Origin-Destination Surveys
for Local Bus Service
(South Garage)

MPO
MIAMI-DADE
METROPOLITAN
PLANNING
ORGANIZATION

WORK ORDER #

GPC V-22

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Final Report: Survey Implementation and Summary of Raw Data

Prepared for:

MIAMI-DADE METROPOLITAN
PLANNING ORGANIZATION

Prepared by:

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1. Introduction

The Miami-Dade County Metropolitan Planning Organization (MPO) is conducting a series of transit ridership on-board surveys in Miami-Dade County to support the regional transit modeling efforts. The current Origin-Destination Surveys for Local Bus Service – South (Coral Way) Garage Study is the fifth and final effort needed to complete on-board surveys for the entire Miami-Dade Transit (MDT) system. The MPO has previously completed the following survey studies:

- Miami-Dade Metrorail Transit Survey (2009),
- Origin Destination Study for the 95 Express (2012),
- Origin-Destination Surveys for Local Bus Service – Northeast Garage (2012),
- Origin-Destination Surveys for Local Bus Service – Central Garage (2013).

These surveys are intended to obtain more accurate ridership characteristics, such as origin-destination patterns trip purpose, and mode of access and egress. A survey instrument was developed in consultation with the MPO and MDT to ensure the collection addresses their specific data needs, including information on socioeconomic characteristics, including household size, household income, and age, and transit travel patterns of current transit riders. The survey questions were targeted to provide insight into trip purpose, modes of travel including transfers between different transit types, origin-destination patterns, modes of payment, and other demographic information. The survey data will be used to update and validate the Southeast Regional Planning Model (SERPM) and will be used in developing the Activity Based Model for the region. The ridership survey data serves to improve regional travel demand model forecasts based upon accurate and useful data on the existing characteristics and travel patterns of transit riders.

1.1 Miami-Dade Transit Local Bus Routes

On-board surveys were conducted primarily over a two-week period in October 2014 and additional surveys were subsequently conducted over a two-week period in April 2015 to supplement the survey results. A total of 31 bus routes originated out of the MDT South (Coral Way) Garage; however, due to funding constraints for the data collection not all routes could be surveyed. Therefore, the route ridership was analyzed to determine the routes with highest ridership to collect data from the largest number of riders possible in order to meet a goal of intercepting five percent (5%) of the total ridership for the South (Coral Way) Garage. Based on the budget and ridership a total of 18 local bus routes served by the South (Coral Way) Garage were surveyed which represented approximately 90 percent (90%) of the total ridership out of the MDT South (Coral Way) Garage (61,774 / 69,366 riders). This survey effort excluded local bus and circulator routes that had less than 1,500 average daily boardings. An exception was Route 288 – Kendall Cruiser that operates as the limited stop service to Route 88 and had an average daily boarding of 949. Route 288 was included to capture the impact of the limited stop route on the collected data. A table of the bus routes and survey schedule is included in Table 1. The data collection for the past Local Bus Service surveys completed in 2012 and 2013 was conducted in April to account for a broad range of typical riders, in advance of the end of the school year. However, the majority of data collection for the South (Coral Way) Garage was conducted during the month of October. MPO staff reviewed historical monthly ridership data and

determined that October ridership was comparable to April; and therefore, would be an acceptable month to conduct the surveys. The surveys were conducted mid-week generally between the hours of 6 am and 7 pm.

1.2 Survey Project Scope

The project scope focused primarily on using the previous Northeast Garage survey methodology which was subsequently updated for the Central Garage based on "lessons learned". The survey instrument and database development were maintained to provide consistency with previous years' bus surveys. The final product is a database containing the collected survey data. An initial raw data set was compiled and a preliminary geocoding effort was completed based on the raw data. A revised shapefile and dataset was prepared based on an additional review and cleanup effort. The subsequent geocoding effort is documented by a map series located in *Appendix C (Trip Origin-Destination Maps By Route)* of this summary report.

The following summary report outlines general findings and summary results. The survey effort does not include data expansion, correction of biases, if any, or conversion of origin-destination format to a productions and attractions format. Additional future data processing and editing is expected to be required.

2. Survey Design

2.1 Survey Plan

The survey was conducted primarily over the course of two weeks in October 2014 and supplemented in April 2015 on Tuesday, Wednesday, and Thursday generally between 6 am and 7 pm. As stated in section 1.1, MPO staff reviewed historical monthly ridership data and determined that October and April ridership were comparable; therefore combining the results from the separate months of data was determined to be acceptable. The survey accounted for inbound and outbound directional service (i.e., northbound, southbound, eastbound, and westbound). A sampling target was set at surveying five percent (5%) of daily ridership for the combined surveyed routes. Survey teams completed round-trips along the surveyed bus routes originating from the South (Coral Way) Garage, Dadeland North Metrorail Station, or Dadeland South Metrorail Station. Survey teams completed inbound and outbound surveys for routes throughout the day, capturing the AM peak, PM peak, and off-peak periods. Table 1 summarizes the survey dates, days of the week, and survey teams.

Table 1: Survey Dates

Route #	Route Name	Survey Date	Day of the Week	# Survey Teams	Total # Surveyors
8	8	Oct 7 & 8 2014; Apr 15 2015	Tue & Wed; Wed	4	11
11	11	Oct 7, 8th, 14, & 15 2014; Apr 22 2015	Tue & Wed, Tue & Wed; Wed	5	14
24	24	Oct 9 2014	Thurs	1	3
31	Busway Local	Oct 8 2014	Wed	1	2
34	Busway Flyer	Oct 16 2014	Thurs	1	2
35	35	Oct 9 2014	Thurs	1	3
38	Busway MAX	Oct 14 & 16 2014; Apr 21 2015	Tue & Thurs; Tue	3	7
40	40	Oct 14 2014	Tue	1	2
51	Flagler MAX	Oct 8 2014	Wed	1	3
52	52	Oct 9 2014	Thurs	1	2
70	70	Oct 14 2014	Tue	1	2
73	73	Oct 9 2014	Thurs	1	3
87	87	Oct 7 2014	Tue	1	2
88	88	Oct 15 2014; Apr 16 2015	Wed; Thurs	2	5
104	104	Oct 7 & 16 2014	Tue & Thurs	2	3
137	West Dade Connection	Oct 16 2014	Thurs	1	2
204	Killian KAT	Oct 15 2014	Wed	1	2
288	Kendall Cruiser	Oct 15 2014	Wed	1	2

2.2 Survey Questionnaire

The survey questionnaire was consistent with the 2013 Central Garage and 2012 Northeast Garage survey instruments which were developed in coordination with the MPO and MDT, and provided to FDOT for review. The Central and South (Coral Way) Garage surveys were modified slightly from the Northeast Garage survey based on comments related to FDOT's ongoing SERPM model efforts. The changes included slight modification to the wording of questions, and adjusting the order of a few questions.

The survey included questions that were intended to provide a comprehensive information base for several different categories:

- Travel patterns (origin and destination)
- Trip purpose
- Mode of access
- Trip characteristics
- Travel behavior
- Frequency of transit use
- Fare payment method
- Household characteristics
- Passenger demographics
- Gender
- Language

Based on past experiences in acquiring quality survey data in Miami-Dade County, the surveys were completed through one-on-one, on-board transit rider interviews by a multilingual survey team using iPads. The personal interviews were used to improve the response rate, quality and consistency of data, and better survey the diversity of transit riders. The survey team included English, Spanish, and Creole speaking staff.

The iPads each contained a unique identifier, and were reflected in the electronic surveys. Each device was entered in a daily log that enabled correlating survey devices with specific survey team members, routes, and schedules. The electronic survey data included date and time stamps, with the corresponding iPad device numbers.

As a result of the effectiveness of conducting surveys using the electronic tablets and using multilingual staff (Spanish, Creole), no printed paper surveys were generated for these surveys. Screenshots of the electronic survey are located in Appendix A.

2.3 Methodology

The data collection effort focused on entering transit rider survey interview responses. Advance planning and survey preparation was critical to the project success. MDT bus rotaries and passenger count data summaries were analyzed to develop an initial survey work plan. The survey work plan was prepared to determine the appropriate level of staffing needed for each route based on estimated ridership, anticipated response rates, and bus schedules. The work plan was prepared to intercept five percent (5%) of the total average daily

ridership for the routes surveyed. The 5% ridership goal was determined based on a sample size for a statistically significant survey. Based on the previous two (2) on-board surveys (Northeast Garage and Central Garage) the percent of completed surveys was anticipated to be 40 percent (40%) of intercepted riders. A 40% completion rate for 5% of the total ridership would result in 1,387 completed surveys which would provide a confidence interval between 2% and 3% at a 95% confidence level. The Northeast Garage utilized a ten percent (10%) ridership goal based on 99,533 daily riders and the Central Garage utilized an eight percent (8%) target rate based on 94,452 daily riders; however, these target rates were not feasible due to the lower overall ridership for the South (Coral Way) Garage (69,366 daily riders) and budget limitations. Utilizing the 5% ridership goal still resulted in a statistically significant sample size; therefore, was considered to be acceptable. Electronic survey data results were reviewed regularly during the survey period and allowed for adjustment and reallocation of survey teams to better meet survey target rates.

The survey included multiple choice responses and manual data entry fields. The initial set of questions was mandatory and addressed key pieces of data required for this study, including:

- Trip origin – type of place and address or intersection
- Trip purpose
- Trip sequence
- Mode of access/egress
- Parking or park-and-ride locations
- Bus boarding and alighting location
- Trip destination – type of place and address or intersection

The remaining questions were designed to acquire additional data on trip characteristics, bus rider profile, and demographic information. The response rate was dependent upon the time available and their willingness to respond.

All transit riders surveyed participated willingly and were asked to provide consent prior to conducting the interview. Transit rider survey participation was noted as part of the electronic survey to be able to compute response rates.

3. Implementation

3.1 Training

A training session was held on Thursday October 2, 2014 at the Miami-Dade Transit offices in Overtown Transit Village North for the team leaders and the survey team. The training session was conducted to familiarize the entire survey team with the project objectives, survey format, survey methods, and to provide hands-on instruction, informational materials, and to answer questions. While some of the team members had prior surveying experience, most did not.

The training consisted of several parts:

- Project Overview
- Instructions & Key Factors
- Sample Survey Exercise using iPad
- Assignment Logistics

The project overview was a brief introduction to the project, including the purpose of the survey, an explanation of the questions, and description of past surveys. The instructions and key factors were explained to the team members. The expectations of the behavior were presented and discussed. A mock survey was completed with the iPad to help the team members familiarize themselves with the technology, survey questions, and survey techniques. Logistics such as meeting times and locations were also explained.
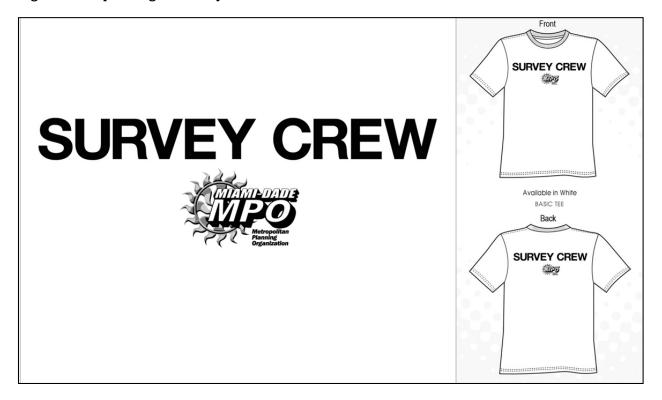
3.2 Survey Implementation

The survey was staffed using up to four (4) on-board survey teams. Each survey team was led by a professional from Kimley-Horn and Associates, Inc. (KHA) or sub-consultant, CTS Engineering, Inc., who served as team leader, and supported by a team of approximately seven (7) temporary staff. Each survey team leader was accompanied by approximately one to two staff. The survey team was distinguished by an identification badge and a t-shirt with the MPO logo and labeled with "Survey Crew." A sample image of the survey shirt is included in Figure 1.

Figure 1: Sample Image of Survey Team Uniform

This survey was administered on October 7-9, 2014; October 14-16, 2014; April 15-16, 2015; and April 21-22, 2015. Teams were distributed on pre-selected routes and runs on each of the designated survey days.

Survey teams were pre-assigned to specific routes and bus runs covering the survey schedule. Survey team members met at a designated central location before proceeding to and boarding the assigned bus. Typically the meeting place at the South (Coral Way) Garage, but the Dadeland North Metrorail Station and the Dadeland South Metrorail Station were also utilized if the bus schedules prohibited boarding a bus at the South (Coral Way) Garage at a manageable time. For the October 2014 surveys, all teams were positioned on a bus to capture riders in transit. For the supplemental April 2015 surveys, a three person team was utilized each day with one surveyor assigned to a specific bus route, one person assigned to a bus transfer station (i.e. Brickell Station, Dadeland North, Dadeland South, or Government Center) to capture riders waiting at multiple bus routes, and the third person was assigned to the bus during the morning hours and the transfer station during the afternoon hours.

The survey team members were each assigned their iPads with a unique identifier that was recorded in a daily log. The teams boarded the bus and the team leaders positioned the team throughout the bus to best survey the riders.

Before beginning the interview, the survey team would enter the bus route number, the direction (inbound/outbound) that the bus was travelling, the date, and the time the survey was beginning. The survey

team was trained to avoid interviewer selection bias; however, in practice, the buses were sufficiently staffed so that the survey team interviewed or requested an interview from most or all transit riders on the bus.

The surveyors actively engaged as many bus patrons as they could to complete the maximum amount of valid surveys possible. The survey team asked the potential participant if they would be willing to answer a few questions. Following verbal consent to be interviewed, the survey team would conduct the survey and enter responses into the iPad. If the person did not wish to participate in the survey, the negative response would be recorded to complete the survey and the survey team would proceed to approach a new transit rider. The negative responses were recorded in addition to the positive responses to record the total number of riders intercepted.

The iPads were collected by the team leaders at the end of every survey day, and the information was uploaded to the survey database to be organized and analyzed at a future date.

4. Minimizing and Mitigating Non-Response Bias

4.1 Survey Instrument

Survey instruments play a crucial role in reducing non-response bias. The use of an iPad as the survey instrument and using trained survey interviewers served to increase the response rate and to improve the quality and validity of survey data. The electronic survey instrument was prepared in English, but the multilingual survey team administered the survey in English, Spanish, and Creole, and recorded the answers directly into the iPads.

4.2 Implementation

To mitigate non-response bias for this project, the project methodology included:

1. Developing an easy-to-use survey instrument with simple to understand questions
2. Selecting survey team members with prior survey experience
3. Providing at least one (1) bilingual surveyor on every bus
4. Selecting and training survey team members to effectively conduct the survey
5. Directly engaging transit riders to take the survey
6. Actively managing survey teams to engage transit riders
7. Adequately staffing bus routes depending on anticipated ridership
8. Making staffing adjustments to address non-performing survey team staff

Several of the team members were selected based upon experience conducting similar surveys in the past, their grasp on what was necessary to complete a successful survey, and their ability to perform. A training session was completed prior to the actual on-board surveys. Team members were instructed during the training on how to approach people, present themselves, and conduct the surveys. They were provided with background information and simple sample statements to use, and they participated in a trial survey exercise using all of the survey materials. The team was provided a target goal of the number of people to approach for a survey for each day. The team leaders managed their teams and conducted interviews with transit riders.

The time spent completing the survey interview generally ranged from 5 minutes to 15 minutes for each transit rider.

Table 2 summarizes the percent of daily ridership surveyed by route number.

Table 2: Percentage Surveyed of Daily Ridership by Route Number

Route Number	Average Daily Ridership	Targeted Number of Intercepted Riders (5%)	Actual No. of Riders Intercepted	% Daily Ridership Intercepted
8	7,936	397	783	9.9%
11	12,513	626	1,249	10.0%
24	2,869	143	198	6.9%
31	2,113	106	182	8.6%
34	1,802	90	89	4.9%
35	3,147	157	163	5.2%
38	8,085	404	590	7.3%
40	2,470	124	124	5.0%
51	3,683	184	233	6.3%
52	1,948	97	151	7.8%
70	1,541	77	249	16.2%
73	2,713	136	208	7.7%
87	2,151	108	180	8.4%
88	2,673	134	618	23.1%
104	1,508	75	178	11.8%
137	2,319	116	189	8.2%
204	1,354	68	162	12.0%
288	949	47	116	12.2%
Total	69,366	3,468	5,662	8.2%

Source: Miami-Dade Transit Ridership Ridership Technical Reports, July 2013 – June 2014

5. Survey Response

5.1 Overall Response

Of the 5,662 passengers that were approached by the survey teams during the eight (8) survey days, 2,366 transit riders elected to participate in the survey and completed the minimum nine origin-destination questions. A response rate of approximately 42% was calculated by dividing the number of survey responses by the number of people approached to complete the survey.

The 2,366 completed surveys make up the data set in use for this report. Table 3 depicts the breakdown of surveys by bus route.

Table 3: Survey Response Rate by Bus Route

Route Number	Intercepted Riders	Completed Surveys	Percent Completed
8	783	426	54.4%
11	1,249	404	32.3%
24	198	77	38.9%
31	182	78	42.9%
34	89	22	24.7%
35	163	66	40.5%
38	590	225	38.1%
40	124	63	50.8%
51	233	113	48.5%
52	151	80	53.0%
70	249	71	28.5%
73	208	98	47.1%
87	180	85	47.2%
88	618	291	47.1%
104	178	90	50.6%
137	189	68	36.0%
204	162	57	35.2%
288	116	52	44.8%
Total	5,662	2,366	41.8%

During the October 2014 surveys approximately 38 percent (38%) of the intercepted riders agreed to participate in the survey and during the supplemental April 2015 surveys approximately 53 percent (53%) of the intercepted riders agreed to participate in the survey.

6. Data Editing and Processing

6.1 Data Compilation

The electronic survey data was compiled on the survey application website and downloaded in a Microsoft Excel format file. The survey application database was prepared and tested prior to conducting the on-board surveys to ensure proper compilation, reporting, and data formatting. The electronic survey eliminated the additional requirement for data entry of paper surveys; no paper surveys were requested or completed.

The data was uploaded each night from the iPads to the survey website, compiled, reviewed, and evaluated to determine the response rate by route. Following the completion of the surveys, the compiled data was downloaded and reviewed to identify overall errors and prepared for minor cleanup. The data file is organized with rows representing separate surveys and columns organizing each question and the corresponding responses. Additional survey data fields include the iPad device number, date and time stamp for each entry, as well as survey team entered data (i.e., bus route and direction of travel).

6.2 Preliminary Data Results

As part of initial data compilation and review, the route numbers were verified by cross referencing the iPad device number, data and time of entry, and survey schedule to ensure that the surveys reflected the correct bus route and travel direction. A nominal number of surveys required that the entry for the bus route be revised, but a larger percentage required adjusting inbound and outbound entries; direction of travel was not critical but this information provides some insight into origin-destination travel patterns.

An initial geocoding effort was prepared using the raw data. The initial maps provided a quick glance of travel patterns for each bus route. However, the results illustrated the need for some data clean-up. While the electronic surveys reduced secondary data entry error from transcribing paper surveys, they did not preclude the transit rider from providing misleading responses or errors, or eliminate data entry errors from survey team members. Upon review of the raw data file, data errors included incorrect typographical spelling for street names, providing two street names that did not intersect, and other similar factors.

Upon initial data review and geocoding of the data collected in October 2014, it was determined that the response rate percentage and valid geocoded map responses were not as high as in previous years. The response rate for the Northeast and Central Garages were approximately 48 percent (48%) and 41 percent (41%), respectively, while the initial response rate for the South (Coral Way) Garage was approximately 38 percent (38%). Therefore, four (4) additional days of data were collected in April 2015 to increase the total number of responses. With the addition of the supplemental April 2015 data, a response rate of approximately 42 percent (42%) was achieved, an increase of four percent (4%). Additionally, the survey team members were provided additional training on collecting valid location data to increase the valid geocoded data. The survey teams were instructed to pay particular attention to cross streets to verify that respondents were providing valid cross streets (i.e. NW 10th Avenue and NW 100th Street and not NW 10th Avenue and SW 100th Street).

6.3 Data Review and Revision

A data review and revision effort was prepared on the completed surveys to improve data quality and validity of surveys. A series of subsequent geocoding efforts were completed to correct data entries and map the revised data.

The origin and destination locations were reviewed and revised based on:

- Documented origin and destination locations (name of place, business, or attraction)
- Street name description
- Street and block number
- Logical directional attribute compared to street name
- Bus route and relative geographic location
- Logical trip sequence
- Boarding and alighting locations
- Reference and address verification using online maps

While transit riders were often apprehensive in providing their home or work addresses, the block number or nearest major intersection was often provided or entered. Survey respondents may not have accurately provided origin, destination, boarding, and/or alighting locations, which may need to be further verified. Data revisions completed during the data verification process were limited to origin and destination intersections and addresses, and did not include the boarding and alighting data.

Appendix C of this report contains the origin and destination data maps. Of the 2,366 completed surveys, 1,694 (70%) provided Origin locations that were able to be mapped and 1,492 (62%) provided Destination locations that were able to be mapped. Reasons that locations were not able to be mapped included invalid/incomplete text entries and/or non-corresponding cross streets (i.e. NW 10th Avenue and SW 100th Street).

7. Summary of Raw Data

7.1 Survey Data

The following section presents a table and pie chart for each question quantifying the frequency of stated responses received for the total of all of bus routes. Questions with qualitative answers were not included in this section. Each tabulated summary maintains a total 2,366 responses and indicates the quantity of invalid or no response to avoid providing an extrapolated generalized trend. However, the figures included in Section 7.2 include a percentage breakdown of the categories for the information captured (i.e. does not include "No Response" answers).

The following consists of the final list of questions and serve as the basis of this summary:

1. Where did you come from? Where did you begin this one-way trip?
2. What is the address or intersection where you began this one-way trip?
3. Please list all the bus routes and trains you will use during this one-way trip?
4. How did you get to the first transit stop?
5. Where did you get on this bus?
6. Where will you get off this bus?
7. Where are you going? Where will you end this one-way trip?
8. What is the address or intersection of the place where you are going to <u>end</u> your one-way trip?
9. How will you get to the final destination at the end of your one-way trip?
10. How many days per week do you make this trip?
11. What is the average time it takes to make a one-way trip from door to door?
12. Gender?
13. How old are you?
14. Do you have a valid driver's license?
15. Is there a car / vehicle available you can use for this trip?
16. How many working, registered motor vehicles (cars, motorcycles, trucks) are owned by members of your household?
17. Including you, how many people live in your house?
18. Including you, how many are less than 16 years old?
19. Including you, how many are over 65 years old?
20. Including you, work outside of your house?
21. What is you household's approximate total annual income?
22. What is your current employment status?
23. What is the highest level of education you have completed?
24. Are you a student?
25. What is the fare type that you used for this one-way trip?
26. My race is best described as?
27. Can you provide a phone number, in case we need to clarify your responses?

7.2 Data Summary

While questions one through nine were mandatory and each have a 100 percent (100%) response rate, the remaining questions continued to have strong response rates, which likely corresponds to the use of a personal interview survey process. For the remaining questions, a response rate of over 65 percent (65%) was achieved for all questions except Household Income which had a response rate of approximately 48 percent (48%). Riders were either unwilling to answer the Household Income question or did not know the income for other residents within the household.

Based on the tabulated results, the following observations can be made:

Origin-Destination
- Trip origins tend to be home-based since more than 57% of survey trips originate from home locations and 20% from work locations.
- Trip destinations have a greater distribution with surveyed trips ending either at home representing 35% or at work representing 33%, respectively.

Ride Characteristics
- Approximately 93% of transit riders walked or biked to access transit and of those about 64% walked or biked less than one quarter mile to their first or from their last transit stop.
- 50% of transit trips are made without a transfer (i.e. using only one (1) transit route), while 36% of trips are made with one (1) transfer and 14% of trips are made with two (2) or more transfers.
- 67% of respondents traveled up to 70 minutes for a one-way trip.
- 68% of respondents used cash or a cash value fare card for payment.

Transit Dependency
- 57% of respondents indicated they did not possess a valid driver's license.
- 78% of respondents did not have a vehicle available for their trip.

Demographic/Economic Data
- 43% of respondents were between the ages of 16 and 34 years of age, while 10% of respondents were 65 years of age or older and 2% was under the age of 16.
- 17% of respondents identified themselves as Black / African-American and 71% identified themselves as Spanish / Hispanic / Latino. This is consistent with the 2010 US Census which summarizes Miami-Dade County as 19% Black or African American and 65% Hispanic or Latino of any race.
- While about one-half surveyed did not provide income level information, about 22% of those who did respond reported an annual household income less than $16,500 and another 17% earned between $16,500 and $22,000. About 5% of respondents earned over $75,000 per year.

The tables and figures on the following pages summarize the survey responses. The tables tabulate the total number of responses received as well as document the number of surveys where a response was not provided. The figures illustrate the percent of responses received for each valid answer.

Table 4: (Q1) Where did you begin this one-way trip?

Description	Frequency	AM Peak	PM Peak	Off Peak
Your Workplace	471	42	240	189
Your Home	1,362	611	107	644
Shopping	106	3	23	80
School (K-12)	88	2	28	58
College/University (Students Only)	96	3	20	73
Medical / Health Care	94	6	19	69
Social / Recreational	83	6	18	59
Other	66	7	14	45
Total	2,366	680	469	1,217

Figure 2: (Q1) Where did you begin this one-way trip?

According to the survey, **57%** of riders began their trip from their home

Legend:
- Work
- Home
- Shopping
- School (K-12)
- College/University (Students Only)
- Medical/Health Care
- Social/Recreational
- Other
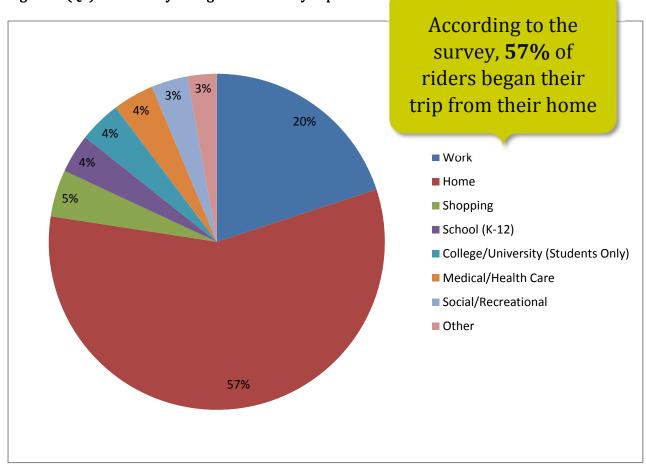
Table 5: (Q3) How many bus transfers will you make during this one-way trip?

Description	Frequency
No Transfers	1,178
One Transfer	855
Two Transfers	266
Three Transfers	67
Total	2,366

50% of the respondents did not make any transfers during this one-way trip

Figure 3: (Q3) How many bus transfers will you make during this one-way trip?
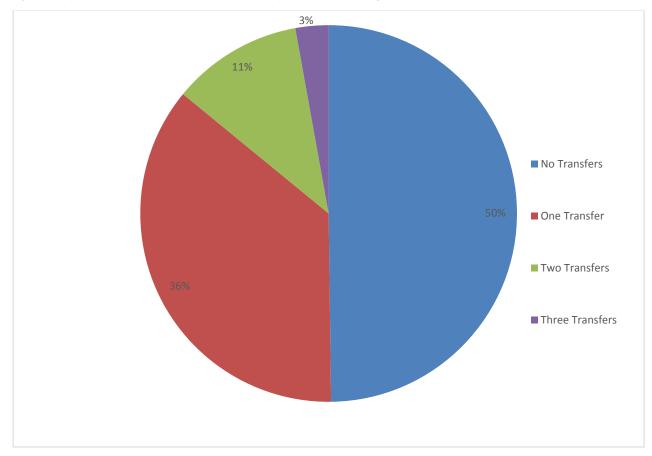
Table 6: (Q4) How did you get to the first transit stop?

Description	Frequency
Walked	2,130
Biked	31
Drove a vehicle and parked	48
Dropped off by someone in a car	113
Rode with someone who parked their car	1
Other	43
Total	2,366

91% of transit riders surveyed walked or biked to the first stop.

Figure 4: (Q4) How did you get to the first transit stop?

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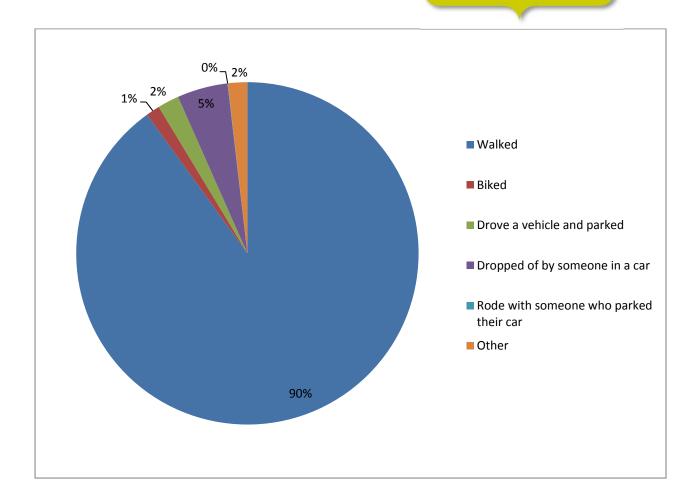
Table 7: (Q4) If you walked or biked, how far did you travel to get to the first stop?

Distance	Frequency
Up to 1/4 mile (0-2 blocks)	1,380
1/4 - 1/2 mile (3-4 blocks)	449
1/2 - 3/4 mile (5-6 blocks)	178
3/4 - 1 mile (7-8 blocks)	75
1 - 2 miles (9-16 blocks)	65
More than 2 miles (17+ blocks)	14
Didn't walk or bike	205
Total	2,366

Of the people who walked or biked, **64%** traveled up to ¼ mile to their first transit stop

Figure 5: (Q4) If you walked or biked, how far did you travel to get to the first stop?
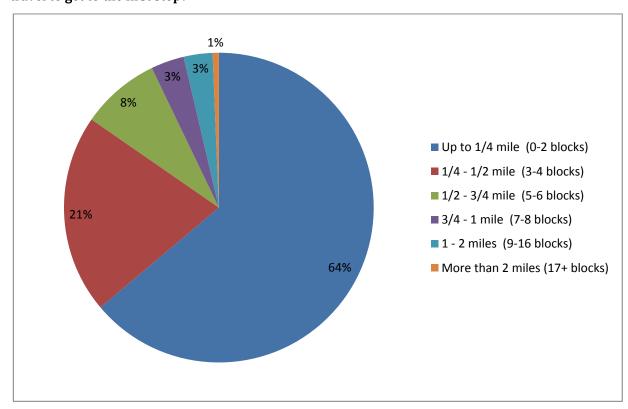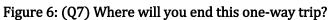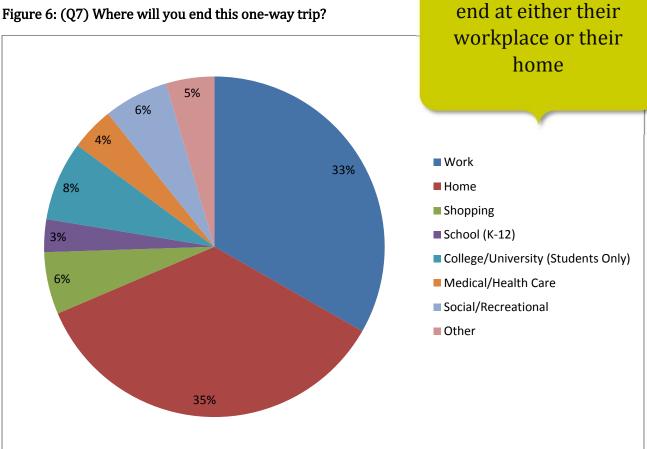
Table 8: (Q7) Where will you end this one-way trip?

Description	Frequency	AM Peak	PM Peak	Off Peak
Your Workplace	787	396	47	344
Your Home	833	59	331	443
Shopping	140	21	24	95
School (K-12)	74	34	8	32
College / University (students only)	179	75	17	87
Medical / Health Care	98	41	1	56
Social / Recreational	146	34	20	92
Other	109	20	21	68
Total	2,366	680	469	1,217

Figure 6: (Q7) Where will you end this one-way trip?

68% of riders will end at either their workplace or their home

Legend:
- Work
- Home
- Shopping
- School (K-12)
- College/University (Students Only)
- Medical/Health Care
- Social/Recreational
- Other

Table 9: (Q9) After your last transit trip, how will you get to the end of your one-way trip?

Description	Frequency
Walk	2,228
Bike	31
Drive a vehicle parked at a location	16
Will be picked up by someone	49
Ride with someone who parked	3
Other	39
Total	2,366

An overwhelming majority of people walked or biked to their final destination: **95%**

Figure 7: (Q9) After your last transit trip, how will you get to the end of your one-way trip?
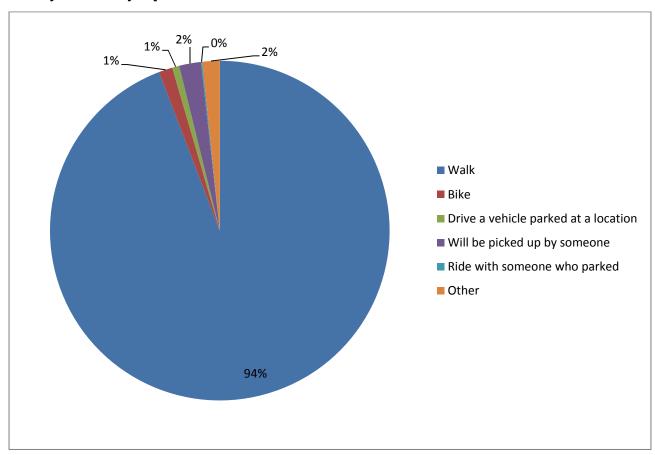
Table 10: (Q9) If you walked or biked, how far did you travel to get to the end of your one-way trip?

Description	Frequency
Up to 1/4 mile (0-2 blocks)	1,460
1/4 - 1/2 mile (3-4 blocks)	460
1/2 - 3/4 mile (5-6 blocks)	174
3/4 - 1 mile (7-8 blocks)	91
1 - 2 miles (9-16 blocks)	65
More than 2 miles (17+ blocks)	9
Didn't walk or bike	107
Total	2,366

65% of riders walked or biked ¼ of a mile or less to get to their final destination

Figure 8: (Q9) If you walked or biked, how far did you travel to get to the end of your one-way trip?
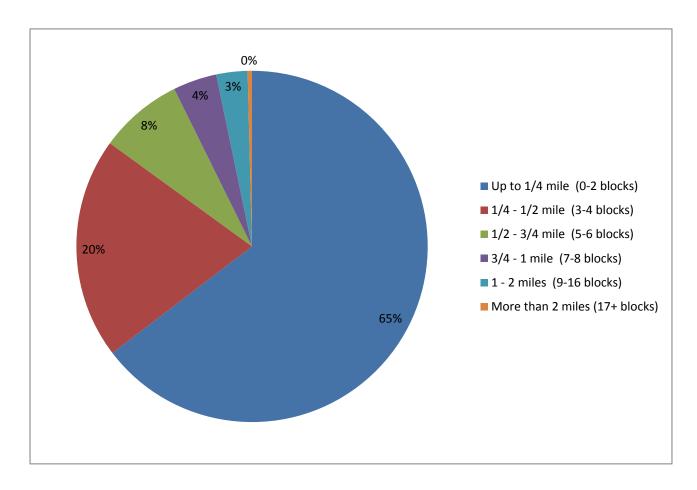
Table 11: (Q10) How many days per week do you make this trip?

Description	Frequency
7 days a week	121
6 days a week	187
5 days a week	1,055
4 days a week	189
3 days a week	221
2 days a week	178
1 day a week	167
Less than 1 day a week	189
No Response	59
Total	2,366

While there was a relatively even distribution among most of the options, **46%** of people made their trip 5 days a week

Figure 9: (Q10) How many days per week do you make this trip?

7 days a week
6 days a week
5 days a week
4 days a week
3 days a week
2 days a week
1 day a week
Less than 1 day a week

Kimley»Horn
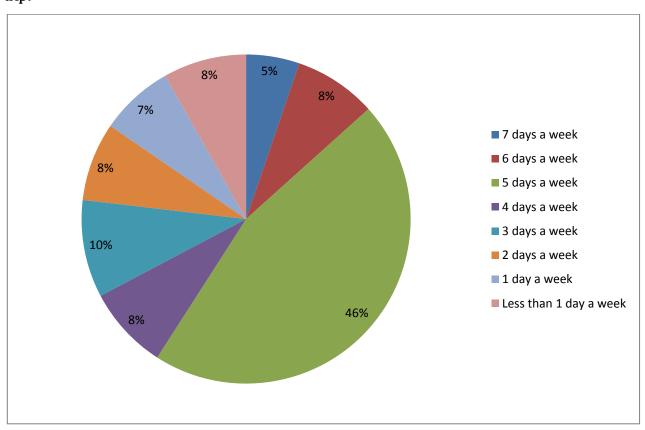
Table 12: (Q11) What is the average time it takes to make a one-way trip from door to door?

Description	Frequency
Less than 10 minutes	21
10 to 40 minutes	711
40 to 70 minutes	838
70 to 100 minutes	383
100 to 130 minutes	242
130 to 160 minutes	49
Greater than 160 minutes	68
No Response	54
Total	2,366

67% of survey respondents spend somewhere between 10 and 70 minutes on their one-way trip

Figure 10: (Q11) What is the average time it takes to make a one-way trip from door to door?
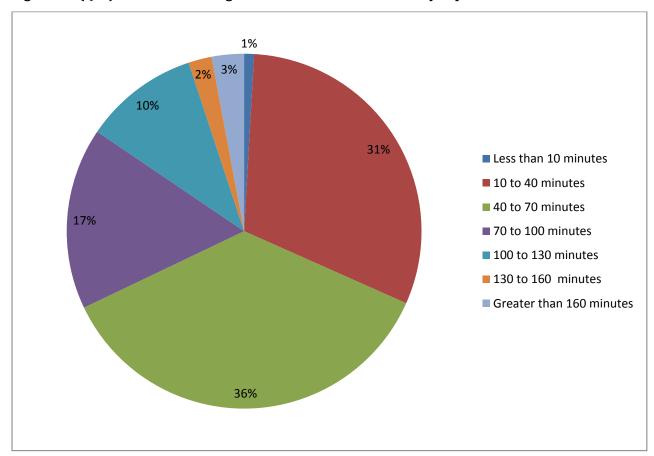
Table 13: (Q12) What is your gender?

Description	Frequency
Male	1,085
Female	1,281
Total	2,366

The gender split slightly skewed to female – there were **196 more female respondents** than male respondents

Figure 11: (Q12) What is your gender?
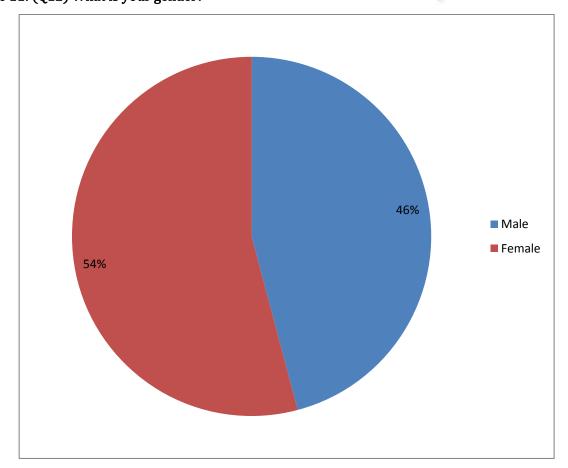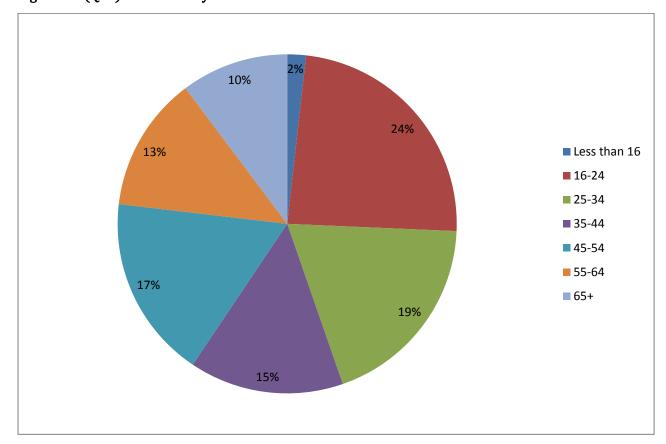
Table 14: (Q13) How old are you?

Description	Frequency
Less than 16	37
16-24	497
25-34	395
35-44	306
45-54	363
55-64	268
65+	213
No Response	287
Total	2,366

43% of the riders surveyed were between the ages of 16 and 34

Figure 12: (Q13) How old are you?

Table 15: (Q14) Do you have a valid driver's license?

Description	Frequency
Yes	864
No	1,150
No Response	352
Total	2,366

Of the people who answered this question, **57%** responded that they did not have a valid driver's license. These people likely depend on transit to get around.

Figure 13: (Q14) Do you have a valid driver's license?
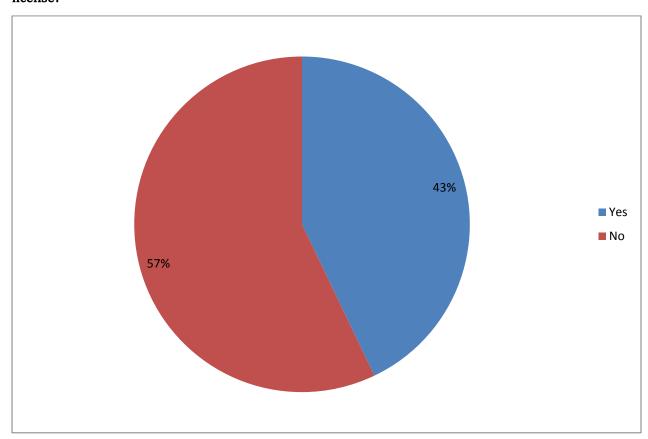
Table 16: (Q15) Is there a car/vehicle available you can use for this trip?

Description	Frequency
Yes	435
No	1,539
No Response	392
Total	2,366

78% of survey respondents that they did not have access to a vehicle

Figure 14: (Q15) Is there a car/vehicle available you can use for this trip?
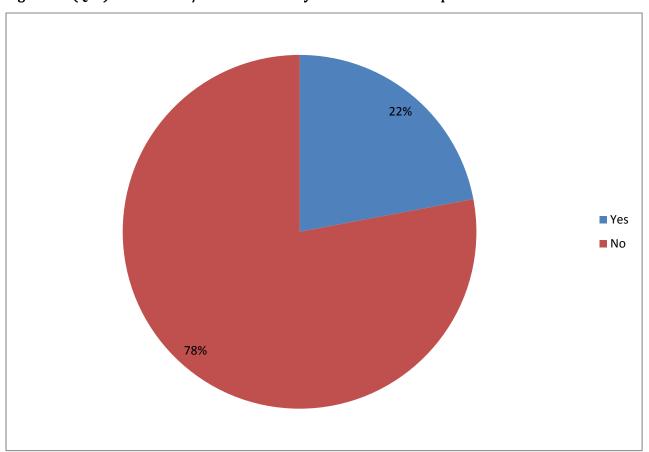
Table 17: (Q16) How many working, registered motorized vehicles are owned by members of your household?

Description	Frequency
0	655
1	500
2	342
3	119
4	28
5 +	8
No Response	714
Total	2,366

Of those who responded to this question, **40%** reported that there were 0 motorized vehicles in their household.

Figure 15: (Q16) How many working, registered motorized vehicles are owned by members of your household?
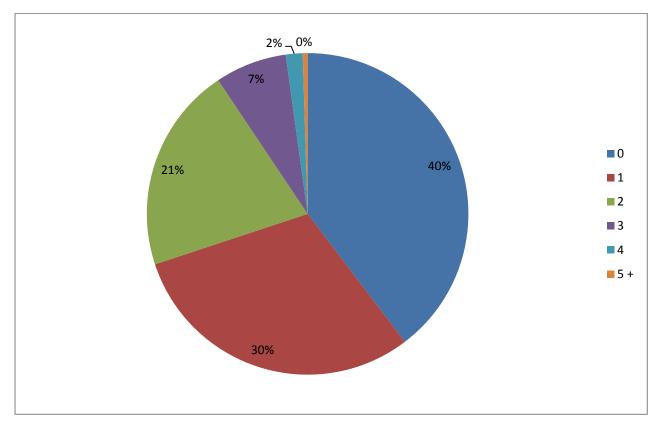
Table 18: (Q17) Including you, how many people live in your house?

Description	Frequency
1	286
2	385
3	340
4	292
5	177
6	85
7	22
8	14
9	6
10+	9
No Response or invalid	750
Total	2,366

Of those with a valid response, **81%** of survey respondents have between 1 and 4 people living in their house

Figure 16: (Q17) Including you, how many people live in your house?

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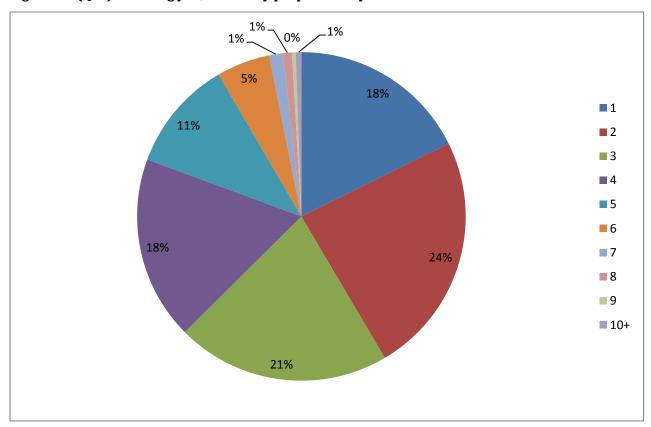
Table 19: (Q18) What is your household's approximate total annual income?

Description	Frequency
Less than $16,500	363
$16,500 - $22,000	196
$22,000 - $28,000	143
$28,000 - $33,500	119
$33,500 - $39,500	79
$39,500 - $45,000	74
$45,000 - $75,000	92
$75,000 +	61
No Response	1,239
Total	2,366

Over 52% of those surveyed chose not to respond to this question. Of those that responded **49%** reported an income of **less than $22,000** annually.

Figure 17: (Q18) What is your household's approximate total annual income?
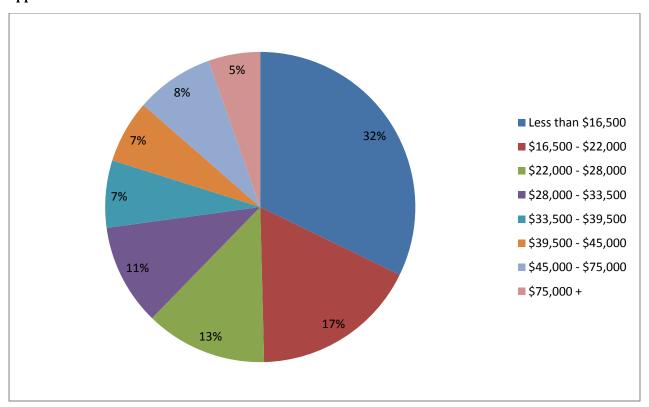
Table 20: (Q19) What is your current employment status?

Description	Frequency
Working Full Time	929
Working Part Time	460
Not Working / Unemployed	585
No Response	392
Total	2,366

47% of survey respondents reported that they were working full time

Figure 18: (Q19) What is your current employment status?

- Working Full Time
- Working Part Time
- Not Working / Unemployed

Kimley»Horn
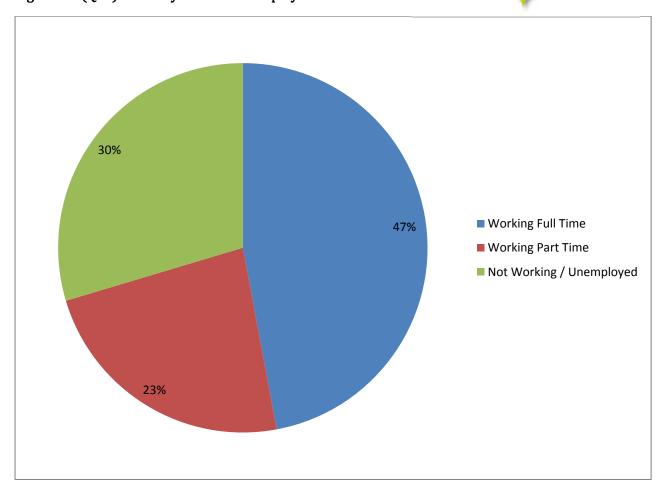
Table 21: (Q20) What is the highest level of education you have completed?

Description	Frequency
Grade School	62
Middle/Junior High School	208
High School/GED	904
Vocational / Technical School	169
College / University - Undergraduate Degree	447
College / University -Graduate Degree	110
No Response	466
Total	2,366

62% of survey respondents possessed a high school level of education or below

Figure 19: (Q20) What is the highest level of education you have completed?
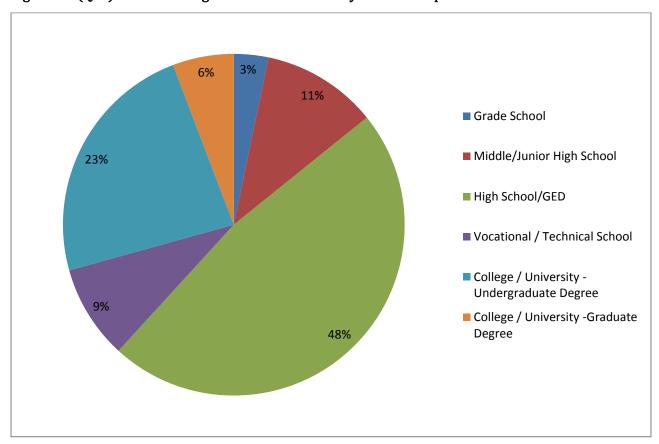
Table 22: (Q21) Are you a student?

Description	Frequency
No	1,106
K-12 Student	110
Part Time Vocational/Technical/College Student	163
Full Time Vocational/Technical/College Student	213
No Response	774
Total	2,366

30% of survey respondents identified themselves as students

Figure 20: (Q21) Are you a student?
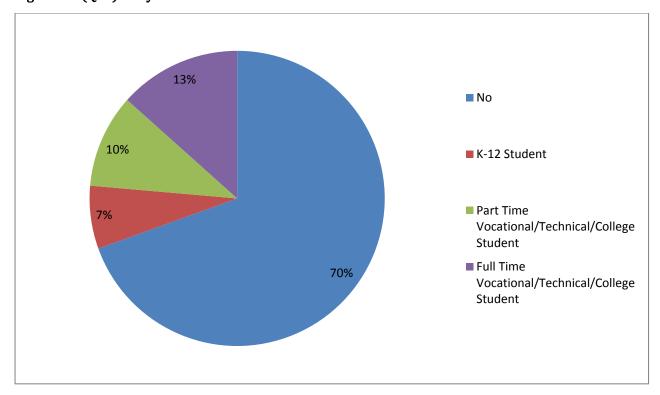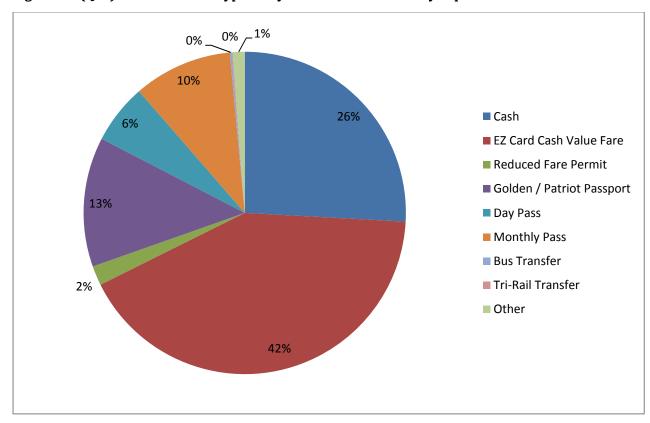
Table 23: (Q22) What is the fare type that you used for this one-way trip?

Description	Frequency
Cash	543
EZ Card Cash Value Fare	877
Reduced Fare Permit	41
Golden / Patriot Passport	273
Day Pass	126
Monthly Pass	208
Bus Transfer	4
Tri-Rail Transfer	2
Other	25
No Response	267
Total	2,366

EZ Card Cash Value Fare is the favored type of payment, followed by Cash

Figure 21: (Q22) What is the fare type that you used for this one-way trip?

Table 24: (Q23) My race is best described as:
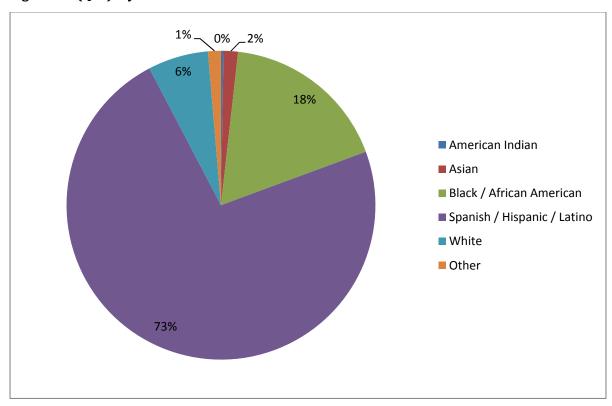
Description	Frequency
American Indian	6
Asian	35
Black / African American	406
Spanish / Hispanic / Latino	1,683
White	146
Other	31
No Response	59
Total	2,366

71% of survey respondents classified their race as Spanish/Hispanic/Latino

Figure 22: (Q23) My race is best described as:

8. Trip Origin and Destination Maps by Route

The Origin and Destination Maps included in Appendix C represent geocoded survey data illustrating the origin and destination locations by bus route. These locations are based upon addresses and intersection survey data provided during the survey, and were updated based on the data review and revision process outlined in Section 6. Significant attention was placed to accurately represent the surveys, while cleaning up the data to retain a strong level of valid surveys.

A separate map was prepared for origin and destination locations by route, and these maps consolidate all route data regardless of the time period or day that the surveys were conducted.

An intensity "heat" map was prepared to illustrate the relative concentration of surveys located within proximity of a single point, bus stop, or location. Since the number of surveys represented by each map varies by route, the intensity map is intended to describe a relative concentration of transit rider trip origin and destination locations as compared to an absolute number of surveys. A darker red color represents a higher concentration of origins and destinations as compared to the less intense green color. Single dots represent surveyed origin and destination locations. For some maps, the total number of data points plotted were not sufficient to provide a heat map; therefore, just the data points were plotted.

Since the majority of passengers surveyed only used one bus, origin and destination location distribution is generally clustered within walking distance of the bus routes.

Certain attractions/activity centers, such as Downtown Miami, Florida International University (FIU), Dadeland North, Dadeland South, Dolphin Mall, and surrounding employment centers exhibit high concentrations of origin and destination locations.

8.1 Survey Response Distribution

The following tables provide insight into the transit rider travel patterns by illustrating the direction of travel by route and time period. Tables 25 and 27 provide a summary of actual number of completed surveys and attempted surveys by route, direction, and time period. Tables 26 and 28 illustrate the corresponding percentage of surveys. These tables illustrate that the travel distribution for the completed surveys generally correspond to the attempted surveys.

Table 25: Survey Count by Route, Direction and Time Period (Completed Surveys)

Route	AM Peak 6:30-9:30 AM		PM Peak 3:30-6:30 PM		Off Peak		Total
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound	
8	63	71	44	41	86	121	426
11	50	54	28	36	85	151	404
24	8	17	8	6	24	14	77
31	11	13	10	8	24	12	78
34	6	0	0	12	4	0	22
35	11	11	8	4	14	18	66
38	31	22	22	17	64	69	225
40	5	10	5	8	14	21	63
51	6	21	15	20	20	31	113
52	12	16	10	6	24	12	80
70	10	7	9	10	10	25	71
73	16	9	17	2	0	54	98
87	7	15	11	8	17	27	85
88	68	22	18	14	85	84	291
104	14	8	13	10	26	19	90
137	6	11	8	6	22	15	68
204	11	8	11	11	8	8	57
288	15	15	5	8	2	7	52
TOTAL	680		469		1,217		2,366

Table 26: Percent of Completed Surveys by Route, Direction and Time Period

Route	AM Peak 6:30-9:30 AM		PM Peak 3:30-6:30 PM		Off Peak	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
8	47%	53%	52%	48%	42%	58%
11	48%	52%	44%	56%	36%	64%
24	32%	68%	57%	43%	63%	37%
31	46%	54%	56%	44%	67%	33%
34	100%	0%	0%	100%	100%	0%
35	50%	50%	67%	33%	44%	56%
38	58%	42%	56%	44%	48%	52%
40	33%	67%	38%	62%	40%	60%
51	22%	78%	43%	57%	39%	61%
52	43%	57%	63%	38%	67%	33%
70	59%	41%	47%	53%	29%	71%
73	64%	36%	89%	11%	0%	100%
87	32%	68%	58%	42%	39%	61%
88	76%	24%	56%	44%	50%	50%
104	64%	36%	57%	43%	58%	42%
137	35%	65%	57%	43%	59%	41%
204	58%	42%	50%	50%	50%	50%
288	50%	50%	38%	62%	22%	78%

Table 27: Survey Count by Route, Direction and Time Period (Attempted Surveys)

Route	AM Peak 6:30-9:30 AM		PM Peak 3:30-6:30 PM		Off Peak		TOTAL
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound	
8	106	113	81	84	165	234	783
11	139	159	105	102	317	427	1,249
24	17	38	20	10	65	48	198
31	15	24	20	27	54	42	182
34	30	2	1	40	13	3	89
35	18	27	23	14	33	48	163
38	87	60	70	58	142	173	590
40	17	17	10	12	27	41	124
51	13	40	32	36	46	66	233
52	18	34	20	9	43	27	151
70	33	55	22	37	31	71	249
73	41	34	39	4	0	90	208
87	20	33	26	18	37	46	180
88	111	46	41	32	174	214	618
104	32	14	25	19	50	38	178
137	23	24	22	15	62	43	189
204	22	23	28	48	17	24	162
288	39	34	11	19	4	9	116
8	106	113	81	84	165	234	783
11	139	159	105	102	317	427	1,249
24	17	38	20	10	65	48	198
31	15	24	20	27	54	42	182
TOTAL	1,558		1,180		2,924		5,662

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Table 28: Percent of Attempted Surveys by Route, Direction and Time Period

Route	AM Peak 6:30-9:30 AM		PM Peak 3:30-6:30 PM		Off Peak	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
8	48%	52%	49%	51%	41%	59%
11	47%	53%	51%	49%	43%	57%
24	31%	69%	67%	33%	58%	42%
31	38%	62%	43%	57%	56%	44%
34	94%	6%	2%	98%	81%	19%
35	40%	60%	62%	38%	41%	59%
38	59%	41%	55%	45%	45%	55%
40	50%	50%	45%	55%	40%	60%
51	25%	75%	47%	53%	41%	59%
52	35%	65%	69%	31%	61%	39%
70	38%	63%	37%	63%	30%	70%
73	55%	45%	91%	9%	0%	100%
87	38%	62%	59%	41%	45%	55%
88	71%	29%	56%	44%	45%	55%
104	70%	30%	57%	43%	57%	43%
137	49%	51%	59%	41%	59%	41%
204	49%	51%	37%	63%	41%	59%
288	53%	47%	37%	63%	31%	69%

Appendix A – Transit Passenger Survey

Miami-Dade Transit Passenger Survey

Survey Serial No: _____

The information you provide about your trip will help plan for public transit needs.
Please take a few minutes to complete this important survey.
All information will be kept strictly confidential.
MDT will not sell or provide your information to any other company or organization.

ONE-WAY TRIP

BEGIN   **END**

1. **Where did you come from? Where did you BEGIN this one-way trip? (Check ONE only)**
   a. Your **Workplace**
   b. Your **Home**
   c. Shopping
   d. School (K-12)
   e. College / University (students only)
   f. Medical / Health Care
   g. Social / Recreational
   h. Other _____
      (airport, hotel, etc.)

2. **What is the address or intersection where you BEGAN this one-way trip?**
   a. **Exact Street Address** (123 **NW** 1st **Street**): _____
      Or ONLY if street address is not known: _____ & _____
         NW 1st **Street**   NE 2nd **Avenue**
   b. **What is the name of the place** (Walmart, Metrocenter): _____

3. **Please list all the bus routes and trains you will use during this one-way trip?**

   BEGIN → _____ → _____ → _____ → _____ → _____ → **END**
      FIRST Bus Route   2nd   3rd   4th   5th
      OR Transit Station

4. **How did you get to the FIRST transit stop? (Check ONE only)**
   a. Walk
      ☐ Up to ¼ mile (0-2 blocks)
      ☐ ¼ -1/2 mile (3-4 blocks)
      ☐ 1/2- ¾ mile (5-6 blocks)
      ☐ ¾-1 mile (7-8 blocks)
      ☐ 1-2 miles (9-16 blocks)
      ☐ More than 2 miles (>17 blocks)
   b. Bicycle
   c. Drove a vehicle I parked @ _____
   d. Dropped off by someone @ _____
   e. Rode with someone who parked @ _____
   f. Other: _____

5. **Where did you GET ON THIS bus?**
   Cross Street: _____ & _____   or Transit Center: _____
         NW 1st **Street**   NE 2nd **Avenue**

6. **Where will you GET OFF THIS bus?**
   Cross Street: _____ & _____   or Transit Center: _____
         NW 1st **Street**   NE 2nd **Avenue**

7. **Where are you going? Where will you END this one-way trip? (Check ONE only)**
   a. Your **Workplace**
   b. Your **Home**
   c. Shopping
   d. School (K-12)
   e. College / University (students only)
   f. Medical / Health Care
   g. Social / Recreational
   h. Other _____
      (airport, hotel, etc.)

8. **What is the address or intersection of the place where you are going now to END your one-way trip?**
   a. **Exact Street Address** (123 **NW** 1st **Street**): _____
      ONLY if street address is not known: _____ & _____
         NW 1st **Street**   NE 2nd **Avenue**
   b. **What is the name of the place** (Walmart, Metrocenter): _____

9. After your last transit trip, how will you get to the END of your one-way trip? (Check ONE only)

a. Walk

☐ Up to ¼ mile (0-2 blocks)
☐ ¼ -1/2 mile (3-4 blocks)
☐ 1/2- ¾ mile (5-6 blocks)
☐ ¾-1 mile (7-8 blocks)
☐ 1-2 miles (9-16 blocks)
☐ More than 2 miles (>17 blocks)

b. Bicycle
c. Drive a vehicle I parked @ _____
d. Will be picked up by someone @ _____
e. Ride with someone who parked @ _____
f. Other: _____

10. How many days per week do you make this trip?

☐ 7   ☐ 6   ☐ 5   ☐ 4   ☐ 3   ☐ 2   ☐ 1   ☐ < 1

11. What is the average time it takes to make a ONE-WAY trip from door to door? _____ Minutes

12. Gender   ☐ Male   ☐ Female

13. How old are you? (Check ONE only)

a. Less than 16
b. 16 - 24
c. 25 - 34

d. 35 - 44
e. 45 - 54
f. 55 - 64

g. 65 +

14. Do you have a valid driver's license?

☐ Yes   ☐ No

15. Is there a car / motor vehicle available you can use for this trip?

☐ Yes   ☐ No

16. How many working, registered motor vehicles (cars, motorcycles, trucks) are owned by members of your household? (Check ONE only)

☐ 0   ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5 +

17. Including you, how many people live in your house? _____ (# of people), and of those,

how many are less than 16 years old?   _____ (# of people)
how many are over 65 years old?   _____ (# of people)
work outside of your house?   _____ (# of people)

18. What is you household's approximate total annual income? (Check ONE only)
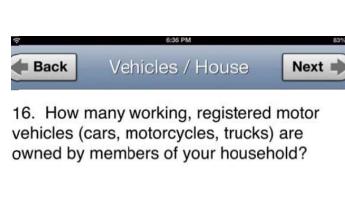
a. Less than $16,500
b. $16,500 - $22,000
c. $22,000 - $28,000

d. $28,000 - $33,500
e. $33,500 - $39,500
f. $39,500 - $45,000

g. $45,000 - $75,000
h. $75,000 +

19. What is your current EMPLOYMENT status? (Check ONE only)

a. Working Full Time
b. Working Part Time

c. Not Working / Unemployed

20. What is the HIGHEST level of education you have completed? (Check ONE only)

a. Grade School
b. Middle / Junior High School
c. High School / GED

d. Vocational / Technical School
e. College / University – Undergraduate Degree
f. College / University – Graduate Degree

21. Are you a STUDENT? (Check ONE only)

a. No
b. K-12 Student

c. Part-Time Student (College/Vocational/Technical)
d. Full-Time Student (College/Vocational/Technical)

22. What is the FARE TYPE that you used for this one-way trip? (Check ONE only)

a. Cash
b. Reduced Fare Permit
c. Golden / Patriot Passport

d. Day Pass
e. Monthly Pass
f. Bus Transfer

g. Tri-Rail Transfer

23. My RACE is best described as? (Check ONE only)

a. American Indian
b. Asian

c. Black / African American
d. Spanish / Hispanic / Latino

e. White
f. Other

24. Can you provide a PHONE NUMBER, in case we need to clarify your responses? _____

Appendix B – Electronic Survey Screen Views
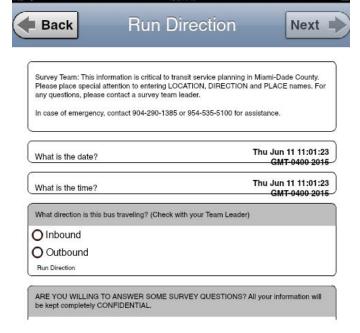
Miami-Dade Transit Passenger Survey.

The information you provide will be used to help plan for public transit needs. All information will be kept strictly confidential.

Touch the Start button to continue...

Start

MIAMI-DADE COUNTY

← Back   **Enter Route**   **Next →**

What is the Bus Route Number?

- ○ 8
- ○ 11
- ○ 24
- ○ 31 - Busway Local
- ○ 34 - Busway Flyer

MIAMI-DADE COUNTY

← Back   **Run Direction**   **Next →**

Survey Team: This information is critical to transit service planning in Miami-Dade County. Please place special attention to entering LOCATION, DIRECTION and PLACE names. For any questions, please contact a survey team leader.

In case of emergency, contact 904-290-1385 or 954-535-5100 for assistance.

| What is the date? | Thu Jun 11 11:01:23 GMT-0400 2015 |
| What is the time? | Thu Jun 11 11:01:23 GMT-0400 2015 |

What direction is this bus traveling? (Check with your Team Leader)

- ○ Inbound
- ○ Outbound

Run Direction

ARE YOU WILLING TO ANSWER SOME SURVEY QUESTIONS? All your information will be kept completely CONFIDENTIAL.

MIAMI-DADE COUNTY

← Back   **Origin**   **Next →**

1. Where did you COME FROM? Where did you BEGIN this one-way trip?

- ○ a. Your Workplace
- ○ b. Your Home
- ○ c. Shopping
- ○ d. School (K-12)
- ○ e. College / University (Students Only)
- ○ f. Medical / Health Care
- ○ g. Social / Recreational
- ○ h. Other (airport, hotel, etc.)

MIAMI-DADE COUNTY

2. What is the name of that place?
(Example: MDC North Campus,
Government Center, WalMart)

_____

_____

You must enter between 1 and 1000 characters (inclusive)

Do you know the exact Street Address of
the place where you began the trip?

○ Yes

○ No
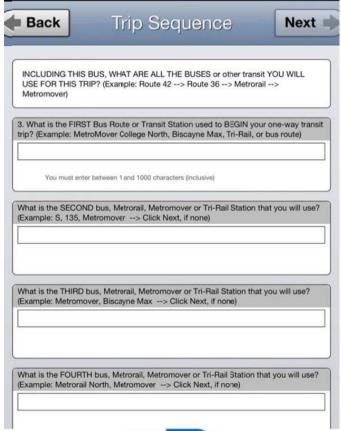
2. What is the exact address NUMBER where you BEGAN this one-way trip? (# only)

Number [_____] #

You must enter a whole number. You must enter between 1 and 1000 characters (inclusive)

3. What is the exact address STREET DIRECTION where you BEGAN this one-way
trip? (NW, NE, SW, SE, etc.)

○ N

○ NW

○ NE

○ S

○ SW

○ SE

○ E

○ W

○ None of the above

St Direction

What is the exact address STREET NAME where you BEGAN this one-way trip?
(Example: 1st, Biscayne - Name only)

[_____]

You must enter between 1 and 1000 characters (inclusive)

INCLUDING THIS BUS, WHAT ARE ALL THE BUSES or other transit YOU WILL
USE FOR THIS TRIP? (Example: Route 42 --> Route 36 --> Metrorail -->
Metromover)

3. What is the FIRST Bus Route or Transit Station used to BEGIN your one-way transit
trip? (Example: MetroMover College North, Biscayne Max, Tri-Rail, or bus route)

[_____]

You must enter between 1 and 1000 characters (inclusive)

What is the SECOND bus, Metrorail, Metromover or Tri-Rail Station that you will use?
(Example: S, 135, Metromover --> Click Next, if none)

[_____]

What is the THIRD bus, Metrorail, Metromover or Tri-Rail Station that you will use?
(Example: Metromover, Biscayne Max --> Click Next, if none)

[_____]

What is the FOURTH bus, Metrorail, Metromover or Tri-Rail Station that you will use?
(Example: Metrorail North, Metromover --> Click Next, if none)

[_____]

4. How did you get to the FIRST transit stop?

○ Walk

○ Bike

○ Drove a vehicle and parked

○ Dropped of by someone in a car

○ Rode with someone who parked their car

○ Other
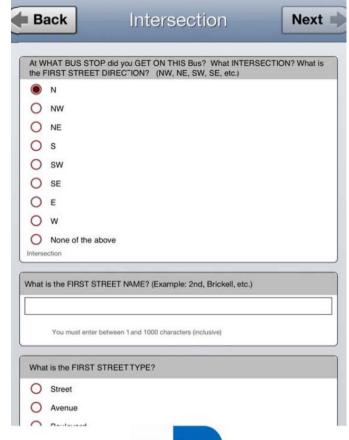
4.a. How many blocks?

○ Up to 1/4 mile (0-2 blocks)

○ 1/4 - 1/2 mile (3-4 blocks)

○ 1/2 - 3/4 mile (5-6 blocks)

○ 3/4 - 1 mile (7-8 blocks)

○ 1 - 2 miles (9-16 blocks)

○ More than 2 miles (17+ blocks)

5. Where did you GET ON THIS Bus? (Ask for for Bus Stop INTERSECTION, otherwise Station Name)

○ Bus Stop

○ Metrorail or Metromover or TriRail Station

At WHAT BUS STOP did you GET ON THIS Bus? What INTERSECTION? What is the FIRST STREET DIRECTION? (NW, NE, SW, SE, etc.)

● N

○ NW

○ NE

○ S

○ SW

○ SE

○ E

○ W

○ None of the above

Intersection

What is the FIRST STREET NAME? (Example: 2nd, Brickell, etc.)

[   ]

You must enter between 1 and 1000 characters (inclusive)

What is the FIRST STREET TYPE?

○ Street

○ Avenue

Where will you GET OFF THIS Bus? (Ask for for Bus Stop INTERSECTION, otherwise Station Name)

○ Bus Stop

○ Metrorail or Metromover or Tri-Rail Station

MIAMI-DADE
COUNTY

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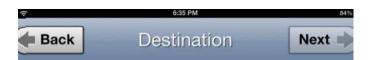
6. Where will you GET OFF THIS Bus? (Example: Metrorail Overtown/Lyric Theater Station - or - Opa-Locka Metrorail Station)

_____

_____

You must enter between 1 and 1000 characters (inclusive)

MIAMI-DADE
COUNTY

---

7. Where ARE YOU GOING? Where will you will END this one-way trip?
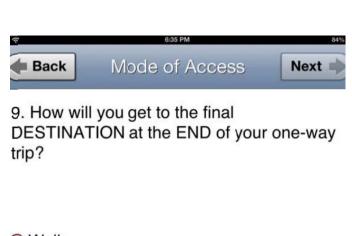
○ Your Workplace

○ Your Home

○ Shopping

○ School (K-12)

○ College / University (students only)

○ Medical / Health Care

○ Social / Recreational

○ Other

MIAMI-DADE
COUNTY

What is the exact Address NUMBER of WHERE YOU ARE GOING? where you will END this one-way trip? (# only)

Number [_____]
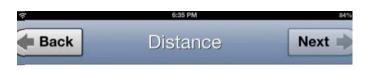
You must enter a whole number. You must enter between 1 and 1000 characters (inclusive)

What is the exact address STREET DIRECTION? (NW, NE, SW, SE, etc.)

○ N
○ NW
○ NE
○ S
○ SW
○ SE
○ E
○ W
○ None of the above

Direction Prefix

What is the exact address STREET NAME?

[_____]

You must enter between 1 and 1000 characters (inclusive)

MIAMI-DADE
COUNTY

9. How will you get to the final DESTINATION at the END of your one-way trip?

○ Walk

○ Bike

○ Drive a vehicle parked at a location

○ Will be picked up by someone

○ Ride with someone who parked

○ Other

How many blocks?

○ Up to 1/4 mile (0-2 blocks)

○ 1/4 - 1/2 mile (3-4 blocks)

○ 1/2 - 3/4 mile (5-6 blocks)

○ 3/4 - 1 mile (7-8 blocks)

○ 1 - 2 miles (9-16 blocks)

○ More than 2 miles (17+ blocks)

10. How many DAYS PER WEEK do you make this trip?

○ 7

○ 6

○ 5

○ 4

○ 3

○ 2

○ 1

○ Less than 1

11. What is the average time it takes to make a ONE-WAY trip from door to door? (minutes)

[Your Answer] Minut

12. Gender

○ Male
○ Female

MIAMI-DADE
COUNTY

13. How old are you?

○ a. Less than 16
○ b. 16 - 24
○ c. 25 - 34
○ d. 35 - 44
○ e. 45 - 54
○ f. 55 - 64
○ g. 65 +

MIAMI-DADE
COUNTY

14. Do you have a valid driver's license?

○ Yes
○ No

MIAMI-DADE
COUNTY

15. Is there a car / motor vehicle available for this trip?

○ Yes
○ No

MIAMI-DADE
COUNTY

16. How many working, registered motor vehicles (cars, motorcycles, trucks) are owned by members of your household?

Your Answer #

17. Including you, HOW MANY PEOPLE LIVE IN YOUR HOUSE?

Total

Including you, how many are YOUNGER THAN 16 YEARS CLD?

<16

Including you, how many are OVER 65 YEARS OLD?

>65

Including you, how many WORK OUTSIDE OF YOUR HOME?

Work

18. What is your approximate TOTAL HOUSEHOLD ANNUAL INCOME?

○ a. Less than $16,500

○ b. $16,500 - $22,000

○ c. $22,000 - $28,000

○ d. $28,000 - $33,500

○ e. $33,500 - $39,500

○ f. $39,500 - $45,000

○ g. $45,000 - $75,000

○ h. $75,000 +

19. What is your current EMPLOYMENT status?

○ a. Working Full Time

○ b. Working Part Time

○ c. Not Working / Unemployed

20. What is the HIGHEST level of education you have completed?

○ a. Grade School

○ b. Middle / Junior High School

○ c. High School / GED

○ d. Vocational / Technical School

○ e. College / University – Undergraduate Degree

○ f. College / University – Graduate Degree

MIAMI-DADE COUNTY

21. Are you a STUDENT?

○ a. No

○ b. K-12 Student

○ c. Part Time Student (College/Vocational/Techincal)

○ d. Full Time Student (College/Vocational/Techincal)

MIAMI-DADE COUNTY

22. What is the FARE TYPE that you used for this one-way trip?

○ a. Cash
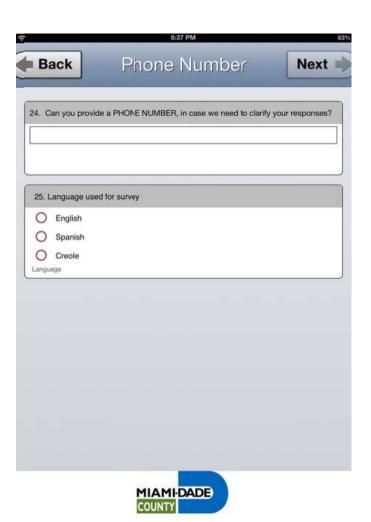
○ b. EZ Card Cash Value Fare

○ c. Reduced Fare Permit

○ d. Golden / Patriot Passport

○ e. Day Pass

○ f. Monthly Pass

○ g. Bus Transfer

○ h. Tri-Rail Transfer

MIAMI-DADE COUNTY

23. My race is best described as:

○ a. American Indian

○ b. Asian

○ c. Black / African American

○ d. Spanish / Hispanic / Latino

○ e. White

○ f. Other

MIAMI-DADE COUNTY

24. Can you provide a PHONE NUMBER, in case we need to clarify your responses?

25. Language used for survey

○ English

○ Spanish

○ Creole

Language

Appendix C – Origin-Destination Maps By Route

Miami-Dade MPO Origin-Destination Survey - Bus Route 8

Origin

MIAMI GARDENS
AVENTURA
NORTH MIAMI BEACH
SUNNY ISLES BEACH
MIAMI LAKES
OPA-LOCKA
NORTH MIAMI
HIALEAH GARDENS
BAL HARBOUR
BAY HARBOR ISLANDS
SURFSIDE
HIALEAH
BISCAYNE PARK
MIAMI SHORES INDIAN CREEK VILLAGE
MEDLEY
EL PORTAL
NORTH BAY VILLAGE
DORAL
MIAMI SPRINGS
VIRGINIA GARDENS
Miami International Airport
MIAMI BEACH
SWEETWATER
MIAMI
WEST MIAMI
CORAL GABLES
SOUTH MIAMI
KEY BISCAYNE
PINECREST
PALMETTO BAY
CUTLER BAY

Legend

- ● Origin/Destination
- ━━ Bus Route
- ━━ Metrorail
- ━━ Metromover
- ━━ TriRail
- ━━ Major Roads

- ▨ Municipality
- ☐ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

MPO

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 8

Destination

Legend

- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 11

Origin

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ▨ Municipality
- ☐ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 11

Destination

Legend

- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 24

Origin

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 24

Destination

Legend

- 🔴 Origin/Destination
- ▬▬ Bus Route
- ▬▬ Metrorail
- ▬▬ Metromover
- ▬▬ TriRail
- ▬▬ Major Roads
- ▨ Municipality
- ▢ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

MPO

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 31

Origin

Legend

- ● Origin/Destination
- — Bus Route
- — Metrorail
- — Metromover
- — TriRail
- — Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 31

Destination

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 34

Origin

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ▢ Municipality
- ▢ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 34

Destination

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1   2
Miles

MPO
Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 35

Origin

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1   2
Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 35

Destination

Legend

- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1   2
Miles

MPO
Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 38

Legend

- ● Origin/Destination
- ━━ Bus Route
- ━━ Metrorail
- ━━ Metromover
- ━━ TriRail
- ━━ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1   2
Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 38

Destination

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

Municipality

Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 40

Origin

Legend
- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ⬜ Municipality
- ⬜ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1   2
Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 40

Destination

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- ☐ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2
Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 51

Origin

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 51

Destination

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

Municipality

Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 52

Origin

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
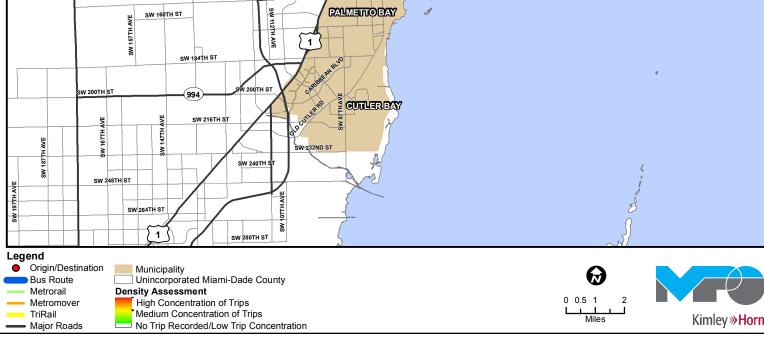- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 52

Destination

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 70

Origin

Map labels and place names (as shown on map):

HIALEAH GARDENS, MEDLEY, HIALEAH, EL PORTAL, NORTH BAY VILLAGE, KENNEDY CSWY, DORAL, MIAMI SPRINGS, VIRGINIA GARDENS, MIAMI BEACH, Miami International Airport, SWEETWATER, MIAMI, WEST MIAMI, CORAL GABLES, SOUTH MIAMI, KEY BISCAYNE, PINECREST, PALMETTO BAY, CUTLER BAY, HOMESTEAD, FLORIDA CITY

Road/route labels: KROME AVE, SW 117TH AVE, NW 90TH ST, NW 87TH ST, NW 79TH ST, NW 71ST ST, NW 54TH ST, NW 36TH ST, W OKEECHOBEE RD, NW 58TH ST, NW 25TH ST, W FLAGLER ST, GRAND CANAL DR, SW 8TH ST, SW 18TH ST, SW 24TH ST, SW 32ND ST, SW 40TH ST, SW 42ND ST, SW 48TH ST, SW 56TH ST, SW 72ND ST, SW 96TH ST, SW 104TH ST, SW 120TH ST, SW 128TH ST, SW 152ND ST, SW 160TH ST, SW 184TH ST, SW 200TH ST, SW 216TH ST, SW 232ND ST, SW 240TH ST, SW 248TH ST, SW 264TH ST, SW 280TH ST, SW 320TH ST, SW 344TH ST, PONCE DE LEON BLVD, S BAYSHORE DR, OLD CUTLER RD, CARIBBEAN BLVD, RICKENBACKER CSWY, ALTON RD, VENETIAN WAY, PORT BLVD, KENNEDY CSWY

Highway shields: 27, 9, 95, 195, 826, 836, 41, 821, 976, 986, 94, 990, 1, 994, 997, 395, A1A

Legend

- ● Origin/Destination
- ▬ Bus Route (blue)
- ▬ Metrorail (green)
- ▬ Metromover (orange)
- ▬ TriRail (yellow)
- ▬ Major Roads (black)
- Municipality (tan)
- Unincorporated Miami-Dade County (white)

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

N

0 0.5 1 2 Miles

MPO

Kimley»Horn

Destination

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ▨ Municipality
- ☐ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 73

Origin

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ▢ Municipality
- ▢ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 73

Destination

Legend
- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 87

Origin

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 87

Destination

Legend

- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 88

Origin

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ▢ Municipality
- ▢ Unincorporated Miami-Dade County

Density Assessment
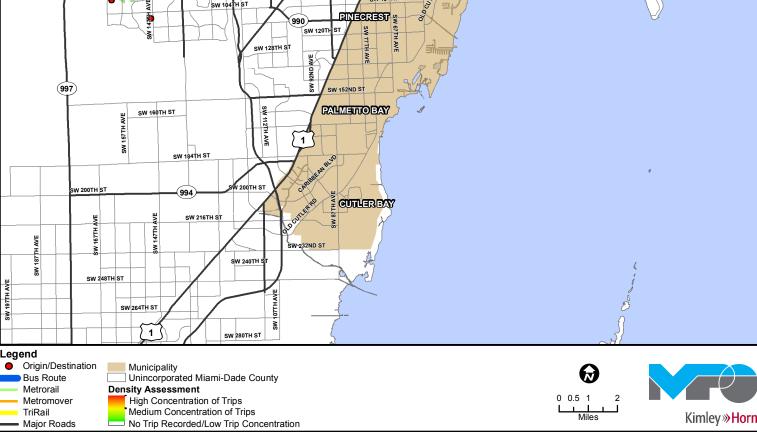- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 88

Destination

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

N

0 0.5 1 2
Miles

MPO
Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 104

Origin

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ▨ Municipality
- ☐ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 104

Destination

Legend

- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 137

Origin

Legend
- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 137

Miami-Dade MPO Origin-Destination Survey - Bus Route 204

Origin

Legend

- 🔴 Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads
- ⬛ Municipality
- ⬜ Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

N

0 0.5 1 2 Miles

Kimley»Horn

Miami-Dade MPO Origin-Destination Survey - Bus Route 204

Miami-Dade MPO Origin-Destination Survey - Bus Route 288

Origin

Miami-Dade MPO Origin-Destination Survey - Bus Route 288

Destination

Legend

- ● Origin/Destination
- ▬ Bus Route
- ▬ Metrorail
- ▬ Metromover
- ▬ TriRail
- ▬ Major Roads

- Municipality
- Unincorporated Miami-Dade County

Density Assessment
- High Concentration of Trips
- Medium Concentration of Trips
- No Trip Recorded/Low Trip Concentration

0 0.5 1 2 Miles

Kimley»Horn