EMBARK RIDER SURVEY

City of Oklahoma City Planning Department
University of Oklahoma Health Sciences Center

CONTENTS

CITY OF OKLAHOMA CITY PLANNING DEPARTMENT

This survey is anonymous and will be used to gather ridership data and gauge the impact of the recent changes to the bus system. Please answer all of the question you are comfortable answering.

DEMOGRAPHICS

What is your ZIP code?

What year were you born?

Are you:

- ☐ Male
- ☐ Female

Race/Ethnicity: Check all that apply

- ☐ Black/African American
- ☐ White/Caucasian
- ☐ Hispanic/Latino(a)
- ☐ Asian/Pacific Islander
- ☐ Native American
- ☐ Other _____

Including yourself, how many people are in your household?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 +

How many working vehicles (cars, trucks, and motorcycles) are available in your household?

☐ 0 ☐ 1 ☐ 2 ☐ 3 +

What is the highest level of education you have attained?

- ☐ High School or equivalent
- ☐ Some College
- ☐ Associate or Tech Degree
- ☐ Undergraduate Degree
- ☐ Graduate Degree

Are you currently employed?

- ☐ Yes, Full-Time
- ☐ Yes, Part-Time
- ☐ Unemployed, Looking
- ☐ Unemployed, Not Looking
- ☐ Retired
- ☐ Student

What is your estimated household income?

- ☐ Less than $10,000
- ☐ $10,000 to $29,999
- ☐ $30,000 to $49,999
- ☐ $50,000 to $69,999
- ☐ $70,000 to $99,999
- ☐ $100,000 or more

TRANSIT SERVICE QUESTIONS

How often do you ride the bus?

- ☐ 5+ days per week
- ☐ 3 or 4 days per week
- ☐ 1 or 2 days per week
- ☐ 1 or 2 days per month
- ☐ Less than once a month
- ☐ This is my first time

Where is/are your bus stop(s)?

How do you get to the bus stop? Check all that apply

- ☐ Walk/wheelchair/other device _____ blocks
- ☐ Bicycle _____ blocks
- ☐ Drive _____ miles
- ☐ Dropped off or taxi

What is your overall impression of the recent route changes?

- ☐ Much better than before
- ☐ A little better than before
- ☐ The same
- ☐ A little worse than before
- ☐ Much worse than before
- ☐ Not applicable/No opinion

Do you agree or disagree with the following statements?

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
The bus takes me where I want to go.	☐	☐	☐	☐	☐
Buses are on time.	☐	☐	☐	☐	☐
Drivers are helpful and friendly.	☐	☐	☐	☐	☐
Buses are clean.	☐	☐	☐	☐	☐
I feel safe riding the bus.	☐	☐	☐	☐	☐
I spend less time waiting on the bus.	☐	☐	☐	☐	☐

With the recent changes, do you feel you have better access to:

	Yes	No	N/A
Grocery stores	☐	☐	☐
Healthcare facilities	☐	☐	☐
Physical activity opportunities (parks, gyms, trails, etc.)	☐	☐	☐

Other places? _____

How do you pay for the bus fare?

☐ Cash ☐ Daily Pass ☐ Weekly Pass ☐ Monthly Pass

Why do you choose to use the bus? Check all that apply

- ☐ My only option
- ☐ To save money
- ☐ Job pays for bus fare
- ☐ Better for the environment
- ☐ Convenience
- ☐ Other _____

If buses were not available, how would you make this trip?

- ☐ Walk
- ☐ Bicycle
- ☐ Drive
- ☐ Taxi
- ☐ Car-sharing service
- ☐ Uber/Lyft
- ☐ Ride with a friend
- ☐ Would not make the trip

In a few words, how can the bus system be improved?

Introduction/Methodology

Public transit in Oklahoma City has undergone a dramatic change in appearance and route orientation over the summer of 2014. The bus system has been rebranded from "Metro Transit" to "Embark", and new route orientations have been established based upon a study conducted by the transit firm, Nelson\Nygaard. Though growing pains are inevitable with changes as dramatic as these to a system that many people rely on for daily use, ridership has increased steadily in the months subsequent to the changes. This survey was conducted to determine riders' satisfaction with the changes that occurred, as well as to learn how different rider demographic groups have been impacted relative to one another.

Utilizing a partnership with the University of Oklahoma Health Science Center, a graduate practicum student conducted the survey along each of the 19 primary routes of the Embark transit system. Intra-city routes and the downtown circulator were excluded due to the irregular nature of the services. In addition to questions regarding the changes to service, this survey collected a great deal of demographic information. And because this survey was conducted for each route, responses could be coupled with geographic location information.

599 riders participated in the survey, or roughly 30 riders per route. Surveys were administered during weekdays between 7:00am and 5:00pm. The surveyor waited until all riders were boarded and then made an announcement to explain the purpose of the survey to all the riders, ensuring consent before distributing the survey. Riders with disabilities that limited their capacity to take the survey were assisted to ensure that no discrimination occurred during the process. Additionally, only one survey would be distributed per family in order to not skew the results. Roughly 20% of the riders refused to fill out a survey for a variety of reasons including requesting compensation, illiteracy, and apprehension of giving out information.

Former Bus Routes - Access from 1/4-mile and 1/2-mile Distances

1/4-mile: 106,872 households - 42.9% of the population
1/2-mile: 144,423 households - 57.9% of the population
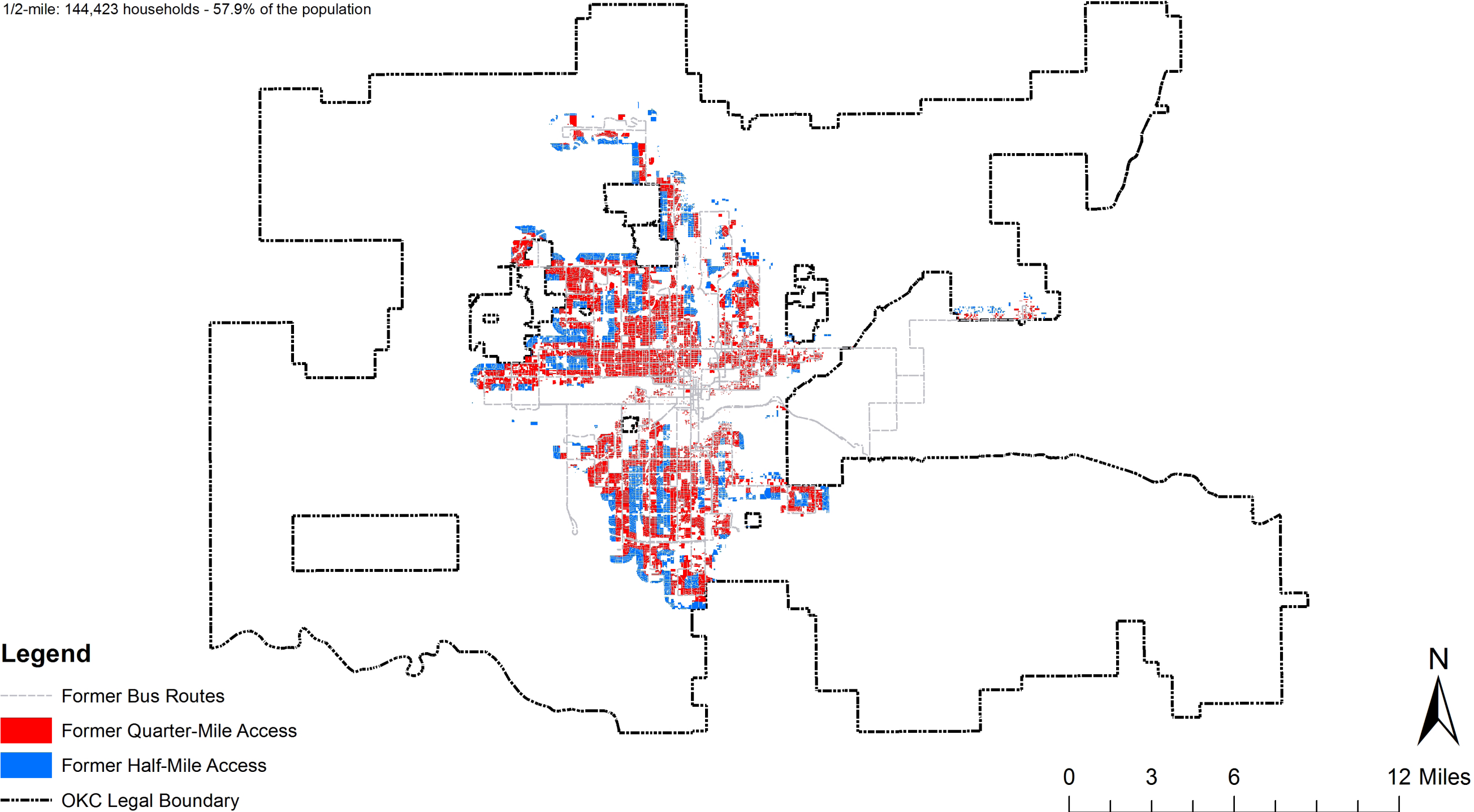
Legend

- - - - Former Bus Routes

▮ Former Quarter-Mile Access

▮ Former Half-Mile Access

-∙-∙- OKC Legal Boundary

N

0   3   6   12 Miles
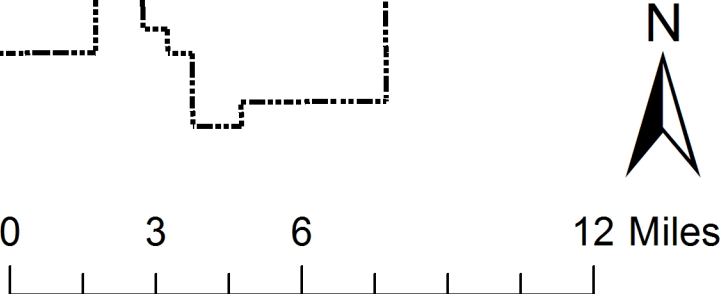
New Bus Routes - Access from 1/4-mile and 1/2-mile Distances

1/4-mile: 100,272 households - 40.2% of the population
1/2-mile: 143,518 households - 57.6% of the population

Loss of accessibility in
these two areas
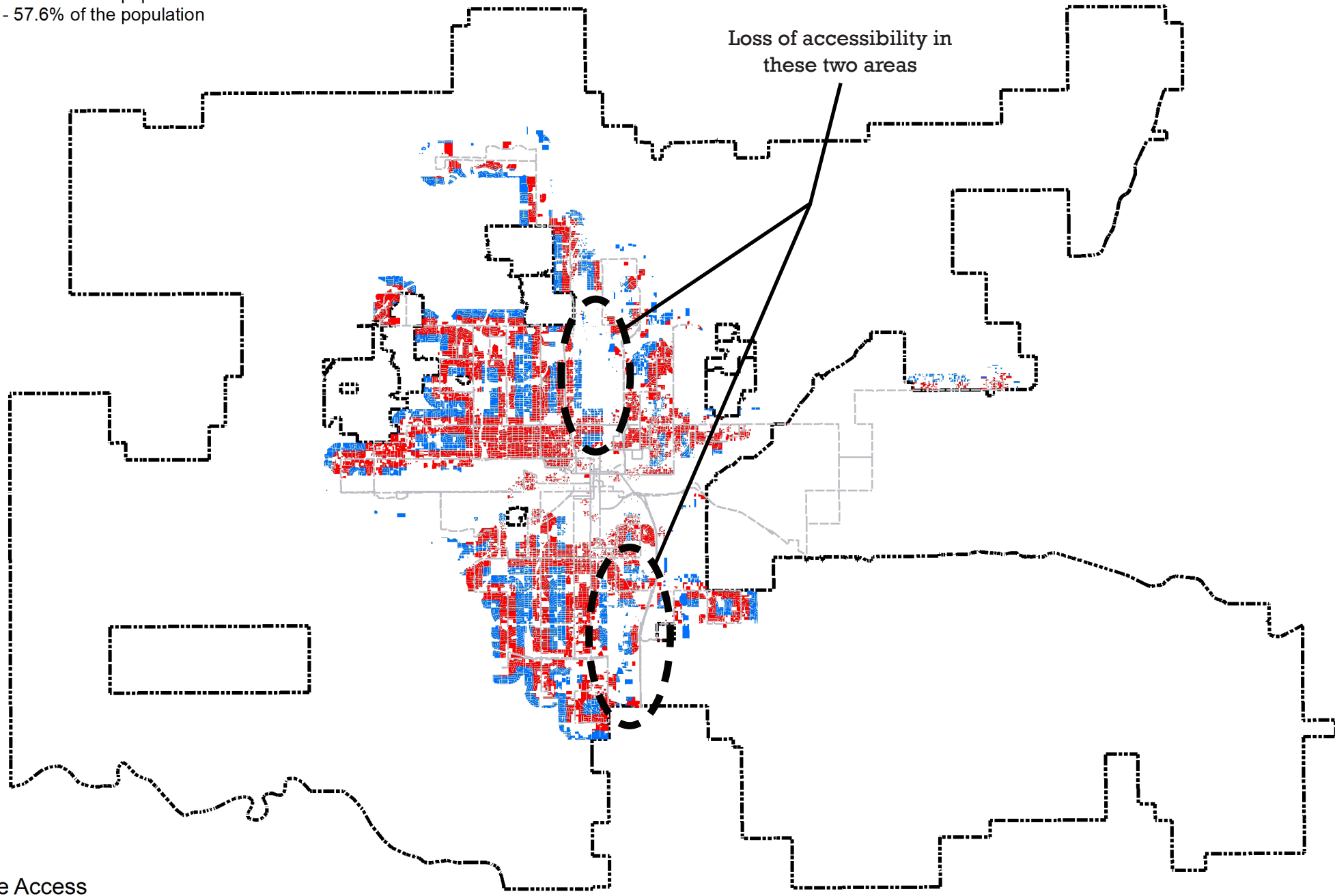
Legend

New Bus Routes

- - - - New Bus Routes

■ New Quarter-Mile Access

■ New Half-Mile Access

-··-··- OKC Legal Boundary

N

0   3   6   12 Miles

ALL ROUTES

ZIP Codes of Riders:

73106 (x62)	73111 (x53)
73119 (x34)	73108 (x33)
73109 (x33)	73107 (x32)
73114 (x27)	73112 (x22)
73110 (x21)	73127 (x21)
73117 (x18)	73129 (x16)
73118 (x14)	73102 (x13)
73105 (x13)	73104 (x12)
73139 (x11)	73159 (x11)
73135 (x10)	73103 (x7)
73120 (x7)	73132 (x7)
73008 (x6)	73084 (x6)
73116 (x5)	73121 (x5)
73115 (x3)	73034 (x2)
73130 (x2)	73142 (x2)
73007	73012
73020	73045
73099	73122
73134	73141
73149	73162

Legend

Riders_ZIP Codes

SUM_Rider_Count
- 1 - 3
- 4 - 12
- 13 - 22
- 23 - 34
- 35 - 62
- —— OKC Legal Boundary

N

0   2.5   5   10 Miles

ROUTE 002

Route 002
- ▬▬ Route 2
- ○ Timepoint
- ☐ Connecting Lines
- **T** Transit Center

Map labels:
- NE 50TH ST
- NE 42ND ST
- NE 36TH ST
- NE 30TH ST
- NE 23RD ST
- NE 13TH ST
- NE 10TH ST
- NE 8TH ST
- NE 4TH ST
- NE 16TH ST
- NW 13TH ST
- NW 10TH ST
- E RENO AVE
- SE 15TH ST
- N LINCOLN BLVD
- N ROBINSON AVE
- N KELLEY AVE
- N PROSPECT AVE
- N LOTTIE AVE
- N BRYANT AVE
- N COLTRANE RD
- PEACHTREE AVE
- NE GRAND
- MLK
- N HUDSON
- NE 20TH ST
- Remington Park
- Science Museum & Zoo
- Lincoln Park Golf Course
- History Center
- City-County Health Dept.
- VA Medical Ctr.
- OU Medical Ctr. & Children's Hospital
- McGuire Plaza
- Ralph Ellison Library
- Douglass MS-HS

ZIP Codes of Riders:

73111 (x7)   73117 (x4)   73107 (x3)   73114 (x2)   73109 (x2)

73104   73108   73105   73106   73102   73034   73084   73112   72121
73135

ROUTE 003

Route 003

- ━━ Route 3
- ○ Timepoint
- ▢ Connecting Lines
- **T** Transit Center
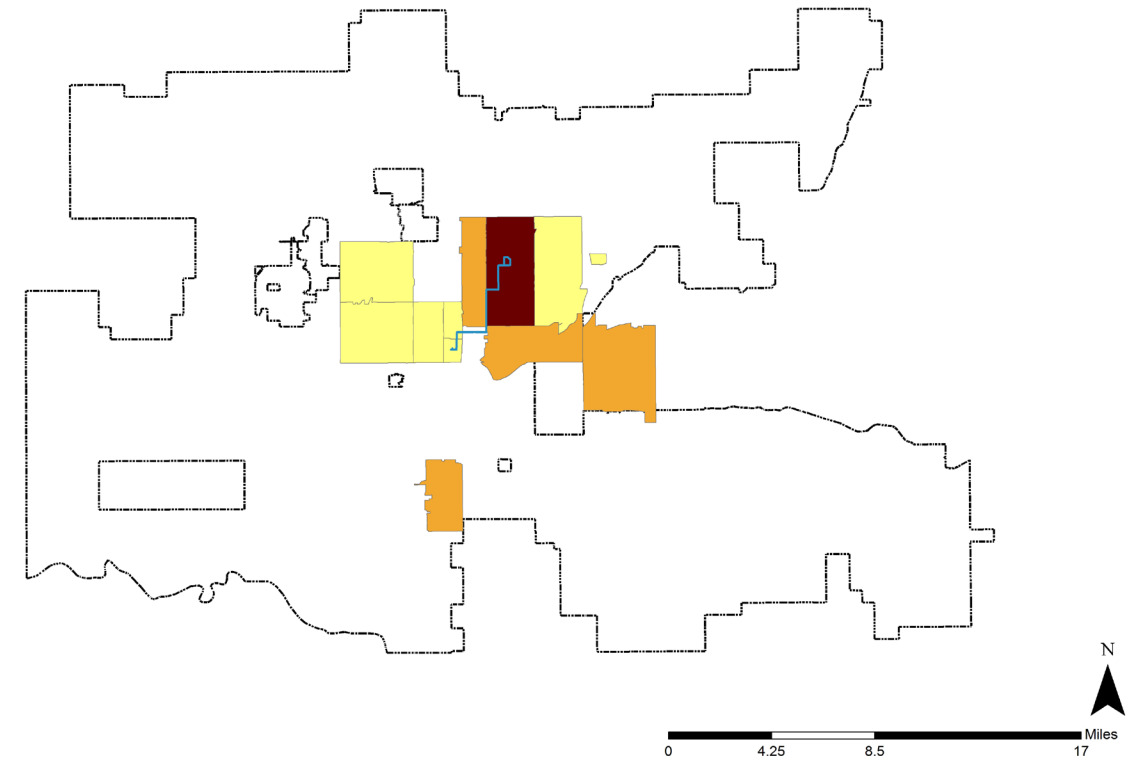
ZIP Codes of Riders:

73111 (x8)   73110 (x2)   73117 (x2)   73105 (x2)   73139 (x2)

73106   73102   73107   73121   73103   73112

ROUTE 005

Route 005
- ▬ Route 5
- ○ Timepoint
- ▢ Connecting Lines
- Ⓣ Transit Center

Map labels: 74, Quail Springs Mall, W MEMORIAL RD, NW 140TH ST, E, F, Mercy Hospital, W MEMORIAL RD, MCAULEY BLVD, MERIDIAN AVE, JOHN KILPATRICK TURNPIKE, NW 122ND ST, LAKE HEFNER PKWY, N MAY AVE, N PENN AVE, N PENN AVE, N WESTERN AVE, W HEFNER RD, D, LAKE HEFNER, 74, W BRITTON RD, NORTHWEST EXPRESSWAY, W WILSHIRE BLVD, C, 35, NW 63RD ST, Juvenile Justice Center, Belle Isle Shopping Center, B, Bishop McGuiness, NW 50TH ST, NW 50TH ST, N MAY AVE, N PORTLAND AVE, N CLASSEN BLVD, N WESTERN AVE, N WALKER AVE, 66, NW 36TH ST, NW 36TH ST, 44, NW 30TH ST, Oklahoma City University, NW 23RD ST, NW 23RD ST, A, MERIDIAN AVE, 23, 44, Plaza District, Classen SAS, NW 16TH ST, NW 16TH ST, 10, NW 13TH ST, NW 10TH ST, 38, HUDSON, NW 4TH ST, T, N

ZIP Codes of Riders:

73111 (x5)	73114 (x4)	73106 (x3)	73108 (x3)	73120 (x2)	73103 (x2)
73108 (x2)	73118 (x2)	73117 (x2)	73127 (x2)	73102 (x2)	

73129   73134   73110   73113   73119   73109

ROUTE 007

Route 007

- Route 7
- ○ Timepoint
- ▭ Connecting Lines
- T Transit Center
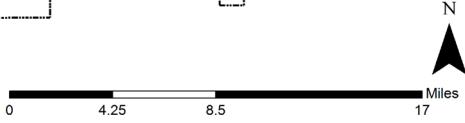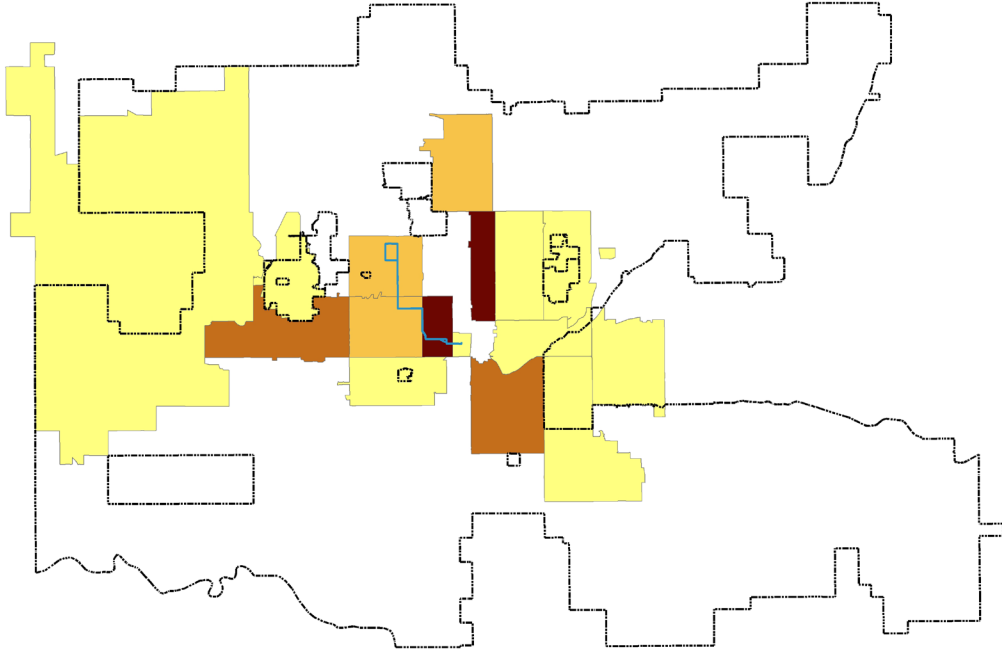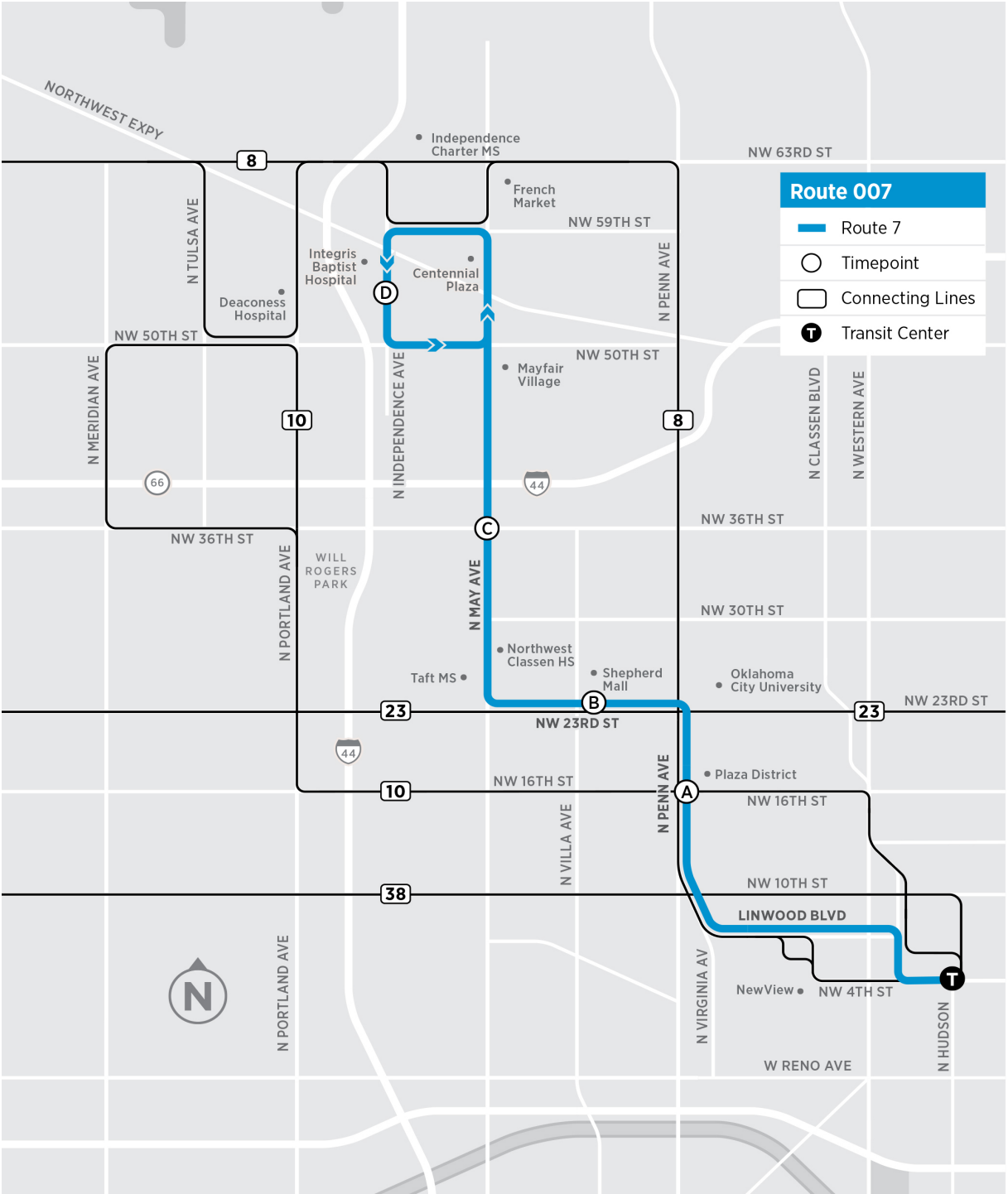
ZIP Codes of Riders:

73105 (x4)   73106 (x4)   73127 (x3)   73129 (x3)   73107 (x2)   73112 (x2)   73114 (x2)

73008   73099   73102   73108   73110   73111   73115   73117   73121   73135

ROUTE 008

Route 008
- Route 8
- ○ Timepoint
- ☐ Connecting Lines
- Ⓣ Transit Center
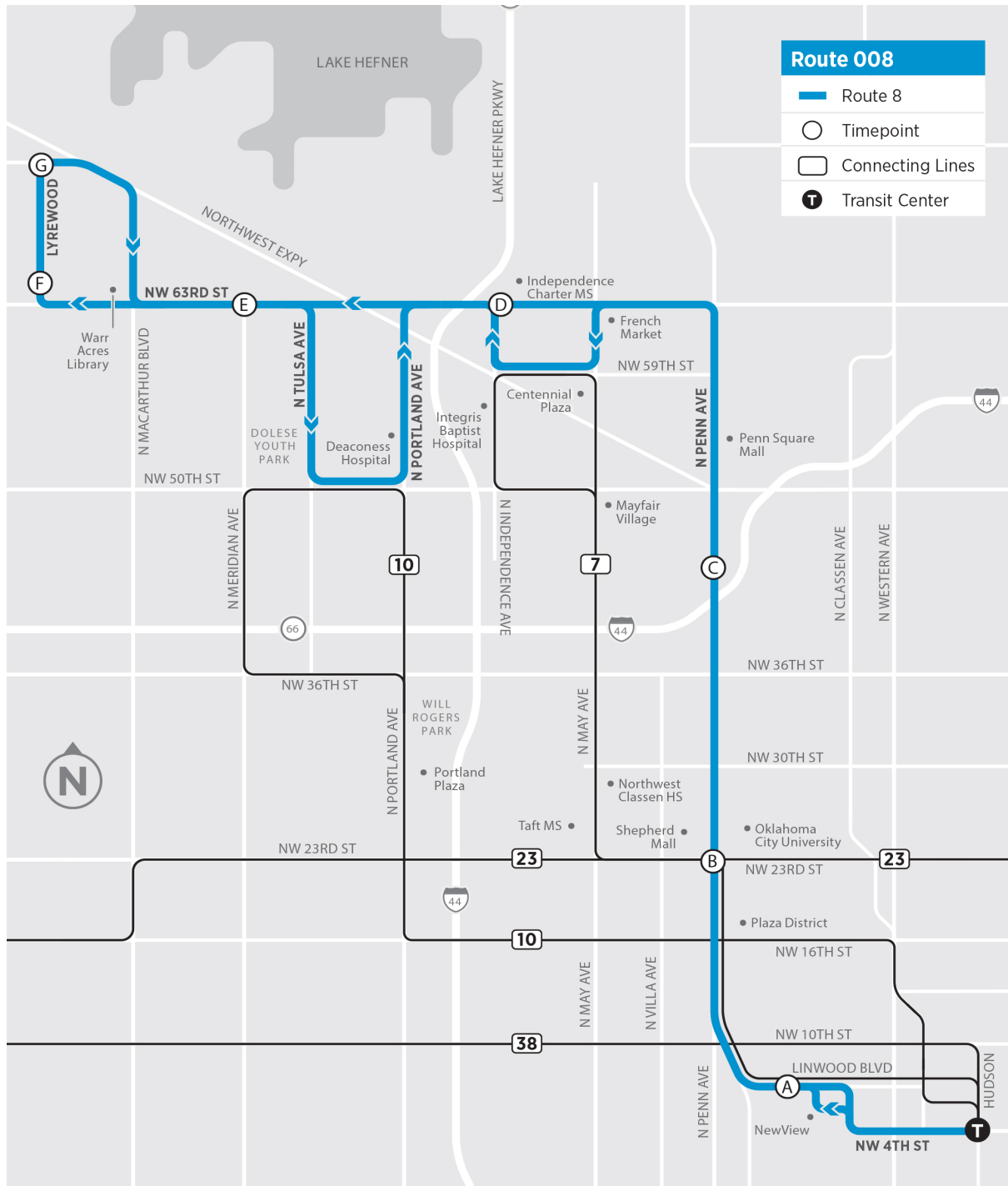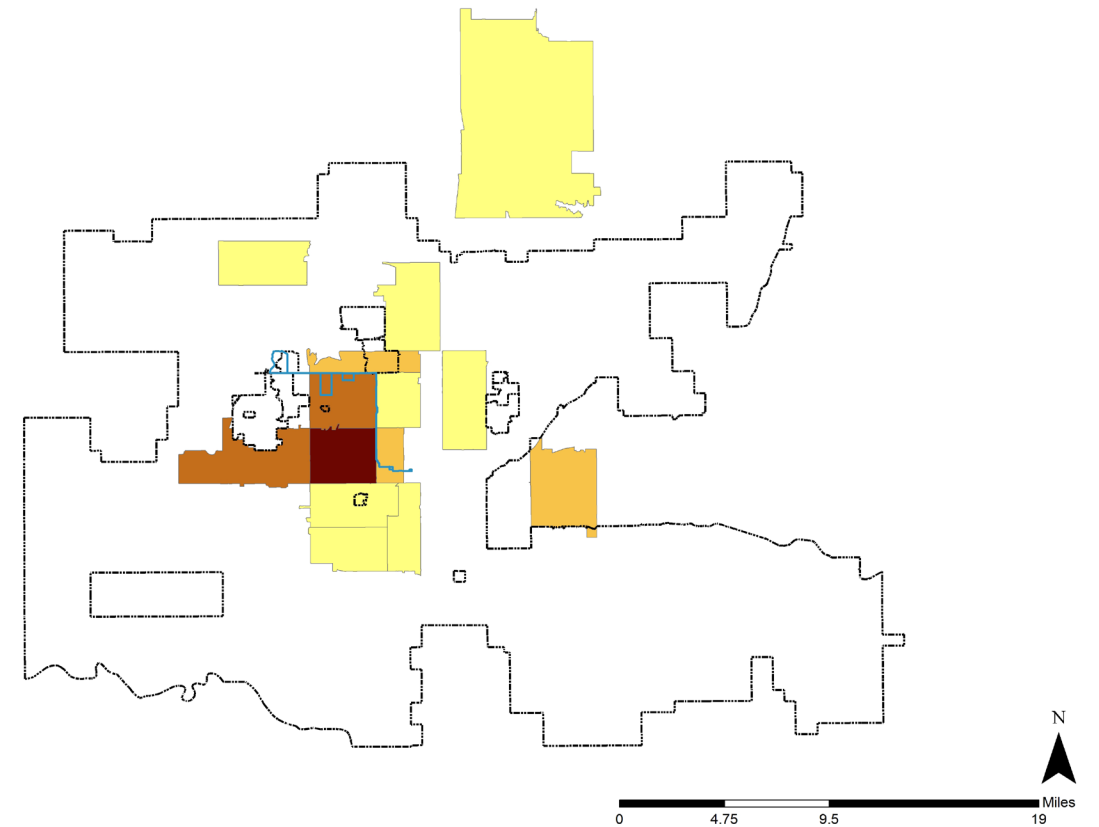
ZIP Codes of Riders:

73107 (x4)   73112 (x3)   73127 (x3)   73106 (x2)   73110 (x2)   73116 (x2)

73034   73108   73109   73111   73114   73118   73119   73142

ROUTE 009

Route 009

- ▬ Route 9
- ○ Timepoint
- ☐ Connecting Lines
- **T** Transit Center
- **R** Reno Mini Hub
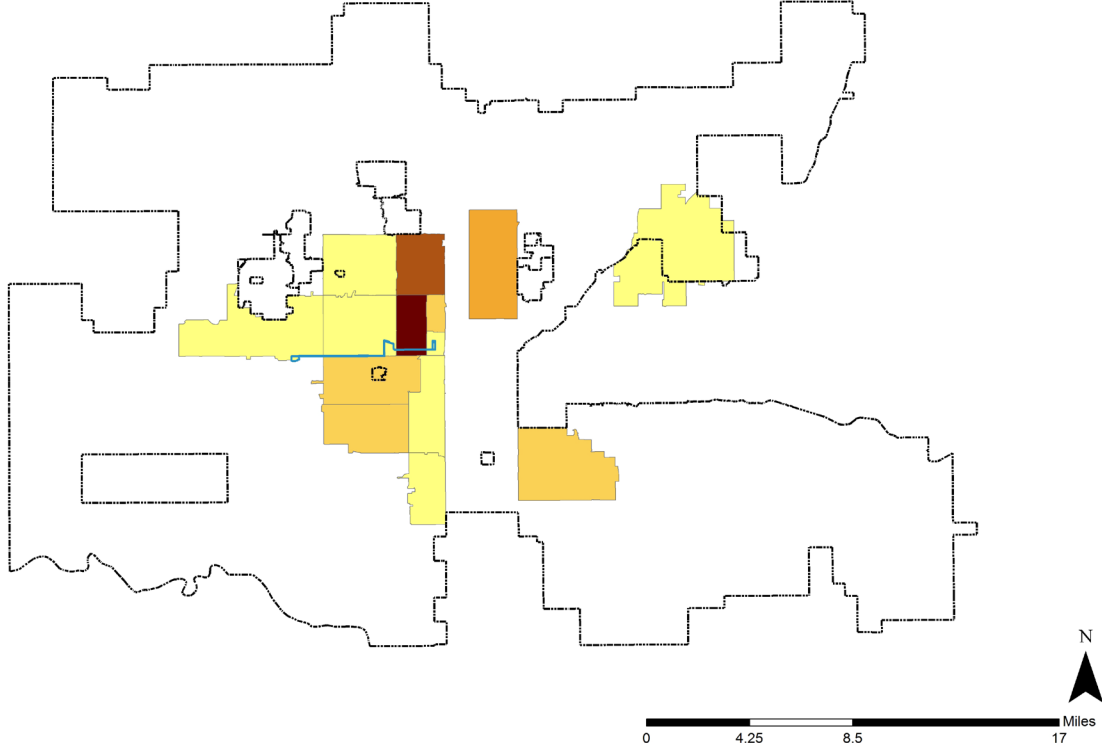
ZIP Codes of Riders:

73106 (x8)   73118 (x5)   73111 (x3)   73103 (x2)   73108 (x2)   73119 (x2)
73135 (x2)

73084   73102   73107   73109   73112   73127   73139

ROUTE 010

Route 010

- ▬ Route 10
- ○ Timepoint
- ▭ Connecting Lines
- Ⓣ Transit Center

Map labels:
NW 59TH ST · Centennial Plaza · Penn Square Mall · Juvinile Justice Center · Bishop McGuiness · DOLESE YOUTH PARK · Deaconess Hospital · Integris Baptist Hospital · N PORTLAND AVE · NW 50TH ST · Mayfair Village · NW 50TH ST · N MERIDIAN AVE · N TULSA AVE · 66 · N INDEPENDENCE AVE · N PENN AVE · N CLASSEN AVE · N WESTERN AVE · 7 · 44 · 8 · 5 · NW 36TH ST · NW 36TH ST · WILL ROGERS PARK · N PORTLAND AVE · N MAY AVE · NW 30TH ST · Portland Plaza · Northwest Classen HS · NW 23RD ST · Taft MS · Shepherd Mall · Oklahoma City University · 23 · NW 23RD ST · 44 · Plaza District · Classen SAS · NW 16TH ST · N MAY AVE · N VILLA AVE · 38 · NW 10TH ST · LINWOOD BLVD · CLASSEN · N PENN AVE · NW 4TH ST · N HUDSON · W RENO AVE

ZIP Codes of Riders:

73106 (x5)   73107 (x5)   73112 (x5)   73102 (x2)   73111 (x2)   73114 (x2)   73127 (x2)

73012   73108   73109   73116   73118   73122   73132

ROUTE 011

Route 011

- **━━━** Route 11
- ○ Timepoint
- ▭ Connecting Lines
- **T** Transit Center
- **R** Reno Mini Hub
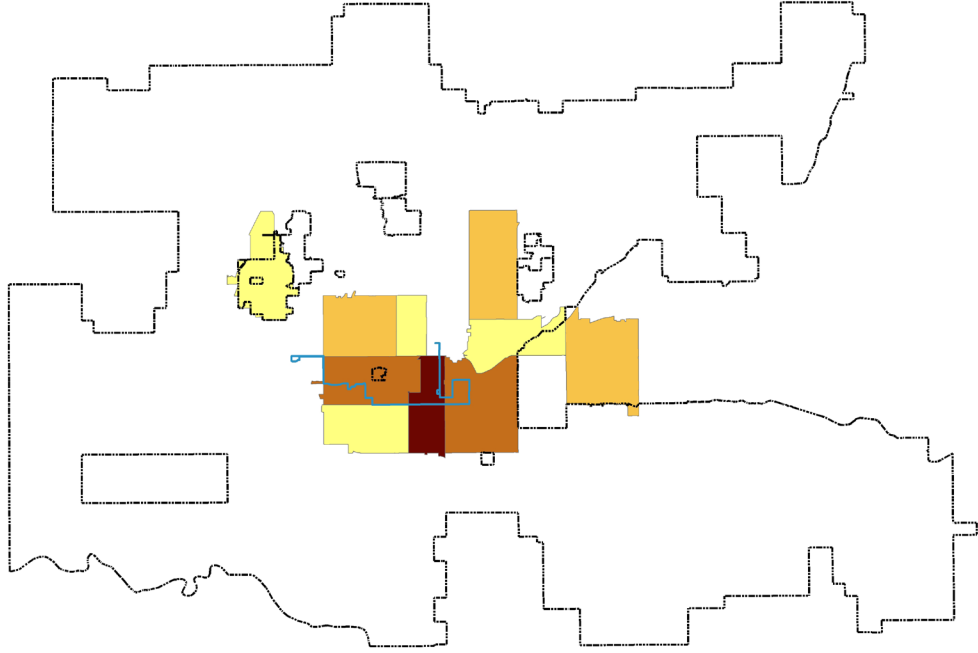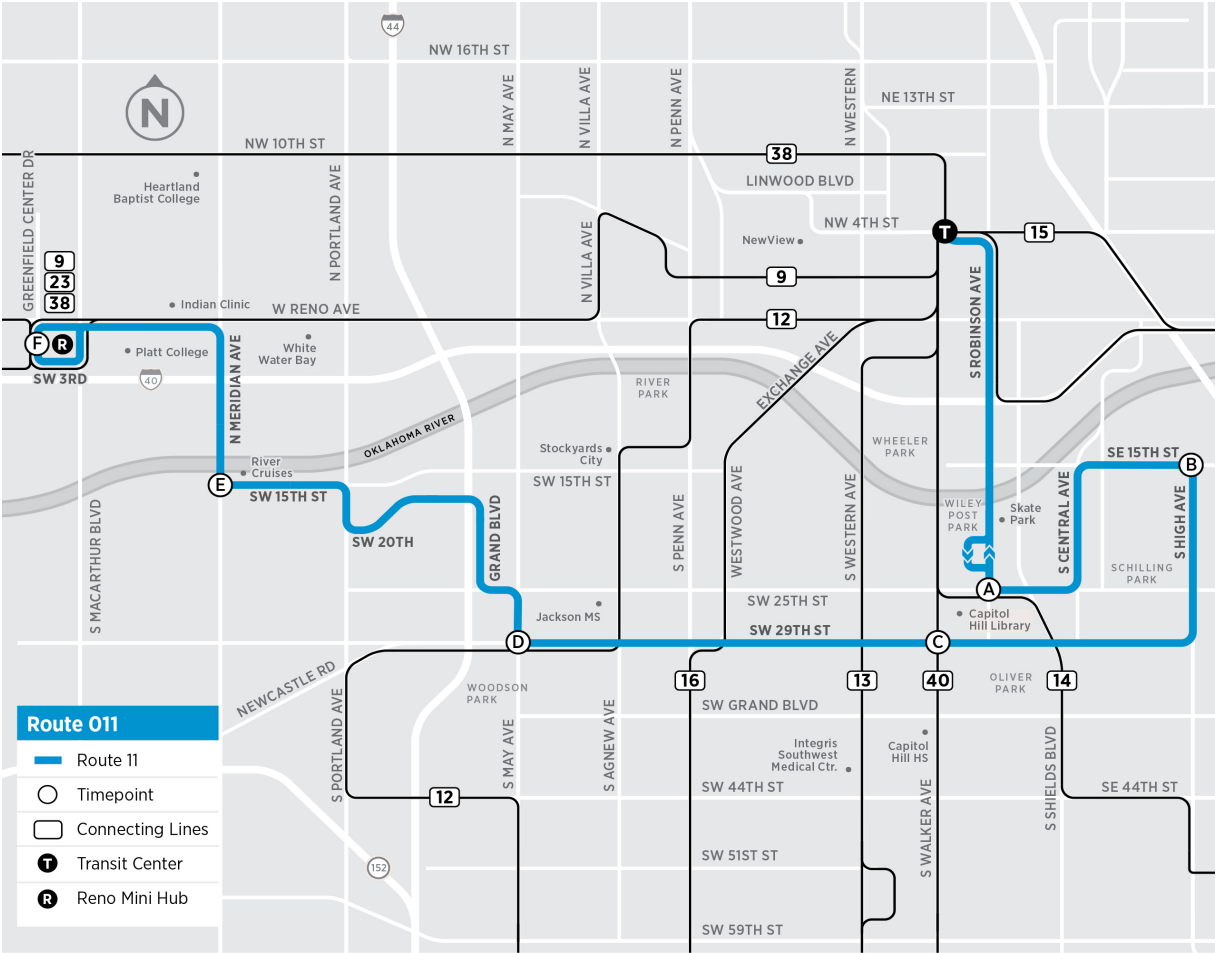
ZIP Codes of Riders:

73109 (x7)   73108 (x5)   73129 (x5)   73107 (x2)   73110 (x2)   73111 (x2)

73008   73106   73117   73119

ROUTE 012
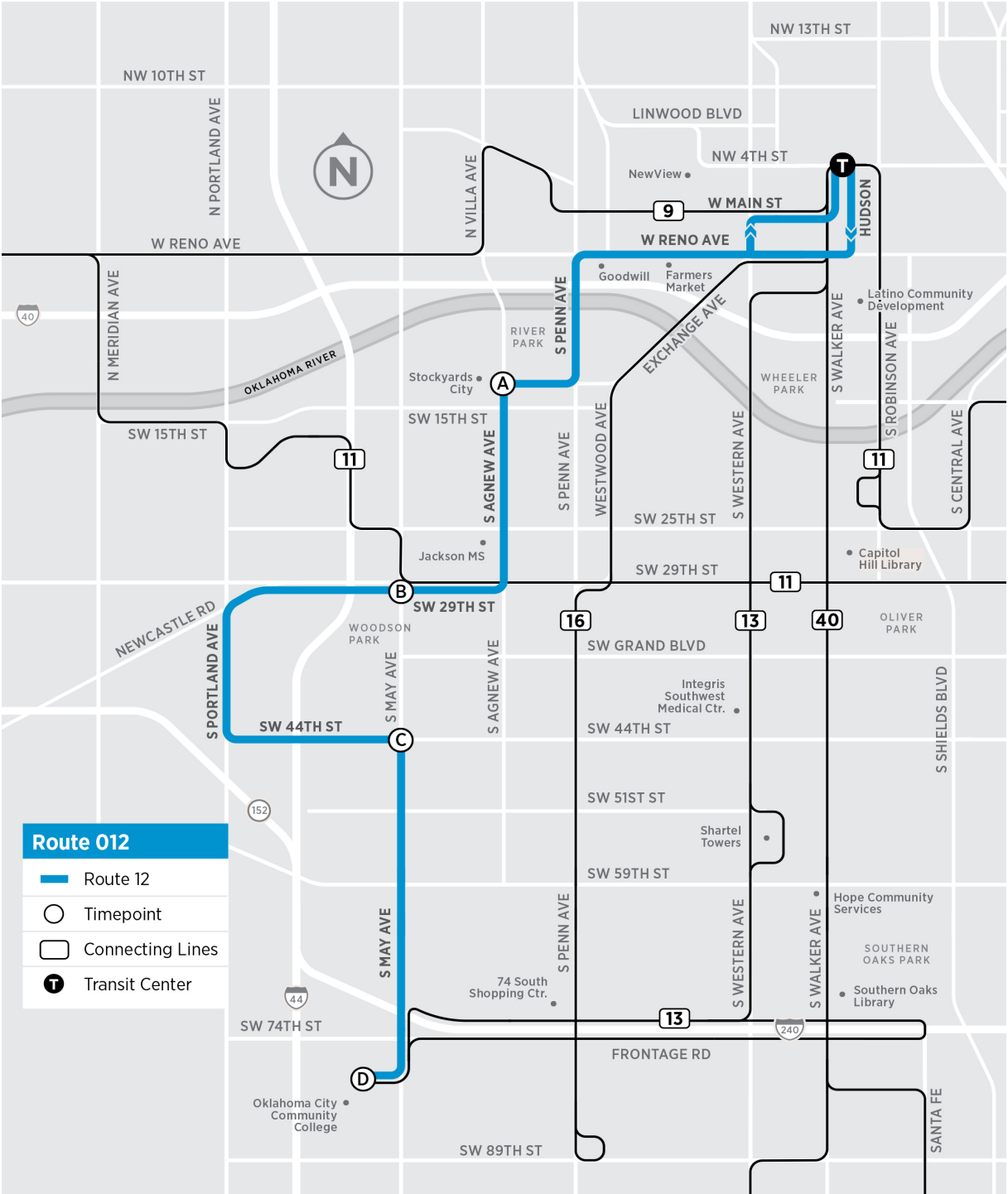
Route 012

- ▬ Route 12
- ◯ Timepoint
- ▭ Connecting Lines
- ⬤ Transit Center
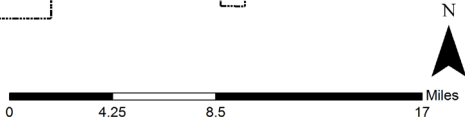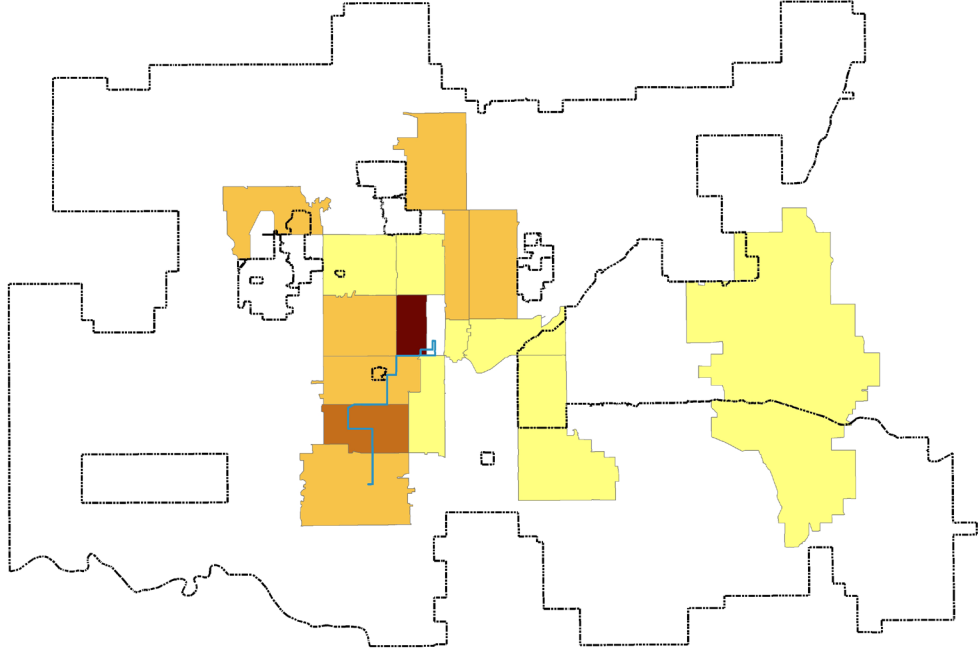
ZIP Codes of Riders:

73106 (x8)	73119 (x3)	73105 (x2)	73107 (x2)	73108 (x2)	73111 (x2)
73114 (x2)	73114 (x2)	73132 (x2)	73159 (x2)		

73020   73104   73109   73112   73115   73117   73118   73135

ROUTE 013

Route 013

- ▬ Route 13
- ○ Timepoint
- ▭ Connecting Lines
- Ⓣ Transit Center
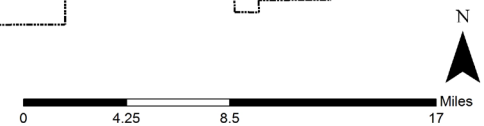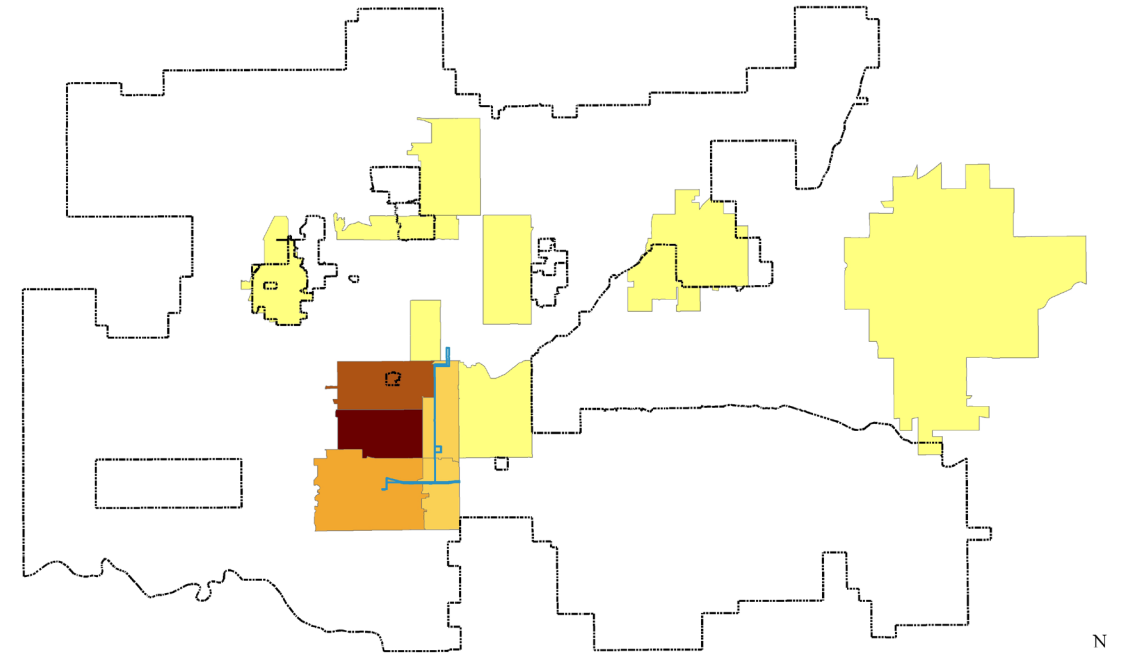
ZIP Codes of Riders:

73119 (x12)   73108 (x6)   73159 (x5)   73109 (x2)   73139 (x2)   73101 (x2)

73008   73045   73084   73106   73111   73114   73116   73129

ROUTE 014

Map legend:
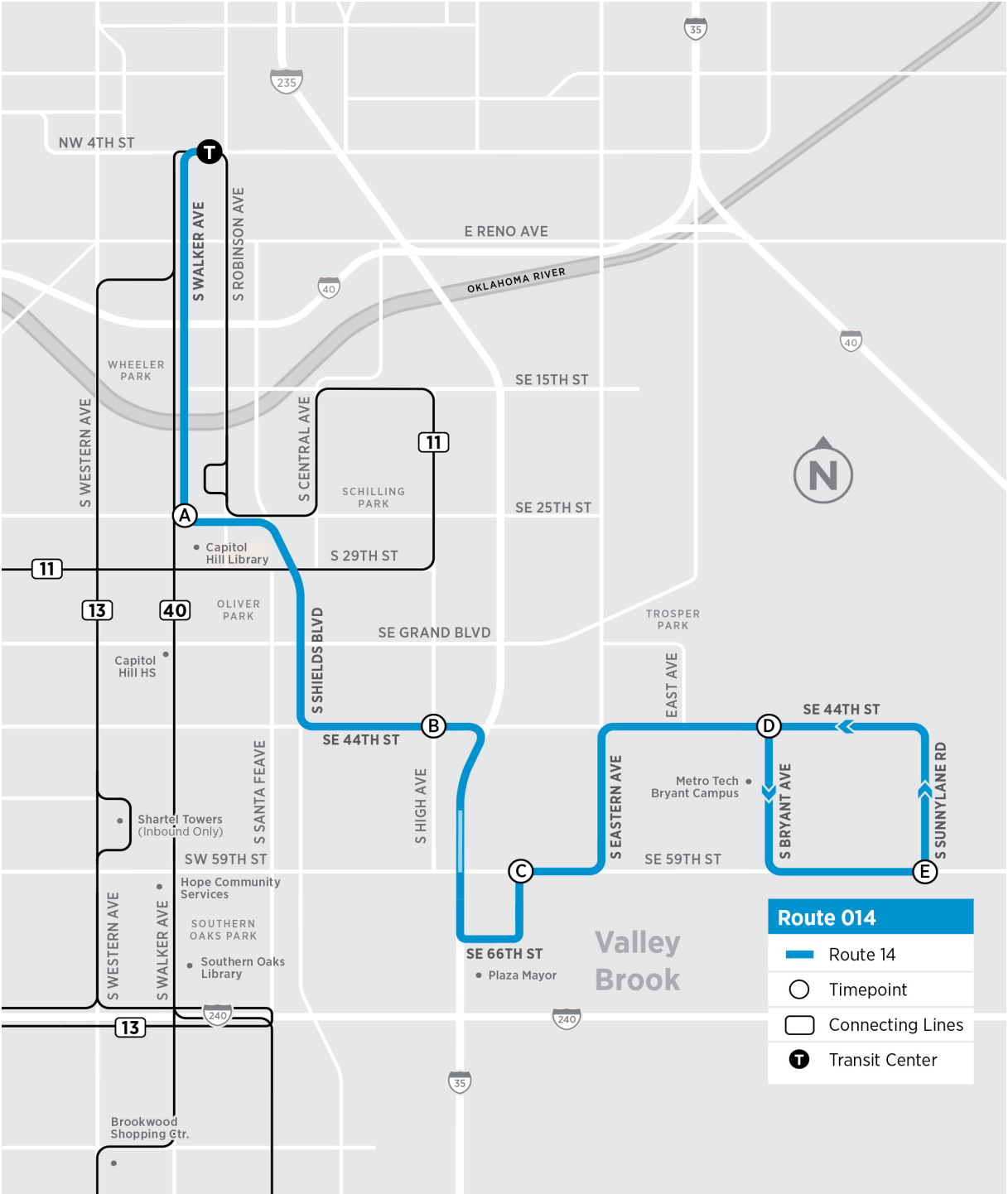
Route 014
- ▬▬ Route 14
- ○ Timepoint
- ▢ Connecting Lines
- **T** Transit Center
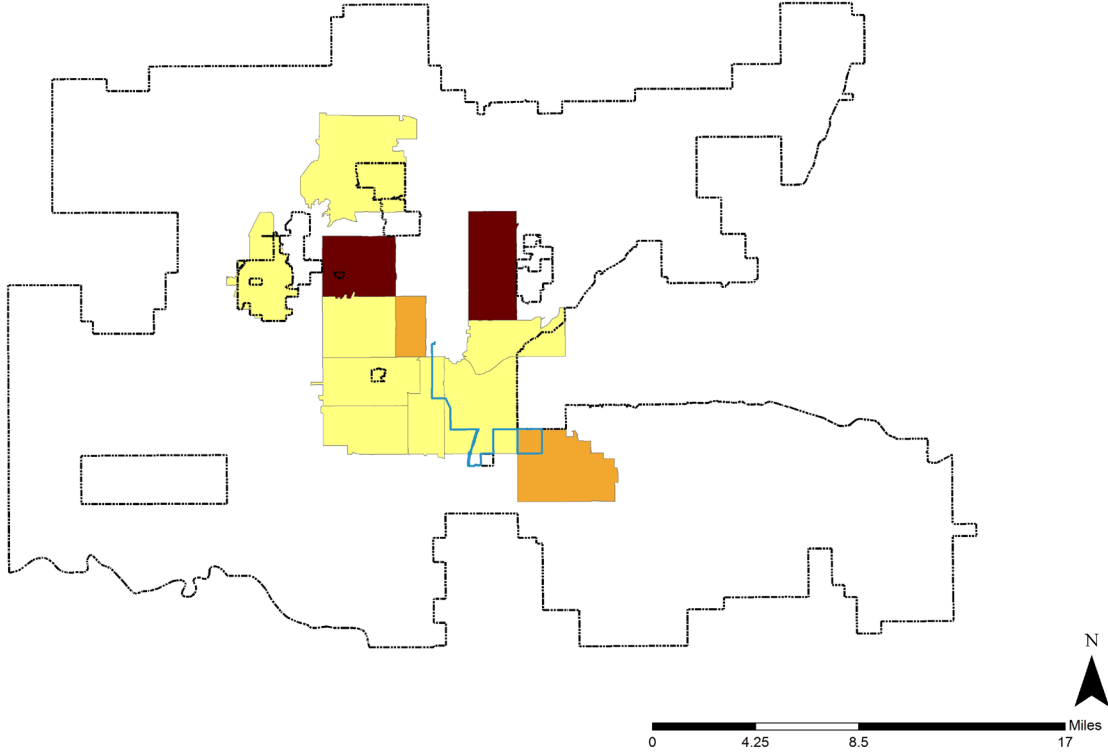
ZIP Codes of Riders:

73111 (x3)   73112 (x3)   73106 (x2)   73135 (x2)

73008   73015   73107   73108   73109   73117   73119   73120   73129
74873

ROUTE 015

Route 015
- ■ Route 15
- ■ Express Service
- ○ Timepoint
- ▢ Connecting Lines
- Ⓣ Transit Center
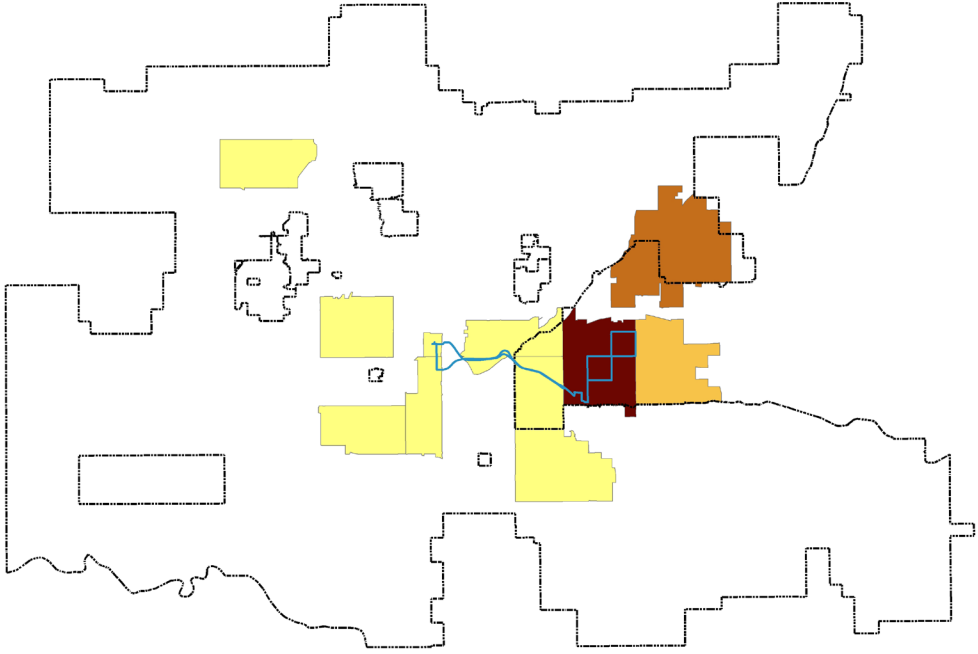
ZIP Codes of Riders:

73110 (x9)   73084 (x3)   73130 (x2)

73102   73107   73109   73115   73117   73119   73135   73162

ROUTE 016

Route 016

- Route 16 — Route 16
- ○ Timepoint
- ▢ Connecting Lines
- T Transit Center
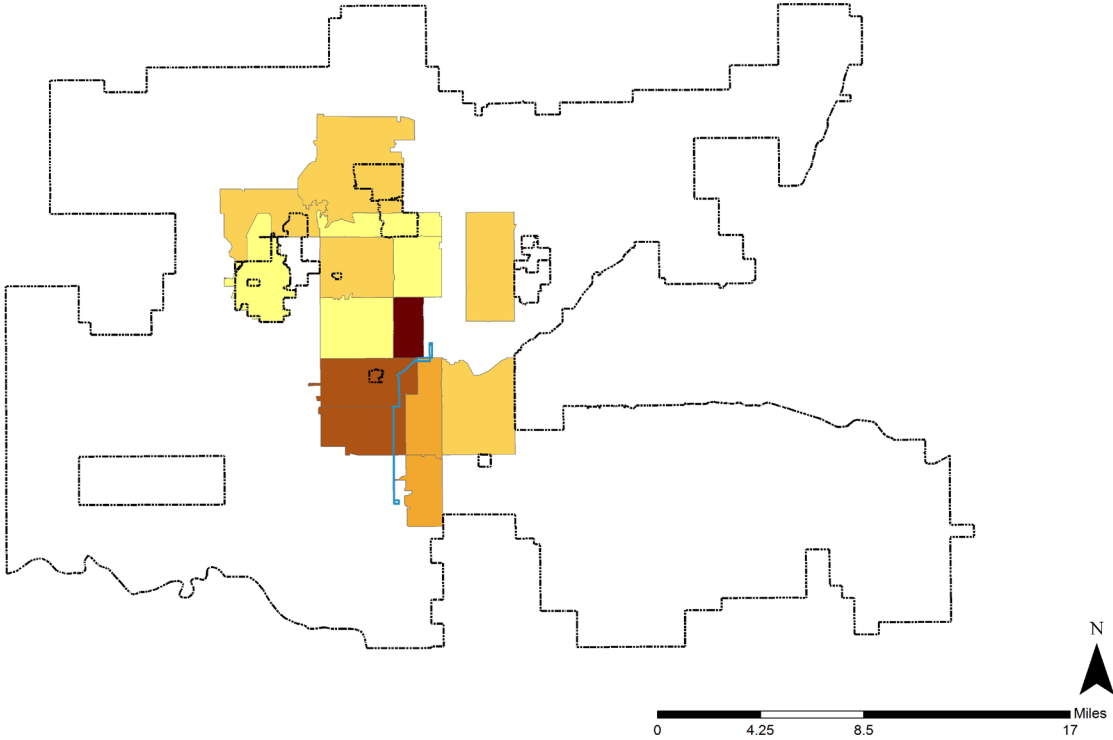
ZIP Codes of Riders:

73106 (x7)	73108 (x6)	73119 (x6)	73109 (x3)	73139 (x3)	73111 (x2)
73112 (x2)	73120 (x2)	73129 (x2)	73132 (x2)		

73107   73116   73118

ROUTE 018

Route 018
- ▬ Route 18
- ○ Timepoint
- ▭ Connecting Lines
- Ⓣ Transit Center
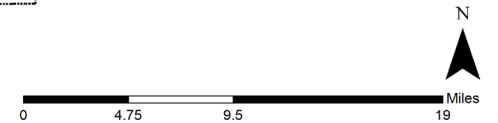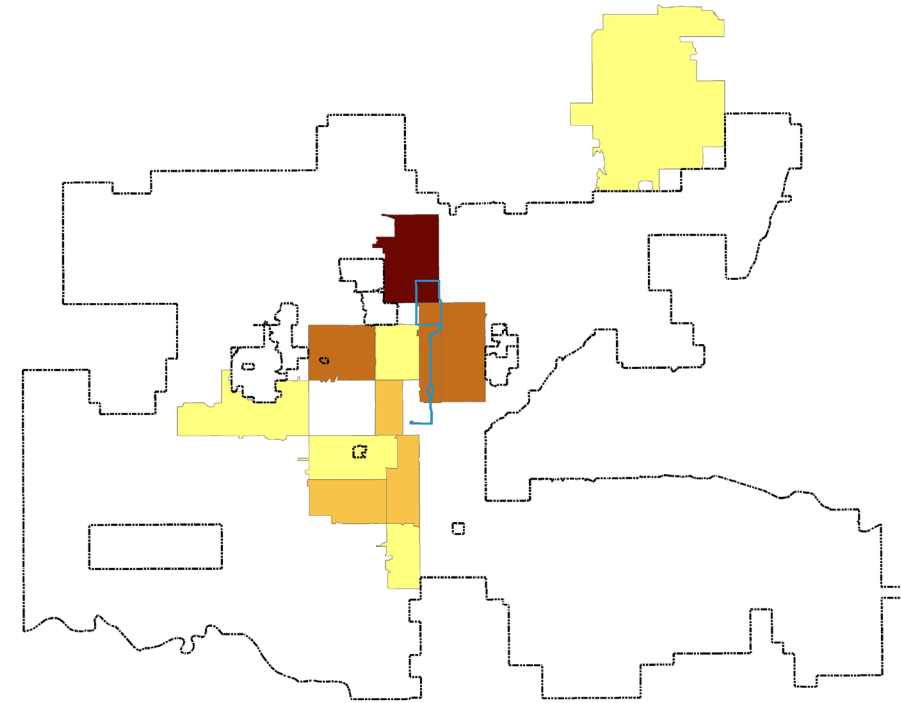
ZIP Codes of Riders:

73114 (x4)　　73105 (x3)　　73111 (x3)　　73112 (x3)　　73106 (x2)　　73109 (x2)
73119 (x2)

73007　　73108　　73118　　73127　　73139　　73101　　47112

ROUTE 019

Route 019

- ▬▬ Route 19
- ◯ Timepoint
- ▭ Connecting Lines
- Ⓣ Transit Center
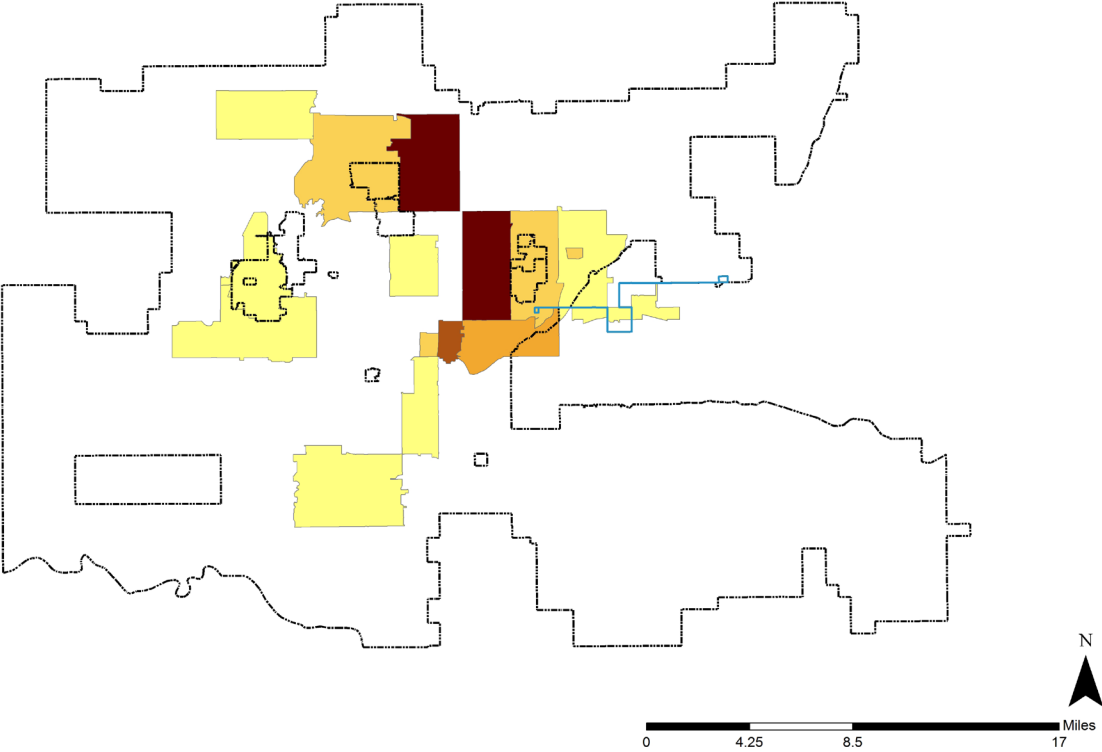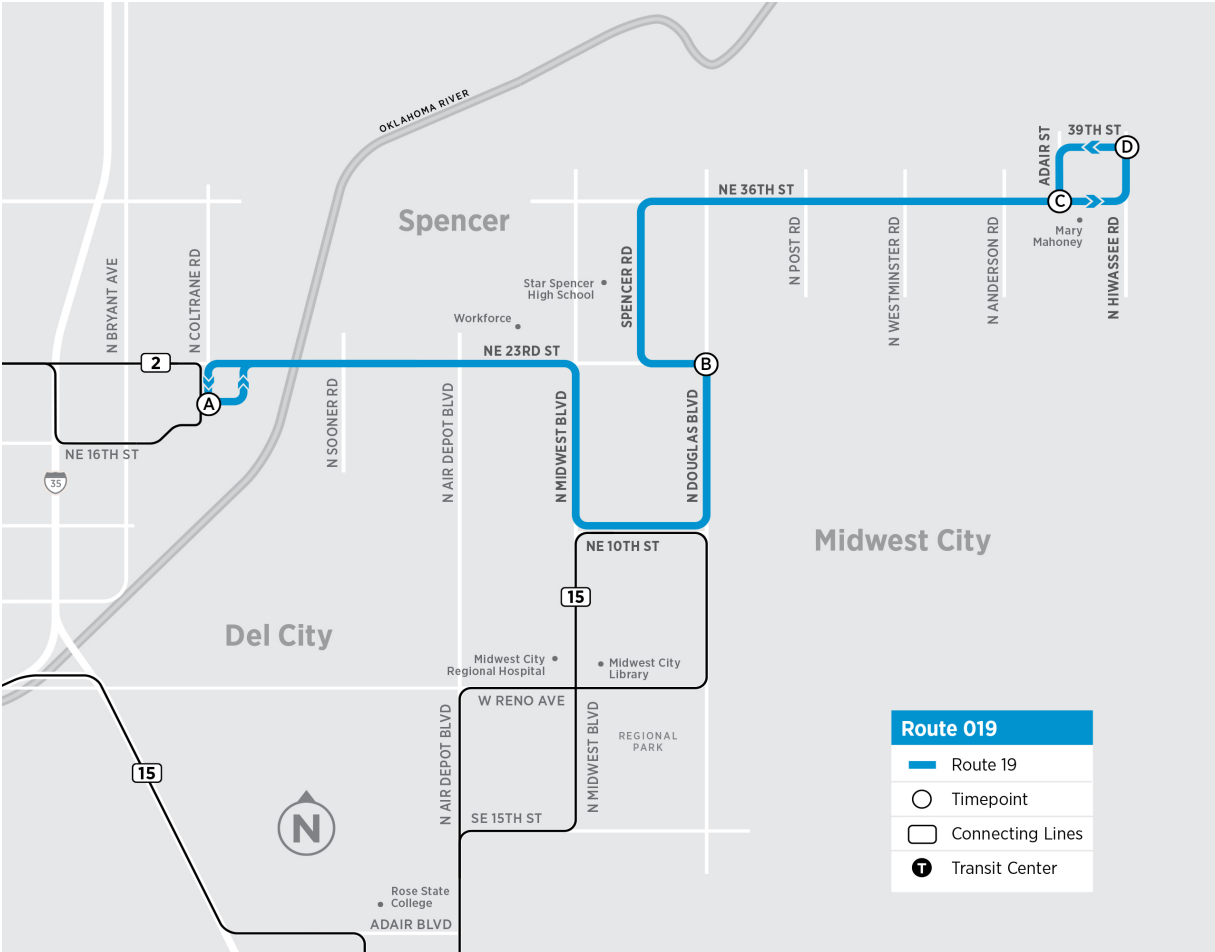
ZIP Codes of Riders:

73111 (x6)   73114 (x5)   73104 (x4)   73117 (x3)   73102 (x2)   73120 (x2)
73121 (x2)

73008   73109   73118   73127   73141   73142   73159

ROUTE 022

Route 022
- ▬ Route 22
- ◯ Timepoint
- ▢ Connecting Lines
- **T** Transit Center

Map labels: NE 70TH ST, NE 69TH ST, NE 63RD ST, National Guard Training Institute, N PROSPECT AVE, NE Regional Health & Wellness Campus, NW 50TH ST, Remington Park, Red Rock, Science Museum OK & Zoo, NE 42ND ST, LINCOLN PARK GOLF COURSE, N LINCOLN BLVD, N KELLEY AVE, N PROSPECT AVE, Metro Tech Spring Lake Campus, NE 36TH ST, N BRYANT AVE, N WESTERN AVE, N ROBINSON AVE, NW 30TH ST, NE Academy Mid-High, MLK, NW 23RD ST, History Center, City-County Health Dept., NE 23RD ST, N LOTTIE AVE, Ralph Ellison Library, NW 16TH ST, NE 16TH ST, VA Medical Ctr., NW 13TH ST, NW 10TH ST, OU Medical Ctr. & Children's Hospital, McGuire Plaza, NE 10TH ST, Douglass MS-HS, NE 8TH ST, NE 4TH ST

ZIP Codes of Riders:

73106 (x11)   73111 (x6)   73114 (x2)

73102   73104   73105   73108   73110   73117   73119   73129   73135   73644

ROUTE 023

Route 023
- — Route 23
- ◯ Timepoint
- ▢ Connecting Lines
- **T** Transit Center
- **R** Reno Mini Hub
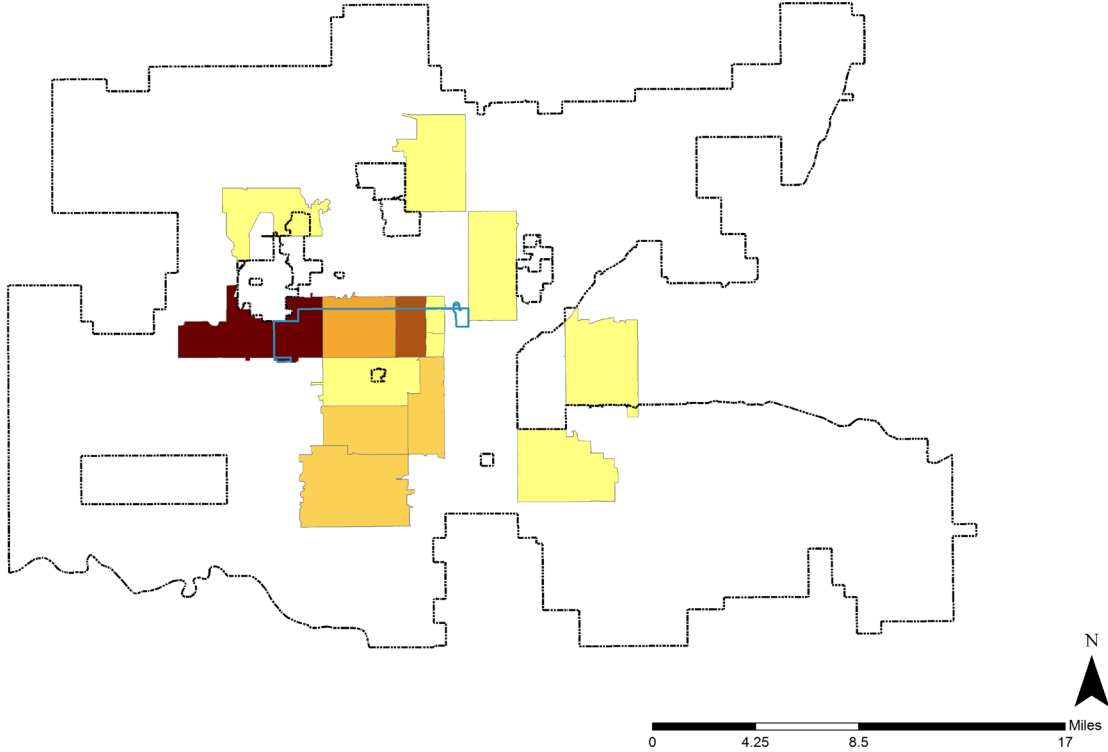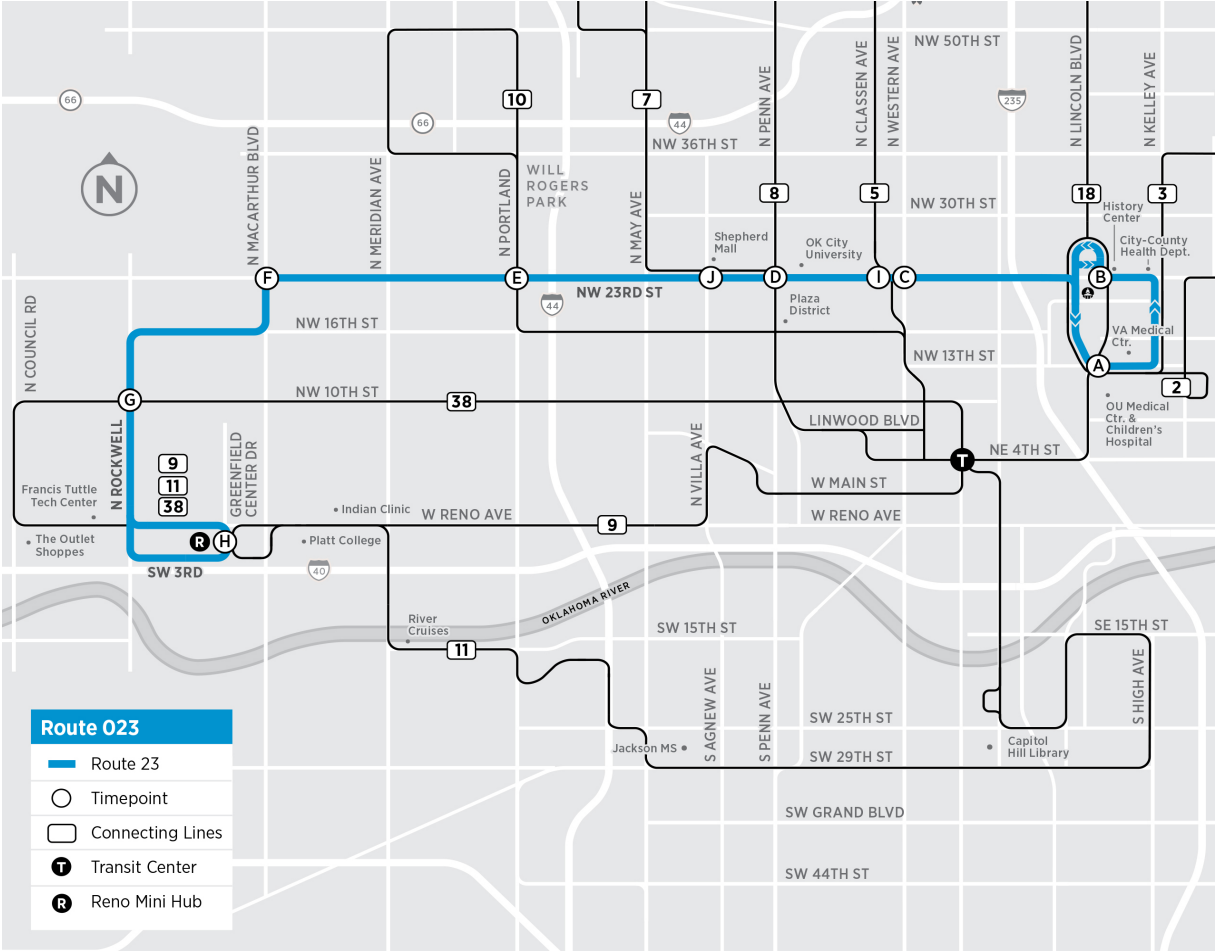
ZIP Codes of Riders:

73127 (x7)   73106 (x4)   73107 (x3)   73109 (x2)   73119 (x2)   73159 (x2)

73101   73102   73103   73108   73110   73111   73114   73132   73135

ROUTE 038

Route 038

- ▬ Route 38
- ○ Timepoint
- ▭ Connecting Lines
- **T** Transit Center
- **R** Reno Mini Hub
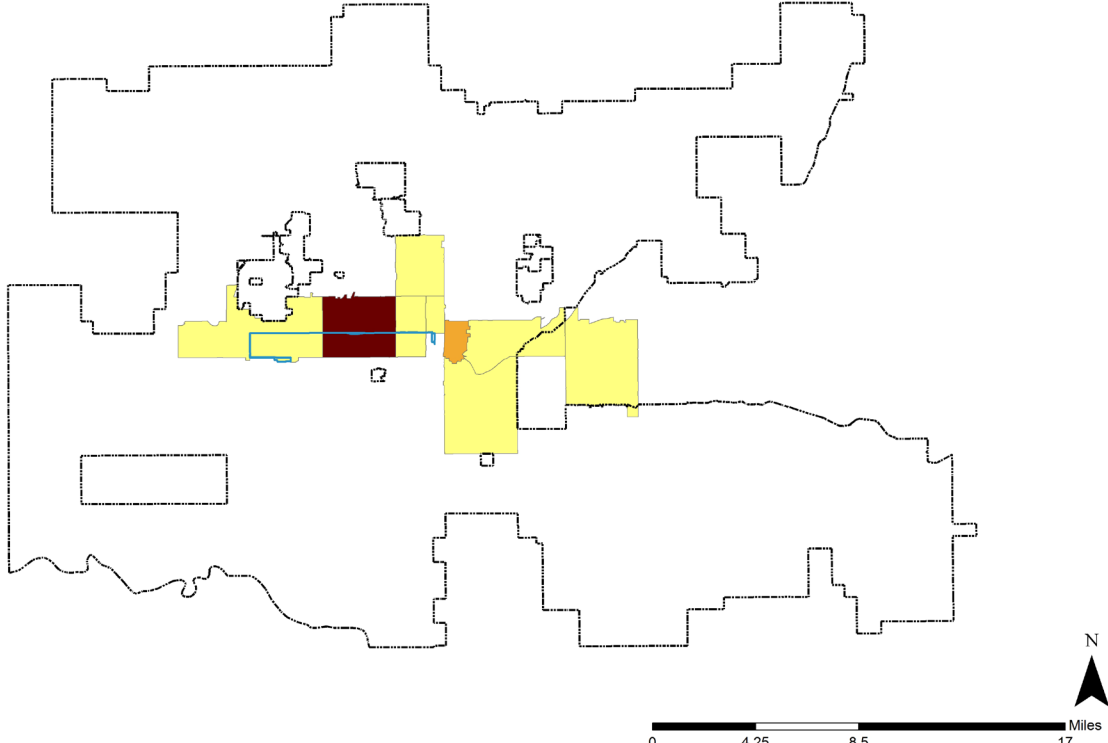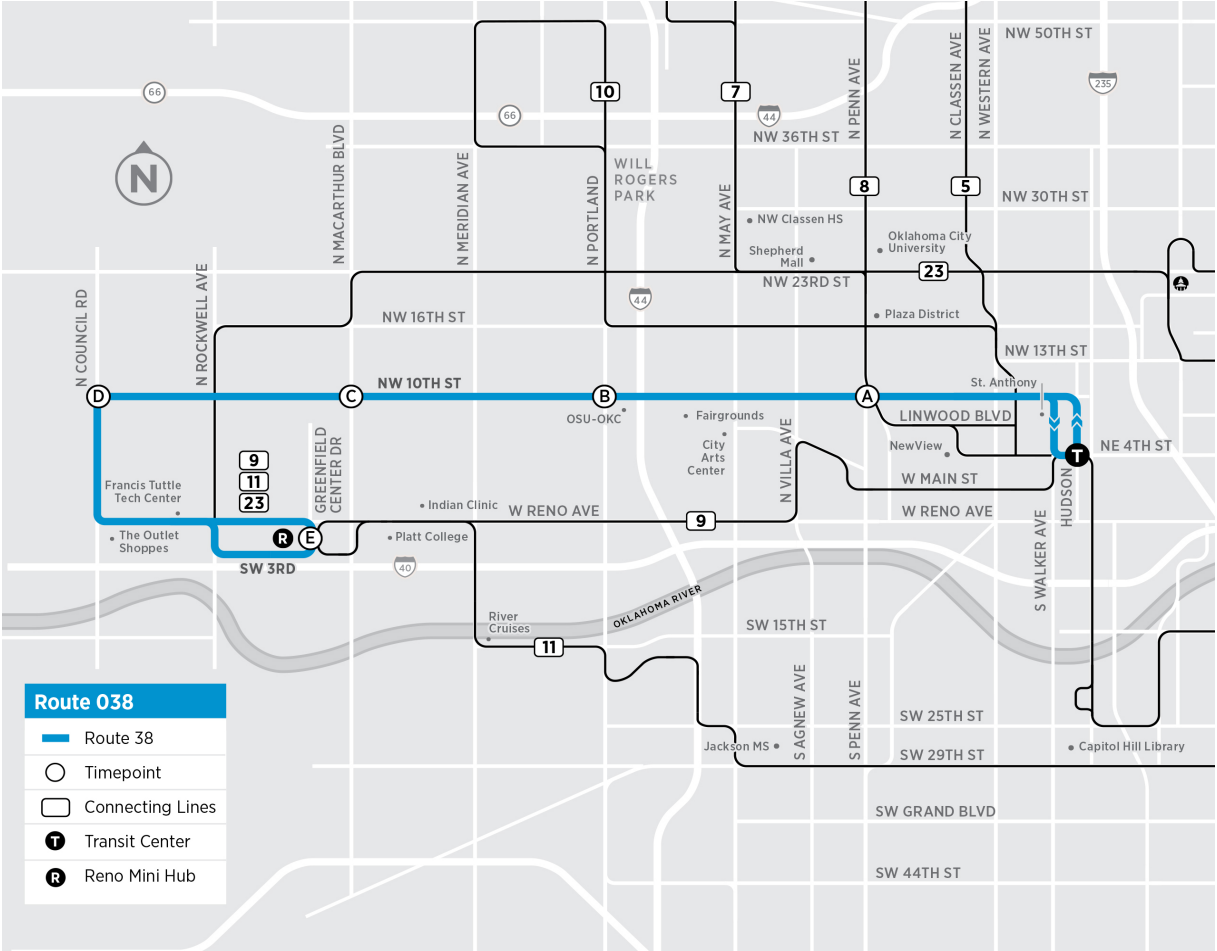
ZIP Codes of Riders:

73107 (x6)   73104 (x4)

73103   73106   73110   73117   73118   73127   73129

ROUTE 040

Route 040

- ▬▬ Route 40
- ○ Timepoint
- ▢ Connecting Lines
- Ⓣ Transit Center
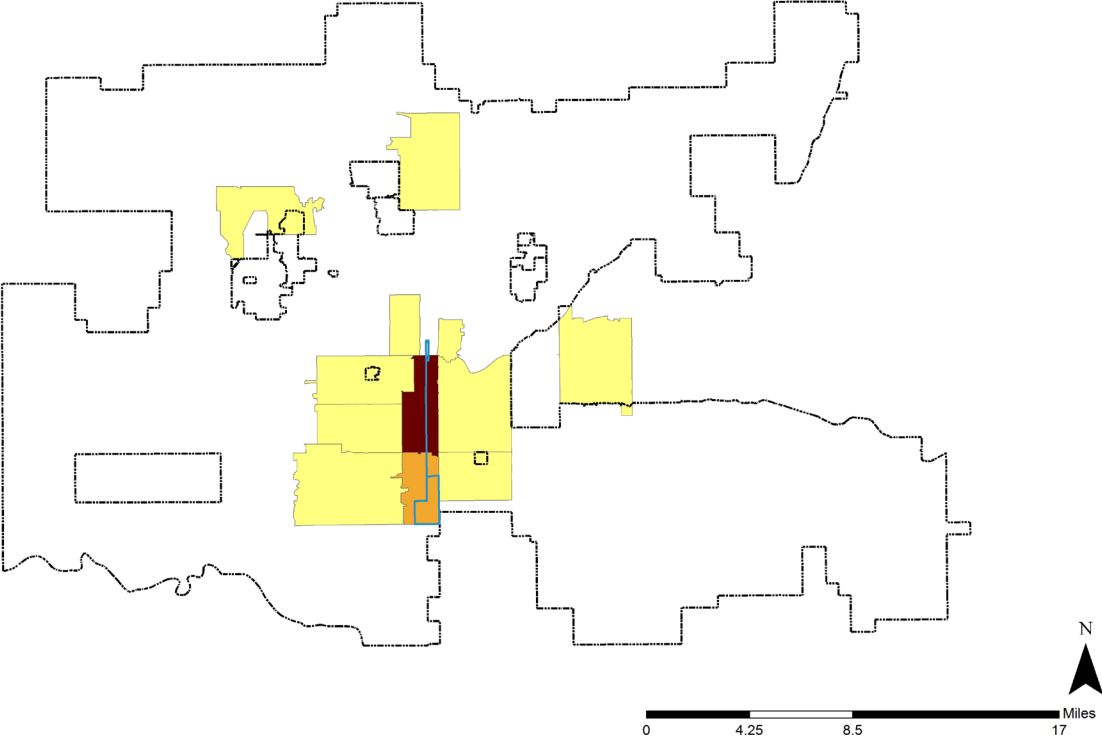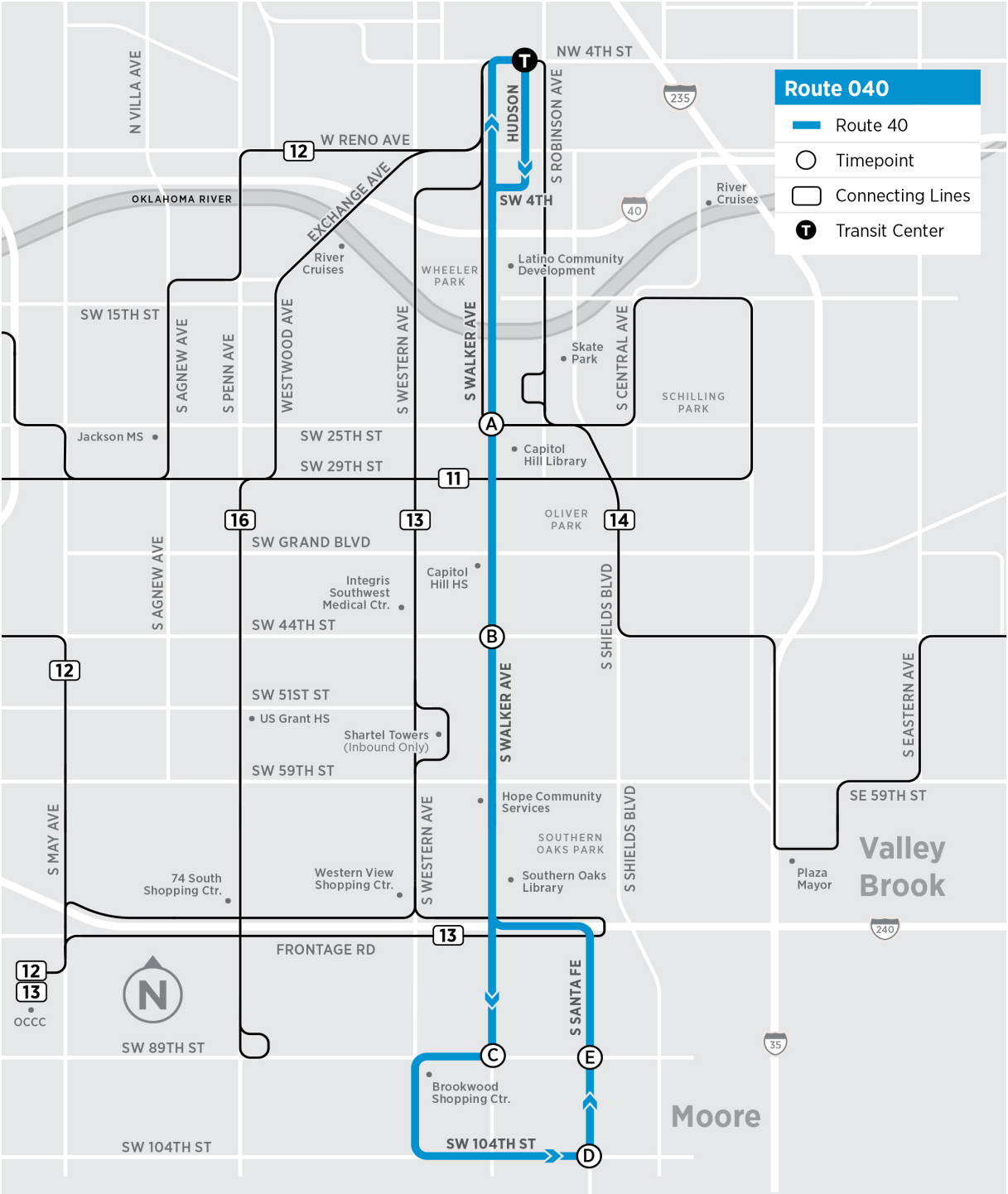
ZIP Codes of Riders:

73109 (x7)   73139 (x2)

73100   73104   73106   73108   73110   73114   73119   73129   73132
73149   73159

Survey Results

The following pages graphically represent the results of the survey questions by route number, as well as overall system-wide results. There also are comments that consider the implications of the results to attempt to provide context for each individual question. There are three sections of questions:

1. **Demographic Questions:**
   These questions are about the riders themselves, helping to create a profile of typical rider, with the intent of tailoring recommendations to meet specific needs.

2. **Satisfaction Questions:**
   These questions center on rider perception and feelings surrounding existing transit service, as well as their feelings regarding the transition from Metro Transit to Embark.

3. **Transit-Riding Habits Questions:**
   Questions in this category are focused on why and how riders use the bus system with regard to accessibility.

In addition to the graphic representation of the question results, for the satisfaction questions a weighted sum methodology was utilized to determine the relative satisfaction among demographic groups as well as individual transit routes. 42 different demographic groups in 9 different demographic categories were compared to determine any disparities among user groups. In some cases this demographic analysis revealed trends, but in other cases it became clear that there was little to no correlation between a certain demographic characteristic and a collective satisfaction opinion.
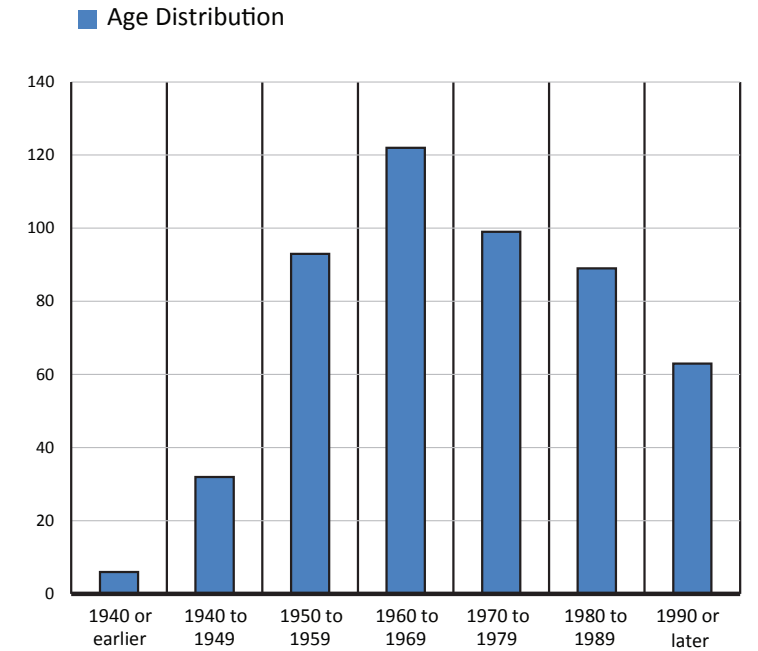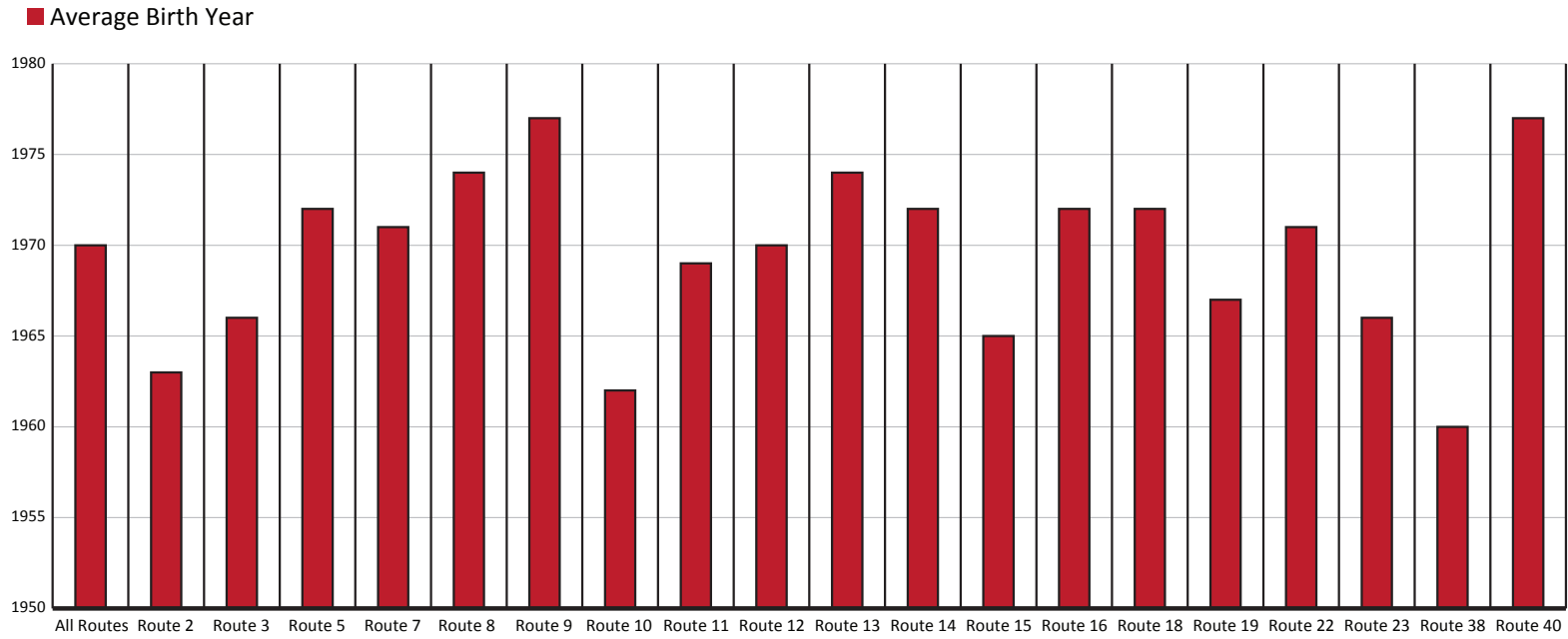
What year were you born?

RESULTS:

1%	1939 or earlier
6%	1940 to 1949
18%	1950 to 1959
24%	1960 to 1969
20%	1970 to 1979
18%	1980 to 1989
13%	1990 or later

IMPLICATIONS: The average age of all transit riders is 44 years old, born in 1970. The age range of the riders that were surveyed is from 1929 to 2000. People of all ages utilize the Embark transit system, and despite variation among the different routes, there is little evidence to support any correlation. Routes 9 and 40 had the youngest average population, while routes 2, 10, and 38 had the oldest.
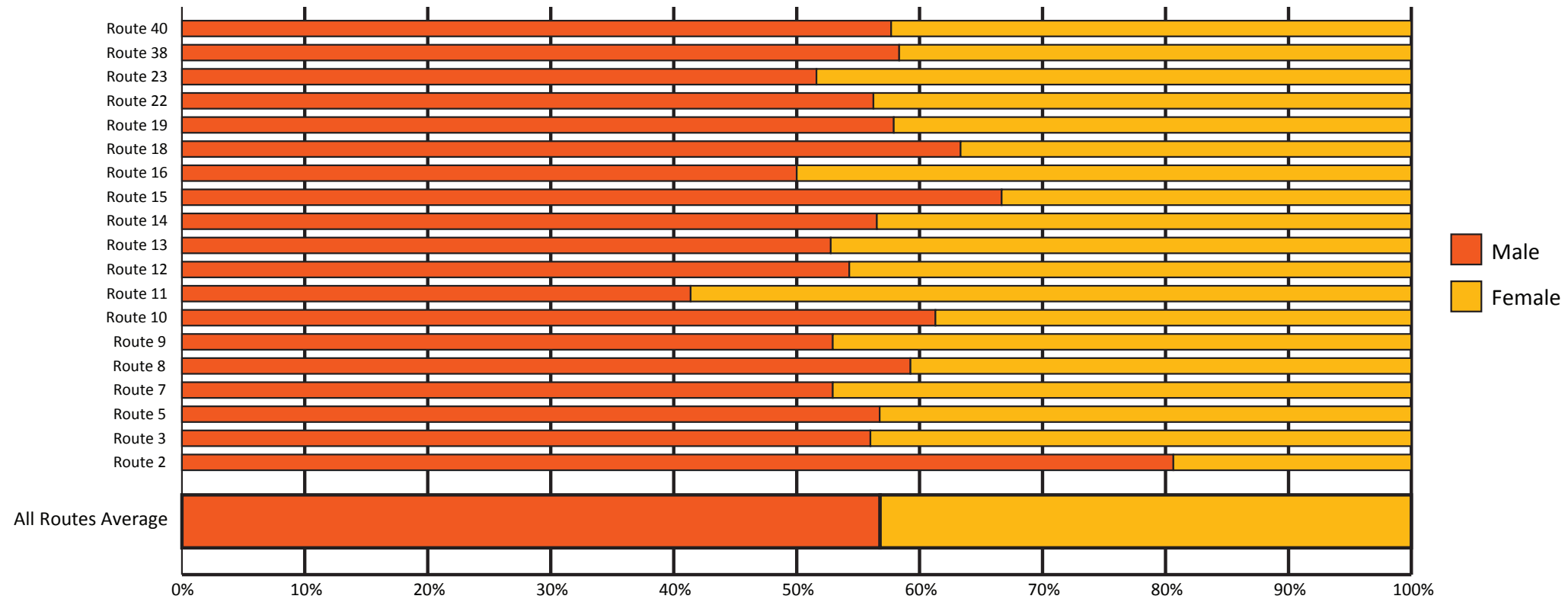
What is your gender?

RESULTS:

57% Male

43% Female

IMPLICATIONS: Of the survey takers, 57% were male, and all but two routes had a male majority. Route 2 in particular was very male dominated, with 8 in 10 riders surveyed being male. This could mean that women feel less comfortable riding the bus, whether alone or with a group. Additionally, there may have been a tendency for men to be more comfortable being approached to take a survey, as the surveyor is male. This potential bias should be considered for future surveying efforts.
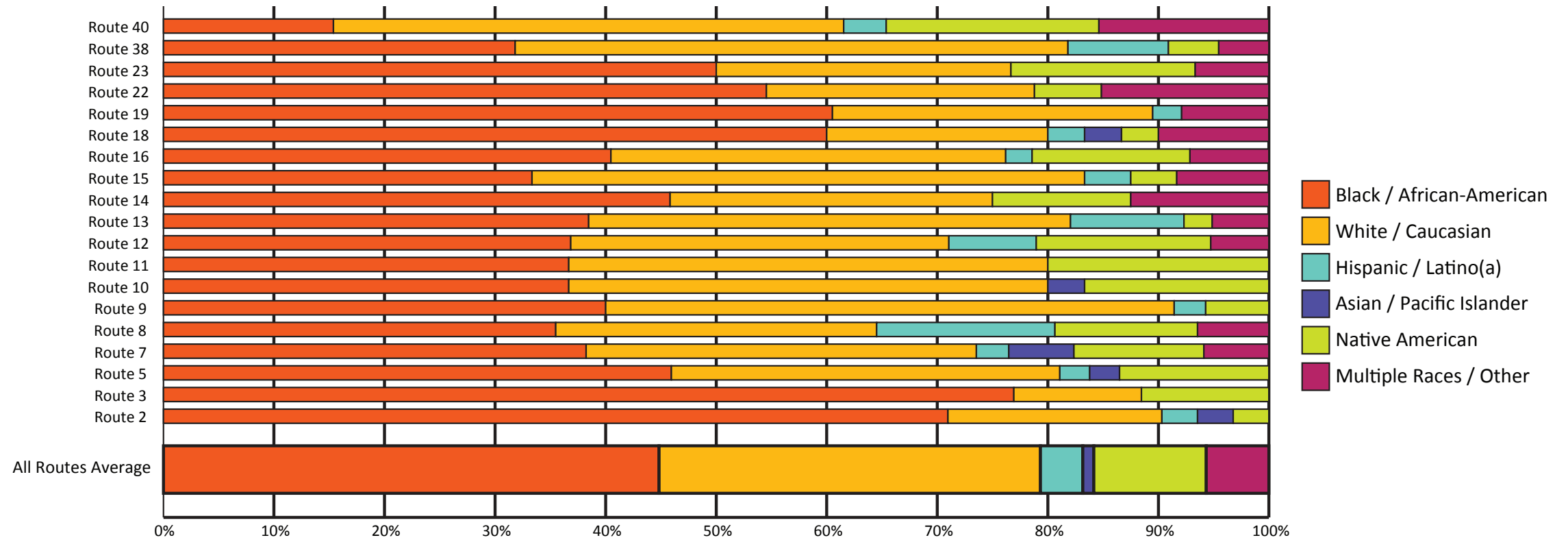
What is your race/ethnicity?

RESULTS:

45%	Black/African-American
34%	White/Caucasian
4%	Hispanic/Latino(a)
1%	Asian/Pacific Islander
10%	Native American
6%	Other

IMPLICATIONS: Nearly half of all surveyed riders were black or African-American. Black citizens make up only 10.8% of the total population of Oklahoma City, and they are disproportionately over-represented among bus riders. On the other hand, white citizens, who make up 65.7% of the total population, are under-represented among bus riders. Additionally, few Hispanic and Asian citizens make use of the bus system. White citizens are predominantly in the outskirts of the city, beyond the transit service area, while black citizens primarily live near the city core (planokc HIA, p. 181), with better access to public transportation.
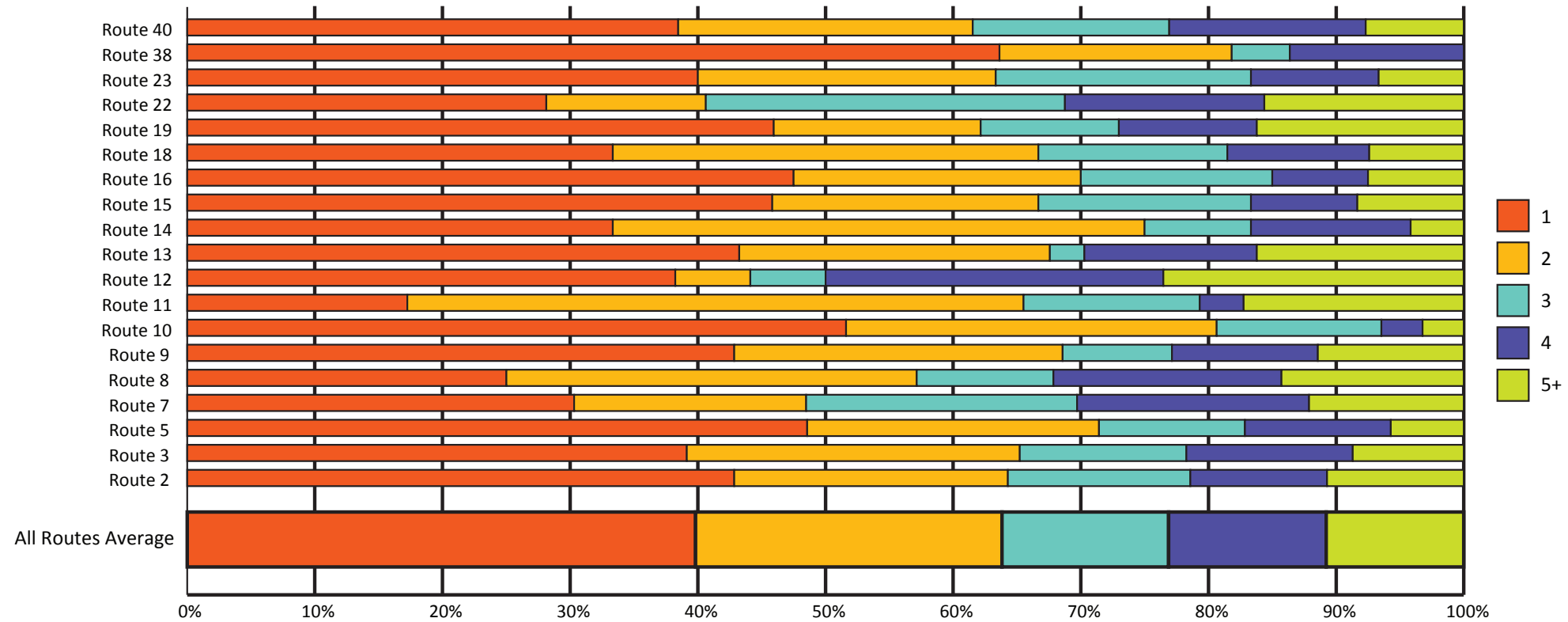
How many people are in your household?

RESULTS:

40%	One
24%	Two
13%	Three
12%	Four
11%	Five or More

IMPLICATIONS: The average household size for survey respondents was 2.3 people per household, which is lower than the Oklahoma City average of 2.5 people per household. Routes 38 and 10 had the lowest average household size, while routes 12 and 22 had the highest average household size. A policy that incentivizes families to take the bus could increase ridership and revenue.
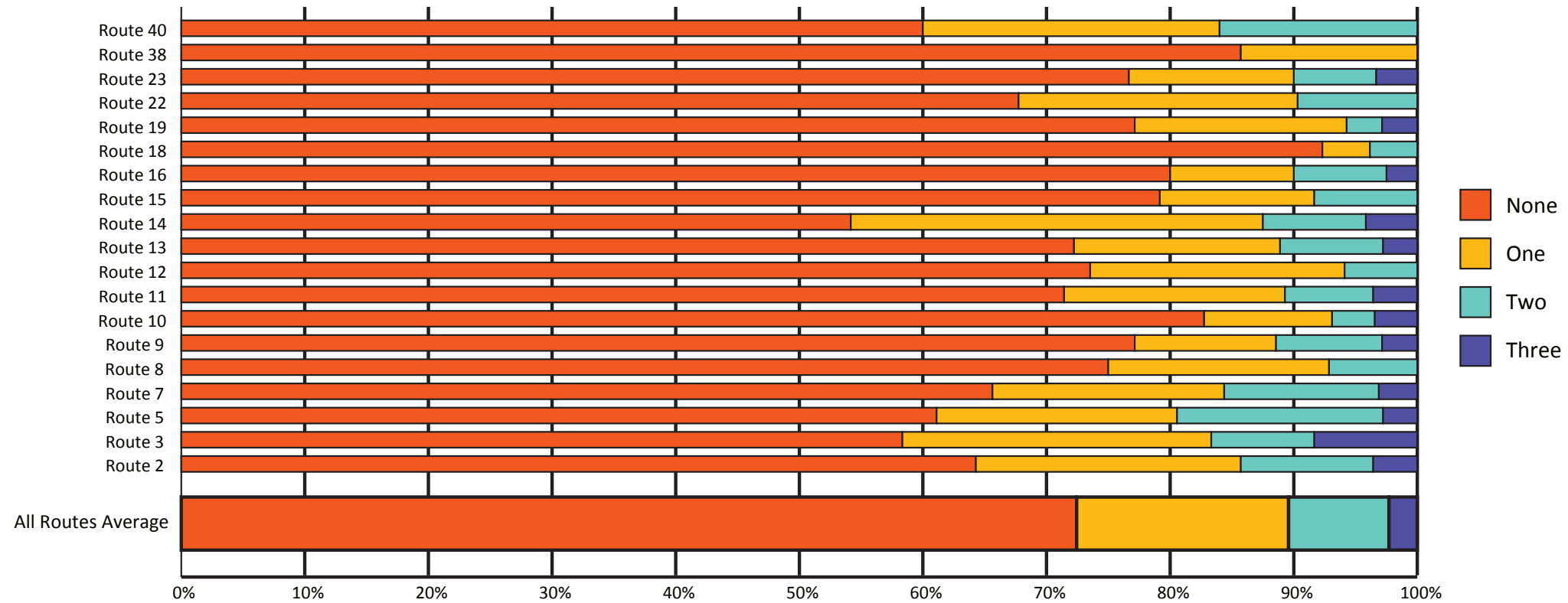
How many working vehicles are available to you?

RESULTS:

73%	None
17%	One
8%	Two
2%	Three or More

IMPLICATIONS: Nearly three quarters of transit riders surveyed do not have an automobile available to them, illustrating their dependence on public transit. No routes had less than 50% of surveyed riders without access to a vehicle; route 18 had greater than 90% without access. Only 1 in 10 riders had more than one car available in their household. This level of dependency requires that system changes be made with great care so as not to leave large numbers of riders without any feasible way to get around town.
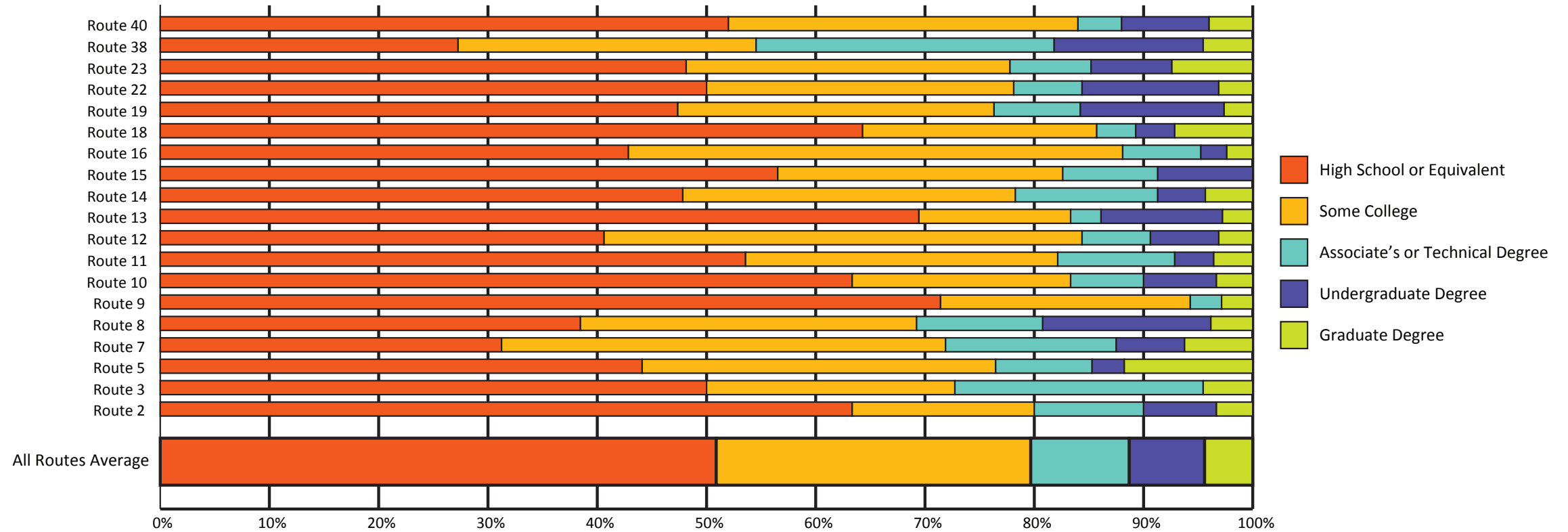
What is your highest attained education level?

RESULTS:

51%	High School or Equivalent
29%	Some College
9%	Associate or Technical Degree
7%	Undergraduate Degree
4%	Graduate Degree

IMPLICATIONS: More than half of the surveyed riders indicate that their highest level of educational attainment is at the high school level without attending any type of college. 20% of the respondents have a college degree at some level; route 38 has the highest percentage of riders with a degree, while route 9 had the lowest percentage. Route 13, which travels to and from OCCC has a predictably high level of responses for high school and some college.
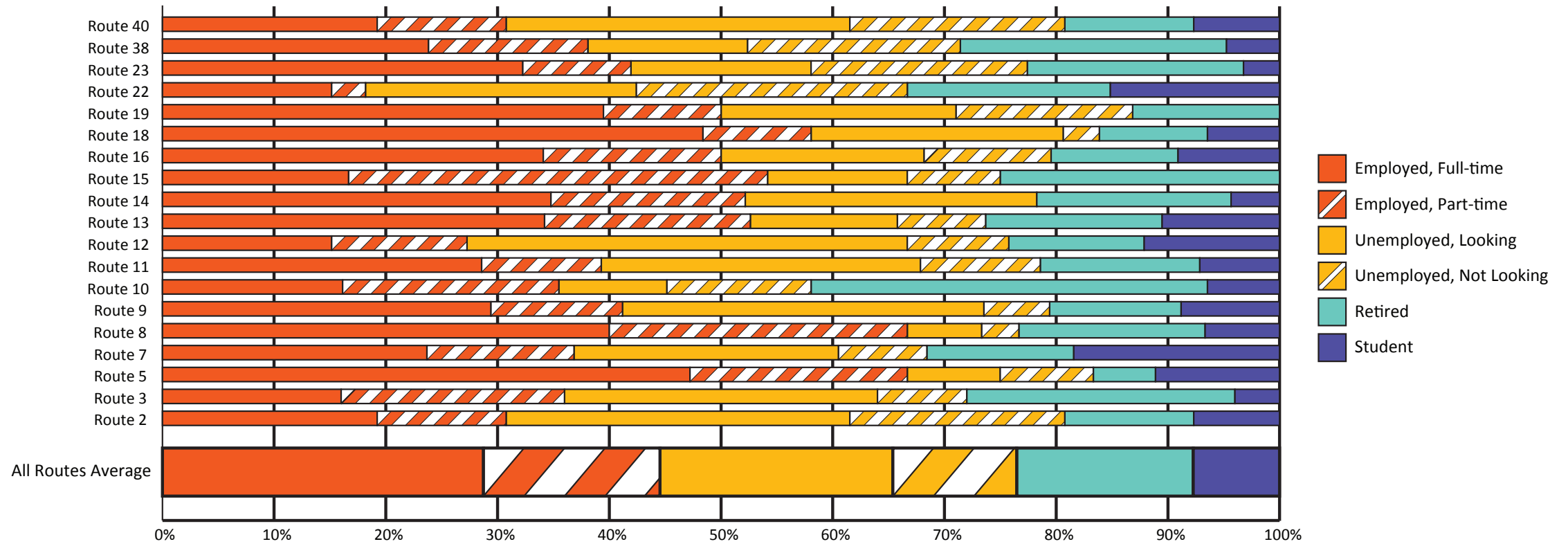
What is your employment status?

RESULTS:

29%	Employed, Full-time
16%	Employed, Part-time
21%	Unemployed, Looking
11%	Unemployed, Not Looking
16%	Retired
7%	Student

IMPLICATIONS: Less than 50% of surveyed bus riders are currently employed, many of who may be under-employed. The unemployment rate of bus riders is a staggering 32%, which is seven times greater than the unemployment rate for Oklahoma City. Students and retired citizens make up nearly 1/4 of riders. Of the 32% that are unemployed, 21% say that they are actively looking for work; and, with the high percentage of riders who do not have access to an automobile, the bus system represents their best chance at finding work. Consideration of transit access to employment centers around the city are essential.
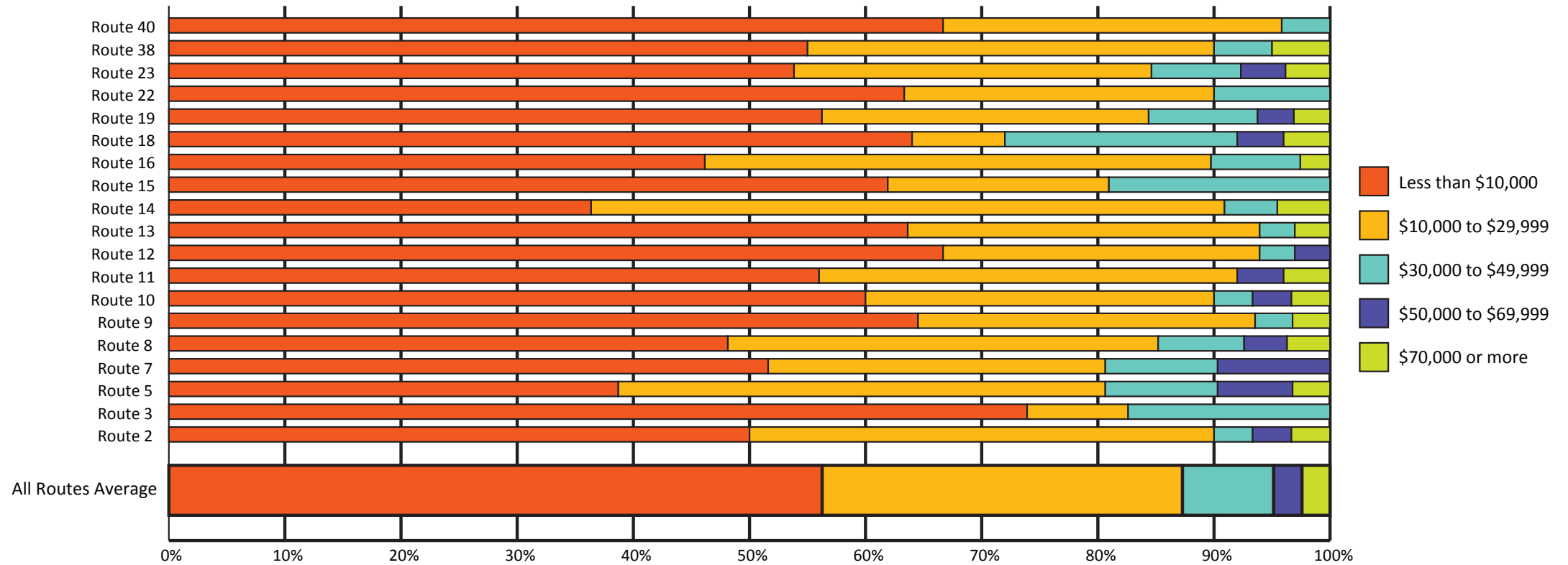
What is your household income?

RESULTS:

56%	Less than $10,000
31%	$10,000 to $29,999
8%	$30,000 to $49,999
2%	$50,000 to $69,999
3%	$70,000 or more

IMPLICATIONS: The vast majority of riders are below the median income for Oklahoma City ($45,474). More than half of the riders surveyed identify with earning less than $10,000 per year, which is below the national poverty level of $11,670 for a single-person household. This percentage is influenced by the number of retired individuals, the unemployed, and part-time workers.

Service Satisfaction by Route and Demographics

In order to understand riders' satisfaction with Embark transit services, several questions were asked regarding the experience of using the upgraded transit service. Surveyed riders rated these questions on a scale of "Strongly Agree" to "Strongly Disagree". In order to fully understand the opinion of a survey group, a weighted average response score was generated based on the point structure below:

Strongly Agree	=	2 points
Agree	=	1 point
No Opinion	=	0 points
Disagree	=	-1 point
Strongly Disagree	=	-2 points

This relative comparison among routes and demographic groups allows for a clearer picture of which routes are performing better or worse, and which demographic groups feel more or less satisfied. If 100 people answered the survey question, 20 people for each of the 5 answer choices, the weighted sum would be 0.00. At the end of this section the weighted averages are compared to one another in a series of tables.

Route 8
Weighted Average Score: 0.786

EXAMPLE:

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
2	1	0	-1	-2

All Demographics
Weighted Average Score: 1.156

Route	Weighted Average
Route 40	0.808
Route 38	0.857
Route 23	0.759
Route 22	0.545
Route 19	0.541
Route 18	0.231
Route 16	0.595
Route 15	0.083
Route 14	0.375
Route 13	0.632
Route 12	0.676
Route 11	0.750
Route 10	0.633
Route 9	0.257
Route 8	0.103
Route 7	0.576
Route 5	0.361
Route 3	0.455
Route 2	0.586
All Routes Average	0.520

Legend:
- Much Better than Before
- A Little Better than Before
- The Same as Before
- A Little Worse than Before
- Much Worse than Before
- No Opinion/Not Applicable

What is your impression of the route changes?

RESULTS:

%	Response
25%	Much Better than Before
27%	A Little Better than Before
16%	The Same as Before
13%	A Little Worse than Before
7%	Much Worse than Before
12%	No Opinion/Not Applicable

IMPLICATIONS: A majority of bus riders feel that the new routes are an improvement from the former routes, though 20% feel it is worse than before. Nearly 30% either feel the routes are the same quality as before or had no feelings in particular about the question. Routes 8 and 15 had a significantly less positive opinion of the route changes, which may illustrate a need to rethink further the path of those routes.

What is your impression of the route changes?					
	Count	Better %	No Opinion %	Worse %	Weighted Avg.
	599	*52*	*28*	*20*	*0.520*
Gender					
Male	320	52	29	19	0.516
Female	248	54	27	19	0.540
Age					
24 or younger	62	39	40	21	0.290
25-34	84	49	32	19	0.464
35-44	98	47	34	19	0.367
45-54	119	57	25	18	0.639
55-64	91	56	22	22	0.505
65 or older	35	54	17	29	0.457
Race					
African-American	256	54	23	23	0.496
Caucasian	198	59	28	13	0.702
Hispanic	23	43	35	22	0.304
Native American	56	46	30	24	0.411
Other	38	29	45	26	0.079
Education					
High School	282	52	28	20	0.535
Some College	159	54	26	20	0.509
Associate or Tech Degree	47	47	32	21	0.404
Undergraduate Degree	39	56	28	16	0.667
Graduate Degree	23	44	26	30	0.174
Income					
Less than $10,000	292	55	26	19	0.534
$10,000 to $29,999	164	50	27	23	0.433
$30,000 to $49,999	41	63	27	10	0.756
$50,000 or More	24	50	29	21	0.417
Employment					
Yes, Full-Time	165	52	33	15	0.533
Yes, Part-Time	85	52	23	25	0.400
No, Looking	120	48	25	27	0.358
No, Not Looking	62	56	31	13	0.742
Retired	90	62	20	18	0.733
Student	39	46	36	18	0.462
Household Size					
1	222	52	24	24	0.473
2	133	57	26	17	0.602
3	73	49	38	12	0.507
4	69	52	32	16	0.594
5+	60	47	30	23	0.383
Vehicle Access					
0	400	52	27	21	0.505
1	94	57	29	14	0.617
2+	56	45	36	20	0.357
Ride Frequency					
5+ Times per Week	287	49	27	24	0.415
3 or 4 Times per Week	133	58	23	19	0.586
1 or 2 Times per Week	86	59	32	9	0.698
1 or 2 Times per Month	34	53	29	18	0.647
Less than Once per Month	19	42	53	5	0.632
First Time	10	20	70	10	0.200

DESCRIPTION:

The overall impression of the route changes associated with the Embark transition is positive, with roughly half of all respondents either stating that the changes make the system better or much better. Some demographic groups are more satisfied with the changes than others, however.

Gender: Women are more satisfied with the changes than men, though not significantly.

Age: Younger riders are less satisfied with the new routes, while middle-aged riders are the most satisfied.

Race: Races other than African-American, Caucasian, Hispanic, and Native American were the least satisfied demographic as all, with a weighted average of 0.079 on a scale of -2 to +2. Caucasians are the most satisfied race with the recent changes.

Education: There is a decreasing satisfaction trend with greater education, excluding those riders with Undergraduate degrees, whom are more satisfied than most demographic groups.

Income: There is little correlation with income and new route satisfaction.

Employment: Those who do not work (retired, or unemployed, not looking) are far more satisfied with the new routes than those who work full time, part time, as a student, or looking for a job while unemployed.

Household Size: There is little correlation with household size and new route satisfaction.

Vehicle Access: Households with 2 or more vehicles are much less satisfied with the route changes than those with 1 or less.

Ride Frequency: First-time riders and riders that use the bus system less than one time per month unsurprisingly lacked an opinion of the recent changes. Those who ride the bus most frequently had a less positive impression of the route changes than those who ride less frequently.

WEIGHTED AVERAGE:

Route	Weighted Average
Route 40	1.346
Route 38	1.364
Route 23	1.133
Route 22	1.344
Route 19	0.923
Route 18	1.036
Route 16	0.930
Route 15	1.000
Route 14	1.083
Route 13	1.289
Route 12	1.206
Route 11	1.143
Route 10	1.034
Route 9	0.971
Route 8	1.000
Route 7	1.152
Route 5	0.686
Route 3	1.080
Route 2	0.839
All Routes Average	1.072

Legend:
- Strongly Agree
- Agree
- No Opinion
- Disagree
- Strongly Disagree

The bus takes me where I need to go...

RESULTS:

38%	Strongly Agree
45%	Agree
7%	No Opinion
8%	Disagree
2%	Strongly Agree

IMPLICATIONS: While people who ride the bus do so because it provides access to the places they need or want to go, often, transit doesn't provide sufficient access. In Oklahoma City, however, 83% of riders are satisfied with the bus service with regard to accessing places that are important to them. Just 1 out of 10 riders on average are unsatisfied, though routes 2 and 19 are closer to 1 out of 5 riders.

Buses Take Me Where I Want To Go					
	Count	Agree %	No Opinion %	Disagree %	Weighted Avg.
	599	*83*	*7*	*10*	*1.072*
Gender					
Male	324	81	8	11	1.022
Female	264	86	4	10	1.155
Age					
24 or younger	63	84	10	6	1.127
25-34	87	85	6	9	1.138
35-44	98	82	6	12	1.010
45-54	120	86	5	9	1.117
55-64	89	79	6	15	0.921
65 or older	36	83	9	8	1.111
Race					
African-American	261	80	7	13	1.057
Caucasian	198	85	5	10	1.045
Hispanic	23	83	13	4	1.261
Native American	57	88	8	4	1.175
Other	39	85	7	8	1.128
Education					
High School	285	85	8	7	1.196
Some College	158	82	3	15	0.943
Associate or Tech Degree	50	70	16	14	0.820
Undergraduate Degree	39	79	6	15	1.000
Graduate Degree	24	83	0	17	0.958
Income					
Less than $10,000	298	86	6	8	1.208
$10,000 to $29,999	163	79	8	13	0.951
$30,000 to $49,999	38	87	5	8	1.026
$50,000 or More	25	68	8	24	0.560
Employment					
Yes, Full-Time	166	81	8	11	0.994
Yes, Part-Time	87	85	6	9	1.172
No, Looking	121	83	6	11	1.116
No, Not Looking	65	83	9	8	1.169
Retired	89	87	3	10	1.146
Student	41	76	9	15	0.829
Household Size					
1	225	82	6	12	1.036
2	134	83	7	10	1.090
3	73	79	9	12	1.014
4	69	87	9	4	1.232
5+	61	85	2	13	1.131
Vehicle Access					
0	405	85	6	9	1.121
1	94	80	10	10	1.117
2+	57	75	9	16	0.825
Ride Frequency					
5+ Times per Week	290	82	5	13	1.028
3 or 4 Times per Week	134	82	12	6	1.015
1 or 2 Times per Week	88	82	10	8	1.125
1 or 2 Times per Month	35	91	9	0	1.343
Less than Once per Month	19	74	26	0	1.158
First Time	11	91	9	0	1.455

DESCRIPTION:

With regard to the bus taking riders where they want to go, the overall opinion is positive with a total weighted average of 1.072, greater than the threshold for "Agree", meaning the average rider agrees that they are able to get where they want to go.

Gender: Women are 13% more satisfied with route destinations than men.

Age: There is little correlation with the age of riders and destination satisfaction.

Race: Hispanics are substantially more satisfied than the other races with regard to destinations available on bus routes.

Education: Riders whose highest educational attainment is High School are significantly more satisfied with destinations along bus routes than those with higher levels of attainment.

Income: Those with the lowest levels of income are significantly more satisfied with where the bus takes them than those with higher levels of income. Riders with a household income greater than $50,000 were much less satisfied than the other income brackets.

Employment: Riders that are employed full-time or are students are less satisfied than part-time employees, the unemployed and retired riders.

Household Size: There is little correlation with household size and destination satisfaction.

Vehicle Access: Households with 2 or more vehicles are much less satisfied with the route changes than those with 1 or less.

Ride Frequency: Those who ride the bus most frequently, 3 or more times per week, are the least satisfied with the bus route destinations.

Route	Weighted Average
Route 40	1.042
Route 38	0.550
Route 23	0.935
Route 22	**1.097**
Route 19	0.564
Route 18	0.552
Route 16	0.732
Route 15	0.792
Route 14	0.583
Route 13	0.947
Route 12	0.563
Route 11	0.429
Route 10	0.821
Route 9	0.629
Route 8	0.500
Route 7	**0.344**
Route 5	0.353
Route 3	0.652
Route 2	0.833
All Routes Average	0.680

Legend:
- Strongly Agree
- Agree
- No Opinion
- Disagree
- Strongly Disagree
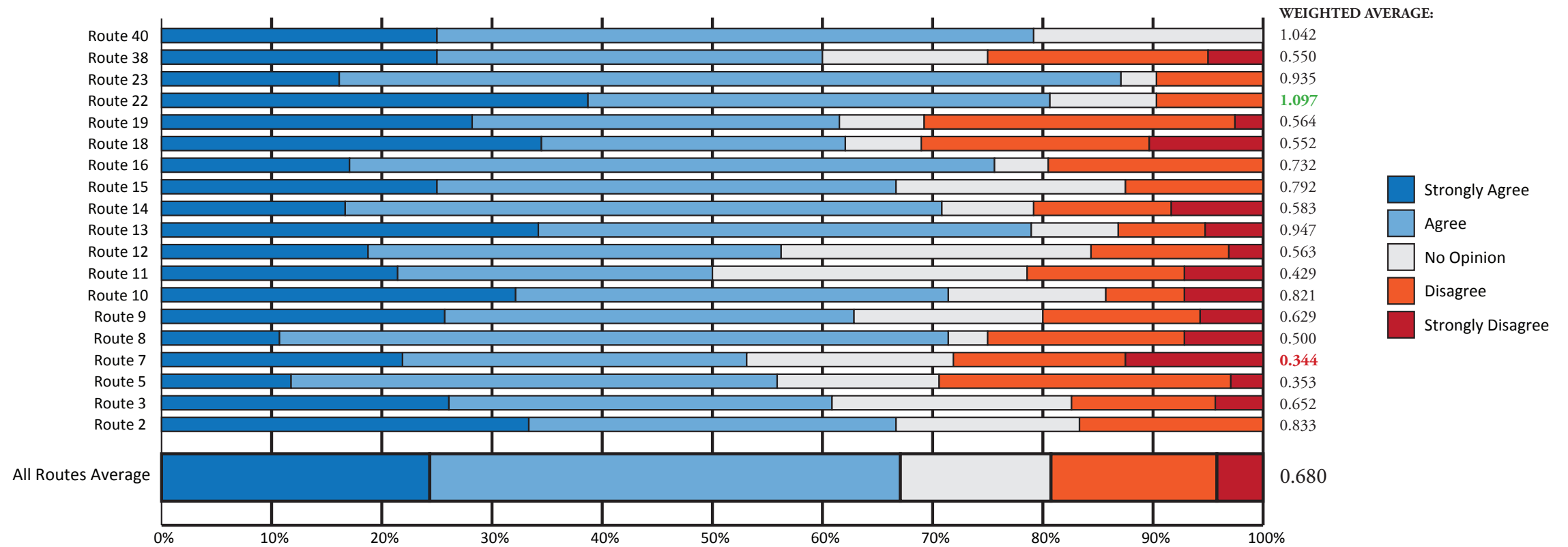
Buses are on time...

RESULTS:

24%	Strongly Agree
43%	Agree
14%	No Opinion
15%	Disagree
4%	Strongly Agree

IMPLICATIONS: Two thirds of bus riders agree that the buses are typically on time; 1 out 5 riders, however, disagree. Routes 5, 7, 18, and 19 had the highest level of disagreement at around 30% of riders surveyed. This perceived delay could be based upon traffic on these routes, the amount of riders using cash (slowing down the pick-up process), or individual drivers who are not performing effectively.

Buses Are On Time				
	Count	Agree %	No Opinion %	Disagree %	Weighted Avg.
	599	*67*	*14*	*19*	*0.680*
Gender					
Male	318	66	13	21	0.651
Female	245	68	15	17	0.727
Age					
24 or younger	62	54	23	23	0.468
25-34	89	65	14	21	0.551
35-44	97	64	16	20	0.670
45-54	118	72	9	19	0.712
55-64	83	73	11	16	0.771
65 or older	35	74	9	17	0.943
Race					
African-American	256	64	16	20	0.676
Caucasian	194	71	11	18	0.711
Hispanic	21	86	9	5	1.048
Native American	55	56	20	24	0.509
Other	40	68	7	25	0.550
Education					
High School	279	67	14	19	0.728
Some College	154	63	15	22	0.539
Associate or Tech Degree	50	64	18	18	0.620
Undergraduate Degree	37	81	5	14	0.892
Graduate Degree	24	75	0	25	0.625
Income					
Less than $10,000	289	68	15	17	0.747
$10,000 to $29,999	160	64	13	23	0.556
$30,000 to $49,999	41	63	12	23	0.463
$50,000 or More	25	84	0	16	0.920
Employment					
Yes, Full-Time	164	65	12	23	0.579
Yes, Part-Time	87	70	9	21	0.701
No, Looking	119	64	18	18	0.639
No, Not Looking	61	70	15	15	0.885
Retired	86	77	9	14	0.919
Student	41	52	24	24	0.390
Household Size					
1	218	71	12	17	0.757
2	135	64	12	24	0.578
3	71	72	7	21	0.690
4	67	66	16	18	0.672
5+	61	62	17	21	0.607
Vehicle Access					
0	397	66	13	21	0.625
1	94	69	16	15	0.777
2+	56	75	9	16	0.893
Ride Frequency					
5+ Times per Week	283	65	12	23	0.594
3 or 4 Times per Week	134	66	14	20	0.604
1 or 2 Times per Week	83	70	14	16	0.771
1 or 2 Times per Month	35	71	23	6	1.086
Less than Once per Month	19	68	11	21	0.842
First Time	11	82	18	0	1.364

DESCRIPTION:

Timeliness is always one of, if not *the,* most important measures of transit success. Therefore, satisfaction levels related to timeliness can be a key indicator related to overall happiness of riders with the transit system. The weighted average on this question scored lower than for questions related to safety, cleanliness, and driver helpfulness.

Gender: Women are more satisfied with the timeliness of the bus system than men.

Age: As the age of riders increases they become more satisfied with the timeliness of the transit system. This could mean that the routes that young people are on have more trouble with timeliness, or that young people have a lower tolerance for being late for one reason or another.

Race: Hispanic riders are significantly more satisfied with the timeliness of the bus system than other racial and ethnic groups.

Education: There is little correlation with education levels and satisfaction with timeliness.

Income: The highest-income riders and lowest-income riders are substantially more satisfied with system timeliness than those riders in the middle income brackets.

Employment: Full-time employees and students are noticeably dissatisfied with the timeliness of the bus system, while riders that are retired or not looking for work have some of the highest levels of satisfaction of any demographic groups.

Household Size: There is little correlation with household size and bus timeliness.

Vehicle Access: Rider households with 0 vehicles available to them are noticeably less satisfied with bus timeliness than households with one or more.

Ride Frequency: Those riders who ride the bus the most are the least satisfied with system timeliness.

Route	Weighted Average
Route 40	1.000
Route 38	1.048
Route 23	**1.194**
Route 22	1.161
Route 19	0.865
Route 18	0.821
Route 16	1.098
Route 15	0.957
Route 14	0.875
Route 13	**0.703**
Route 12	0.758
Route 11	1.107
Route 10	1.036
Route 9	0.914
Route 8	0.889
Route 7	0.939
Route 5	0.914
Route 3	1.000
Route 2	1.167
All Routes Average	0.967

Legend:
- Strongly Agree
- Agree
- No Opinion
- Disagree
- Strongly Disagree
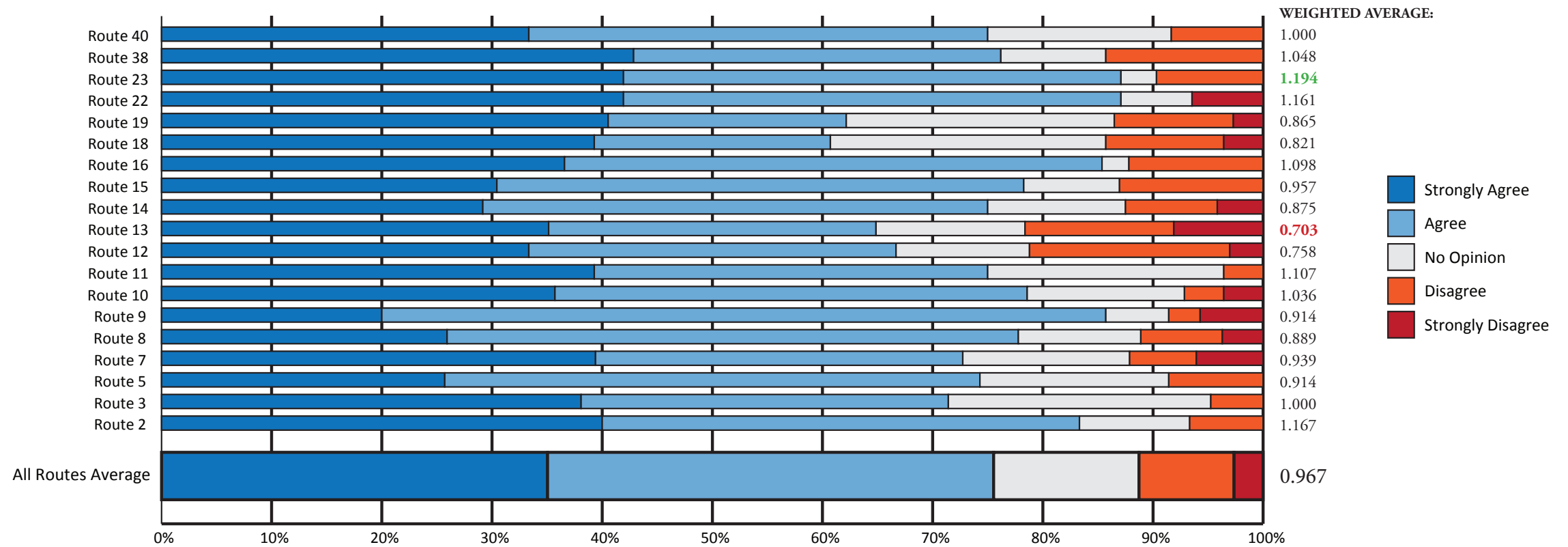
Drivers are courteous and helpful...

RESULTS:

35%	Strongly Agree
40%	Agree
13%	No Opinion
9%	Disagree
3%	Strongly Agree

IMPLICATIONS: 3/4 of riders surveyed agreed that bus drivers were helpful and courteous. On average, only 1 in 10 riders disagrees, but routes 12 and 13 have greater than 2 out of 10 riders who disagree. It is possible that the riders surveyed on these routes are all referring to specific drivers, isolating their dissatisfaction. Embark could investigate these discrepancies and/or offer further customer relations training.

Drivers Are Helpful And Courteous				
	Count	Agree %	No Opinion %	Disagree %	Weighted Avg.
	599	*75*	*13*	*12*	*0.967*
Gender					
Male	319	78	13	9	0.994
Female	241	73	14	13	0.934
Age					
24 or younger	63	71	19	10	1.000
25-34	88	73	17	10	0.864
35-44	96	69	13	18	0.792
45-54	116	79	12	9	1.052
55-64	86	77	14	9	0.965
65 or older	35	91	3	6	1.200
Race					
African-American	253	74	16	10	0.957
Caucasian	196	78	10	12	0.990
Hispanic	22	77	5	18	0.955
Native American	53	78	11	11	1.019
Other	39	64	23	13	0.795
Education					
High School	278	78	12	10	1.036
Some College	156	72	15	13	0.872
Associate or Tech Degree	49	63	25	12	0.816
Undergraduate Degree	35	80	11	9	1.143
Graduate Degree	23	74	4	22	0.652
Income					
Less than $10,000	287	75	12	13	0.979
$10,000 to $29,999	162	76	14	10	0.914
$30,000 to $49,999	41	76	12	12	0.976
$50,000 or More	23	87	0	13	1.043
Employment					
Yes, Full-Time	160	76	15	9	0.988
Yes, Part-Time	84	81	6	13	1.012
No, Looking	118	69	16	15	0.788
No, Not Looking	61	77	13	10	1.131
Retired	88	84	10	6	1.182
Student	42	60	26	14	0.643
Household Size					
1	217	76	12	12	0.922
2	134	75	17	8	1.030
3	73	81	7	12	0.986
4	65	71	14	15	0.908
5+	60	73	17	10	0.983
Vehicle Access					
0	395	74	14	12	0.919
1	95	77	14	9	1.011
2+	54	85	9	6	1.259
Ride Frequency					
5+ Times per Week	284	74	11	15	0.866
3 or 4 Times per Week	128	74	17	9	0.969
1 or 2 Times per Week	84	80	13	7	1.095
1 or 2 Times per Month	35	69	26	6	1.086
Less than Once per Month	19	90	5	5	1.368
First Time	11	82	18	0	1.364

DESCRIPTION:

The weighted average for this question indicates that most riders agree that drivers are helpful and courteous. Individual groups who score lowly on this question could be referenced in driver training as a group that may need special attention.

Gender: Men are more satisfied with driver helpfulness than women.

Age: There is little correlation with age and satisfaction with driver behavior.

Race: Races other than African-American, Caucasian, Hispanic, and Native American were the least satisfied group, substantially lower than the other races/ethnicities.

Education: There is a decreasing satisfaction trend with greater education, excluding those riders with Undergraduate degrees, whom are more satisfied than most demographic groups.

Income: There is little correlation with income and satisfaction with driver behavior.

Employment: Students and the unemployed but looking riders were substantially less satisfied with driver interactions than the other groups.

Household Size: There is little correlation with household size and satisfaction with driver behavior.

Vehicle Access: Riders with access to motor vehicles were more satisfied with driver interactions than those riders with no access to a motor vehicle.

Ride Frequency: The greater the frequency of transit ridership, the lower the satisfaction level with driver interactions. This could indicate that though negative interactions are not commonplace, when they do occur they leave an impact on the riders who are present and/or affected.

Route	Weighted Average
Route 40	1.080
Route 38	1.300
Route 23	0.871
Route 22	1.300
Route 19	1.000
Route 18	0.724
Route 16	0.561
Route 15	0.833
Route 14	0.625
Route 13	0.895
Route 12	0.636
Route 11	1.071
Route 10	1.036
Route 9	1.000
Route 8	0.786
Route 7	0.939
Route 5	0.657
Route 3	0.955
Route 2	1.207
All Routes Average	0.906

Legend:
- Strongly Agree
- Agree
- No Opinion
- Disagree
- Strongly Disagree

The buses are clean...

RESULTS:

31%	Strongly Agree
44%	Agree
13%	No Opinion
9%	Disagree
3%	Strongly Agree

IMPLICATIONS: 3/4 of riders surveyed agreed that the buses are clean. On average just 1 in 10 riders disagreed; however, on routes 12 and 23, 1 in 4 riders disagreed that the buses are clean. Special attention could be given to the routes that had greater than 20% of respondents disagree with the statement that the buses are clean.

Buses Are Clean					
	Count	Agree %	No Opinion %	Disagree %	Weighted Avg.
	599	*75*	*13*	*12*	*0.906*
Gender					
Male	319	76	13	11	0.931
Female	245	73	14	13	0.869
Age					
24 or younger	63	70	16	14	0.825
25-34	88	67	20	13	0.750
35-44	97	72	11	17	0.835
45-54	119	77	10	13	0.916
55-64	85	84	9	7	1.012
65 or older	35	91	0	9	1.286
Race					
African-American	255	70	15	15	0.847
Caucasian	196	83	10	7	1.020
Hispanic	21	67	19	14	0.952
Native American	55	75	16	9	0.891
Other	40	68	9	23	0.700
Education					
High School	279	79	11	10	1.014
Some College	156	67	17	16	0.724
Associate or Tech Degree	50	68	18	14	0.760
Undergraduate Degree	36	83	9	8	1.194
Graduate Degree	24	71	4	25	0.583
Income					
Less than $10,000	291	77	12	11	0.993
$10,000 to $29,999	159	67	18	15	0.717
$30,000 to $49,999	41	78	10	12	0.951
50 Plus	24	88	4	8	0.958
Employment					
Yes, Full-Time	162	77	10	13	0.883
Yes, Part-Time	88	68	17	15	0.830
No, Looking	119	72	15	13	0.857
No, Not Looking	60	77	11	12	1.033
Retired	87	85	8	7	1.184
Student	42	64	26	10	0.619
Household Size					
1	221	76	10	14	0.873
2	135	77	13	10	0.978
3	71	75	12	13	0.887
4	66	71	18	11	0.924
5+	60	68	19	13	0.833
Vehicle Access					
0	399	73	12	15	0.855
1	92	78	14	8	0.978
2+	56	75	21	4	1.036
Ride Frequency					
5+ Times per Week	283	69	17	14	0.777
3 or 4 Times per Week	133	77	12	11	0.955
1 or 2 Times per Week	84	82	6	12	1.036
1 or 2 Times per Month	36	81	14	6	1.056
Less than Once per Month	19	89	6	5	1.263
First Time	11	100	0	0	1.455

DESCRIPTION:

A common reason given by people who refuse to use a transit system is a concern about the level of cleanliness on buses. The results of this survey dispel this myth as riders indicated that they are satisfied with the level of cleanliness.

Gender: Men are more satisfied with the level of cleanliness than are women.

Age: Younger riders are less satisfied with the level of cleanliness than older riders.

Race: Caucasian riders are the most satisfied with the level of cleanliness on the bus system, while African American riders and riders that fall in the category of "other races" were the least satisfied.

Education: There is a decreasing satisfaction trend with greater education, excluding those riders with Undergraduate degrees, whom are more satisfied than most demographic groups.
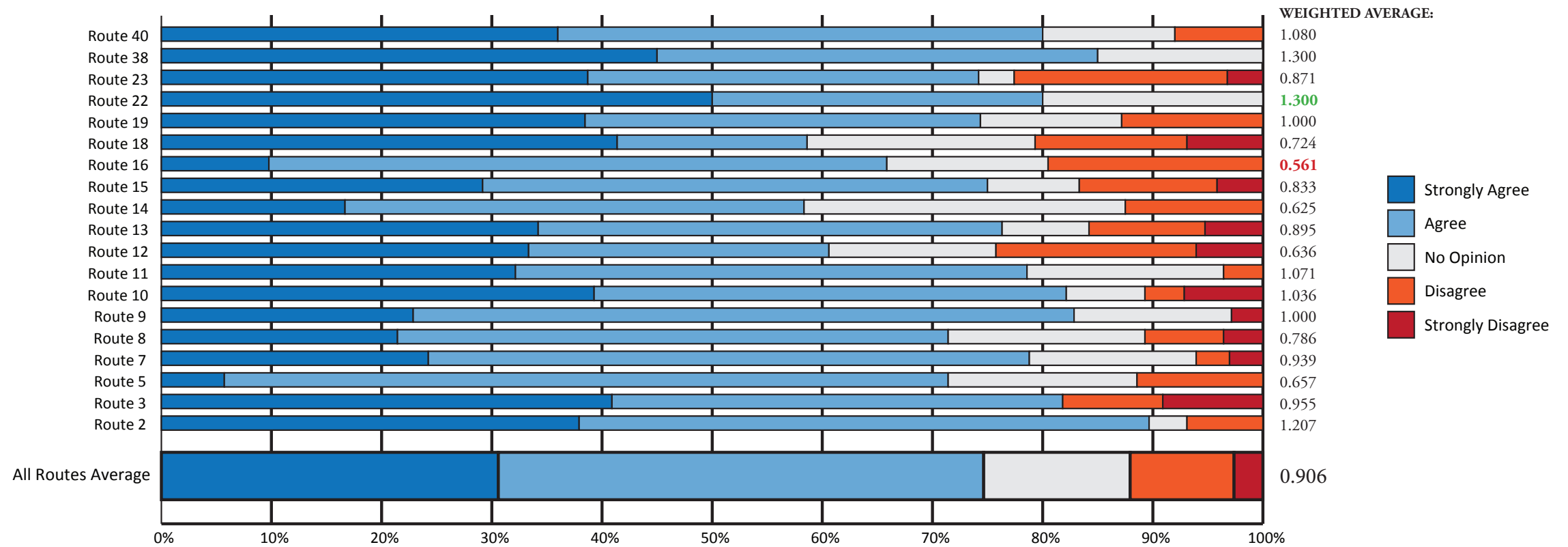
Income: There is little correlation with income and new route satisfaction.

Employment: Those who do not work (retired, or unemployed, not looking) are far more satisfied with the level of cleanliness than those who work full time, part time, as a student, or looking for a job while unemployed. Students, in particular, were the least satisfied.

Household Size: There is little correlation with household size and satisfaction with cleanliness.

Vehicle Access: The greater a rider's access to motor vehicles, the more satisfied they are with the level of cleanliness.

Ride Frequency: Higher frequency of ridership aligns with a decreased satisfaction with the level of cleanliness.

Route		Weighted Average
Route 40		1.250
Route 38		1.381
Route 23		1.194
Route 22		1.333
Route 19		1.256
Route 18		0.963
Route 16		1.171
Route 15		1.417
Route 14		0.875
Route 13		1.132
Route 12		1.212
Route 11		1.286
Route 10		1.143
Route 9		1.171
Route 8		0.786
Route 7		1.000
Route 5		1.000
Route 3		1.217
Route 2		1.233
All Routes Average		1.156

Legend:
- Strongly Agree
- Agree
- No Opinion
- Disagree
- Strongly Disagree
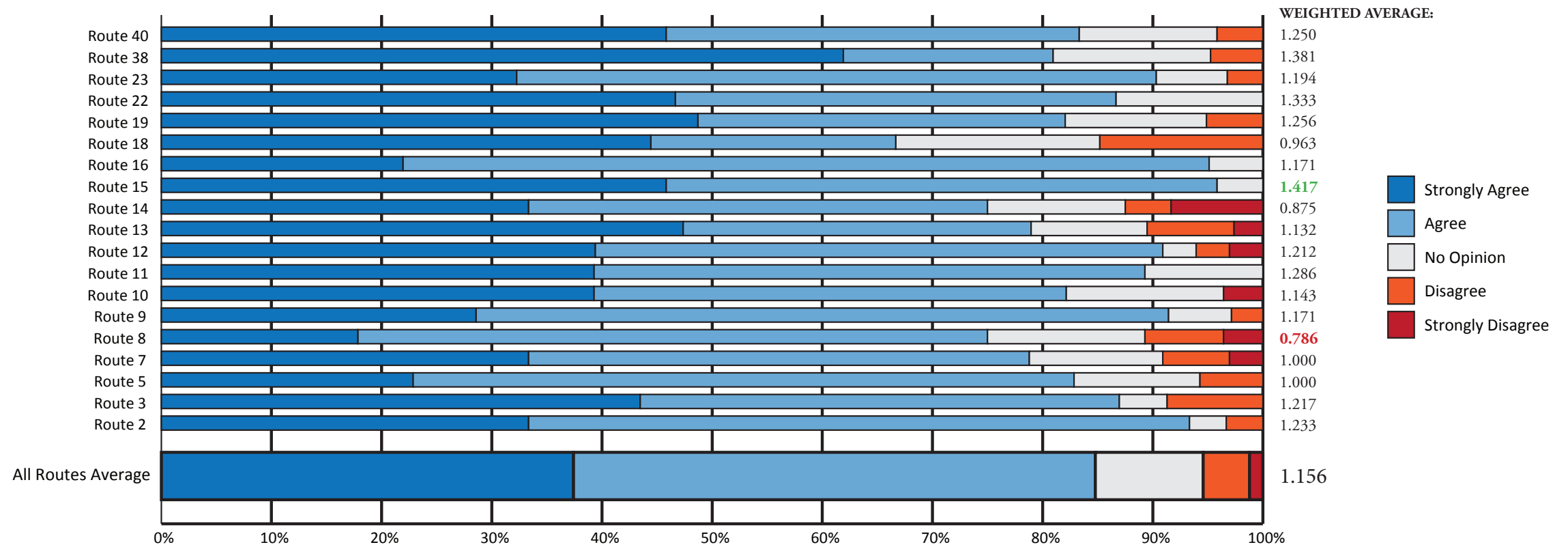
I feel safe riding the bus...

RESULTS:

38%	Strongly Agree
47%	Agree
10%	No Opinion
4%	Disagree
1%	Strongly Agree

IMPLICATIONS: Only 1 person in 20 disagreed with feeling safe while riding the bus, while 17 out of 20 agreed (2 held no opinion either way). This overwhelming agreement is somewhat counter to the stereotypical view of public transit that many non-riders hold, wherein riding the bus is dangerous. Routes 8, 14, and 18 did have a higher rate of disagreement; it may be worthwhile to probe these routes to determine if there is a credible threat of danger at any time.

I Feel Safe Riding the Bus					
	Count	Agree %	No Opinion %	Disagree %	Weighted Avg.
	599	*85*	*10*	*5*	*1.156*
Gender					
Male	320	87	8	5	1.175
Female	244	82	12	6	1.123
Age					
24 or younger	63	79	16	5	1.063
25-34	88	85	14	1	1.148
35-44	97	80	13	7	1.072
45-54	118	87	8	5	1.178
55-64	86	91	3	6	1.209
65 or older	35	91	3	6	1.257
Race					
African-American	254	84	8	6	1.138
Caucasian	196	87	8	5	1.199
Hispanic	22	73	18	9	1.091
Native American	55	89	7	4	1.182
Other	40	80	12	8	1.050
Education					
High School	279	88	8	4	1.247
Some College	156	85	9	6	1.083
Associate or Tech Degree	50	72	24	4	0.980
Undergraduate Degree	37	84	8	8	1.189
Graduate Degree	23	78	4	17	0.957
Income					
Less than $10,000	291	88	8	4	1.247
$10,000 to $29,999	160	83	9	8	1.013
$30,000 to $49,999	41	85	12	3	1.244
$50,000 or More	24	79	13	8	1.042
Employment					
Yes, Full-Time	162	85	10	5	1.136
Yes, Part-Time	88	83	9	8	1.091
No, Looking	119	86	9	5	1.176
No, Not Looking	60	88	10	2	1.300
Retired	87	91	4	5	1.310
Student	41	76	17	7	0.927
Household Size					
1	220	82	10	8	1.095
2	136	87	11	2	1.250
3	72	89	5	6	1.181
4	65	82	17	2	1.138
5+	60	87	5	8	1.133
Vehicle Access					
0	399	86	8	6	1.140
1	94	84	12	4	1.181
2+	56	80	20	0	1.214
Ride Frequency					
5+ Times per Week	285	84	9	7	1.081
3 or 4 Times per Week	132	84	13	3	1.189
1 or 2 Times per Week	84	89	7	3	1.250
1 or 2 Times per Month	35	86	8	6	1.343
Less than Once per Month	19	84	11	5	1.263
First Time	11	91	9	0	1.273

DESCRIPTION:

Safety is often the foremost concern of non-riders when asked why they would not use the bus system. This stance is not substantiated by the data of this survey, however, as riders rated their feelings of safety higher than any other level of satisfaction.

Gender: Men and women both share an overwhelming level of satisfaction with regard to safety.

Age: All age groups scored above a 1.000 for their weighted sum, but older riders feel safer overall than younger riders.

Race: There is little correlation between race/ethnicity and the perception of safety.

Education: With regard to perceptions of safety, there is a decreasing trend with greater education, excluding those riders with Undergraduate degrees.

Income: There is little correlation with income and perception of safety.

Employment: Those who do not work (retired, or unemployed, not looking) are the most satisfied with the level of safety on the bus. Students, however, scored the lowest of any demographic group.

Household Size: There is little correlation with household size and perception of safety.

Vehicle Access: While all sub-groups have high scores with regard to feeling safe on the bus, those riders with access to motor vehicles have a higher weighted average.

Ride Frequency: Those who ride the bus 5 or more times per week felt the least safe of all the frequency sub-groups.

Route		Weighted Average
Route 40		**0.960**
Route 38		0.476
Route 23		0.581
Route 22		0.833
Route 19		0.513
Route 18		**0.214**
Route 16		0.381
Route 15		0.625
Route 14		0.333
Route 13		0.861
Route 12		0.606
Route 11		0.577
Route 10		0.500
Route 9		0.486
Route 8		0.464
Route 7		0.636
Route 5		0.265
Route 3		0.435
Route 2		0.667
All Routes Average		0.547

Legend:
- Strongly Agree
- Agree
- No Opinion
- Disagree
- Strongly Disagree
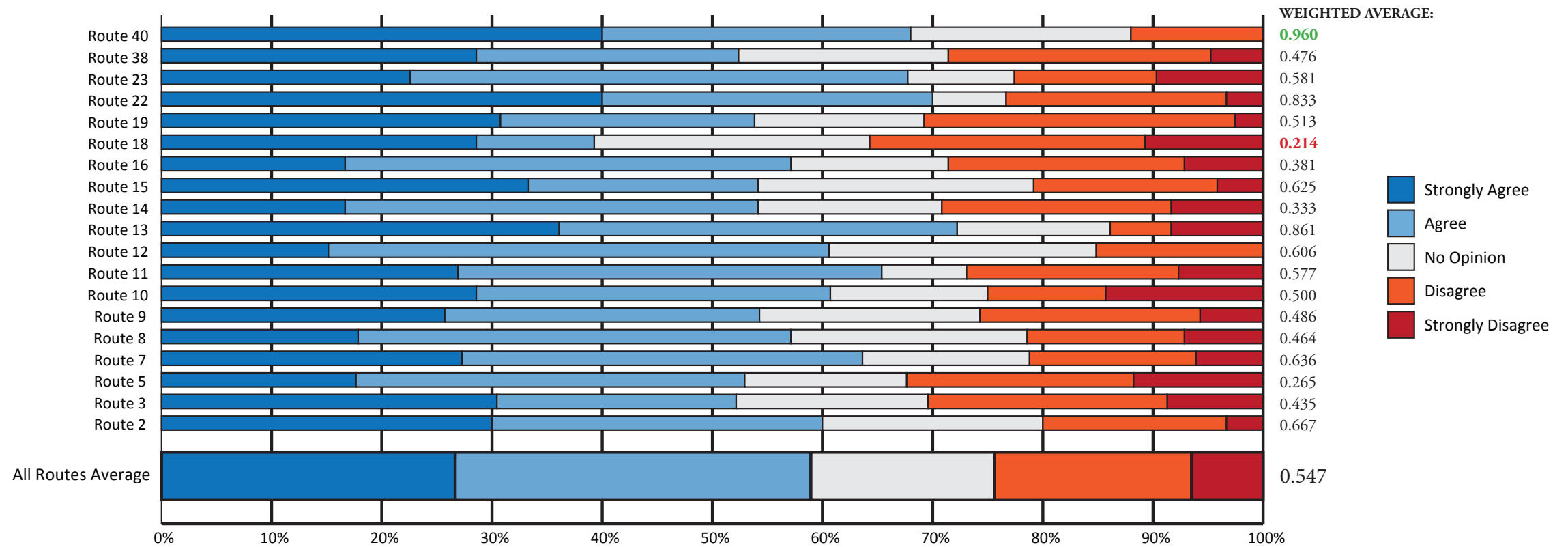
I spend less time waiting for the bus than before...

RESULTS:

27%	Strongly Agree
32%	Agree
17%	No Opinion
18%	Disagree
6%	Strongly Agree

IMPLICATIONS: The majority of riders feel that their waiting time has decreased compared to the former bus routes; however, 1 out of 4 riders feels that they do not spend less time waiting -- either their wait time is the same or worse than before. This question suffers from the fact that bus riders get to the bus stop when they know the bus will be there, so there is no reason for their wait time to change. The results illustrate an overall positive feeling about the new routes, but with a sizeable group that is less positive.

With the Changes, I Spend Less Time Waiting on the Bus				
	Count	Agree %	No Opinion %	Disagree %	Weighted Avg.
	599	*59*	*17*	*24*	*0.547*
Gender					
Male	318	58	17	25	0.525
Female	244	60	16	24	0.582
Age					
24 or younger	63	43	30	27	0.286
25-34	88	56	17	27	0.364
35-44	94	60	17	23	0.660
45-54	119	63	13	24	0.588
55-64	85	62	11	27	0.541
65 or older	35	71	9	20	0.943
Race					
African-American	253	59	15	26	0.545
Caucasian	195	59	17	24	0.549
Hispanic	22	73	13	14	0.818
Native American	56	55	18	27	0.446
Other	39	59	20	21	0.590
Education					
High School	279	61	16	23	0.631
Some College	157	56	17	27	0.433
Associate or Tech Degree	49	49	20	31	0.306
Undergraduate Degree	37	68	18	14	0.892
Graduate Degree	22	55	13	32	0.227
Income					
Less than $10,000	293	64	15	21	0.696
$10,000 to $29,999	159	56	14	30	0.396
$30,000 to $49,999	39	54	20	26	0.436
$50,000 or More	24	54	13	33	0.333
Employment					
Yes, Full-Time	159	57	17	26	0.472
Yes, Part-Time	88	60	17	23	0.602
No, Looking	119	53	21	26	0.462
No, Not Looking	61	62	18	20	0.656
Retired	87	72	8	20	0.874
Student	42	50	19	31	0.238
Household Size					
1	218	59	16	25	0.546
2	136	59	17	24	0.559
3	71	55	21	24	0.479
4	66	61	15	24	0.576
5+	60	57	15	28	0.500
Vehicle Access					
0	399	59	16	25	0.529
1	93	57	20	23	0.613
2+	55	55	20	25	0.455
Ride Frequency					
5+ Times per Week	282	58	14	28	0.454
3 or 4 Times per Week	132	60	17	23	0.583
1 or 2 Times per Week	83	65	15	20	0.687
1 or 2 Times per Month	36	58	25	17	0.694
Less than Once per Month	19	58	26	16	0.789
First Time	11	36	64	0	0.636

DESCRIPTION:

One of the major changes with the Embark system has been the reduction in headway between buses, whereby most of the routes went from a 1-hour wait between buses to a 30-minute wait. Based on this, a question to gauge riders' perceptions of waiting was included.

Gender: Women feel that they spend less time waiting for the bus more than men.

Age: Younger riders trended closer to "No Opinion" than "Agree" with regard to the weighted average score, and had significantly lower results than that of older riders.

Race: Hispanic riders were significantly more satisfied with their wait time than the other races and ethnic groups.

Education: There is a decreasing satisfaction trend with greater education, excluding those riders with Undergraduate degrees, whom are more satisfied than most demographic groups.

Income: Riders with the lowest household incomes felt that their wait time was much improved, much moreso than the other income brackets.

Employment: Those who work part-time or do not work (retired, or unemployed, not looking) are far more satisfied with the new routes than those who work full time, students, or those looking for a job while unemployed.

Household Size: There is little correlation with household size and a perception of wait time.

Vehicle Access: There is little correlation with access to a motor vehicle and a perception of wait time.

Ride Frequency: Those who ride the bus most frequently felt less strongly about the change in their wait time than infrequent and new riders.

Weighted Averages by Demographic Group

The bus takes me where I need to go…

Demographic Group	Value
$50,000 or More	0.560
Associate or Tech Degree	0.820
2+ Cars	0.825
Student	0.829
55-64	0.921
Some College	0.943
$10,000 to $29,999	0.951
Graduate Degree	0.958
Yes, Full-Time	0.994
Undergraduate Degree	1.000
35-44	1.010
3 HH	1.014
3 or 4 Times per Week	1.015
Male	1.022
$30,000 to $49,999	1.026
5+ Times per Week	1.028
1 HH	1.036
Caucasian	1.045
African-American	1.057
ALL DEMOGRAPHICS	1.072
2 HH	1.090
65 or Older	1.111
No, Looking	1.116
45-54	1.117
1 Cars	1.117
0 Cars	1.121
1 or 2 Times per Week	1.125
24 or younger	1.127
Other Race	1.128
5+ HH	1.131
25-34	1.138
Retired	1.146
Female	1.155
Less than Once per Month	1.158
No, Not Looking	1.169
Yes, Part-Time	1.172
Native American	1.175
High School	1.196
Less than $10,000	1.208
4 HH	1.232
Hispanic	1.261
1 or 2 Times per Month	1.343
First Time	1.455

Buses are on time…

Demographic Group	Value
Student	0.390
$30,000 to $49,999	0.463
24 or younger	0.468
Native American	0.509
Some College	0.539
Other Race	0.550
25-34	0.551
$10,000 to $29,999	0.556
2 HH	0.578
Yes, Full-Time	0.579
5+ Times per Week	0.594
3 or 4 Times per Week	0.604
5+ HH	0.607
Associate or Tech Degree	0.620
Graduate Degree	0.625
0 Cars	0.625
No, Looking	0.639
Male	0.651
35-44	0.670
4 HH	0.672
African-American	0.676
ALL DEMOGRAPHICS	0.680
3 HH	0.690
Yes, Part-Time	0.701
Caucasian	0.711
45-54	0.712
Female	0.727
High School	0.728
Less than $10,000	0.747
1 HH	0.757
55-64	0.771
1 or 2 Times per Week	0.771
1 Cars	0.777
Less than Once per Month	0.842
No, Not Looking	0.885
Undergraduate Degree	0.892
2+ Cars	0.893
Retired	0.919
$50,000 or More	0.920
65 or Older	0.943
Hispanic	1.048
1 or 2 Times per Month	1.086
First Time	1.364

Drivers are courteous and helpful…

Demographic Group	Value
Student	0.643
Graduate Degree	0.652
No, Looking	0.788
35-44	0.792
Other Race	0.795
Associate or Tech Degree	0.816
25-34	0.864
5+ Times per Week	0.866
Some College	0.872
4 HH	0.908
$10,000 to $29,999	0.914
0 Cars	0.919
1 HH	0.922
Female	0.934
Hispanic	0.955
African-American	0.957
55-64	0.965
ALL DEMOGRAPHICS	0.967
3 or 4 Times per Week	0.969
$30,000 to $49,999	0.976
Less than $10,000	0.979
5+ HH	0.983
3 HH	0.986
Yes, Full-Time	0.988
Caucasian	0.990
Male	0.994
24 or younger	1.000
1 Cars	1.011
Yes, Part-Time	1.012
Native American	1.019
2 HH	1.030
High School	1.036
$50,000 or More	1.043
45-54	1.052
1 or 2 Times per Month	1.086
1 or 2 Times per Week	1.095
No, Not Looking	1.131
Undergraduate Degree	1.143
Retired	1.182
65 or Older	1.200
2+ Cars	1.259
First Time	1.364
Less than Once per Month	1.368

The buses are clean…

Demographic Group	Value
Graduate Degree	0.583
Student	0.619
Other Race	0.700
$10,000 to $29,999	0.717
Some College	0.724
25-34	0.750
Associate or Tech Degree	0.760
5+ Times per Week	0.777
24 or younger	0.825
Yes, Part-Time	0.830
5+ HH	0.833
35-44	0.835
African-American	0.847
0 Cars	0.855
No, Looking	0.857
Female	0.869
1 HH	0.873
Yes, Full-Time	0.883
3 HH	0.887
Native American	0.891
ALL DEMOGRAPHICS	0.906
45-54	0.916
4 HH	0.924
Male	0.931
$30,000 to $49,999	0.951
Hispanic	0.952
3 or 4 Times per Week	0.955
$50,000 or More	0.958
1 Cars	0.978
2 HH	0.978
Less than $10,000	0.993
55-64	1.012
High School	1.014
Caucasian	1.020
No, Not Looking	1.033
1 or 2 Times per Week	1.036
2+ Cars	1.036
1 or 2 Times per Month	1.056
Retired	1.184
Undergraduate Degree	1.194
Less than Once per Month	1.263
65 or Older	1.286
First Time	1.455

I feel safe riding the bus…

Demographic Group	Value
Student	0.927
Graduate Degree	0.957
Associate or Tech Degree	0.980
$10,000 to $29,999	1.013
$50,000 or More	1.042
Other Race	1.050
24 or younger	1.063
35-44	1.072
5+ Times per Week	1.081
Some College	1.083
Yes, Part-Time	1.091
Hispanic	1.091
1 HH	1.095
Female	1.123
5+ HH	1.133
Yes, Full-Time	1.136
African-American	1.138
4 HH	1.138
0 Cars	1.140
25-34	1.148
ALL DEMOGRAPHICS	1.156
Male	1.175
No, Looking	1.176
45-54	1.178
3 HH	1.181
1 Cars	1.181
Native American	1.182
3 or 4 Times per Week	1.189
Undergraduate Degree	1.189
Caucasian	1.199
55-64	1.209
2+ Cars	1.214
$30,000 to $49,999	1.244
Less than $10,000	1.247
High School	1.247
2 HH	1.250
1 or 2 Times per Week	1.250
65 or Older	1.257
Less than Once per Month	1.263
First Time	1.273
No, Not Looking	1.300
Retired	1.310
1 or 2 Times per Month	1.343

I spend less time waiting for the bus than before…

Demographic Group	Value
Graduate Degree	0.227
Student	0.238
24 or younger	0.286
Associate or Tech Degree	0.306
$50,000 or More	0.333
25-34	0.364
$10,000 to $29,999	0.396
Some College	0.433
$30,000 to $49,999	0.436
Native American	0.446
5+ Times per Week	0.454
2+ Cars	0.455
No, Looking	0.462
Yes, Full-Time	0.472
3 HH	0.479
5+ HH	0.500
Male	0.525
0 Cars	0.529
55-64	0.541
African-American	0.545
1 HH	0.546
ALL DEMOGRAPHICS	0.547
Caucasian	0.549
2 HH	0.559
4 HH	0.576
Female	0.582
3 or 4 Times per Week	0.583
45-54	0.588
Other Race	0.590
Yes, Part-Time	0.602
1 Cars	0.613
High School	0.631
First Time	0.636
No, Not Looking	0.656
35-44	0.660
1 or 2 Times per Week	0.687
1 or 2 Times per Month	0.694
Less than $10,000	0.696
Less than Once per Month	0.789
Hispanic	0.818
Retired	0.874
Undergraduate Degree	0.892
65 or Older	0.943

Demographic Group	Total Average Score
Student	0.608
Graduate Degree	0.667
Associate or Tech Degree	0.717
$10,000 to $29,999	0.758
Some College	0.766
24 or younger	0.795
5+ Times per Week	0.800
Other Race	0.802
25-34	0.803
$50,000 or More	0.809
No, Looking	0.840
35-44	0.840
Yes, Full-Time	0.842
$30,000 to $49,999	0.849
5+ HH	0.865
0 Cars	0.865
African-American	0.870
Native American	0.870
1 HH	0.872
3 HH	0.873
Male	0.883
3 or 4 Times per Week	0.886
ALL DEMOGRAPHICS	0.888
Female	0.898
Yes, Part-Time	0.901
55-64	0.903
4 HH	0.908
2 HH	0.914
Caucasian	0.919
45-54	0.927
1 Cars	0.946
2+ Cars	0.947
High School	0.975
Less than $10,000	0.978
1 or 2 Times per Week	0.994
Hispanic	1.021
No, Not Looking	1.029
Undergraduate Degree	1.052
1 or 2 Times per Month	1.101
Retired	1.103
Less than Once per Month	1.114
65 or Older	1.123
First Time	1.258

RESULTS: Overall, all demographic groups analyzed in this survey had positive feelings with regard to operations and the changes made with the transition to Embark from Metro Transit. There are three demographic types that reliably expressed a lower level of satisfaction than the other groups. These include:

1. Young riders

2. High-income riders

3. Frequent riders

Finding ways to improve conditions for these groups will ensure a greater level of satisfaction and potentially lead to higher ridership rates.

The table on the right shows the results to the survey question "What is your impression of the recent route changes". This was excluded from this weighted sum as new riders had a low score, but this was due to a lack of knowledge of how the system was beforehand. Most of the new riders indicated that they did not have an opinion of the changes. The results of this question by demographic group was less illuminating than the other questions. In the next section this question was included in the weighted sum as the routes are a more balanced manner of evaluation.

Demographic Group	What is your impression of the route changes?
Other Race	0.079
Graduate Degree	0.174
First Time	0.200
24 or younger	0.290
Hispanic	0.304
2+ Cars	0.357
No, Looking	0.358
35-44	0.367
5+ HH	0.383
Yes, Part-Time	0.400
Associate or Tech Degree	0.404
Native American	0.411
5+ Times per Week	0.415
$50,000 or More	0.417
$10,000 to $29,999	0.433
65 or Older	0.457
Student	0.462
25-34	0.464
1 HH	0.473
African-American	0.496
0 Cars	0.505
55-64	0.505
3 HH	0.507
Some College	0.509
Male	0.516
ALL DEMOGRAPHICS	0.520
Yes, Full-Time	0.533
Less than $10,000	0.534
High School	0.535
Female	0.540
3 or 4 Times per Week	0.586
4 HH	0.594
2 HH	0.602
1 Cars	0.617
Less than Once per Month	0.632
45-54	0.639
1 or 2 Times per Month	0.647
Undergraduate Degree	0.667
1 or 2 Times per Week	0.698
Caucasian	0.702
Retired	0.733
No, Not Looking	0.742
$30,000 to $49,999	0.756

Weighted Averages by Individual Route

Bus Route	The bus takes me where I need to go…
5	0.686
2	0.839
19	0.923
16	0.930
9	0.971
8	1.000
15	1.000
10	1.034
18	1.036
ALL ROUTES	1.072
3	1.080
14	1.083
23	1.133
11	1.143
7	1.152
12	1.206
13	1.289
22	1.344
40	1.346
38	1.364

Bus Route	Buses are on time…
7	0.344
5	0.353
11	0.429
8	0.500
38	0.550
18	0.552
12	0.563
19	0.564
14	0.583
9	0.629
3	0.652
ALL ROUTES	0.68
16	0.732
15	0.792
10	0.821
2	0.833
23	0.935
13	0.947
40	1.042
22	1.097

Bus Route	Drivers are courteous and helpful…
13	0.703
12	0.758
18	0.821
19	0.865
14	0.875
8	0.889
5	0.914
9	0.914
7	0.939
15	0.957
ALL ROUTES	0.967
3	1.000
40	1.000
10	1.036
38	1.048
16	1.098
11	1.107
22	1.161
2	1.167
23	1.194

Bus Route	The buses are clean…
16	0.561
14	0.625
12	0.636
5	0.657
18	0.724
8	0.786
15	0.833
23	0.871
13	0.895
ALL ROUTES	0.906
7	0.939
3	0.955
19	1.000
9	1.000
10	1.036
11	1.071
40	1.080
2	1.207
38	1.300
22	1.300

Bus Route	I feel safe riding the bus…
8	0.786
14	0.875
18	0.963
5	1.000
7	1.000
13	1.132
10	1.143
ALL ROUTES	1.156
16	1.171
9	1.171
23	1.194
12	1.212
3	1.217
2	1.233
40	1.250
19	1.256
11	1.286
22	1.333
38	1.381
15	1.417

Bus Route	I spend less time waiting for the bus than before...
18	0.214
5	0.265
14	0.333
16	0.381
3	0.435
8	0.464
38	0.476
9	0.486
10	0.500
19	0.513
ALL ROUTES	0.547
11	0.577
23	0.581
12	0.606
15	0.625
7	0.636
2	0.667
22	0.833
13	0.861
40	0.960

Bus Route	What is your impression of the route changes?
15	0.083
8	0.103
18	0.231
9	0.257
5	0.361
14	0.375
3	0.455
ALL ROUTES	0.52
19	0.541
22	0.545
7	0.576
2	0.586
16	0.595
13	0.632
10	0.633
12	0.676
11	0.750
23	0.759
40	0.808
38	0.857

Bus Route	Total Average Score
5	0.605
8	0.647
18	0.649
14	0.679
9	0.776
16	0.781
7	0.798
12	0.808
19	0.809
15	0.815
3	0.828
ALL ROUTES	0.835
10	0.886
11	0.909
13	0.923
2	0.933
23	0.952
38	0.997
40	1.069
22	1.088

RESULTS: Satisfaction with the bus service varies from bus route to bus route. The weighted average scores for each route for each of the seven previous questions reveal how each route is performing for each question, and when added together, provide a total score for overall satisfaction with the service. Using this methodology, Route 22 had the highest level of overall satisfaction, while Route 5 had the lowest.

The data can be used to help determine where specific improvements would be useful. For example, with regard to "The buses are clean...", it may be prudent to investigate the cleanliness of the 5 routes with the lowest scores. The same could be done to address rider satisfaction with driver relations. Additionally, for the routes that scored lower on questions related to timeliness, this may indicate that the route should be reconfigured. Route 22 is one of the simplest bus routes, staying on major arterials, and has a high satisfaction level with regard to timeliness; perhaps this could be a model to improve other routes.

Riding and Accessibility Habits

How riders use the bus system can have implications for what improvements need to be made in the future. The following questions address issues related to rider frequency, how riders access their bus stop, how they pay for their fare, as well as why the ride the bus and where they are going. In particular, riders were asked about three topics that relate to public health:

1. Access to grocery stores

2. Access to healthcare facilities

3. Access to physical activity opportunities

Due to the fact that the majority of bus riders do not have access to a motor vehicle, it is imperative that the transit system connects them to daily needs and quality of life locations. In order to analyze these three topics a dual approach was taken. First, the standard format for comparing the routes in graphic format was undertaken. In addition, GIS mapping was utilized to determine the proximity of bus routes to the three types of facilities: grocery stores, healthcare facilities, and physical activity opportunities (public parks for the purposes of this study).
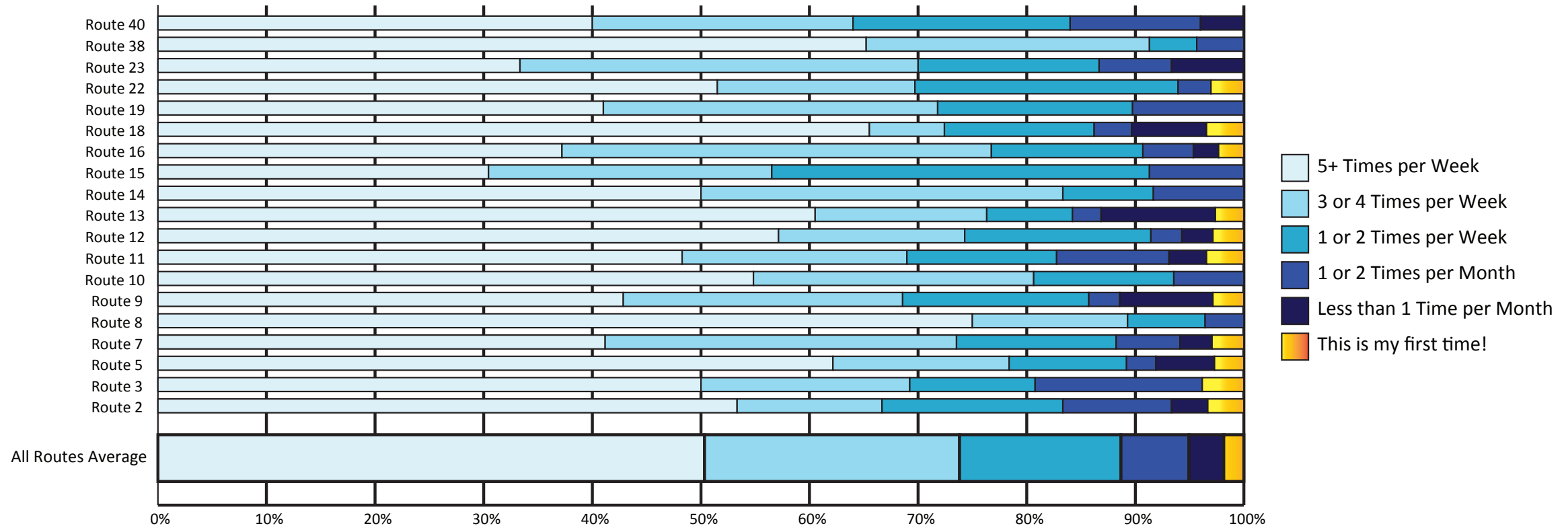
How frequently do you ride the bus?

RESULTS:

50%	5+ Times per Week
24%	3 or 4 Days per Week
15%	1 or 2 Days per Week
6%	1 or 2 Days per Month
3%	Less than Once per Month
2%	This is My First Time!

IMPLICATIONS: Half of the riders surveyed ride the bus nearly every day of the week, and 9 out of 10 ride it at least once per week. It stands to reason that due to this fact, if the bus system extended its hours on weekdays and began running on Sunday, that many riders would take advantage. Regardless, the results of this question illustrate the need to ensure that existing riders are satisfied with their experience, and not overlooked at the expense of attracting new ridership. However, several new riders were on the bus when the survey was being taken, indicating that measures taken to gain higher ridership are working.
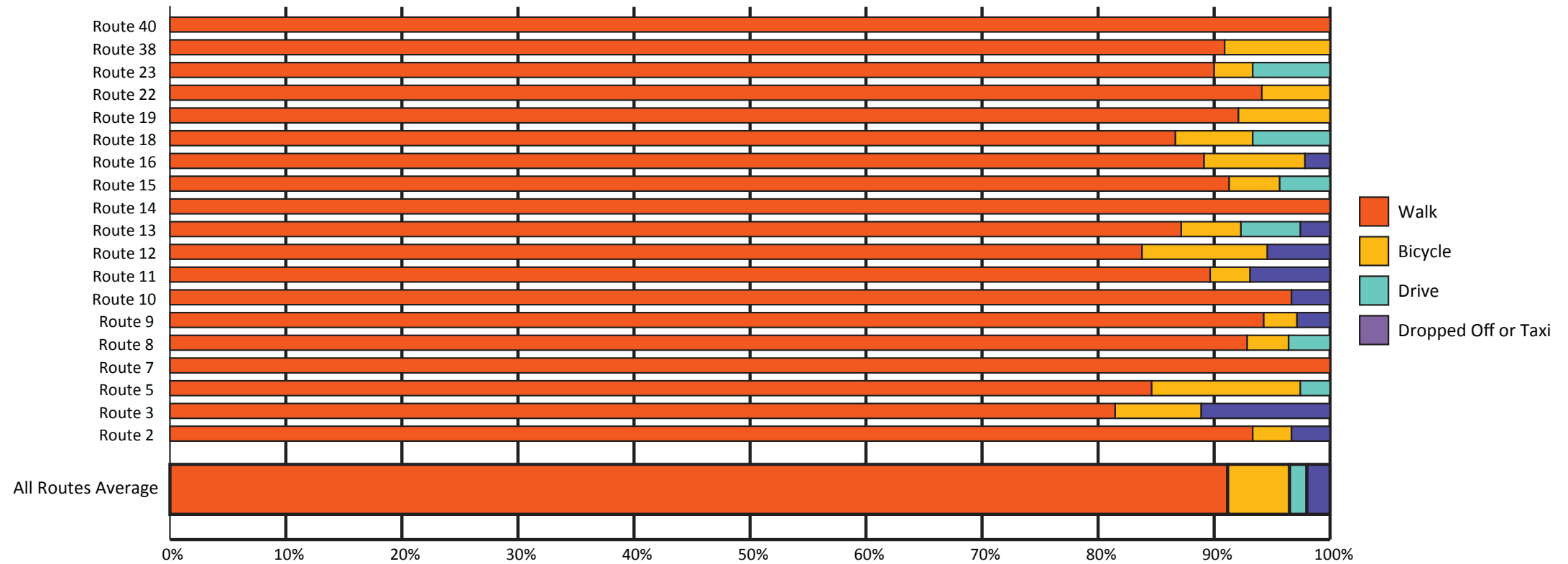
How do you get to the bus stop?

RESULTS:

91%	Walk/Wheelchair
5%	Bicycle
2%	Drive
2%	Dropped Off or Taxi

IMPLICATIONS: Bus riders overwhelmingly walk to and from their bus stops, with less than 1 in 10 riders using some other mode. This data reflects the importance of having adequate pedestrian infrastructure surrouding bus stops. This is especially important for riders who use wheelchairs, walkers, etc. ADA accessibility is very important to ensure that riders to not injure themselves when approaching a bus stop or boarding a bus.
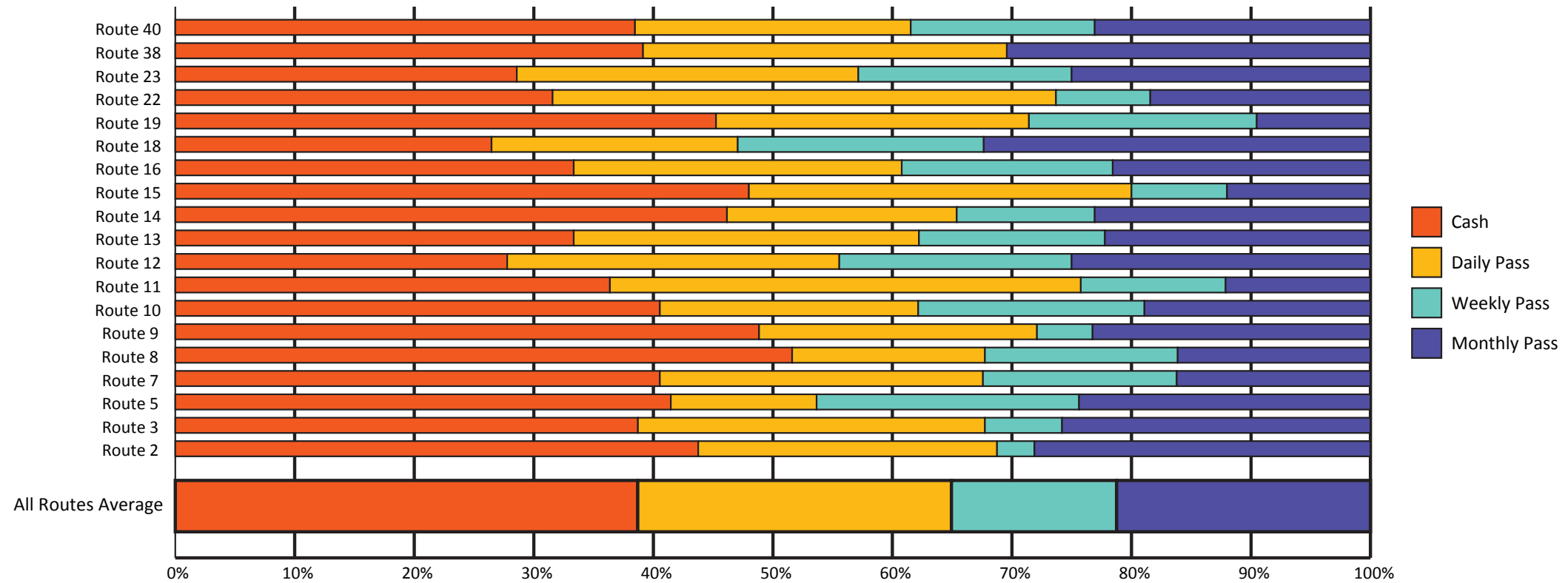
How do you pay for the bus fare?

RESULTS:

39%	Cash
26%	Daily Pass
14%	Weekly Pass
21%	Monthly Pass

IMPLICATIONS: More riders pay for bus fare with cash than any other individual type of payment, though more than 60% of riders use a pass of some kind. As cash payment is the most expensive option, and household incomes are so low, this implies that riders are not able to afford the up-front costs required to purchase a weekly or monthly pass. Additionally, cash transactions take longer, causing buses to be late on their routes. These reasons illustrate some of the benefits to a "no fare" system like the Citylink system in Edmond.
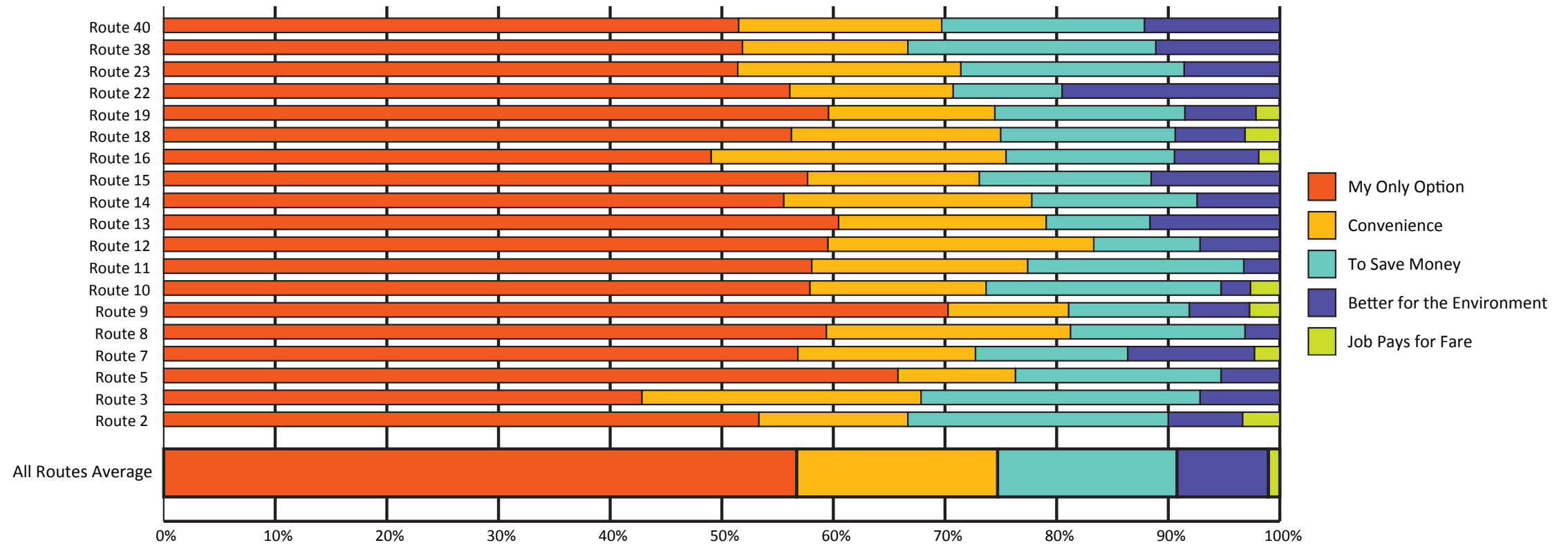
Why do you ride the bus?

RESULTS:

57%	My Only Option
18%	Convenience
16%	To Save Money
8%	Better for the Environment
1%	My Job Pays for Bus Fare

IMPLICATIONS: The majority of bus riders use the system because they have no other viable transportation options available to them, though many of the same riders responded that they would use a bicycle, walk, or ride with a friend to make the trip they were on if the bus were not available. This may indicate that they do not like the fact that they have to ride the bus. This may be an opportunity to find ways to improve the morale and perception of riding the bus, reminding riders that they are bettering their community by riding the bus. Additionally, working with large employers to create programs whereby they pay for their employees to ride the bus could help increase ridership into new markets.
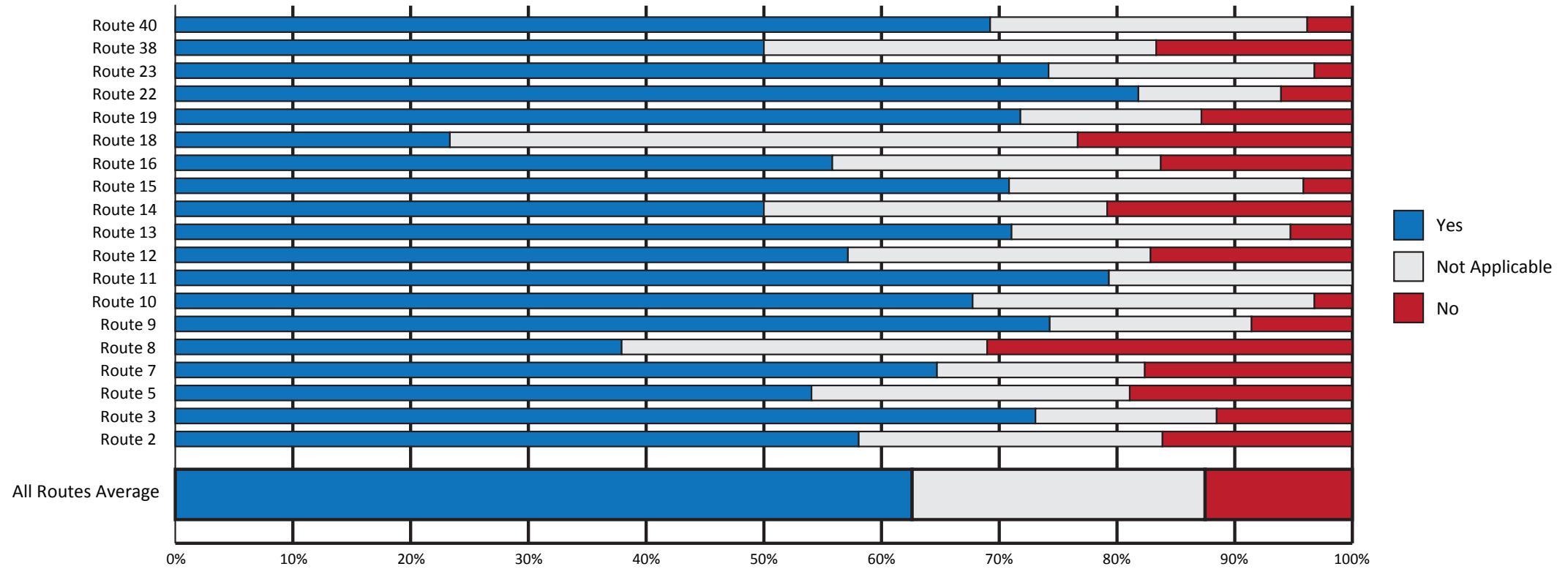
I have better access to grocery stores...

RESULTS:

63%   Yes

25%   Not Applicable

12%   No

IMPLICATIONS: The majority of riders feel that they have better access to grocery stores with the new routes. 1 in 4 riders do indicated that access to grocery stores is not applicable to their public transit needs. Route 8 had 3 out of 10 riders indicate they do not have better access to grocery stores; this may be due to the fact that they already had good access and it did not have room for improvement. Grocery shopping seems to be a very common usage of the public transit system.

There are 35 groceries stores within a 5-minute walk of a bus route, 29 of which are located within the Oklahoma City city limits.

Legend

----- Bus Routes

● Supermarkets Served by Transit

● Supermarkets Not Served by Transit

-·-·- OKC Legal Boundary
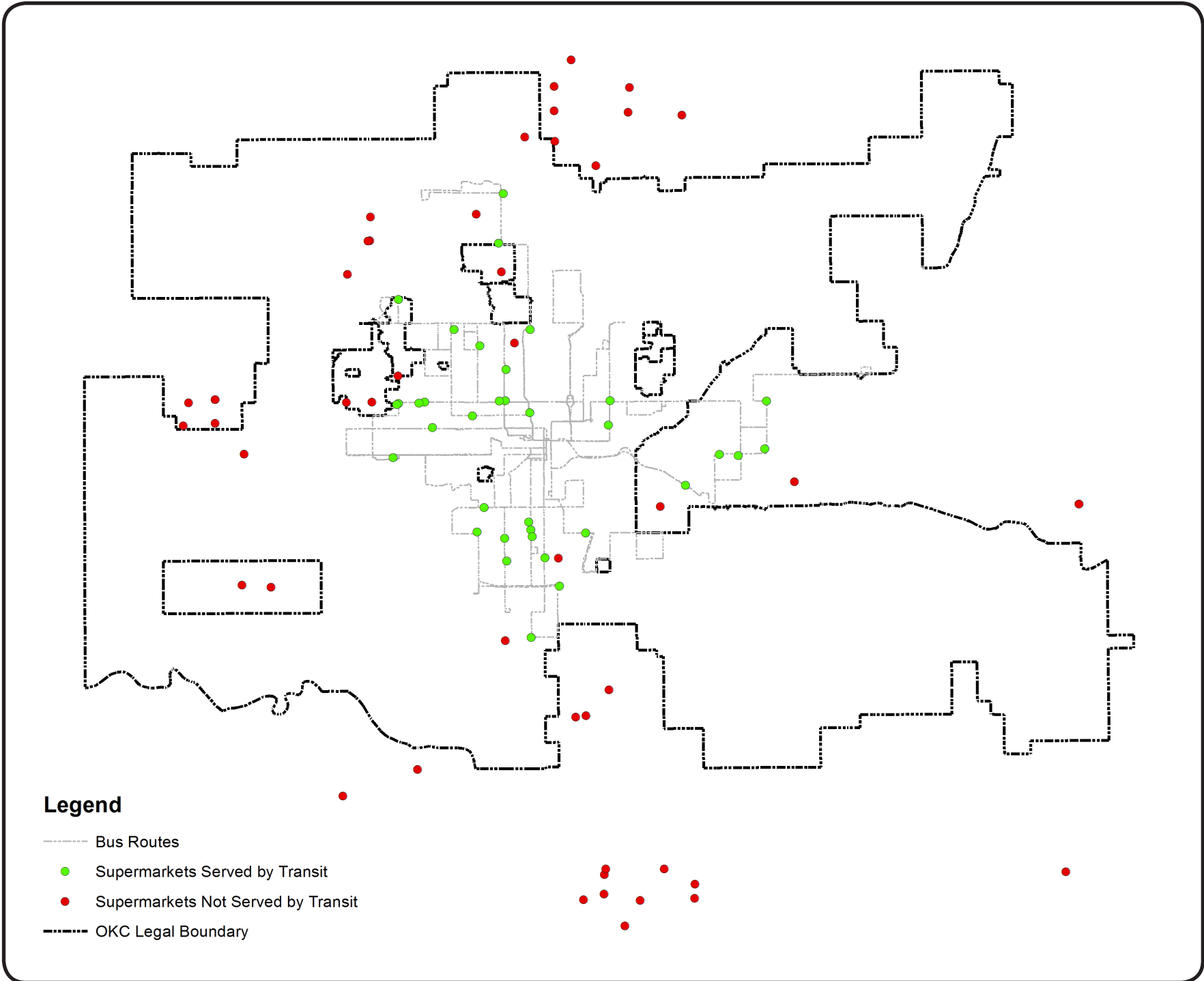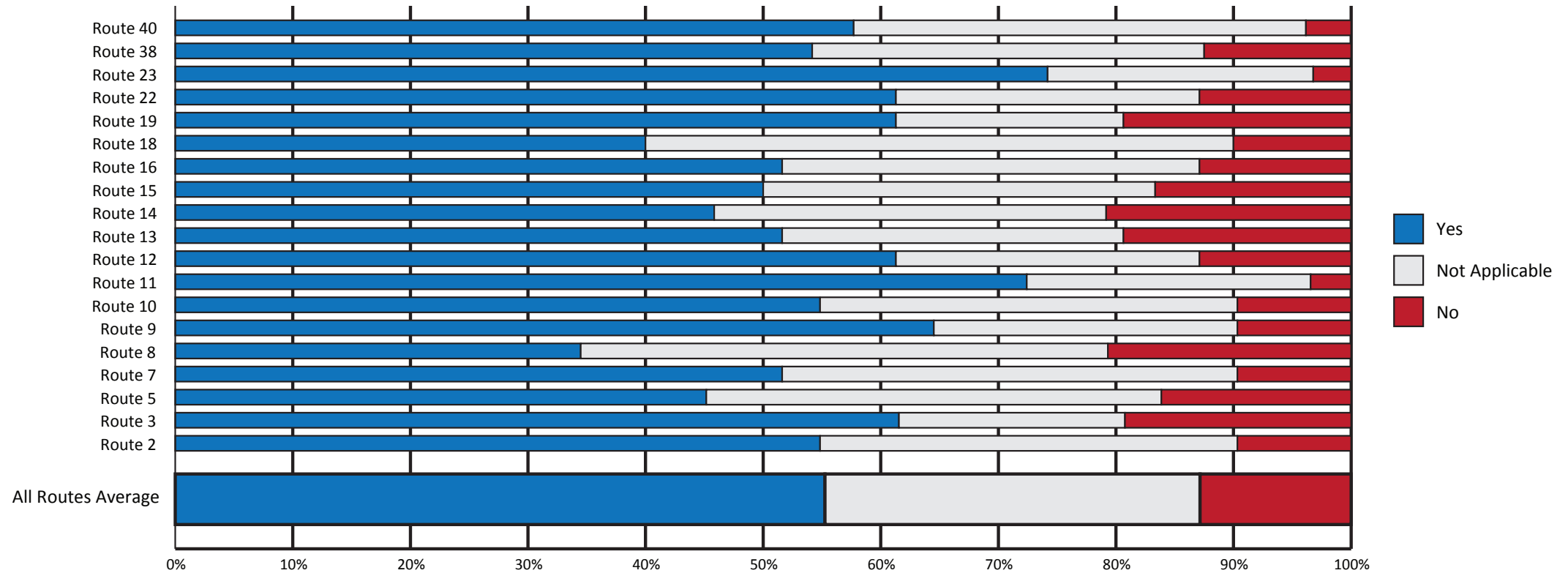
I have better access to healthcare facilities...

RESULTS:

55%	Yes
32%	Not Applicable
13%	No

IMPLICATIONS: More than half of riders feel that their access to healthcare facilities has improved with the implementation of the new bus routes. 1 in 3 riders, however, indicated that they do not use the bus for this purpose. Routes 23 and 11 had the highest percentage of riders that felt an improvement, with more than 7 out of 10 riders agreeing. Routes 3, 8, 13, 14 and 19 all had roughly 2 out of 10 riders who said their access was worse.

361 of the 569 health care facilities in Oklahoma City are within a 5-minute walk of a bus route, including 91 facilities in the OUHSC campus. All of the hospitals in the city are within a 5-minute walk of a bus route.
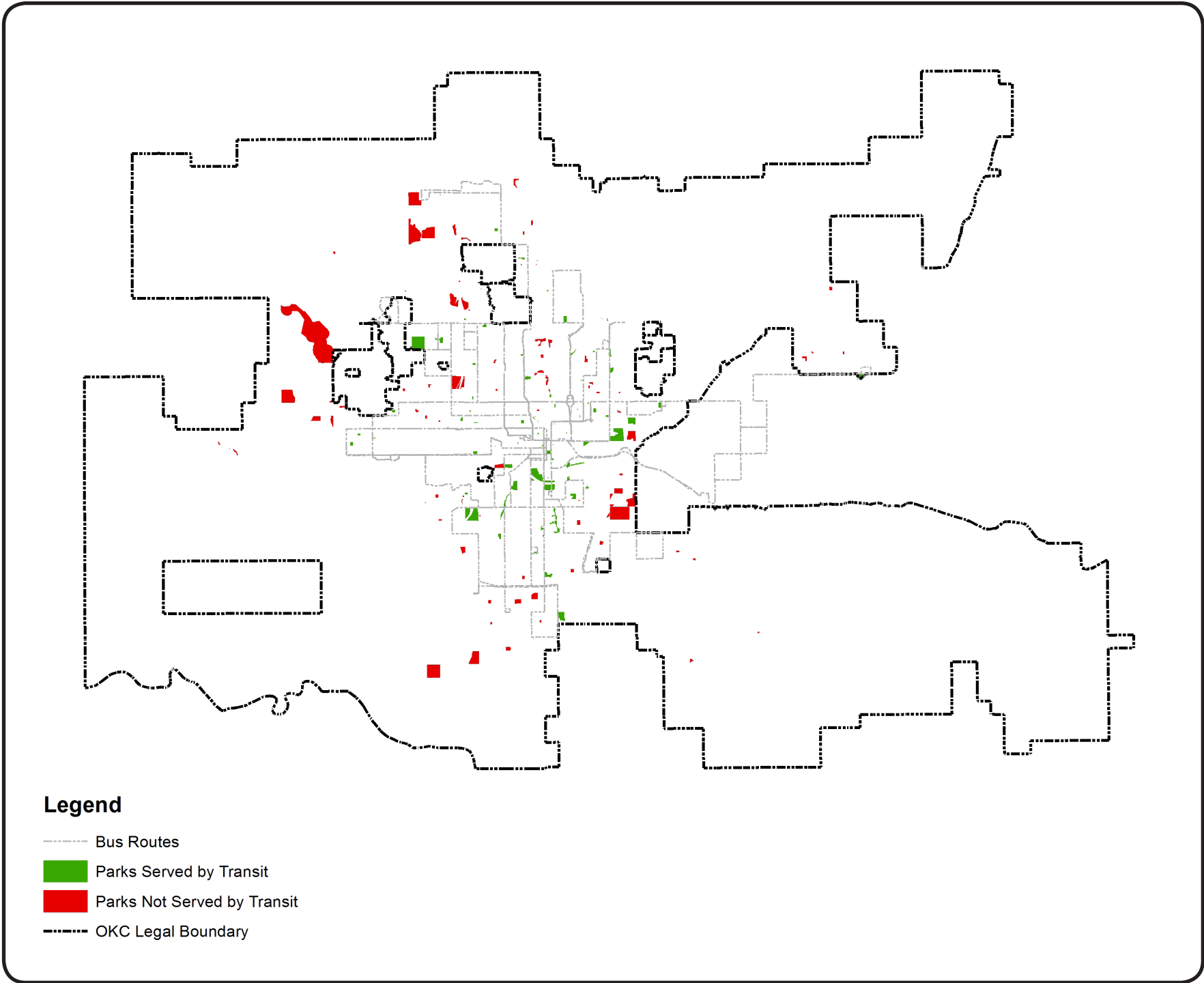

Legend

---·--- Bus Routes

● Healthcare Facilities Served by Transit

● Healthcare Facilities Not Served by Transit

-·-·- OKC Legal Boundary
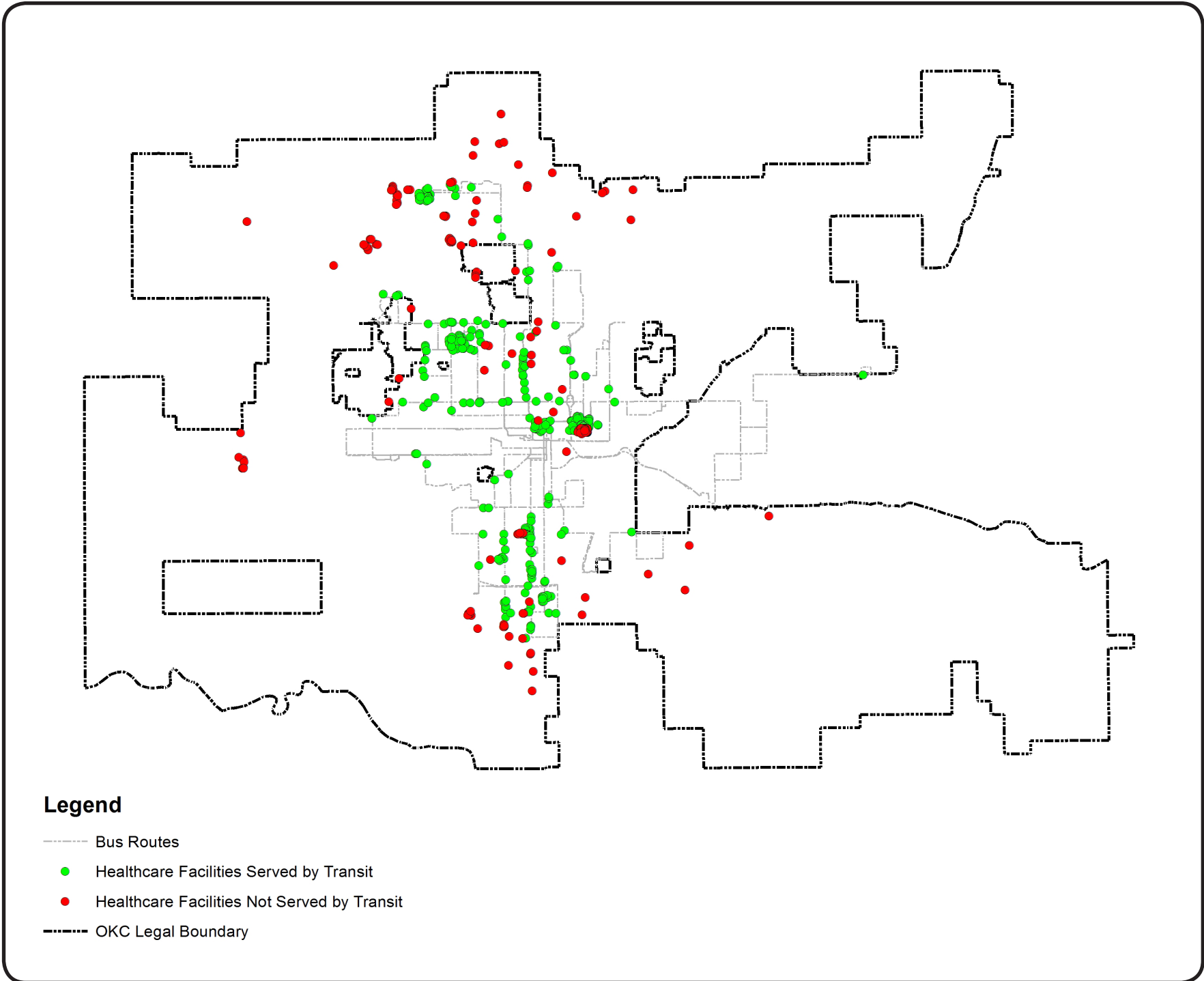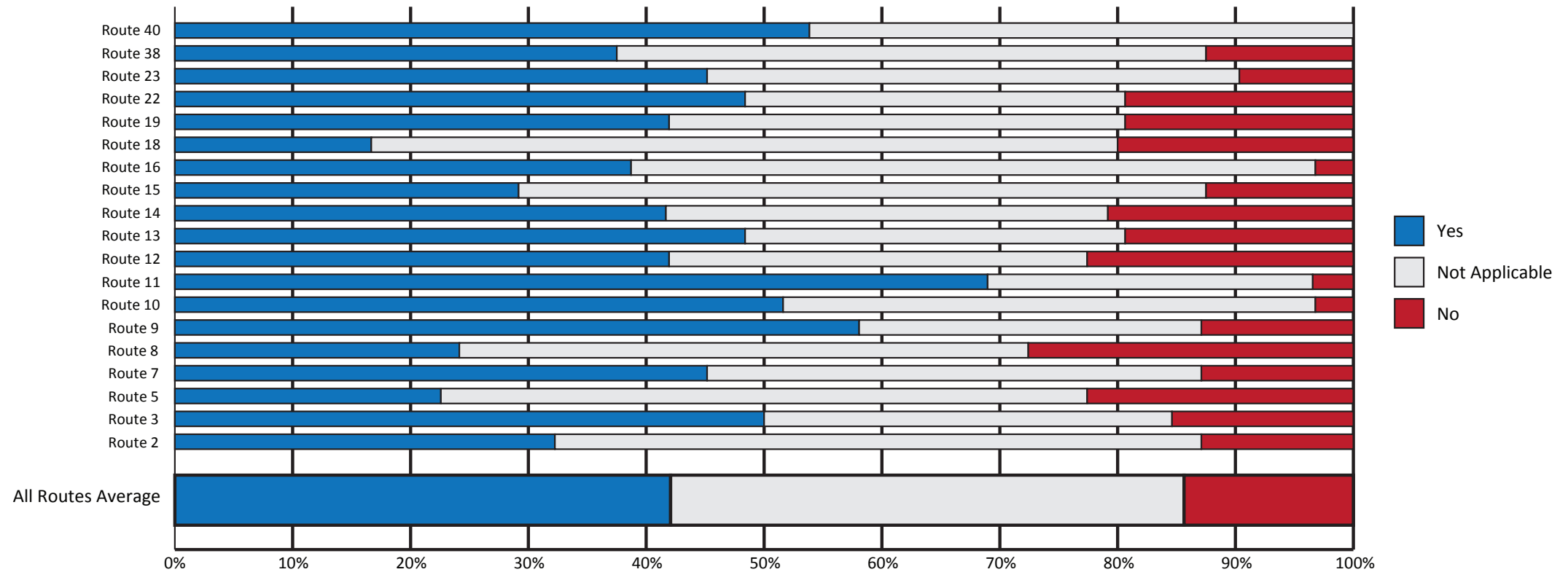
I have better access to physical activity...
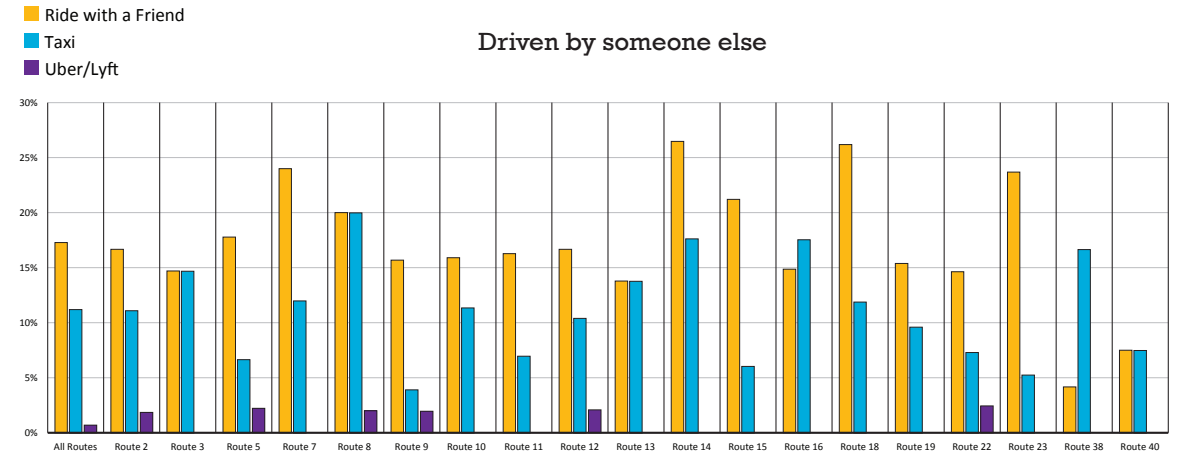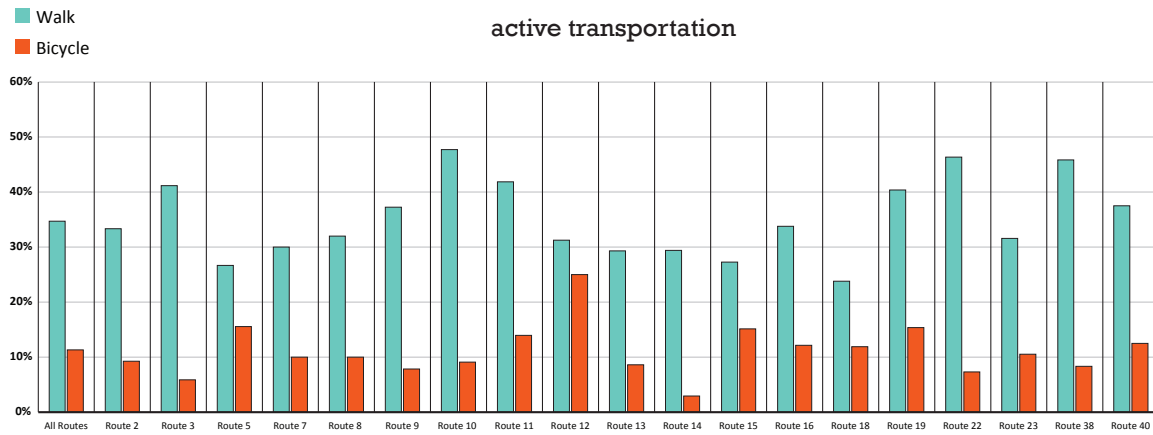
RESULTS:

42%	Yes
44%	Not Applicable
14%	No

IMPLICATIONS: The greatest percentage response to this question indicates that a large portion of riders do not use the bus to get to any sort of physical activity opportunity, whether that is a park, a gym, or something else. Of those who do use the bus for accessing physical activity, three times more riders felt their access had improved than those that felt there had been a negative impact on their accessibility.
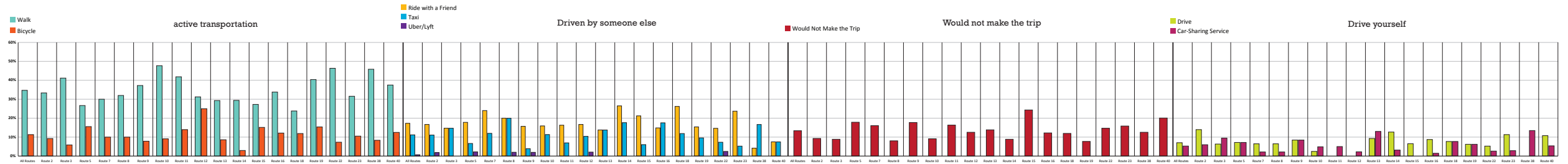
81 of the 173 parks in Oklahoma City are accessible by the bus routes. However, the large recreation areas, including Stinchcomb Nature Reserve, Martin Nature Park, and every body of water, are not accessible by transit.

Legend

---·---·--- Bus Routes

Parks Served by Transit

Parks Not Served by Transit

-·-·-·- OKC Legal Boundary

If transit were not available, how would you make this trip?

active transportation — Walk, Bicycle (by route: All Routes, Route 2, Route 3, Route 5, Route 7, Route 8, Route 9, Route 10, Route 11, Route 12, Route 13, Route 14, Route 15, Route 16, Route 18, Route 19, Route 22, Route 23, Route 38, Route 40)

Driven by someone else — Ride with a Friend, Taxi, Uber/Lyft

Would not make the trip — Would Not Make the Trip

Drive yourself — Drive, Car-Sharing Service
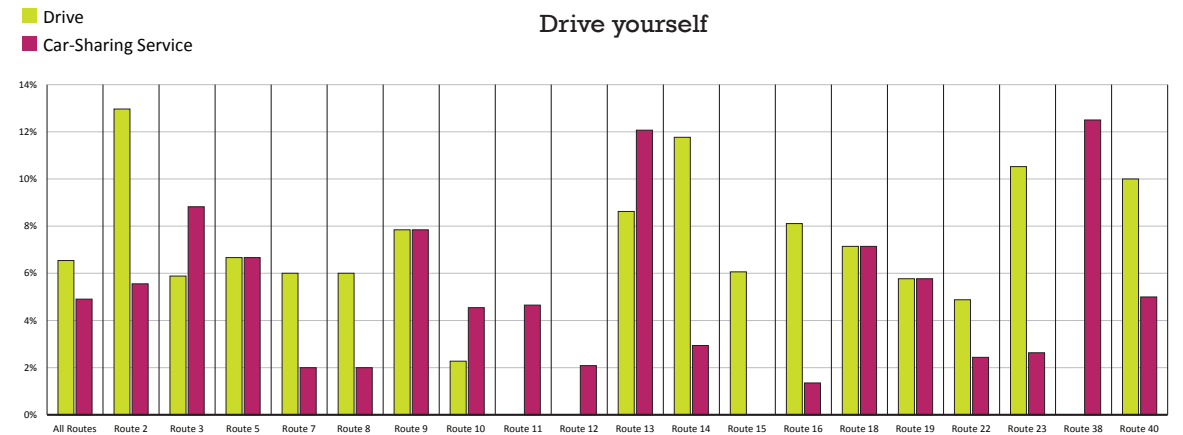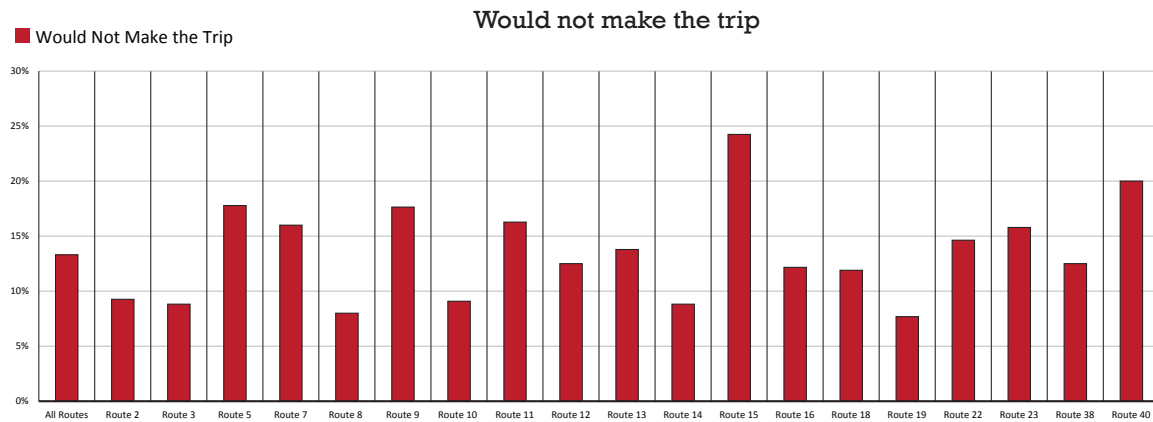
Scale comparison of graphs:

RESULTS:

51%	Walk
17%	Bicycle
10%	Drive
16%	Taxi
7%	Car-sharing Services
1%	Uber/Lyft
25%	Ride with a Friend
19%	Would not Make the Trip

IMPLICATIONS: Riders indicated that their most likely alternative to riding the bus would be to walk to their destination. Therefore, pedestrian infrastructure is essential to ensure that riders have options when the bus service is not running. Bicycling also scored highly, indicating a need for investment in bicycle infrastructure. The difference between "Taxi" and "Uber/Lyft" is interesting considering the apprehension expressed by established taxi agencies with regard to ride-sharing companies. "Car-sharing Services" do not exist in Oklahoma City, though they did when this survey was conducted. The most disconcerting answer to this question is that 1 in 5 riders would not make the trip if the bus did not exist. This shows just how reliant many riders are on the transit system.

Conclusions

The results of this survey help to understand who is riding the bus, why they use the bus, and how they feel their needs are being met by the service. We see in the section entitled "Individual Route Profiles" (p. 8) that all of the ZIP codes that a bus route passes through have riders represented. This implies that if people have access to a transit system, they will use it. We also see that despite lower total numbers of citizens being within a 1/4-mile distance of a bus route with the new Embark routes than the Metro Transit routes, ridership has increased. System changes to make the buses more frequent and streamlined have proven to be a bigger draw to potential riders.

There is no average rider, but a wide array of demographic groups that all have different experiences on the bus. Finding ways to make everyone as comfortable and satisfied as possible should be a perpetual goal of any transit agency. Finally, we see where there are additional needs. Most riders are very dependent on the bus system, and would see a big improvement in their overall quality of life if the bus service was expanded into new areas and at all times of the day and week.

The changes made as part of the transformation from Metro Transit to Embark have been undeniably successful. Further changes should be planned and executed to capture the momentum accumulated in this transition. Improvements to bus stops and increases in service will continue to increase ridership, revenues, and satisfaction with the service.

Recommendations

1. Include questions and methodologies from this survey into recurring survey.

2. Improve accessibility.
   a. Improve sidewalk access to bus stops throughout the City of Oklahoma City.
   b. Add bus shelters where possible.
   c. Add bicycle infrastructure where possible.

3. Increase service level.
   a. Add Sunday service.
   b. Increase number of evening service routes.

4. Rework routes with most potential to include access to parks and natural areas.

5. Rework routes with most potential to include key employment areas; include schedule changes in these reworkings to most effectively connect people to jobs.

6. Create marketing that builds morale for riders, making them feel better about riding the bus.
   a. Tell them the environmental benefits.
   b. Tell them the financial benefits.

7. Find ways to decrease reliance on cash for fares.
   a. Consider going fareless.
   b. Allow credit card purchase of passes at the transit center.
   c. Allow credit card purchase of passes on buses.
   d. Decrease daily pass cost to $3.50 or cheaper so that it is not cheaper to buy single trips for an out-and-back trip.
   e. Make 7-day and 30-day cards not count Sundays as part of their length – buses don't run, so these days should not count.

8. Use the weighted average comparisons in this survey to investigate conditions on the lowest performing routes to determine what improvements should be made.
   a. Heavily-traveled routes may need additional buses to increase capacity.
   b. Certain drivers may have poor customer relations skills and should be addressed individually.
   c. Routes suffering from poor timeliness may need to be considered for re-routing.

9. Find ways to improve the riding experience for the key demographic groups that are least satisfied: young riders, higher-income riders, and frequent riders.
   a. Increase marketing efforts toward families, women, and students of all ages.