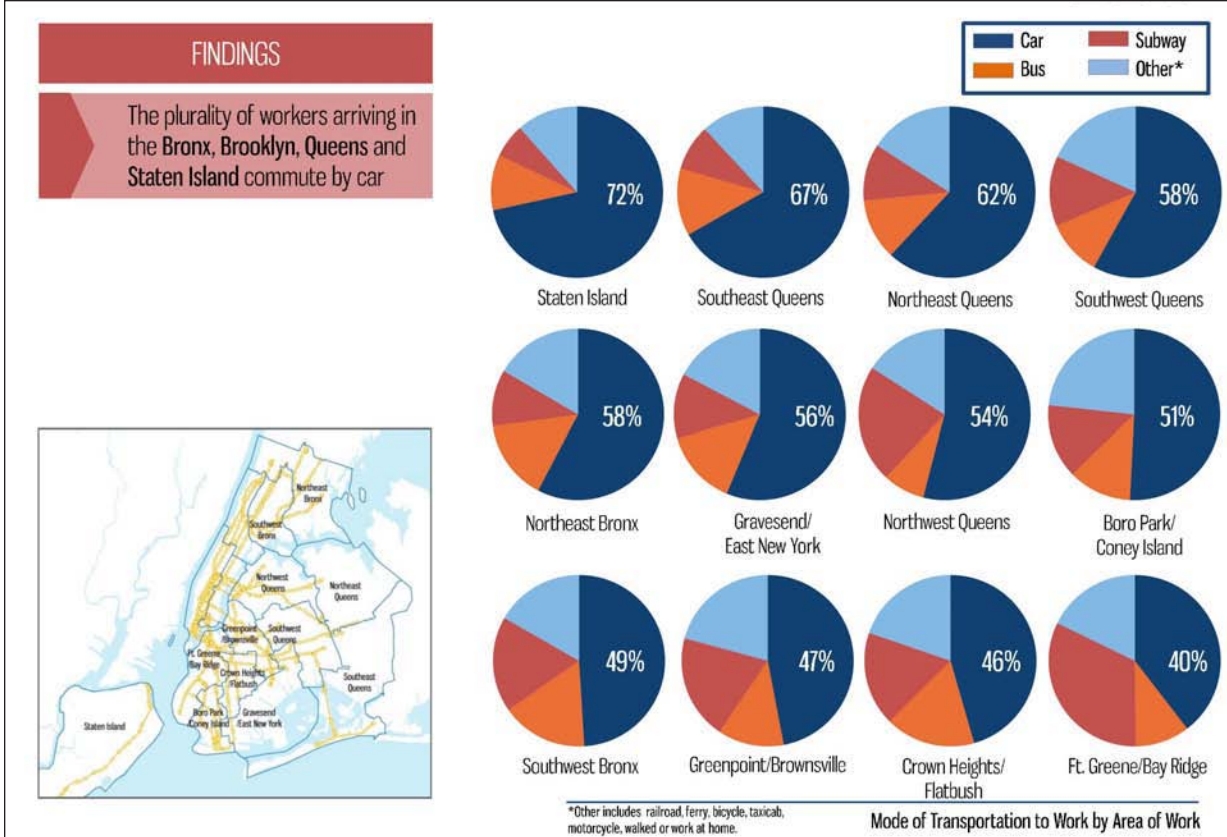




Figure 11. All Workers - Area of Work Modal Split (Subway)

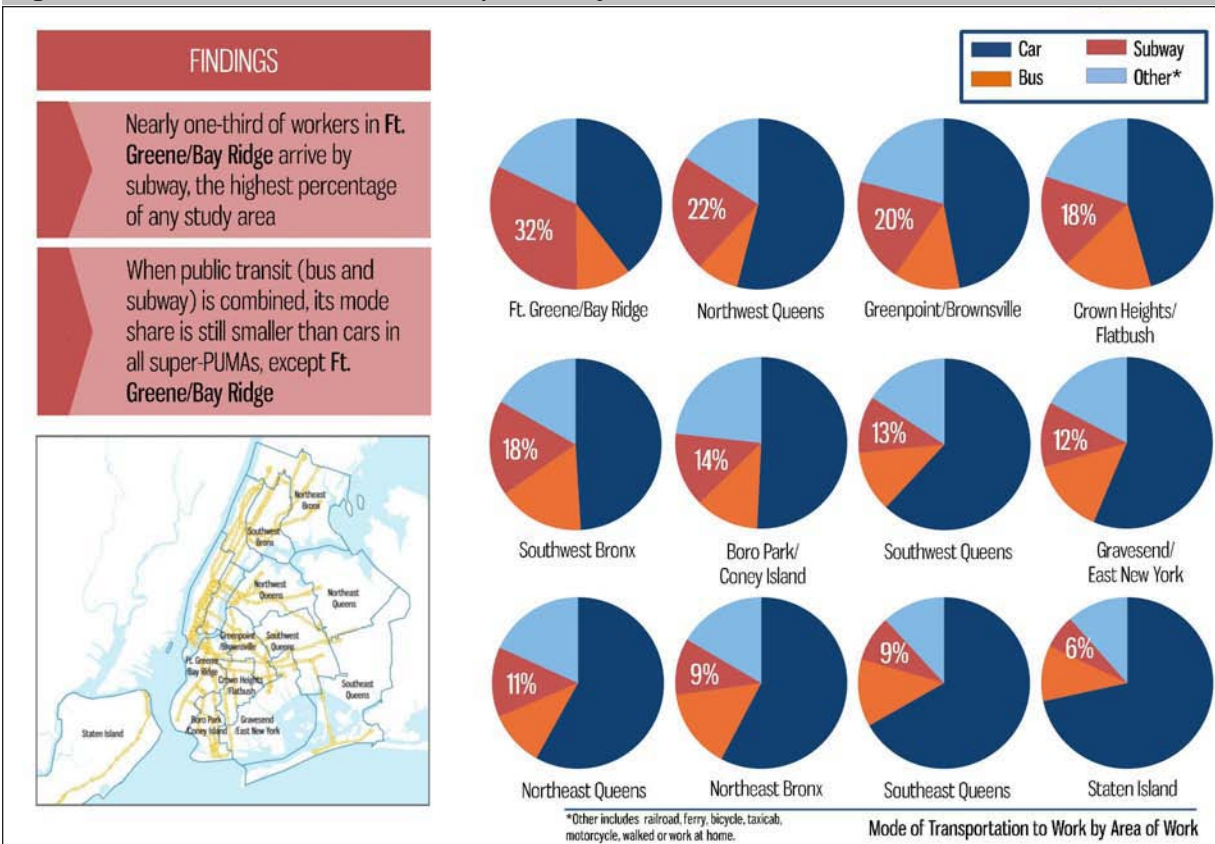


Figure 12. Outside NYC - Journey to Work Modal Split

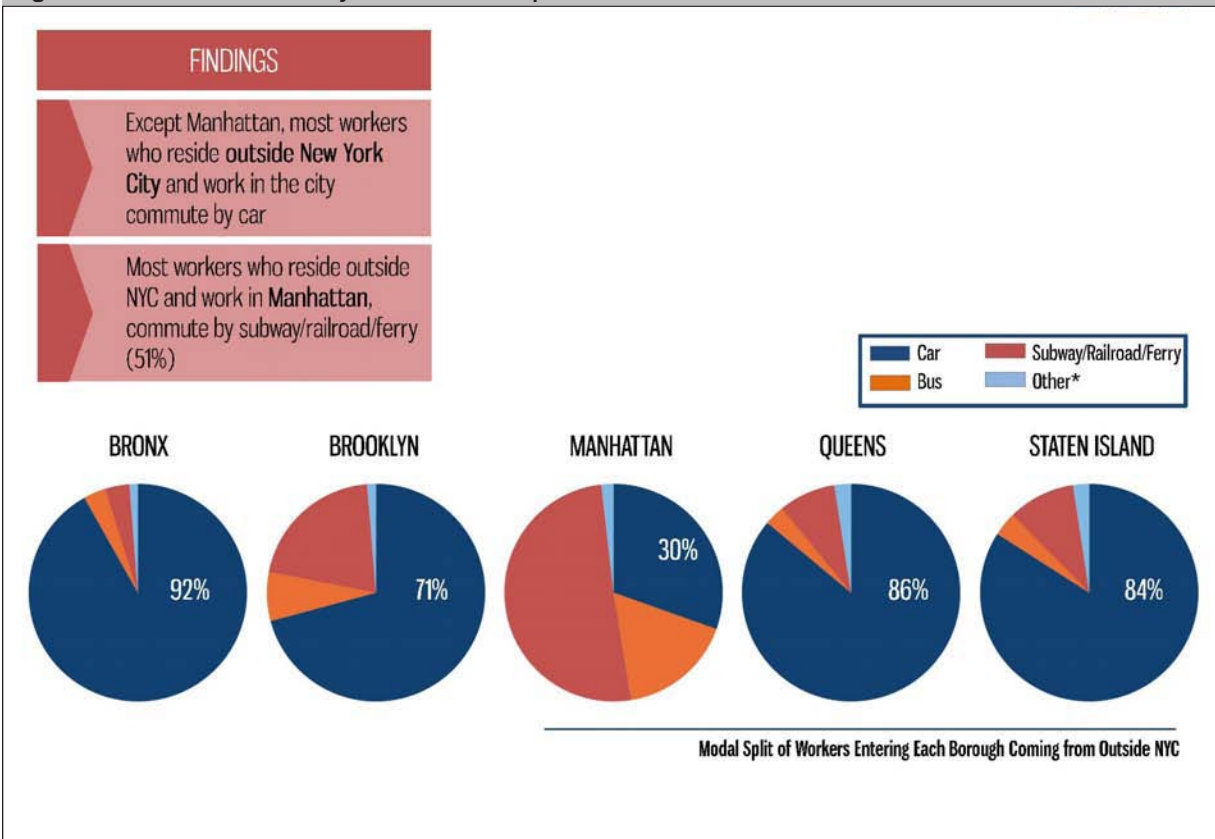


Figure 13. Outside NYC - Journey to Work

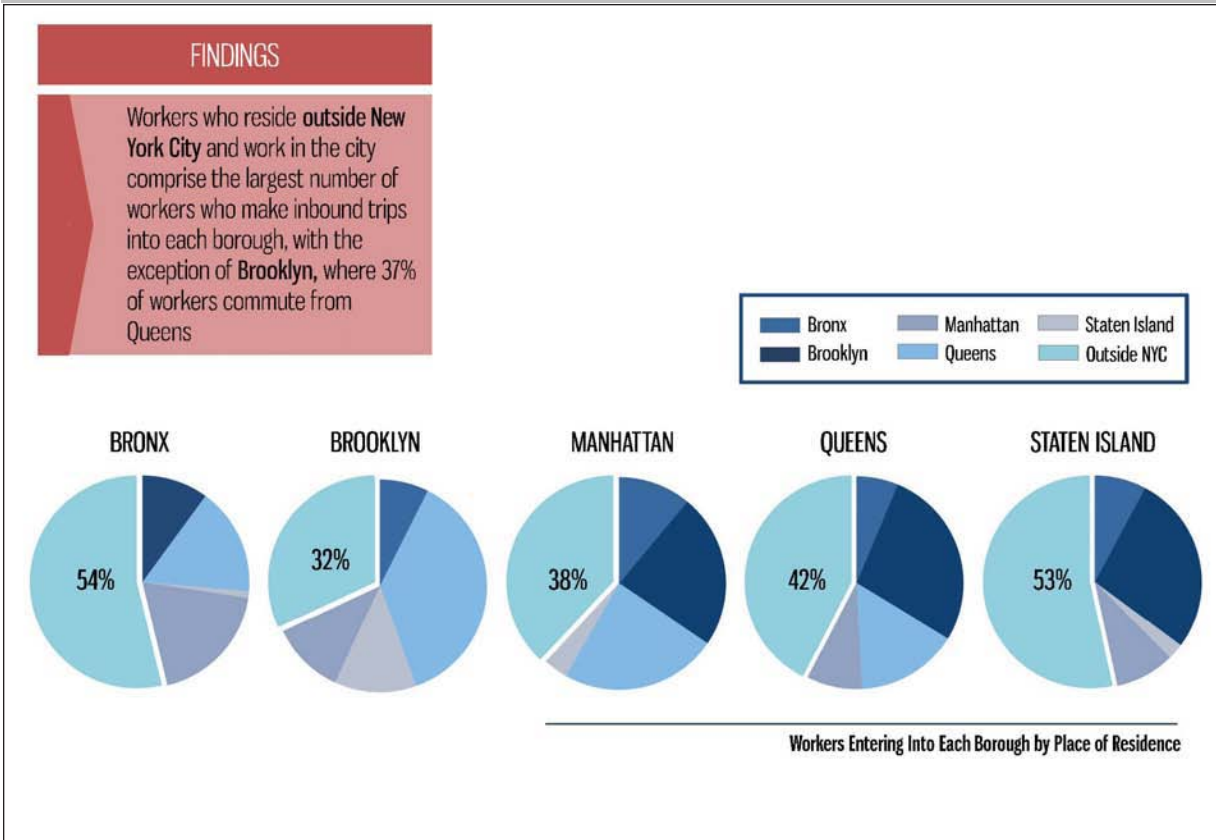


Figure 14. NYC Workers Residing Outside Outside NYC Modal Split (Auto)

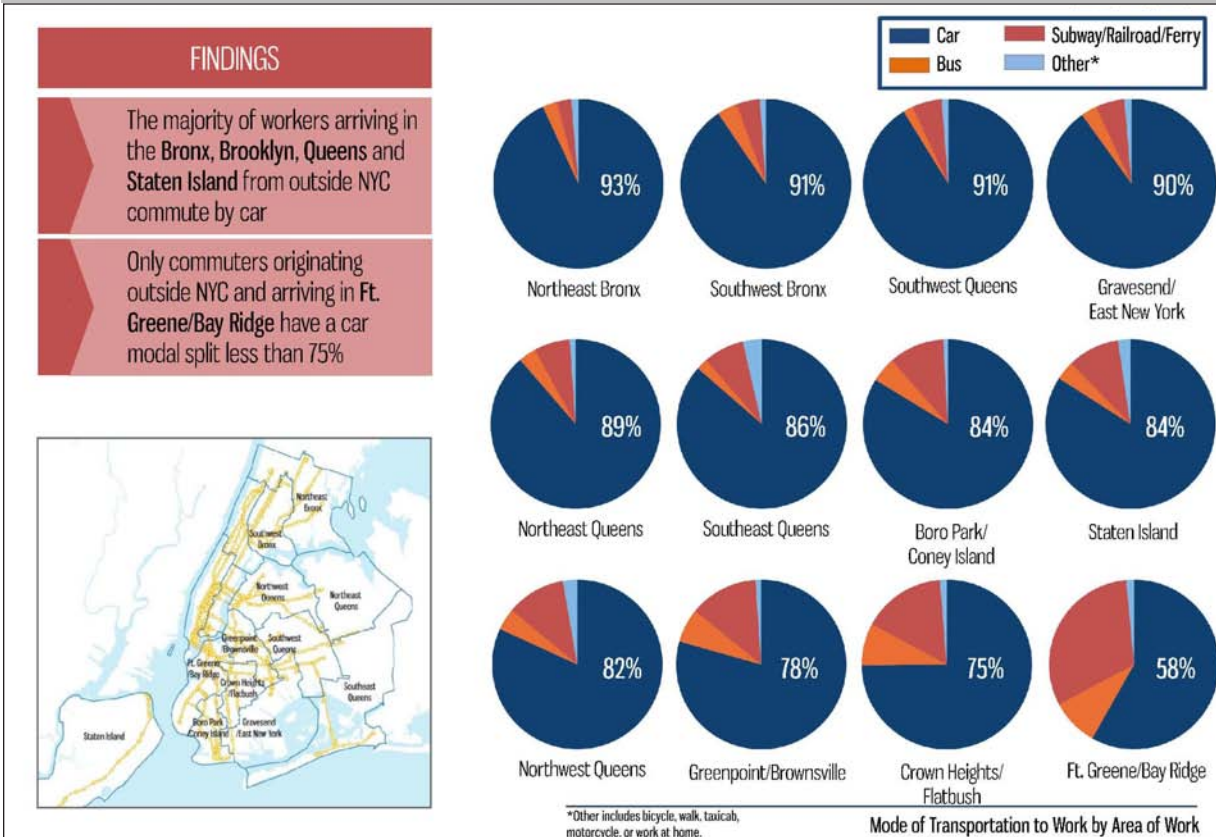


Figure 15. All Workers - Travel Times to Work by Area of Resi-

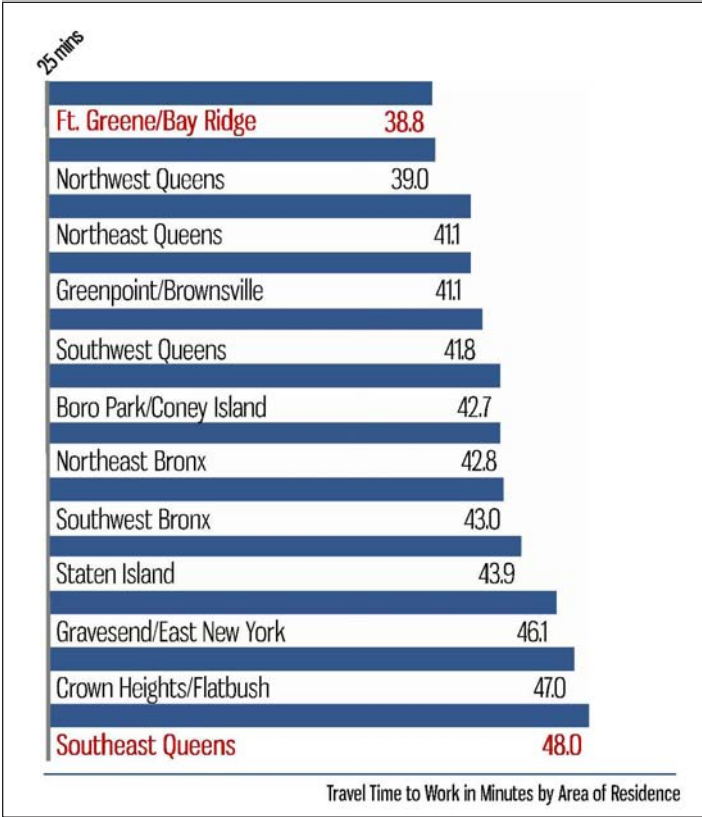


Figure 16. All Workers - Travel Times to Work by Area of Work

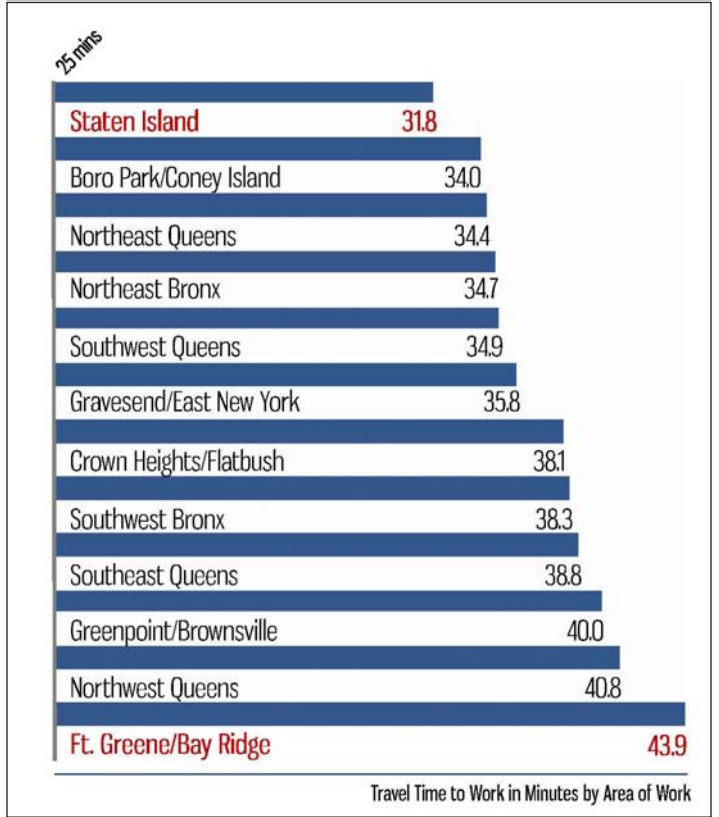




Figure 17. Highest Inter-Borough Flow: Brooklyn-Queens and Bronx-Queens (by Study Areas)

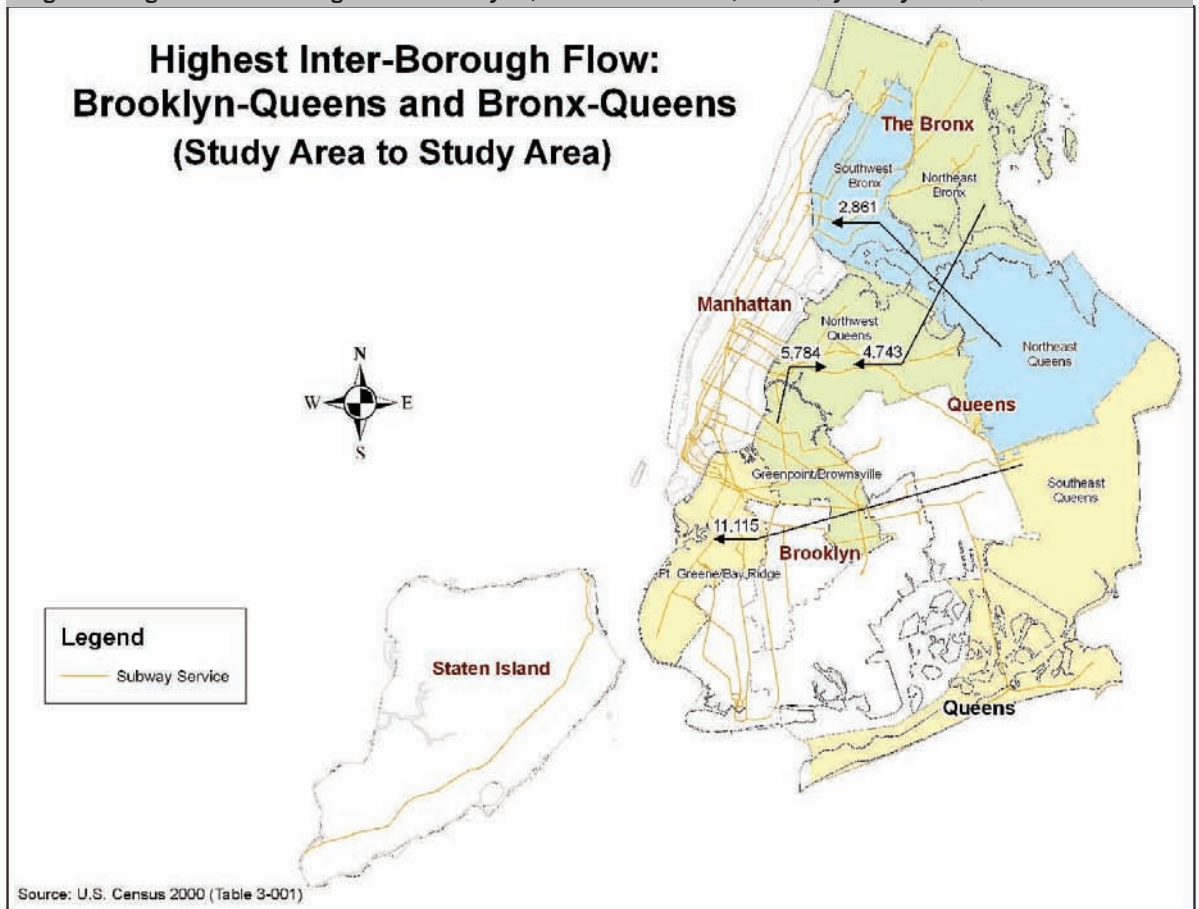
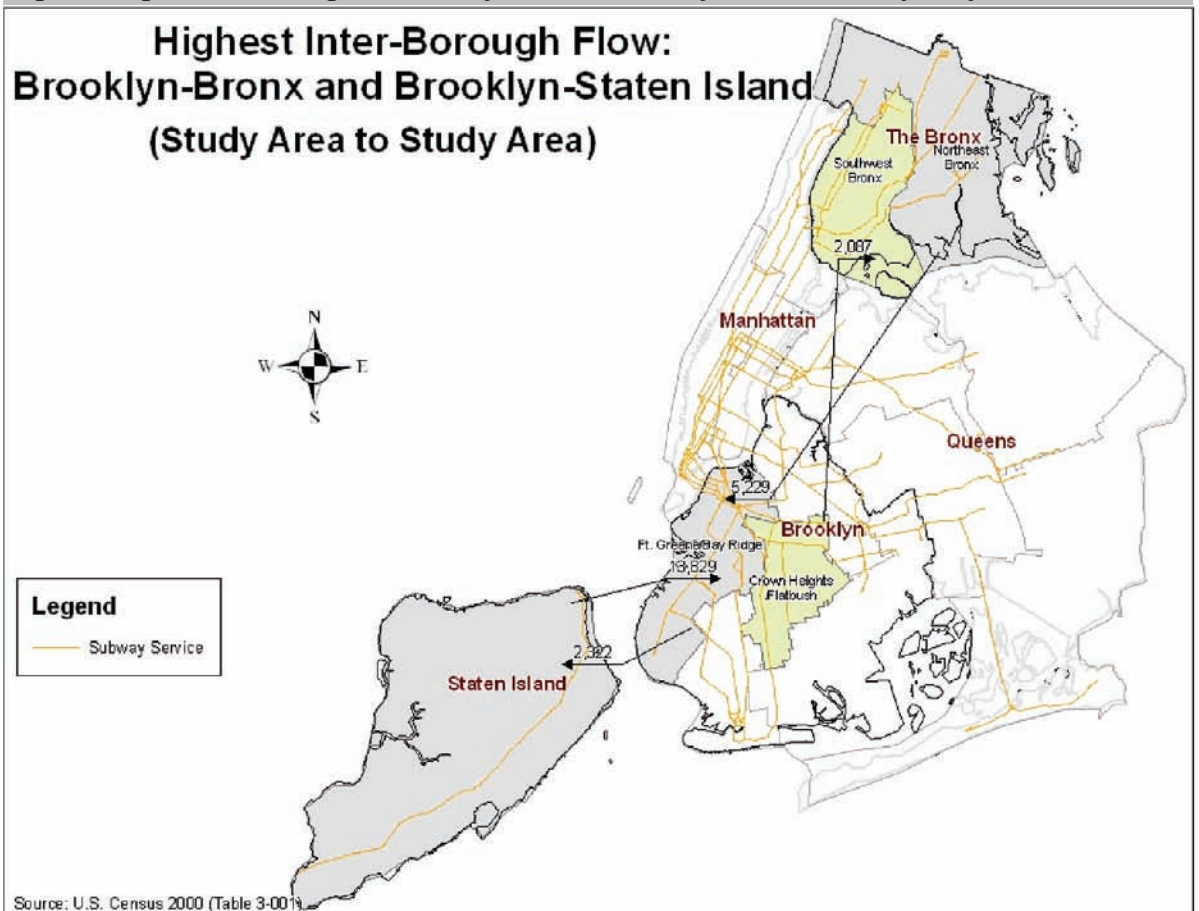


Figure 18. Highest Inter-Borough Flow: Brooklyn-Bronx and Brooklyn-Staten Island (by Study Areas)



# Implications

Although New York City is the most transit-dependent location in the United States, the automobile remains an extremely important means of travel among dispersed locations within the city. However, the journey-to-work data demonstrates that there is a tendency for people to work relatively close to their residence. Among those that work close to home in the same study area, non-automotive means of travel are used more frequently than any other. One area for further exploration is what additional public policy levers could encourage other workers living and working in the same study area or in adjoining study areas (which is generally the next likeliest study area to work in) to use non-automotive modes for journey-to-work trips. Since many non-journey-to-work trips are also likely to be relatively local, improving conditions for non-automotive travel for nearby journey-to-work trips may also encourage people to choose non-automotive modes for more of their other nearby trips.

The high proportion of workers who work near their place of residence indicates that individuals' decisions about where to work and where to live are interdependent. Land use measures that promote mixed use and a range of housing and employment choices can facilitate individuals' inclination to co-locate home and workplace, which this study's findings suggest could benefit non-auto modal share and reduce travel times.

Study areas in the inner and central parts of Brooklyn and along the Manhattan border in Queens and the Bronx correspond to the denser areas of these boroughs. These areas are better served by transit and have a high incidence of offering a range of nearby destinations for employment, goods, services and institutions that can make neighborhoods more walkable. These study areas include all 9 non-Manhattan "Walkers Paradises" identified by Walk Score™ (walkscore.com) and every community in these study area scored in Walk Score's™ two top categories of walkability. Land use policies that encourage mixed-use growth in the six study areas that constitute this area, promote non-auto trips for both journey-to-work and non-journey-to-work travel including linked trips combining the two. The City's zoning policies are designed to direct growth to these transit-oriented locations while taking action to protect the scale of low-density, more auto-oriented neighborhoods. In doing so, these land use policies help the City to shrink its per capita carbon footprint which is already less than one-third the U.S. average.

Developing multi-use centers at transit-oriented locations can also shift a share of future trips from automobiles to transit, walking or biking. Policies that encourage job and residential cen-

ters at locations such as Downtown Jamaica, provide opportunities for a local population to walk to work, for residents of nearby communities to take a bike or bus to work and connects other neighborhoods via the subway or commuter rail. In addition, locations such as Downtown Jamaica can be reached by transit from suburban locations and can encourage reverse commuting by transit as well.

There may be opportunities for further shifts in modal split away from automobiles among those who take relatively short trips, particularly those within the same Super Puma or to an adjoining Super Puma. Improvements to transit, transportation demand management (TDM) or alternative transportation modes to encourage modal shifts for these relatively short-distance trips may also have benefits of altering mode choices for non-journey-to-work trips. Alternative transportation modes, such as walking and biking, are likely to be more useful options for these relatively short trips, particularly during warmer times of the year and in non-inclement weather. . One area worthy of exploration is a bike sharing program. The Department of City Planning studied bicycle sharing programs in Paris, Washington DC, Montreal and elsewhere in its 2009 report, *Bike-Share Opportunities in New York City* ([http://nyc.gov/html/dcp/html/transportation/td\\_bike\\_share.shtml](http://nyc.gov/html/dcp/html/transportation/td_bike_share.shtml)). While there are challenges to establishing a bike share program, a program that provides convenient bicycle available near both work and employment opportunities could be popular among the many who live and work in the same super-PUMA study area or in an adjoining study area.

Since high shares of residents work locally, where shorter distances should reduce average travel times, the high travel times in some locations appear to be a particular problem. In Southeast Queens, which has the longest travel times, long distances for journeys-to-work and, if public transit is used, potentially multi-modal trips, may account for long travel times. In Staten Island, where most workers both live and work on the Island and which has the lowest travel times for people working within the study area but the longest travel times for residents, the numbers suggest that long off-island travel times are pushing up average travel times. Again, multi-modal trips or travel along congested vehicular routes may explain this. Improvements that speed up the transit portions of these journeys could positively impact journey-to-work times for these long commutes as could land use measures to enable more workplaces to be located within Staten Island. The Metropolitan Transportation Authority's (MTA) is currently studying the reuse of Staten Island's inactive North Shore railroad which could be used to reduce travel times

for many Staten Island residents that now make multi-mode trips into Manhattan. The MTA's East Side Access project, which will bring the Long Island Railroad (LIRR) into Grand Central Station and increase the LIRR's capacity, offers the opportunity to increase service to South-eastern Queens and provide a significantly faster commute for some Southeast Queens residents. The completion of the East Side Access project will free up some capacity in Pennsylvania Station. The MTA is currently undertaking an environmental review of a project to bring Metro North's New Haven and Hudson Division lines into Penn Station. Such new Metro North services hold the possibility of shorter commute times from areas of the Bronx as well as the potential for coordinating any future transit improvements with targeted transit-oriented development.

More than 300,000 people travel between the boroughs to work. The automobile dominates this travel. Nevertheless, there may be opportunities to expand the use of alternative modes. One area in particular worth exploring is travel between Brooklyn and Queens which constitutes 44 percent of such interborough trips. These boroughs are the only ones not separated by a water body and both bus service and bicycle improvements should be explored. In addition, there may be opportunities to take better advantage of the Atlantic Branch of the Long Island Railroad which connects downtown Jamaica and its transit hub with Atlantic Terminal, Downtown Brooklyn and nine subway lines. Another area to explore encouraging future modal choice shift is the flow between Staten Island and Ft. Greene/Bay Ridge. This is the 12th highest inter-study area flow and it is dominated by the auto mode.

In study areas further from the CBD, where automobile use plays a more important part in maintaining mobility, additional study is needed to evaluate public policies toward automobile use.



# Borough to Borough Work Trips by NYC Workers

This section examines the borough to borough travel of workers who live in one borough and work in another. The following Maps 1-10 and Tables 1-4 show the number of workers who reside in one borough and work in a different borough, using the 2000 Journey-to-Work Census Data.

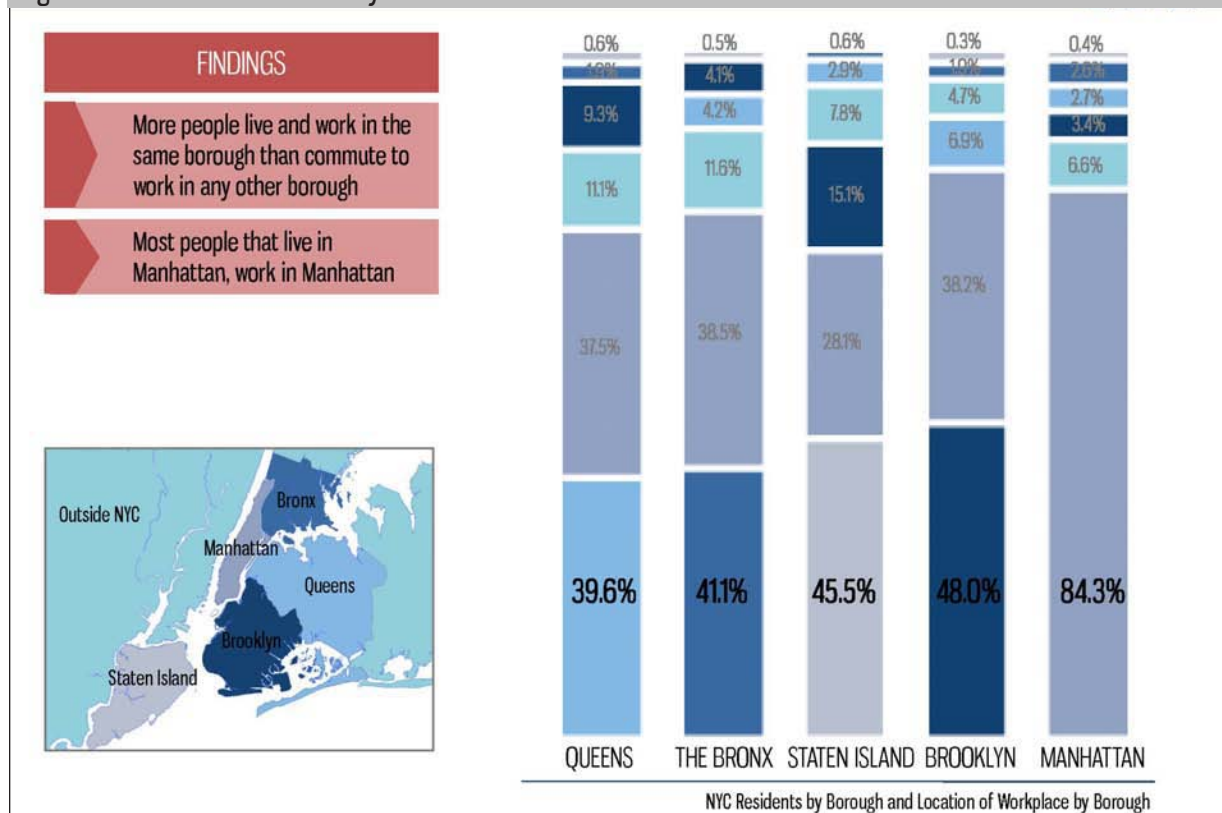
The majority of workers in NYC live and work in the same borough. Manhattan has the greatest percentage of workers remaining in the same borough for their place of work with 84.3%, while workers in Queens have the lowest percentage with only 40.0% remaining in Queens for their place of work. Table 1 lists where workers in NYC live and work by boroughs as determined by the U.S. Census 2000.

**Table 1. NYC Workers: Work Trips by Boroughs**

Origin: Borough of Residence	Destination: Borough of Work						Total
	The Bronx	Brooklyn	Queens	Staten Island	Manhattan	Outside NYC	
The Bronx	168,050 (41.0%)	16,772 (4.1%)	17,155 (4.2%)	2,049 (0.5%)	157,203 (38.5%)	47,591 (11.6%)	408,770 (100%)
Brooklyn	10,813 (1.2%)	417,954 (48.0%)	59,711 (6.8%)	8,832 (1.0%)	333,379 (38.2%)	41,203 (4.7%)	871,892 (100%)
Queens	17,497 (1.9%)	83,772 (9.3%)	357,681 (40.0%)	5,002 (0.5%)	339,011 (37.5%)	100,125 (11.0%)	903,088 (100%)
Staten Island	1,028 (0.6%)	28,173 (15.0%)	5,368 (2.9%)	84,629 (45.5%)	52,236 (28.0%)	14,503 (7.8%)	185,937 (100%)
Manhattan	20,218 (2.7%)	25,054 (3.4%)	19,691 (2.6%)	2,720 (0.4%)	628,095 (84.3%)	49,185 (6.6%)	744,963 (100%)
Total	217,606	571,725	459,606	103,232	1,509,924	252,607	3,114,700

Source: U.S. Census 2000

**Figure 19. NYC Residents - Journey to Work**



In addition, Table 1 shows for each borough the second largest percentages of workers who work in another borough are commuting to Manhattan. For example, 41.0% of Bronx workers remain in the Bronx, with 38.5% of Bronx workers commuting to Manhattan. However, when excluding Manhattan as a destination for borough to borough work trips, NYC workers who work outside their borough of residence work primarily in Brooklyn (47.5%) or Queens (31.5%), as shown on Table 2.

**Table 2. NYC Workers with Borough to Borough Work Trips (Excluding Manhattan as a Work Destination)**

Origin: Borough of Residence	Destination: Borough of Work				Total # of workers
	The Bronx	Brooklyn	Queens	Staten Island	
The Bronx		16,772	17,155	2,049	35,976
Brooklyn	10,813		59,711	8,832	79,356
Queens	17,497	83,772		5,002	106,271
Staten Island	1,028	28,173	5,368		34,569
Manhattan	20,218	25,054	19,691	2,720	67,683
Total	49,556 (15.3%)	153,771 (47.5%)	101,925 (31.5%)	18,603 (5.7%)	323,855 (100%)

Source: U.S. Census 2000

As shown in Table 2, Brooklyn and Queens are the largest destinations of borough to borough commute trips within NYC when excluding Manhattan. Furthermore, the concentration of work trips between Brooklyn and Queens is the highest between any two boroughs, excluding Manhattan. Table 3 lists the number of workers commuting from one borough to another borough, excluding Manhattan. The greatest flows of workers from one borough to another borough are from Queens to Brooklyn (83,722) and Brooklyn to Queens (59,711).

**Table 3. Flow of Workers with Borough to Borough Work Trips (Excluding Manhattan)**

Origin: Borough of Residence	Destination: Borough of Work	Total # of workers
Queens	Brooklyn	83,722
Brooklyn	Queens	59,711
Staten Island	Brooklyn	28,173
Queens	The Bronx	17,420
The Bronx	Queens	17,097
The Bronx	Brooklyn	16,728
Brooklyn	The Bronx	10,776
Brooklyn	Staten Island	8,832
Staten Island	Queens	5,368
Queens	Staten Island	5,002
The Bronx	Staten Island	2,049
Staten Island	The Bronx	1,028

Table 4 further diagrams the number of workers commuting from borough to borough within NYC. By excluding all origin and destinations outside of NYC, Table 4 shows the travel patterns from borough to borough within NYC. For example, the greatest origination by borough for workers traveling inbound into The Bronx is from Manhattan at 40.8%. A strong correlation of borough to borough travel between Brooklyn and Queens is shown, as 54.5% of workers traveling inbound to Brooklyn originate from Queens, and 58.6% of workers traveling inbound to Queens originate from Brooklyn.

**Table 4. Inbound Workers to Each Borough within NYC**

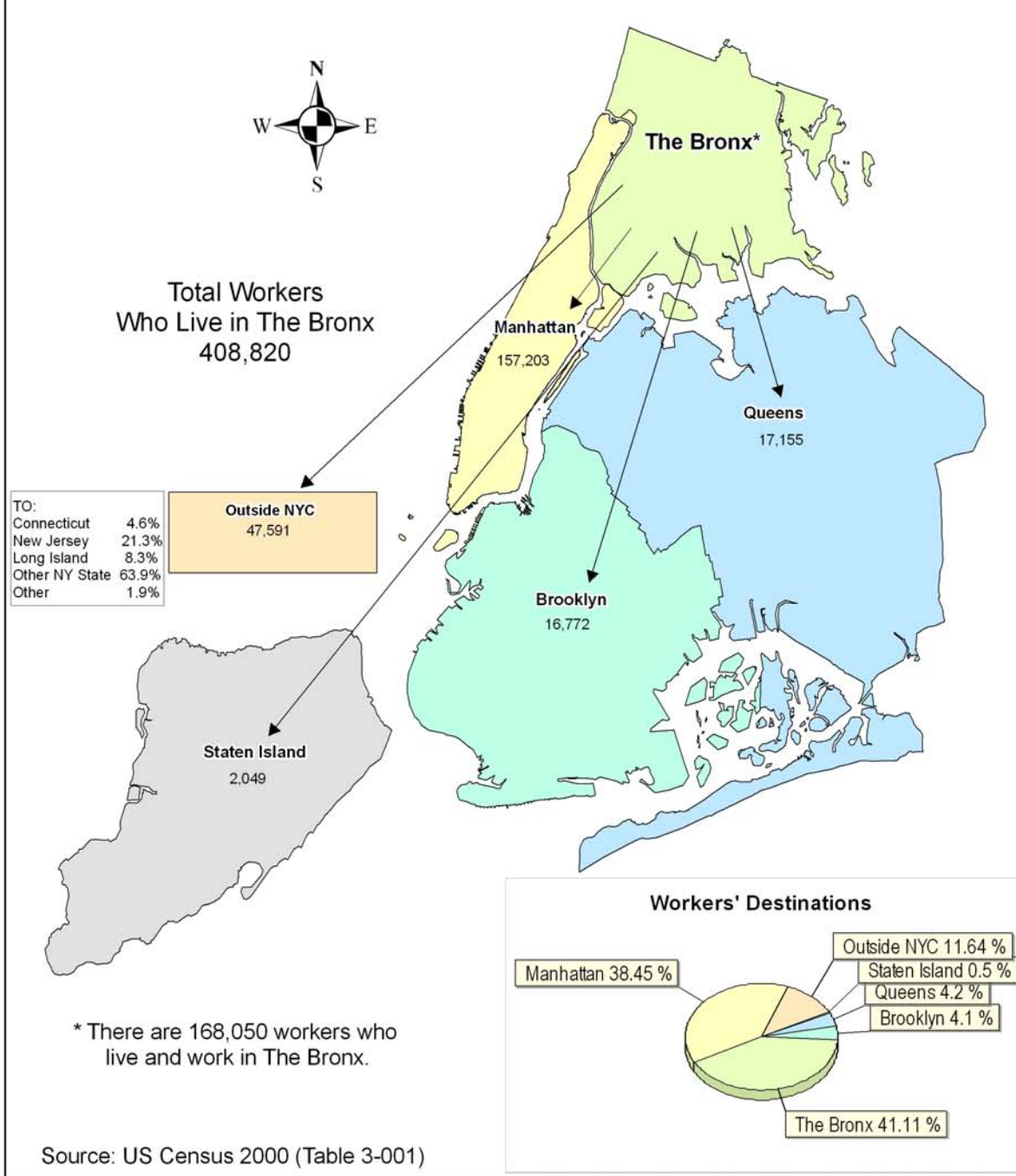
Origin: Borough of Residence	Destination: Borough of Work				
	The Bronx	Brooklyn	Queens	Staten Island	Manhattan
The Bronx		16,772 (10.9%)	17,155 (16.8%)	2,049 (11.0%)	157,203 (17.8%)
Brooklyn	10,813 (21.8%)		59,711 (58.6%)	8,832 (47.5%)	333,379 (37.8%)
Queens	17,497 (35.3%)	83,772 (54.5%)		5,002 (26.9%)	339,011 (38.4%)
Staten Island	1,028 (2.1%)	28,173 (18.3%)	5,368 (5.3%)		52,236 (5.9%)
Manhattan	20,218 (40.8%)	25,054 (16.3%)	19,691 (19.3%)	2,720 (14.6%)	
Total	49,556 (100%)	153,771 (100%)	101,925 (100%)	18,603 (100%)	881,829 (100%)

Maps 1-10 on the following pages correspond to Tables 1-4 displaying the number of workers who travel from borough to borough for work trips as determined by the U.S. Census 2000. Maps 1-5 show the work trips outbound from each borough of residence to each borough of work. Maps 6-10 show the work trips inbound to each borough of work from each borough of residence.

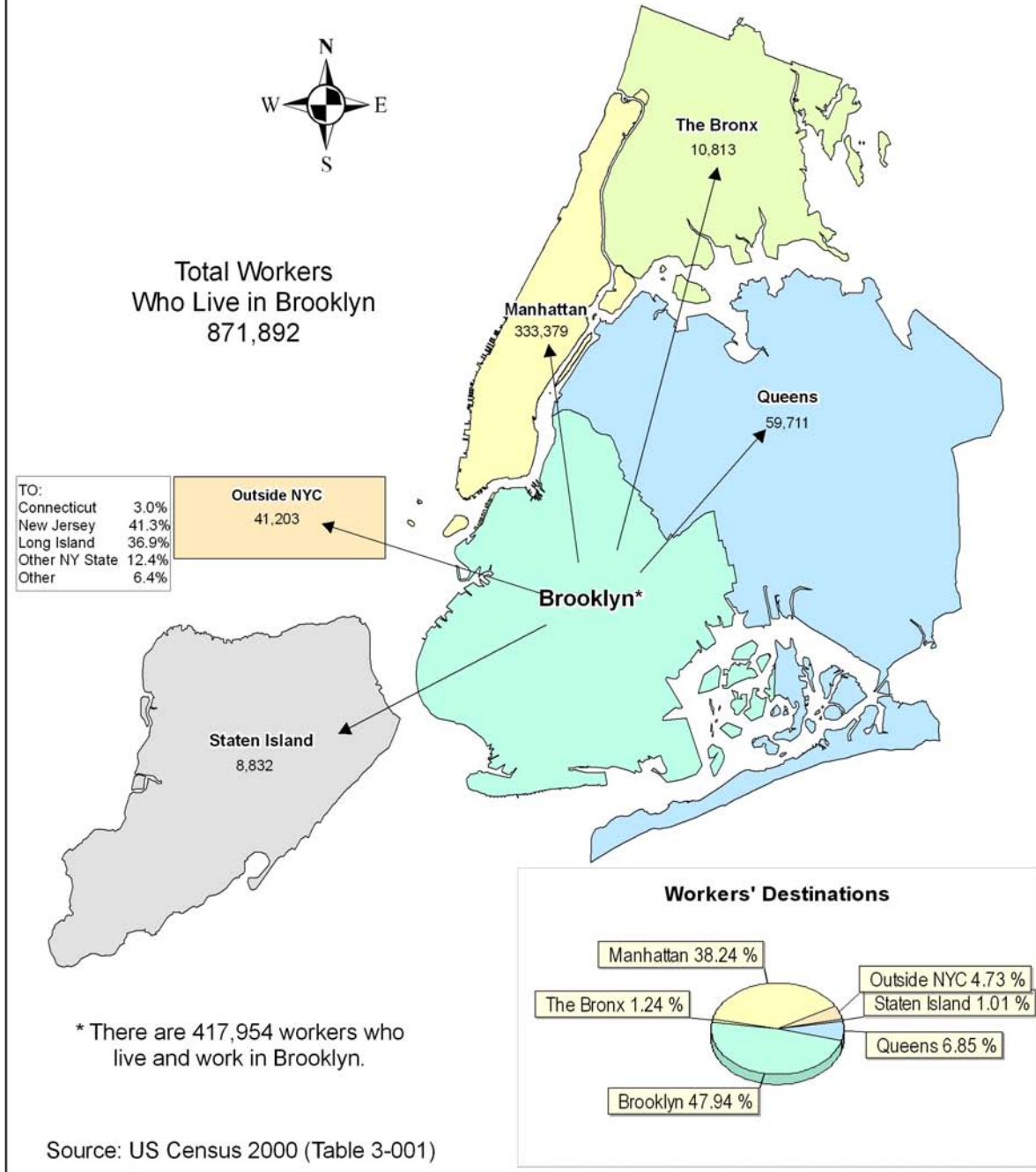


Map 1. Workers Who Live in The Bronx and Work Outside The Bronx

## Workers Who Live In The Bronx and Work Outside The Bronx



## Workers Who Live In Brooklyn and Work Outside Brooklyn



## Workers Who Live In Queens and Work Outside Queens



Total Workers Who Live in Queens  
903,088

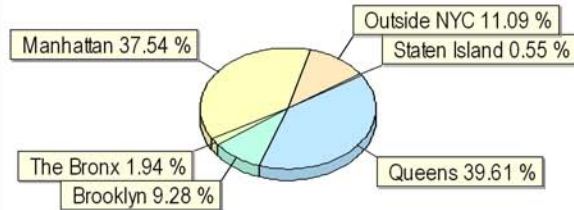
TO:	
Connecticut	2.2%
New Jersey	14.0%
Long Island	72.6%
Other NY State	9.0%
Other	2.2%

Outside NYC  
100,125



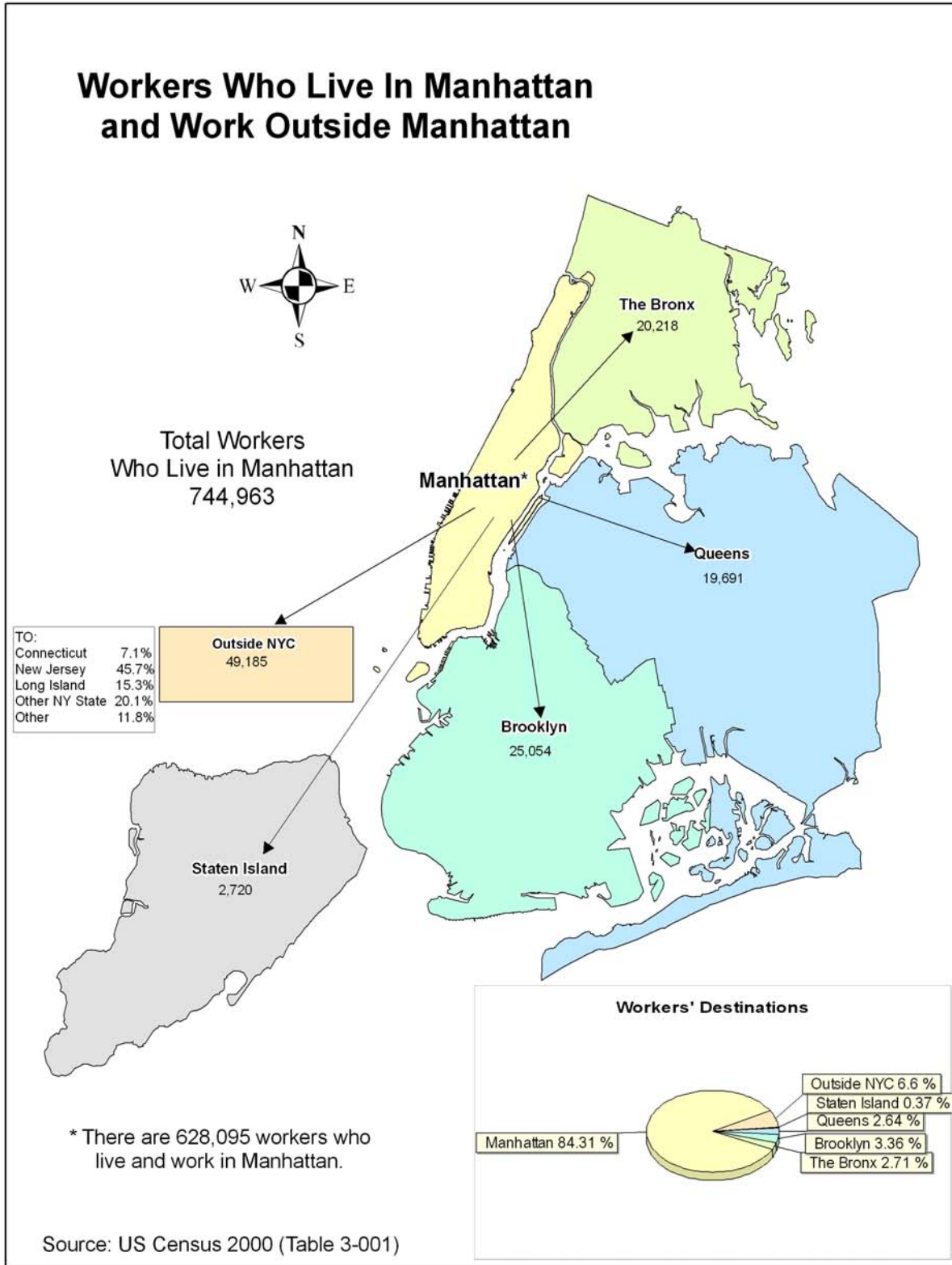
\* There are 357,681 workers who live and work in Queens.

### Workers' Destinations



Source: US Census 2000 (Table 3-001)

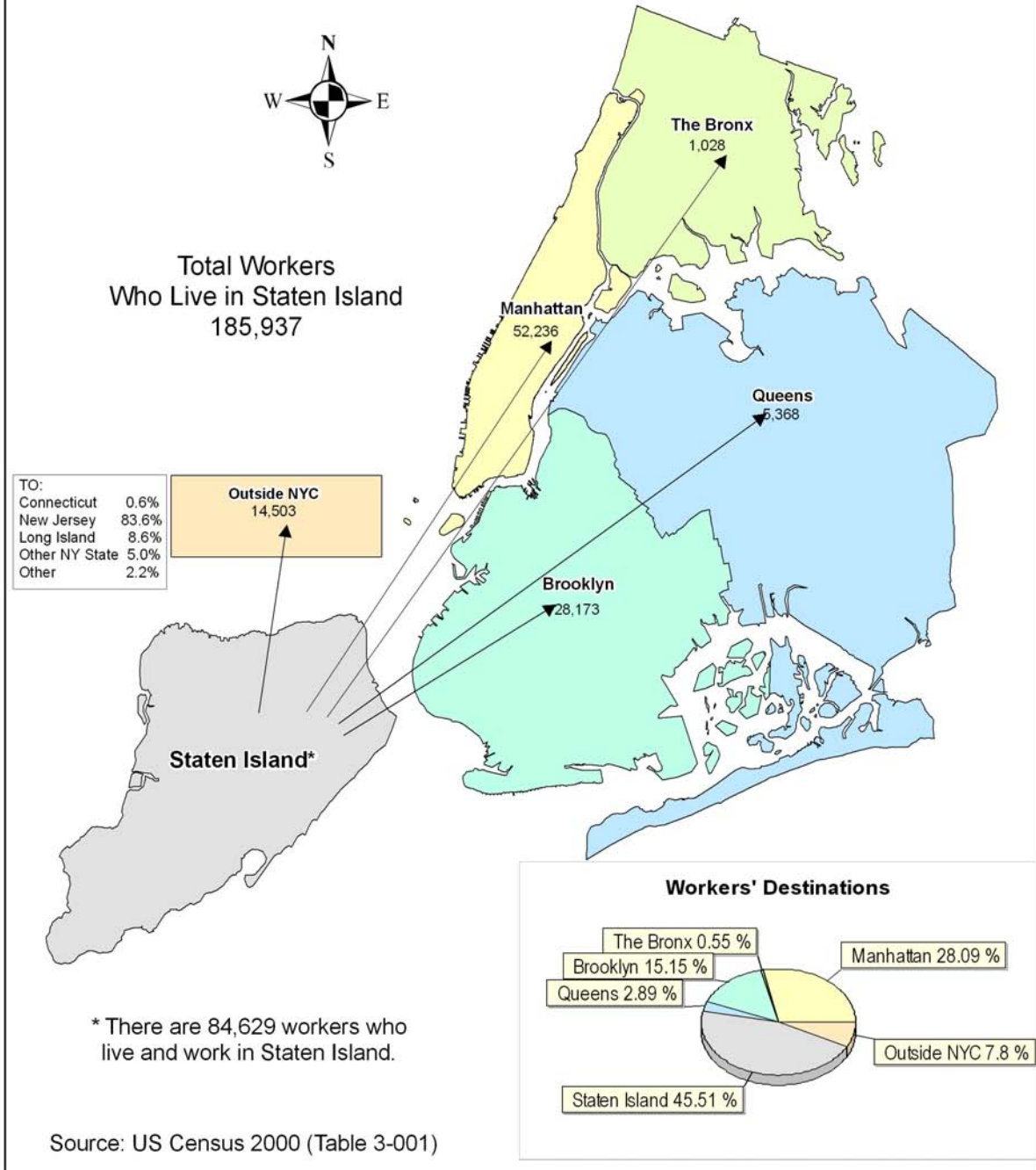
## Workers Who Live In Manhattan and Work Outside Manhattan





Map 5. Workers Who Live in Staten Island and Work Outside Staten Island

## Workers Who Live In Staten Island and Work Outside Staten Island



Map 6. Workers Who Live Outside The Bronx and Work in The Bronx

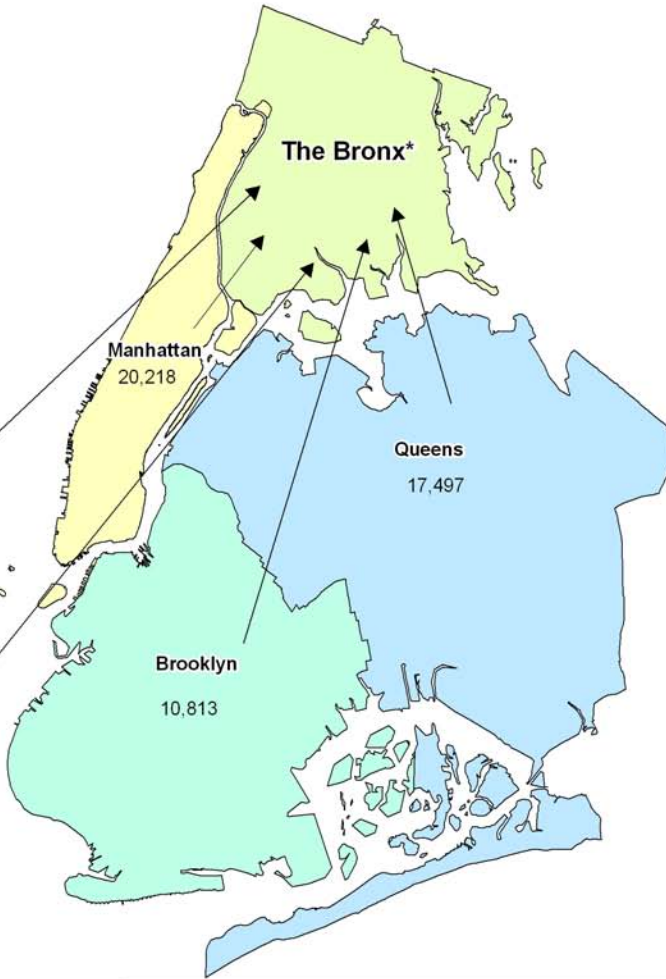
## Workers Who Live Outside The Bronx and Work In The Bronx



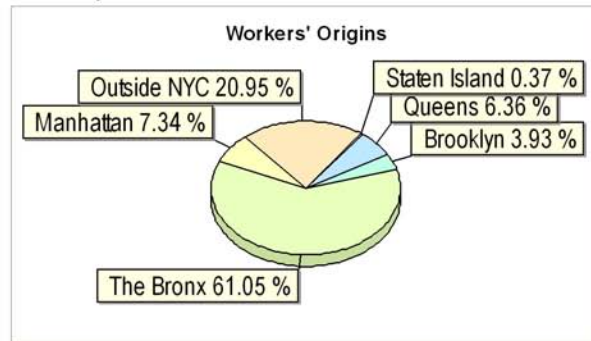
Total Workers Who Work in The Bronx  
275,271

FROM:	
Connecticut	2.5%
New Jersey	16.1%
Long Island	14.4%
Other NY State	65.2%
Other	1.8%

Outside NYC  
57,665



\* There are 168,050 workers who live and work in The Bronx.



Source: US Census 2000 (Table 3-001)

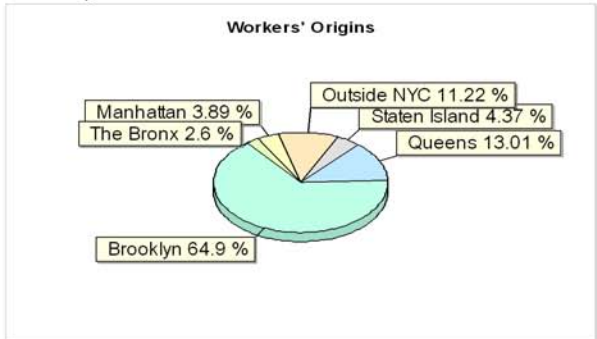
## Workers Who Live Outside Brooklyn and Work In Brooklyn



Total Workers  
Who work in Brooklyn  
643,995

FROM:	
Connecticut	1.9%
New Jersey	29.1%
Long Island	52.7%
Other NY State	12.0%
Other	4.3%

Outside NYC  
72,270



\* There are 417,954 workers who live and work in Brooklyn.

Source: US Census 2000 (Table 3-001)

## Workers Who Live Outside Queens and Work In Queens



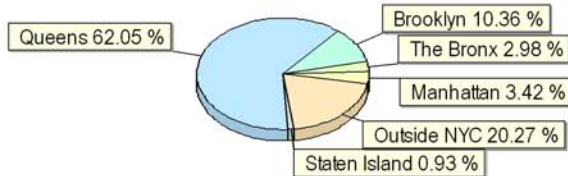
Total Workers Who Work in Queens  
576,478

FROM:	
Connecticut	1.5%
New Jersey	10.4%
Long Island	74.3%
Other NY State	8.6%
Other	5.2%

Outside NYC  
116,872



Workers' Origins



\* There are 357,681 workers who live and work in Queens.

Source: US Census 2000 (Table 3-001)



## Workers Who Live Outside Manhattan and Work In Manhattan



Total Workers Who Work in Manhattan  
2,050,378

FROM:	
Connecticut	5.0%
New Jersey	45.3%
Long Island	24.2%
Other NY State	21.4%
Other	4.1%

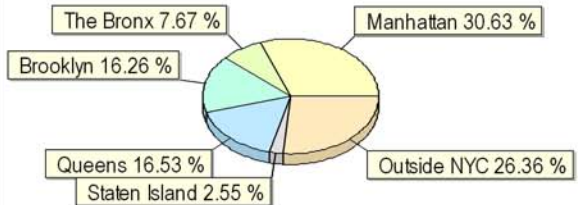
Outside NYC  
540,454



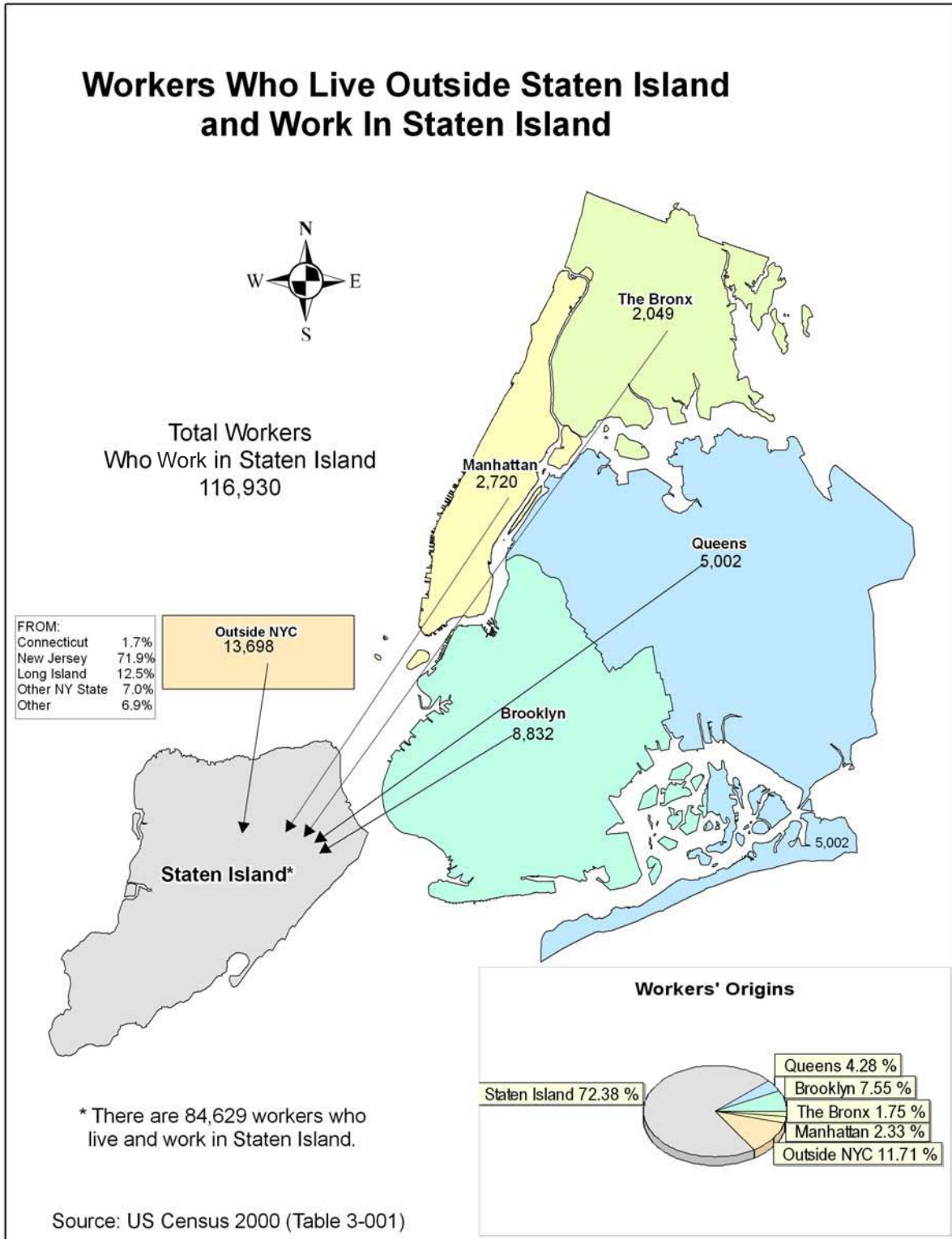
\* There are 628,095 workers who live and work in Manhattan.

Source: US Census 2000 (Table 3-001)

### Workers' Origins



## Workers Who Live Outside Staten Island and Work In Staten Island

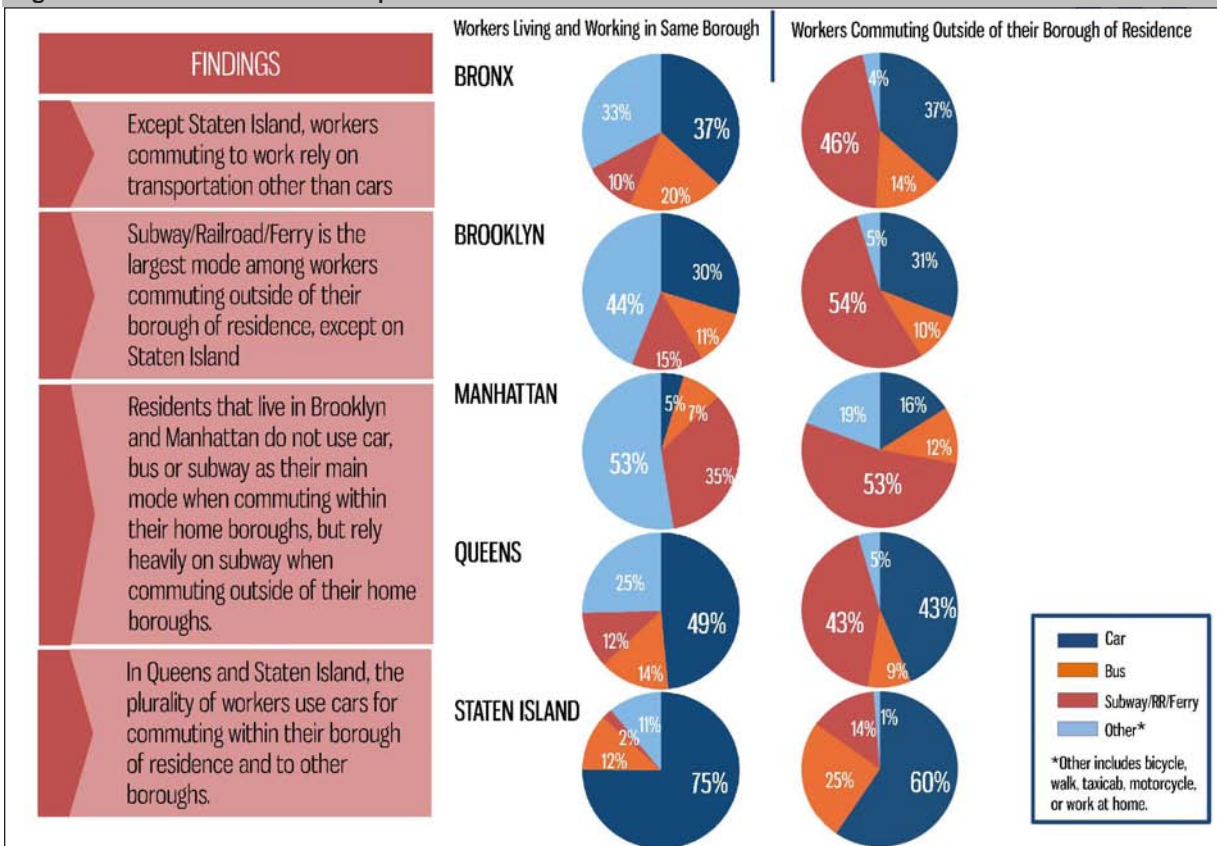


# Modal Split by Borough for NYC Residents

Except in Staten Island, New York City residents rely on transportation other than cars to get to work. For workers commuting outside the borough of their residence, Subway/RR/Ferry is the major mode and, when combined with Bus users, constitute more than half of each of these borough's outgoing commuters. In Staten Island, the car is the primary means of traveling to worksites both within and outside of the borough but is more auto-dominant for travel within the borough accounting for three-fourths of all on-island commuters.

Residents that live in the Bronx, Brooklyn and Manhattan and work in the same borough they reside in do not rely primarily on transit options (Subway/RR/Ferry/Bus). In Manhattan more than half use Other (walking, biking, etc) whereas in Brooklyn and the Bronx the Other and Auto shares are more important. As in Staten Island, in Queens Autos are the dominant mode of commuting within the borough.

Figure 20. NYC Residents - Modal Split



# Borough to Study Areas Work Trips by NYC Workers

This section examines travel from one NYC borough to the smaller geography of a “Super-PUMA”. As defined by the U.S. Census Bureau, a “Super-PUMA” is a geographic area, with a population of 400,000 or more. In all instances of this report, the term Study Area is used instead of “Super-PUMA” for simplicity. The term Study Area refers directly to the technical term of “Super-PUMA”. Appendix A lists these Study Area details with the corresponding “Super-PUMA” details.

Table 5 shows the concentration of travel by workers into each Study Area from each of the NYC boroughs and outside New York City. The largest source of inbound workers is represented in bold print.

Figure 21. NYC Peripheral Travel Study Areas



Table 5. Workers in Each Study Area by Borough of Residence

Destination: Study Areas of Work	Origin: Workers' Borough of Residence					
	Bronx	Brooklyn	Queens	Staten Island	Manhattan	Outside NYC
<b>Bronx</b>						
91- Northeast	<b>77,871</b>	3,886	7,361	361	7,112	28,822
92- Southwest	<b>90,179</b>	6,927	10,136	667	13,106	28,843
<b>Total</b>	<b>168,050</b>	10,813	17,497	1,028	20,218	57,665
<b>Brooklyn</b>						
121- Greenpoint/Brownsville	2,487	<b>65,340</b>	20,515	2,383	3,852	13,841
122- Ft. Greene/Bay	9,348	<b>160,915</b>	35,059	13,829	13,811	33,665
123- Crown Heights/Flatbush	2,306	<b>67,226</b>	10,314	2,651	3,543	8,801
124- Gravesend/East New York	1,616	<b>60,415</b>	11,747	3,657	2,243	9,441
125- Boro Park/Coney Island	1,015	<b>64,058</b>	6,137	5,653	1,605	6,522
<b>Total</b>	16,772	<b>417,954</b>	83,772	28,173	25,054	72,270
<b>Queens</b>						
111- Northwest	9,034	23,018	<b>127,685</b>	2,689	9,985	37,616
112- Northeast	3,154	9,973	<b>86,134</b>	876	4,075	24,501
113- Southeast	2,684	15,131	<b>79,559</b>	1,091	3,081	39,306
114- Southwest	2,283	11,589	<b>64,303</b>	712	2,550	15,449
<b>Total</b>	17,155	59,711	<b>357,681</b>	5,368	19,691	116,872
<b>Manhattan</b>						
101- North	22,380	13,005	13,722	1,152	<b>58,848</b>	24,914
102- West & Lower	92,889	240,895	230,639	39,922	<b>394,598</b>	388,274
103- East	41,934	79,479	94,650	11,162	<b>174,649</b>	127,266
<b>Total</b>	157,203	333,379	339,011	52,236	<b>628,095</b>	540,454
<b>Staten Island</b>						
130- Staten Island	2,049	8,832	5,002	<b>84,629</b>	2,720	13,698
<b>Total</b>	2,049	8,832	5,002	<b>84,629</b>	2,720	13,698

Source: US Census 2000



Workers in the Brooklyn Study Areas who commute from other boroughs primarily travel from Queens, with a total of 83,772 (Table 5).

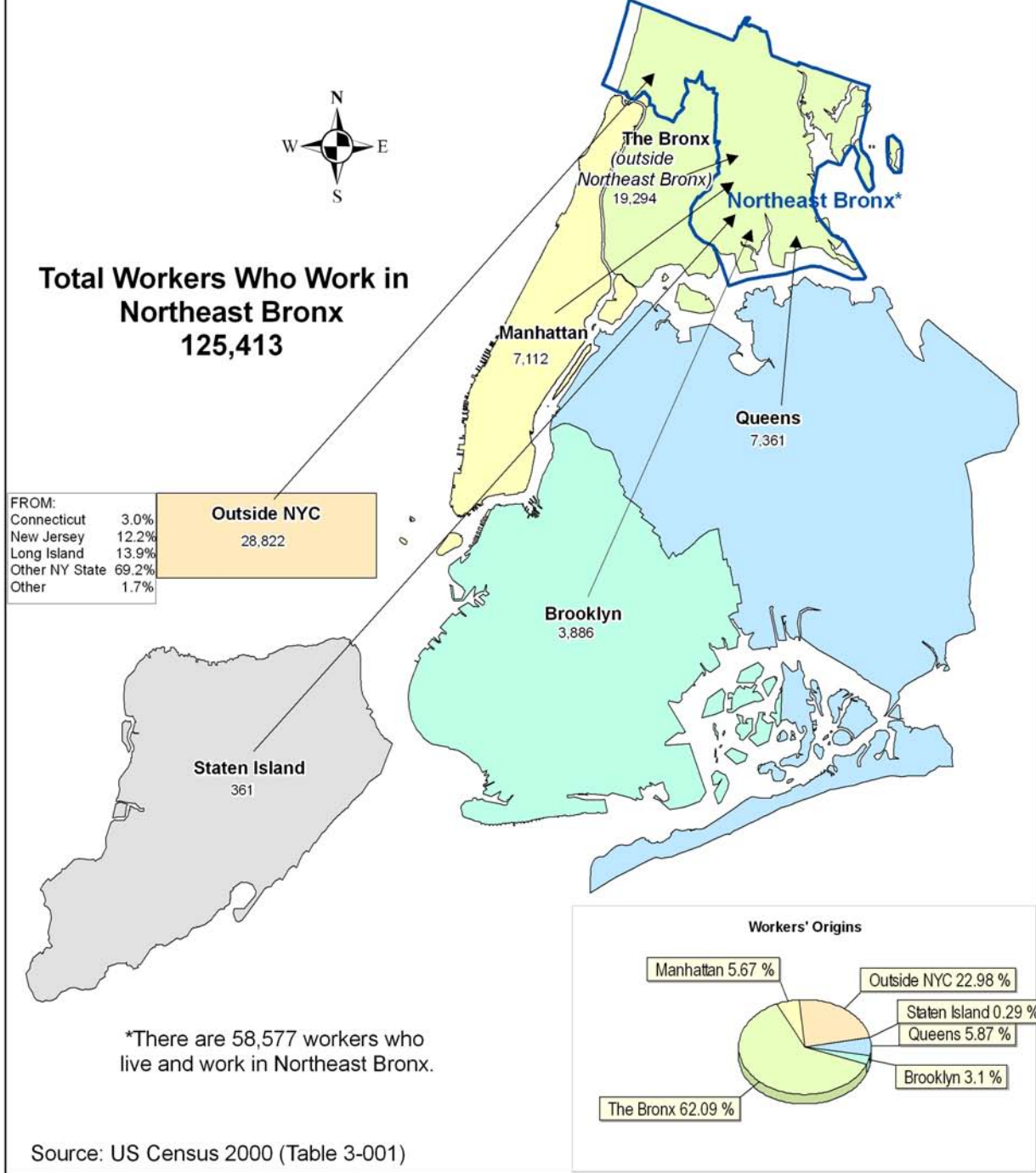
The workers commuting from the other boroughs to the four Study Areas in Queens are primarily coming from Brooklyn, with a total of 59,711 workers (Table 5, Table 6, and Table 7).

The majority of workers commuting from other boroughs to Staten Island come from Brooklyn, with a total of 8,832 workers (Map 25 and Table 5).

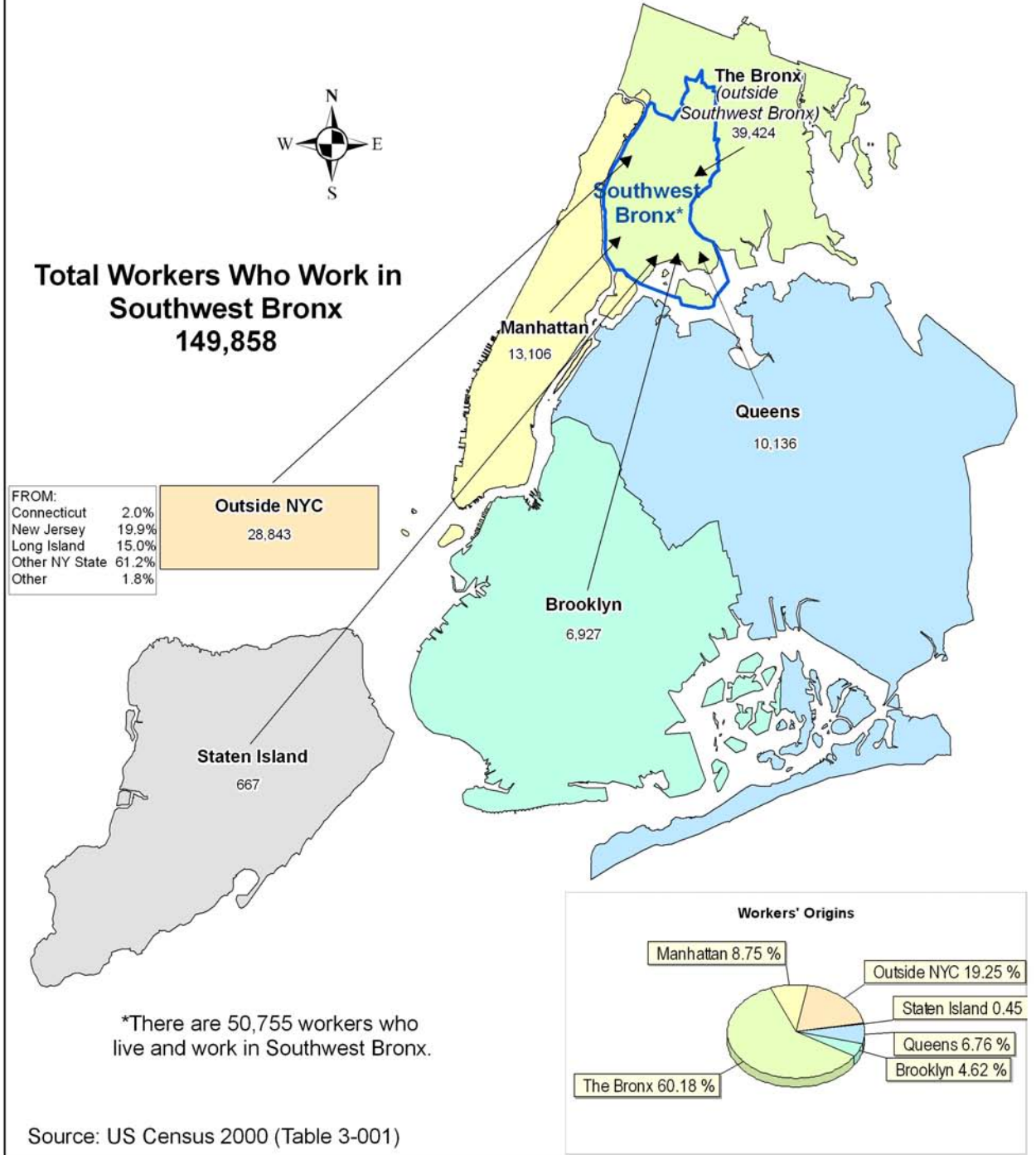
More Bronx residents commute to Northwest Queens than any other Queens Study Area, with a total of 9,034 workers (Map 63, Map 64, and Table 5).

Maps 11-25 on the following pages correspond to Table 5 and display the number of workers who travel from their home borough to their place of work in a borough's study area.

## Workers Who Live Outside Northeast Bronx and Work In Northeast Bronx

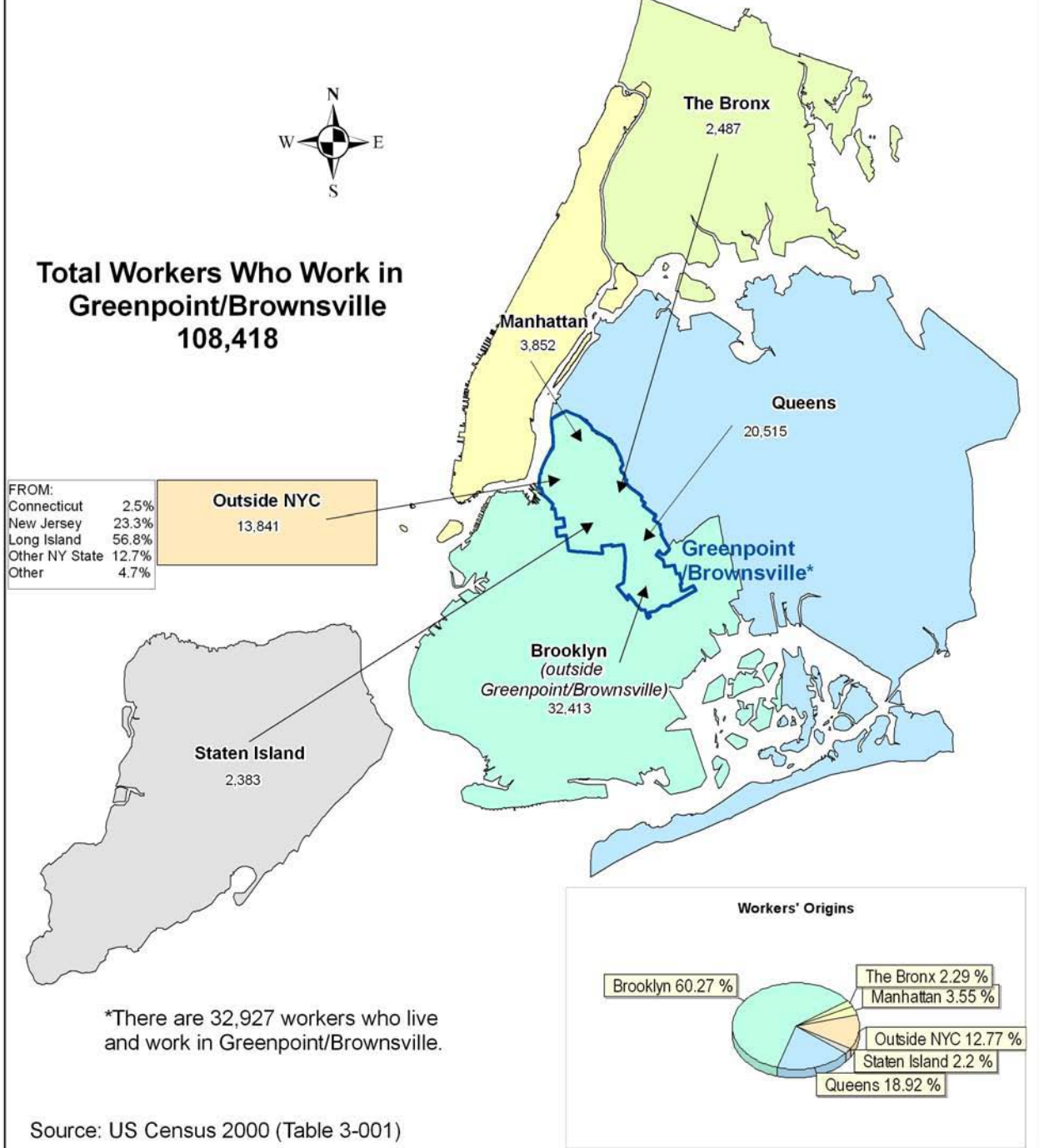


## Workers Who Live Outside Southwest Bronx and Work In Southwest Bronx

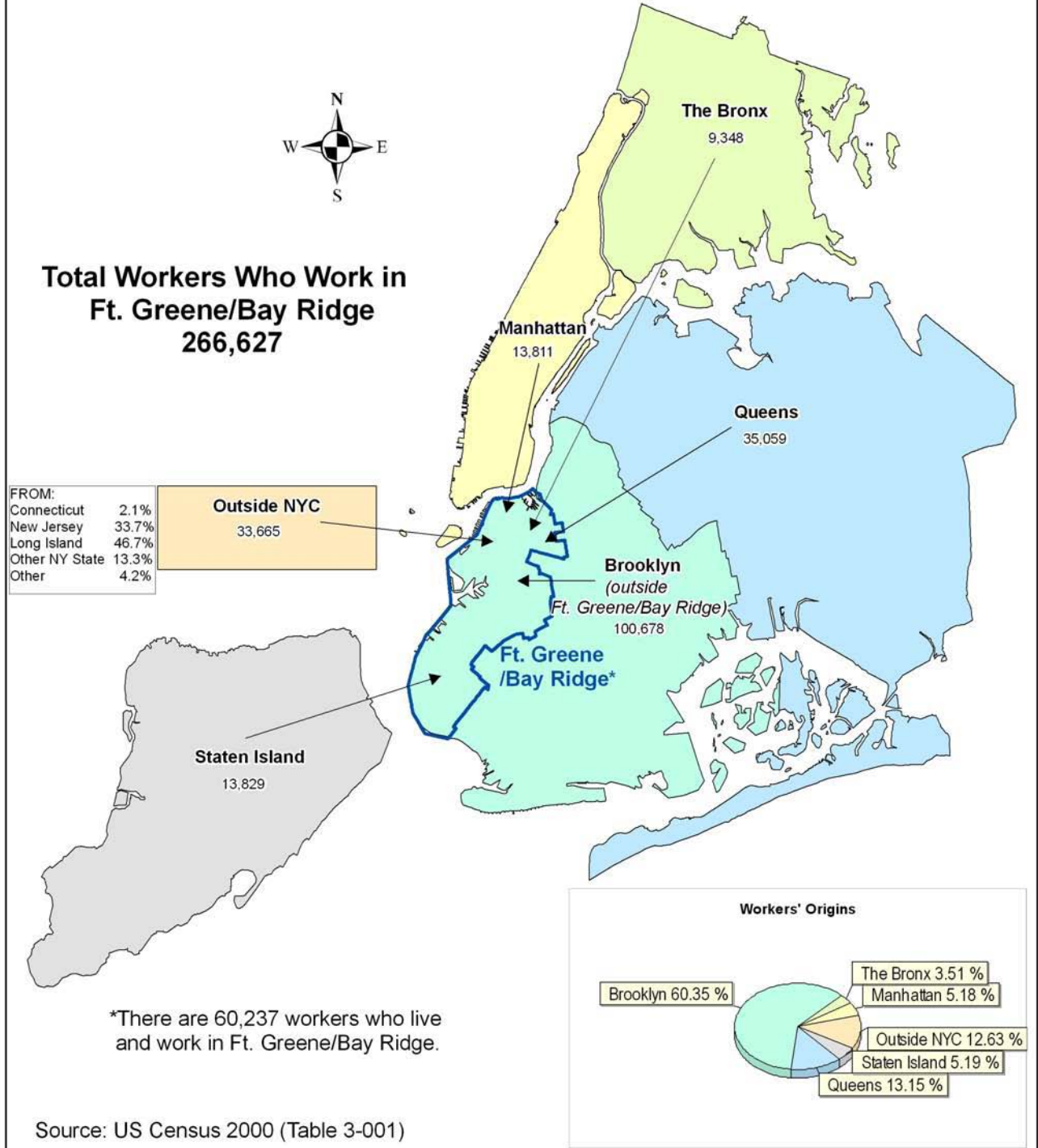




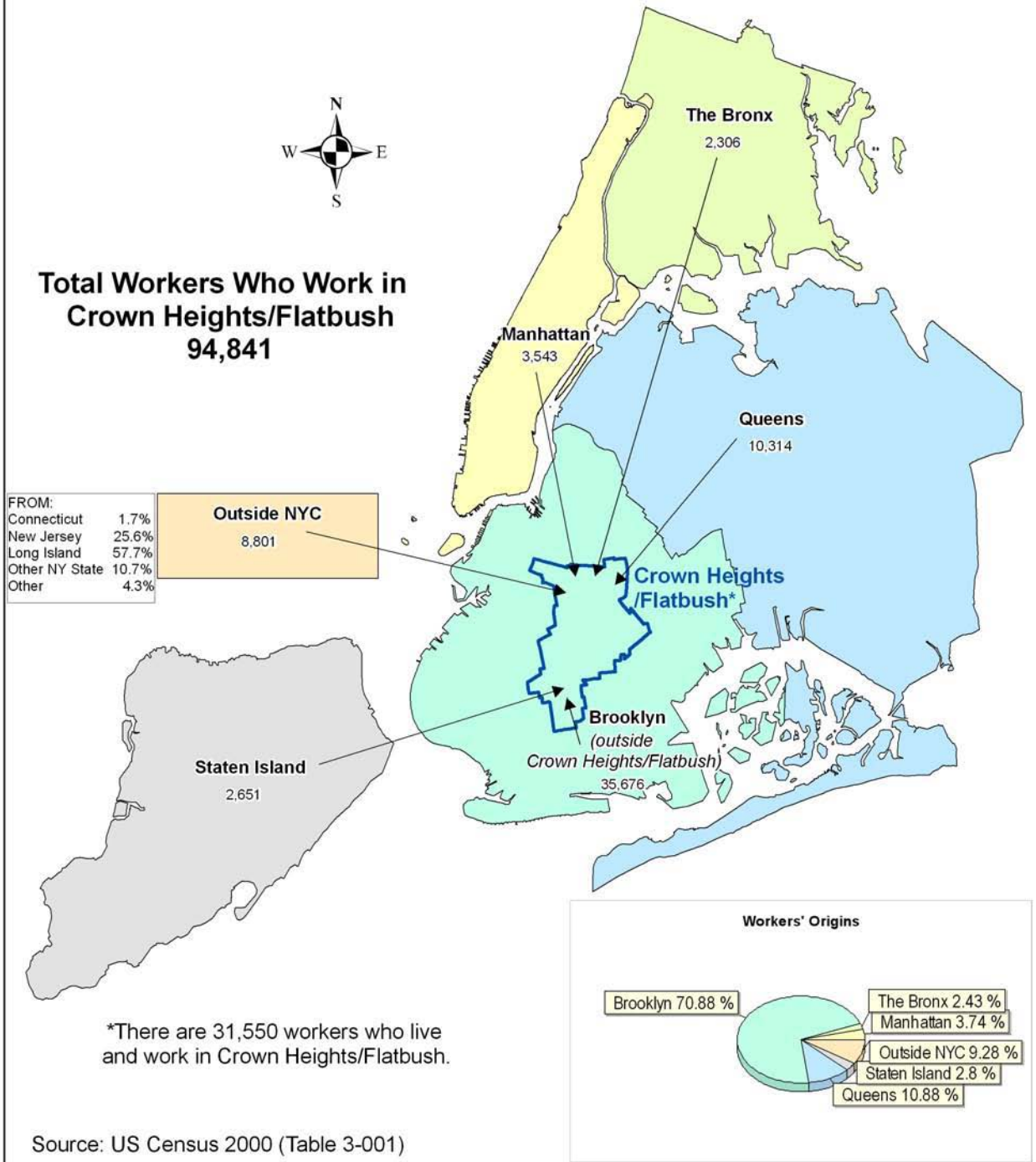
## Workers Who Live Outside Greenpoint/Brownsville and Work In Greenpoint/Brownsville



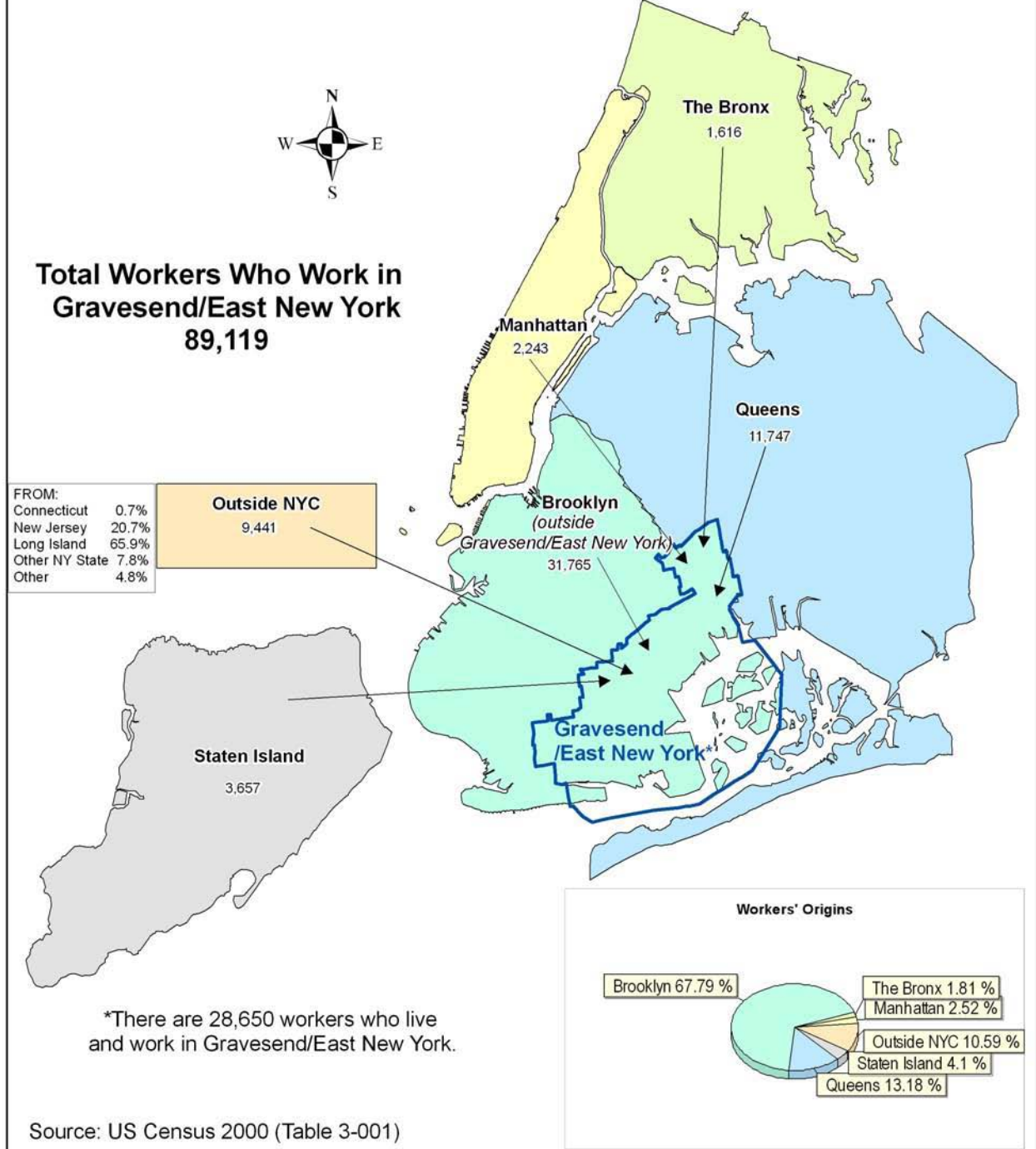
## Workers Who Live Outside Ft. Greene/Bay Ridge and Work In Ft. Greene/Bay Ridge



## Workers Who Live Outside Crown Heights/Flatbush and Work In Crown Heights/Flatbush

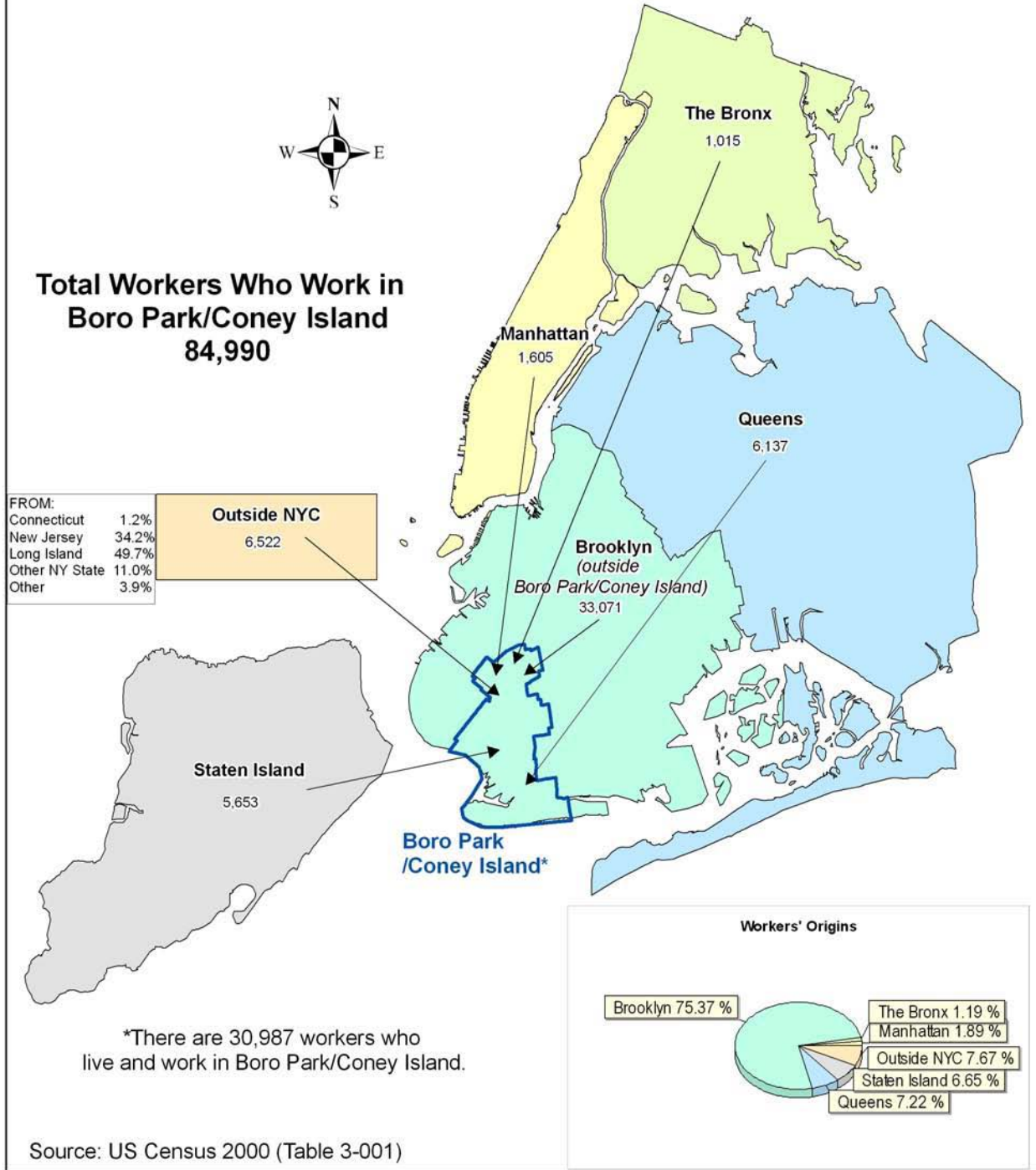


## Workers Who Live Outside Gravesend/East New York and Work In Gravesend/East New York

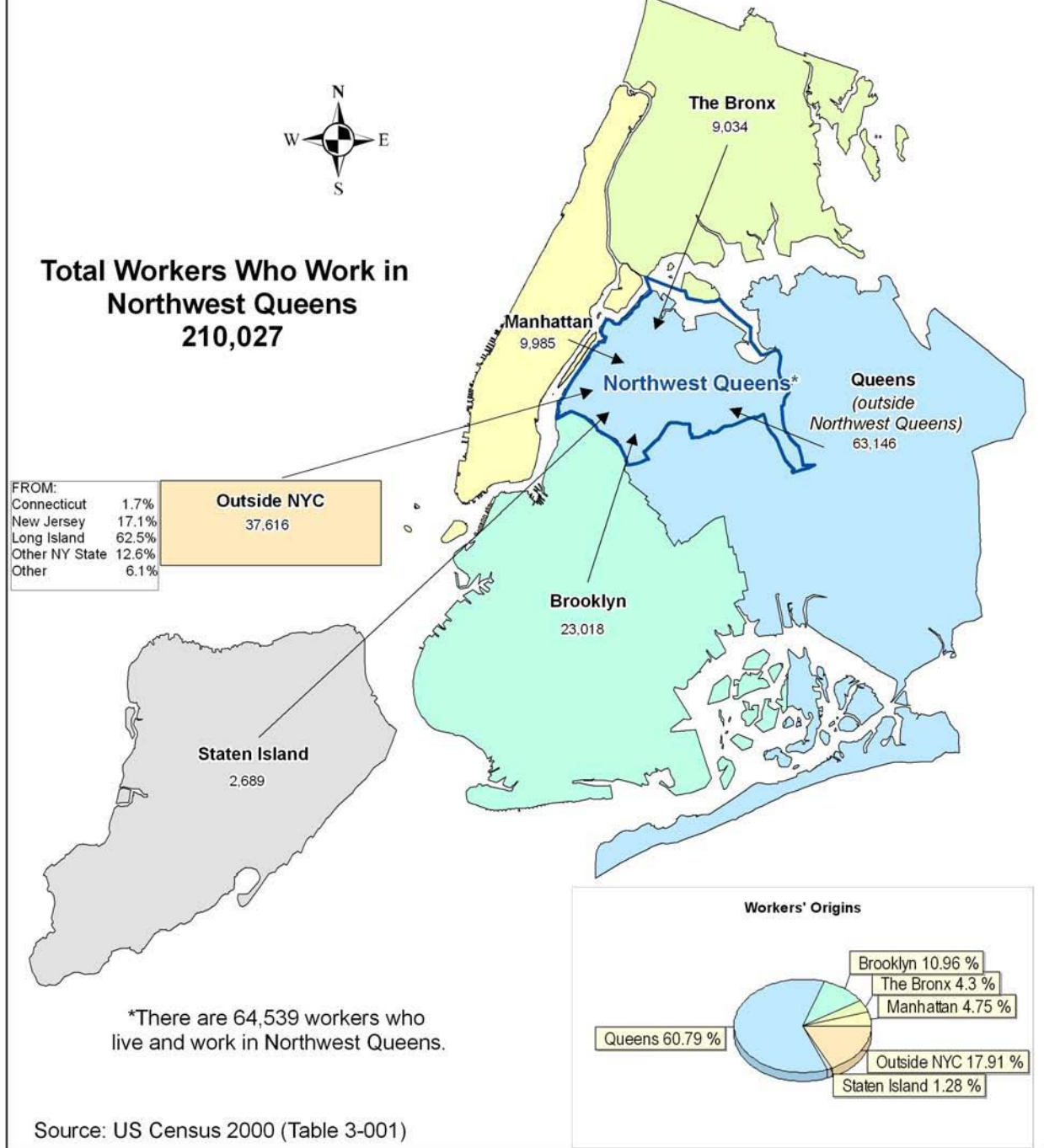




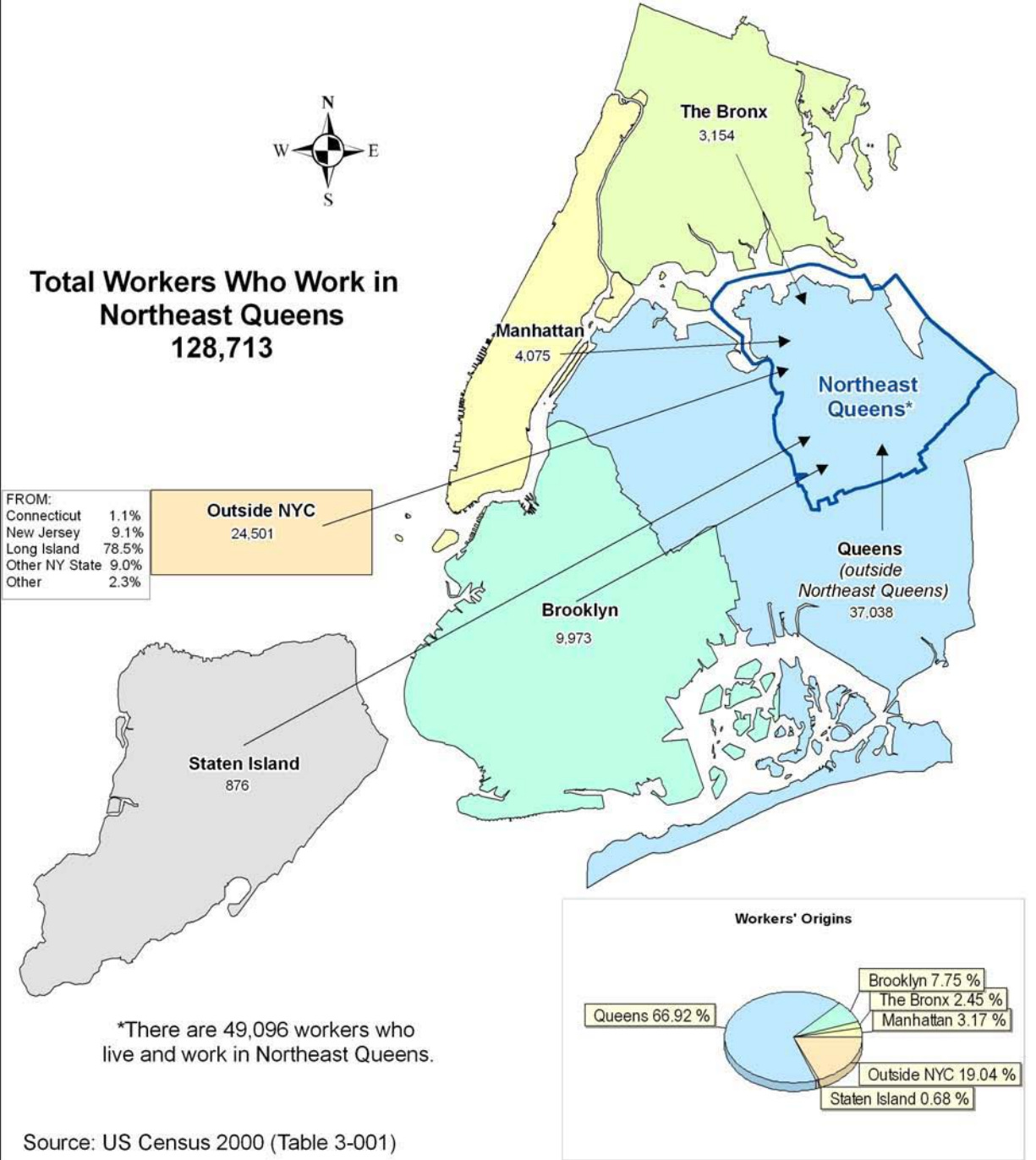
## Workers Who Live Outside Boro Park/Coney Island and Work In Boro Park/Coney Island



## Workers Who Live Outside Northwest Queens and Work In Northwest Queens



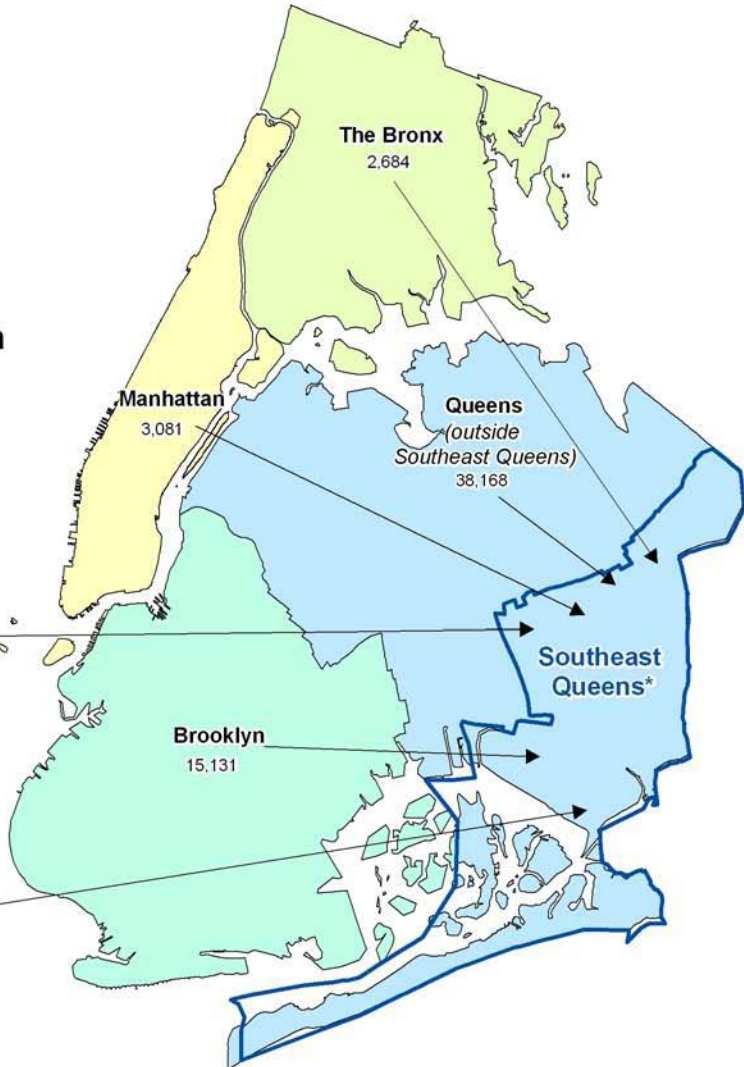
## Workers Who Live Outside Northeast Queens and Work In Northeast Queens



# Workers Who Live Outside Southeast Queens and Work In Southeast Queens



**Total Workers Who Work in Southeast Queens**  
**140,852**



FROM:

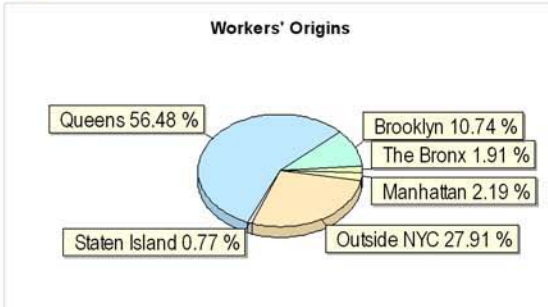
Connecticut	1.9%
New Jersey	5.5%
Long Island	81.2%
Other NY State	4.6%
Other	6.8%

**Outside NYC**  
39,306



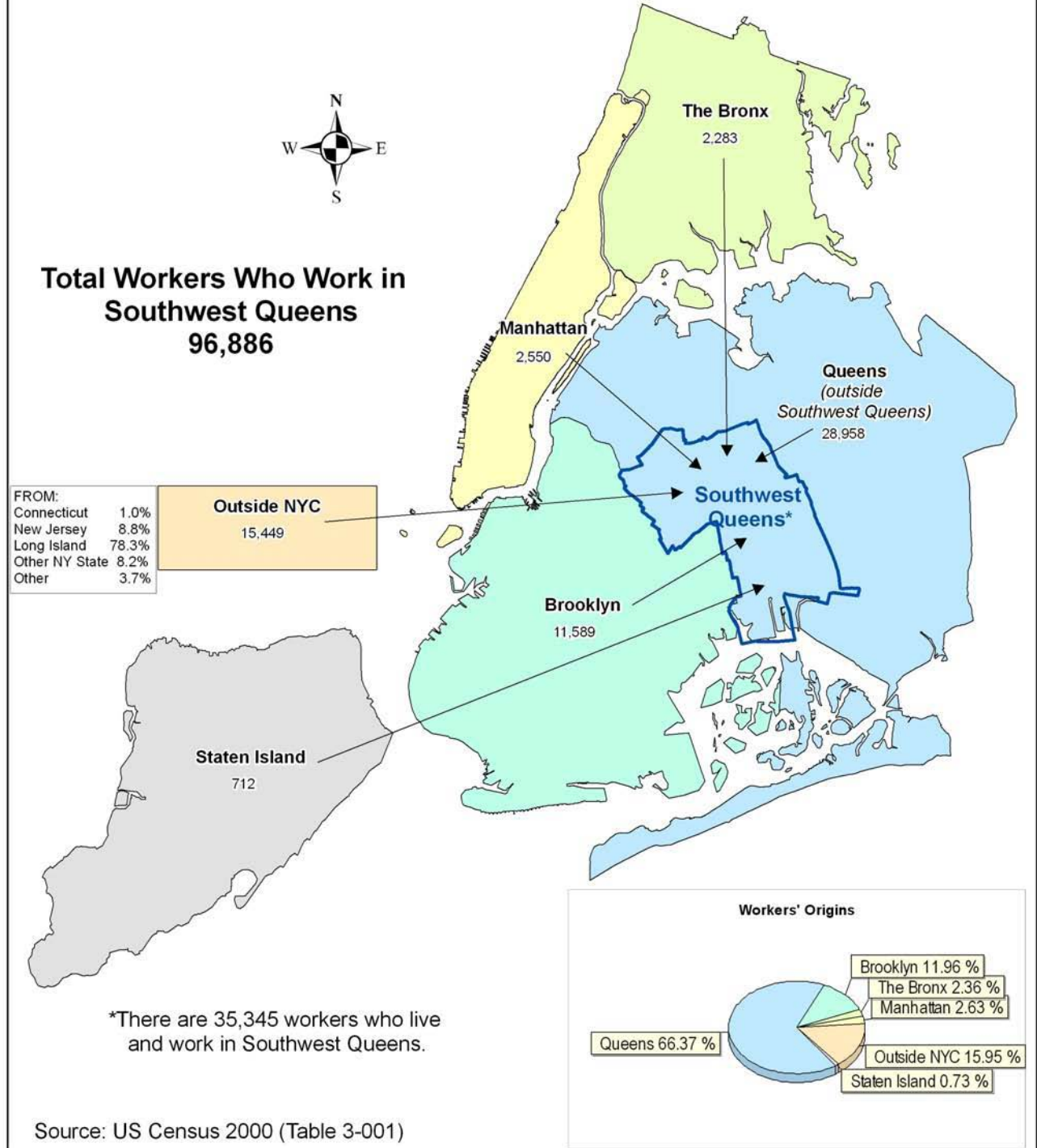
\*There are 41,391 workers who live and work in Southeast Queens.

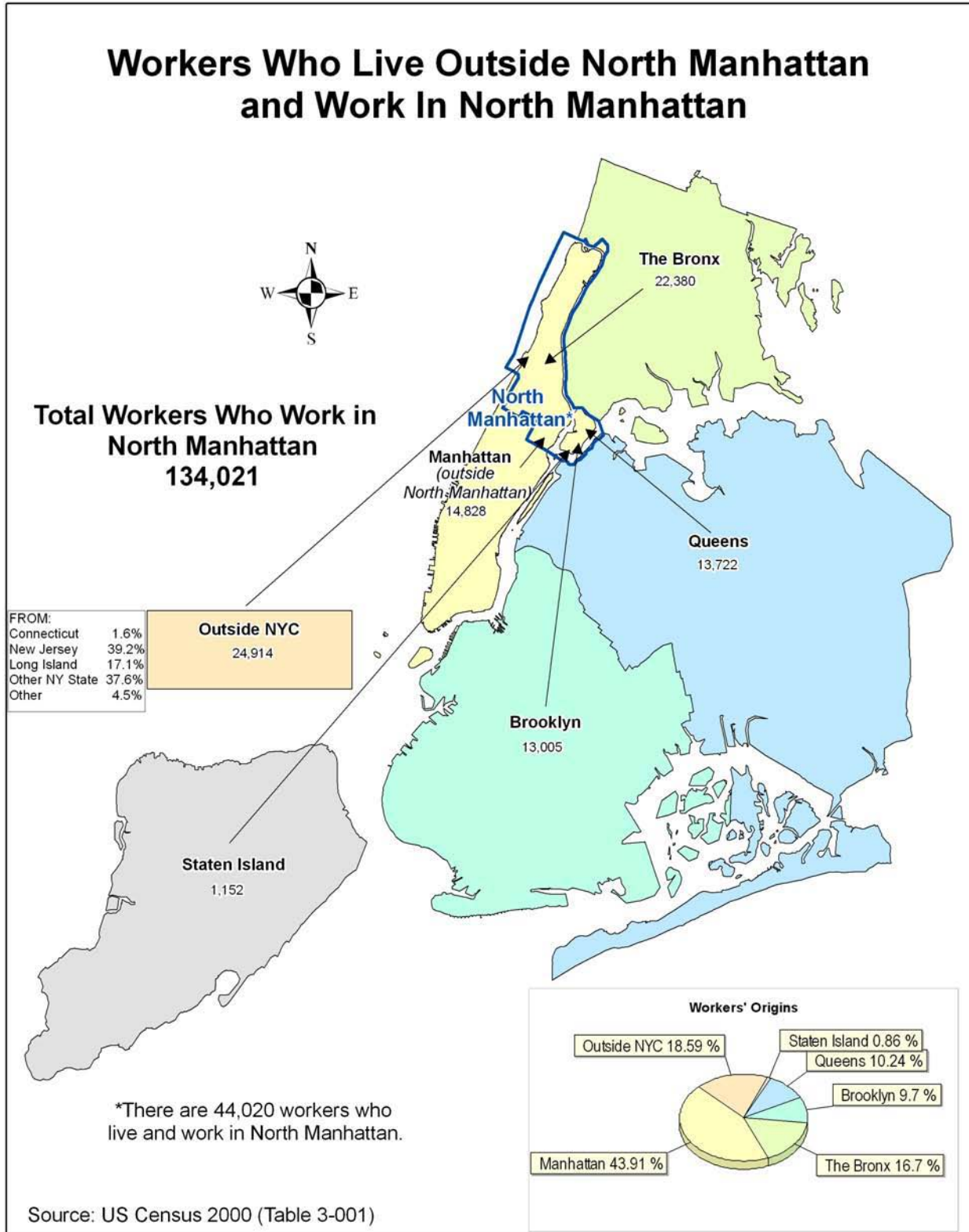
Source: US Census 2000 (Table 3-001)



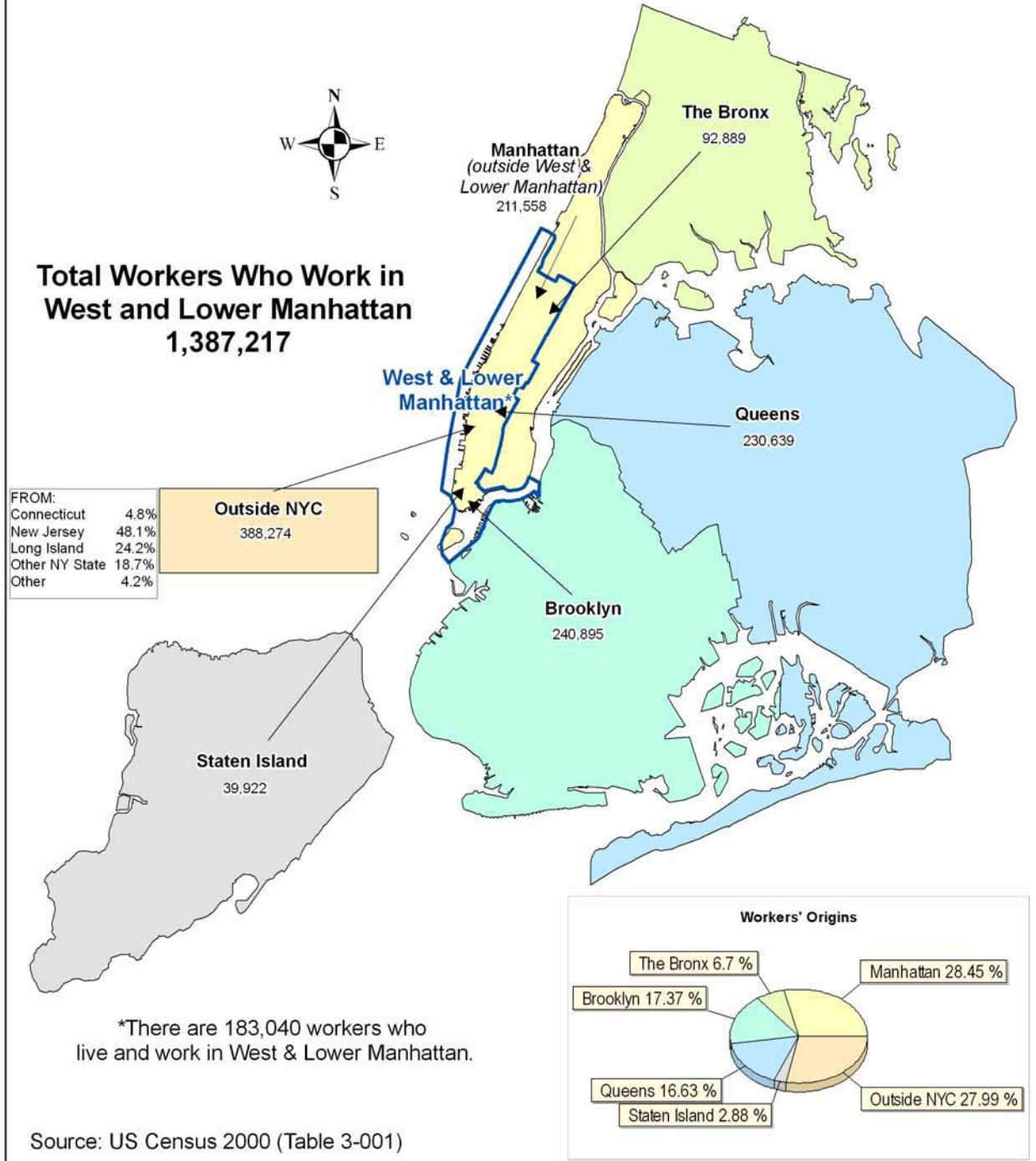


## Workers Who Live Outside Southwest Queens and Work In Southwest Queens

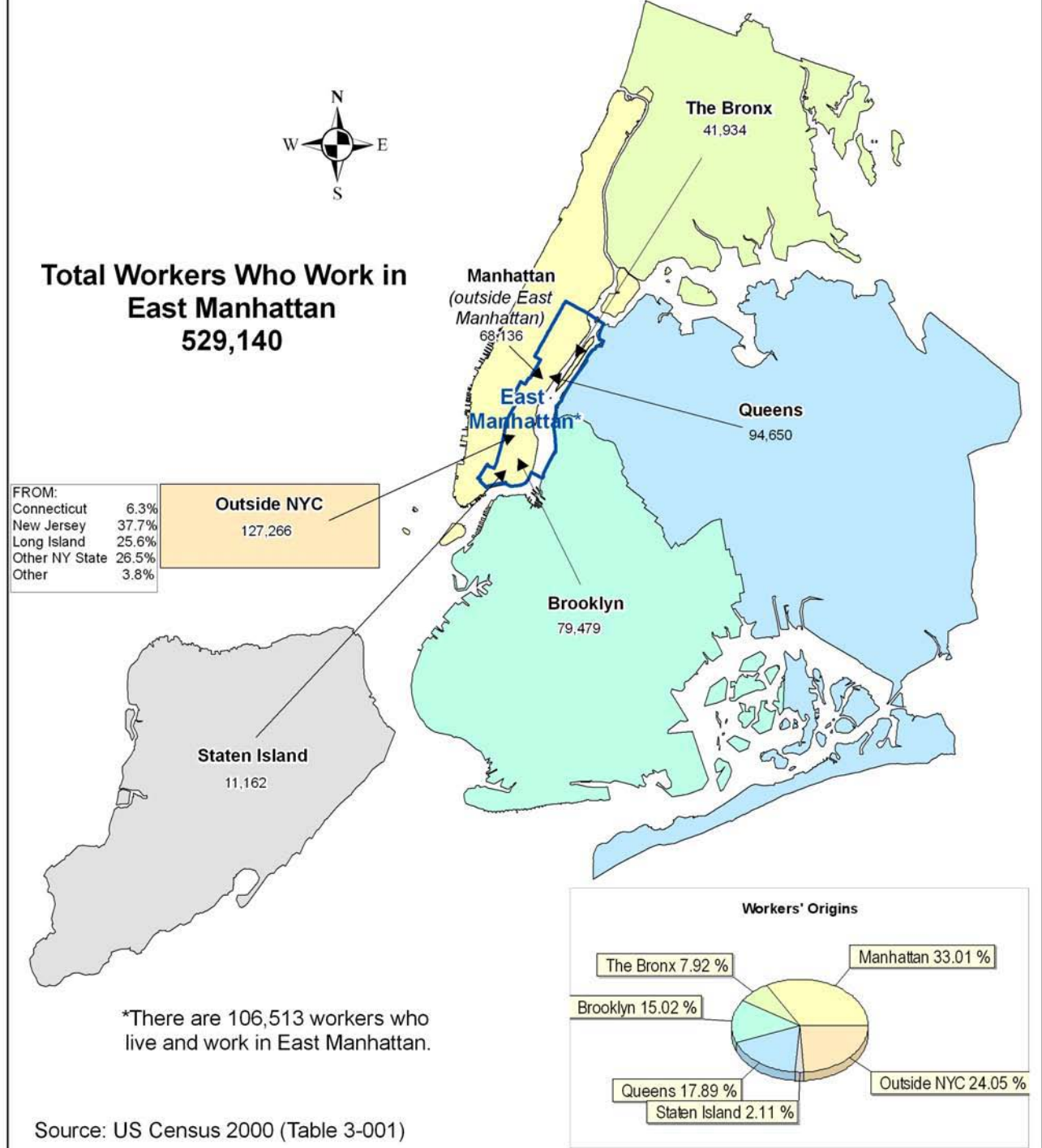




## Workers Who Live Outside West & Lower Manhattan and Work In West & Lower Manhattan



## Workers Who Live Outside East Manhattan and Work In East Manhattan





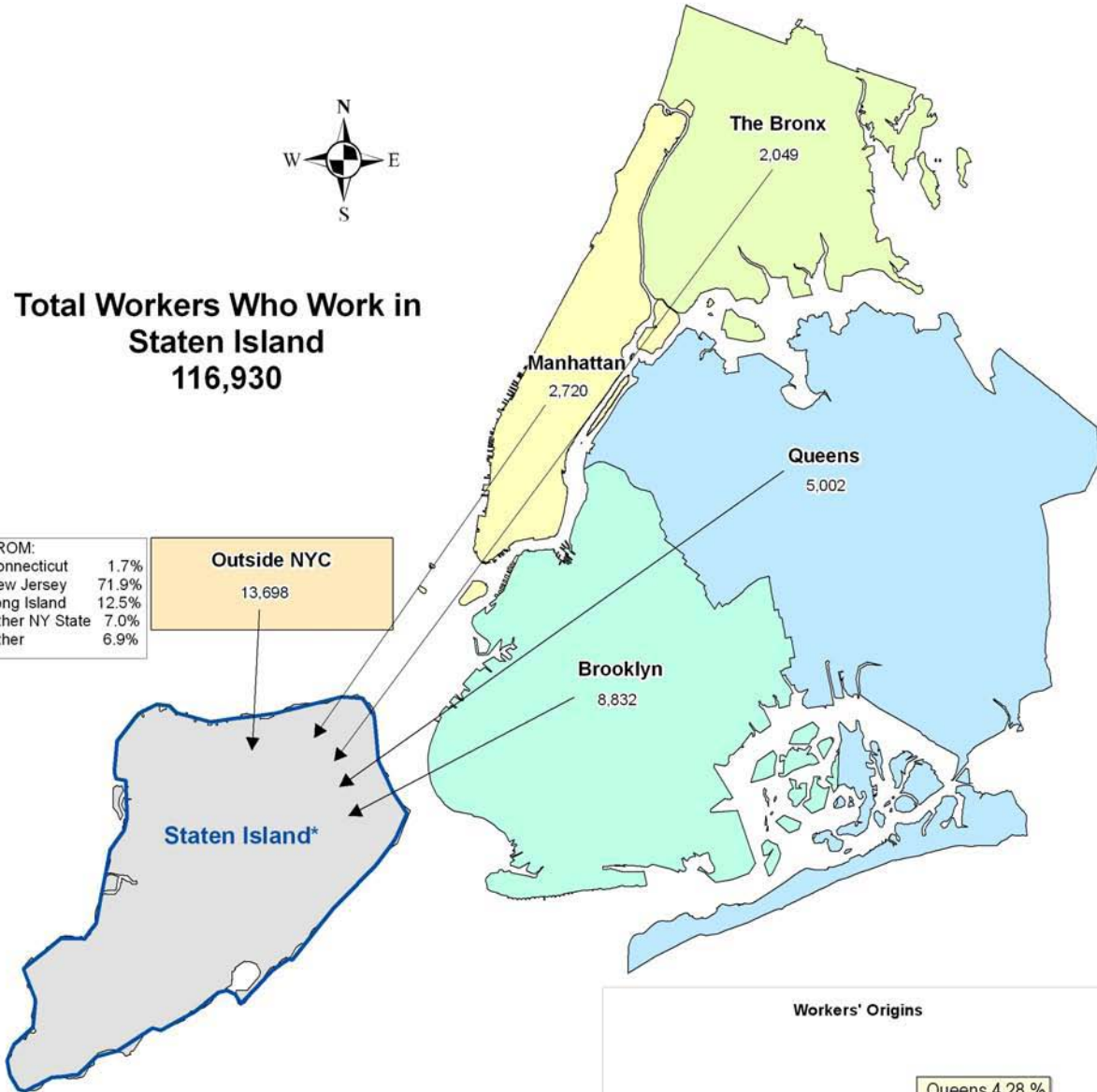
## Workers Who Live Outside Staten Island and Work In Staten Island



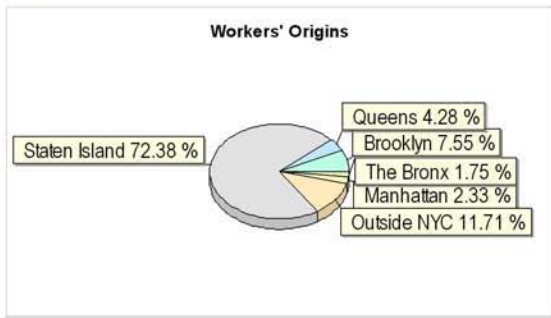
**Total Workers Who Work in Staten Island**  
**116,930**

FROM:	
Connecticut	1.7%
New Jersey	71.9%
Long Island	12.5%
Other NY State	7.0%
Other	6.9%

**Outside NYC**  
13,698



\*There are 84,629 workers who live and work in Staten Island.



Source: US Census 2000 (Table 3-001)

# Study Area to Borough Work Trips by NYC Workers

The following Table 6 and Maps 26-40 display the number of workers who travel from their home Study Area to their borough of work. Table 6 shows the outbound travel of workers from each Study Area to NYC boroughs and Outside New York City. The Table highlights that most Study Area residents live and work in the same borough.

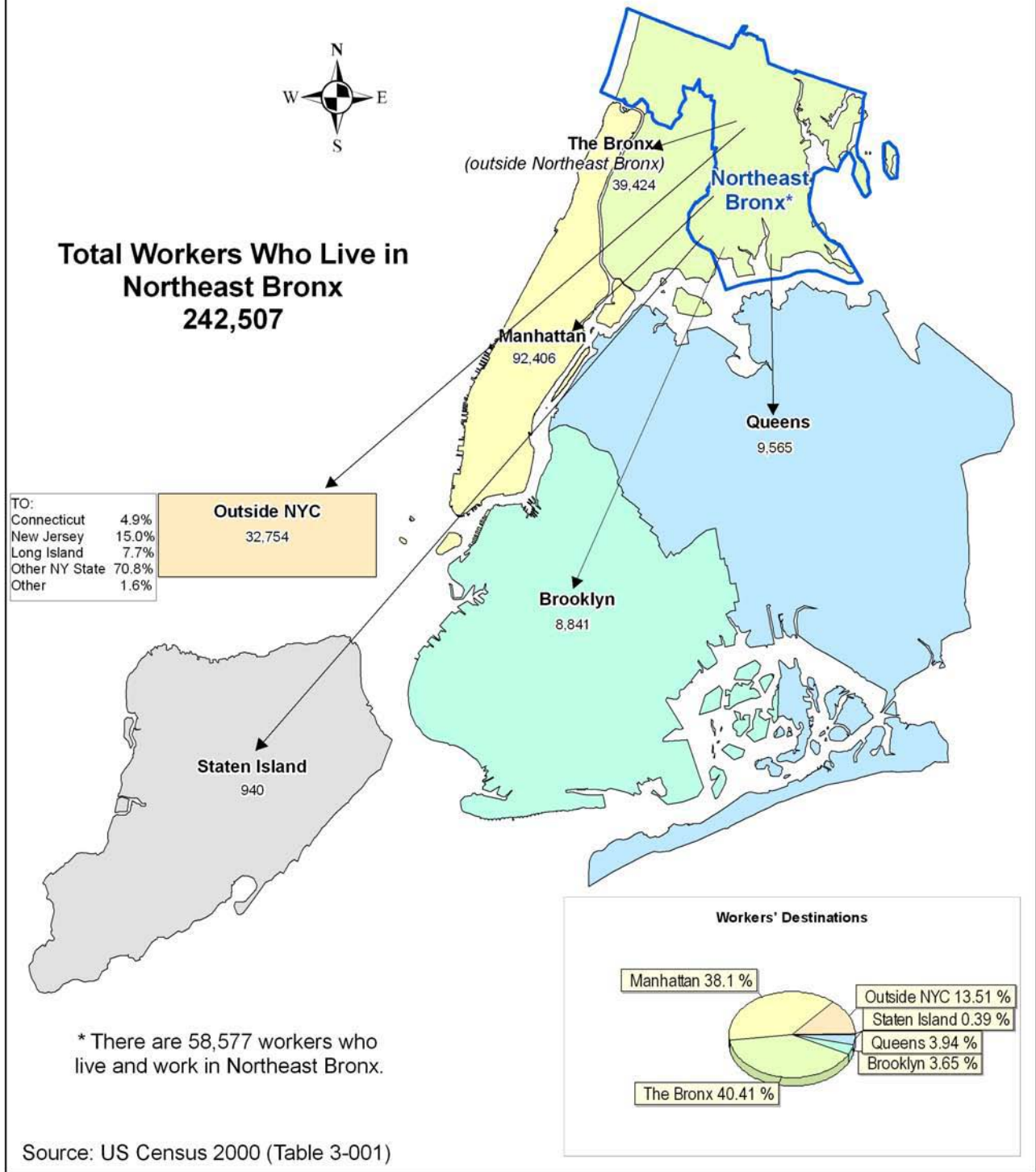
**Table 6. Workers in Each Study Area by Borough of Work**

Origin: Workers by Study Areas of Residence	Destination: Workers' Borough of Work					
	Bronx	Brooklyn	Queens	Staten Island	Manhattan	Outside NYC
<b>Bronx</b>						
91- Northeast	<b>98,001</b>	8,841	9,565	940	92,406	32,754
92- Southwest	<b>70,049</b>	7,931	7,590	1,109	64,797	14,837
Total	168,050	16,772	17,155	2,049	157,203	47,591
<b>Brooklyn</b>						
121- Greenpoint/Brownsville	2,241	<b>68,821</b>	14,099	928	52,230	6,188
122- Ft. Greene/Bay	1,908	<b>86,737</b>	8,391	2,322	100,349	9,361
123- Crown Heights/Flatbush	3,369	<b>95,458</b>	13,887	2,052	73,613	9,541
124- Gravesend/East New York	1,936	<b>90,064</b>	15,748	1,802	56,932	8,558
125- Boro Park/Coney Island	1,359	<b>76,874</b>	7,586	1,728	50,255	7,555
Total	10,813	417,954	59,711	8,832	333,379	41,203
<b>Queens</b>						
111- Northwest	4,617	17,648	<b>97,038</b>	1,399	129,042	15,952
112- Northeast	5,110	13,491	<b>95,030</b>	968	71,250	31,538
113- Southeast	3,938	25,295	<b>80,902</b>	1,332	52,834	35,007
114- Southwest	3,832	27,338	<b>84,711</b>	1,303	85,885	17,628
Total	17,497	83,772	357,681	5,002	339,011	100,125
<b>Manhattan</b>						
101- North	13,300	8,228	7,157	774	<b>139,172</b>	14,999
102- West & Lower	3,199	7,265	5,154	860	<b>233,164</b>	16,214
103- East	3,719	9,561	7,380	1,086	<b>255,759</b>	17,972
Total	20,218	25,054	19,691	2,720	628,095	49,185
<b>Staten Island</b>						
130- Staten Island	1,028	28,173	5,368	<b>84,629</b>	52,236	14,503
Total	1,028	28,173	5,368	84,629	52,236	14,503

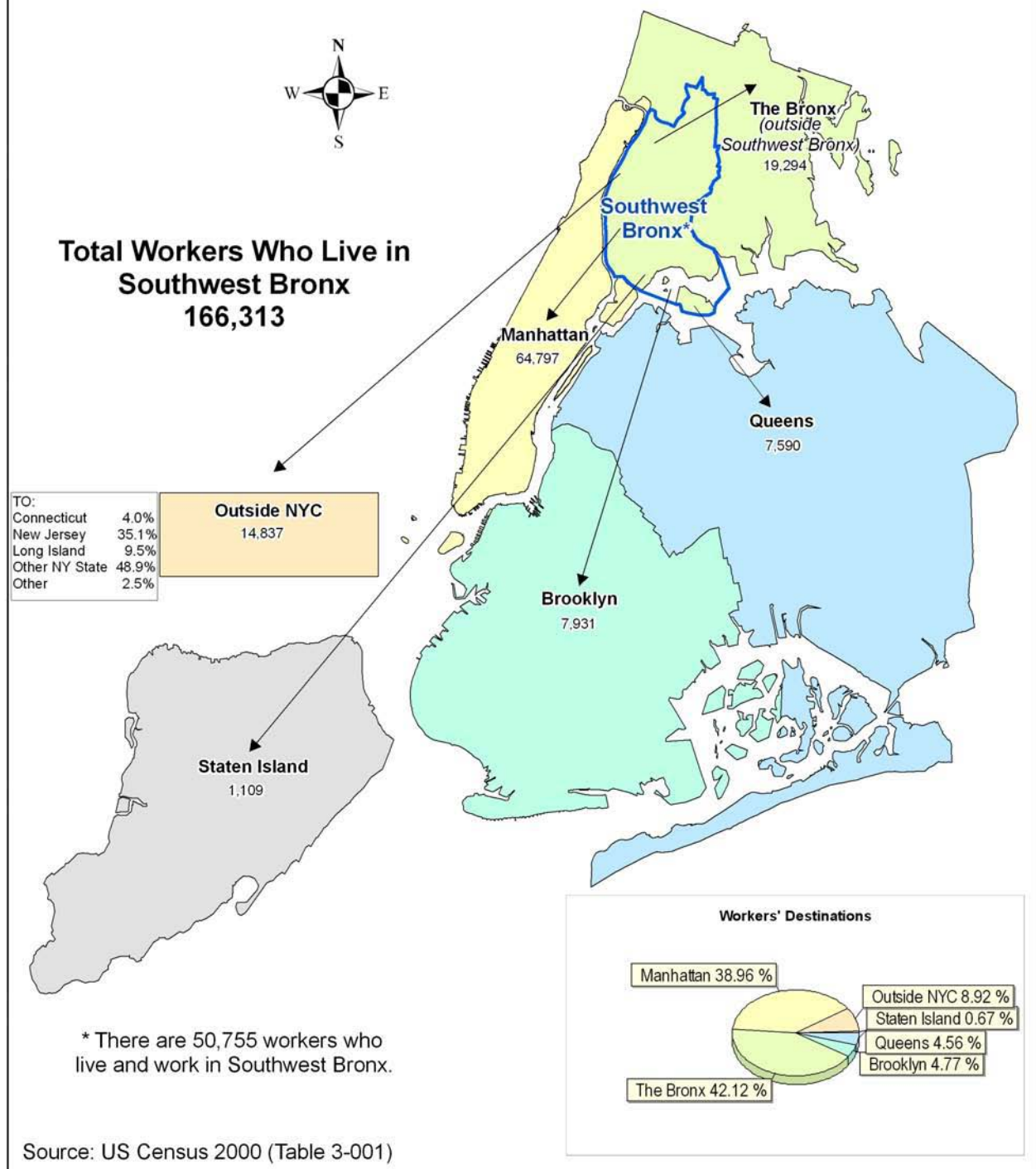
Source: U.S. Census 2000

- Excluding intra-borough and Manhattan trips, workers who live in Northeast and Southwest Bronx and commute to other boroughs are working primarily in Queens and Brooklyn, with a total of 17,155 and 16,772 workers respectively (Map 26, Map 27, and Table 6).
- Bronx workers who live in Staten Island comprised the smallest number of “peripheral” trips, with 1,028 workers (Table 6).

## Workers Who Live In Northeast Bronx and Work Outside Northeast Bronx

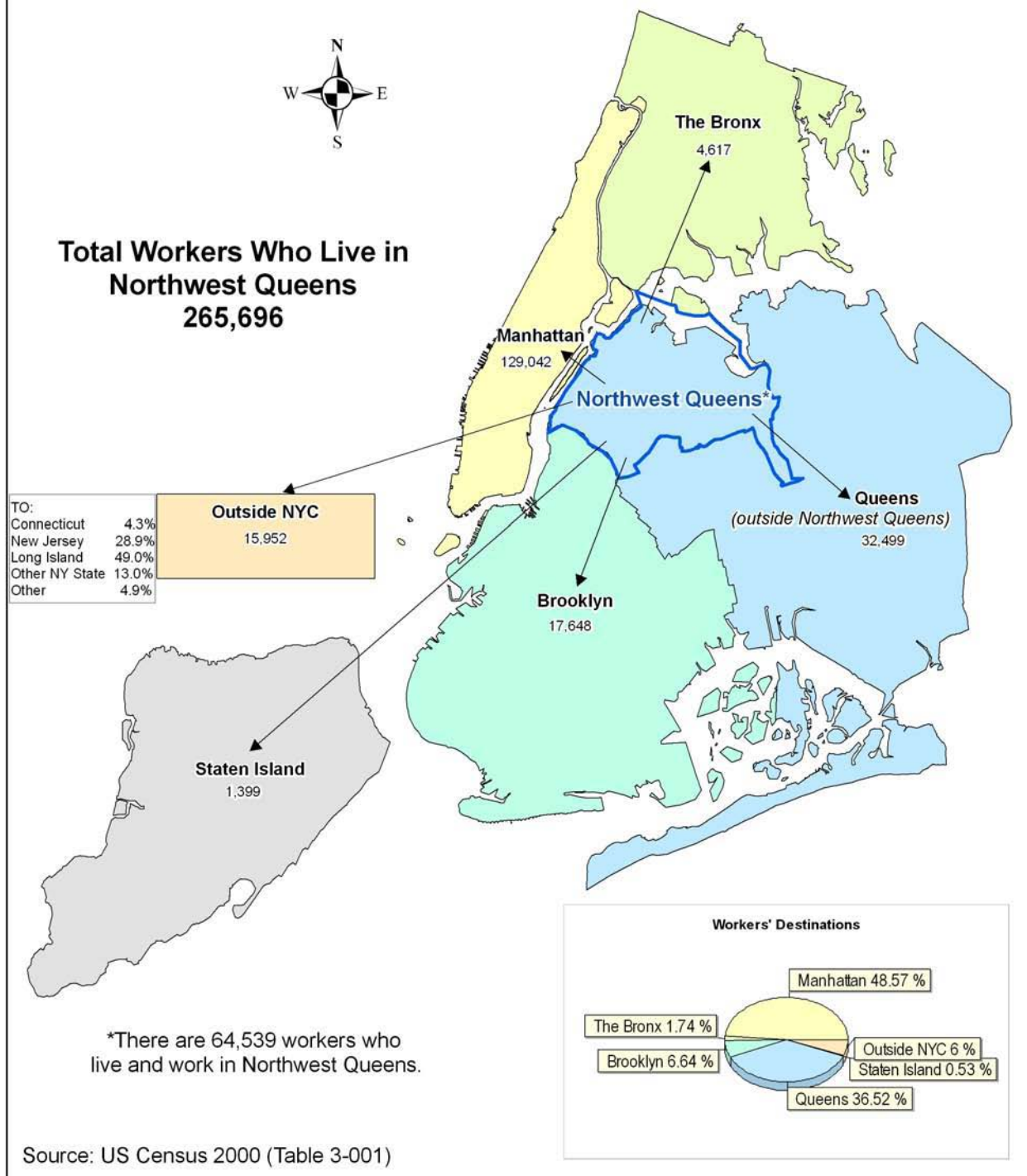


## Workers Who Live In Southwest Bronx and Work Outside Southwest Bronx

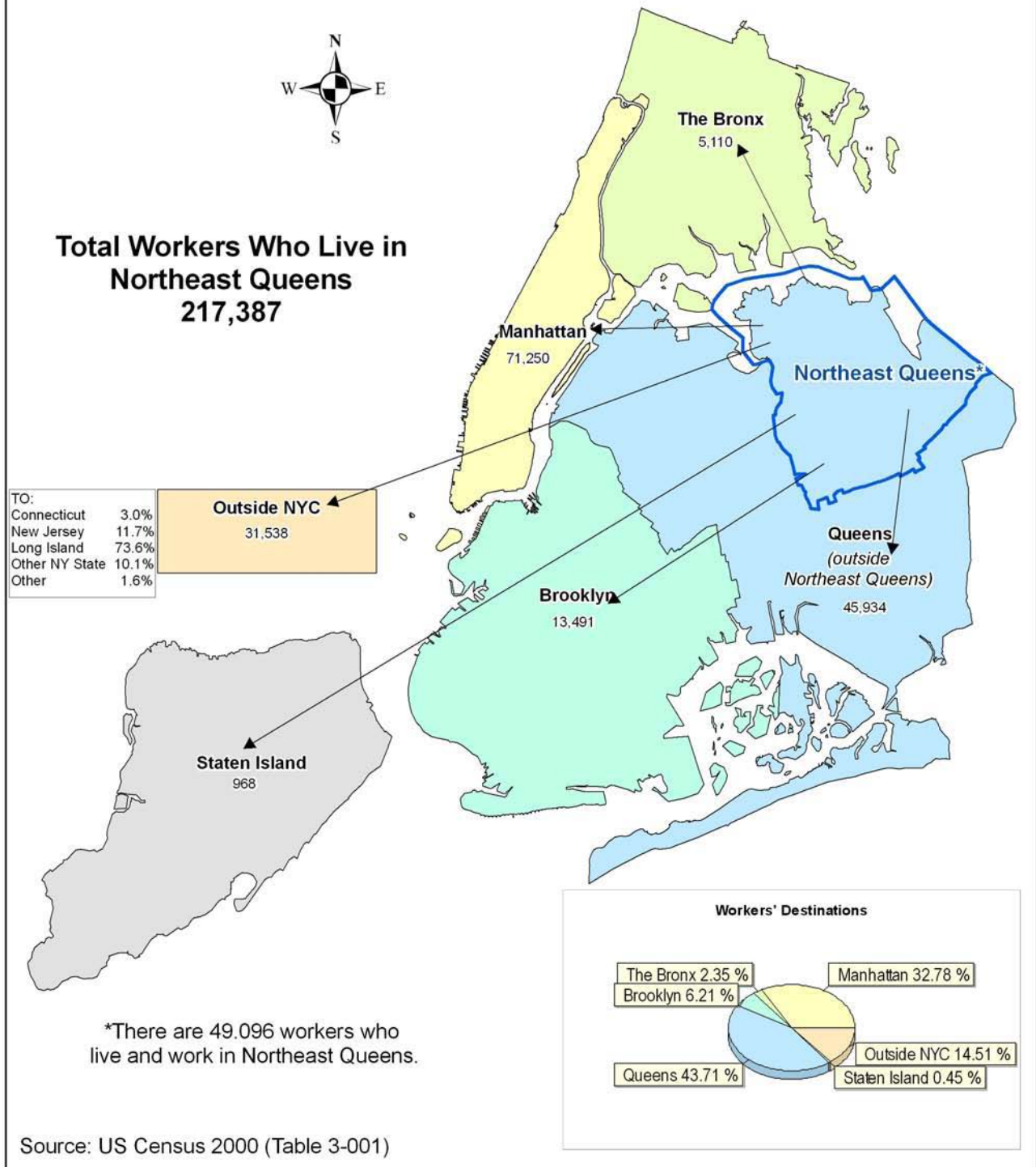




## Workers Who Live in Northwest Queens and Work Outside Northwest Queens



## Workers Who Live In Northeast Queens and Work Outside Northeast Queens



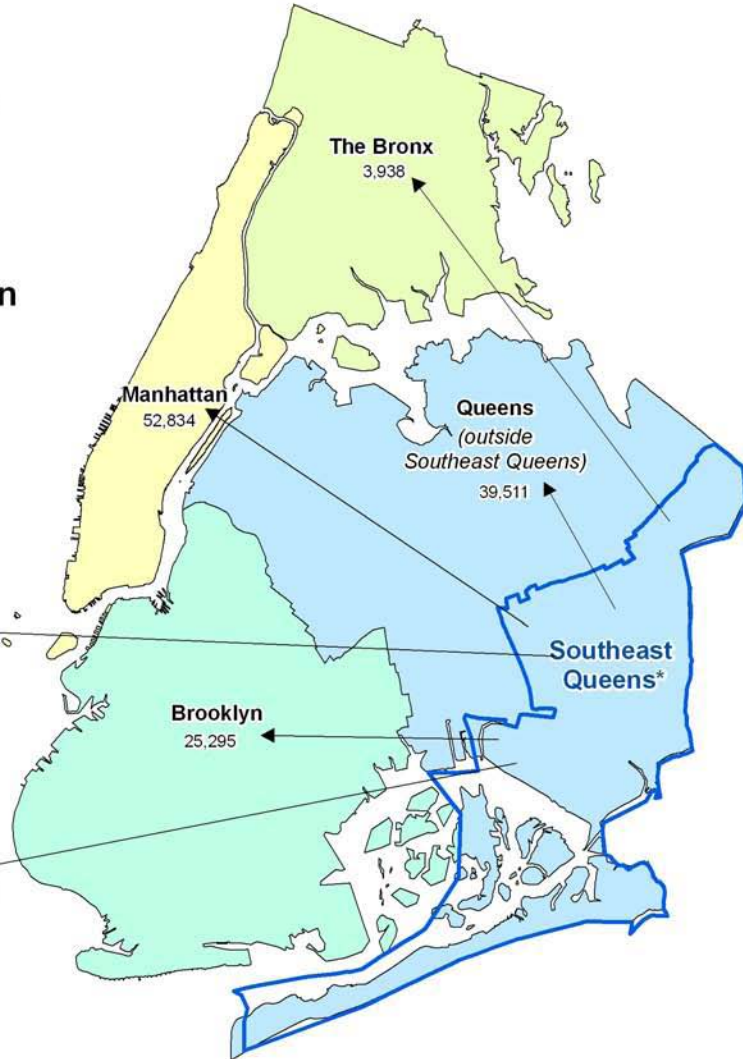
## Workers Who Live In Southeast Queens and Work Outside Southeast Queens



**Total Workers Who Live in Southeast Queens**  
199,308

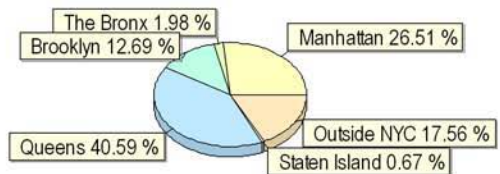
TO:	
Connecticut	0.6%
New Jersey	6.9%
Long Island	85.1%
Other NY State	5.8%
Other	1.5%

**Outside NYC**  
35,007



\*There are 41,391 workers who live and work in Southeast Queens.

**Workers' Destinations**

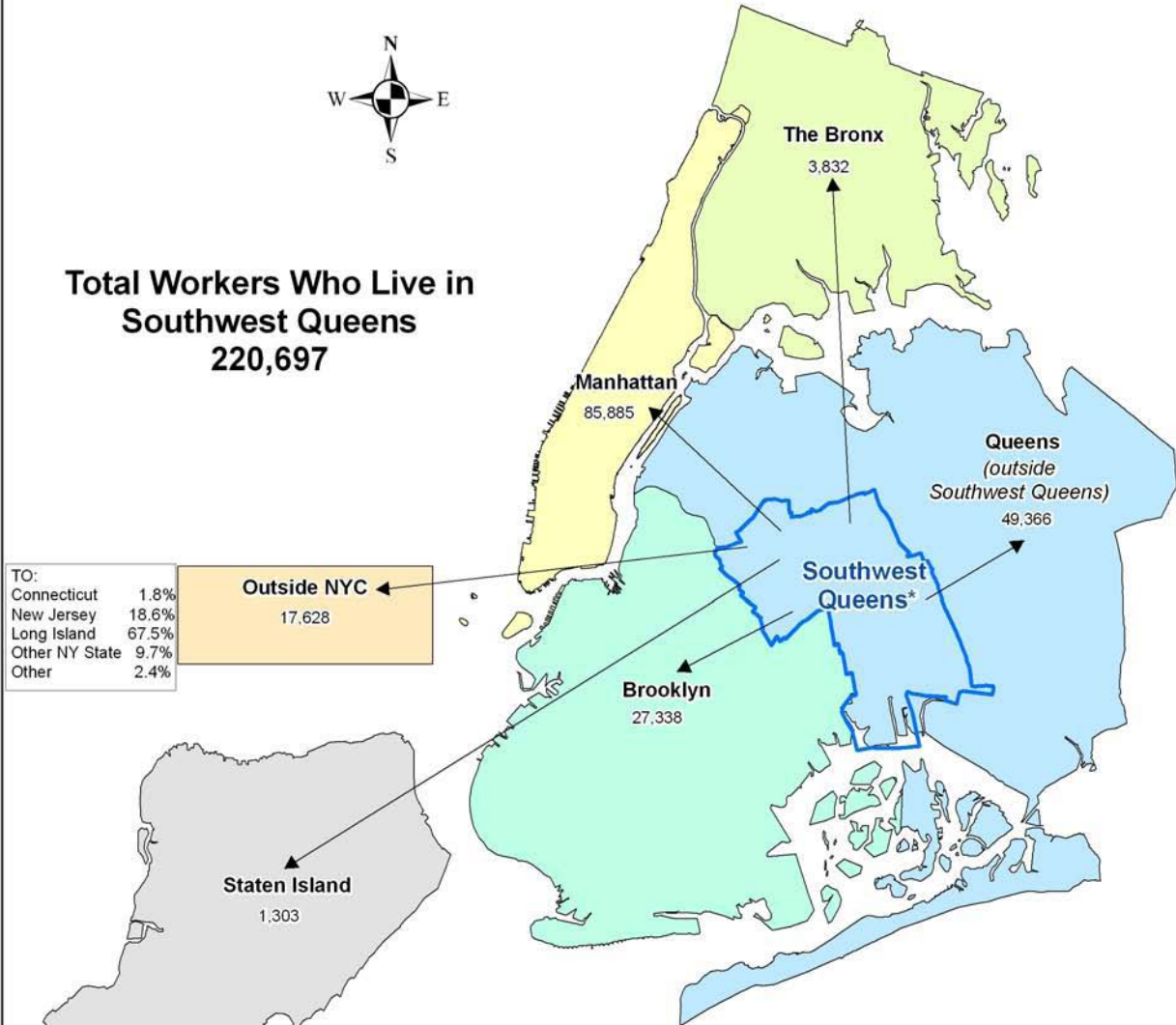


Source: US Census 2000 (Table 3-001)

## Workers Who Live In Southwest Queens and Work Outside Southwest Queens



**Total Workers Who Live in Southwest Queens**  
**220,697**

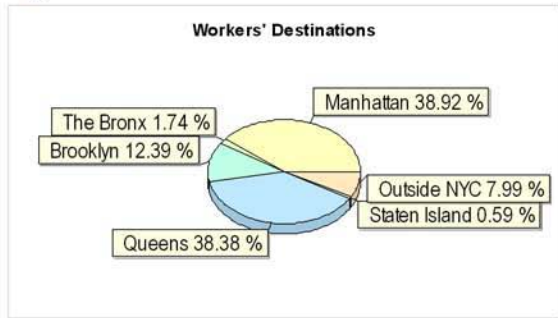


TO:	Percentage
Connecticut	1.8%
New Jersey	18.6%
Long Island	67.5%
Other NY State	9.7%
Other	2.4%

**Outside NYC**  
17,628

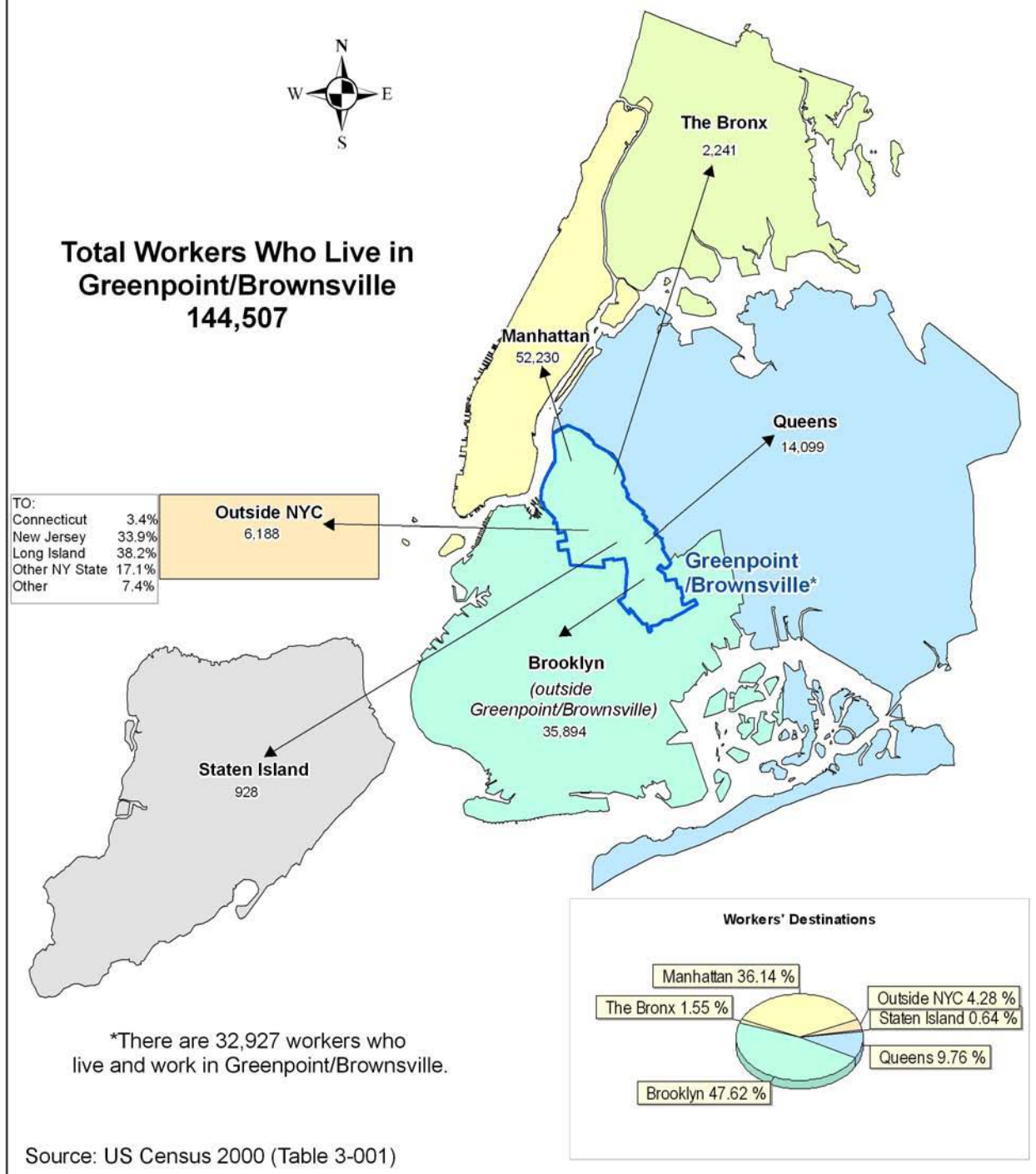
\*There are 35,345 workers who live and work in Southwest Queens.

Source: US Census 2000 (Table 3-001)





## Workers Who Live In Greenpoint/Brownsville and Work Outside Greenpoint/Brownsville



## Workers Who Live In Ft. Greene/Bay Ridge and Work Outside Ft. Greene/Bay Ridge



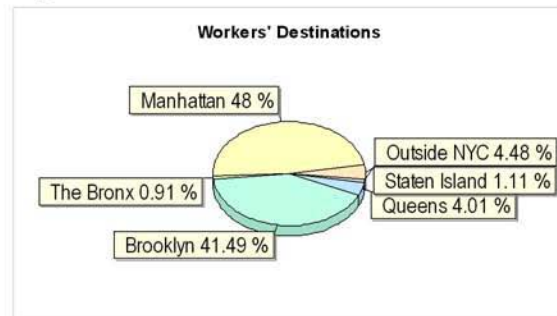
**Total Workers Who Live in Ft. Greene/Bay Ridge**  
209,068

TO:	
Connecticut	4.8%
New Jersey	43.6%
Long Island	28.0%
Other NY State	12.1%
Other	11.5%

**Outside NYC**  
9,361



\*There are 60,237 workers who live and work in Ft. Greene/Bay Ridge.



Source: US Census 2000 (Table 3-001)

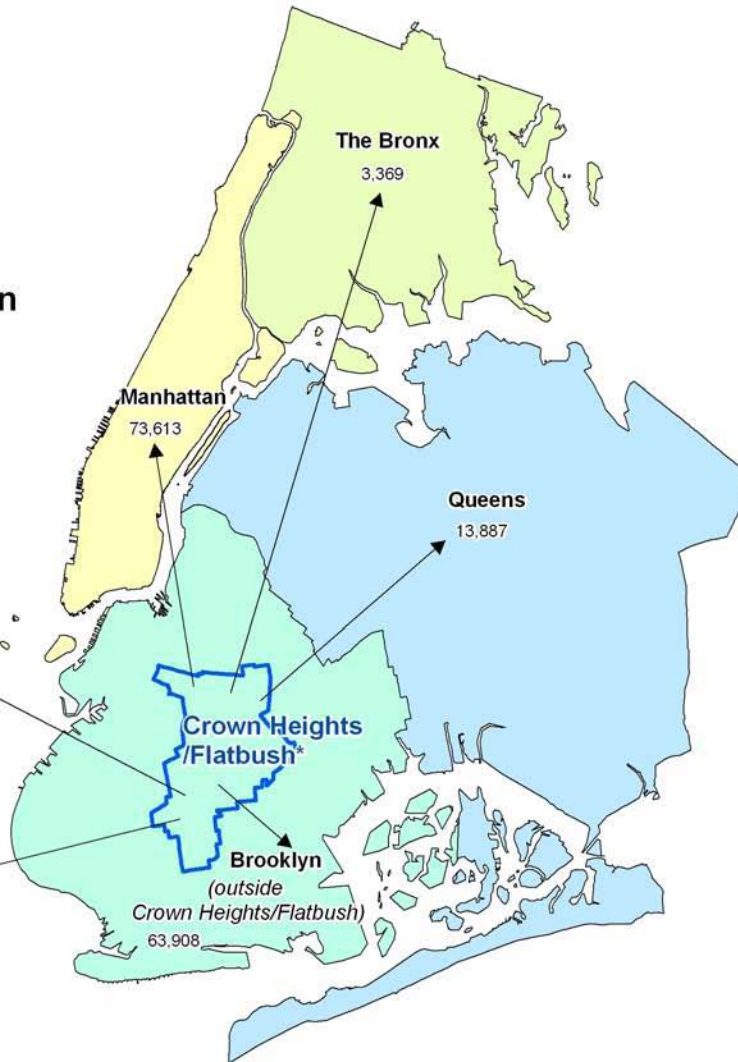
## Workers Who Live In Crown Heights/Flatbush and Work Outside Crown Heights/Flatbush



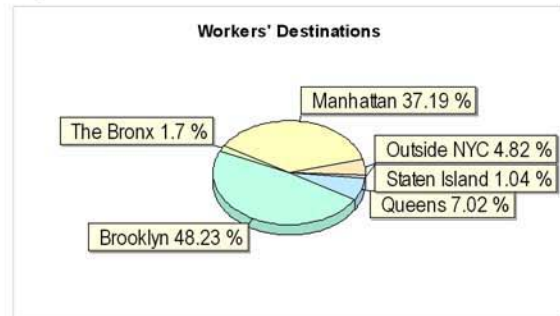
**Total Workers Who Live in Crown Heights/Flatbush**  
197,920

TO:	
Connecticut	2.4%
New Jersey	41.1%
Long Island	37.5%
Other NY State	13.4%
Other	5.7%

**Outside NYC**  
9,541



\*There are 31,550 workers who live and work in Crown Heights/Flatbush.



Source: US Census 2000 (Table 3-001)

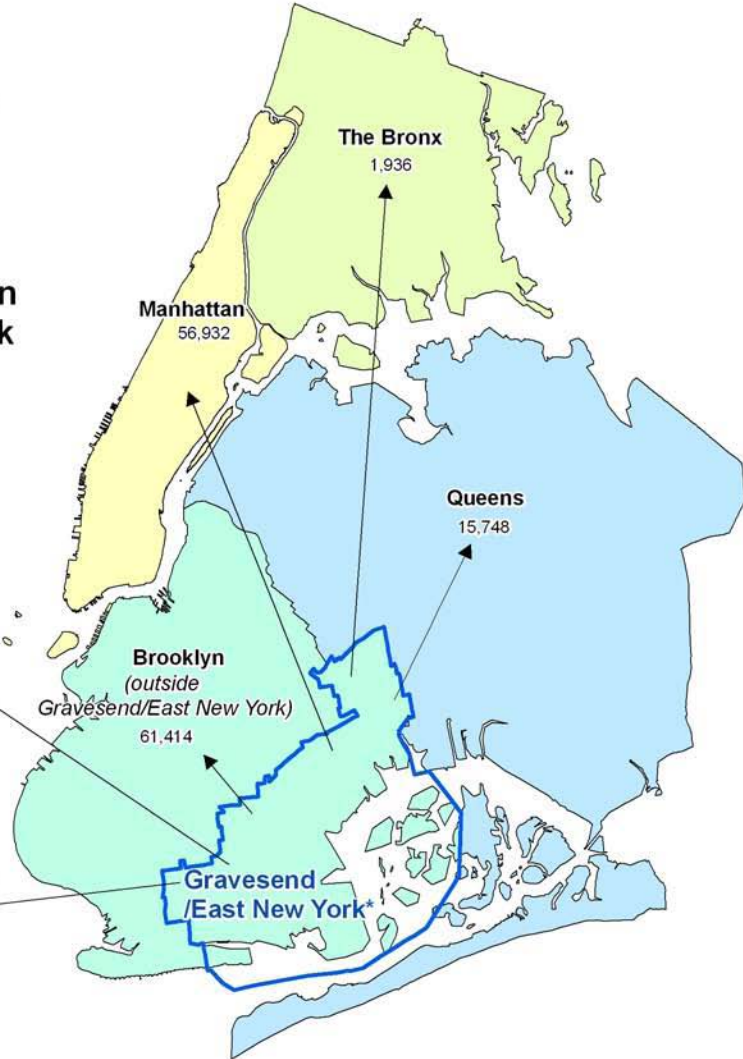
## Workers Who Live In Gravesend/East New York and Work Outside Gravesend/East New York



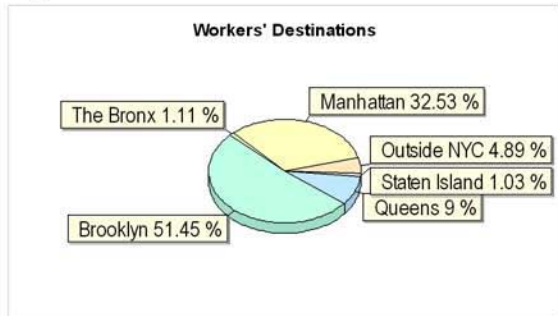
**Total Workers Who Live in Gravesend/East New York  
175,040**

TO:	
Connecticut	2.0%
New Jersey	32.4%
Long Island	50.1%
Other NY State	10.9%
Other	4.6%

**Outside NYC  
8,558**



\*There are 28,650 workers who live and work in Gravesend/East New York.



Source: US Census 2000 (Table 3-001)



## Workers Who Live In Boro Park/Coney Island and Work Outside Boro Park/Coney Island



**Total Workers Who Live in Boro Park/Coney Island**  
**145,357**

TO:	
Connecticut	2.1%
New Jersey	55.0%
Long Island	31.1%
Other NY State	9.4%
Other	2.4%

**Outside NYC**  
7,555

**Staten Island**  
1,728

**Boro Park /Coney Island\***

**The Bronx**  
1,359

**Queens**  
7,586

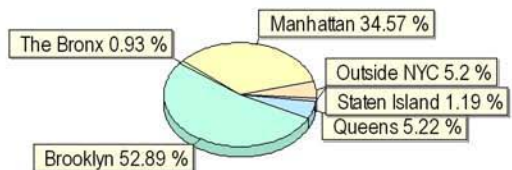
**Manhattan**  
50,255

**Brooklyn**  
*(outside Boro Park/Coney Island)*  
45,887

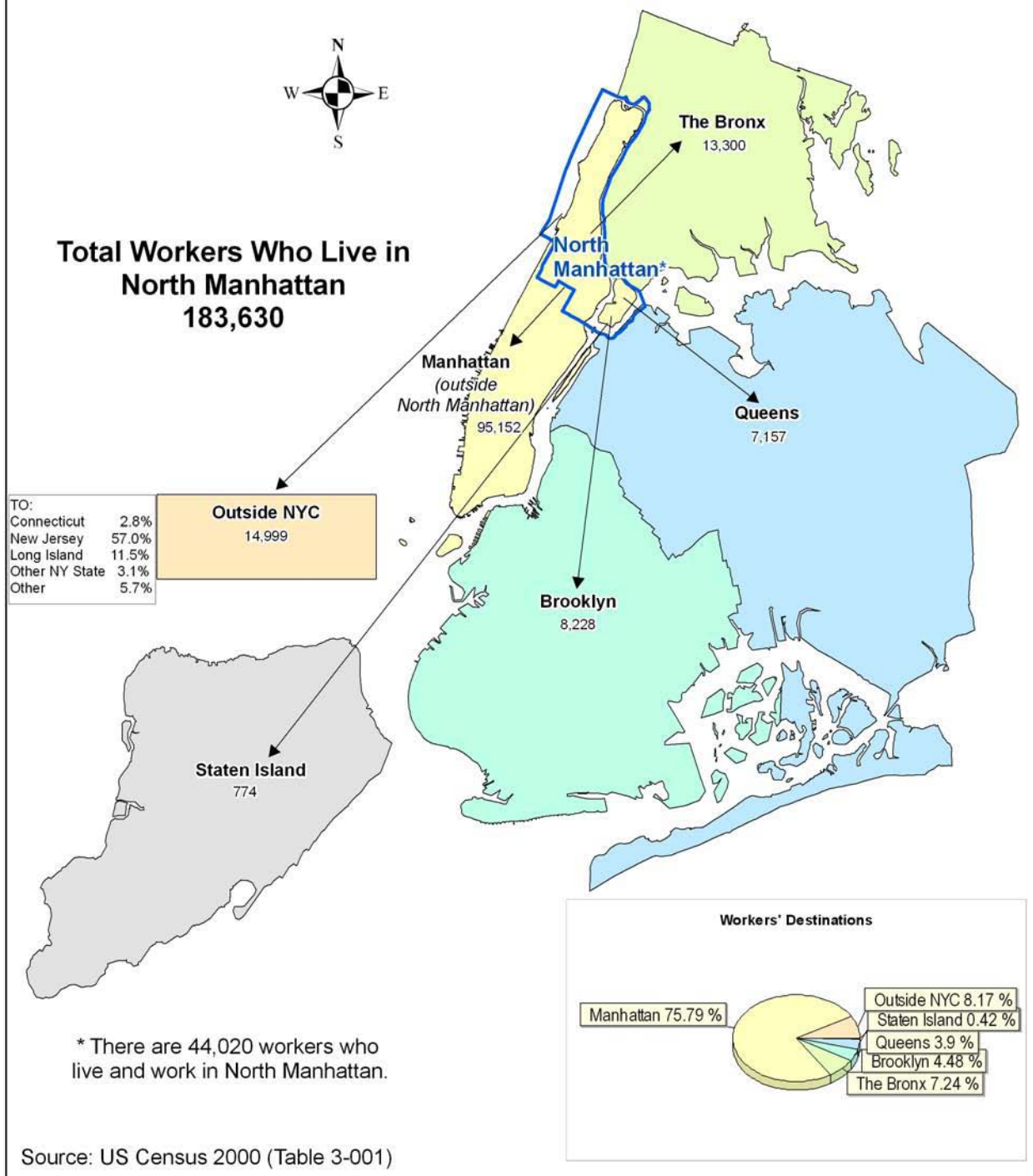
\*There are 30,987 workers who live and work in Boro Park/Coney Island.

Source: US Census 2000 (Table 3-001)

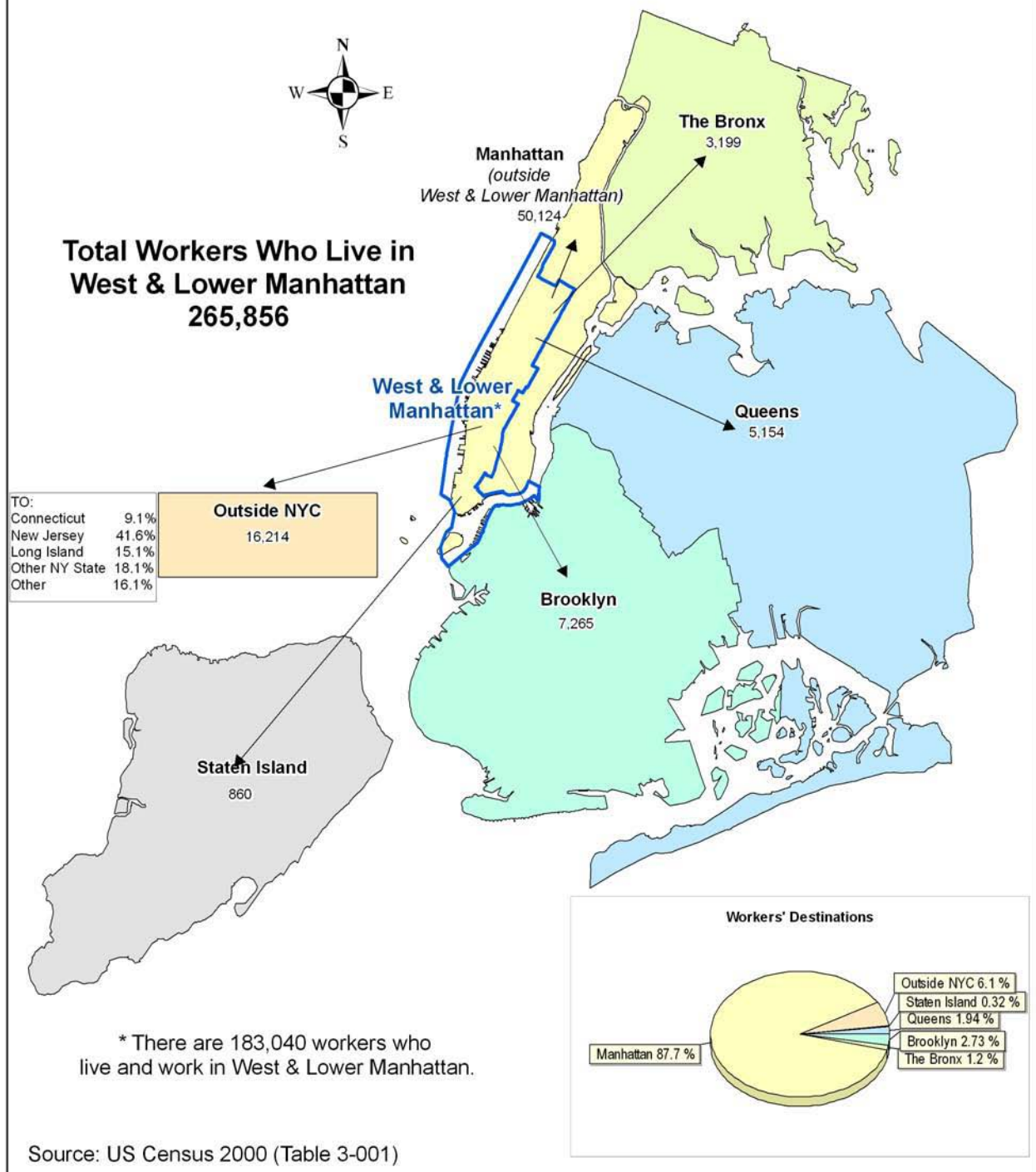
**Workers' Destinations**



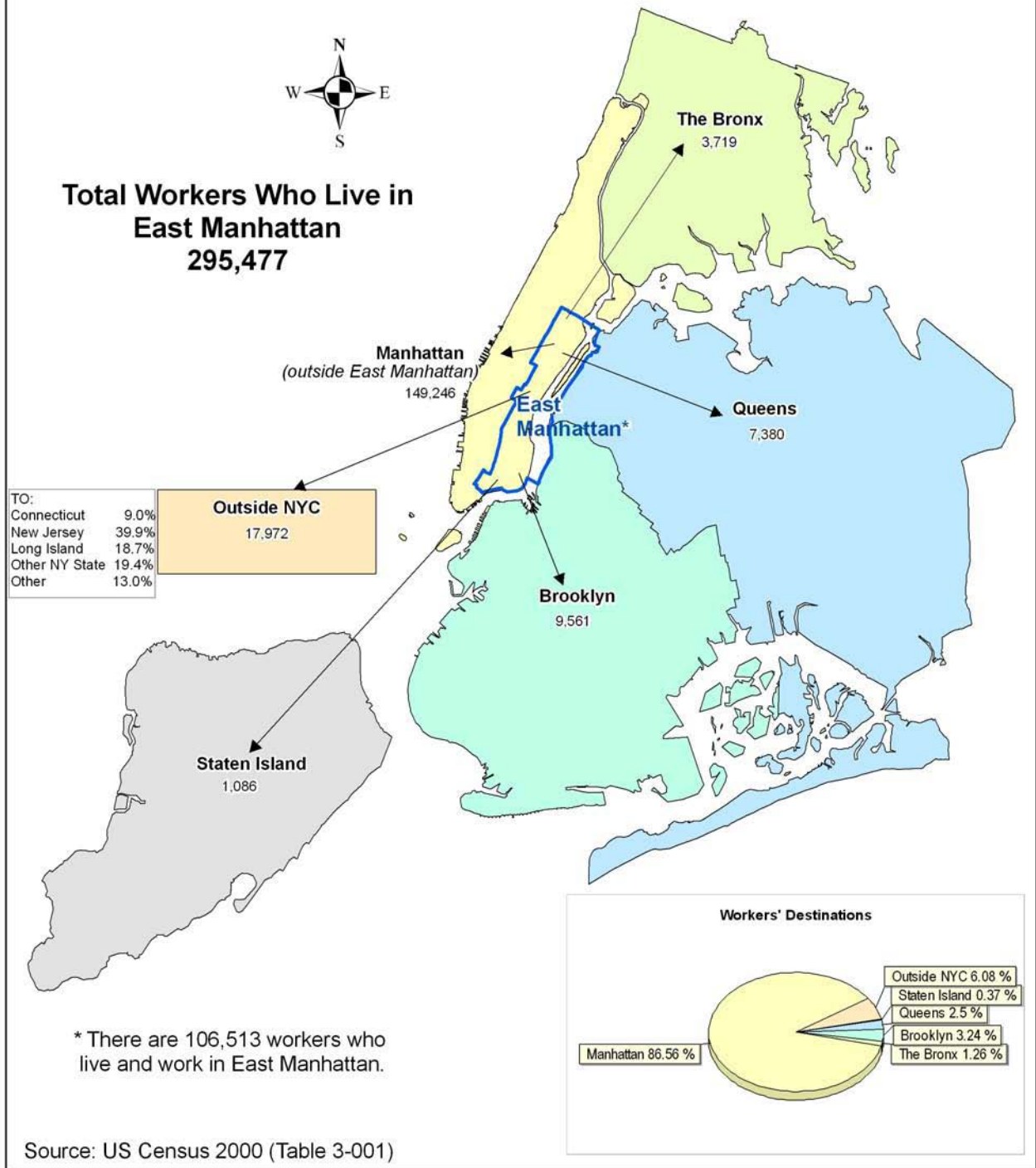
## Workers Who Live In North Manhattan and Work Outside North Manhattan



## Workers Who Live In West & Lower Manhattan and Work Outside West & Lower Manhattan

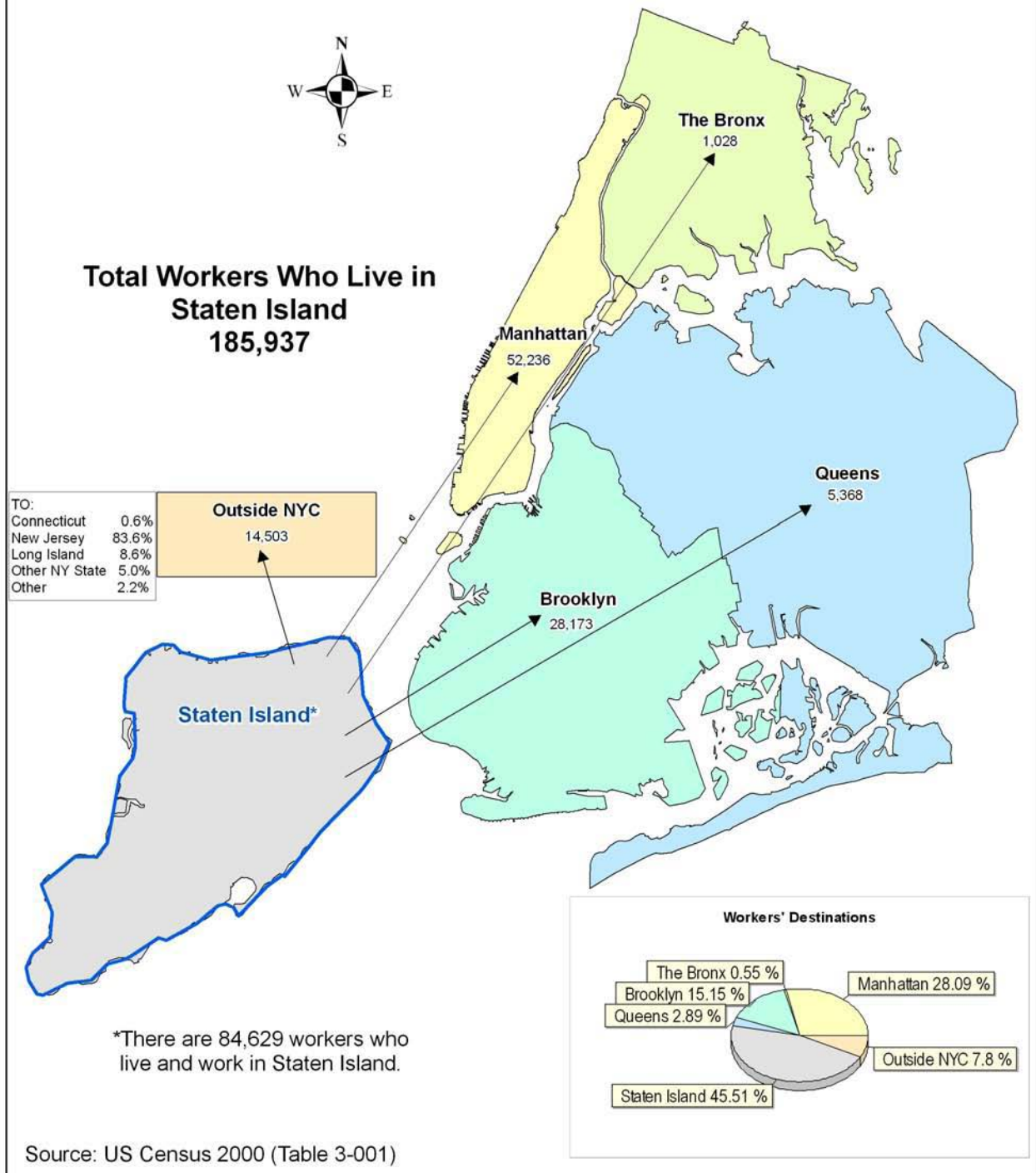


## Workers Who Live In East Manhattan and Work Outside East Manhattan





## Workers Who Live In Staten Island and Work Outside Staten Island



# Study Area Residents: Mode of Transportation to Work

This section examines the mode of transportation to work and average travel time for The Bronx, Brooklyn, Queens, and Staten Island residents, by Study Area.

While the previous Maps and Tables provided worker flows to a Study Area or borough, the following Table 7, Figures 22 and 23, and Maps 41-42 show the number of workers who travel by a particular mode of transit and their average travel time, but not the location of the final destination for the workers.

**Table 7. Study Areas' Residents: Mode of Transportation to Work and Travel Time**

Origin: Workers by Study Areas of Residence	Mode of Transportation to Work						Avg. Travel Time (Min)
	Car	Bus	Subway/ RR/Ferry	Walk	Others	Total	
<b>Bronx</b>							
091- Northeast	110,122 (44.7%)	37,192 (15.7%)	71,824 (29.2%)	13,887 (5.6%)	13,352 (5.4%)	246,377 (100.0%)	42.8
092- Southwest	42,478 (24.8%)	28,500 (16.7%)	71,983 (42.1%)	16,337 (9.6%)	11,563 (6.8%)	170,861 (100.0%)	43.0
Total	152,600 (36.6%)	65,692 (15.7%)	143,807 (34.5%)	30,224 (7.2%)	24,915 (6.0%)	417,238 (100%)	
<b>Brooklyn</b>							
121- Greenpoint/Brownsville	35,356 (23.7%)	17,639 (11.8%)	70,764 (47.3%)	17,409 (11.6%)	8,308 (5.6%)	149,476 (100.0%)	41.1
122- Ft. Greene/Bay Ridge	51,789 (24.1%)	13,323 (6.2%)	113,034 (52.6%)	23,263 (10.8%)	13,489 (6.3%)	214,898 (100.0%)	38.8
123- Crown Heights/Flatbush	53,268 (26.1%)	28,536 (14.0%)	96,870 (47.6%)	12,556 (6.2%)	12,481 (6.1%)	203,711 (100.0%)	47.0
124- Gravesend/East New York	81,440 (44.7%)	22,011 (12.1%)	61,055 (33.6%)	9,775 (5.4%)	7,555 (4.2%)	181,836 (100.0%)	46.1
125- Boro Park/Coney Island	52,092 (34.7%)	13,947 (9.3%)	61,605 (41.0%)	15,900 (10.6%)	6,660 (4.4%)	150,204 (100.0%)	42.7
Total	273,945 (30.4%)	95,456 (10.6%)	403,328 (44.8%)	78,903 (8.8%)	48,493 (5.4%)	900,125 (100%)	
<b>Queens</b>							
111- Northwest	74,429 (27.5%)	15,326 (5.7%)	147,870 (54.6%)	20,618 (7.6%)	12,516 (4.6%)	270,759 (100.0%)	39.0
112- Northeast	127,262 (56.6%)	24,182 (10.8%)	45,059 (20.1%)	11,993 (5.3%)	16,137 (7.2%)	224,633 (100.0%)	41.1
113- Southeast	110,929 (53.9%)	32,588 (15.8%)	43,585 (21.1%)	7,564 (3.7%)	11,433 (5.5%)	206,099 (100.0%)	48.0
114- Southwest	101,589 (44.2%)	22,617 (9.9%)	82,700 (36.0%)	12,615 (5.5%)	10,055 (4.4%)	229,576 (100.0%)	41.8
Total	414,209 (44.4%)	94,713 (10.2%)	319,214 (34.3%)	52,790 (5.7%)	50,141 (5.4%)	931,067 (100%)	
<b>Staten Island</b>							
130-Staten Island	126,857 (66.4%)	36,762 (19.2%)	4,880 (2.6%)	5,539 (2.9%)	16,946 (8.9%)	190,984 (100.0%)	43.9
Total	126,857 (66.3%)	36,762 (19.3%)	4,880 (2.6%)	5,539 (2.9%)	16,946 (8.9%)	190,984 (100%)	

Source: U.S. Census 2000

- Most Staten Island, Northeast Queens and Southeast Queens residents commute by car. (Figure 22)
- Almost a quarter of residents in the five study areas closes to Manhattan commute by car. These are the lowest percentages for any study area. (Figure 22)

- Study areas closer to Manhattan are more likely to take the Subway/RR/Ferry to work with the two study areas best connected to Manhattan by subway having the highest share of residents commuting by Subway/RR/Ferry. (Figure 23)
- The biggest share of residents in the Brooklyn Study Areas except Gravesend/East New York, commute by subwaySubway/RR/Ferry (342,273 residents) in contrast to the Queens Study Areas, excluding Northwest Queens, where car travel is the primary mode to work (339,780 residents). Furthermore, more workers who live in Staten Island (66.4%) tend to commute by car than any other mode (Table 7).
- Residents in Brooklyn's Gravesend/East New York (45%) and Northeast (57%) and Southeast Queens (54%) depend on cars for most of their work trips due to their limited access to subway stations (Map 42 and Table 7).
- Residents from the Southeast Queens Study Area have the highest mean travel times (48.0 minutes) while Ft. Greene/Bay Ridge residents have the shortest mean travel times (38.8 minutes) (Table 7).
- Excluding Manhattan, Northwest Queens residents use the subwaySubway/RR/Ferry for work trips (55%) more than any other borough's Study Area (Maps 41 and 42, Table 7).
- Staten Island residents have the highest number of car commuters (66.4%, 126,857) than any other borough's Study Area. It is followed by residents of Northeast and Southeast Queens with 127,262 (56.6%) and 110,929 (53.9%) respectively (Maps 41 and 42, Table 7).
- Within the Bronx borough, more Northeast Bronx residents commute by car for work trips than any other mode (45%) while Southwest Bronx residents commute by subwaySubway/RR/Ferry (42%) (Map 43, Table 7).
- Northeast Bronx has the highest number of residents commuting by bus than any other borough's Study Area, with a total of 37,192 residents (Table 7).
- Excluding Manhattan, Brooklyn residents have the highest subwaySubway/RR/Ferry use for their commute to work. Brooklyn subwaySubway/RR/Ferry riders surpass car users by approximately 14% (Table 7).

Figure 22. All Workers - Area of Residence Modal Split (Auto)

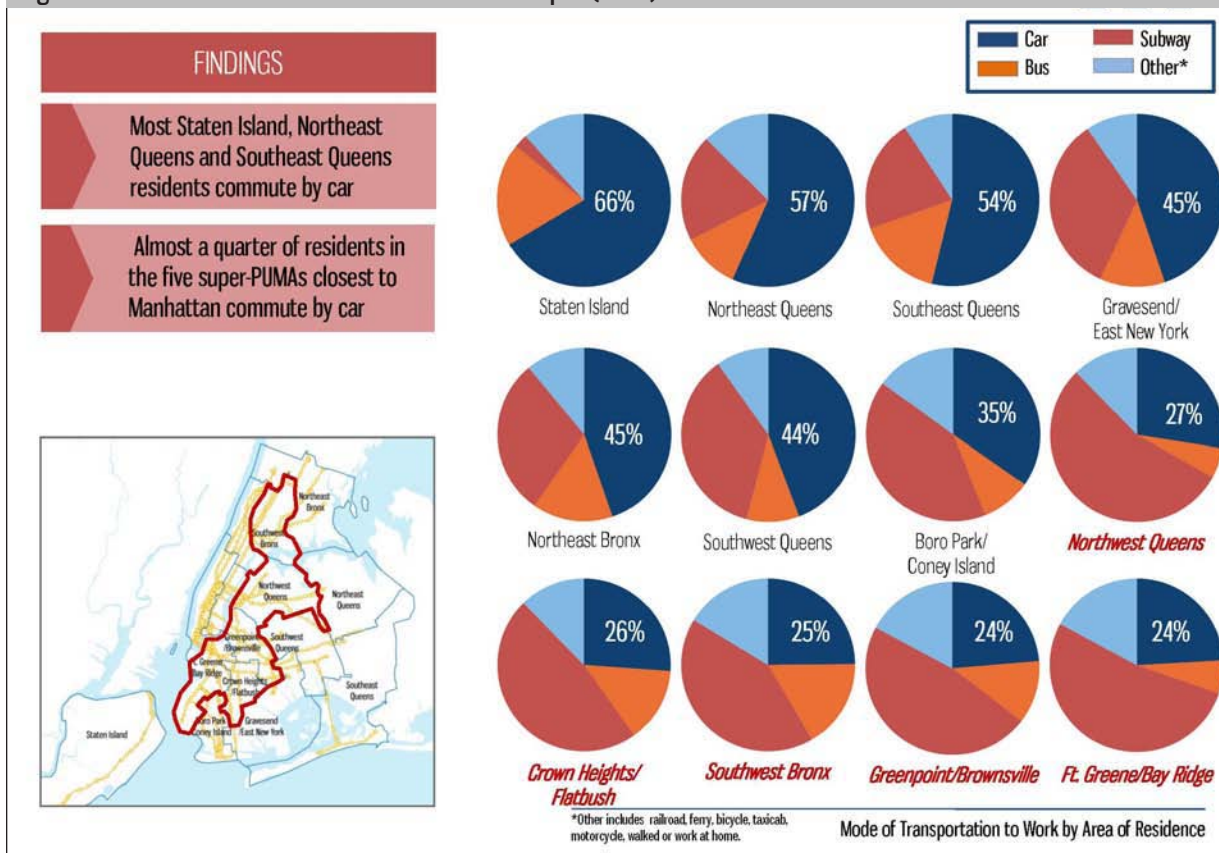


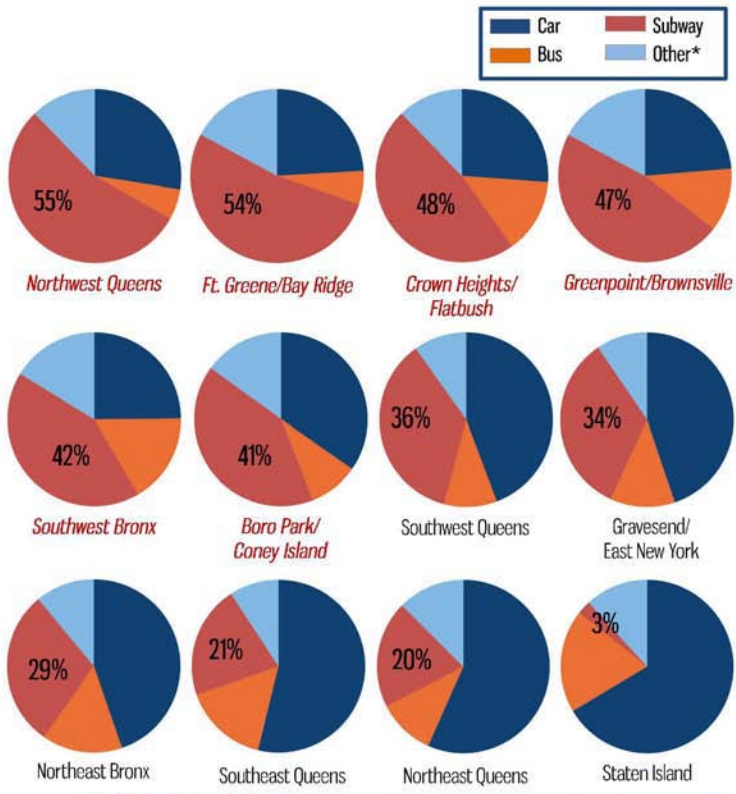


Figure 23. All Workers - Area of Residence Modal Split (Subway)

**FINDINGS**

Most Northwest Queens and Ft. Greene/Bay Ridge residents commute by subway

Study areas closer to Manhattan or those better served by subways are more likely to take subways to work



\*Other includes railroad, ferry, bicycle, taxicab, motorcycle, walked or work at home.

Mode of Transportation to Work by Area of Residence

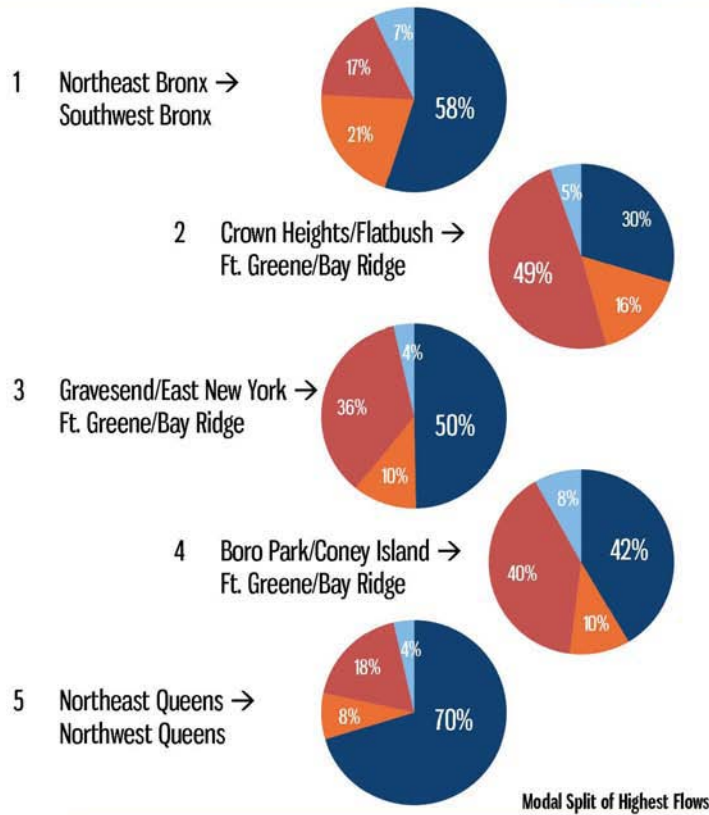
Figure 24. Inter Study Area - Modal Split for Five Highest Flows

**FINDINGS**

Cars are the leading mode of transportation in 4 of the 5 highest commuter flows.

Flows to Ft. Greene/Bay Ridge super-PUMA have the highest shares of public transit use

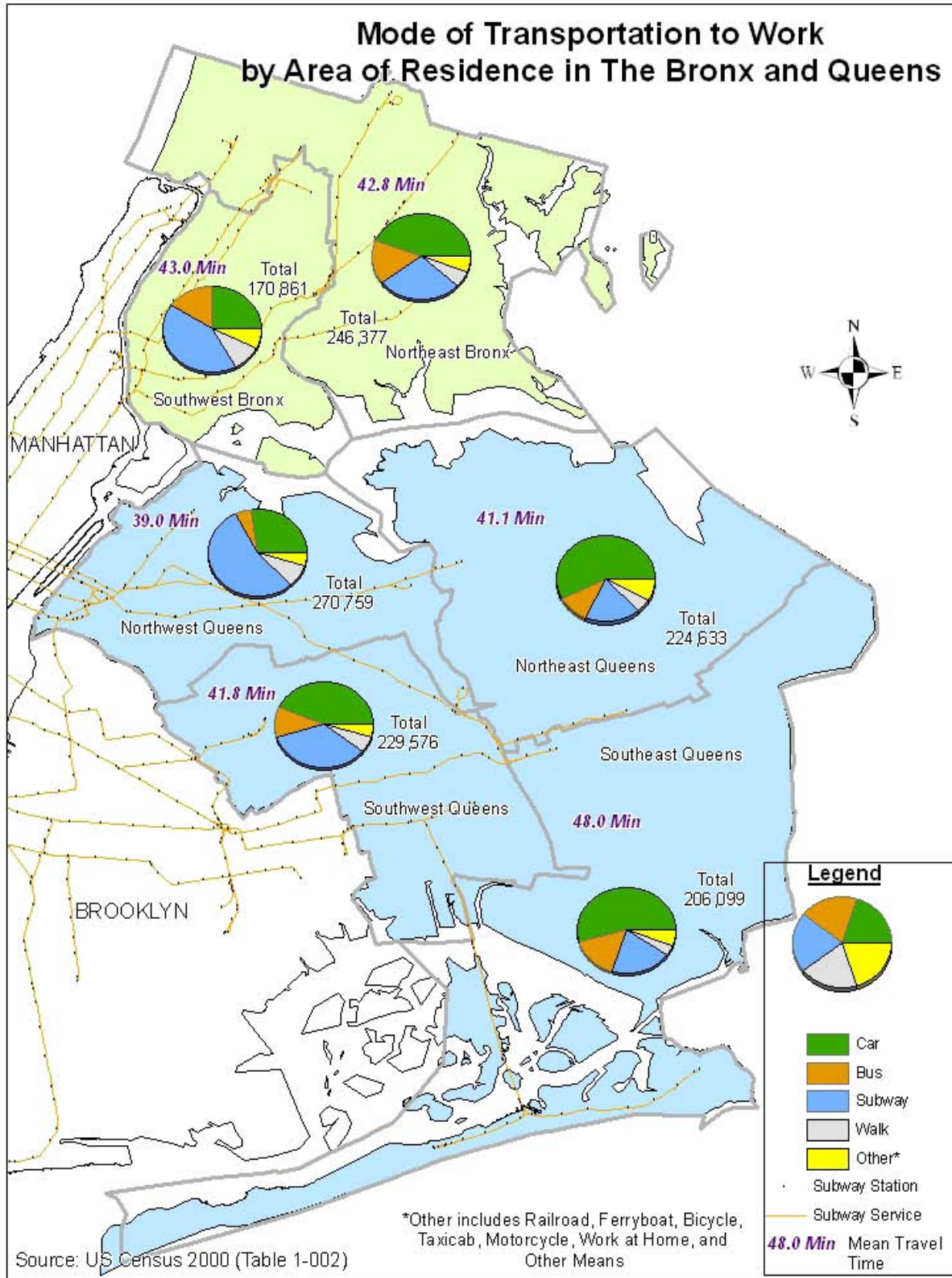
Two-thirds of Crown Heights /Flatbush residents use public transit to commute to Ft. Greene/Bay Ridge

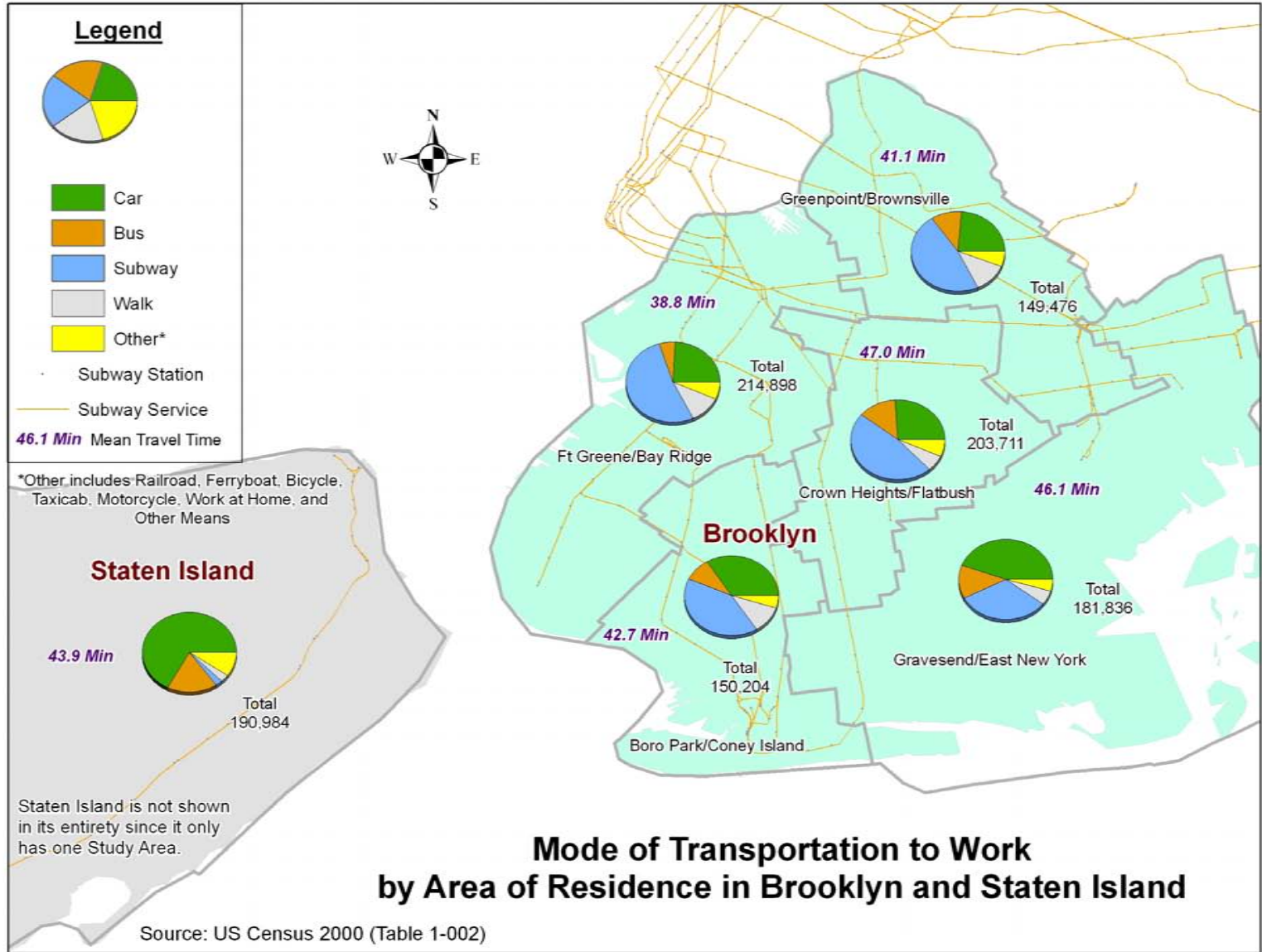


Modal Split of Highest Flows



Map 41. Mode of Transportation to Work by Area of Residence in The Bronx and Queens





Map 42. Mode of Transportation to Work by Area of Residence in Brooklyn and Staten Island

# Workers in Study Areas: Mode of Transportation to Work

This section examines the mode of transportation to work and average travel time for The Bronx, Brooklyn, Queens, and Staten Island workers, by Study Area.

While the previous Maps and Tables provided worker flows to a Study Area or borough, the following Table 8 and Maps 43-44 show the number of workers who travel by a particular mode of transit and their average travel time, but not the location of the workers' home Study Area.

**Table 8. Workers in Study Areas: Mode of Transportation to Work and Travel Time**

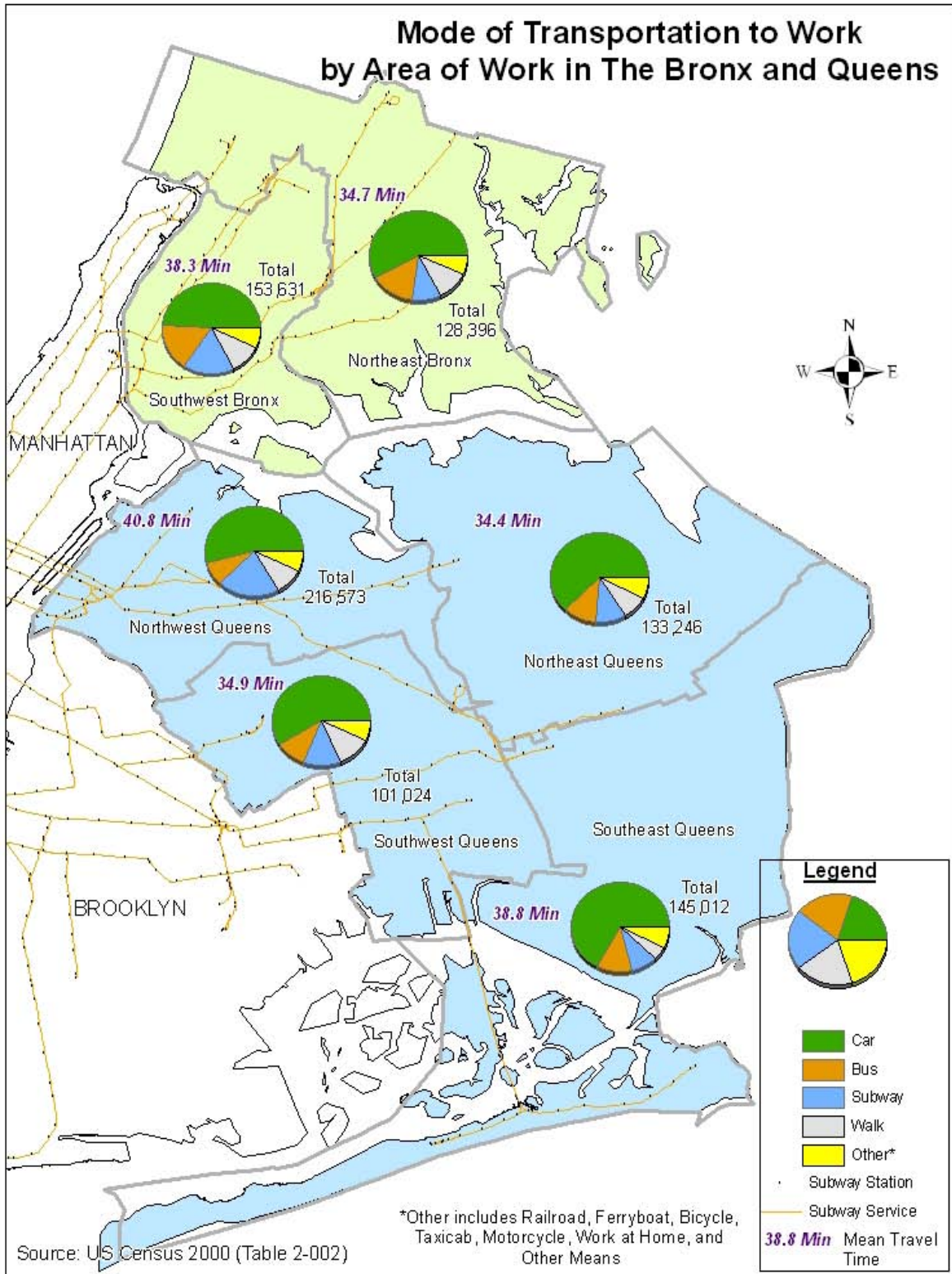
Destination: Workers by Study Areas of Work	Mode of Transportation to Work						Avg. Travel Time (Min)
	Car	Bus	Subway/RR/ Ferry	Walk	Others	Total	
<b>Bronx</b>							
091- Northeast	74,089 (57.6%)	19,356 (15.1%)	13,690 (10.7%)	13,199 (10.3%)	8,062 (6.3%)	128,396 (100.0%)	34.7
092- Southwest	75,307 (49.0%)	25,035 (16.3%)	27,608 (18.0%)	15,720 (10.2%)	9,961 (6.5%)	153,631 (100.0%)	38.3
Total	149,396 (53.0%)	44,391 (15.7%)	41,298 (14.6%)	28,919 (10.3%)	18,023 (6.4%)	282,027 (100%)	
<b>Brooklyn</b>							
121- Greenpoint/Brownsville	53,200 (47.0%)	14,197 (12.5%)	22,289 (19.7%)	15,794 (14.0%)	7,738 (6.8%)	113,218 (100.0%)	40.0
122- Ft Greene/Bay Ridge	108,318 (39.5%)	28,106 (10.3%)	88,796 (32.4%)	24,482 (8.9%)	24,283 (8.9%)	273,985 (100.0%)	43.9
123- Crown Heights/Flatbush	44,856 (45.5%)	16,750 (17.0%)	17,436 (17.7%)	11,484 (11.7%)	7,973 (8.1%)	98,499 (100.0%)	38.1
124- Gravesend/East New York	52,206 (56.3%)	13,137 (14.2%)	11,332 (12.2%)	10,115 (10.9%)	5,913 (6.4%)	92,703 (100.0%)	35.8
125- Boro Park/Coney Island	44,758 (50.7%)	10,578 (12.0%)	12,299 (14.0%)	14,687 (16.7%)	5,819 (6.6%)	88,141 (100.0%)	34.0
Total	303,338 (45.5%)	82,768 (12.4%)	152,152 (22.8%)	76,562 (11.5%)	51,726 (7.8%)	666,546 (100%)	
<b>Queens</b>							
111- Northwest	116,992 (54.1%)	17,200 (7.9%)	47,895 (22.1%)	19,962 (9.2%)	14,524 (6.7%)	216,573 (100.0%)	40.8
112- Northeast	82,526 (61.9%)	15,328 (11.5%)	14,265 (10.7%)	11,862 (8.9%)	9,265 (7.0%)	133,246 (100.0%)	34.4
113- Southeast	96,819 (66.8%)	18,393 (12.7%)	12,572 (8.7%)	7,013 (4.8%)	10,215 (7.0%)	145,012 (100.0%)	38.8
114- Southwest	58,666 (58.1%)	10,643 (10.5%)	13,299 (13.2%)	11,560 (11.4%)	6,856 (6.8%)	101,024 (100.0%)	34.9
Total	355,003 (59.5%)	61,564 (10.3%)	88,031 (14.8%)	50,397 (8.5%)	40,860 (6.9%)	595,855 (100%)	
<b>Staten Island</b>							
130- Staten Island	86,041 (71.6%)	12,607 (10.5%)	7,615 (6.3%)	5,951 (5.0%)	7,960 (6.6%)	120,174 (100.0%)	31.8
Total	86,041 (71.6%)	12,607 (10.5%)	7,615 (6.3%)	5,951 (5.0%)	7,960 (6.6%)	120,174 (100%)	

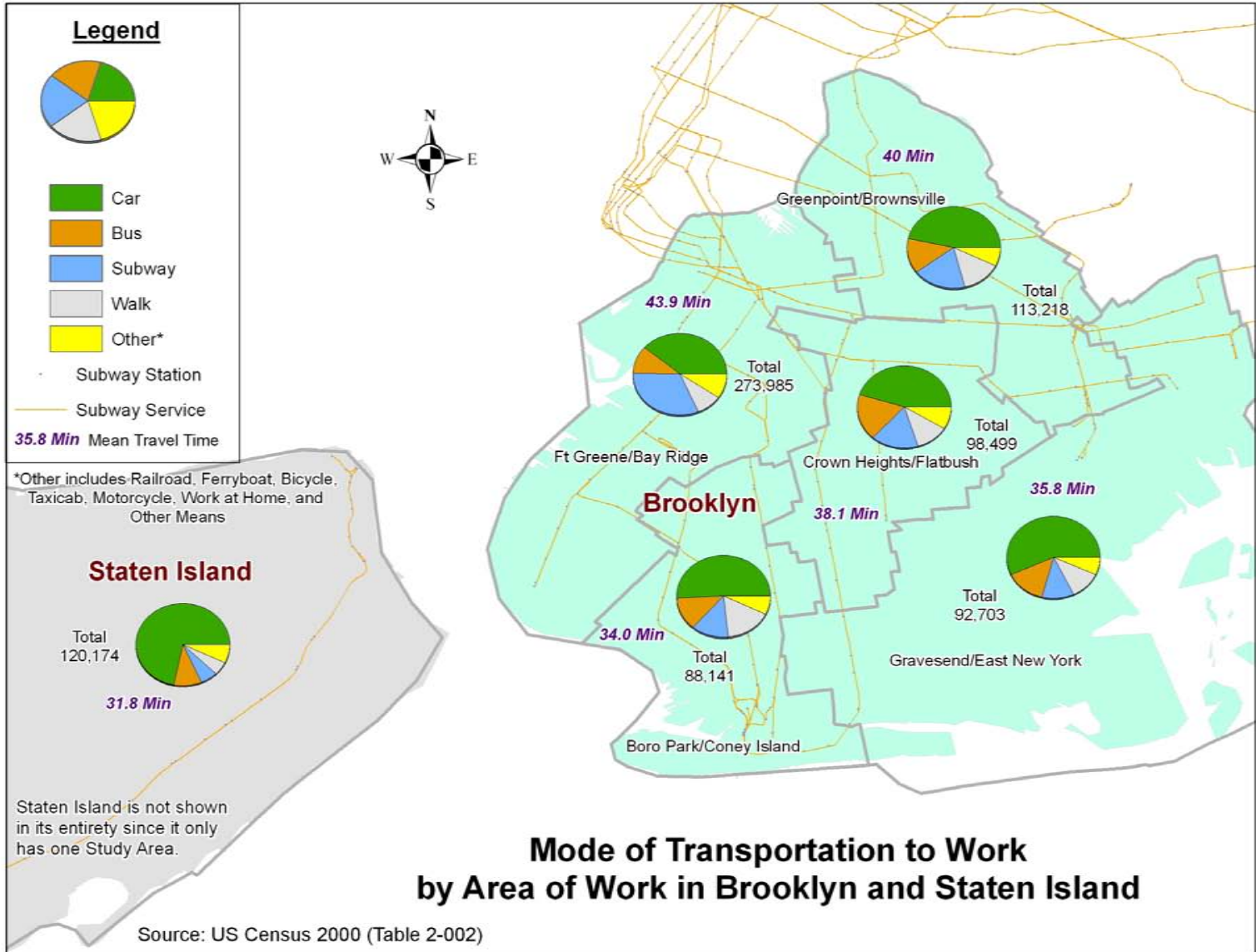
Source: U.S. Census 2000

- The plurality of workers arriving in the Bronx, Brooklyn, Queens, and Staten Island Study Areas commute by car. (Map 44, Table 8 Figure 25).
- Although commuting by car is the primary method to arrive to work, Ft. Greene/Bay Ridge has the highest number of its workers using Subway/RR/Ferry (88,796) and bus (28,106) than any other Study Area in The Bronx, Brooklyn, or Queens (Table 8).
- Brooklyn's Ft. Greene/Bay Ridge workers have the longest commute time (43.9 minutes) whereas workers commuting to the Boro Park/Coney Island Study Area have the shortest commute time (34 minutes) (Table 8).
- Ft. Greene/Bay Ridge, where downtown Brooklyn is located, has the highest Subway/RR/Ferry share (32.4%) among workers arriving to this borough. Northwest Queens, which contains Long Island City, has the second highest subway share amongst the "peripheral" boroughs (22.1%) (Table 8).
- When public transit is combined (Subway/RR/Ferry/Bus), its mode share is still smaller than cars among arriving workers in all study areas except Ft. Greene/Bay Ridge. (Figure 26)
- Among New York City residents, the majority of workers arriving in the Bronx, Brooklyn, Queens and Staten Island commute by car except for Ft. Greene/Bay Ridge Study area. (Figure 27)
- Auto modal share in all study areas decreases when workers residing outside of New York City are removed. (Figure 27)
- Workers who reside outside of New York City and work in the city comprise the largest number of workers who make inbound trips in each borough except Brooklyn, where the largest share (37%) of the inbound workers are from Queens. (Figure 28)
- Except for people who work in Manhattan, most workers who reside outside of the city and work in the city commute by car. (Figures 29, 30)
- Most workers who reside outside of New York City and work in Manhattan commute by Subway/RR/Ferry (51%). Including bus the transit share for these workers is XXXX% (Figure 29)
- Among commuters originating outside of New York City, only those commuting to the Ft. Greene/Bay Ridge study area have a car modal split of less than 75%. (Figure 30)



Map 43. Mode of Transportation to Work by Area of Work in The Bronx and Queens





Map 44. Mode of Transportation to Work by Area of Work in Brooklyn and Staten Island

Figure 25. All Workers - Area of Work Modal Split (Auto)

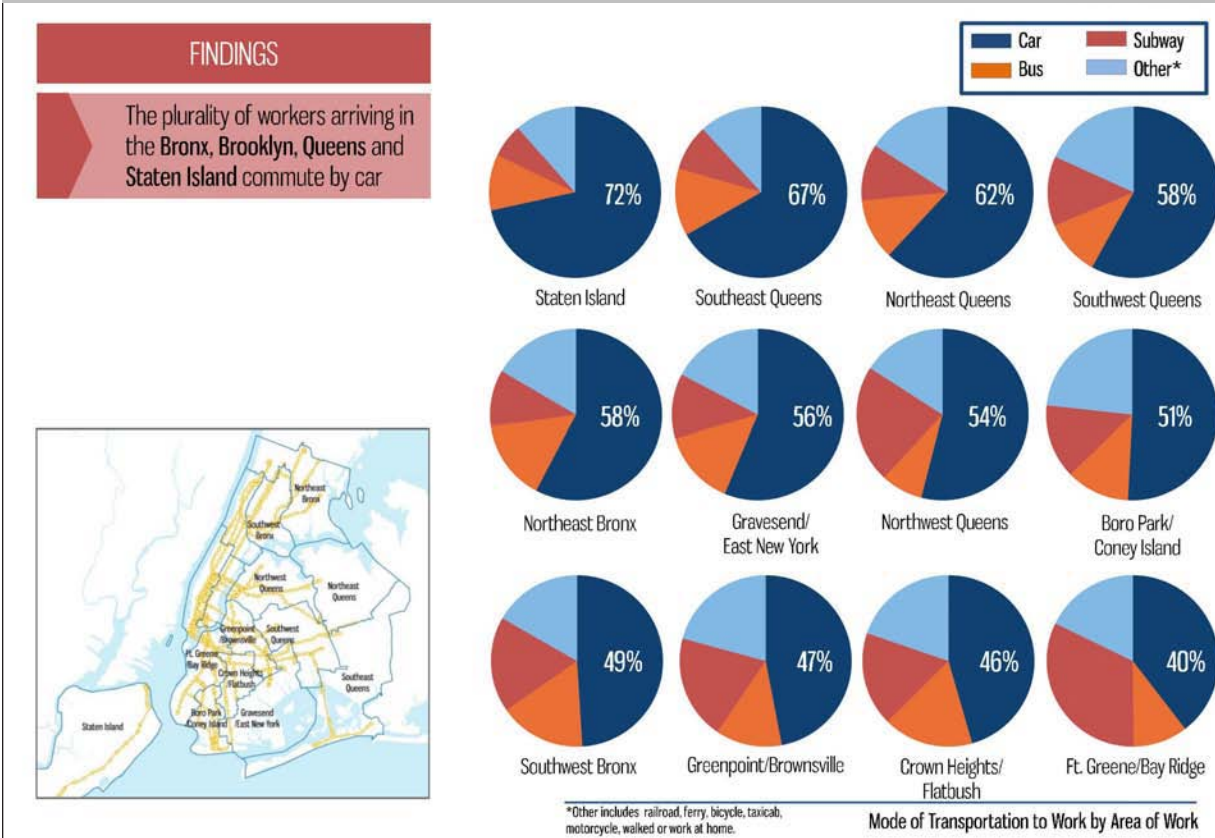


Figure 26. All Workers - Area of Work Modal Split (Subway)

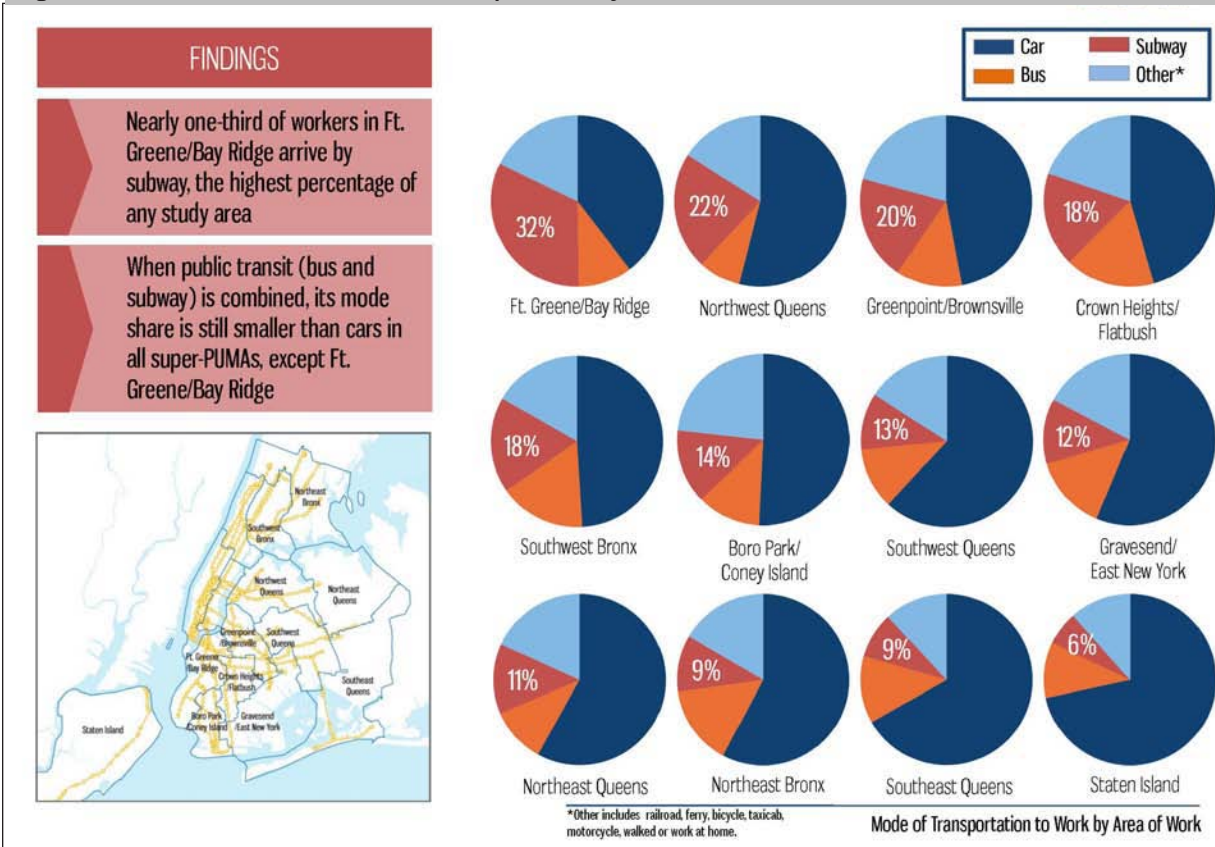




Figure 27. NYC Residents - Area of Work Modal Split (Auto)

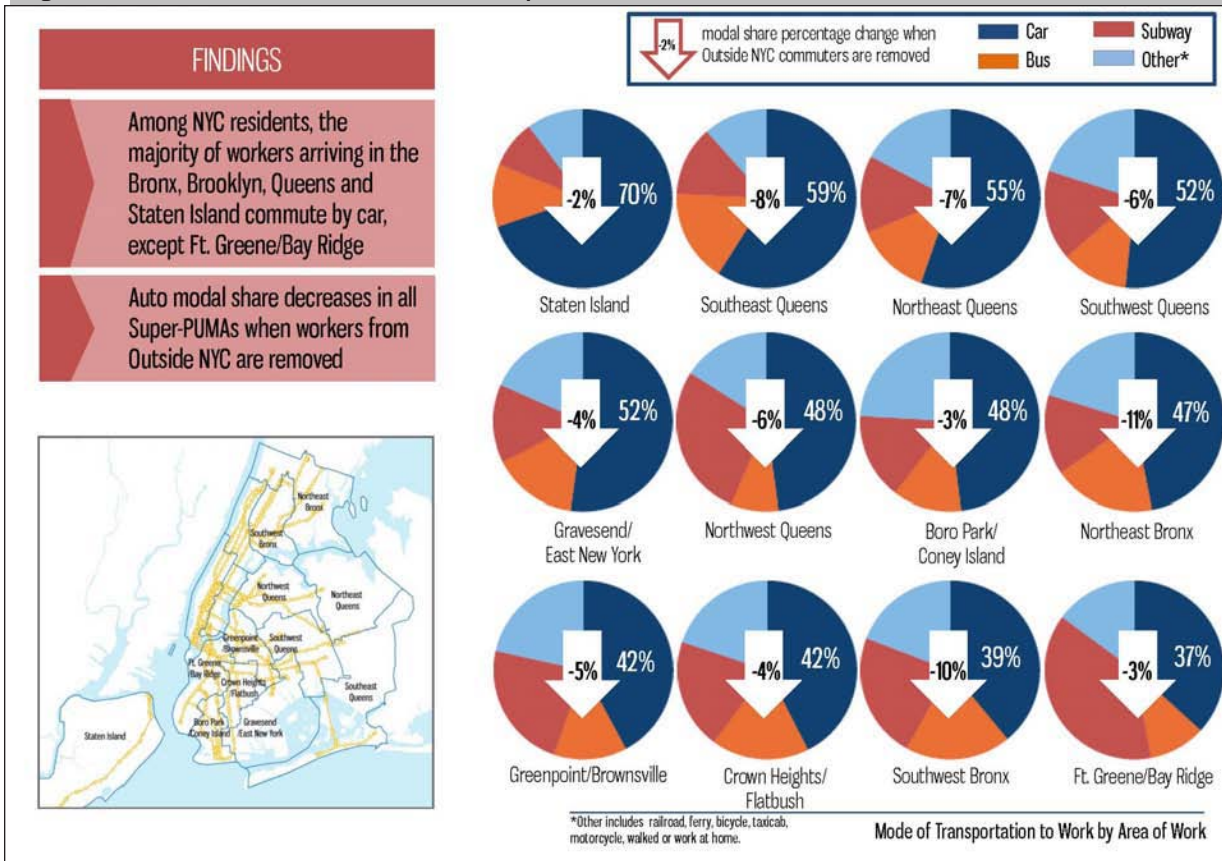


Figure 28. Outside NYC - Journey to Work

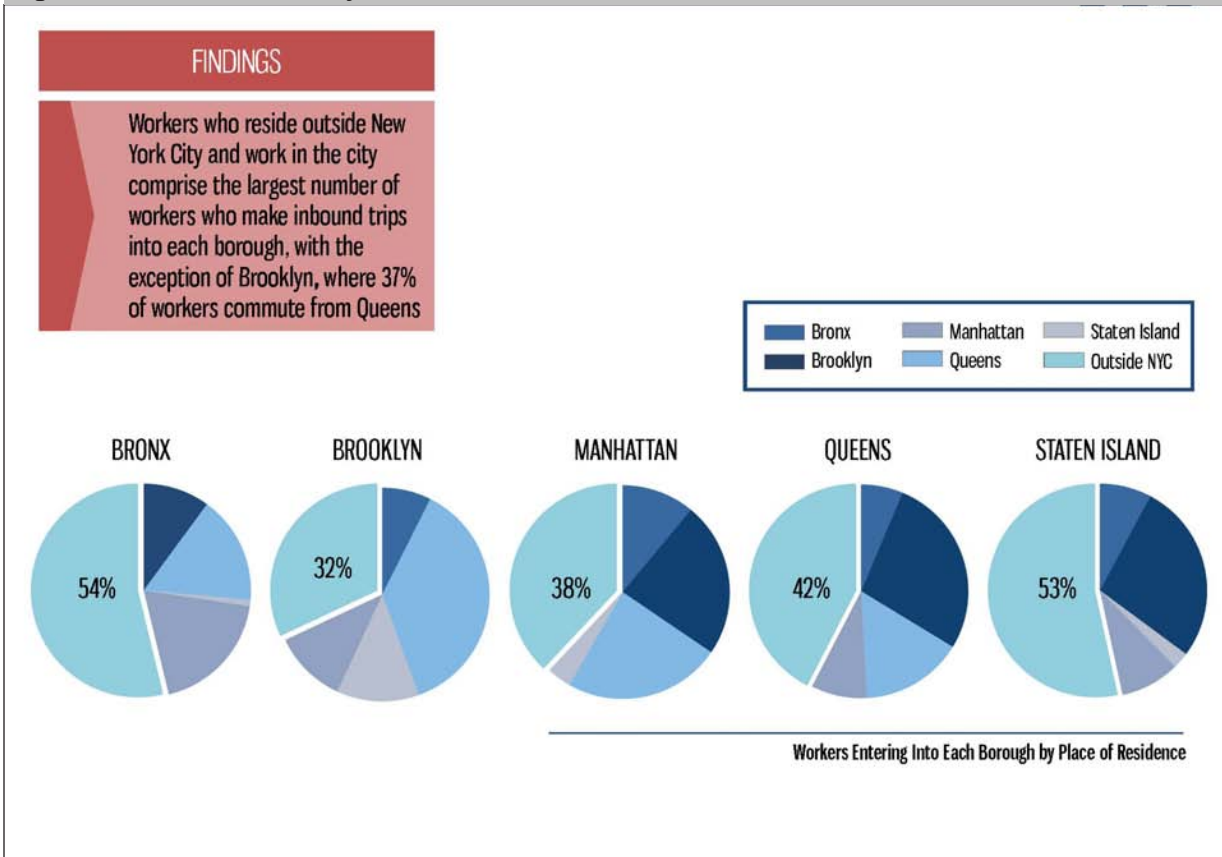




Figure 29. Outside NYC - Journey to Work Modal Split

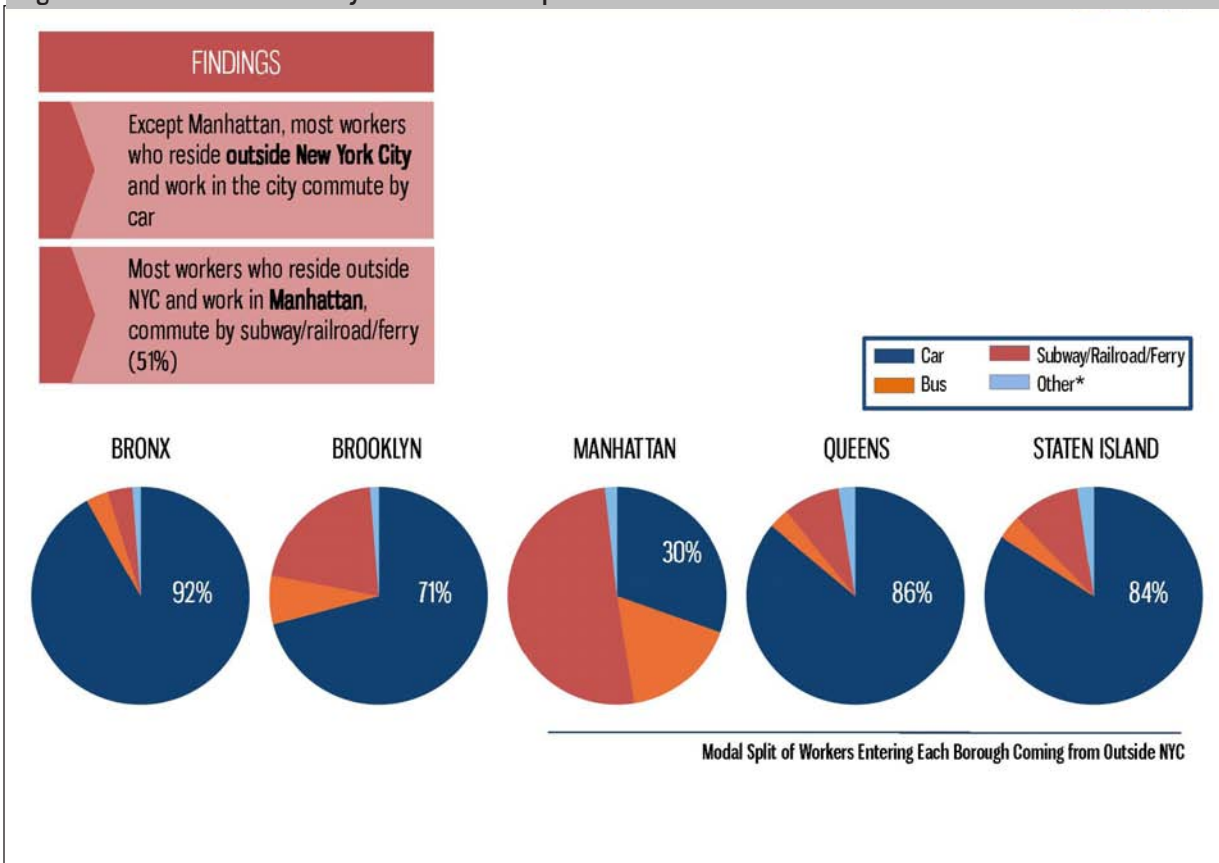
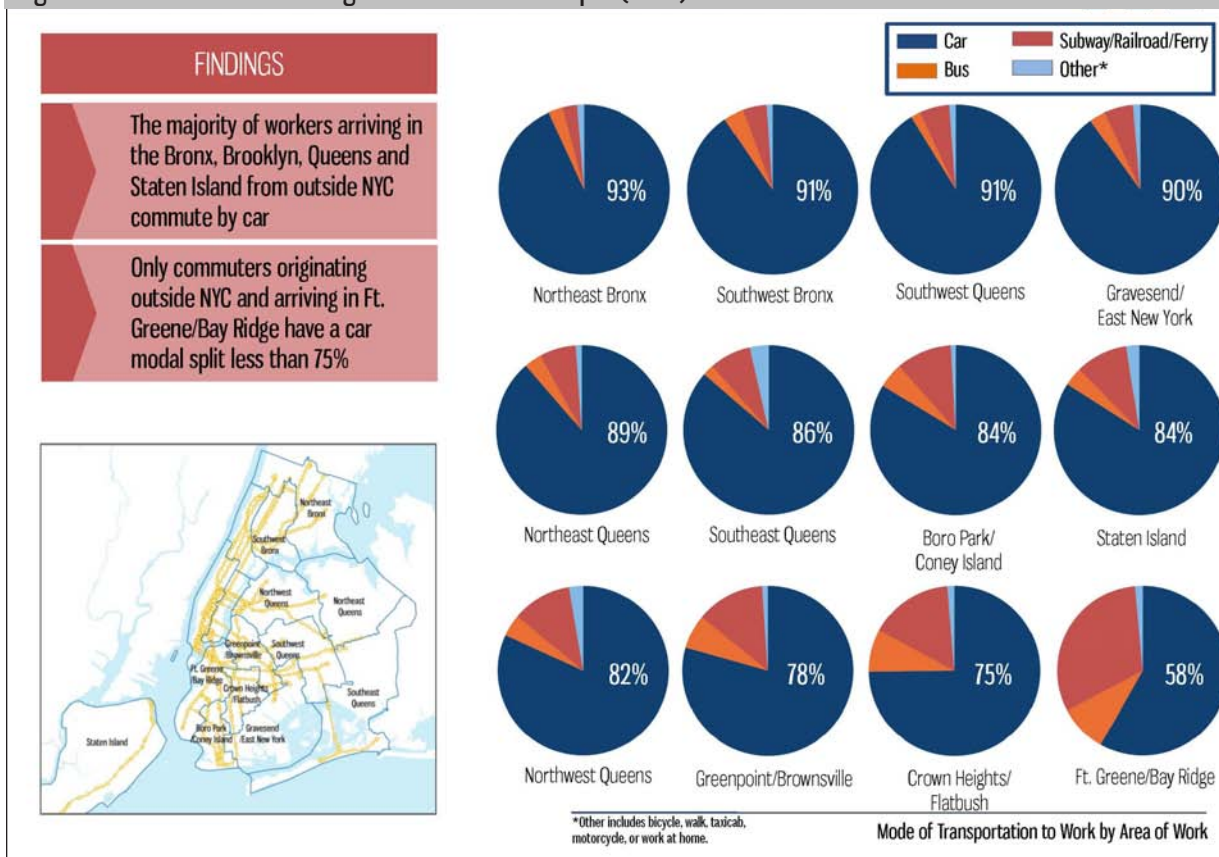


Figure 30. NYC Workers Residing Outside NYC Modal Split (Auto)



# Study Area to Study Area: Brooklyn-Queens Outbound Travel to Place of Work

This section examines, for the workers residing in each Study Area, the distribution among other study area in Brooklyn and Queens.

The following Table 9 and Maps 45-53 show the number of workers in the Brooklyn and Queens Study Areas and their outbound travel to their place of work. The highlights in Table 9 represent the largest number of commuters for each Brooklyn and Queens' Study Area.

**Table 9. Brooklyn-Queens Residents: Place of Work**

Origin: Study Area of Residence	Destination: Place of Work									
	Brooklyn Study Area					Queens Study Area				
	121	122	123	124	125	111	112	113	114	
<b>Brooklyn</b>										
121- Greenpoint/Brownsville	<b>32,927</b>	19,862	7,204	5,554	3,274	<b>5,784</b>	1,856	2,872	3,587	
122- Ft. Greene/Bay Ridge	6,707	<b>60,237</b>	6,275	5,037	8,481	<b>3,636</b>	1,771	1,789	1,195	
123- Crown Heights/Flatbush	10,798	31,637	<b>31,550</b>	11,679	9,794	4,989	2,556	4,065	<b>2,277</b>	
124- Gravesend/East New York	9,438	25,151	15,303	<b>28,650</b>	11,522	<b>5,425</b>	2,407	4,712	3,204	
125- Boro Park/Coney Island	5,470	24,028	6,894	9,495	<b>30,987</b>	<b>3,184</b>	1,383	1,693	1,326	
Total	65,340	160,915	67,226	60,415	64,058	23,018	9,973	15,131	11,589	
<b>Queens</b>										
111- Northwest	4,324	<b>8,525</b>	1,742	1,792	1,265	<b>64,539</b>	13,304	9,109	10,086	
112- Northeast	2,905	<b>5,714</b>	1,706	2,054	1,112	23,919	<b>49,096</b>	12,798	9,217	
113- Southeast	4,527	<b>11,115</b>	3,936	3,660	2,057	16,387	13,469	<b>41,391</b>	9,655	
114- Southwest	8,759	<b>9,705</b>	2,930	4,241	1,703	22,840	10,265	16,261	<b>35,345</b>	
Total	20,515	35,059	10,314	11,747	6,137	127,685	86,134	79,559	64,303	

Source: U.S. Census 2000

Table 9 shows the largest number of residents work in the same Study Area that they reside in.

Figure 31 shows that among people that live and work in Queens more people live and work in the same study area than any other. Queens residents tend to work locally, the second highest intra-brorough commute is to an adjacent study area.

Figure 32 shows that among people that live and work in Brooklyn generally more people live and work in the same study area than in any other. Brooklyn residents tend to work locally, the second highest intra-brorough commute is to an adjacent study area for four of the five study areas.

Maps 45-53 represent the mode of transportation to work for Brooklyn and Queens residents. Brooklyn residents who work in Northwest Queens Study Area primarily commute by Subway/RR/Ferry than any other mode of transportation, with the exception of Gravesend/East New York. Northwest and Southwest Queens residents who work in Ft. Greene/Bay Ridge Study Area primarily commute to work by Subway/RR/Ferry (64% and 42%) while Northeast and Southeast Queens residents are more likely to drive (see Maps 45-53 or Appendix B). These trends are correlated to Subway/RR/Ferry accessibility in the Study Areas.

Brooklyn and Queens residents who live and work in the same Study Area have the highest share of 'Other' than residents who commute outside of their Study Area, as their means of transportation (see Maps 45-53 or Appendix B).

Workers who live in Northwest Queens and work in Brooklyn tend to use the subway more than workers who live in Northwest Queens and work in Queens. Brooklyn workers who live in Queens Study Areas are more inclined to drive alone (see Maps 45-48 or Appendix B)

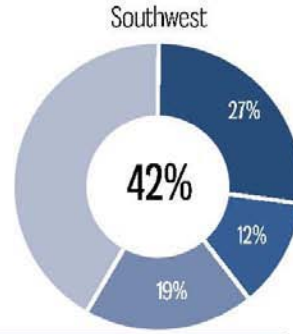
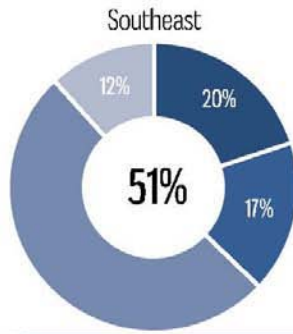
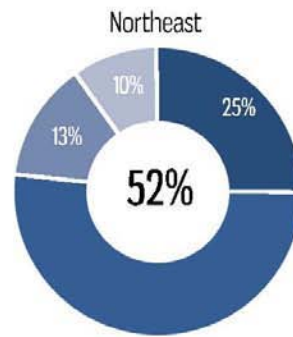
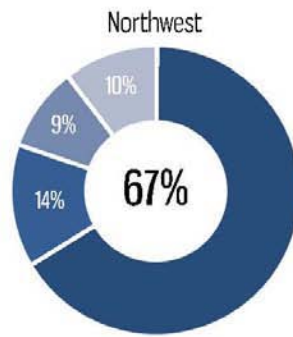
Workers who live in Gravesend/East New York have the highest share of driving alone than any other Brooklyn Study Area (see Map 52 or Appendix B).

Figure 31. Intraborough - Queens

**FINDINGS**

Among people that live and work in **Queens**, more people live and work in the same Super-PUMA than any other

Queens residents tend to work locally - the second highest intra-borough commute is to an adjacent Super-PUMA



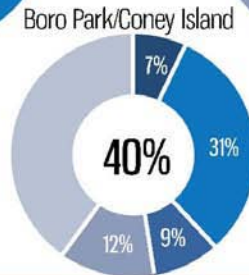
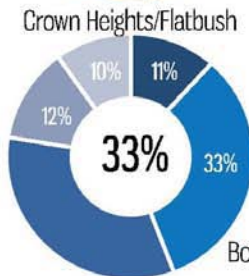
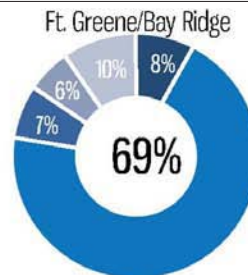
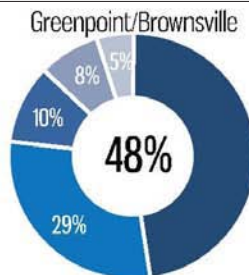
Queens Residents by Super-PUMA with Place of Work Within Queens Super-PUMAs

Figure 32. Intraborough - Brooklyn

**FINDINGS**

Among people that live and work in **Brooklyn**, generally more people live and work in the same Super-PUMA than any other

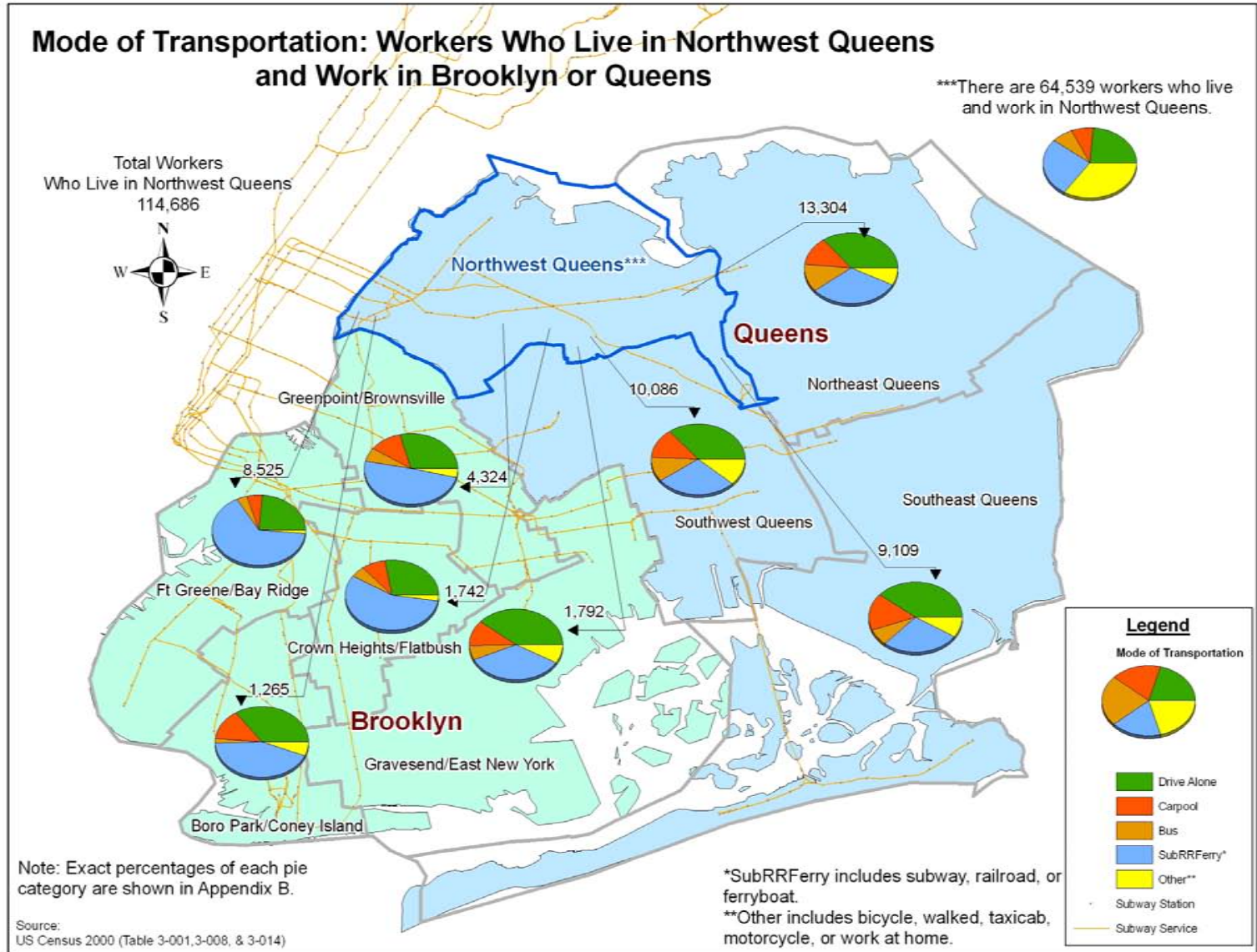
Brooklyn residents tend to work locally - the second highest intra-borough commute is to an adjacent Super-PUMA, except in Gravesend/East New York



Brooklyn Residents by Super-PUMA with Place of Work Within Brooklyn Super-PUMAs

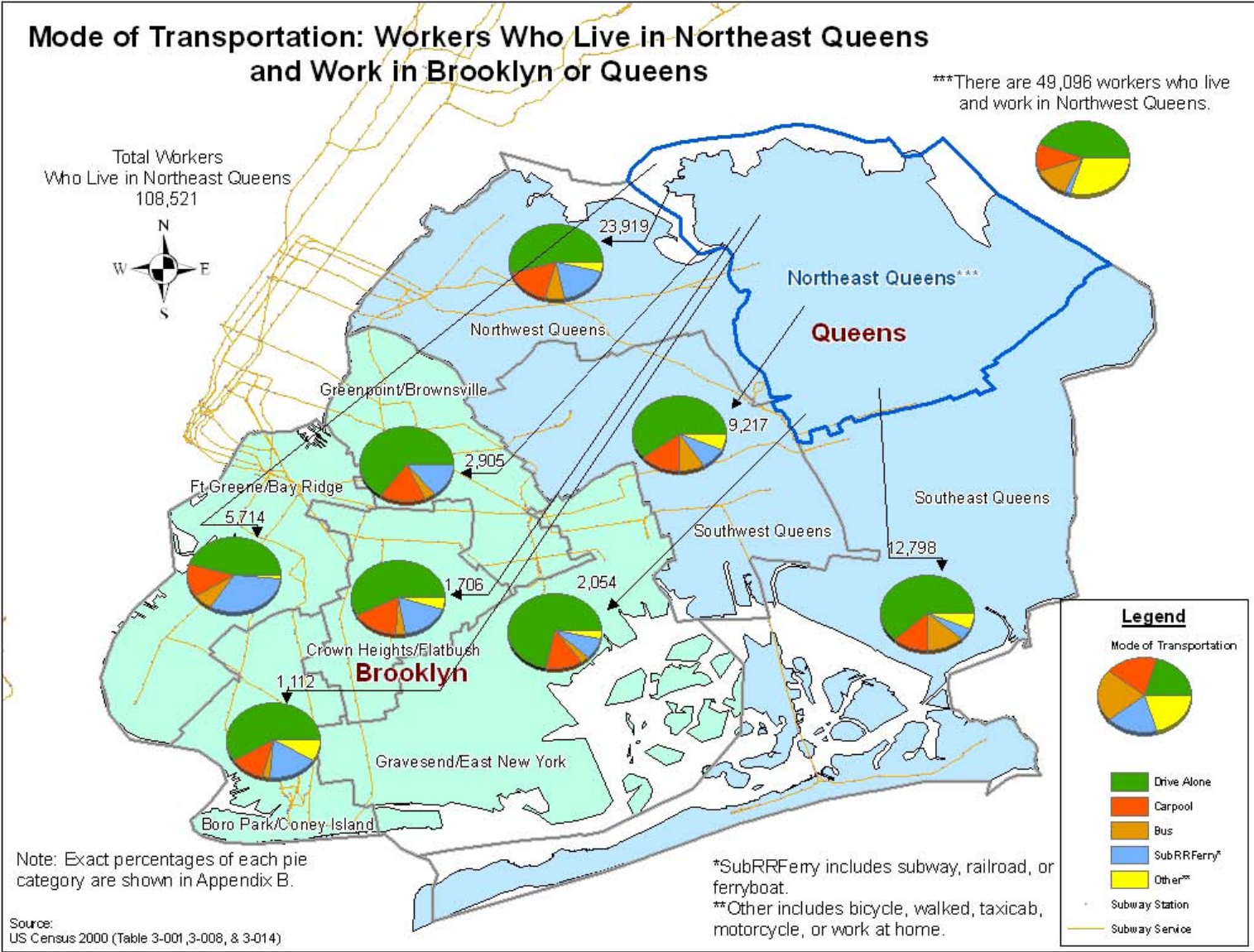


Map 45. Mode of Transportation: Workers Who Live in Northwest Queens and Work in Brooklyn or Queens

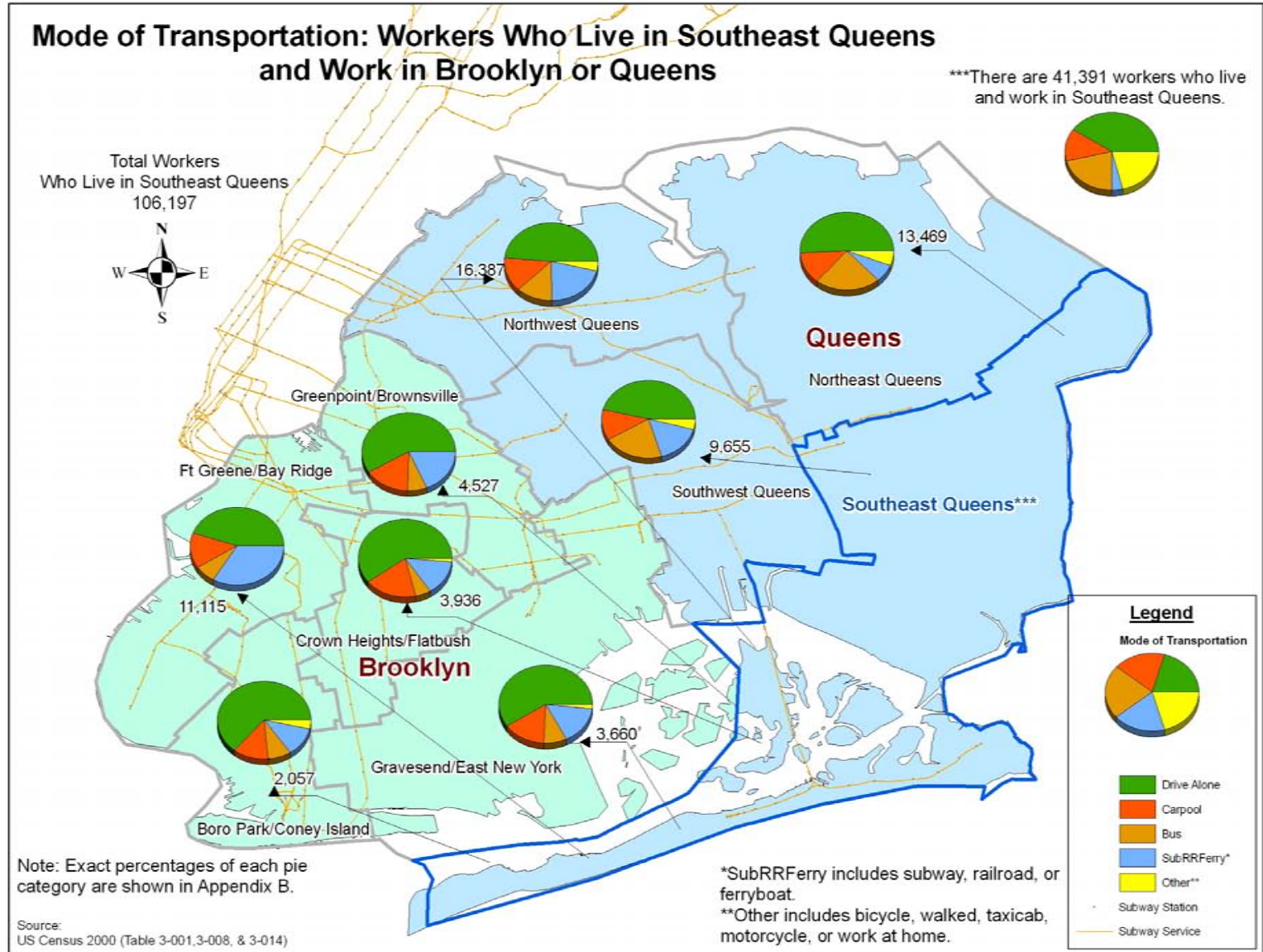




Map 46. Mode of Transportation: Workers Who Live in Northeast Queens and Work in Brooklyn or Queens

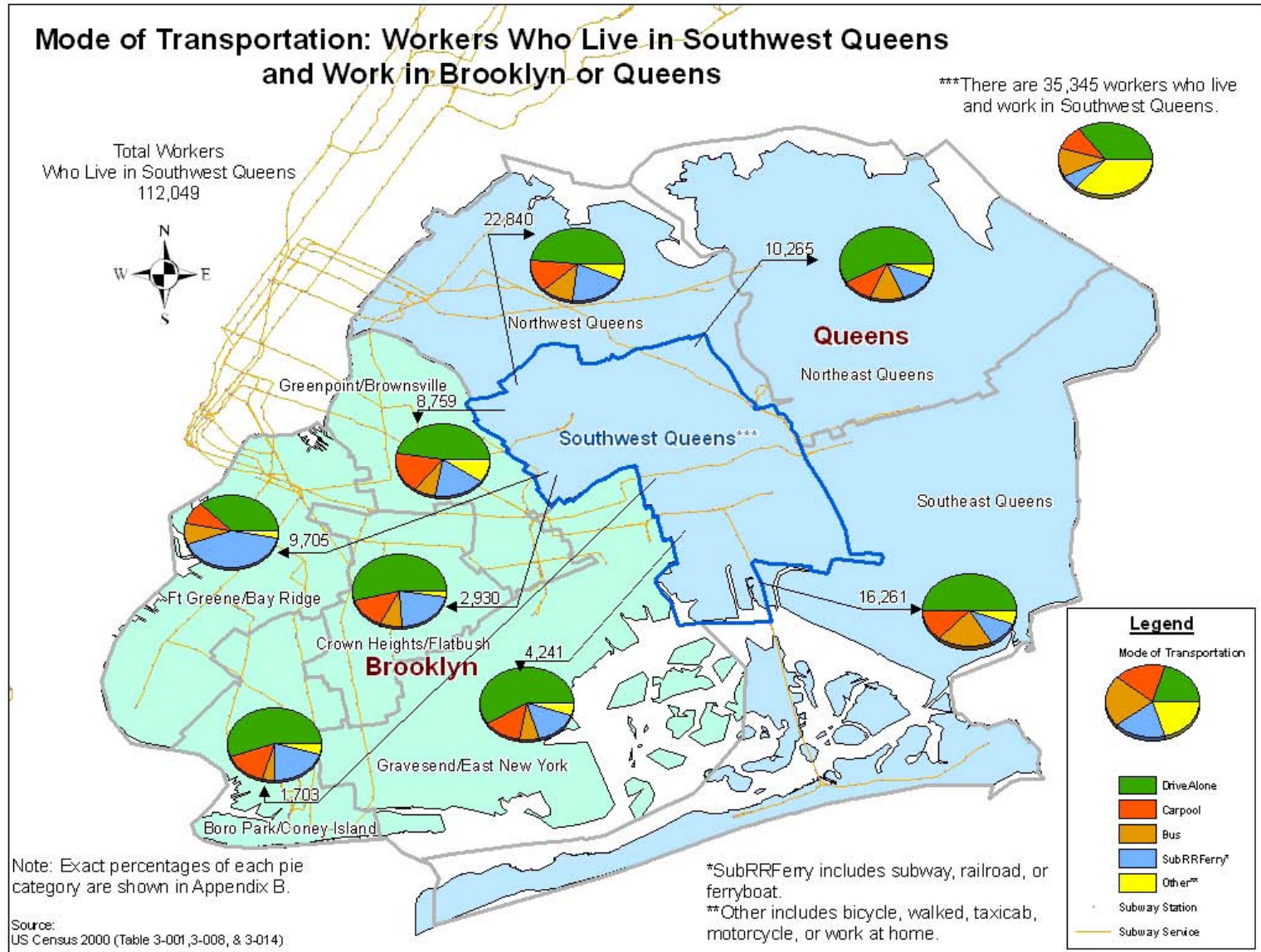


Map 47. Mode of Transportation: Workers Who Live in Southeast Queens and Live in Brooklyn or Queens

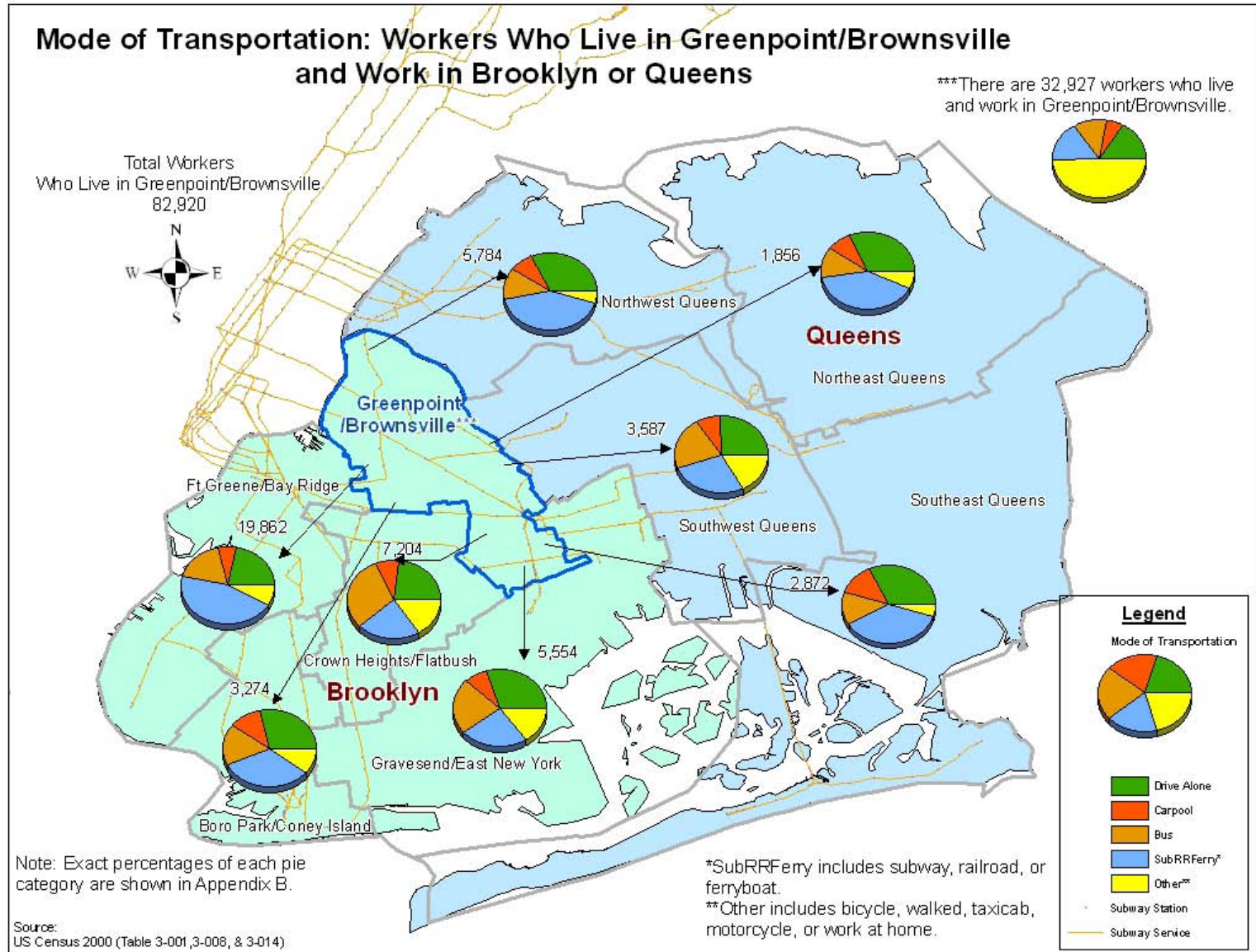




Map 48. Mode of Transportation: Workers Who Live in Southwest Queens and Work in Brooklyn or Queens

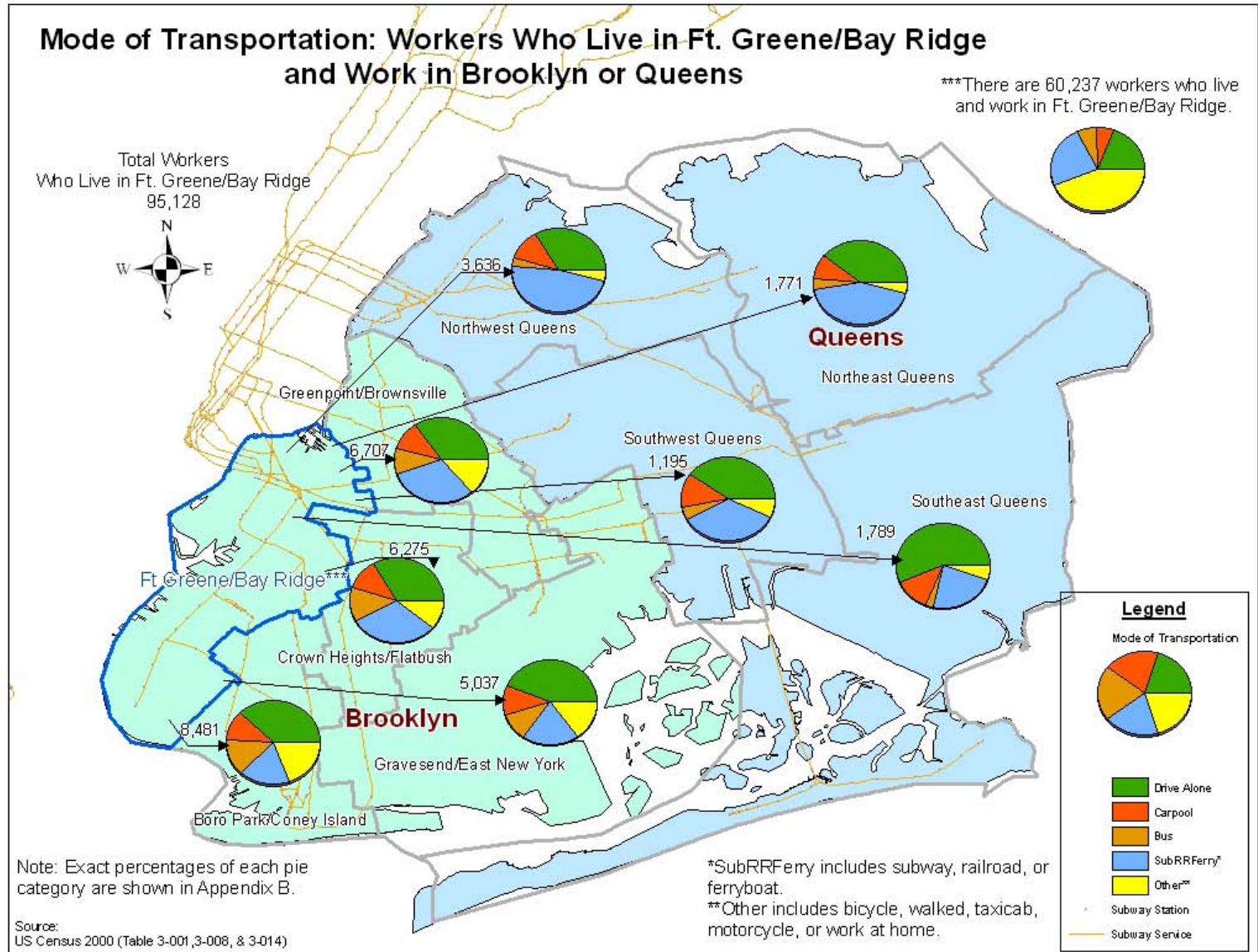


Map 49. Mode of Transportation: Workers Who Live in Greenpoint/Brownsville and Work in Brooklyn or Queens

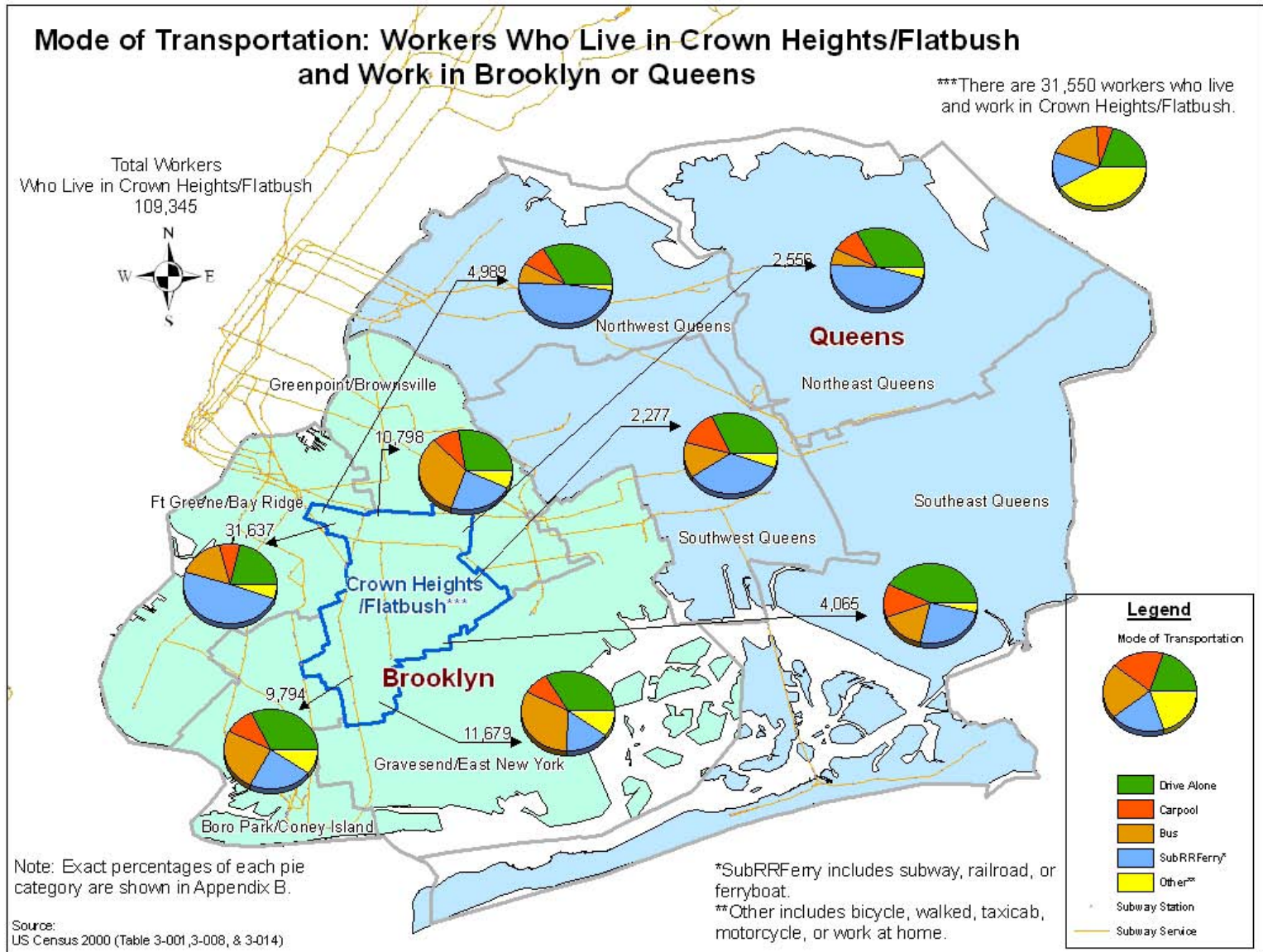




Map 50. Mode of Transportation: Workers Who Live in Ft. Greene/Bay Ridge and Work in Brooklyn or Queens

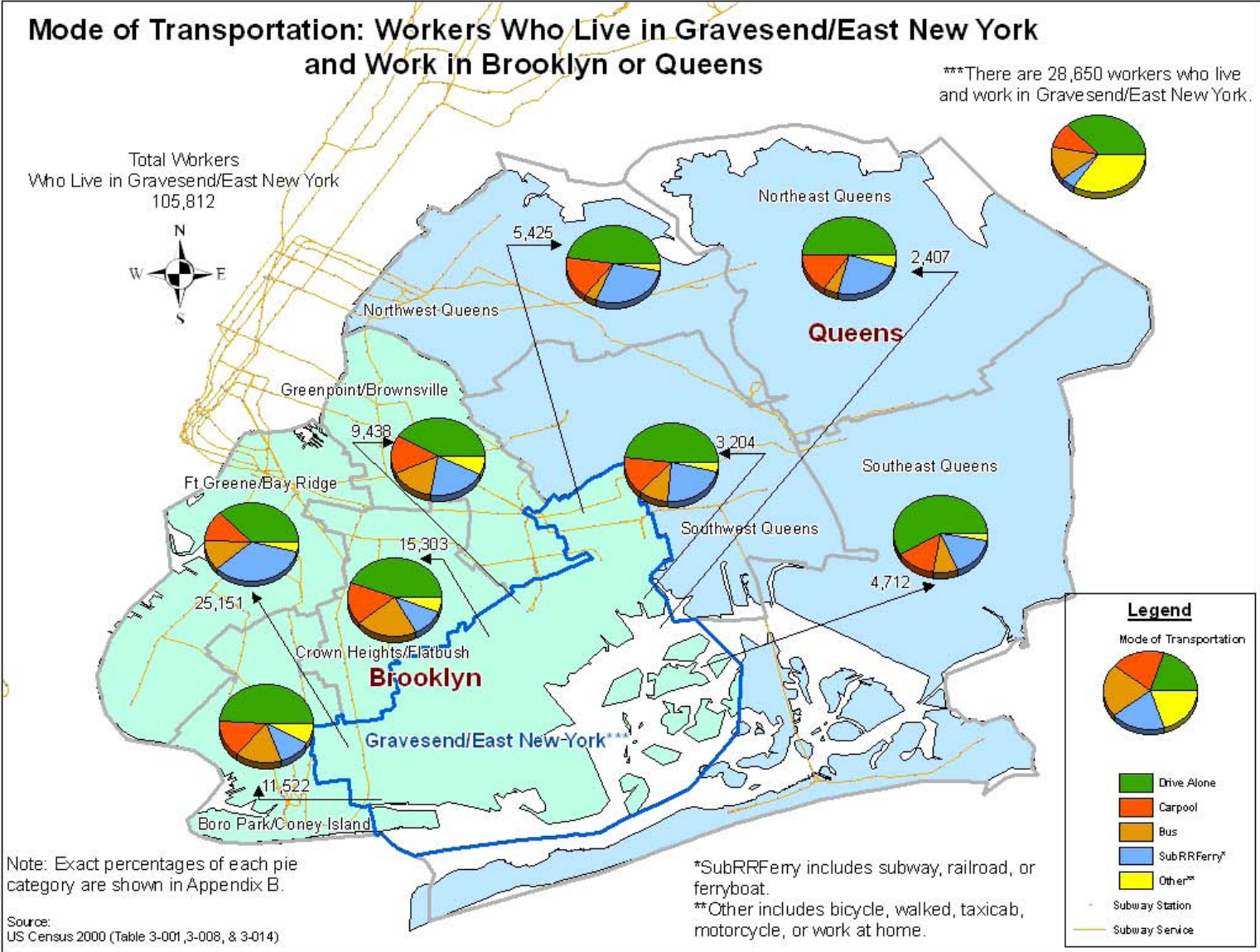


Map 51. Mode of Transportation: Workers Who Live in Crown Heights/Flatbush and Work in Brooklyn or Queens



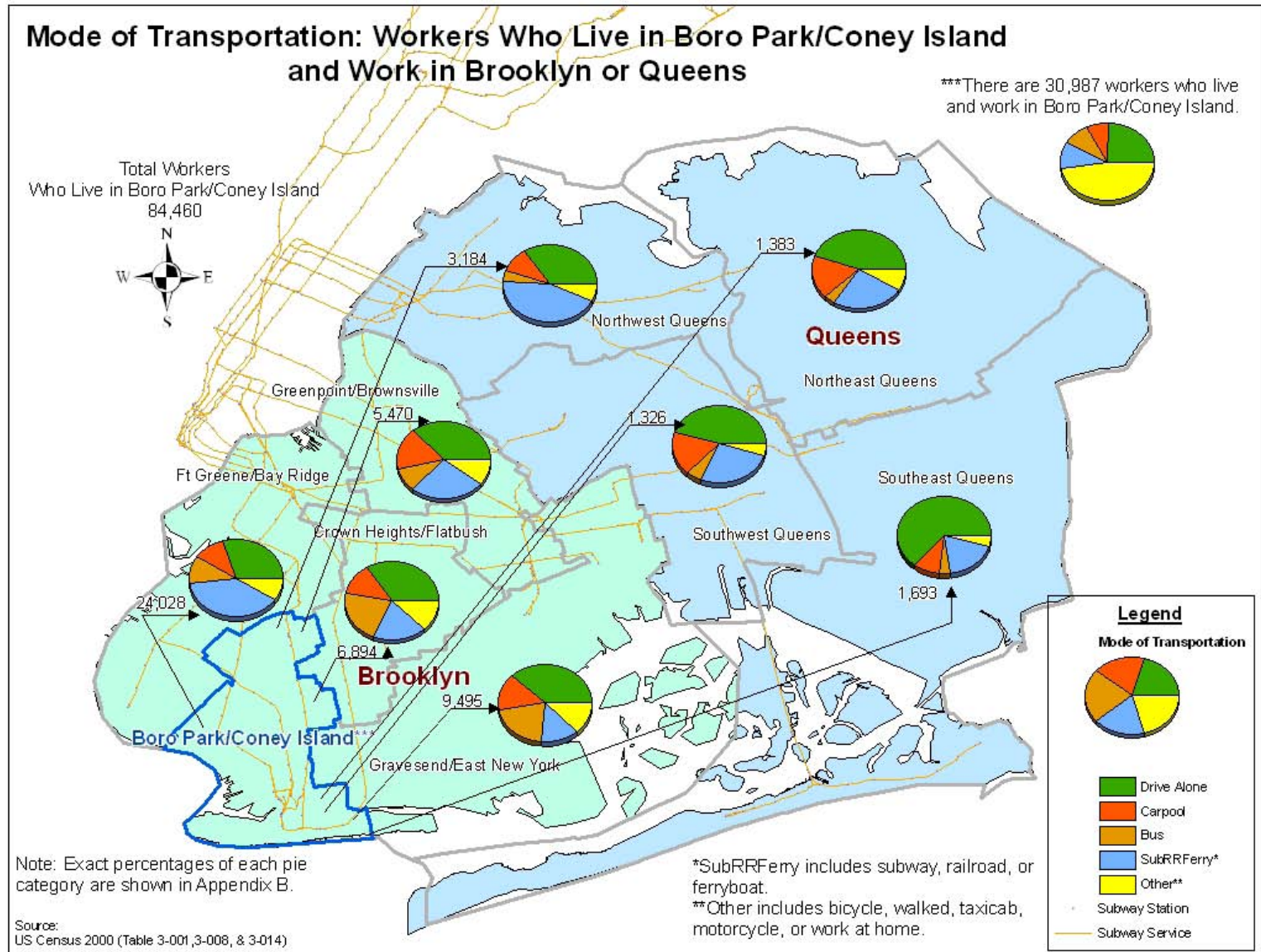


Map 52. Mode of Transportation: Workers Who Live in Gravesend/East New York and Work in Brooklyn or Queens





Map 53. Mode of Transportation: Workers Who Live in Boro Park/Coney Island and Work in Brooklyn or Queens



# Study Area to Study Area: Brooklyn-Queens Inbound Travel by Workers

This section explains where the workers in each Study Area live in Brooklyn or Queens, and their mode of transportation to work.

The following Table 10 and Maps 54-62 show the number of workers in the Brooklyn and Queens Study Areas and their inbound travel to work from their place of residence. The highlights in Table 10 represent the largest number of inbound travelers from a Brooklyn-Queens Study Area into a Brooklyn-Queens Study Area.

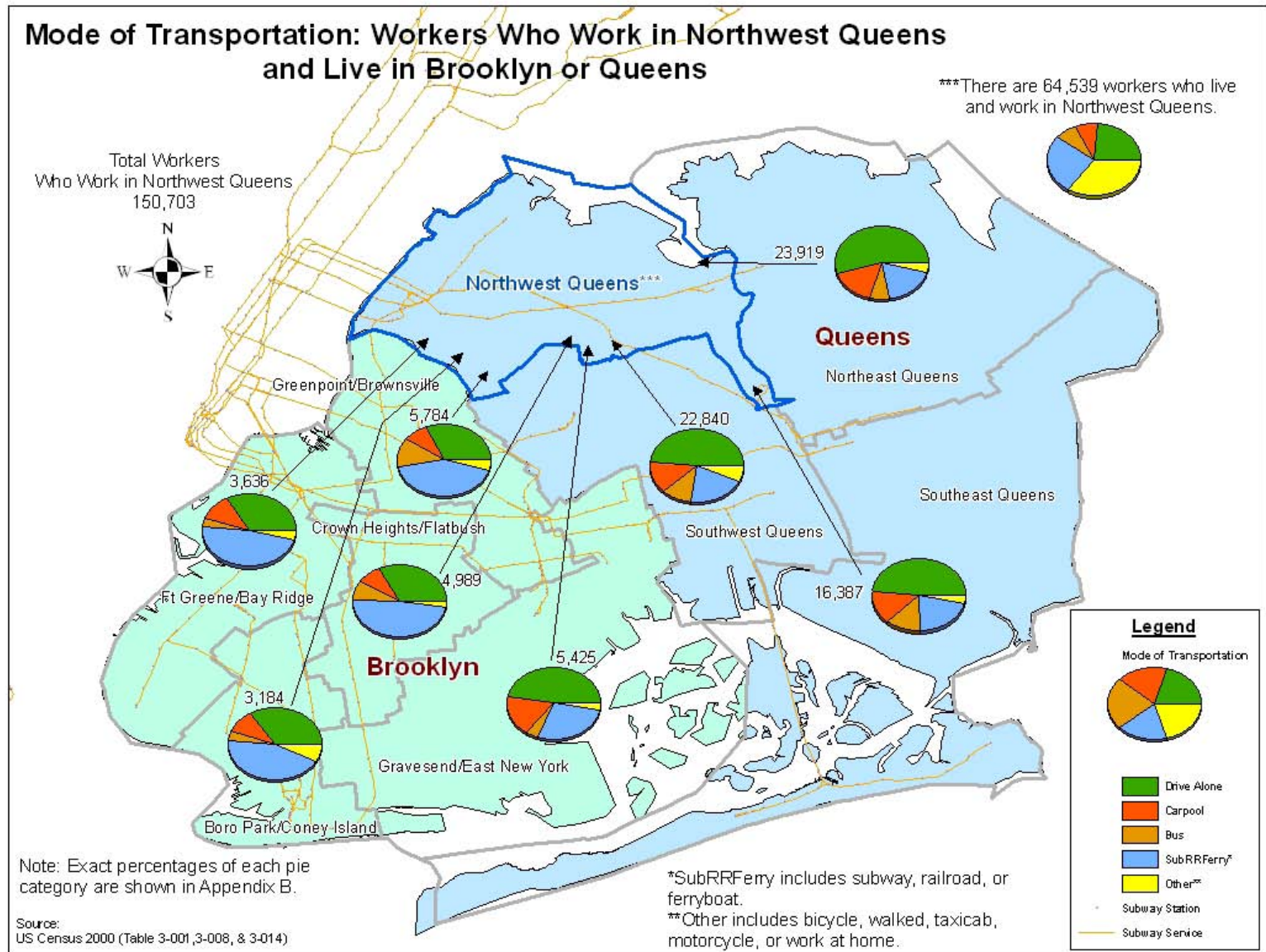
**Table 10. Brooklyn-Queens Workers: Place of Residence**

Destination:  Study Areas of Work	Origin: Place of Residence								
	Brooklyn Study Area					Queens Study Area			
	121	122	123	124	125	111	112	113	114
<b>Brooklyn</b>									
121- Greenpoint/Brownsville	<b>32,927</b>	6,707	10,798	9,438	5,470	4,324	2,905	4,527	<b>8,759</b>
122- Ft. Greene/Bay Ridge	19,862	<b>60,237</b>	31,637	25,151	24,028	8,525	5,714	<b>11,115</b>	9,705
123- Crown Heights/Flatbush	7,204	6,275	<b>31,550</b>	15,303	6,894	1,742	1,706	<b>3,936</b>	2,930
124- Gravesend/East New York	5,554	5,037	11,679	<b>28,650</b>	9,495	1,792	2,054	3,660	<b>4,241</b>
125- Boro Park/Coney Island	3,274	8,481	9,794	11,522	<b>30,987</b>	1,265	1,112	<b>2,057</b>	1,703
Total	68,821	86,737	95,458	90,064	76,874	17,648	13,491	25,295	27,338
<b>Queens</b>									
111- Northwest	<b>5,784</b>	3,636	4,989	5,425	3,184	<b>64,539</b>	23,919	16,387	22,840
112- Northeast	1,856	1,771	<b>2,556</b>	2,407	1,383	13,304	<b>49,096</b>	13,469	10,265
113- Southeast	2,872	1,789	4,065	<b>4,712</b>	1,693	9,109	12,798	<b>41,391</b>	16,261
114- Southwest	<b>3,587</b>	1,195	2,277	3,204	1,326	10,086	9,217	9,655	<b>35,345</b>
Total	14,099	8,391	13,887	15,748	7,586	97,038	95,030	80,902	84,711

Source: U.S. Census 2000

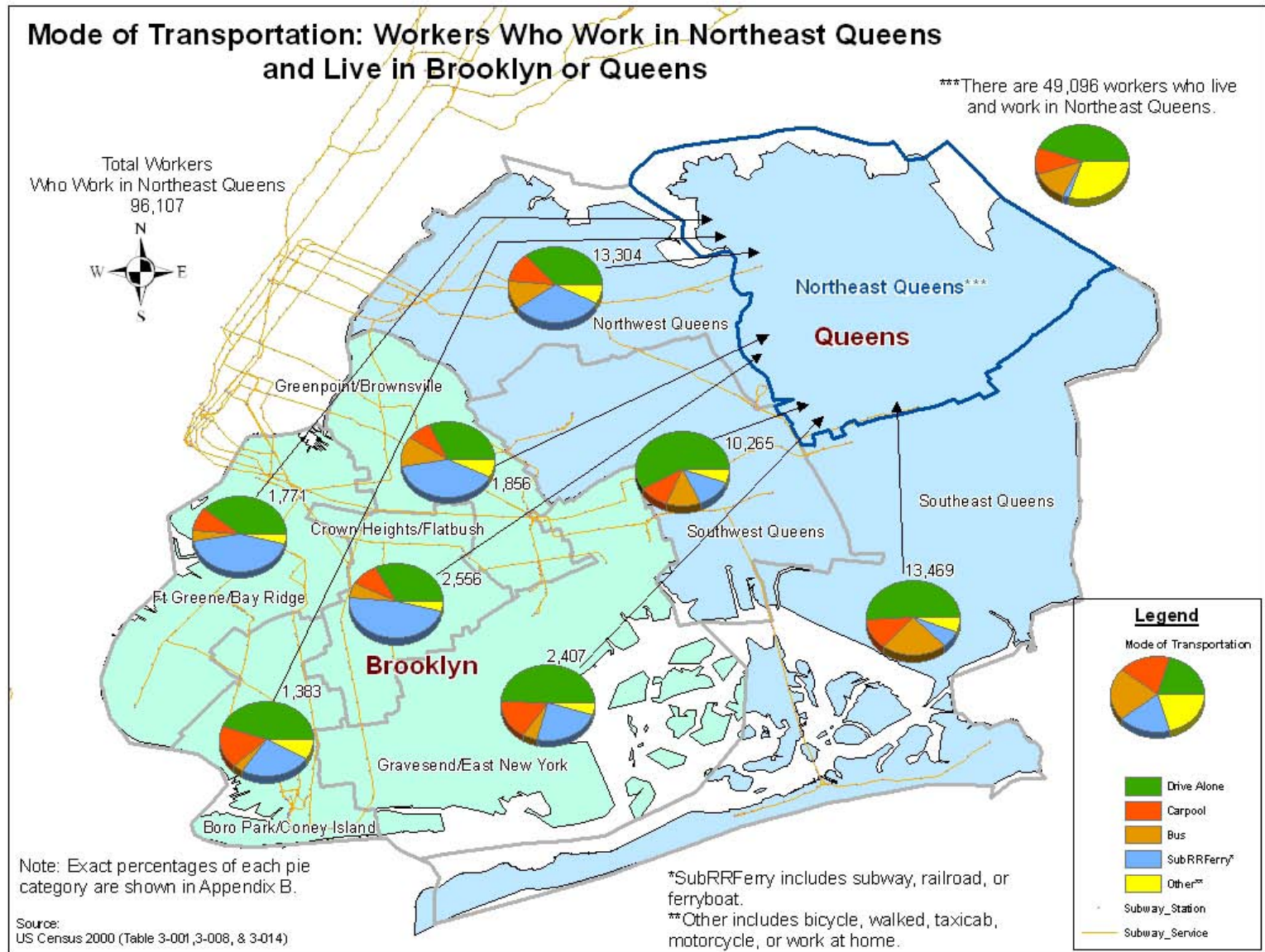
- Table 10 shows Brooklyn and Queens Study Area workers predominantly live in the same Study Area as their jobs. The next largest number of workers from the Brooklyn Study Areas lives in Southeast and Southwest Queens (see Table 10).
- Maps 54-62 represent the mode of transportation to work for Brooklyn and Queens workers. The largest flow of Brooklyn workers commuting from Southeast and Southwest Queens use car as their primary mode of transportation (see Maps 58-62 or Appendix B).
- Northwest Queens workers who live in Brooklyn primarily commute by Subway/RR/Ferry, with the exception of Gravesend/East New York Study Area. Northwest Queens workers who live in other Queens Study Areas tend to drive for their commute to work (see Maps 54-57 or Appendix B).
- Workers who live or work in Southeast Queens tend to drive alone to their jobs (see Maps 54-62 or Appendix B).
- Of all the Study Areas in Brooklyn and Queens, Fort Greene/Bay Ridge has the biggest inbound Subway/RR/Ferry share (see Map 59 or Appendix B).
- After the workers who reside within a study area, the next highest number of workers comes from the adjoining Study Areas (Maps 54, 56-58, 61).

Map 54. Mode of Transportation: Workers Who Work in Northwest Queens and Live in Brooklyn or Queens

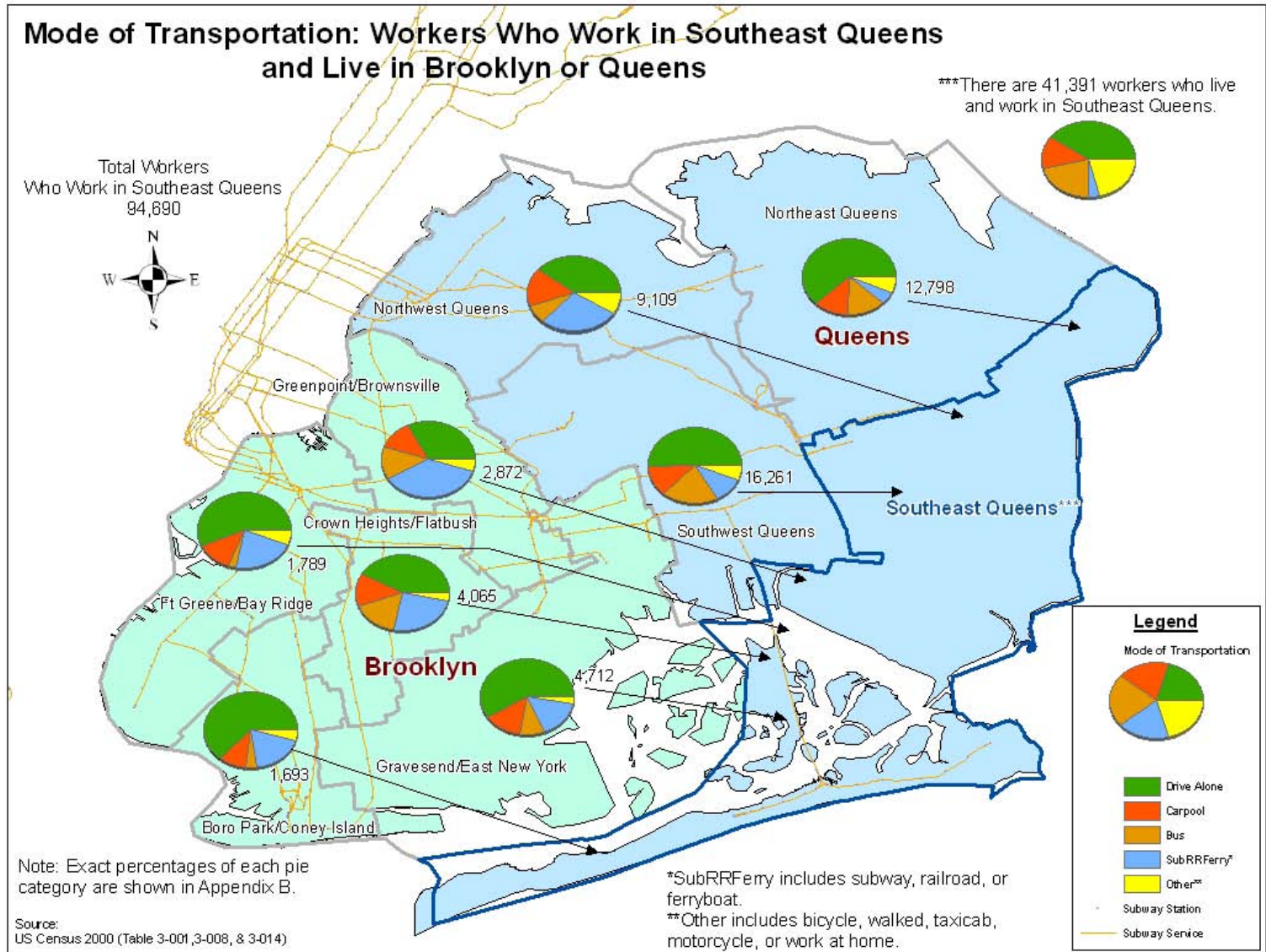




Map 55. Mode of Transportation: Workers Who Work in Northeast Queens and Live in Brooklyn or Queens

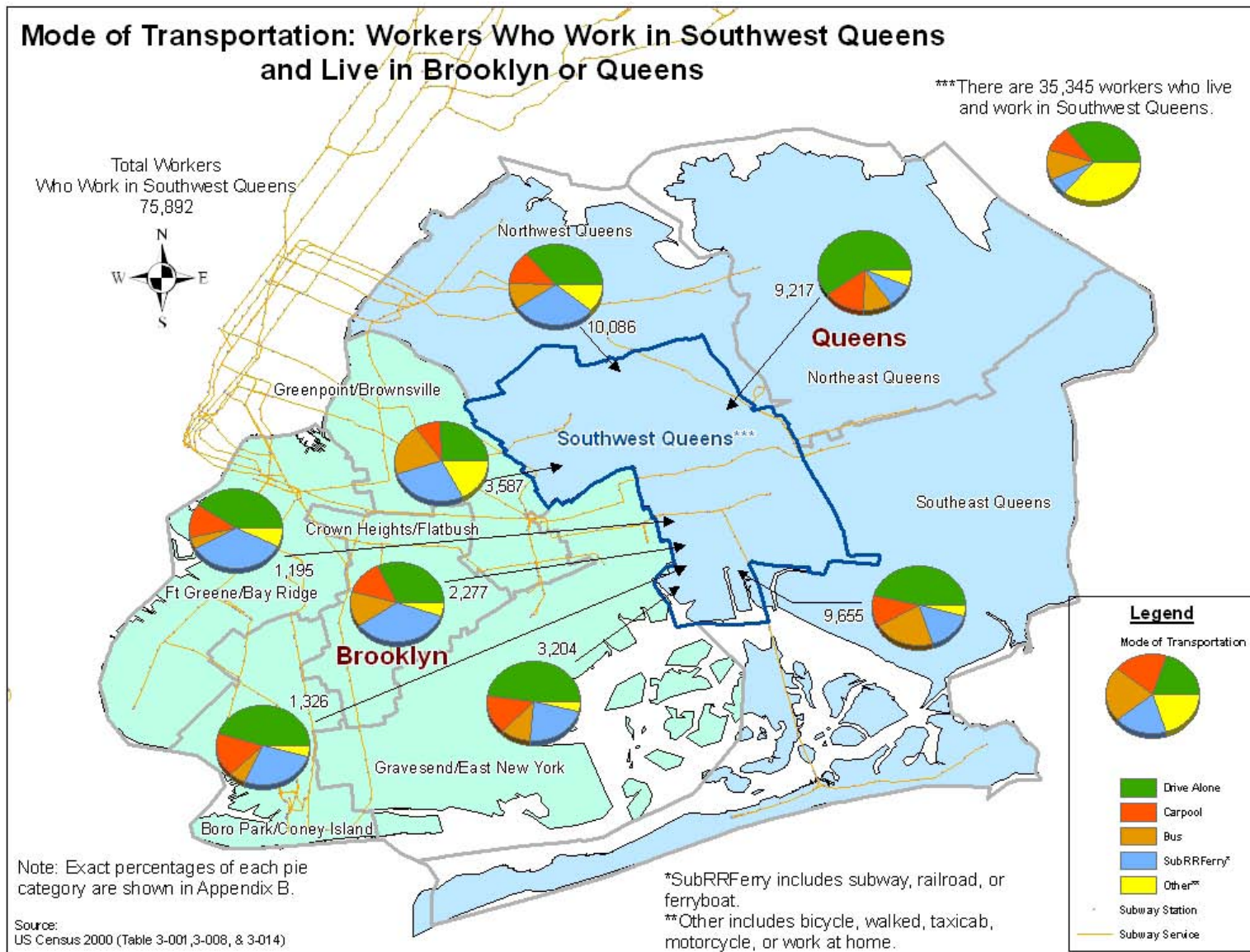


Map 56. Mode of Transportation: Workers Who Work in Southeast Queens and Live in Brooklyn or Queens



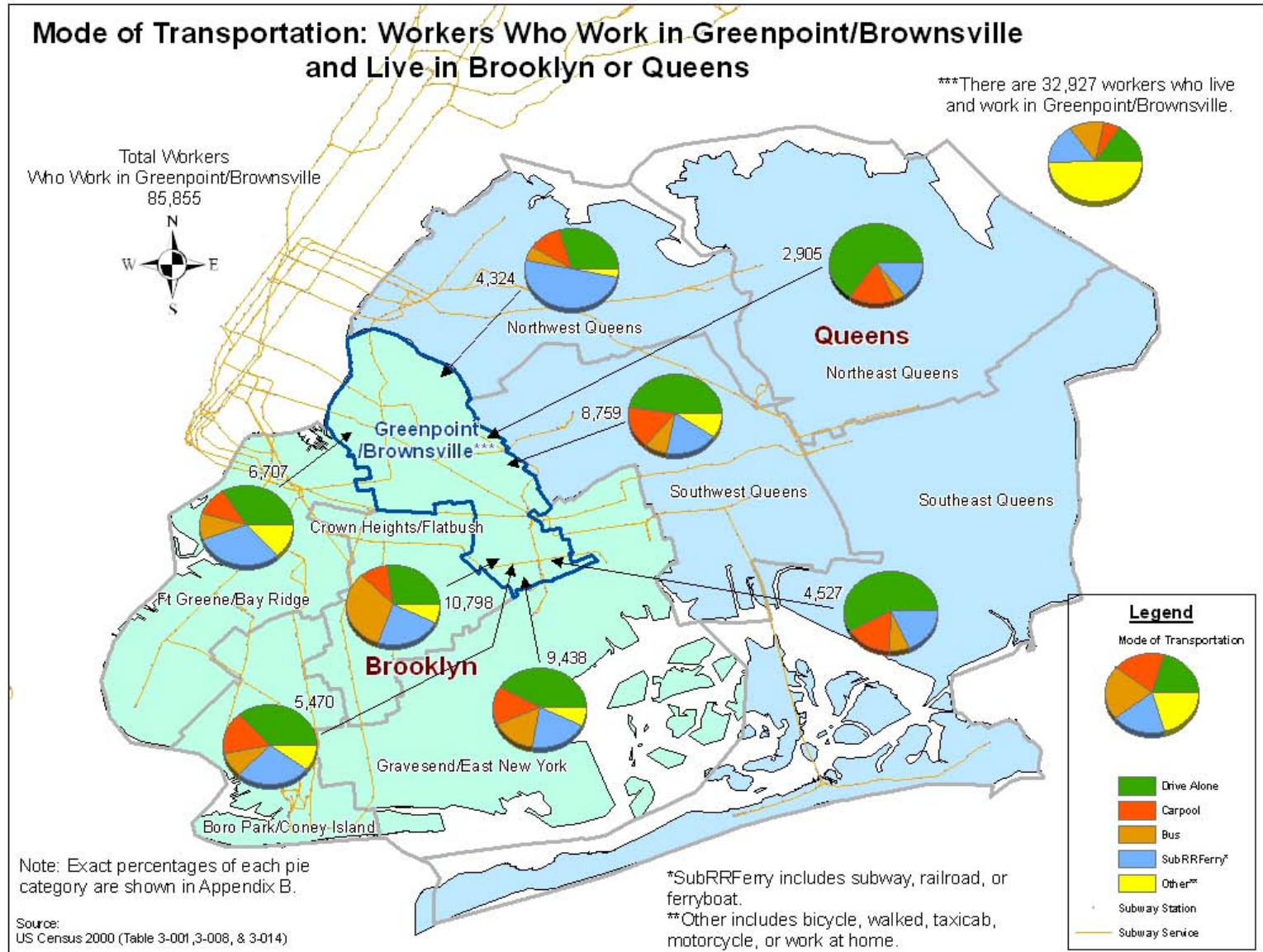


Map 57. Mode of Transportation: Workers Who Work in Southwest Queens and Live in Brooklyn or Queens

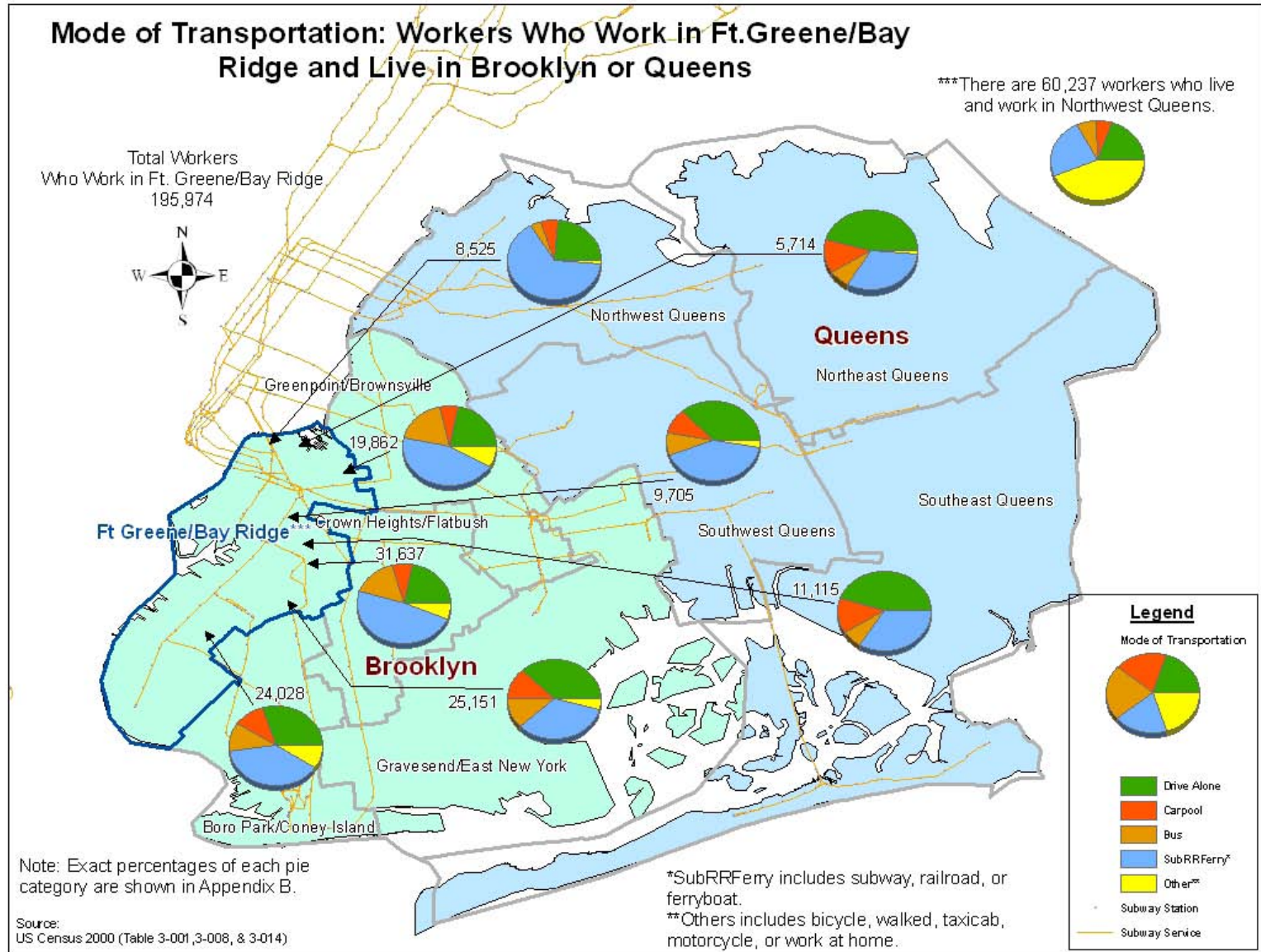




Map 58. Mode of Transportation: Workers Who Work in Greenpoint/Brownsville and Live in Brooklyn or Queens

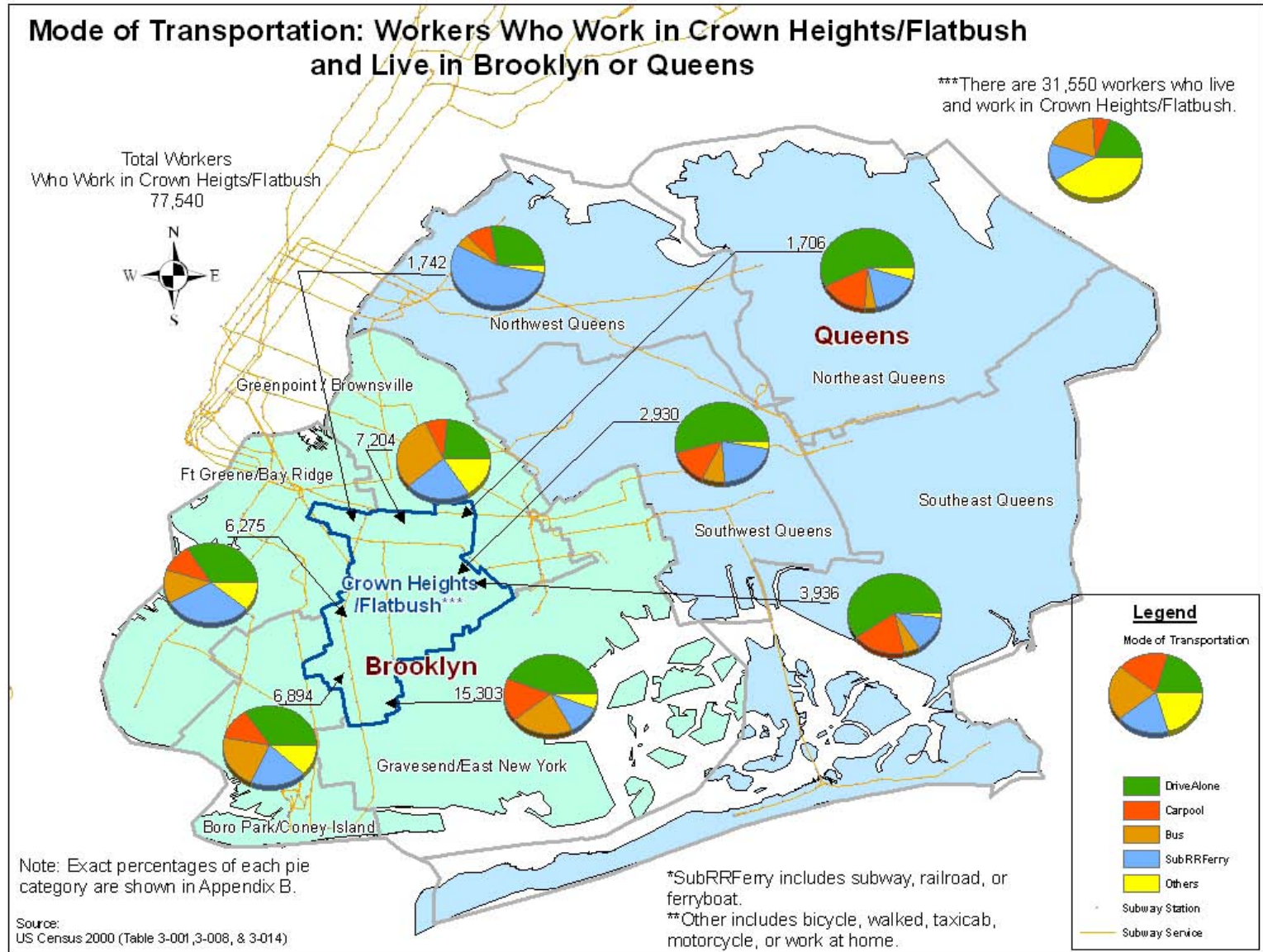


Map 59. Mode of Transportation: Workers Who Work in Ft. Greene/Bay Ridge and Live in Brooklyn or Queens



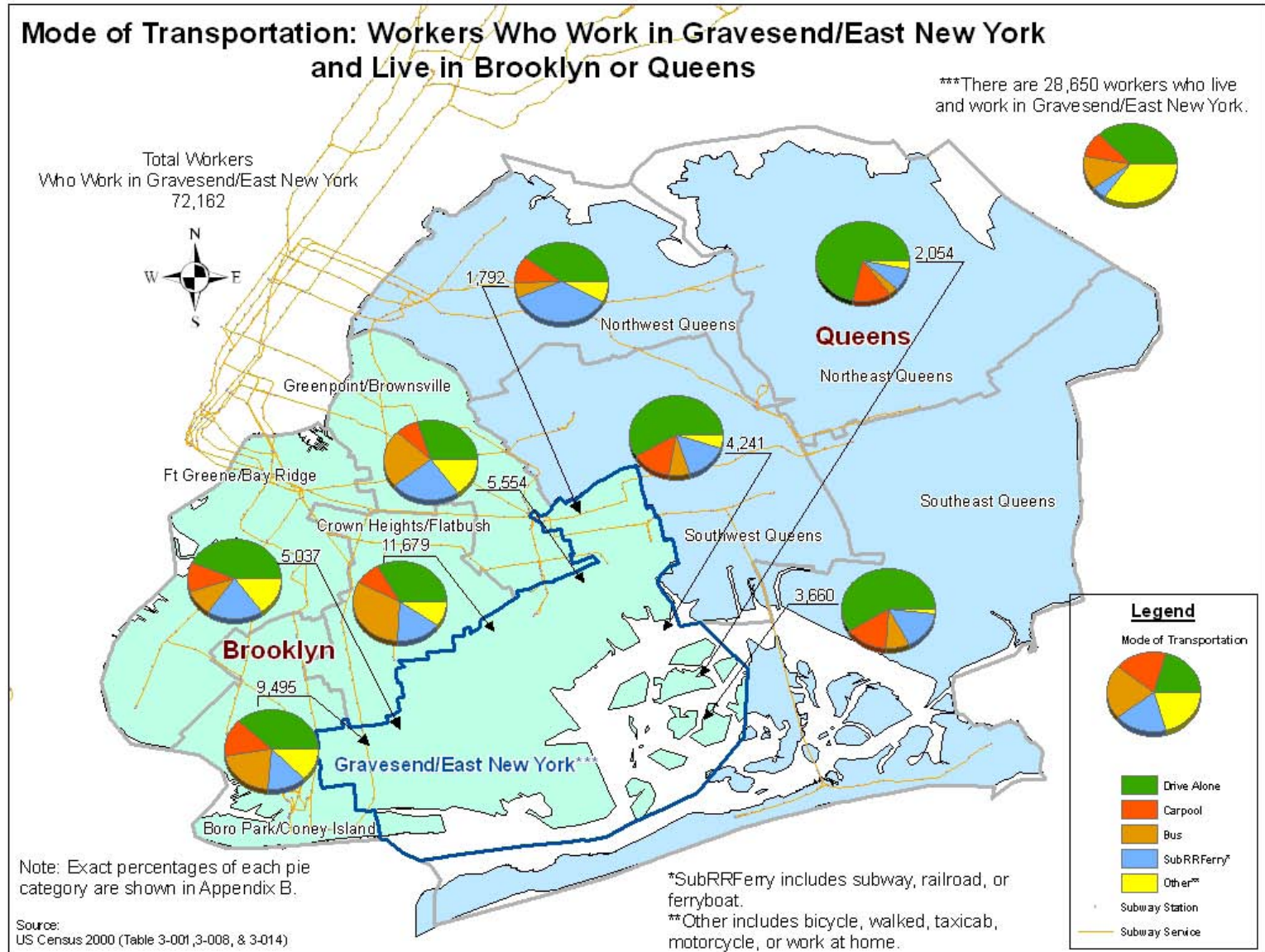


Map 60. Mode of Transportation: Workers Who Work in Crown Heights/Flatbush and Live in Brooklyn or Queens

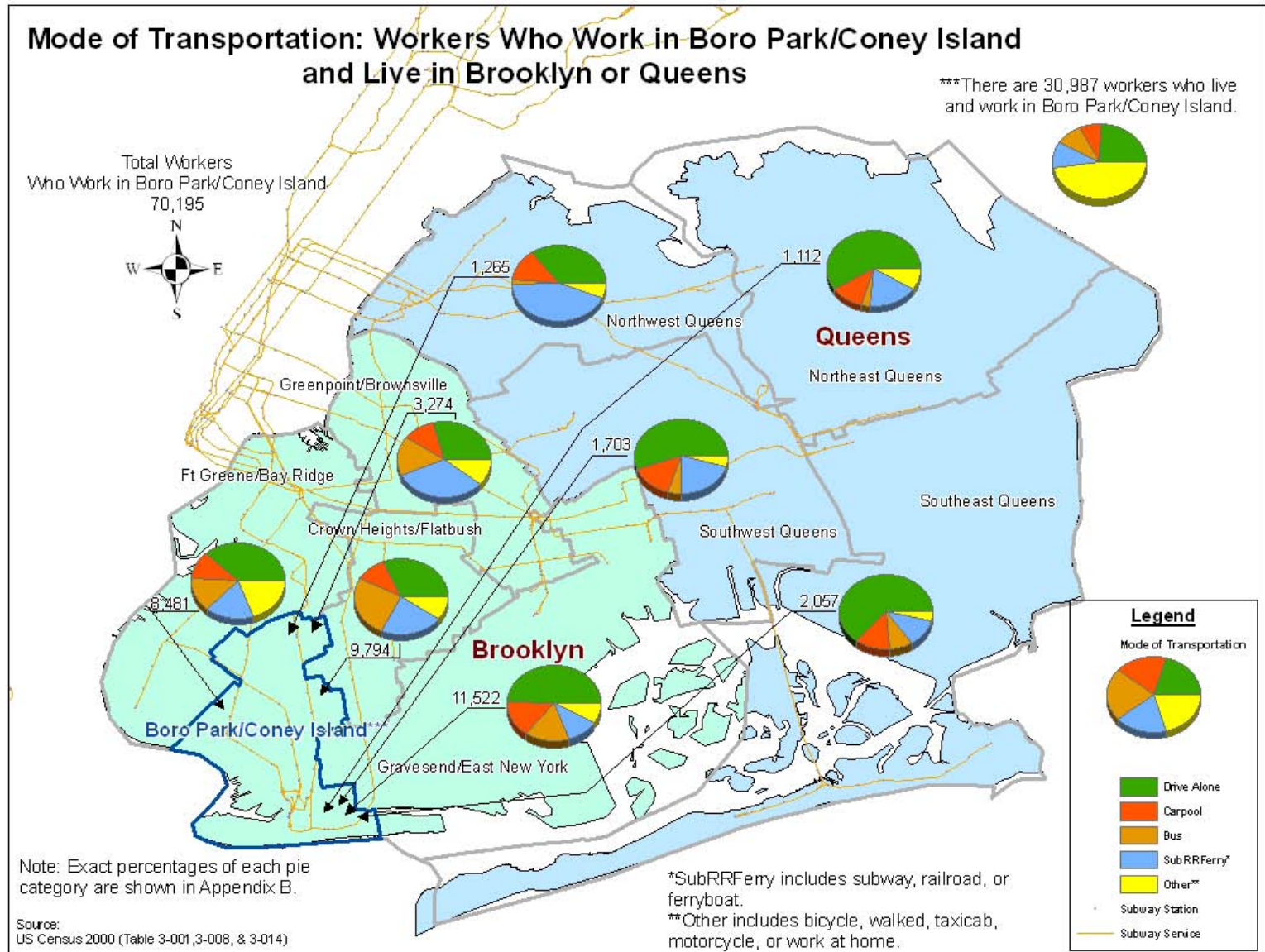




Map 61. Mode of Transportation: Workers Who Work in Gravesend/East New York and Live in Brooklyn or Queens



Map 62. Mode of Transportation: Workers Who Work in Boro Park/Coney Island and Live in Brooklyn or Queens



# Study Area to Study Area: Bronx-Queens Outbound Travel to Place of Work

This section explains, for the workers reside within each Study Area, where such workers have their place of work located in Bronx and Queens, in addition to their mode of transportation to work.

The following Table 11 and Maps 63-68 show the number of workers in the Brooklyn and Queens Study Areas and their outbound travel to their place of work. The highlights in Table 11 represent the largest number of commuters for each Bronx and Queens' study area.

**Table 11. Bronx-Queens Residents: Place of Work**

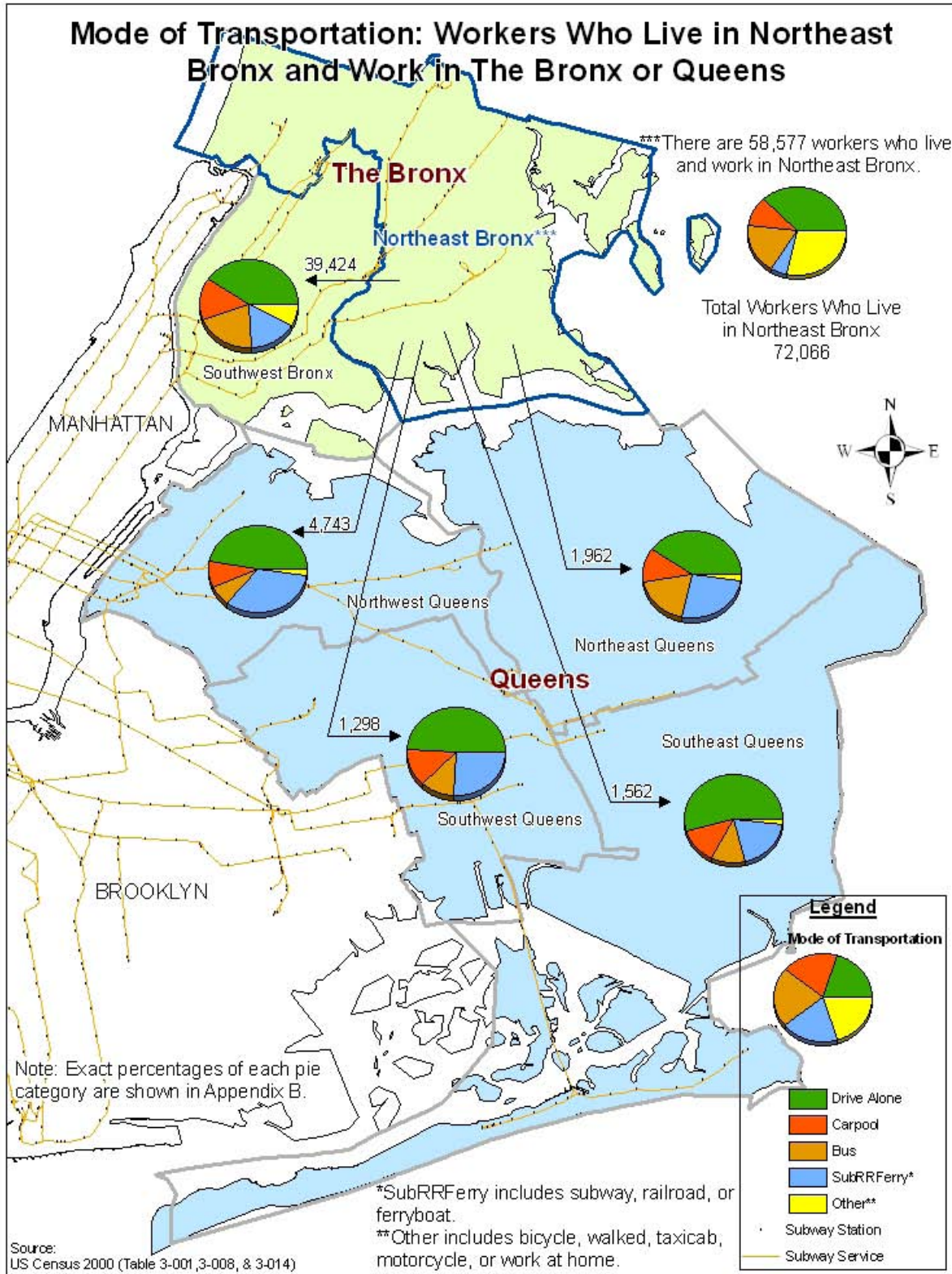
Origin: Study Area of Residence	Destination: Place of Work					
	Bronx Study Area		Queens Study Area			
	91	92	111	112	113	114
<b>Bronx</b>						
91- Northeast	<b>58,577</b>	39,424	<b>4,743</b>	1,962	1,562	1,298
92- Southwest	19,294	<b>50,755</b>	<b>4,291</b>	1,192	1,122	985
Total	<b>77,871</b>	90,179	9,034	3,154	2,684	2,283
<b>Queens</b>						
111- Northwest	1,855	2,762	<b>64,539</b>	13,304	9,109	10,086
112- Northeast	2,249	2,861	23,919	<b>49,096</b>	12,798	9,217
113- Southeast	1,652	2,286	16,387	13,469	<b>41,391</b>	9,655
114- Southwest	1,605	2,227	22,840	10,265	16,261	<b>35,345</b>
Total	7,361	10,136	127,685	86,134	79,559	64,303

Source: U.S. Census 2000

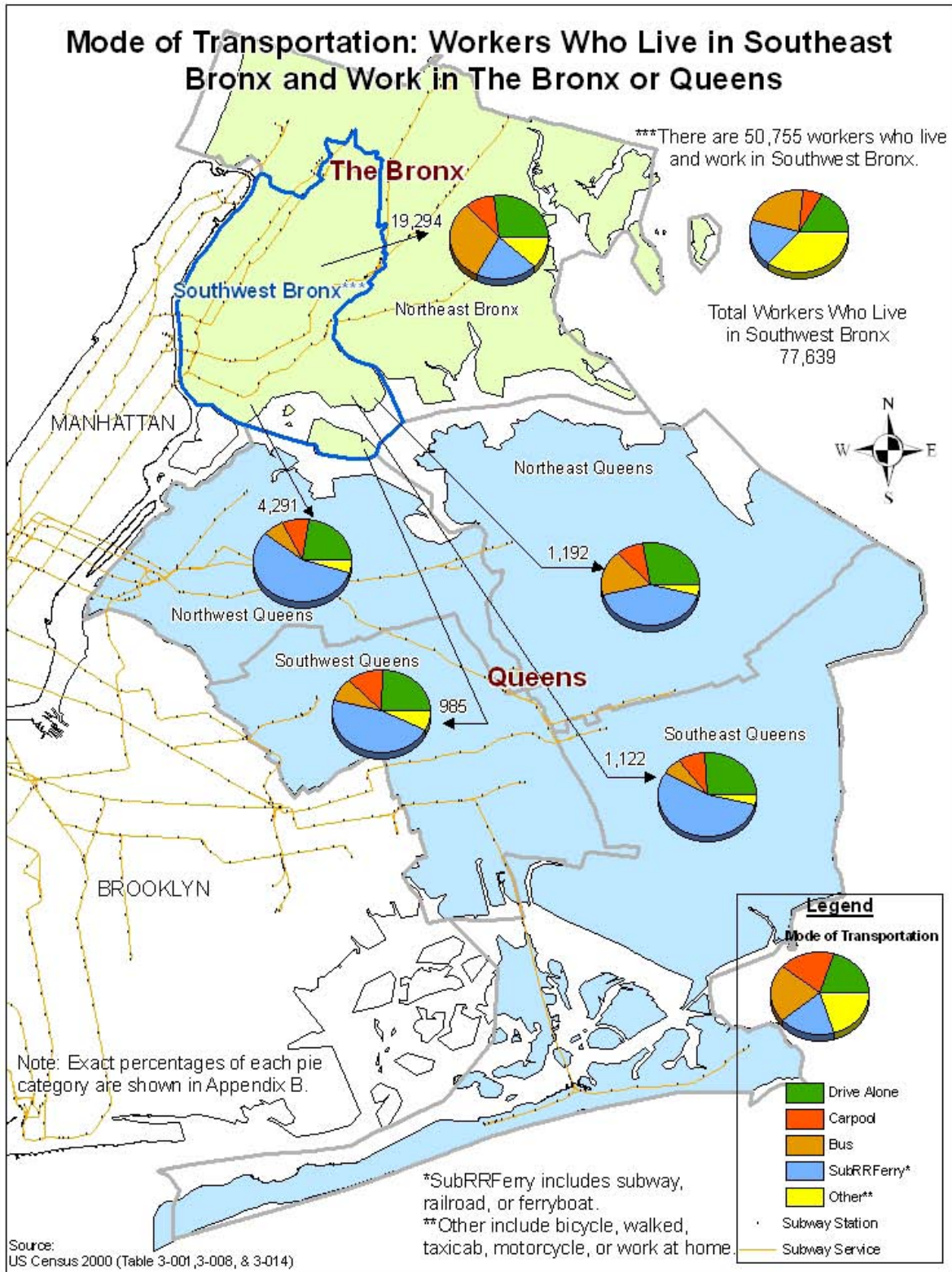
- Table 11 shows the greatest number of Bronx and Queens Study Area residents also work in the same area as their home. Bronx Study Area residents who commute to Queens are more likely to work in the Northwest Study Area whereas Queens Study Area residents who commute to the Bronx are more likely to work in the Southwest Study Area.
- Maps 63-68 represent the mode of transportation to work for Bronx and Queens residents. Queens residents who work in the Southwest Bronx Study Area predominantly commute by car than any other mode of transportation (see Map 70 or Appendix B).
- Bronx and Queens residents who live and work in the same Study Area have the highest share of 'Other' than any other Study Area as their means of transportation (see Maps 63-68 or Appendix B).
- Workers who live in Queens Study Areas and work in Northeast Bronx tend to drive alone for their commute. Workers who live in Northeast, Southeast, and Southwest Queens Study Areas and work in Southwest Bronx tend to commute by car, with the exception of Northwest Queens residents who choose to commute by Subway/RR/Ferry (see Maps 65-68 or Appendix B).
- Workers who live in Southwest Bronx and work in Queens tend to commute by Subway/RR/Ferry while workers who live in Northeast Bronx and work in Queens tend to drive alone (see Maps 63-64 or Appendix B).
- The destination number to study areas, within the same borough, is higher than those from adjacent borough are.



Map 63. Mode of Transportation: Workers Who Live in Northeast Bronx and Work in The Bronx or Queens

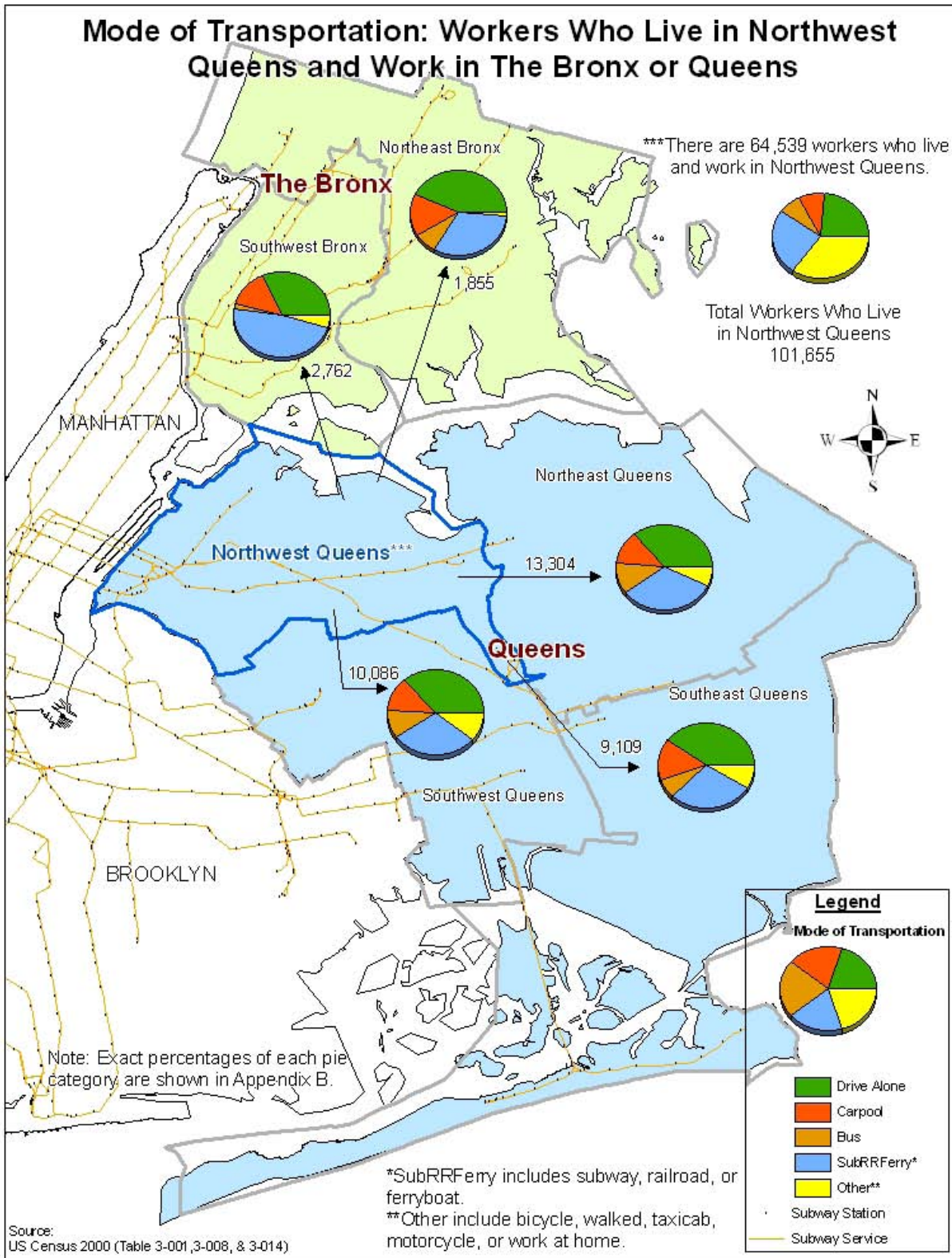


Map 64. Mode of Transportation: Workers Who Live in Southeast Bronx and Work in The Bronx or Queens



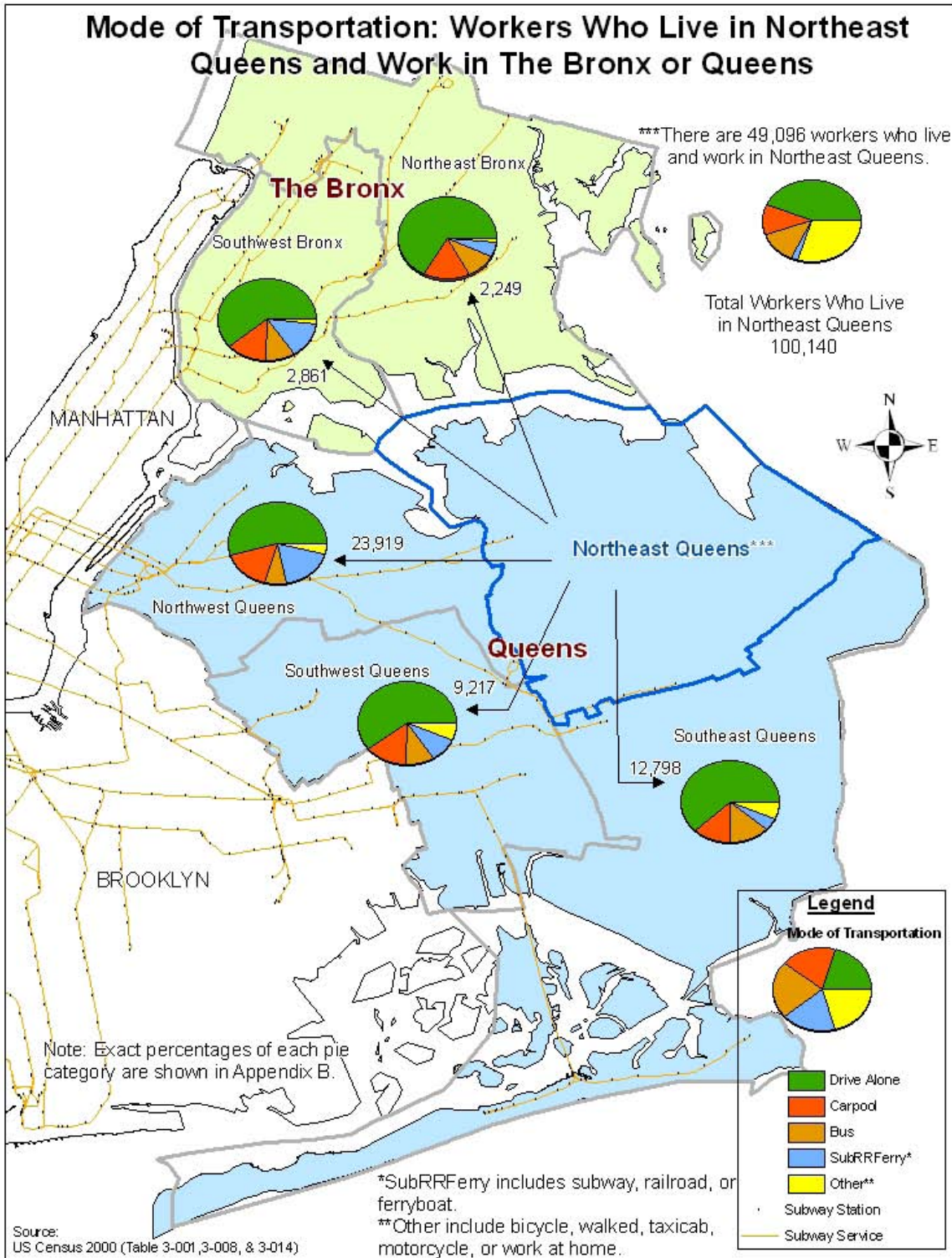


Map 65. Mode of Transportation: Workers Who Live in Northwest Queens and Work in The Bronx or Queens

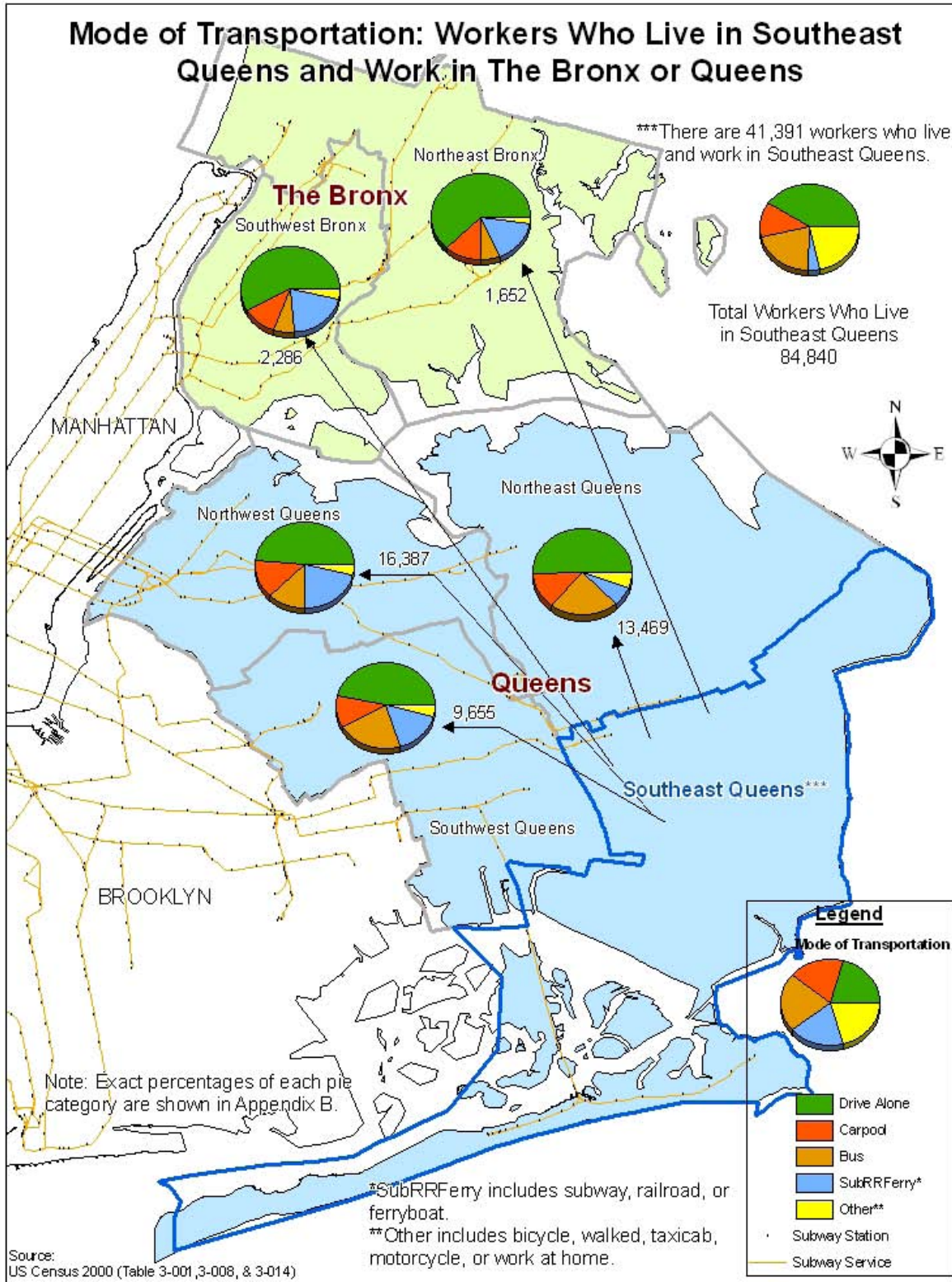




Map 66. Mode of Transportation: Workers Who Live in Northeast Queens and Work in The Bronx or Queens

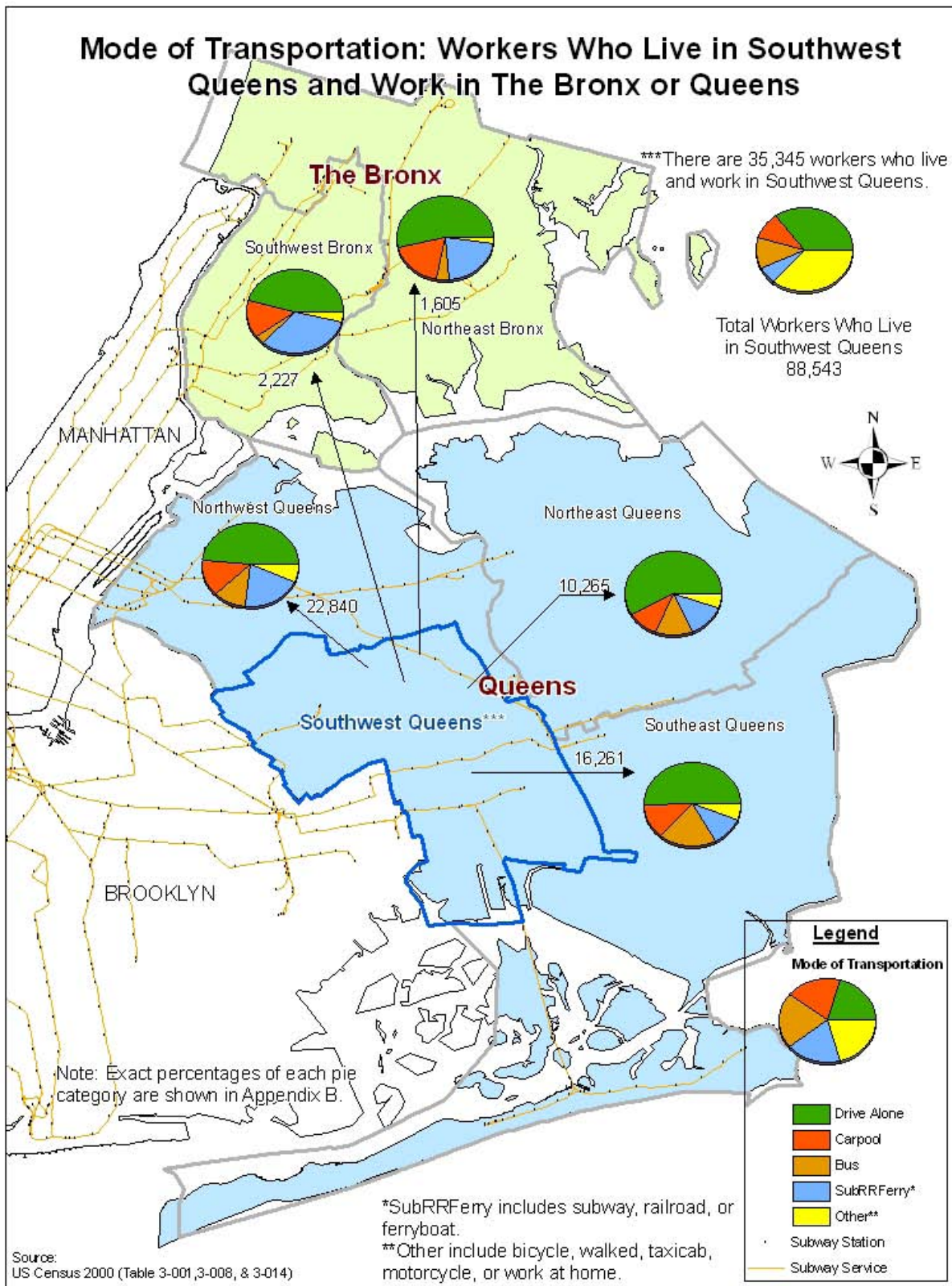


Map 67. Mode of Transportation: Workers Who Live in Southeast Queens and Work in The Bronx or Queens





Map 68. Mode of Transportation: Workers Who Live in Southwest Queens and Work in The Bronx or Queens





# Study Area to Study Area: The Bronx-Queens Inbound Travel by Workers

This section analyzes The Bronx and Queens Study Area workers and their place of residence in The Bronx or Queens Study Area, along with their mode of transportation to work.

The following Table 12 and Maps 69-74 show the number of workers in The Bronx and Queens Study Areas and their inbound travel to work from their place of residence. The highlights in Table 12 indicate the largest number of inbound travelers from a Study Area to a Brooklyn or Queens Study Area for work..

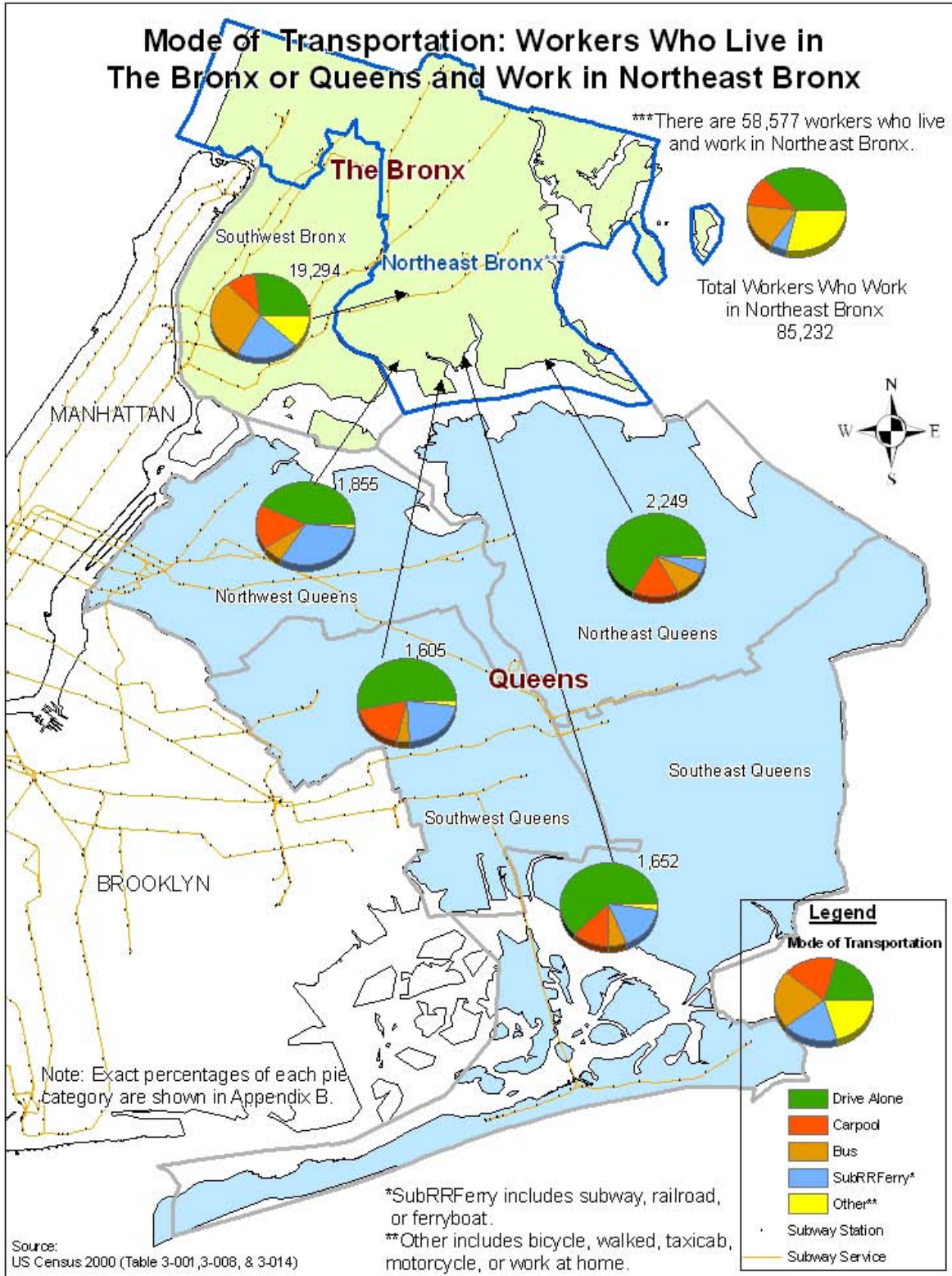
**Table 12. Bronx-Queens Workers: Place of Residence**

Destination:  Study Areas of Work	Origin: Place of Residence					
	Bronx Study Area		Queens Study Area			
	91	92	111	112	113	114
<b>Bronx</b>						
91- Northeast	<b>58,577</b>	19,294	1,855	<b>2,249</b>	1,652	1,605
92- Southwest	39,424	<b>50,755</b>	2,762	<b>2,861</b>	2,286	2,227
Total	98,001	70,049	4,617	5,110	3,938	3,832
<b>Queens</b>						
111- Northwest	<b>4,743</b>	4,291	<b>64,539</b>	23,919	16,387	22,840
112- Northeast	<b>1,962</b>	1,192	13,304	<b>49,096</b>	13,469	10,265
113- Southeast	<b>1,562</b>	1,122	9,109	12,798	<b>41,391</b>	16,261
114- Southwest	<b>1,298</b>	985	10,086	9,217	9,655	<b>35,345</b>
Total	9,565	7,590	97,038	95,030	80,902	84,711

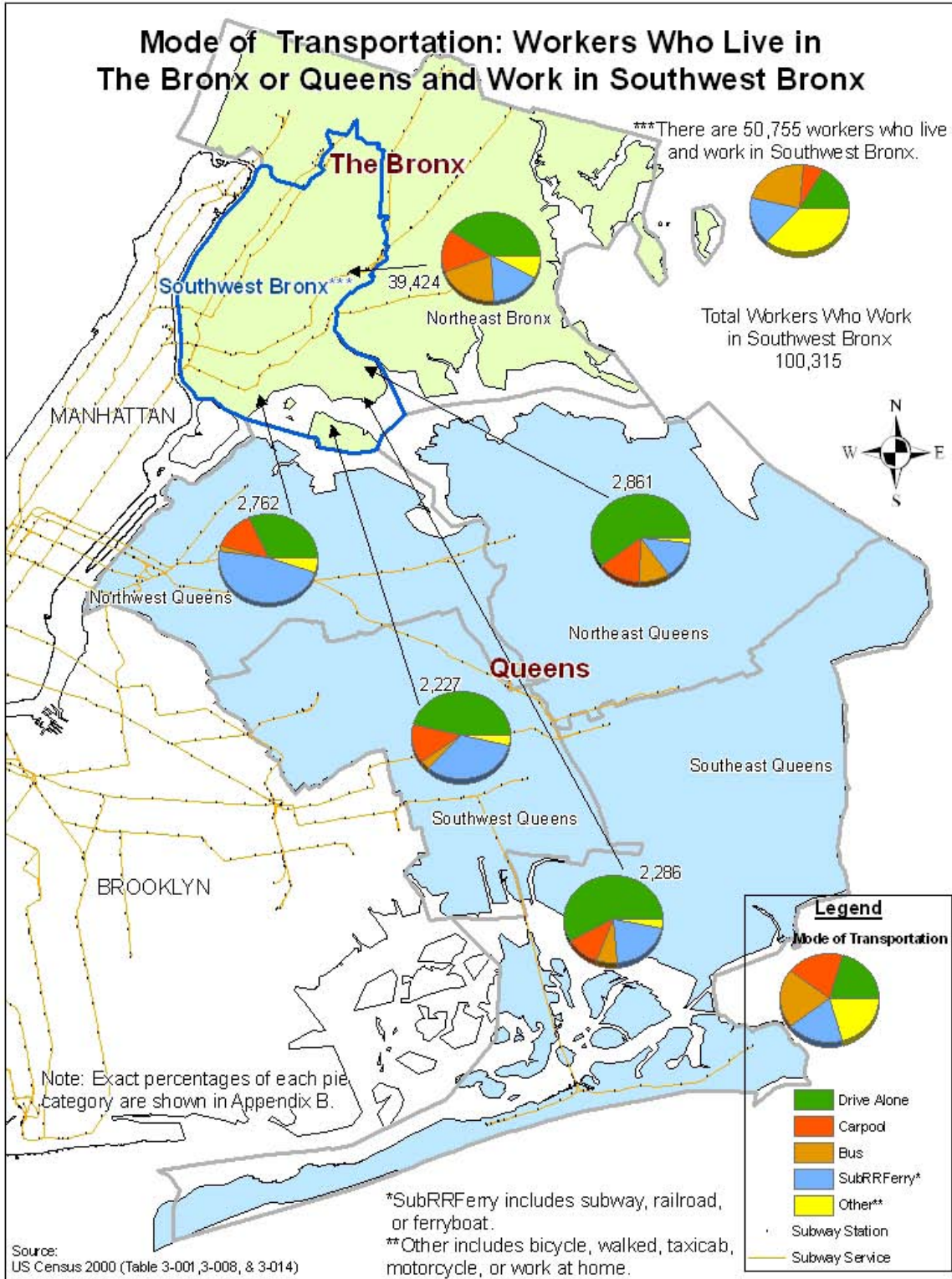
Source: U.S. Census 2000

- Table 12 also shows most Bronx and Queens Study Area workers also live in the same Study Area as their jobs.
- Maps 69-74 represent the mode of transportation to work for Bronx and Queens workers. The largest flow of Bronx workers commuting from Northeast Queens Study Area use car as their primary mode of transportation (see Maps 69-70 or Appendix B).
- The largest flow of Queens workers commuting from Northeast Bronx Study Area use car as their primary mode of transportation (see Maps 71-74 or Appendix B).
- Workers who live and work in Queens or work in The Bronx tend to drive alone. Workers who live in Northwest Queens and work in Southwest Bronx tend to choose Subway/RR/Ferry (see Maps 69-74 or Appendix B).

Map 69. Mode of Transportation: Workers Who Live in The Bronx or Queens and Work in Northeast Bronx

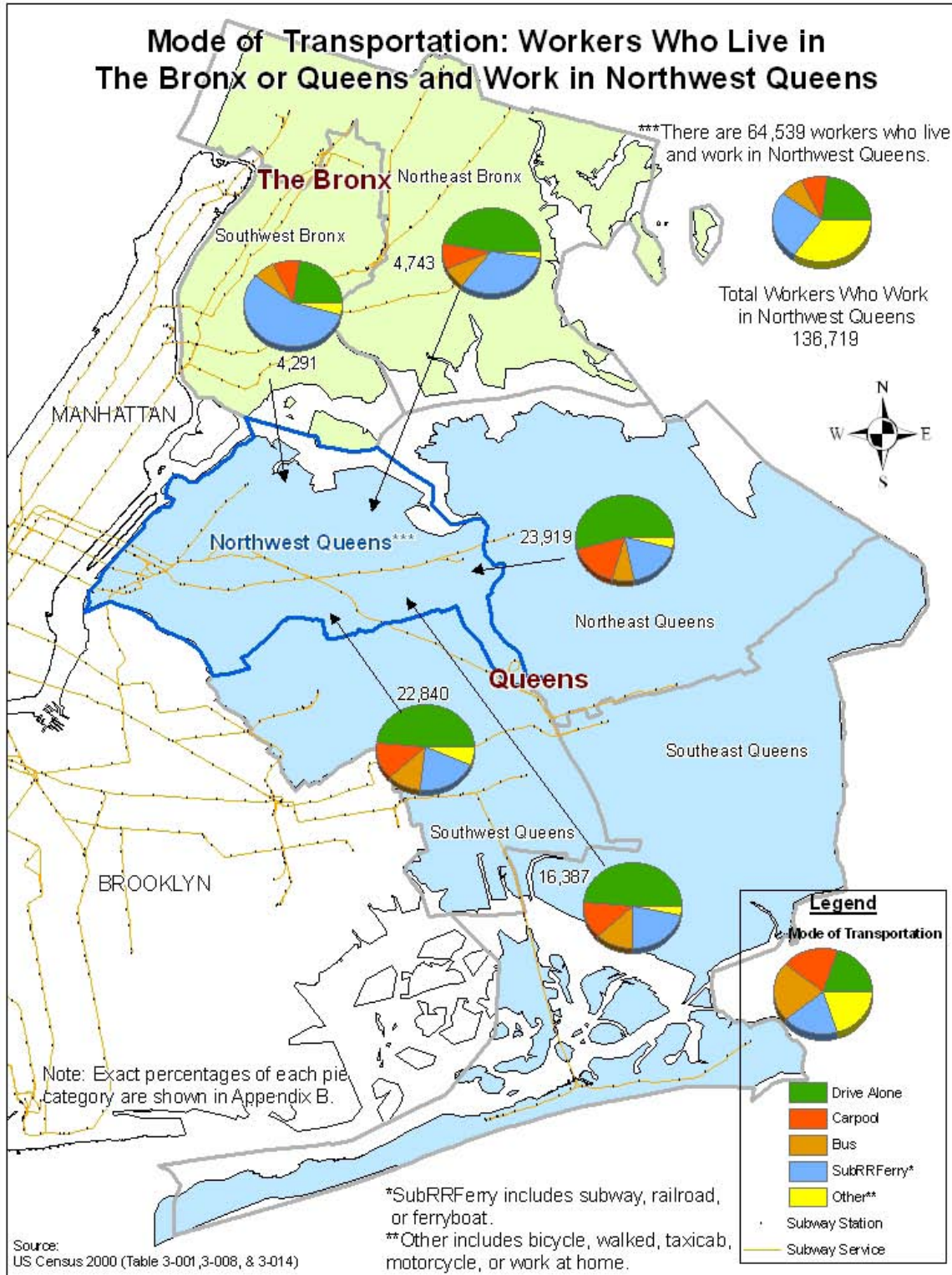


Map 70. Mode of Transportation: Workers Who Live in The Bronx or Queens and Work in Southwest Bronx

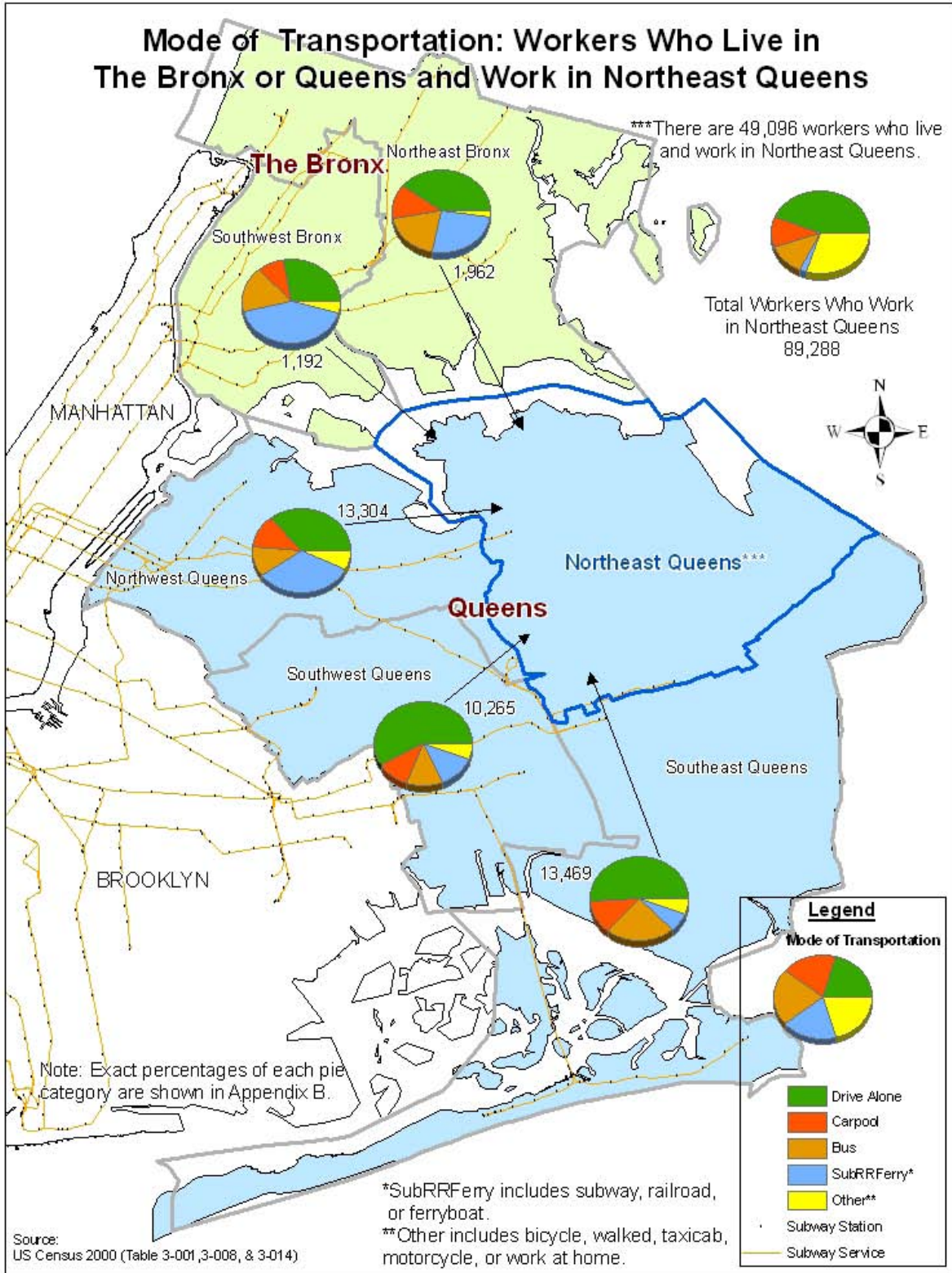




Map 71. Mode of Transportation: Workers Who Live in The Bronx or Queens and Work in Northwest Queens

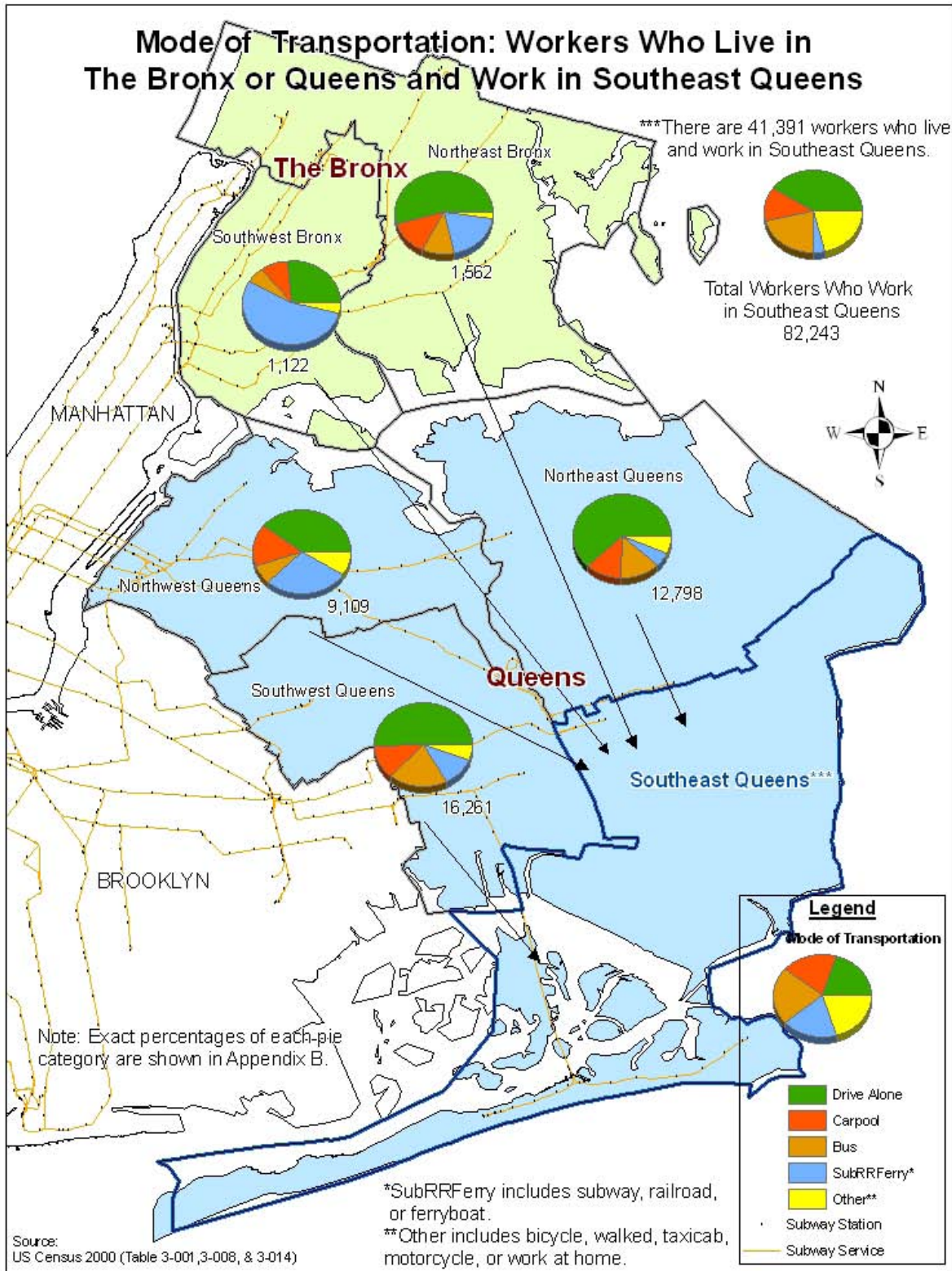


Map 72. Mode of Transportation: Workers Who Live in The Bronx or Queens and Work in Northeast Queens



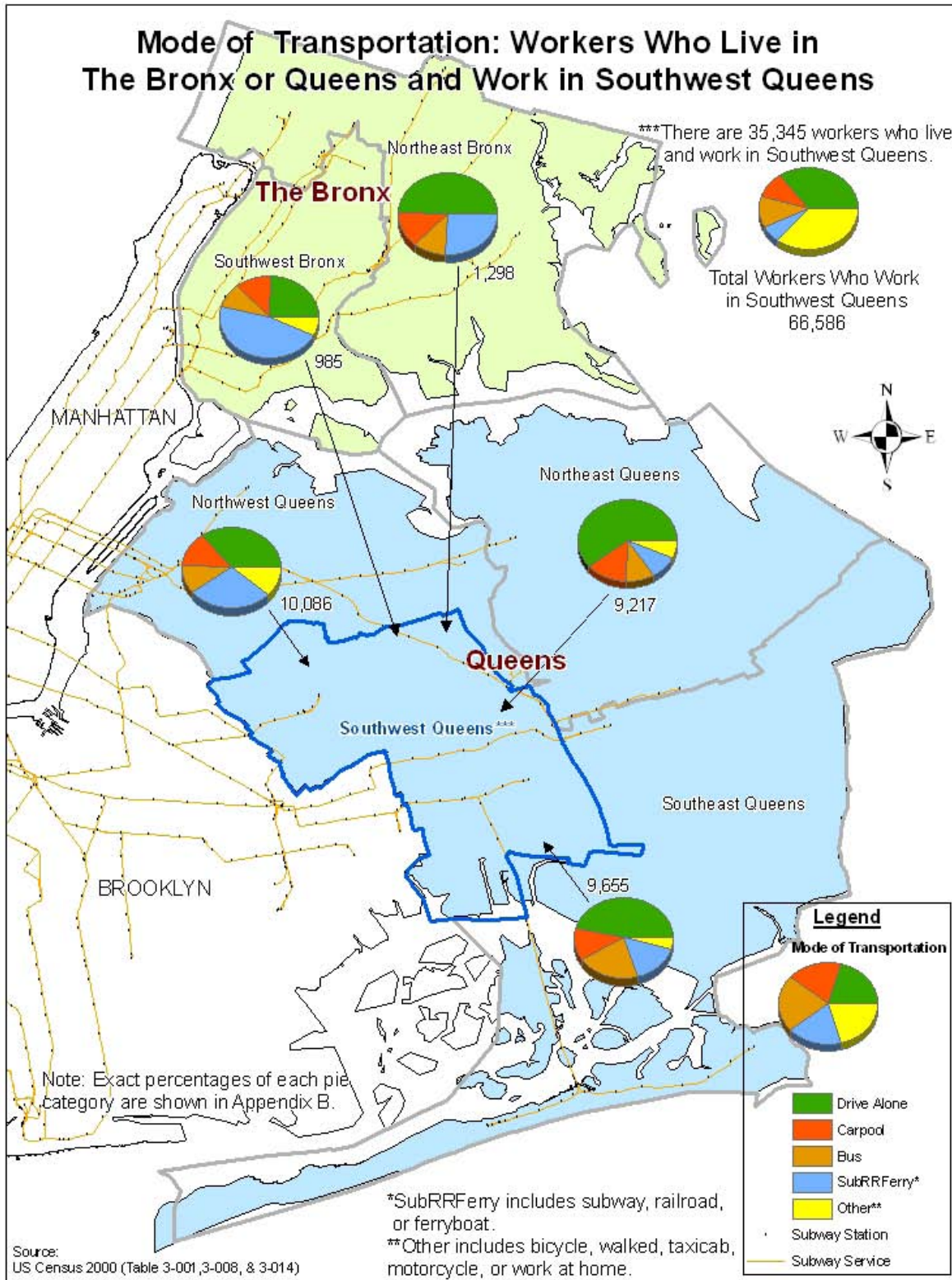


Map 73. Mode of Transportation: Workers Who Live in The Bronx or Queens and Work in Southeast Queens





Map 74. Mode of Transportation: Workers Who Live in The Bronx or Queens and Work in Southwest Queens



# Study Area to Study Area: Brooklyn-Staten Island Travel by Workers (Inbound/Outbound)

This section explains, for the workers reside within each Study Area, where such workers have their place of work located in Brooklyn and Staten Island, in addition to their mode of transportation to work.

The following Table 13 and Maps 75-76 show the number of workers in the Brooklyn and Staten Island Study Areas and their travel to work from their place of residence. The highlights in Table 13 correspond to the largest trip number of workers from the origin into the study area in Brooklyn and Staten Island.

**Table 13. Brooklyn-Staten Island**

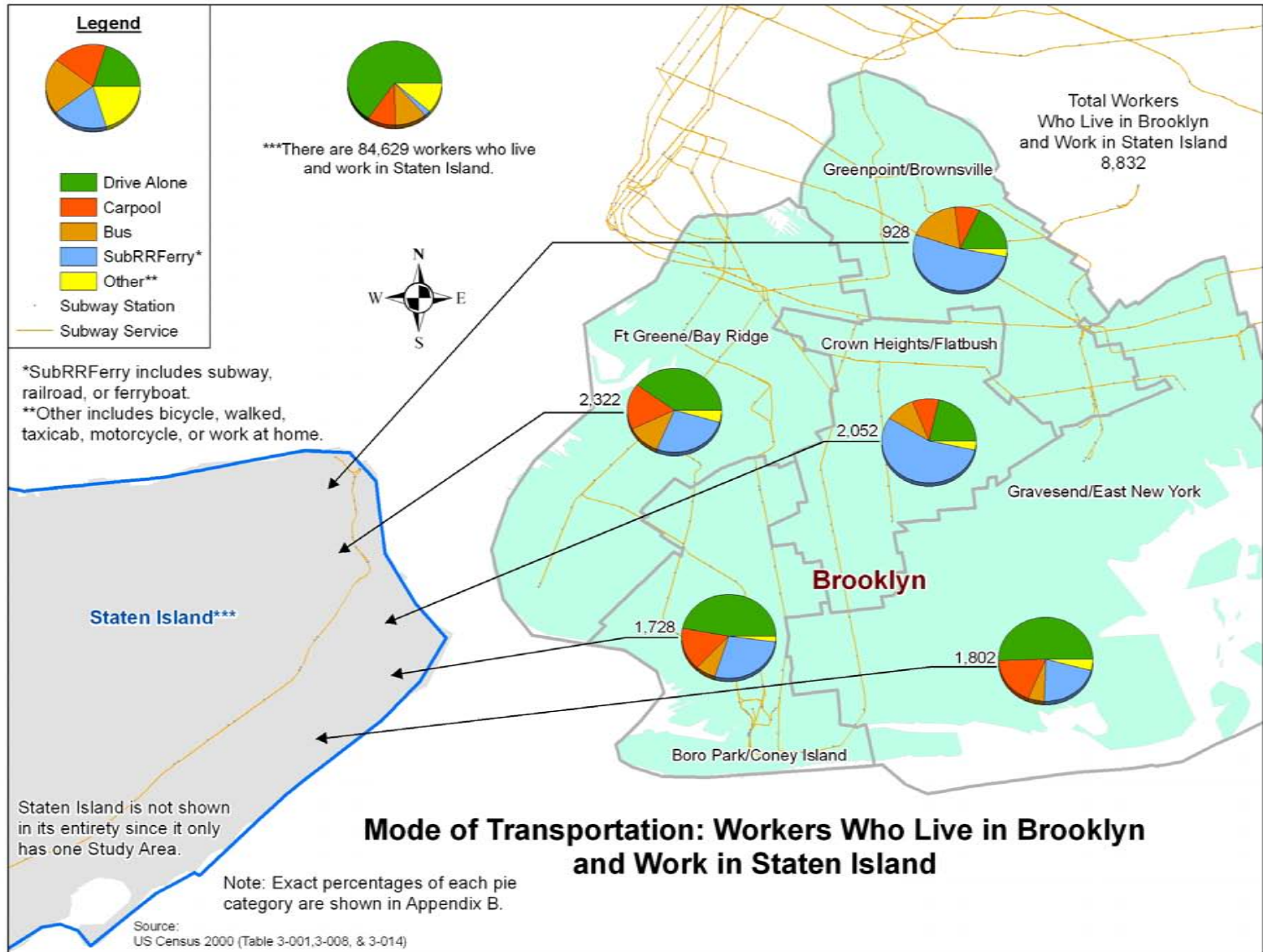
Origin: Study Area of Residence	Destination: Place of Work					
	Brooklyn Study Area					Staten Island
	Greenpoint/ Brownsville	Ft. Greene/ Bay Ridge	Crown Heights/ Flatbush	Gravesend/ East New York	Boro Park/ Coney Island	Staten Island
<b>Brooklyn</b>						
Greenpoint/Brownsville	32,927	19,862	7,204	5,554	3,274	928
Ft. Greene/Bay Ridge	6,707	60,237	6,275	5,037	8,481	2,322
Crown Heights/Flatbush	10,798	31,637	31,550	11,679	9,794	2,052
Gravesend/East New York	9,438	25,151	15,303	28,650	11,522	1,802
Boro Park/Coney Island	5,470	24,028	6,894	9,495	30,987	1,728
Total	65,340	160,915	67,226	60,415	64,058	8,832
<b>Staten Island</b>						
Staten Island	2,383	13,829	2,651	3,657	5,653	84,629
Total	2,383	13,829	2,651	3,657	5,653	84,629

Source: U.S. Census 2000

## Live in Brooklyn and Work in Staten Island

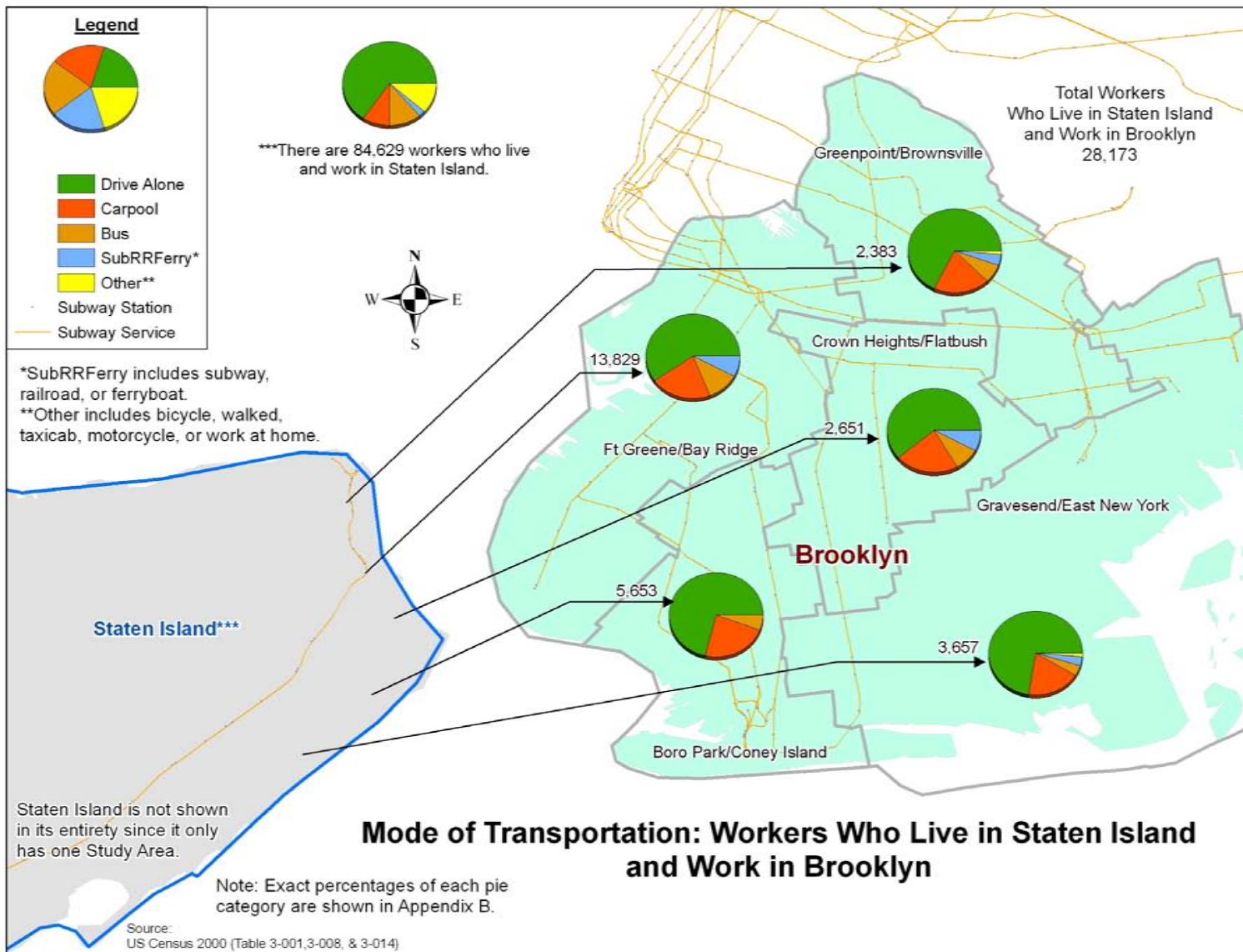
- Ft. Greene/Bay Ridge, at 2,322 workers, has the largest number of its residents working in Staten Island than any other Brooklyn study area (Table 13).
- Greenpoint/Brownsville and Crown Heights/Flatbush residents who work in Staten Island have more than half its population commuting by Subway/RR/Ferry while Gravesend/East New York has at least half its population commuting by car (Map 75). Live in Staten Island and Work in Brooklyn
- Workers who live in Staten Island and work in Brooklyn Study Areas primarily commute by car (Map 76).
- The Ft. Greene/Bay Ridge Study Area has 13,829 workers commuting from Staten Island, the largest number out of all the Brooklyn study areas (Table 13 or Map 76).

Map 75. Mode of Transportation: Workers Who Live in Brooklyn and Work in Staten Island





Map 76. Mode of Transportation: Workers Who Live in Staten Island and Work in Brooklyn



# Study Area to Study Area: The Bronx-Brooklyn Travel by Workers (Inbound/Outbound)

This section explains, for the workers reside within each Study Area, where such workers have their place of work located in The Bronx and Brooklyn, and their mode of transportation to work.

Table 14 and Maps 77-80 show the number of workers in The Bronx and Brooklyn Study Areas and their travel to work from their place of residence. The highlights in Table 14 represent the largest number of The Bronx and Brooklyn Study Area residents who work in The Bronx or Brooklyn Study Area.

**Table 14. Brooklyn-Bronx**

Origin: Study Area of Residence	Destination: Place of Work						
	Brooklyn Study Area					Bronx Study Area	
	Greenpoint/ Brownsville	Ft. Greene/ Bay Ridge	Crown Heights/ Flatbush	Gravesend/ East New York	Boro Park/ Coney Island	Northeast	Southwest
<b>Brooklyn</b>							
Greenpoint/Brownsville	<b>32,927</b>	19,862	7,204	5,554	3,274	779	1,462
Ft. Greene/Bay Ridge	6,707	<b>60,237</b>	6,275	5,037	8,481	674	1,234
Crown Heights/Flatbush	10,798	31,637	<b>31,550</b>	11,679	9,794	<b>1,282</b>	<b>2,087</b>
Gravesend/East New York	9,438	25,151	15,303	<b>28,650</b>	11,522	673	1,263
Boro Park/Coney Island	5,470	24,028	6,894	9,495	<b>30,987</b>	478	881
Total	65,340	160,915	67,226	60,415	64,058	3,886	6,927
<b>The Bronx</b>							
Northeast	1,149	<b>5,229</b>	1,238	737	488	<b>58,577</b>	39,424
Southwest	1,338	<b>4,119</b>	1,068	879	527	19,294	<b>50,755</b>
Total	2,487	9,348	2,306	1,616	1,015	77,871	90,179

Source: U.S. Census 2000

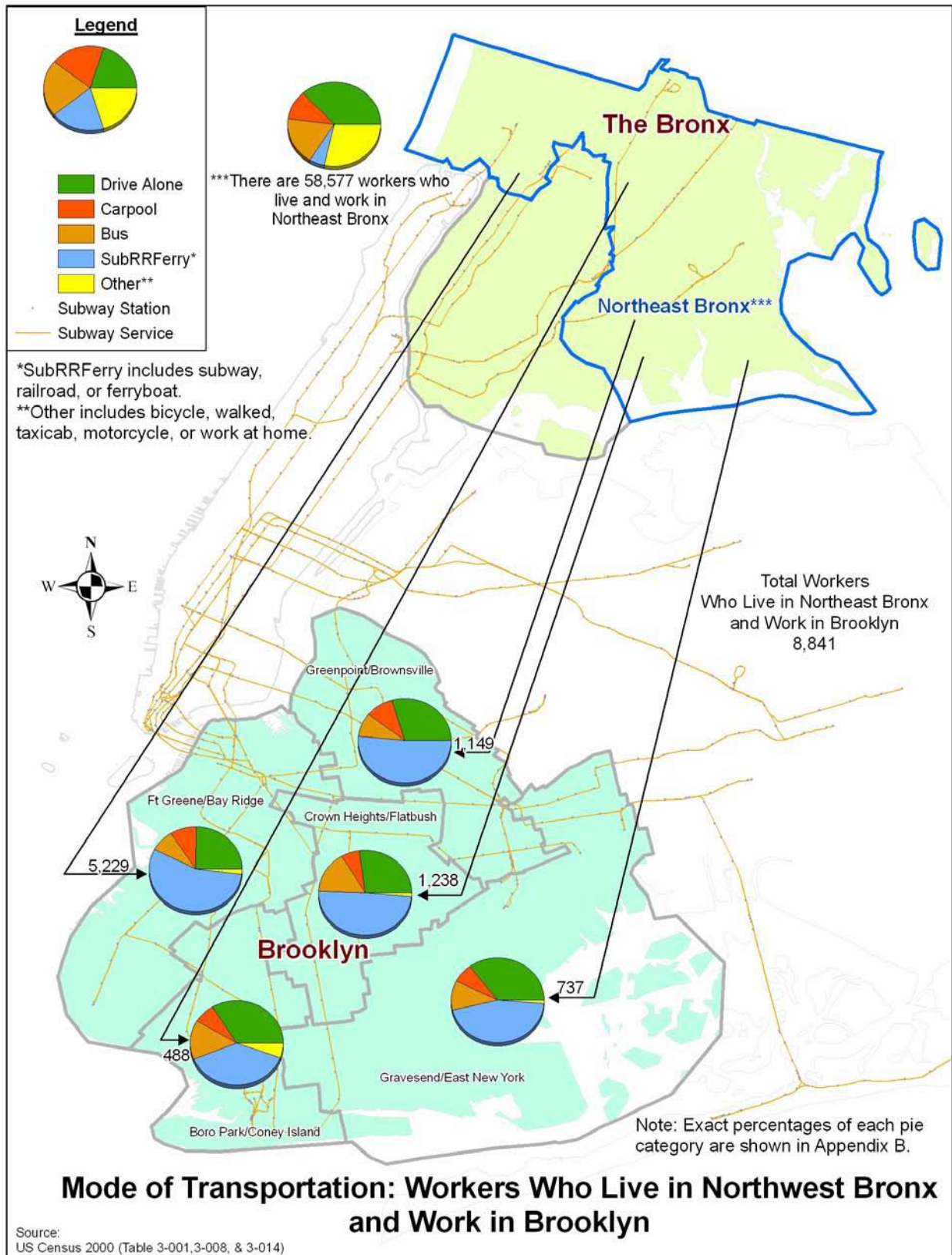
## Live in The Bronx (Northeast or Southwest) and Work in Brooklyn

- Only a small number of The Bronx and Brooklyn workers commute between these two boroughs (Table 14).
- Ft. Greene/Bay Ridge has the greatest number of workers commuting from Northeast Bronx (5,229) and Southwest Bronx (4,119) than any other Brooklyn study area (Table 14).
- At least half of the workers who live in The Bronx and work in Brooklyn commute by Subway/RR/Ferry, with the exception of Northeast Bronx residents who work in Boro Park/Coney Island and Gravesend/East New York (Maps 77-78).

## Live in Brooklyn and Work in The Bronx (Northeast or Southwest)

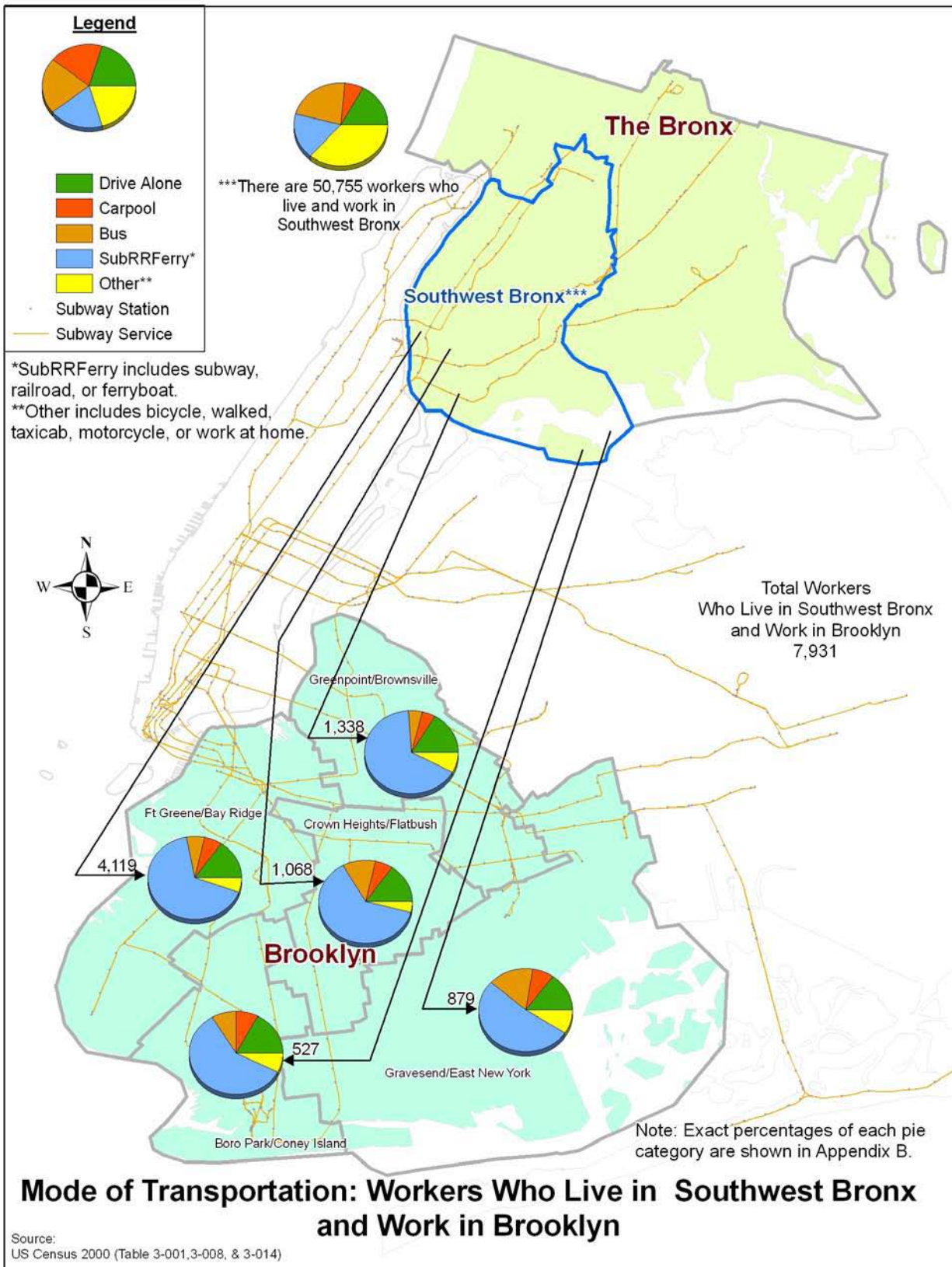
- The greatest number of Northeast Bronx and Southwest Bronx workers commute from Crown Heights/Flatbush Study Area with 1,282 and 2,087 workers, respectively (Table 14).
- Northeast Bronx workers who live in Greenpoint/Brownsville and Crown Heights/Flatbush prefer commuting by Subway/RR/Ferry while the car is the preferred mode in Gravesend/East New York and Boro Park/Coney Island Study Areas (Map 79).
- Southwest Bronx workers who live in Brooklyn primarily commute by Subway/RR/Ferry (Map 80).

Map 77. Mode of Transportation: Workers Who Live in Northwest Bronx and Work in Brooklyn



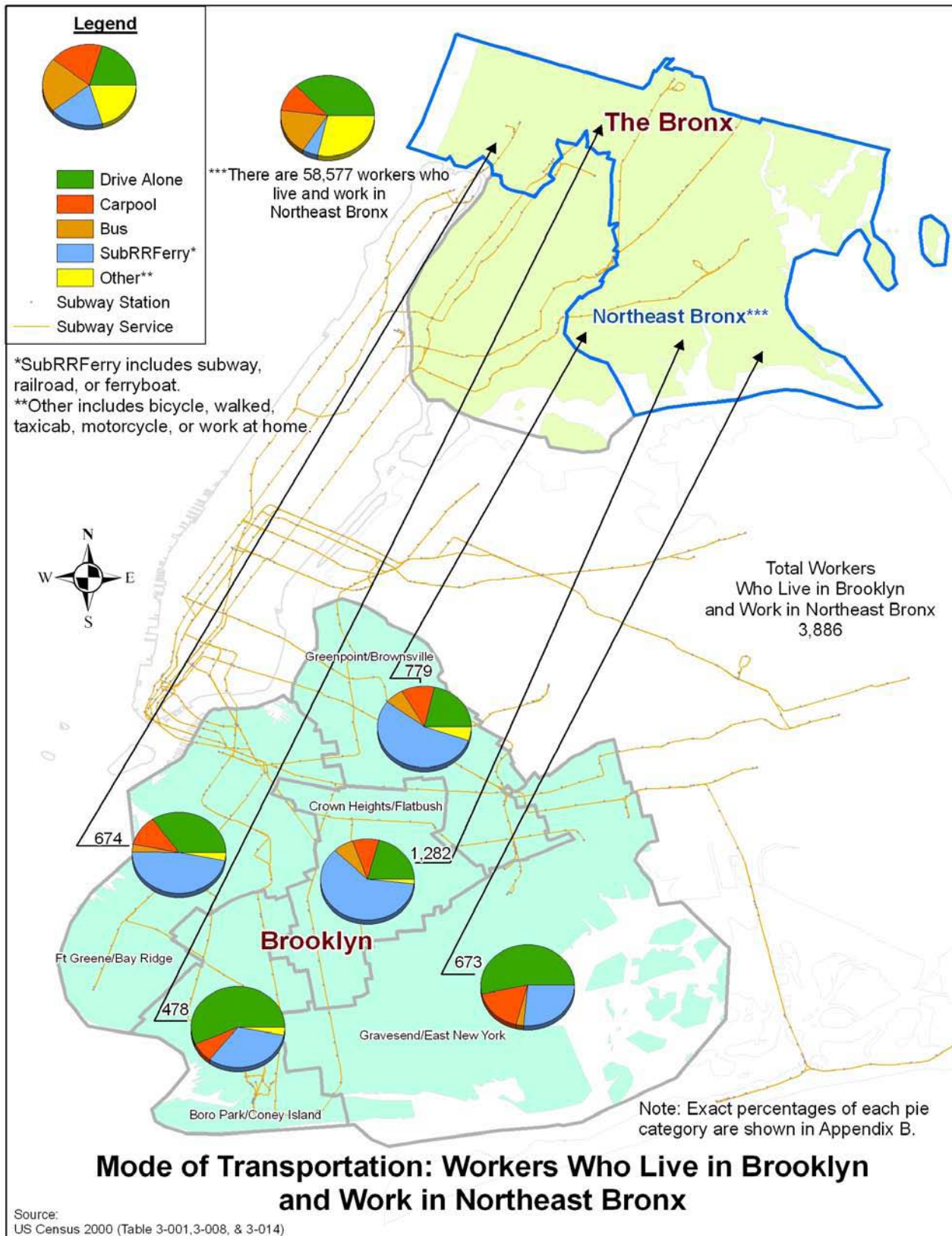


Map 78. Mode of Transportation: Workers Who Live in Southwest Bronx and Work in Brooklyn



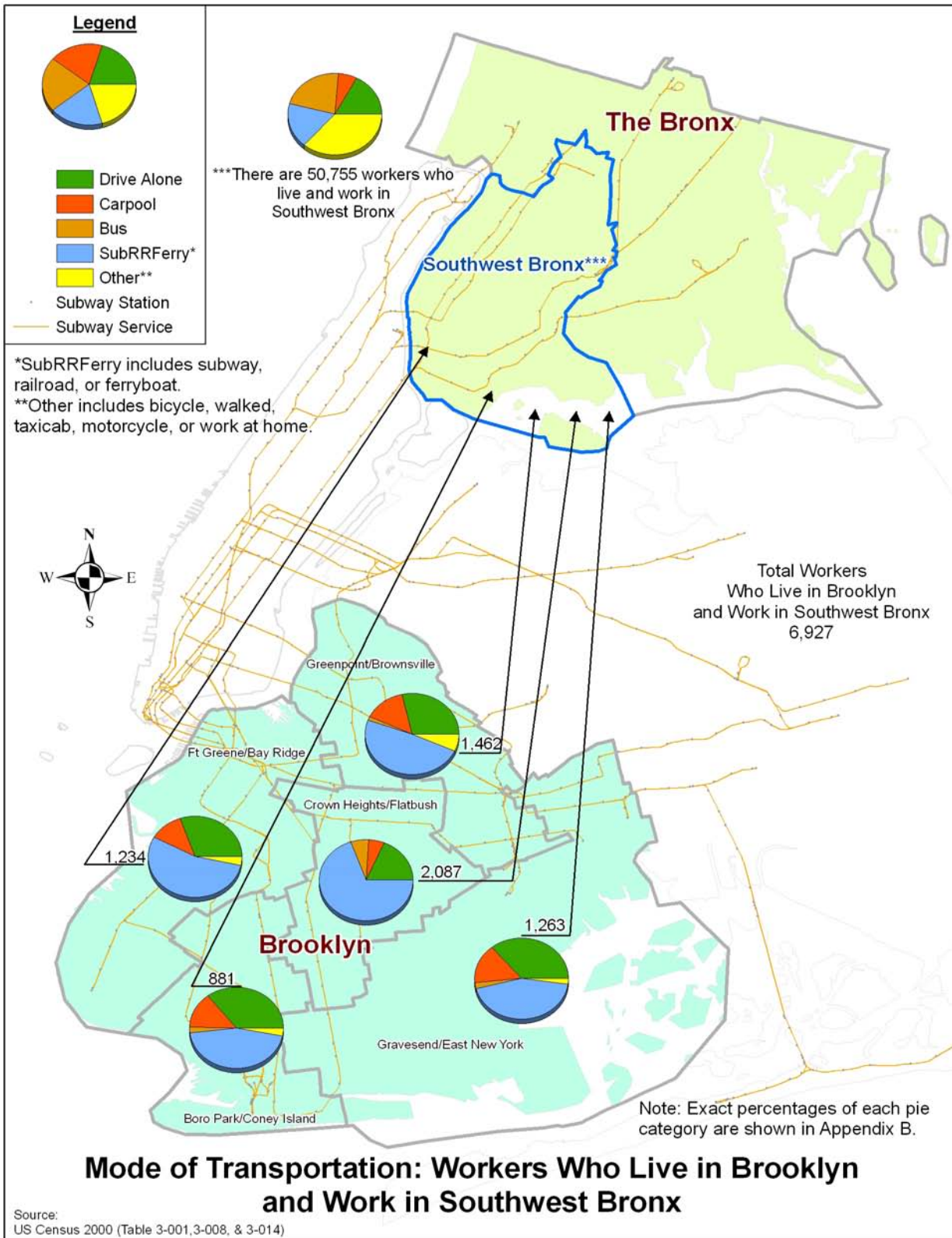
o

Map 79. Mode of Transportation: Workers Who Live in Brooklyn and Work in Northeast Bronx





Map 80. Mode of Transportation: Workers Who Live in Brooklyn and Work in Southwest Bronx





# Study Area to Study Area: Queens-Staten Island Travel by Workers (Inbound/Outbound)

This section examines, for the workers reside within each Study Area, where such workers have their place of work located in Queens and Staten Island, in addition to their mode of transportation to work.

Table 15 and Maps 81-82 show the number of workers in Queens and Staten Island Study Areas and their travel to work from their place of residence. . The highlights in Table 15 represent the largest number of residents who work in Queens and Staten Island Study Area.

Table 15. Queens-Staten Island

Origin: Study Area of Residence	Destination: Place of Work				
	Queens Study Area				Staten Island Study Area
	Northwest	Northeast	Southeast	Southwest	
<b>Queens</b>					
Northwest	<b>64,539</b>	13,304	9,109	10,086	<b>1,399</b>
Northeast	23,919	<b>49,096</b>	12,798	9,217	968
Southeast	16,387	13,469	<b>41,391</b>	9,655	1,332
Southwest	22,840	10,265	16,261	<b>35,345</b>	1,303
Total	127,685	86,134	79,559	64,303	5,002
<b>Staten Island</b>					
Staten Island	<b>2,689</b>	876	1,091	712	<b>84,629</b>
Total	2,689	876	1,091	712	<b>84,629</b>

Source: U.S. Census 2000

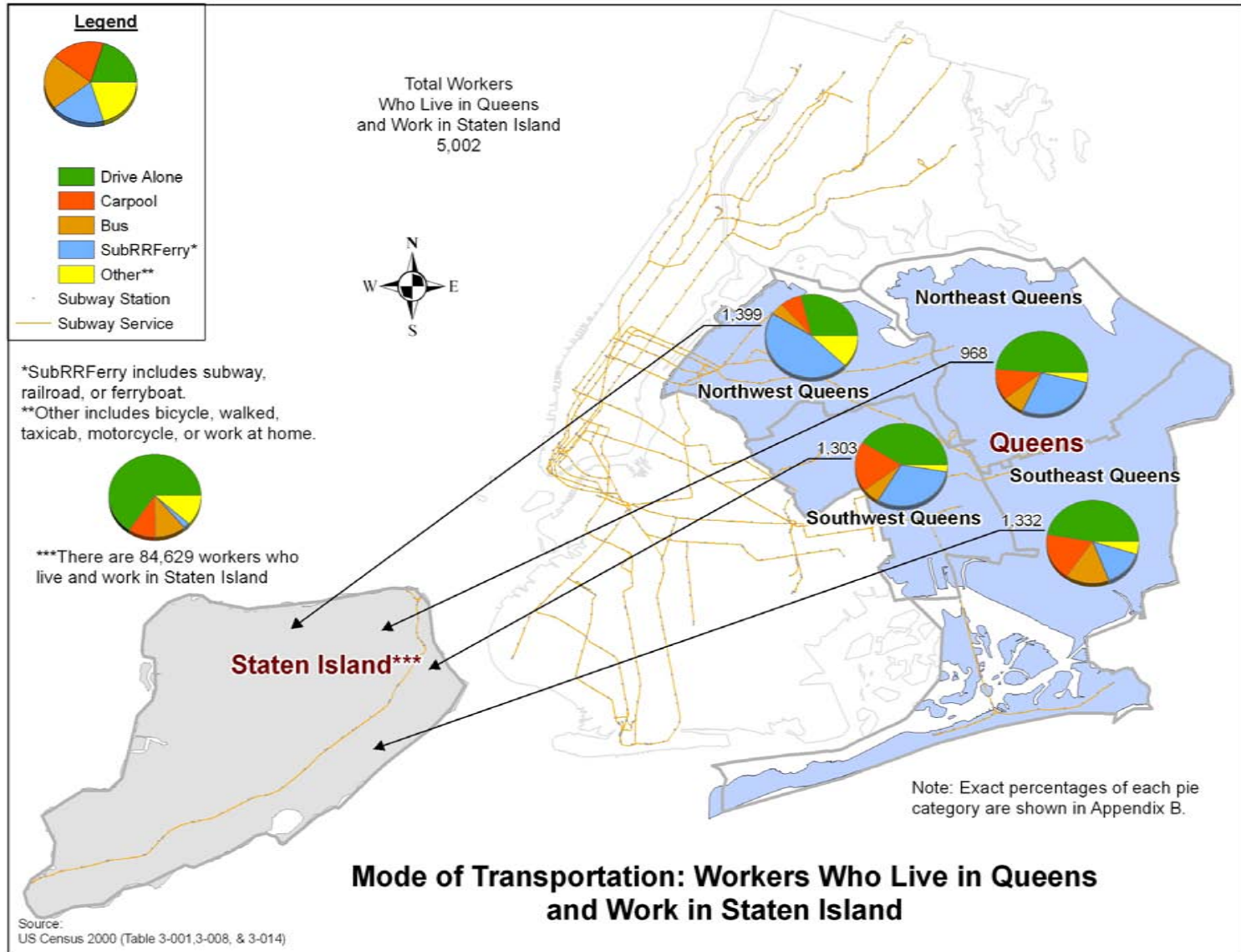
## Live in Queens and Work in Staten Island

- Northwest Queens is the only Study Area in Queens where Subway/RR/Ferry, has the biggest share of workers commuting to Staten Island. The rest of the Study Area workers in Queens tends to use the car as preferred mode on their trips to Staten Island (Map 81).

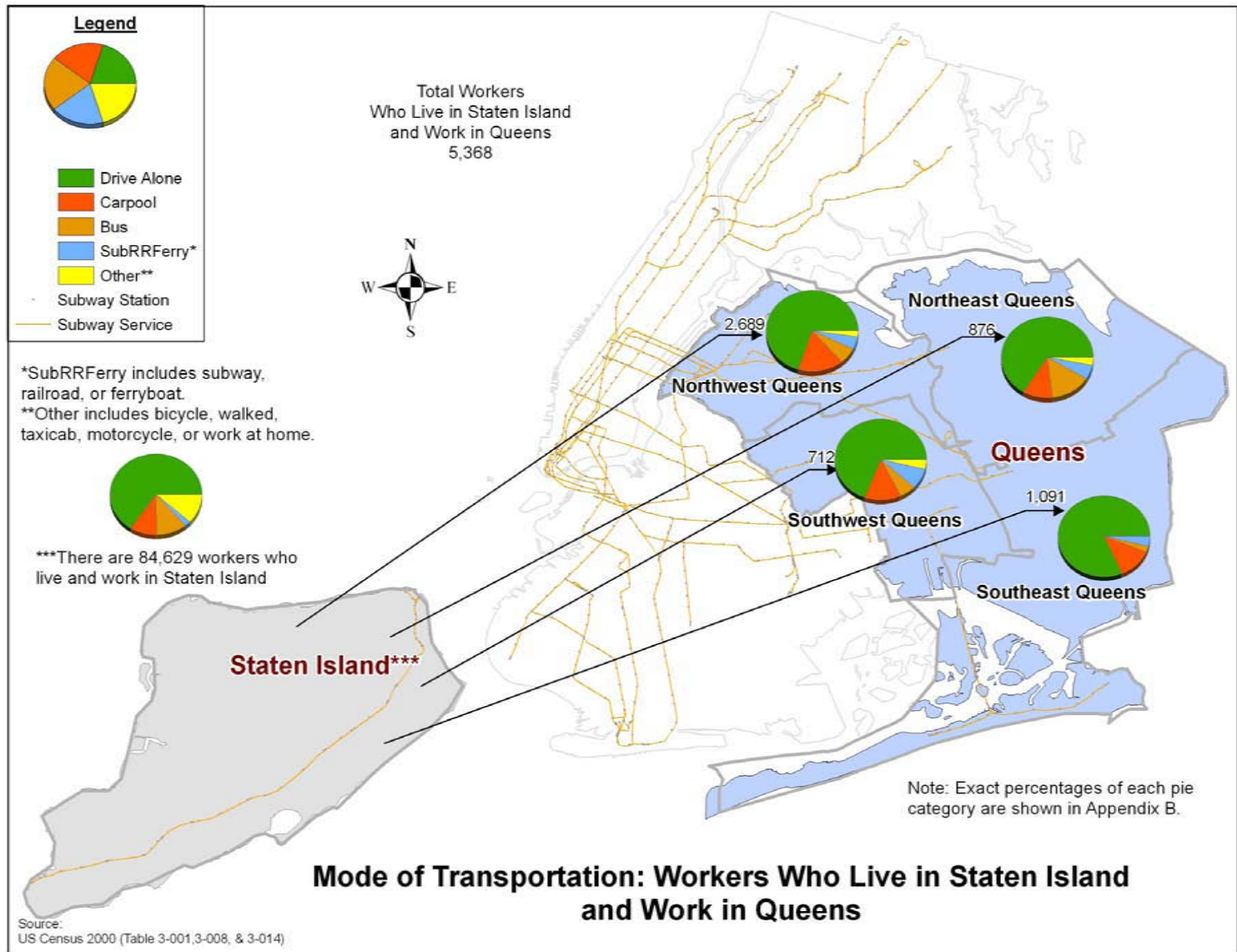
## Live in Staten Island and Work in Queens

- Workers who live in Staten Island and work in Queens Study Areas primarily commute by car (Map 82).
- Northwest Queens Study Area has 2,689 workers commuting from Staten Island, the largest number of workers to a Queens study is from Staten Island (Table 15 or Map 82).

Map 81. Mode of Transportation: Workers Who Live in Queens and Work in Staten Island



Map 82. Mode of Transportation: Workers Who Live in Staten Island and Work in Queens





# Study Area to Study Area: Bronx-Staten Island Travel by Workers (Inbound/Outbound)

This section examines, for the workers reside within each Study Area, where such workers have their place of work located in The Bronx and Staten Island, in addition to their mode of transportation to work.

Table 16 and Maps 83-84 show the number of workers in The Bronx and Staten Island Study Areas and their travel to work from their place of residence. . The highlights in Table 16 represent the largest number of residents who work in The Bronx and Staten Island Study Area.

**Table 16. Bronx-Staten Island**

Origin: Study Area of Residence	Destination: Place of Work		
	Bronx Study Area		Staten Island Study Area
	Northeast	Southwest	
<b>Bronx</b>			
Northeast	<b>58,577</b>	39,424	940
Southwest	19,294	<b>50,755</b>	<b>1,109</b>
Total	<b>77,871</b>	90,179	2,049
<b>Staten Island</b>			
Staten Island	361	667	<b>64,629</b>
Total	361	667	<b>64,629</b>

Source: U.S. Census 2000

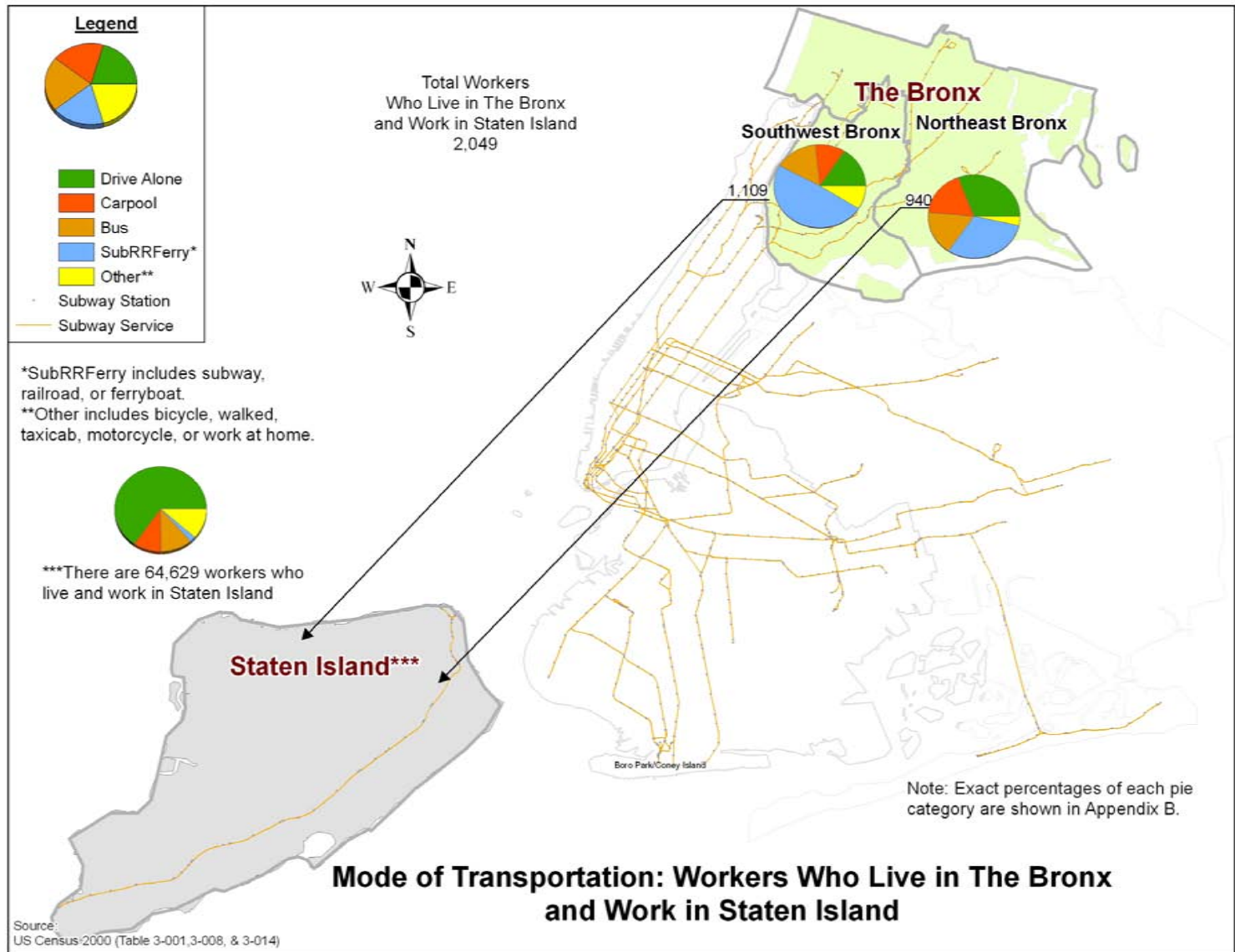
## Live in The Bronx and Work in Staten Island

- Workers who live in Southwest Bronx Study Area and work in Staten Island primarily commute by Subway/RR/Ferry (Map 83).
- Subway/RR/Ferry mode is the primary mode for those worker commuting from The Bronx to Staten Island (Map 83).

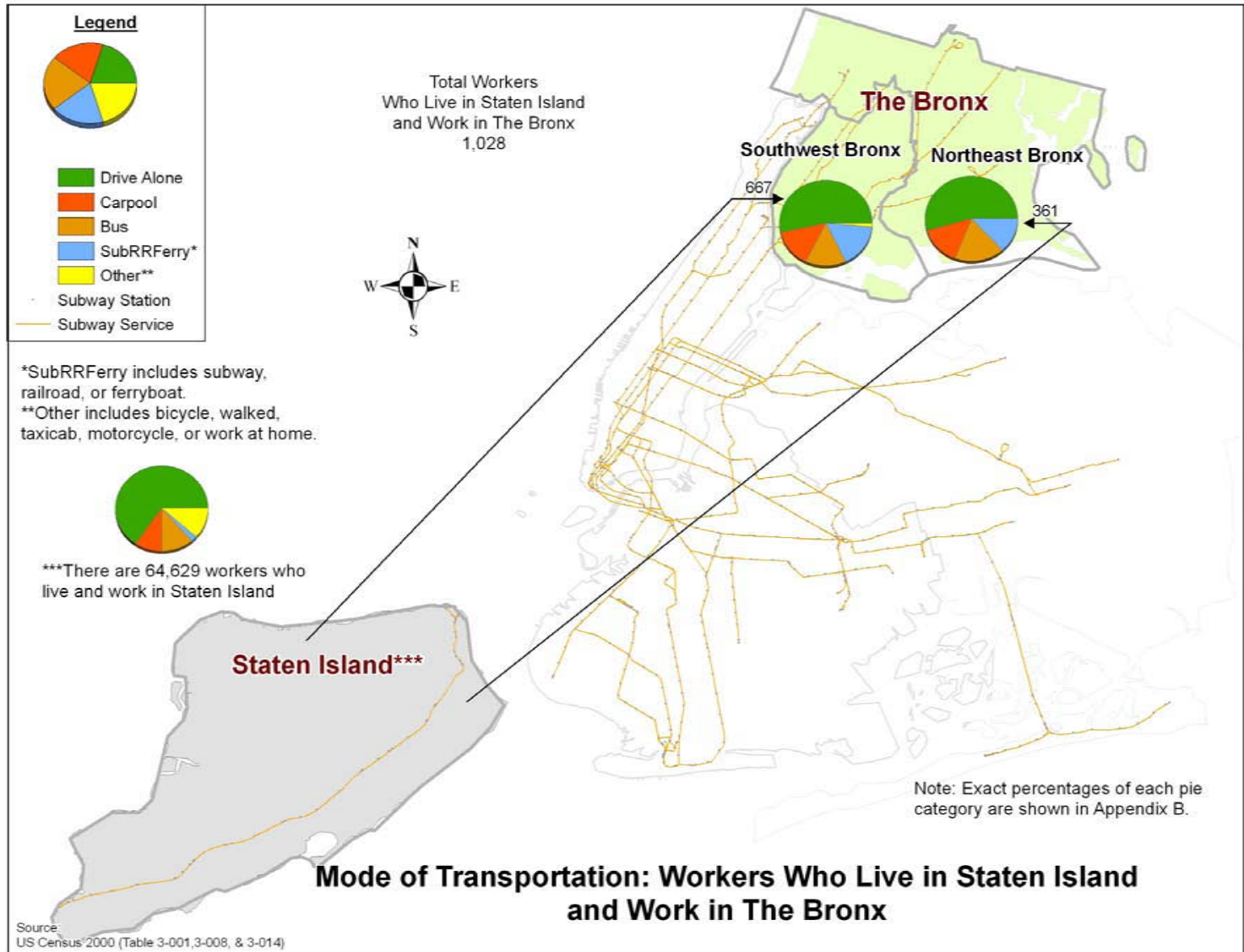
## Live in Staten Island and Work in The Bronx

- Car is the primary mode for workers commuting to The Bronx from Staten Island (Map 84).
- Southwest Bronx Study Area has the biggest flow of worker coming from Staten Island (Table 16 and Map 84).

Map 83. Mode of Transportation: Workers Who Live in The Bronx and Work in Staten Island



Map 84. Mode of Transportation: Workers Who Live in Staten Island and Work in The Bronx





# PUMA (Community Districts)

This section examines the travel patterns between the “PUMA” areas in New York City for work trips. The PUMA analysis in this section refers to a smaller geography than previously shown in this report; PUMA areas generally have a minimum population of 100,000 and are thus smaller than the Super-PUMA or Study Areas that were used for the previous analyses in this report. The following reference map diagrams the corresponding boundaries between these “PUMA” areas and the “Community Districts” boundaries in NYC. This reference map was developed by the NYC Department of City Planning, Population Division, and the corresponding Community Districts names are used in the section to describe the PUMA to PUMA travel patterns, instead of listing the PUMA area numbers.

Figure 33. New York City PUMAs and Community Districts

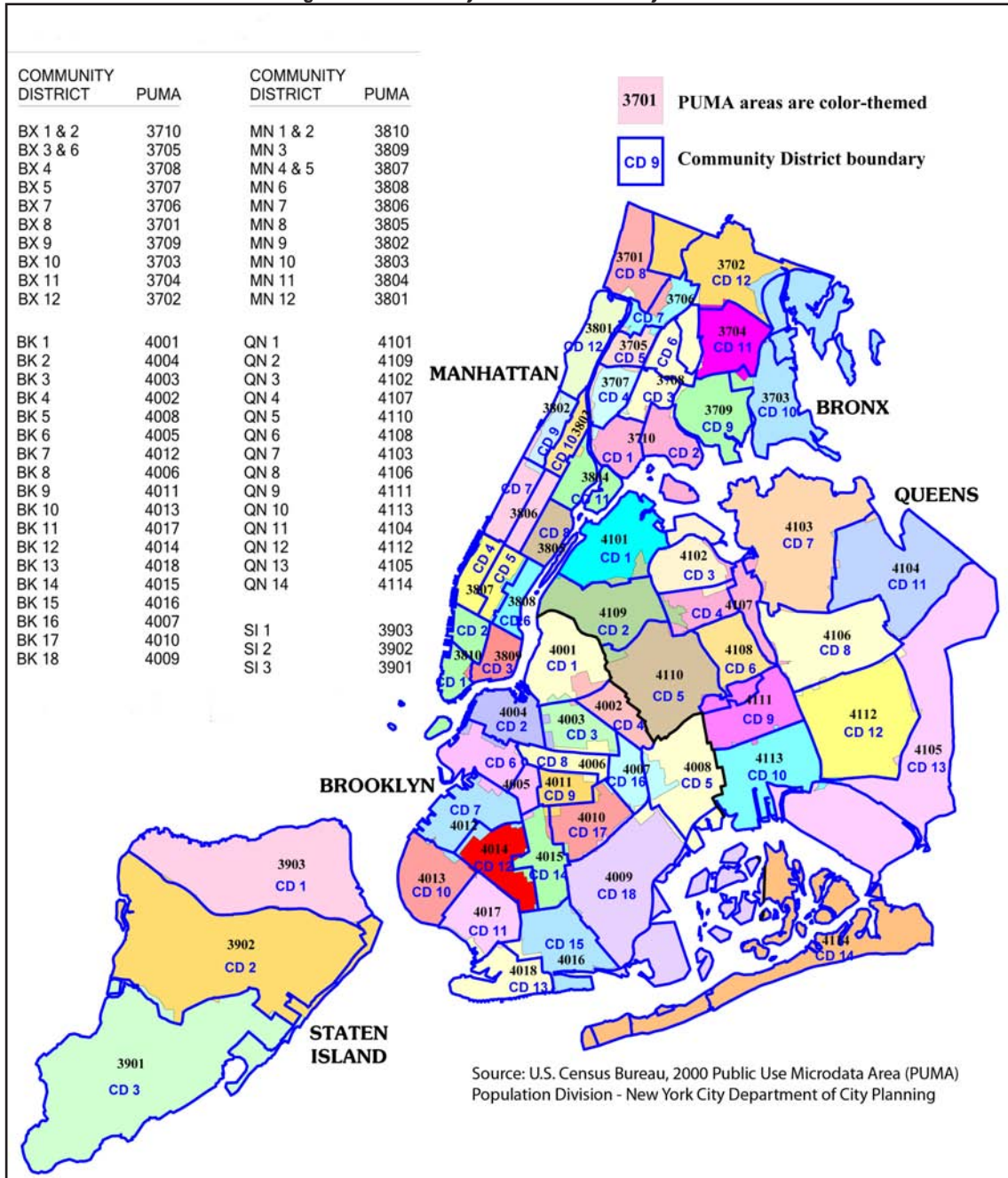


Table 17 details worker flows between community districts, with an origin in Brooklyn and destination in Queens. Additionally, the highlighted community district represents the place of work with the highest number of Queens workers coming from Brooklyn. In this case, the highlighted community district corresponds to Queens Community District 2 where 20% of Brooklyn residents work in Queens. Long Island City is located in this Community District (Map 85).

**Table 17. Workers Locations by Community Districts**  
 Live in Brooklyn and Work in Queens - 62,257 Workers

**Brooklyn to Queens**

Place of Residence Community Districts	Place of Work														TOTAL
	QN 1	QN 2	QN 3	QN 4	QN 5	QN 6	QN 7	QN 8	QN 9	QN 10	QN 11	QN 12	QN 13	QN 14	
BK 1	590	1,335	162	288	687	185	470	201	103	38	102	172	300	32	4,665
BK 2	195	411	166	66	95	88	225	144	76	31	71	226	238	56	2,088
BK 3	266	619	138	199	289	77	232	139	77	47	25	352	374	33	2,867
BK 4	426	775	156	189	1,491	154	275	90	179	57	108	273	425	86	4,684
BK 5	492	992	282	275	540	255	396	345	564	360	211	514	1,118	276	6,620
BK 6	211	361	112	104	42	51	240	71	45	23	32	113	104	83	1,592
BK 7	316	586	111	119	250	53	353	148	49	54	59	147	212	77	2,534
BK 8	336	535	194	194	198	122	307	139	118	57	89	256	375	107	3,027
BK 9	194	346	73	169	204	128	331	209	84	63	132	317	484	70	2,804
BK 10	289	544	97	121	161	76	394	97	115	44	43	151	401	75	2,608
BK 11	409	772	110	141	151	162	574	107	88	136	97	162	557	84	3,550
BK 12	155	489	138	101	228	93	168	96	100	39	40	140	128	129	2,044
BK 13	298	519	136	67	102	145	209	64	33	80	51	154	314	90	2,262
BK 14	411	677	257	173	255	226	328	182	135	60	64	390	509	208	3,875
BK 15	351	586	83	205	304	100	406	98	157	76	80	228	492	130	3,296
BK 16	194	485	99	157	170	96	137	116	95	27	64	387	458	105	2,590
BK 17	430	811	211	207	275	251	523	245	137	90	69	365	875	230	4,719
BK 18	576	1,037	378	338	249	192	445	326	280	314	200	672	1,126	299	6,432
TOTAL	6,139	11,880	2,903	3,113	5,691	2,454	6,013	2,817	2,435	1,596	1,537	5,019	8,490	2,170	62,257

Map 85. Workers Who Live in Brooklyn and Work in Queens Community District 2

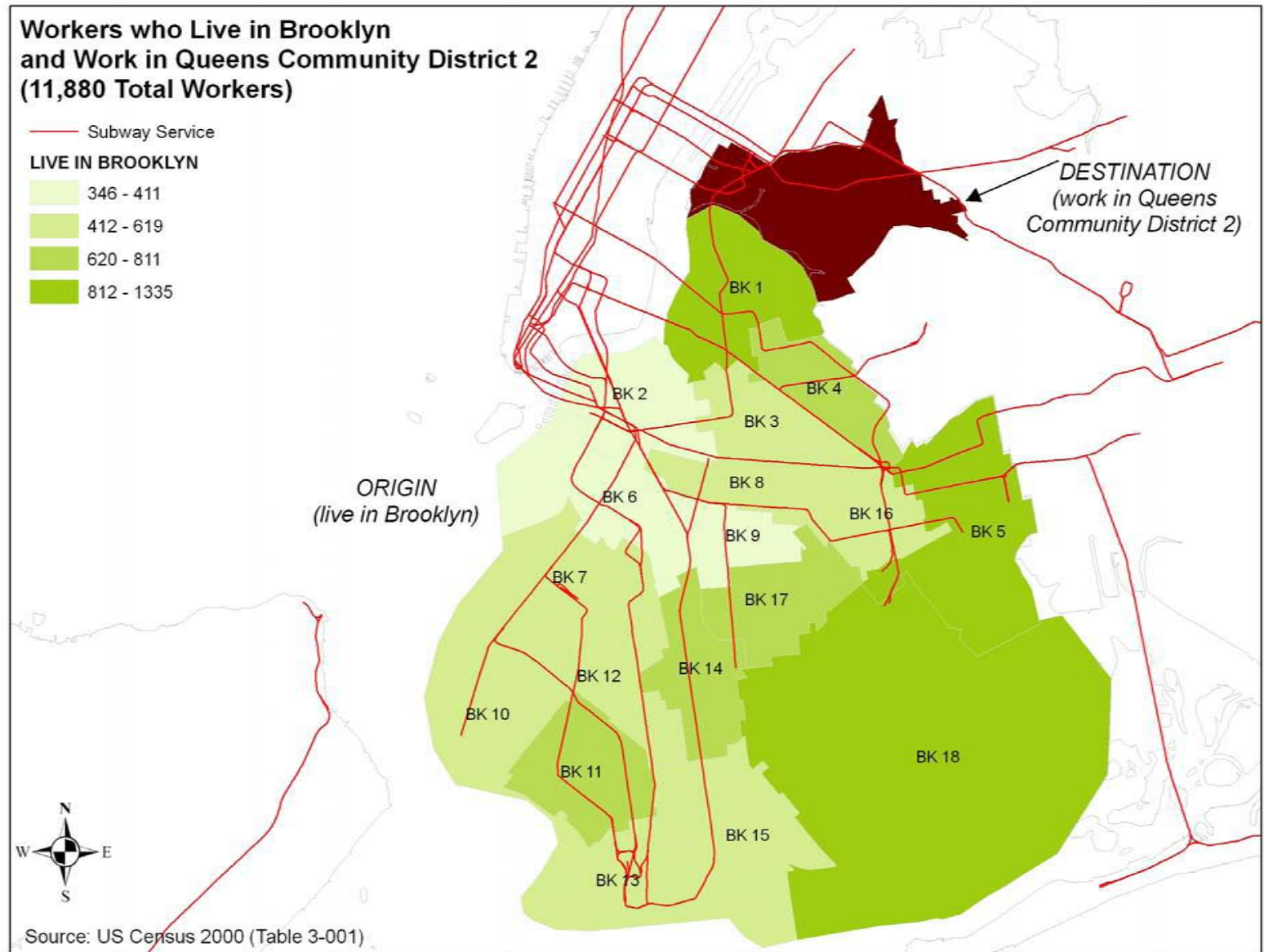




Table 18 details worker flows between community districts, with a origin in Queens and destination in Brooklyn. Additionally, the highlighted community district represents the place of work with the highest number of Brooklyn workers coming from Queens. In this case, the highlighted community district corresponds to Brooklyn Community District 2 where 26% of those Queens residents work. Downtown Brooklyn is located in this Community District (Map 86).

**Table 18. Workers Locations by Community Districts  
Live in Queens and Work in Brooklyn -87,356 Workers- Source: U.S. Census 2000**

**Queens to Brooklyn**

Place of Residence Community Districts	Place of Work																		TOTAL
	BK 1	BK 2	BK 3	BK 4	BK 5	BK 6	BK 7	BK 8	BK 9	BK 10	BK 11	BK 12	BK 13	BK 14	BK 15	BK 16	BK 17	BK 18	
QN 1	554	1228	172	130	153	345	451	61	153	213	120	188	94	96	70	72	145	80	4,325
QN 2	531	940	238	167	124	276	398	88	58	150	40	62	63	120	78	74	111	157	3,675
QN 3	676	1267	189	418	326	475	779	126	97	118	122	283	78	146	160	109	164	188	5,721
QN 4	438	1072	106	385	227	260	588	48	121	187	92	93	72	103	108	219	177	132	4,428
QN 5	2193	1864	379	2246	652	251	470	206	159	195	113	165	173	179	179	178	180	297	10,079
QN 6	430	1020	76	197	112	177	258	103	46	121	50	112	103	166	99	105	151	146	3,472
QN 7	659	1468	148	354	407	287	542	114	118	138	145	181	161	141	194	179	291	230	5,757
QN 8	459	1609	177	288	479	371	253	97	204	134	39	209	93	201	255	134	177	130	5,309
QN 9	897	1879	321	544	1094	460	464	211	148	182	153	233	125	205	176	200	279	248	7,819
QN 10	547	1731	237	352	903	415	441	167	239	191	104	212	252	296	214	356	336	377	7,370
QN 11	410	795	68	174	209	139	167	71	144	51	82	161	98	81	132	38	142	107	3,069
QN 12	550	3305	390	469	795	400	425	434	506	250	262	283	276	217	254	759	520	313	10,408
QN 13	545	3144	341	471	774	435	589	376	592	146	171	315	237	189	198	505	526	285	9,839
QN 14	195	1800	92	179	314	399	347	167	154	158	130	165	337	196	342	268	319	523	6,085
Total	9,084	23,122	2,934	6,374	6,569	4,690	6,172	2,269	2,739	2,234	1,623	2,662	2,162	2,336	2,459	3,196	3,518	3,213	87,356

Map 86. Workers Who Live in Queens and Work in Brooklyn Community District 2

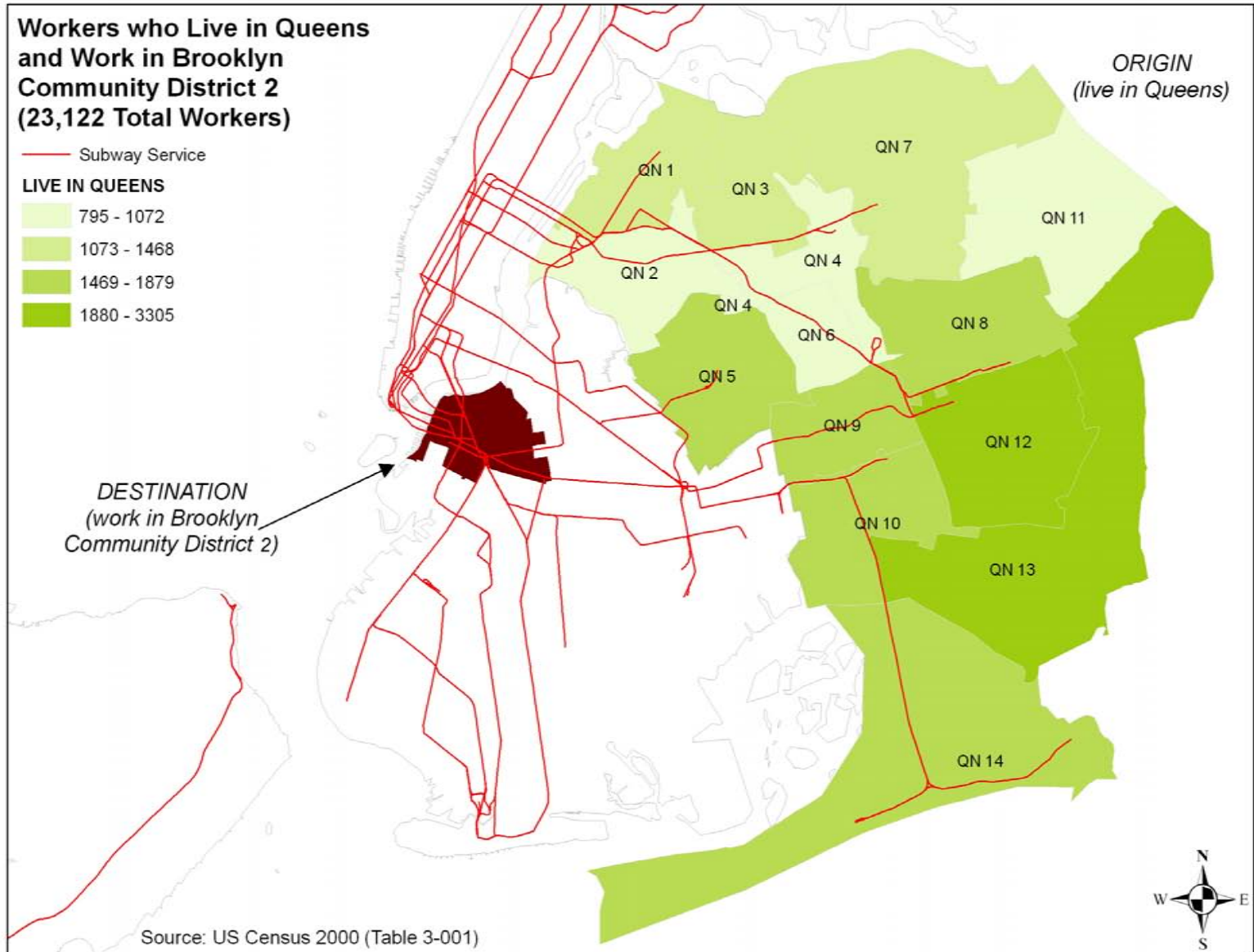


Table 19 details worker flows between community districts, with origin in Queens and destination in The Bronx. Additionally, the highlighted community districts represent the place of work with the highest number of Bronx workers coming from Queens. In this case, highlighted community districts correspond to Bronx Community District 1&2 where 55% of those Queens residents work (Map 87).

**Table 19. Workers Locations by Community Districts**  
**Live in Queens and Work in The Bronx – 7,801 Workers** - Source: U.S. Census 2000

Place of Residence Community Districts	Place of Work										Total
	BX 1 & 2	BX 3 & 6	BX 4	BX 5	BX 7	BX 8	BX 9	BX 10	BX 11	BX 12	
QN 1	322	163	112	85	122	151	136	67	104	48	506
QN 2	185	120	86	110	42	45	87	61	92	88	373
QN 3	355	198	95	143	151	118	72	152	170	40	552
QN 4	259	48	109	91	111	92	168	39	133	63	495
QN 5	344	70	60	28	61	69	137	126	118	93	543
QN 6	170	109	79	48	109	68	20	15	184	56	343
QN 7	638	376	259	120	163	116	292	195	409	191	1,203
QN 8	256	92	81	140	124	80	108	161	141	83	573
QN 9	245	108	74	130	55	88	77	99	113	64	441
QN 10	236	134	93	114	50	48	74	92	124	80	418
QN 11	256	262	80	126	108	64	132	181	159	71	607
QN 12	513	138	120	94	138	64	209	135	241	95	744
QN 13	423	211	145	172	214	144	160	186	194	132	816
QN 14	44	60	50	28	9	36	37	55	34	25	187
TOTAL	4,246	2,089	1,443	1,429	1,457	1,183	1,709	1,564	2,216	1,129	7,801



Map 87. Workers Who Live in Queens and Work in Bronx Community District 1 & 2

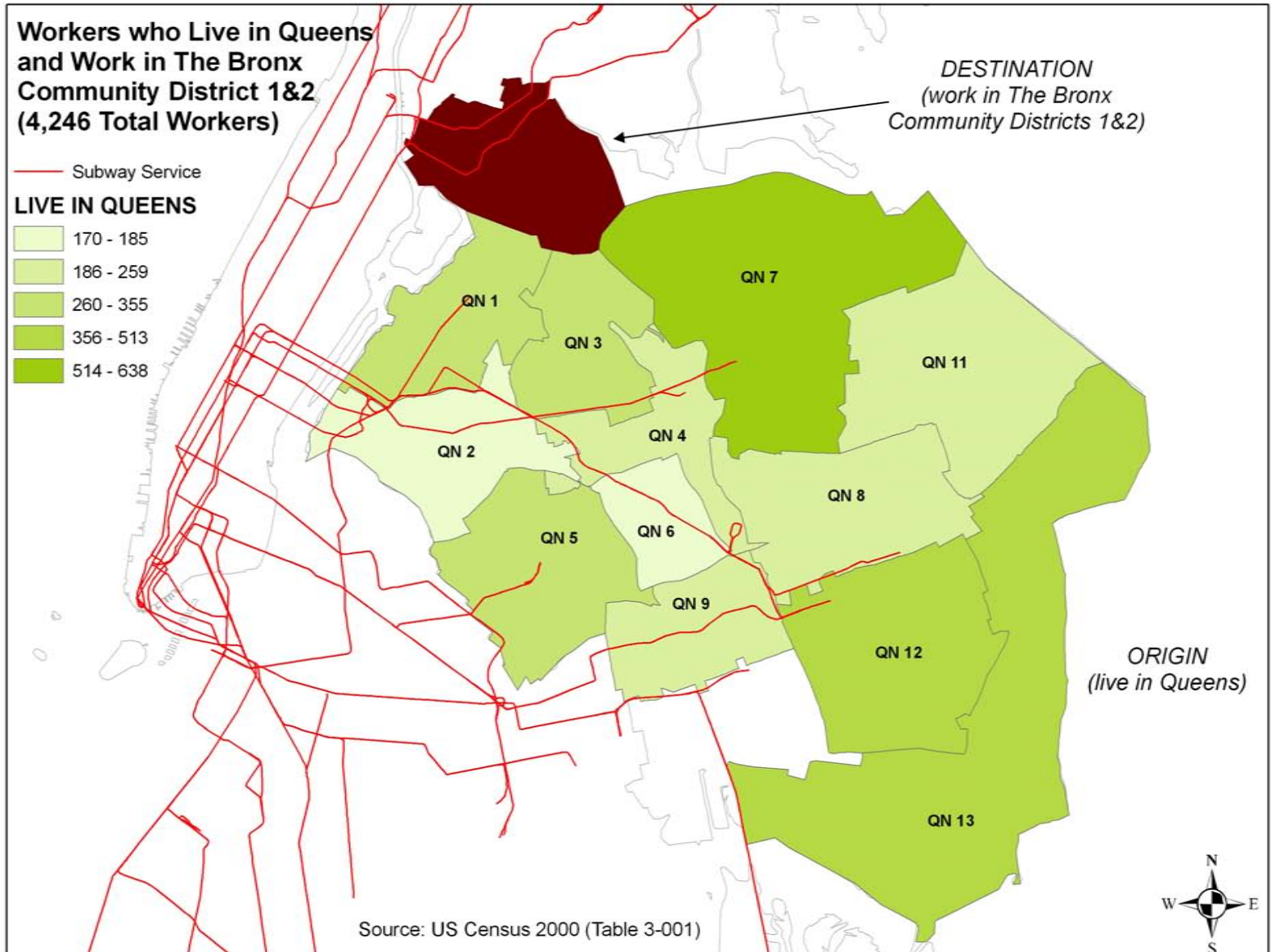
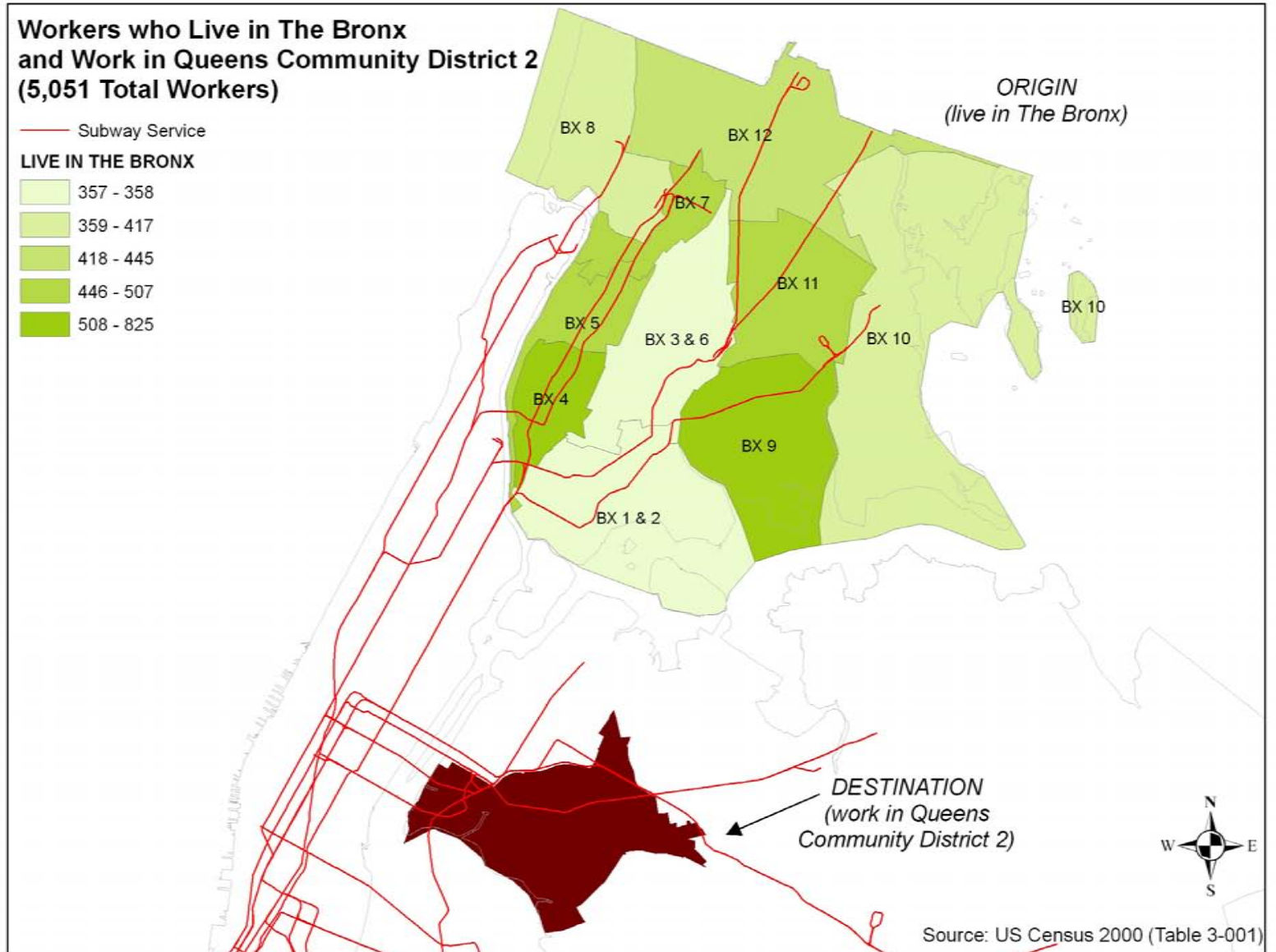


Table 20 details worker flows between community districts, with a origin in The Bronx and destination in Queens. Additionally, the highlighted community district represents the place of work with the highest number of Queens workers coming from Bronx. In this case, the highlighted community district corresponds to Queens Community District 2 where 29% of those Bronx residents work (Map 88).

**Table 20. Workers Locations by Community Districts  
Live in The Bronx and Work in Queens – 17,699 Workers- Source: U.S. Census 2000**

Place of Residence Community Districts	Place of Work														TOTAL
	QN 1	QN 2	QN 3	QN 4	QN 5	QN 6	QN 7	QN 8	QN 9	QN 10	QN 11	QN 12	QN 13	QN 14	
BX 1 & 2	276	357	43	25	88	47	178	28	39	21	29	125	84		1,340
BX 3 & 6	171	358	44	81	55	63	128	43	51	50	50	99	84	37	1,314
BX 4	280	754	196	94	63	54	197	20	67	15	12	115	113	36	2,016
BX 5	154	500	70	103	79	30	273	35	55	44	41	142	43	38	1,607
BX 7	270	507	124	44	88	96	128	15	6	6	51	73	174	16	1,598
BX 8	164	417	128	97	31	68	187	41	42		14	76	84	7	1,356
BX 9	203	825	216	104	108	48	346	219	144	89	84	147	239	31	2,803
BX 10	290	406	192	152	110	133	234	187	24	52	16	192	136	33	2,157
BX 11	162	482	86	167	90	84	141	101	46	17	41	97	189	14	1,717
BX 12	147	445	78	75	92	85	225	144	47	18	46	143	202	44	1,791
TOTAL	2,117	5,051	1,177	942	804	708	2,037	833	521	312	384	1,209	1,348	256	17,699

Map 88. Workers Who Live in The Bronx and Work in Queens Community District 2





# Census Tracts 2000 - Journey to Work - Maps Summary

This section analyzes Journey-to-Work trips at the Census Tract level for Bronx, Brooklyn, Queens, and Staten Island boroughs. Census tracts usually have a population between 2,500 and 8,000 and can vary in size depending on the population density. This section also analyzes the availability and proximity of public transportation to the workers in the Census Tracts, as well as an emphasis on the Downtown Brooklyn and JFK Airport; two large employment centers in the Brooklyn and Queens boroughs.

As previously noted, the largest number of inter-borough work trips, excluding Manhattan, were between Queens and Brooklyn boroughs.

Table 21 lists the total number of workers commuting between boroughs, excluding Manhattan. In 2000, the greatest flow of inter-borough workers lived in Queens and work in Brooklyn, with 83,722 workers.

**Table 21. Location of Residence and Location of Work, by Borough**

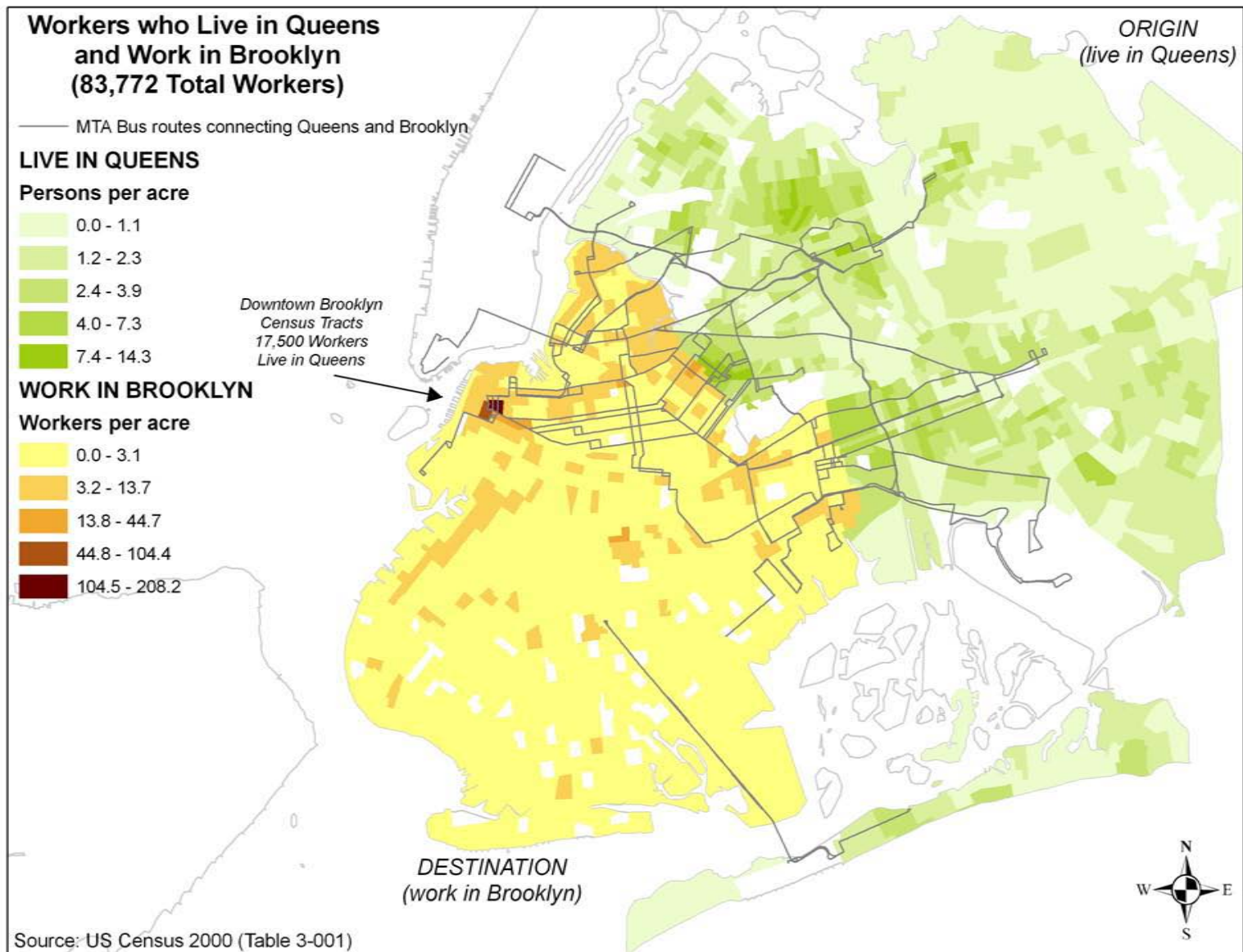
Source: U.S. Census 2000

LIVE	WORK	Total # of workers
Queens	Brooklyn	83,722
Brooklyn	Queens	59,711
Staten Island	Brooklyn	28,173
Queens	Bronx	17,479
Bronx	Queens	17,155
Bronx	Brooklyn	16,772
Brooklyn	Bronx	10,813
Brooklyn	Staten Island	8,832
Staten Island	Queens	5,368
Queens	Staten Island	5,002
Bronx	Staten Island	2,049
Staten Island	Bronx	1,028

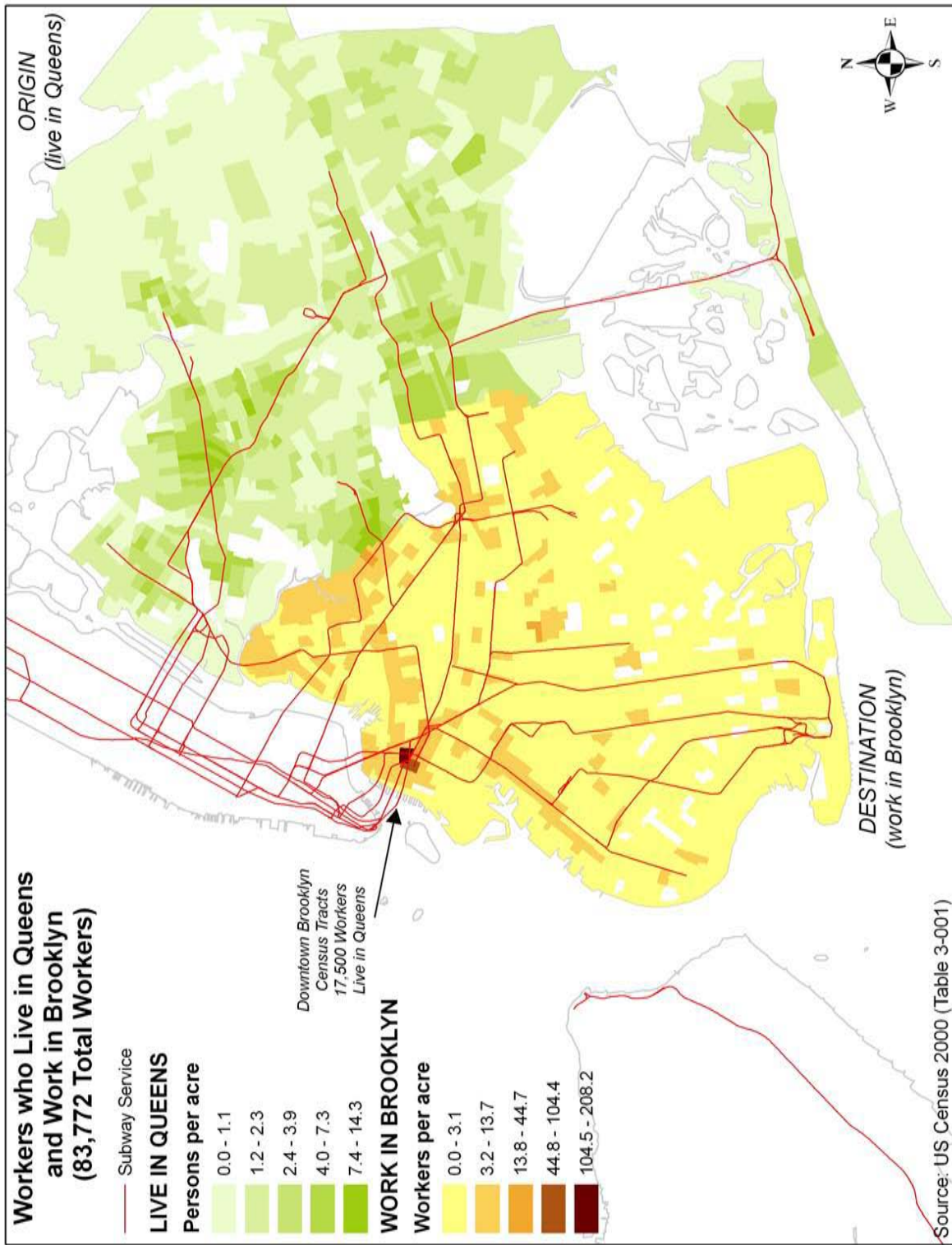
The “Census Transportation Planning Package” of 2000 US Census “Journey to Work” data was used to further study the concentrations of where workers both lived and worked, by census tracts, for inter-borough trips. The maps in this section display the density per acre of where the workers live and work in the respective census tracts in each borough. Maps 89 and 90 show the concentration of the 83,722 workers who live in Queens and work in Brooklyn, displayed by density per 2000 census tracts.

The greatest concentrations of workers, who live in Queens and work in Brooklyn, are the approximately 17,500 workers who work in the area of downtown Brooklyn. The network of MTA bus lines connecting Queens and Brooklyn, and the MTA subway routes, connect this high employment concentration in downtown Brooklyn with a majority of the high concentrations of where these workers live in Queens.

Map 89. Workers Who Live in Queens and Work in Brooklyn--(with Bus Routes)



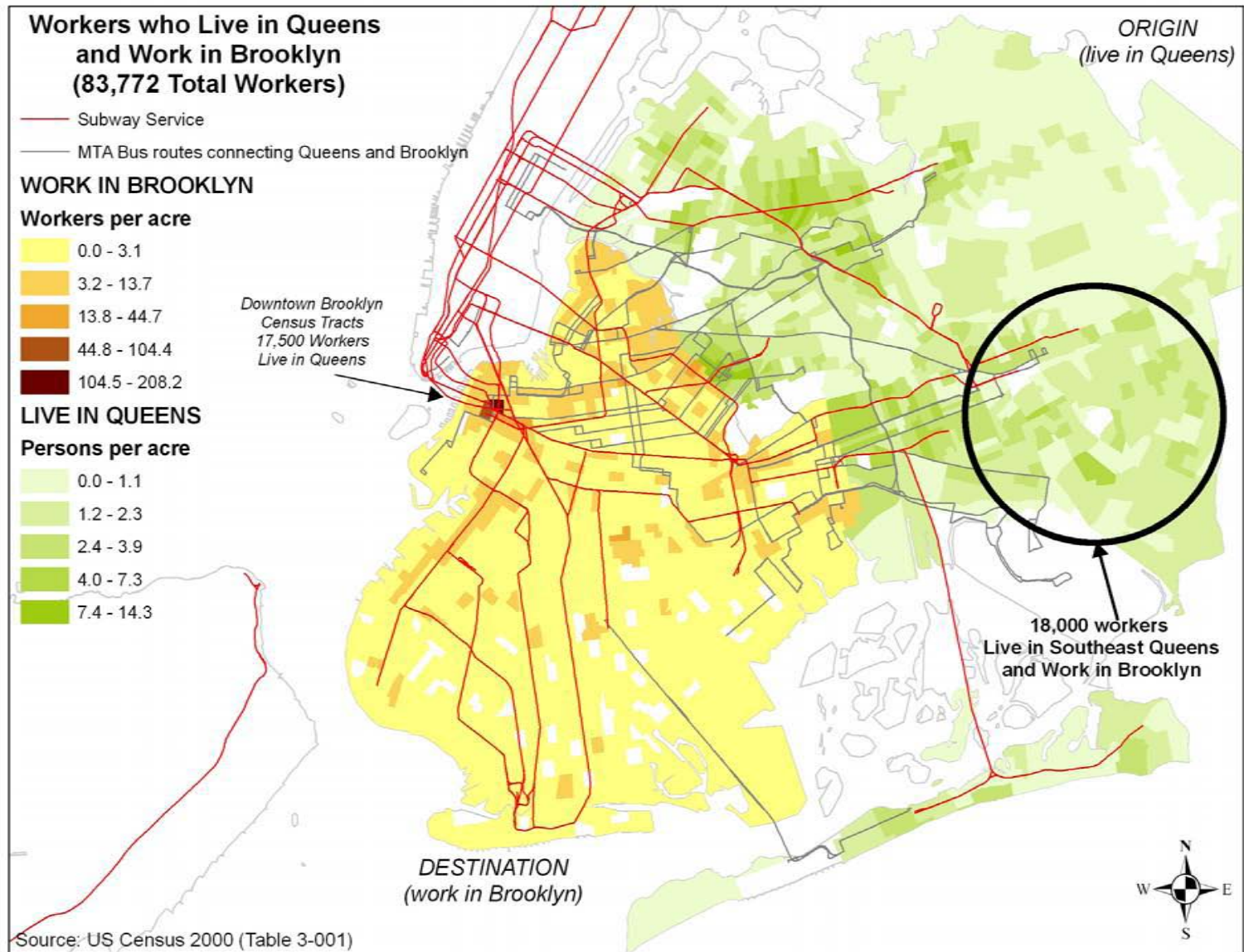
Map 90. Workers Who Live in Queens and Work in Brooklyn---(with Subway Routes)



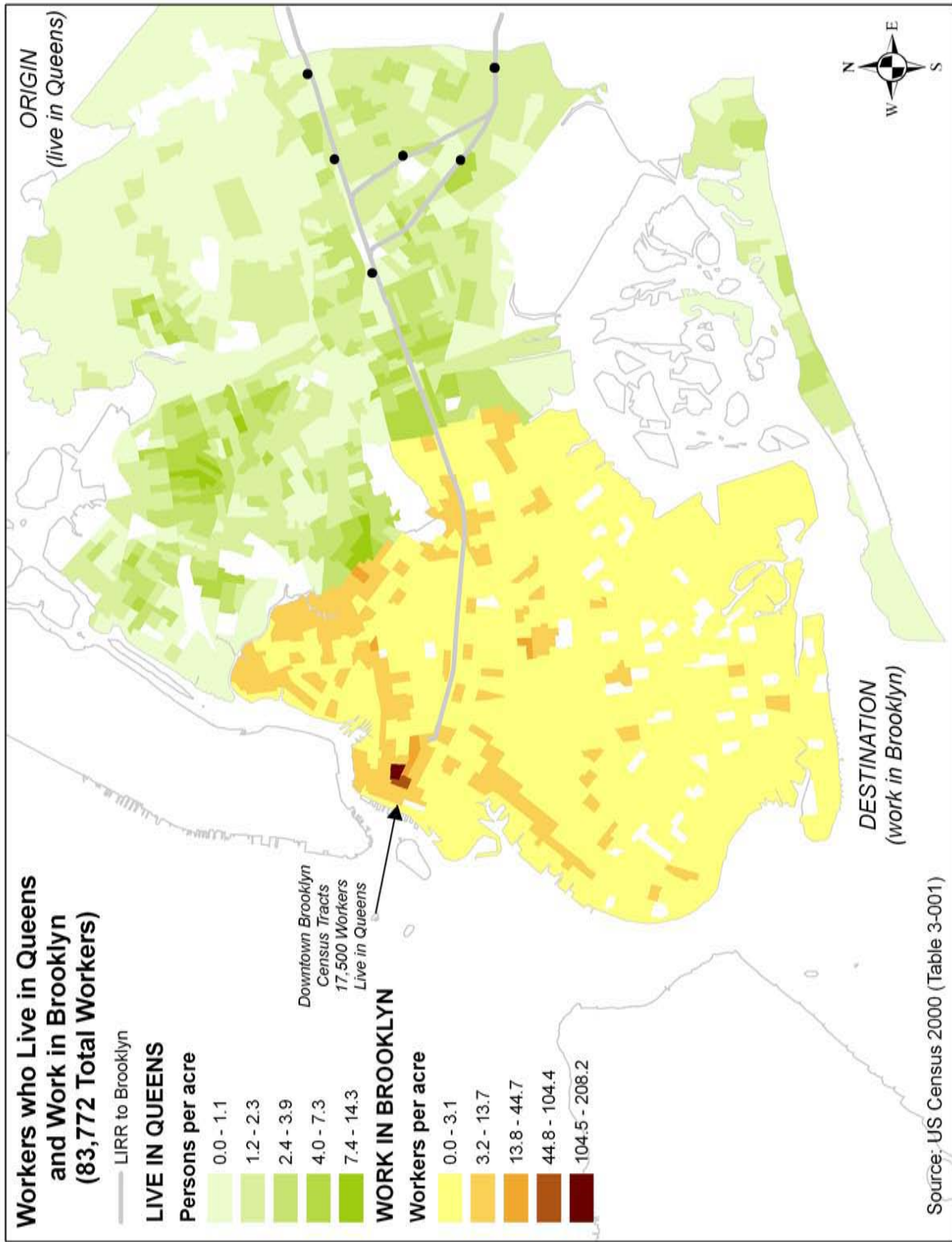
However, as noted on Map 91, the area of Southeast Queens contains approximately 18,000 workers that work in Brooklyn. This area is not directly connected with any subway routes, nor do any MTA bus routes in this area directly connect to Brooklyn. The Long Island Railroad (LIRR) does connect this area in Southeast Queens to the Atlantic Avenue station in Brooklyn, as shown on Map 92.



Map 91. Workers Who Live in Southeast Queens and Work in Brooklyn--(with Bus Routes)

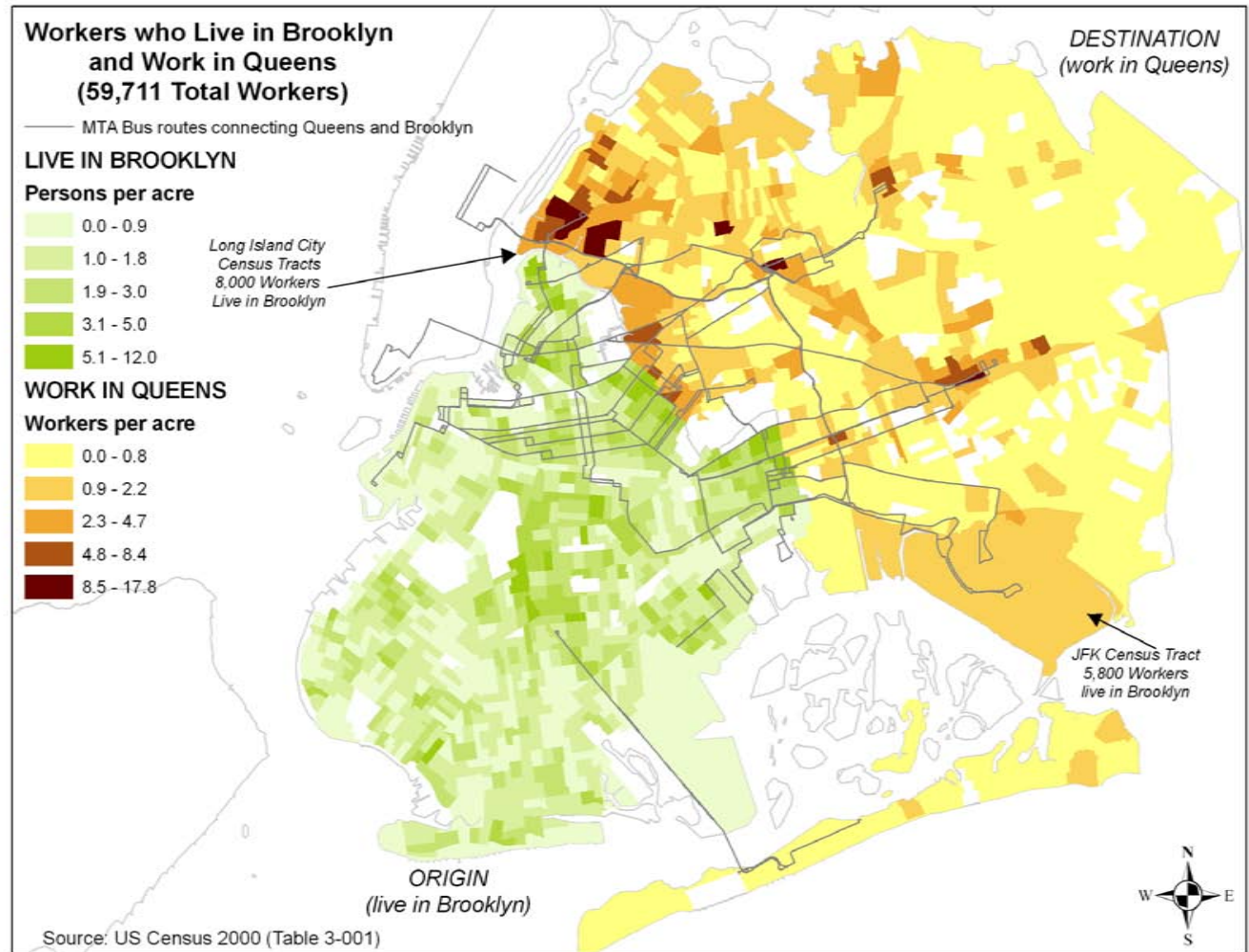


Map 92. Workers Who Live in Southeast Queens and Work in Brooklyn--(with LIRR Routes)



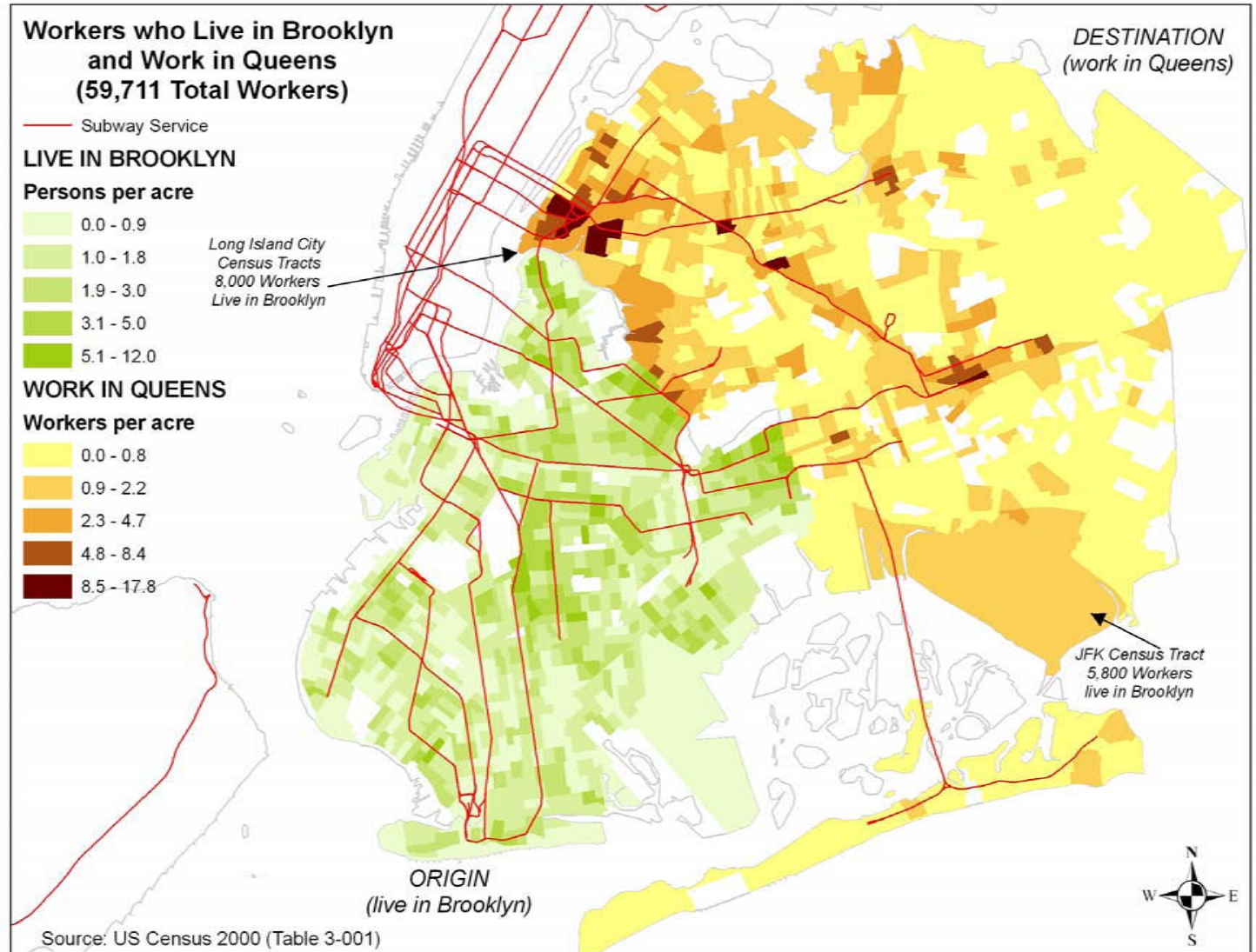
Maps 93 and 94 show the concentration of the 59,711 workers who live in Brooklyn and work in Queens, by 2000 census tracts. The greatest concentrations of workers, who live in Brooklyn and work in Queens, are the approximately 8,000 workers who work in Long Island City, and the 5,800 workers who work in JFK. The network of bus and subway lines appears to adequately connect these workers who live in Brooklyn and work in Long Island City.

Map 93. Workers Who Live in Brooklyn and Work in Queens--(with Bus Routes)



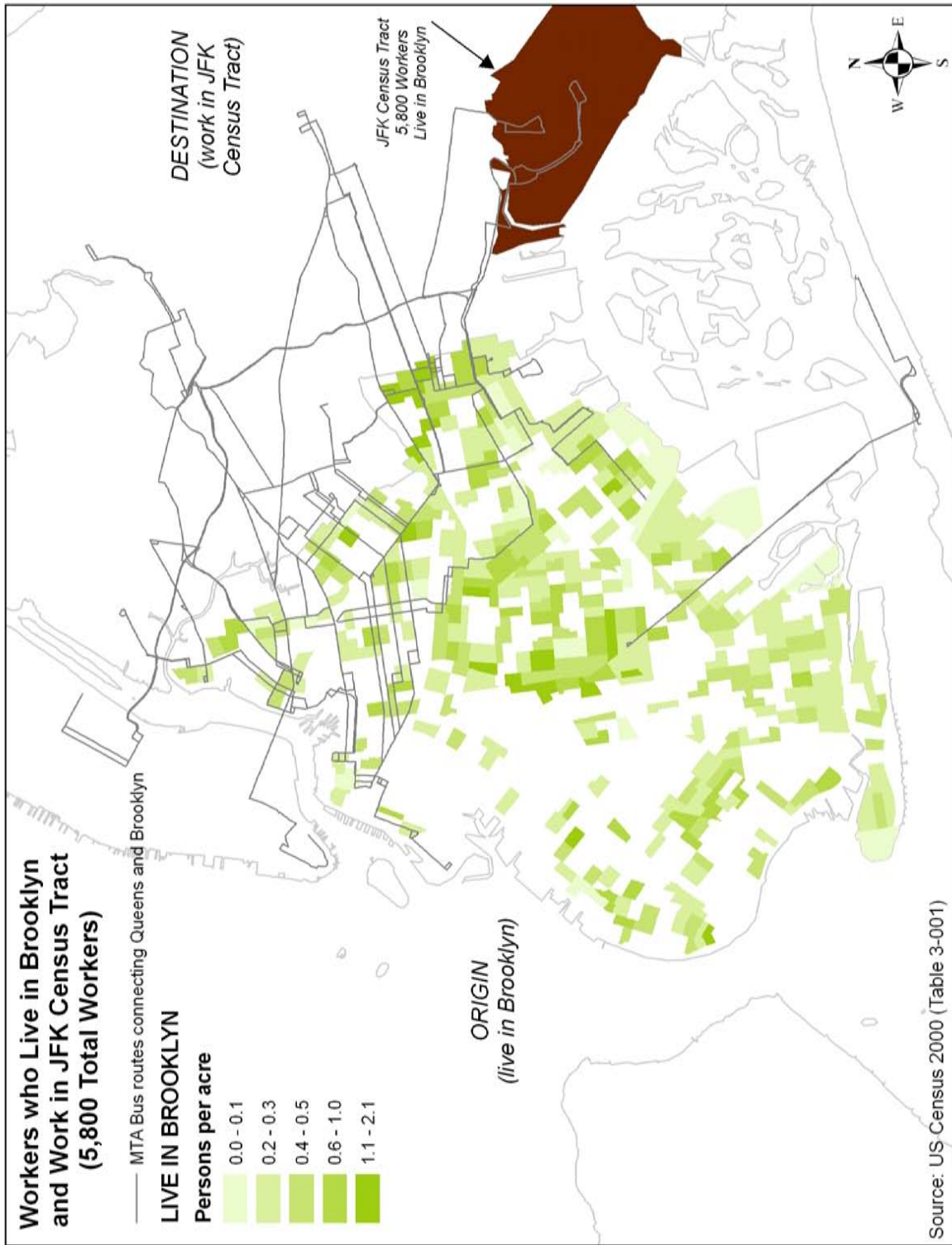


Map 94. Workers Who Live in Brooklyn and Work in Queens-- (with Subway Routes)

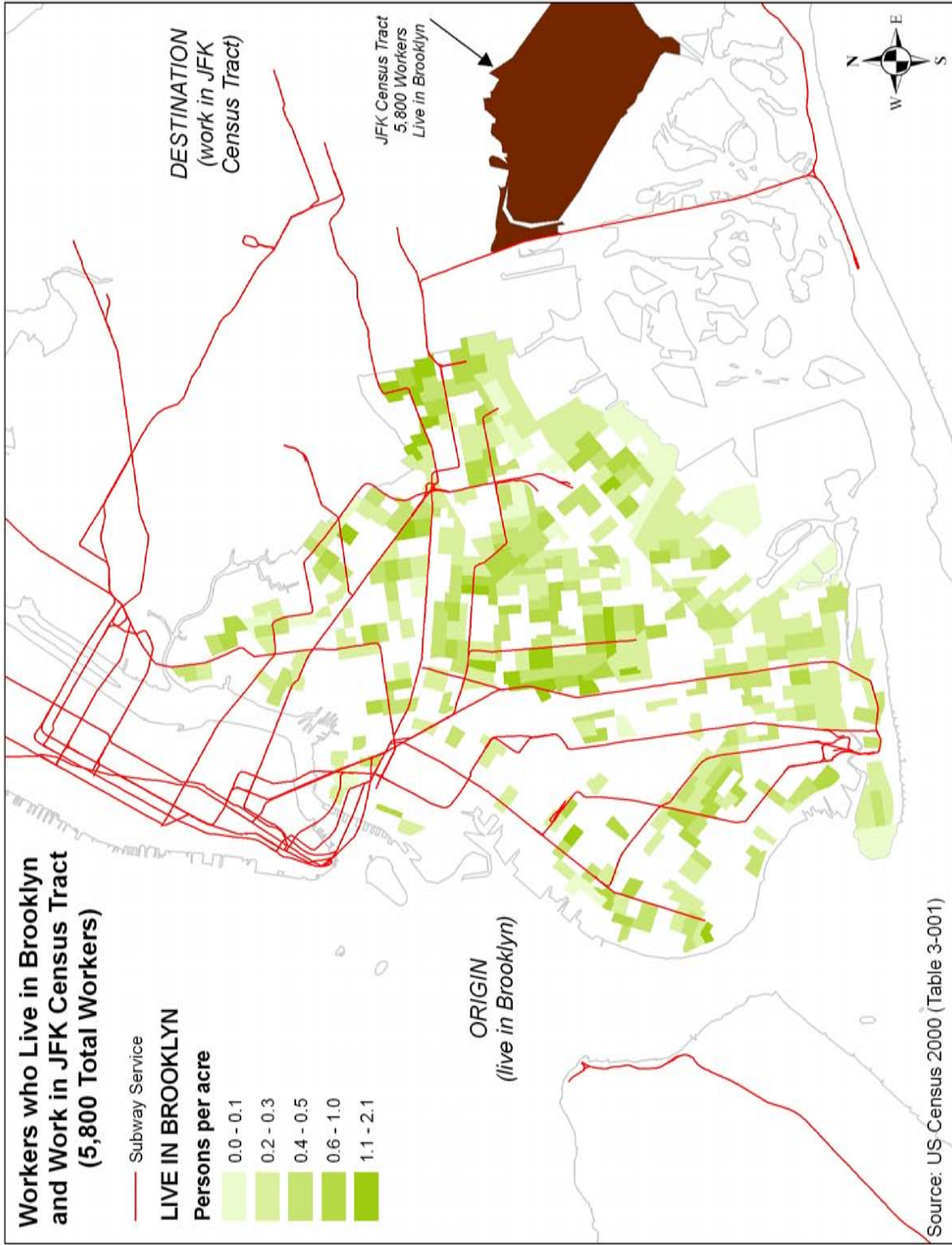


Approximately 5,800 workers live in Brooklyn and work in the JFK census tract. Although JFK is connected by the MTA Subway "A" train and "AirTrain" from Brooklyn, there still exists a concentration of workers in Brooklyn who must make multiple bus and/or subway transfers to reach JFK. Maps 95 and 96 show the concentration of these 5,800 workers who live in Brooklyn and work in the JFK census tract, displayed by 2000 census tracts.

Map 95. Workers Who Live in Brooklyn and Work in JFK Census Tract-- (with Bus Routes)



Map 96. Workers Who Live in Brooklyn and Work in JFK Census Tract--(with Subway Routes)

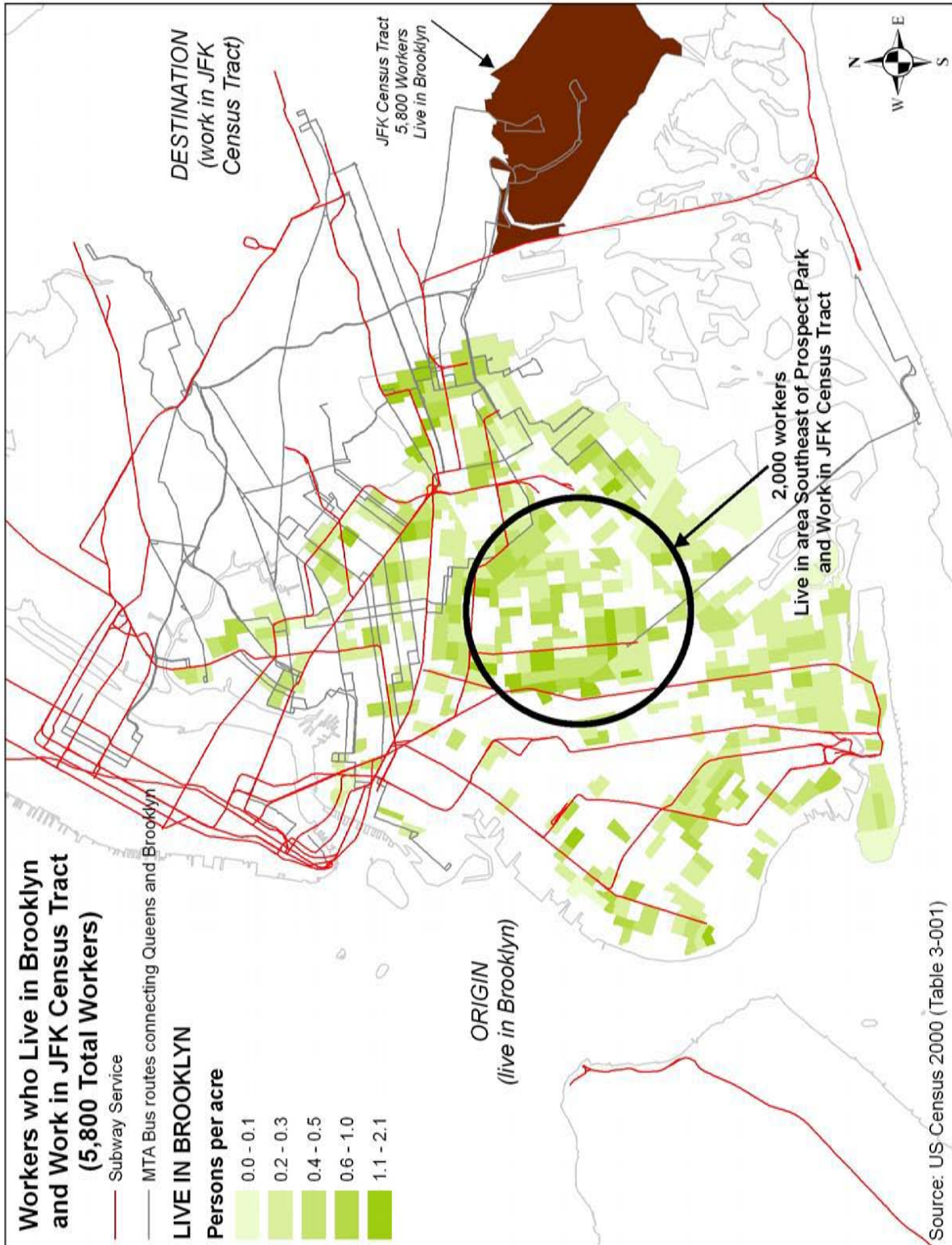




Map 97 illustrates, approximately 2,000 workers live in the area south east of Prospect Park and work in the JFK census tract. This area is served directly by the MTA Subway “2” and “5” routes, however these routes do not connect directly to JFK. Workers living in this area must travel in the opposite direction from JFK towards downtown Brooklyn to connect to the “A” subway route.

In addition, Map 97 illustrates there are no direct bus routes connecting this area to JFK. Thus workers residing in this area and working in the JFK census tract must make multiple connections via bus and/or subway routes. A direct bus route from this area in Brooklyn to the “A” train and/or the “AirTrain” would enhance work trips to JFK.

Map 97. Workers Who Live in Brooklyn and Work in JFK Census Tract --(with Bus & Subway Routes)



As noted in Table 21, excluding Manhattan, the trips of workers living in Staten Island and working in

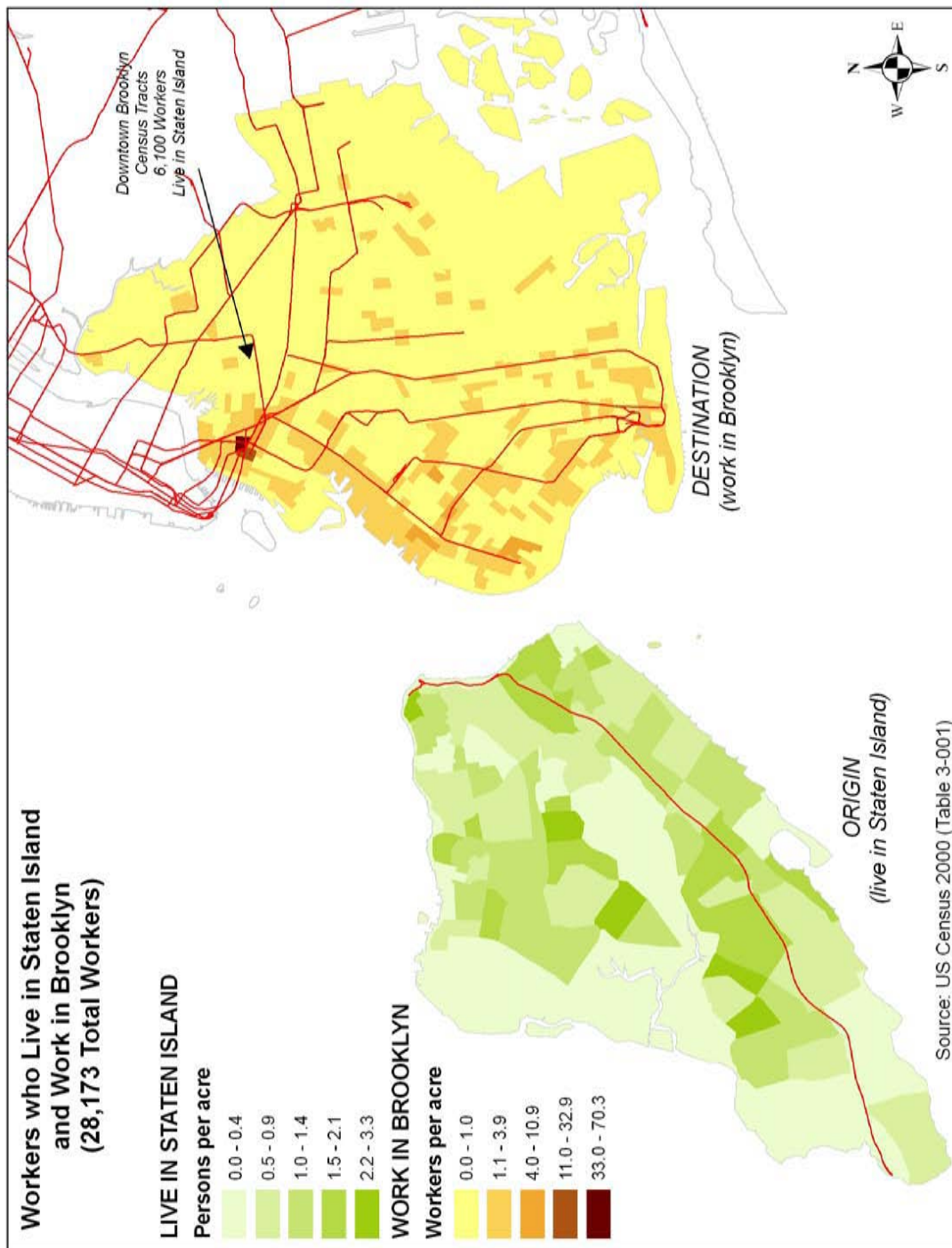
Brooklyn had the 3<sup>rd</sup> highest inter-borough work trip rate. Maps 98 and 99 display the concentration of the 28,173 workers who live in Staten Island and work in Brooklyn, by 2000 census tracts.

The greatest concentrations of workers, who live in Staten Island and work in Brooklyn, are the approximately 6,100 workers who work in downtown Brooklyn.

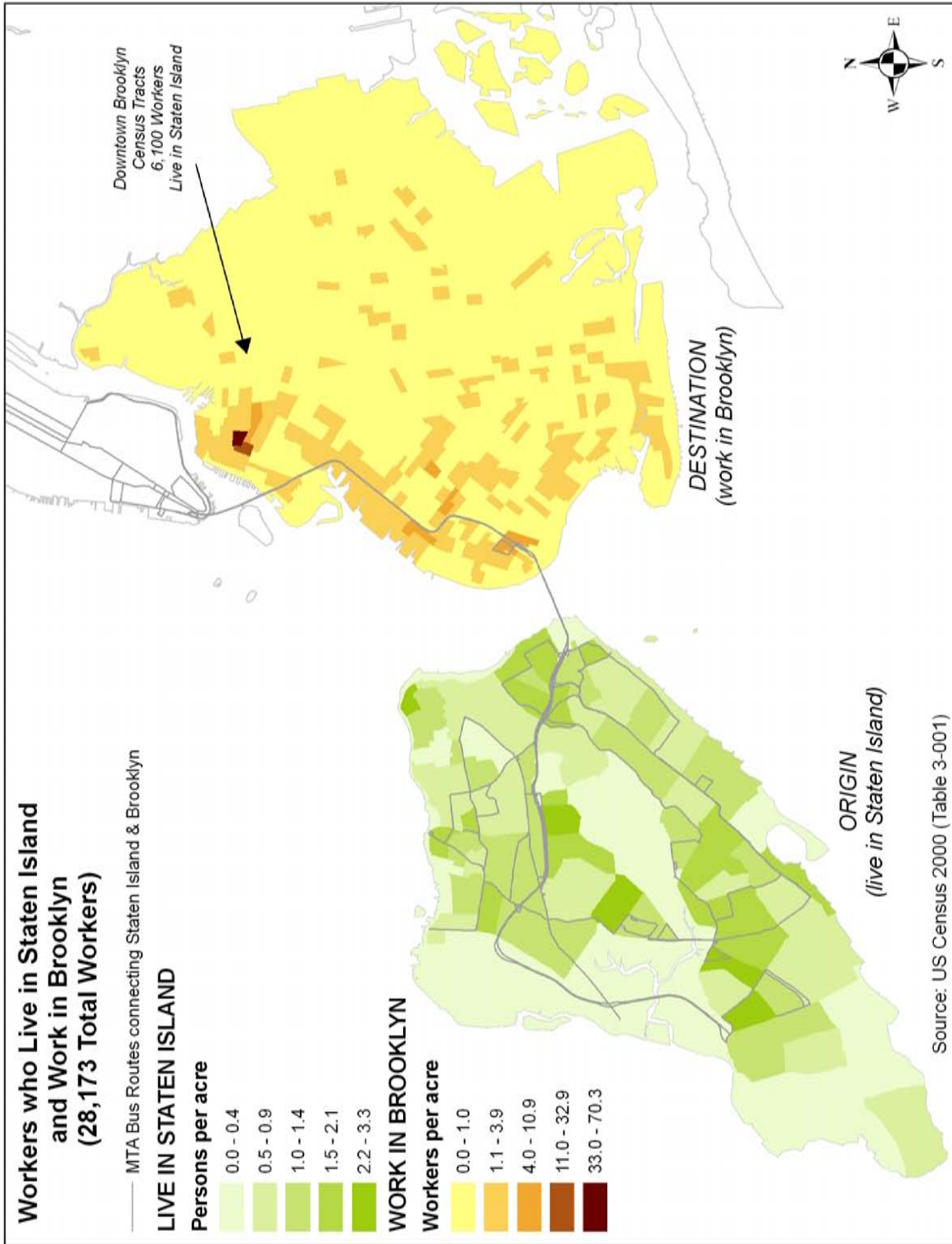
The network of bus routes connects workers who live in Staten Island and work in lower Manhattan, however there is no direct bus or subway route between Staten Island and downtown Brooklyn. Workers who live in Staten Island and work in downtown Brooklyn are required to make at least one transfer between bus and subway to connect to downtown Brooklyn.

A direct express bus between Staten Island and downtown Brooklyn would provide incentive to these 6,100 workers by decreasing the required transfer time.

Map 98. Workers Who Live in Staten Island and Work in Brooklyn—(with Subway Routes)



Map 99. Workers Who Live in Staten Island and Work in Brooklyn--(with Bus Routes)

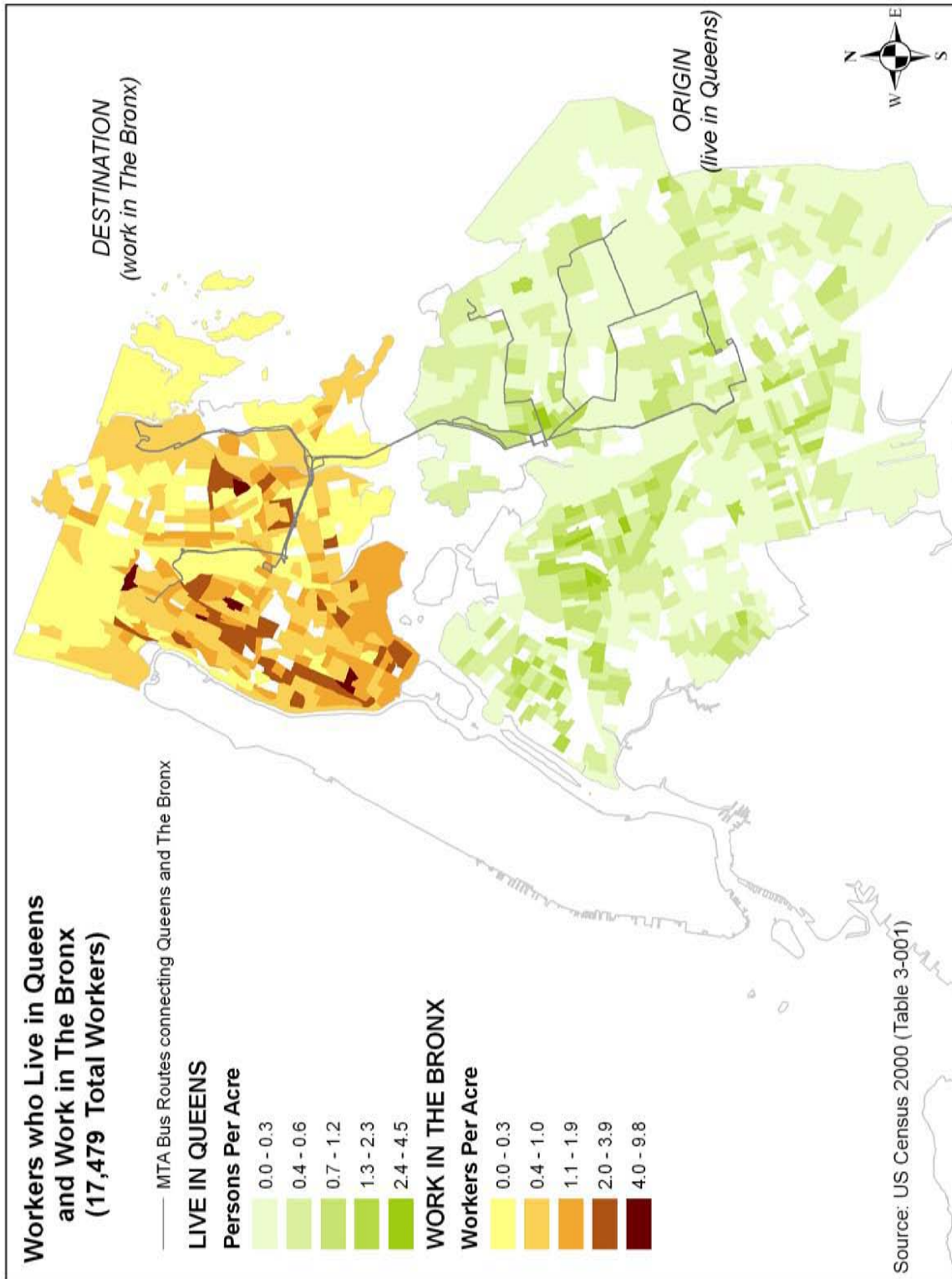




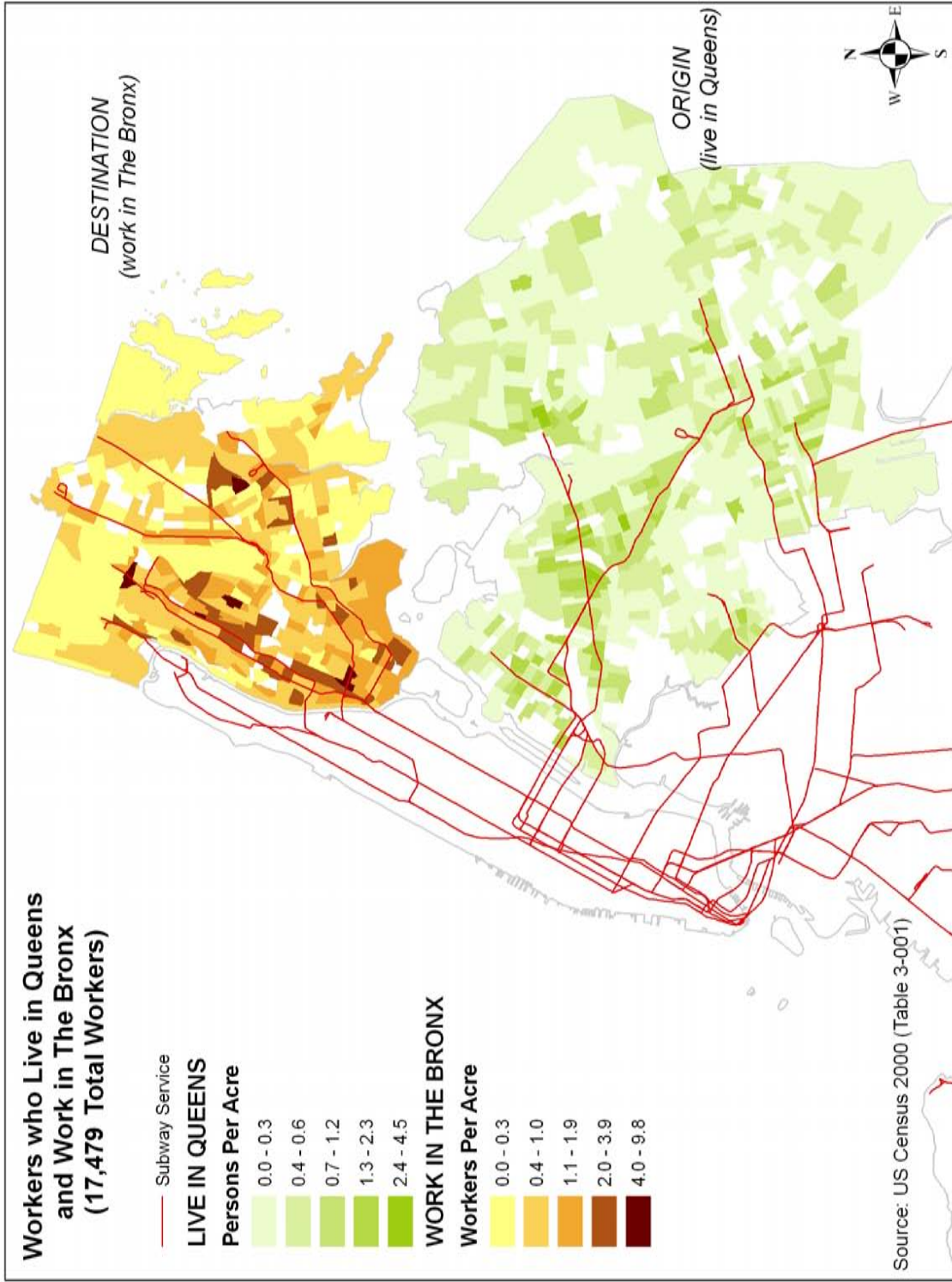
Map 100. Workers Who Live in Queens and Work in The Bronx--(with Bus Routes)

Maps 100 and 101 show the concentrations of the 17,479 workers who live in Queens and work in The Bronx. Due to the geographical separation of The Bronx and Queens only busses connecting the two boroughs travel over the Whitestone Bridge, as shown on Map 100. Map 101 shows the existing subway routes provide adequate connections from the higher residential and employment concentrations despite the limitations on direct bus service.

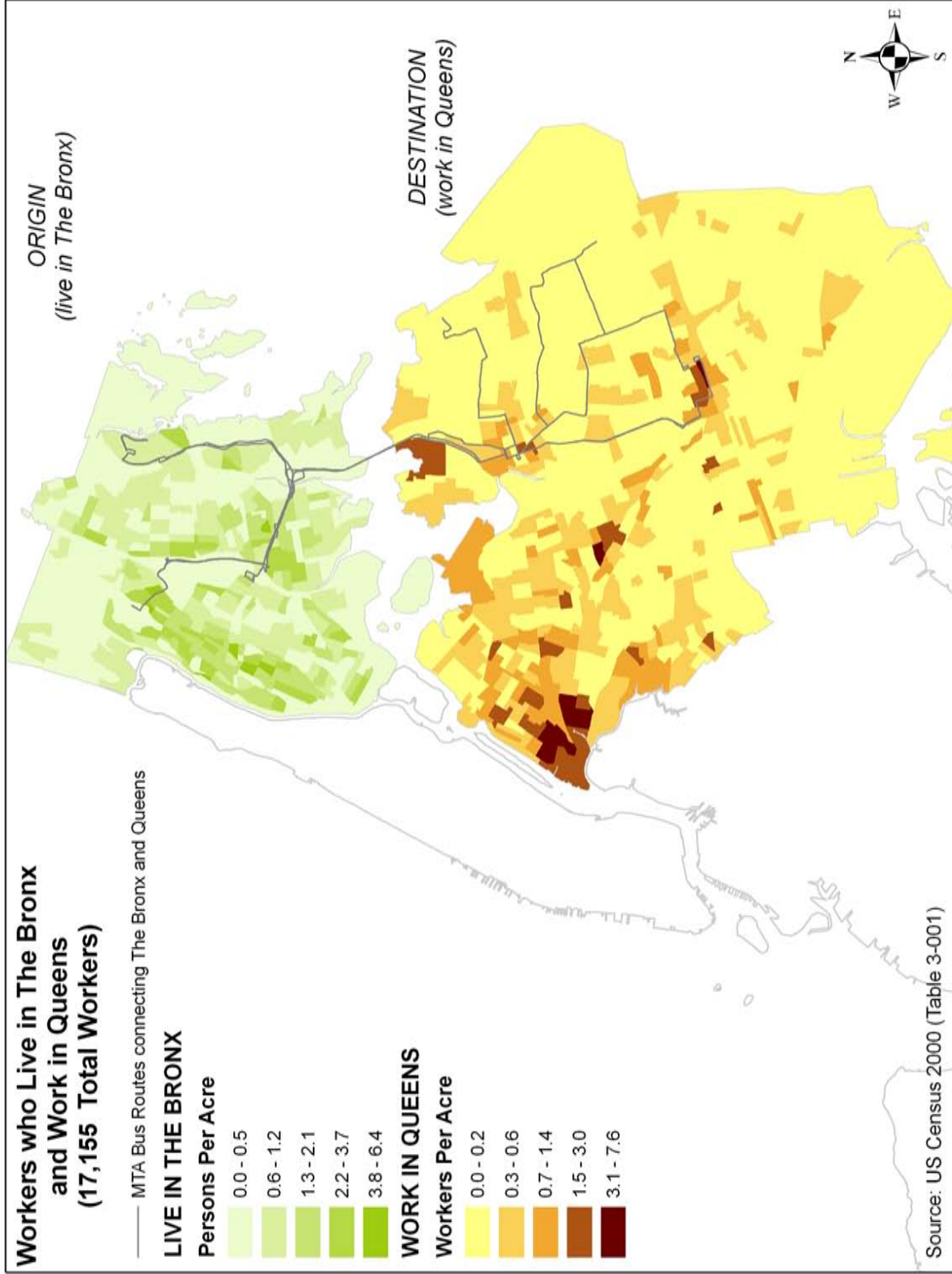
Equally important, Maps 102 and 103 show the concentration of the 17,155 workers who live in The Bronx and work in Queens. Map 102 shows bus routes, and the Map 103 the subway services.



Map 101. Workers Who Live in Queens and Work in The Bronx---(with Subway Routes)

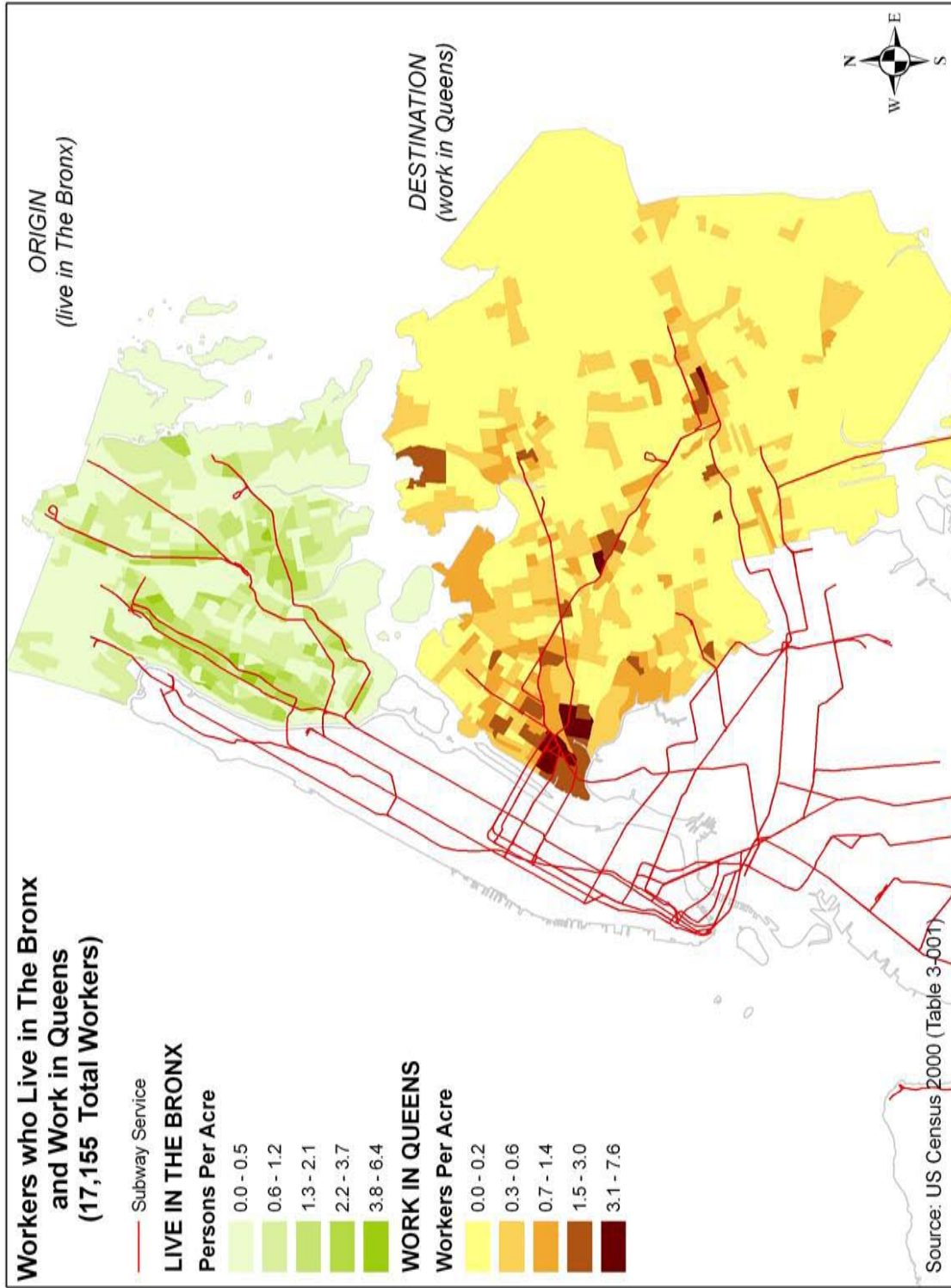


Map 102. Workers Who Live in The Bronx and Work in Queens--(with Bus Routes)



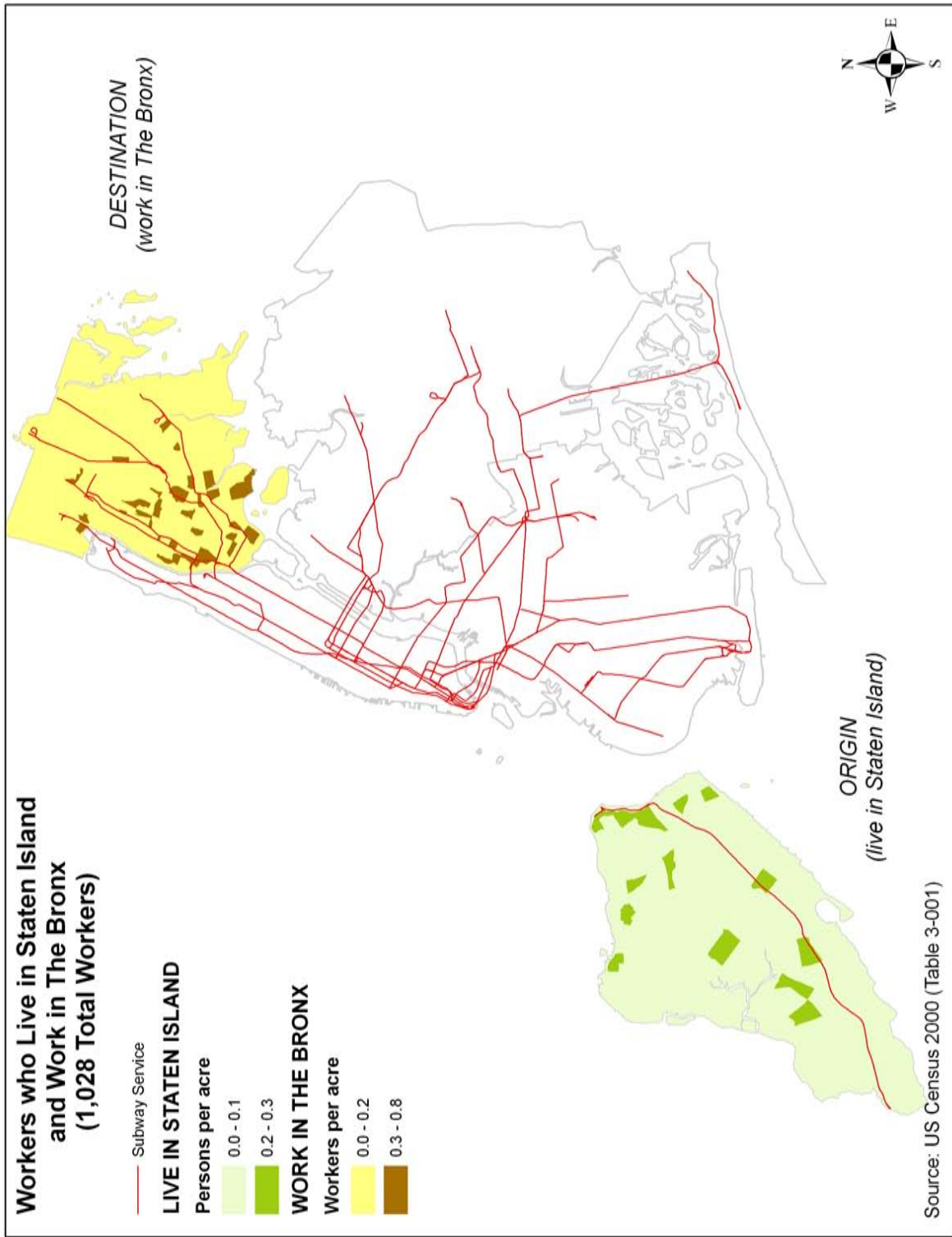


Map 103. Workers Who Live in The Bronx and Work in Queens--(with Subway Routes)

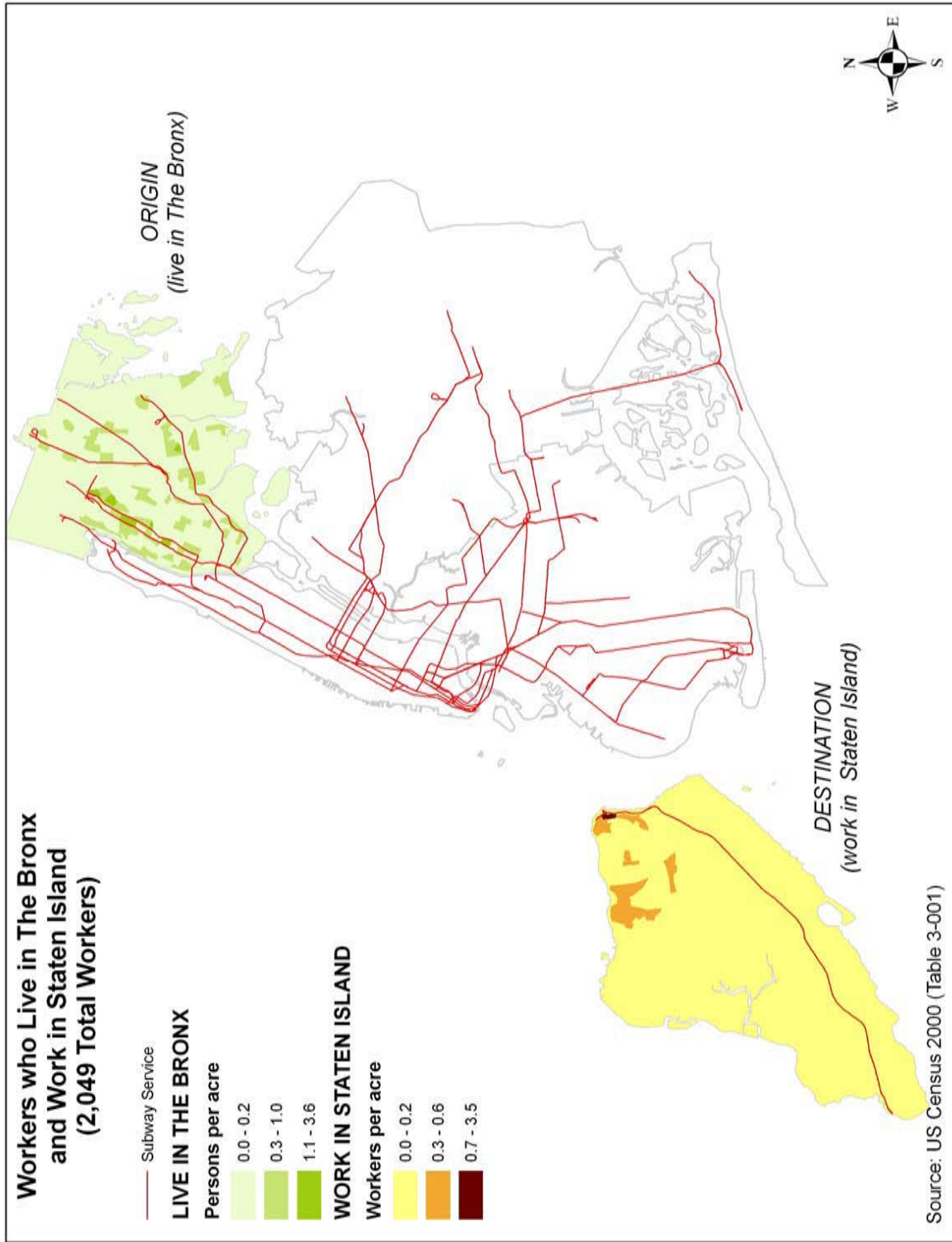


Maps 104 and 105 indicate the concentration of workers who commute between The Bronx and Staten Island. Map 104 shows 1,028 workers who live in Staten Island and work in The Bronx, and Map 105 indicates 2,049 workers commuting from The Bronx to Staten Island.

Map 104. Workers Who live in Staten Island and Work in Bronx—(with Subway Routes)



Map 105. Who Live in Bronx and Work in Staten Island ---(with Subway Routes)





Map 106. Who Live in Staten Island and Work in Queens--(with Subway Routes)



Map 107. Workers Who Live in Queens and Work in Staten Island ---(with Subway Routes)

