NCPTA & NCDOT-IMD PRESENT

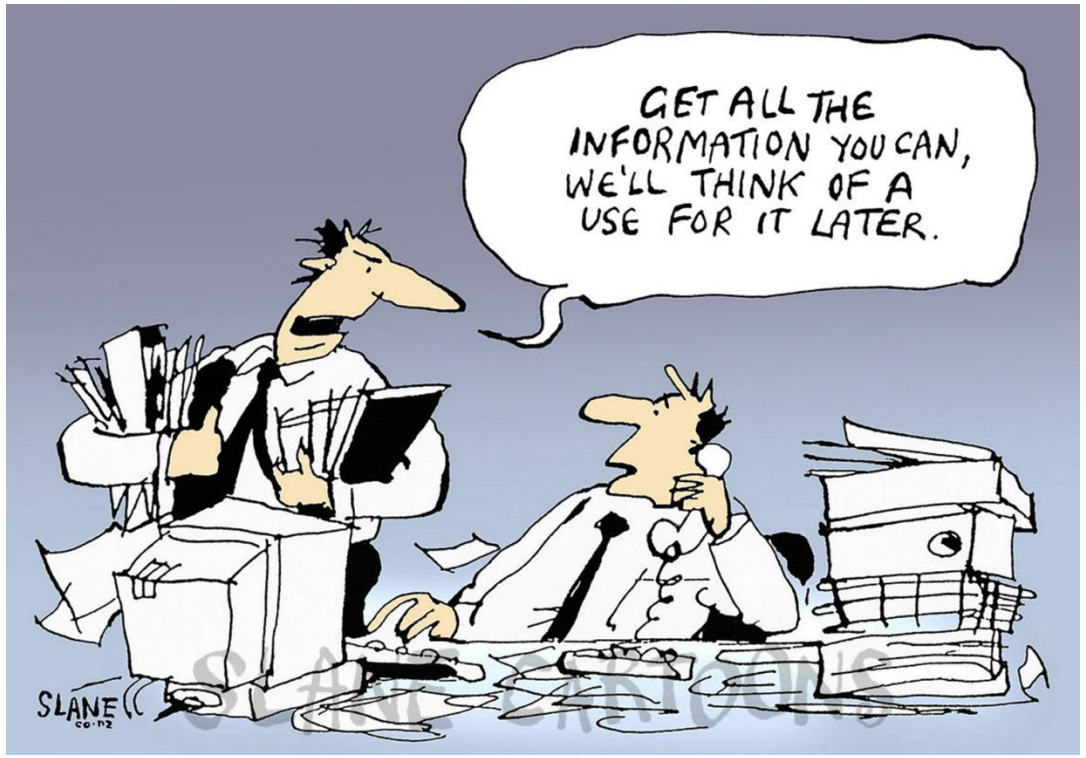
"Data for Mobility & the Importance of an Accurate Count"

Presented by:

Miguel Fernandez – Transportation Planner – PART

Bob Coats - Governor's Census Liaison - NC Office of State Budget and Management

- Please make sure you sign-in with your name and organization.
- Please use the Chat option to let us know how many people are at your location.
- Please use the Chat option for any questions for the presenters, we will address them at the end of the presentations.



PROPERTY NEAR TRANSIT HAS HIGHER APPRECIATION

(2012-2016)

INCREASED HOME VALUES

MEDIAN SALES PRICE INCREASES WERE **4-24%** HIGHER NEAR TRANSPORTATION

in regions served by multiple transit modes

HIGHEST GAINS NEAR RAPID RAIL TRANSIT, BRT, AND COMMUTER RAIL

INCREASED DEMAND FOR RENTALS NEAR TRANSIT

RENT PRICE INCREASES WERE **2-14%** HIGHER IN PUBLIC TRANSIT STATION AREAS

40,500 RENTAL UNITS ADDED ACROSS ALL 7 STUDY REGIONS

INCREASED VALUE OF OFFICE SPACE

MEDIAN SALES PRICE PER SQUARE FOOT OF OFFICE PROPERTIES INCREASED **5-42%** MORE IN PUBLIC TRANSIT STATION AREAS

EMPLOYERS PREFER TO LOCATE IN URBAN CORES TO ATTRACT TALENT

1 in 4 HOUSEHOLDS NEAR TRANSIT DOES NOT OWN A VEHICLE

THESE HOUSEHOLDS SPEND **$2,500-$4,400 LESS** ON TRANSPORTATION

THE REAL ESTATE MANTRA - LOCATE NEAR PUBLIC TRANSPORTATION

Data-Driven Transit Planning

Data for Mobility & the Importance of an Accurate Count

Public Transportation Webinar Series

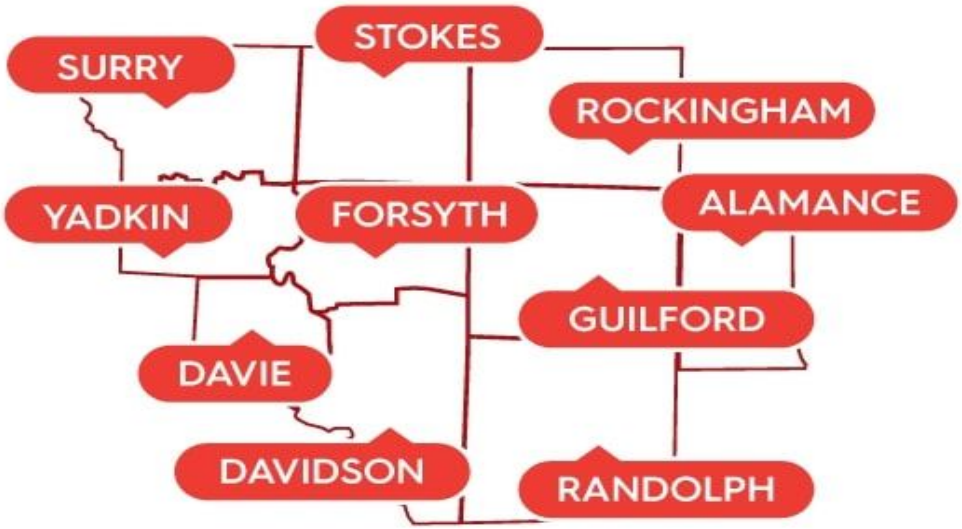
January 14, 2020

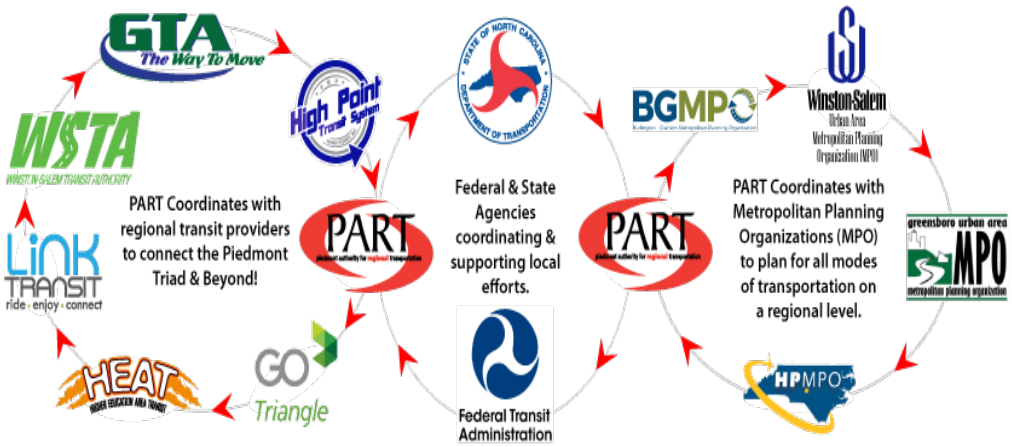
Miguel Fernandez
Transportation Planner
Piedmont Authority for Regional Transportation

- About PART
- How Data is Used in Transit Planning
- Challenges
- Looking Forward

About PART

- Our goal is to improve transportation through regional cooperation.
- PART is a unit of local government which serves a 10-county territory of the Piedmont Triad Region.





PART Regional System Map

Connecting Communities

ROUTES

1 Winston-Salem Express
2 Greensboro Express
3 High Point Express
4 Alamance Burlington Express
5 NC Amtrak Connector
6 Surry County Express
9 Davidson Business 85 Express
10 Randolph Express
17 Kernersville Express
19 Palladium Circulator Shuttle
20, 21, 22, 23, 27 Airport Area Shuttles
28 West Forsyth Express

PART connects to your local transit system...

GTA The Way To Move · HEAT · DC Rider · High Point Transit System · WSTA · LINK TRANSIT ride · enjoy · connect · GO Triangle

PART piedmont authority for regional transportation

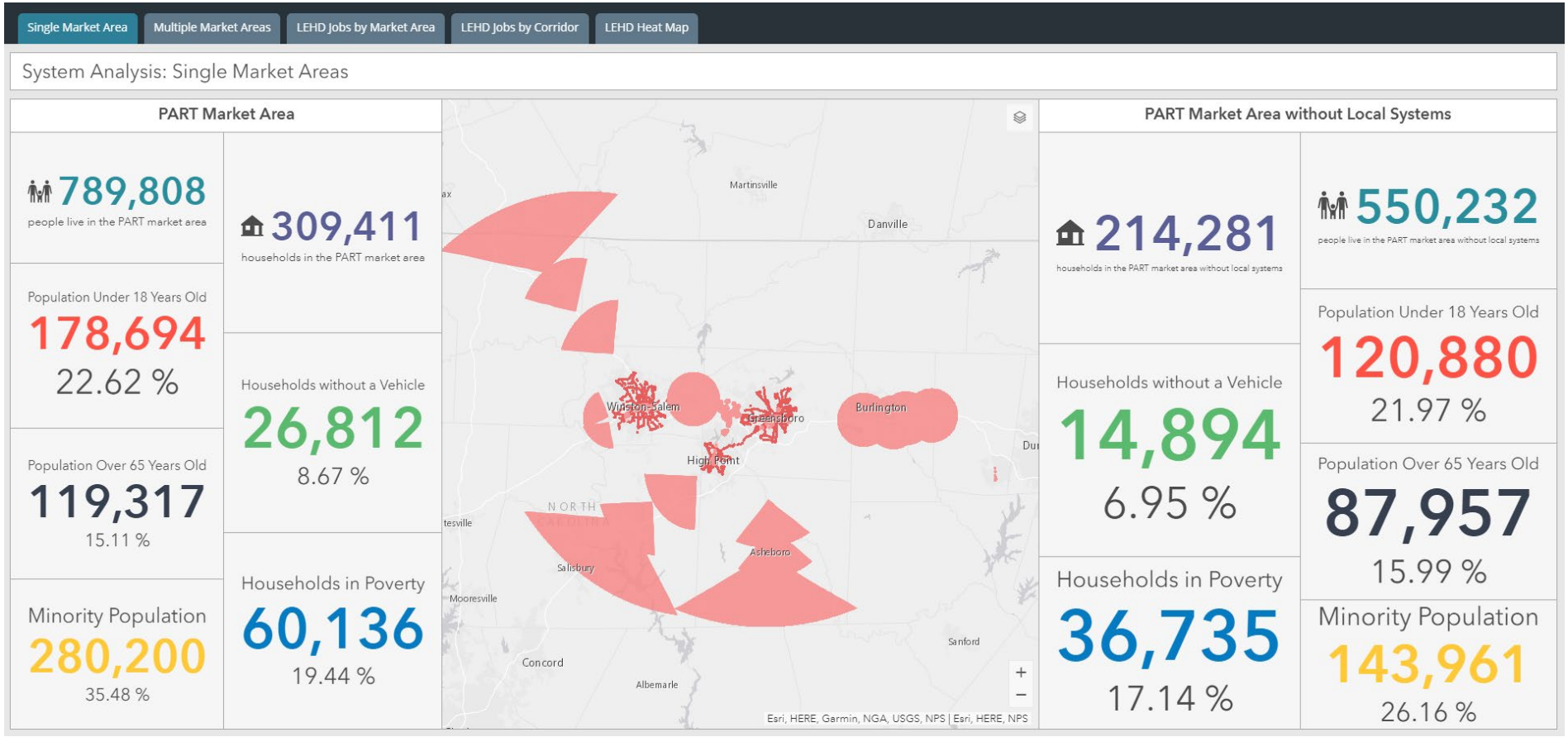
www.PARTnc.org

Connecting Communities

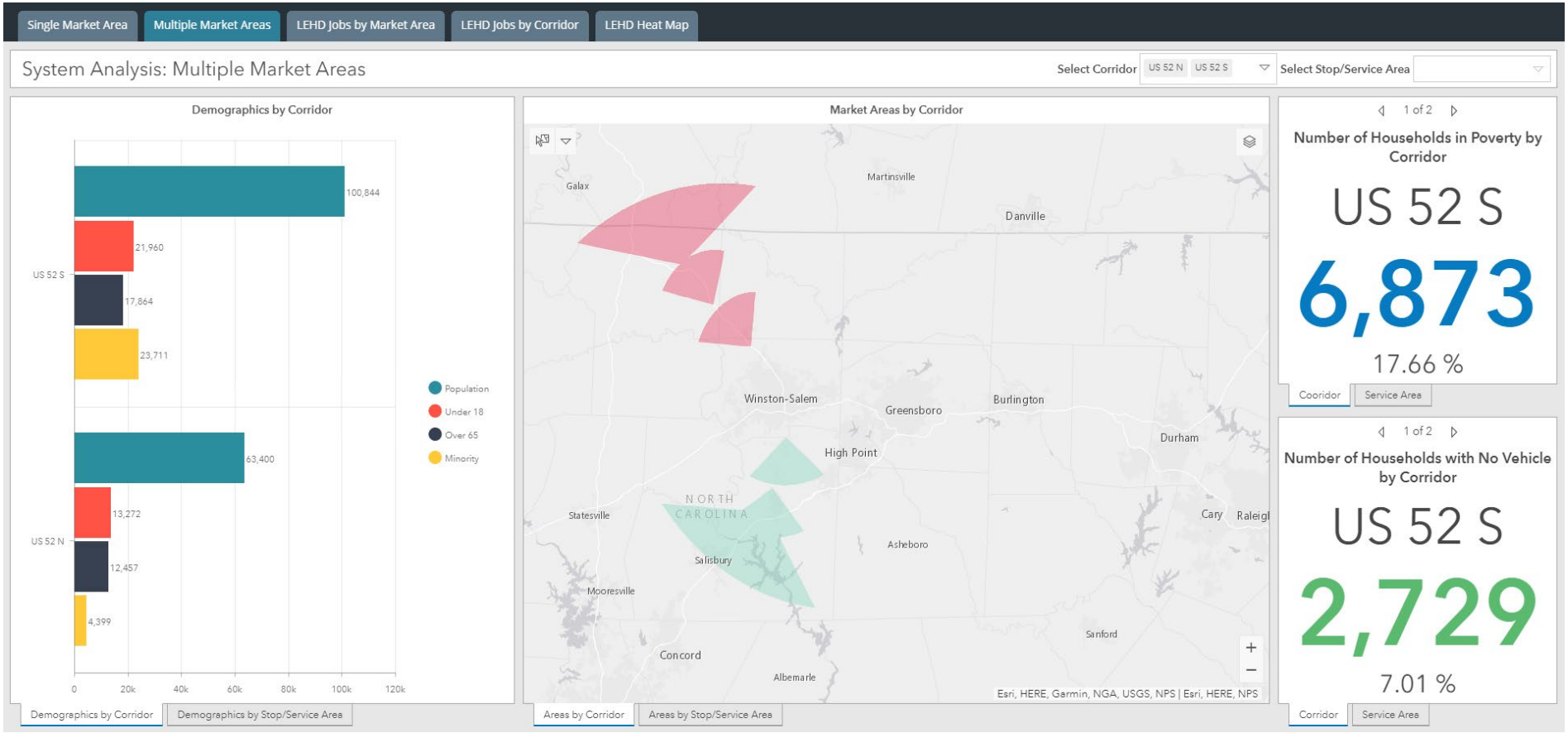
Data Sources

- American Community Survey (ACS)
- OnTheMap
- Automatic Passenger Counters (APC's)
- Surveys

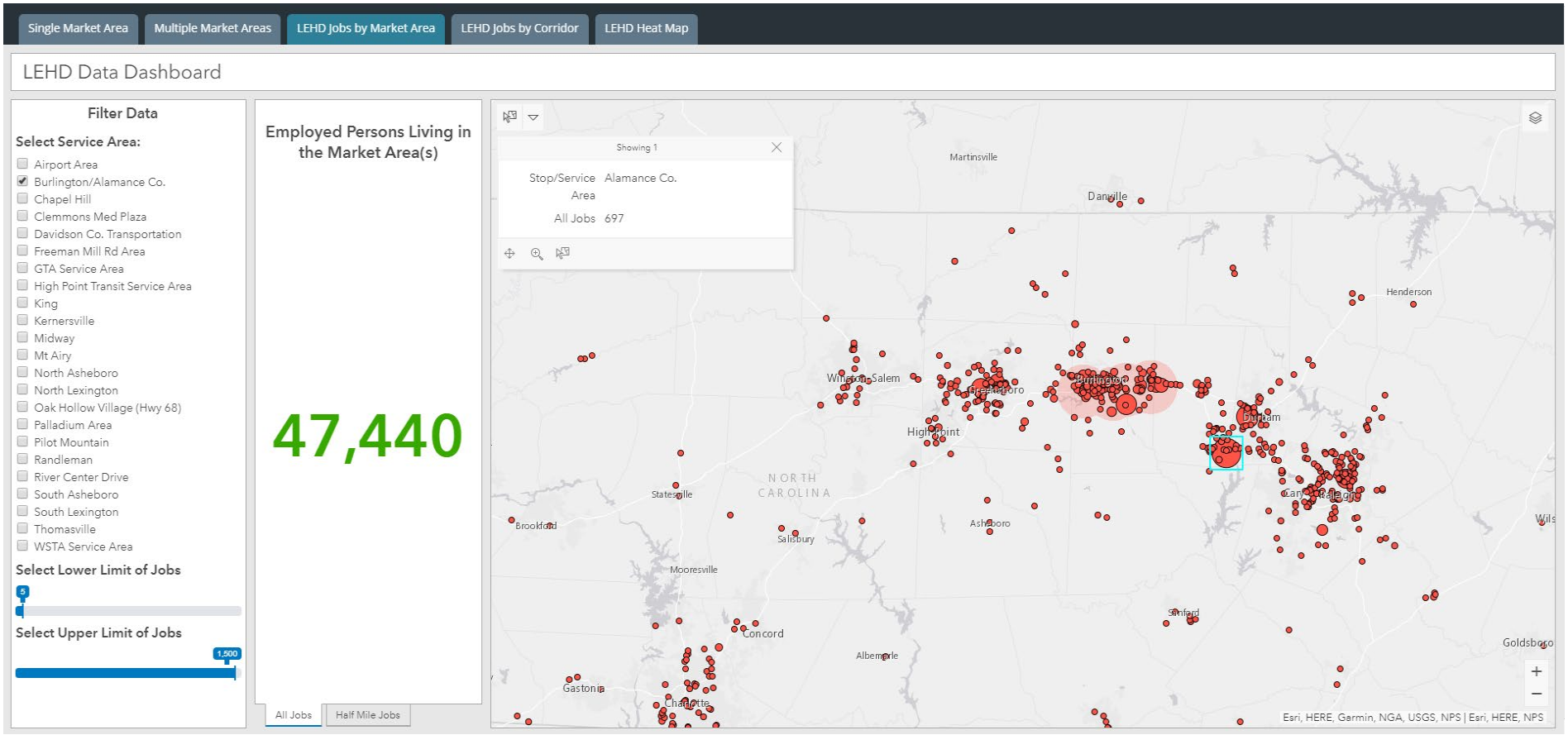
System Analysis



Rideshed by Corridor



LEHD Data by Rideshed



Automatic Passenger Counter (APC) Data

- Sensor that detects when bus doors open and close
- Infrared sensors at bus door counts passengers boarding and alighting
- Sensor that detects wheelchair ramp and bike rack activity
- GPS device that provides latitude and longitude

APC Stop Summary Data

APC Stop Summary Report for In Session 2019 (August 5, 2019 -October 31, 2019)

Does not meet Shelter Requirements | *Does meet Shelter Requirements*

*Use with Individual Trip

PART Stop	AVG Daily Boardings	AVG Daily Alightings	AVG Daily Passenger Load	AVG Daily Pass Load	Stop Sequence
Hwy 68 N & Sutton Way (La Fiesta)	13.26	15.9		166.52	0
High Point Amtrak Station	30.63	7.23		35.04	0
Winston-Salem Transportation Center (L-1)	156.35	167.22		166.24	0
High Point Terminal (Outer Slip)	145.89	140.8		146.4	0
Ambulatory Care Center	25.94	21.48		26.11	0
Kernersville Town Hall Park & Ride	9.84	11.71		21.16	0
Coble Transportation Center	662.98	900.51		671.52	0
Mebane Cone Health Park & Ride	51.15	51.2		169.1	0
Forsyth Medical Center (East)	9.98	3.11		12.81	0
Mount Airy Park & Ride	23.22	31.63		24.28	0
Alamance Community College	16.79	18.6		110.23	0
South Asheboro Park & Ride	3.87	5.72		4.16	0
Davidson County Transportation Center	7.4	6.88		8.4	0
South Lexington Park & Ride	0.56	0.25		0.56	0
Clemmons Medical Plaza Park & Ride	2.29	5.61		4.33	0
Truliant	1.37	3.24		1.52	0
Greensboro Depot Slip 16	259.23	194.68		274.98	0
Winston-Salem Transportation Center (A-3)	8.9	42.14		51.79	0
4th & Chestnut	27.03	4.33		210.17	1
Industries of the Blind	0.08	0.22		14.36	1
Kernersville Medical Center (EB)	5.93	5.92		9.76	1
Centennial & Hawthorne (Northbound)	12.32	1.08		148.82	1
WSSU (MLK Jr at Williams Auditorium)	1.6	9.04		24.4	1
5th Street (WS Journal)	5.02	7.63		183.19	1
Liberty & 1st (Corpening Plaza)	4.59	9.54		27.62	1
E Washington Street (Bennett College)	0.21	0.07		44.11	1
Manning Dr at UNC Hospitals	40.09	0.66		65.01	1
Four Seasons Mall	46.28	42.23		491.26	1
Martin Luther King Jr Blvd at Airport Dr	0.06	4.14		96.11	1
Hanes Mall Blvd	0.07	0.08		1.26	1
Alamance Regional Medical Center	18.73	17.03		65.2	1
High Point Clinical Trials	1.76	7.72		47.09	1
Oak Hollow Square	0.17	0.61		2.05	1

Route

- 1 - Winston-Salem Express
- 2 - Greensboro Express
- 3 - High Point Express
- 4 - Alamance-Burlington Express
- 5 - NC Amtrak Connector
- 6 - Surry County Express
- 9 - Davidson Business 85 Express
- 10 - Randolph Express
- 17 - Kernersville Express
- 19 - Palladium Circulator
- 20 - NW Pleasant Ridge
- 21 - NE Chimney Rock
- 22 - SW Sandy Ridge

*Select the route you want to see ridership for

Trip Start Time

530, 540, 545, 550, 555, 558, 600, 604, 615, 630, 640, 645, 650

*Select time for start of trip

Stop Name

Industries of the Blind
Innovation Quarter (4th & Res...
Innovation Quarter (5th & Pat...
Kernersville Medical Center (...
Kernersville Town Hall Park & ...
Kernersville VA Health Care C...
King Park & Ride
Lawrence Transportation
Liberty & 1st (Corpening Plaza)
Little Santee Rd & Capital Dr
Little Santee Rd & Triad Dr
Macy Grove Rd (Eastside)
Macy Grove Rd (Westside)

*Select a stop(s) you want to see ridership for

Day of Week

WKDY
SAT
SUN

*Select day of week

Direction

Dir = 0
Dir = 1

*Use Stop Sequence to see which way the bus is travelling '0' is the starting point of that trip

Service Period

AM Peak | Off Peak
PM Peak | Evening

*Select a service period you want ridership for
*AM PEAK is 6:00 am - 8:59 am
*OFF PEAK is 9:00 am - 2:59 pm
*PM PEAK is 3:00 pm - 5:59 pm
*EVENING is 6:00 pm - 5:59 am

APC Stop Summary Data

APC Stop Summary Report for In Session 2019 (August 5, 2019 -October 31, 2019)

Does not meet Shelter Requirements | *Does meet Shelter Requirements*

*Use with Individual Trip

PART Stop	AVG Daily Boardings	AVG Daily Alightings	AVG Daily Passenger Load	AVG Daily Pass Load	Stop Sequence
Greensboro Depot Slip 16	2.59	0		2.59	0
E Washington Street (Bennett College)	0	0		2.59	1
Gate City Blvd & E Florida St (Eastbound)	0	0		2.62	2
Alamance Regional Medical Center	6.35	0.06		8.89	3
Graham Park & Ride	6.83	0.31		15.41	4
Alamance Community College	4.69	0.37		19.72	5
Mebane Cone Health Park & Ride	8.74	0.31		28.15	6
Martin Luther King Jr Blvd at Airport Dr	0.02	1.13		27.04	7
MLK Jr Blvd & Umstead Dr (Eastbound)	0	0		27.04	8
Columbia & Franklin	0.07	2.74		24.37	9
S Columbia St at Fraternity Ct	0.07	2.02		22.43	10
Pittsboro St (SECU)	0.02	8.8		13.65	11
Manning Dr at Hospital Park Deck	0.04	10.52		3.17	12
Ambulatory Care Center	0	4.28		0	13
Grand Total	**29.42**	**30.54**	**197.67**	**197.67**	**0**

Route

- 4 - Alamance-Burlington Express
- 1 - Winston-Salem Express
- 2 - Greensboro Express
- 3 - High Point Express
- 5 - NC Amtrak Connector
- 6 - Surry County Express
- 9 - Davidson Business 85 Express
- 10 - Randolph Express
- 17 - Kernersville Express
- 19 - Palladium Circulator
- 20 - NW Pleasant Ridge
- 21 - NE Chimney Rock
- 22 - SW Sandy Ridge

*Select the route you want to see ridership for

Trip Start Time

- 540
- 604
- 630
- 725
- 755
- 809
- 840
- 900
- 930
- 1110
- 1406
- 1500
- 1615

*Select time for start of trip

Stop Name

- Alamance Community College
- Alamance Regional Medical C...
- Ambulatory Care Center
- Columbia & Franklin
- E Washington Street (Bennett...
- Gate City Blvd & E Florida St (E...
- Graham Park & Ride
- Greensboro Depot Slip 16
- Manning Dr at Hospital Park D...
- Martin Luther King Jr Blvd at A...
- Mebane Cone Health Park & R...
- MLK Jr Blvd & Umstead Dr (Eas...
- Pittsboro St (SECU)

*Select a stop(s) you want to see ridership for

Day of Week

- WKDY
- SAT
- SUN

*Select day of week

Direction

- Dir = 0
- Dir = 1

*Use Stop Sequence to see which way the bus is travelling '0' is the starting point of that trip

Service Period

- AM Peak
- Off Peak
- PM Peak
- Evening

*Select a service period you want ridership for

*AM PEAK is 6:00 am - 8:59 am

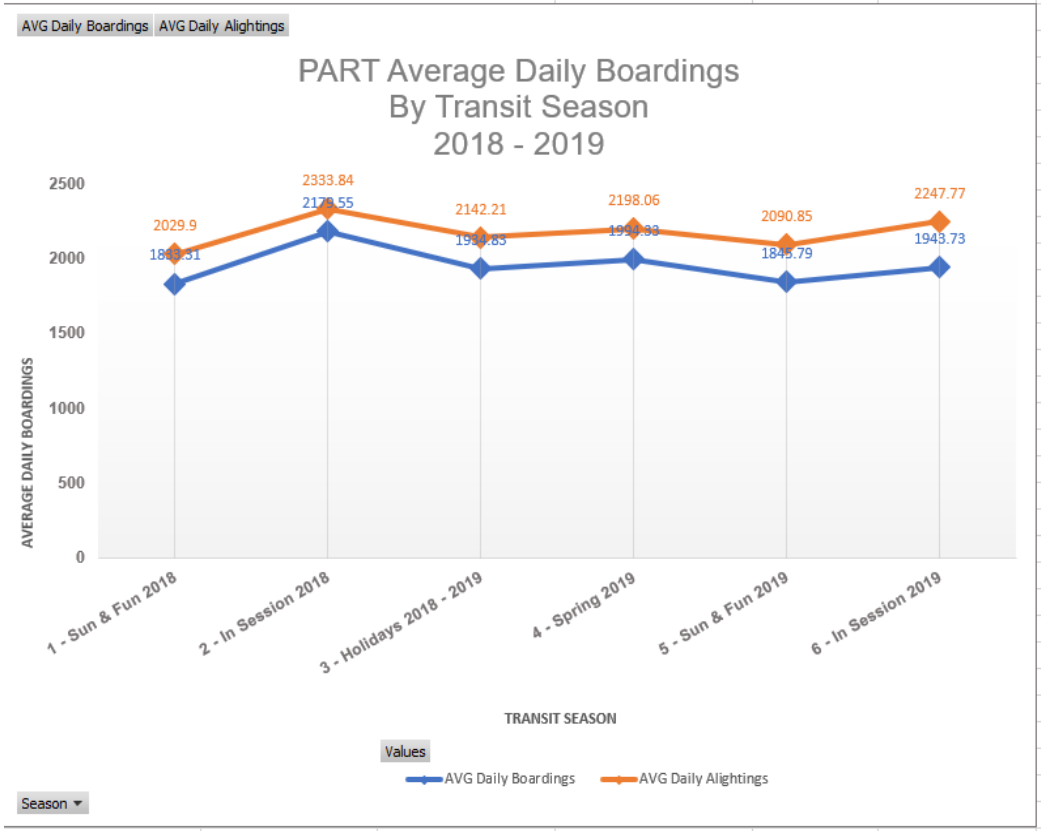
*OFF PEAK is 9:00 am - 2:59 pm

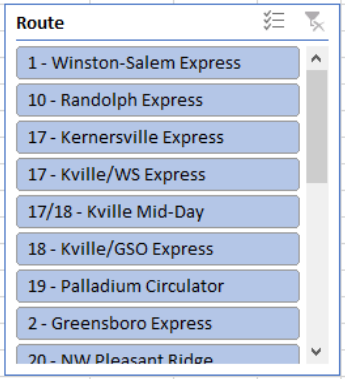
*PM PEAK is 3:00 pm - 5:59 pm

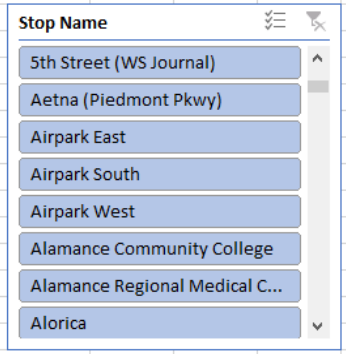
*EVENING is 6:00 pm - 5:59 am

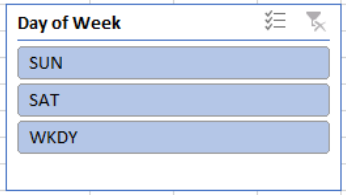
APC Stop Summary

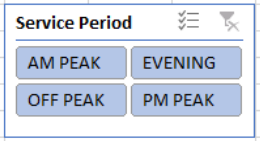
Transit Seasons	AVG Daily Boardings	AVG Daily Alightings
1 - Sun & Fun 2018	1833.31	2029.9
2 - In Session 2018	2179.55	2333.84
3 - Holidays 2018 - 2019	1934.83	2142.21
4 - Spring 2019	1994.33	2198.06
5 - Sun & Fun 2019	1845.79	2090.85
6 - In Session 2019	1943.73	2247.77



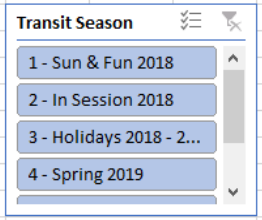




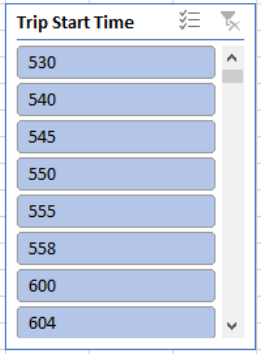




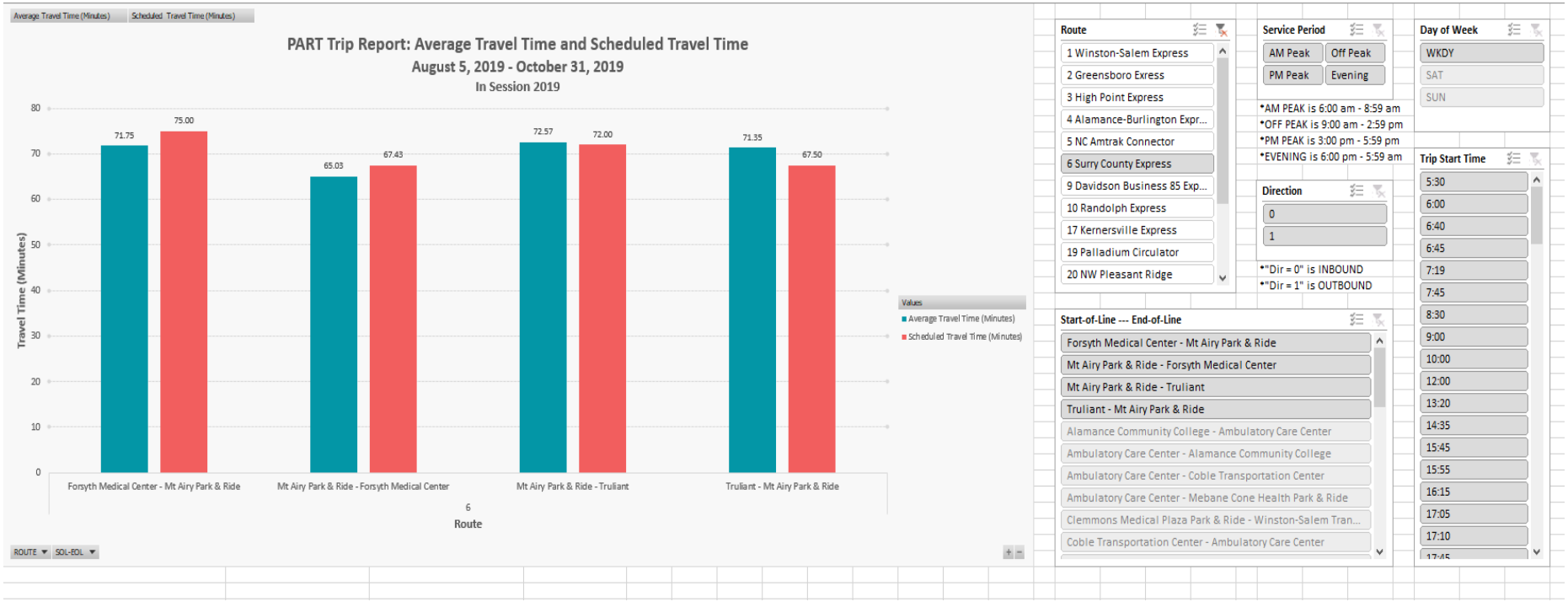
*AM PEAK is 6:00 am - 8:59 am
*OFF PEAK is 9:00 am - 2:59 pm
*PM PEAK is 3:00 pm - 5:59 pm
*EVENING is 6:00 pm - 5:59 am



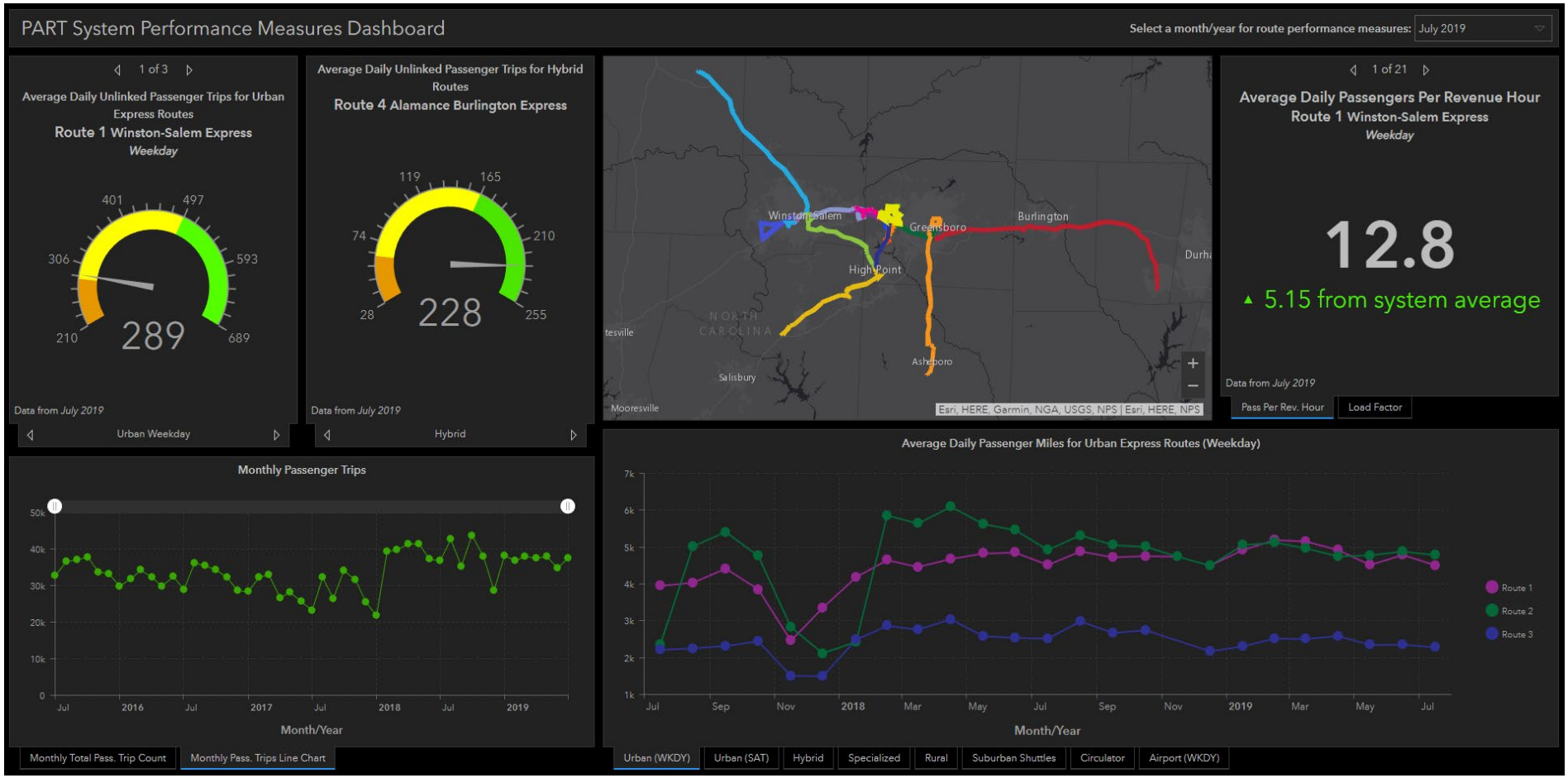
* Sun & Fun: May - July
* In Session: August - October
* Holidays: November - January
* Spring: February - April



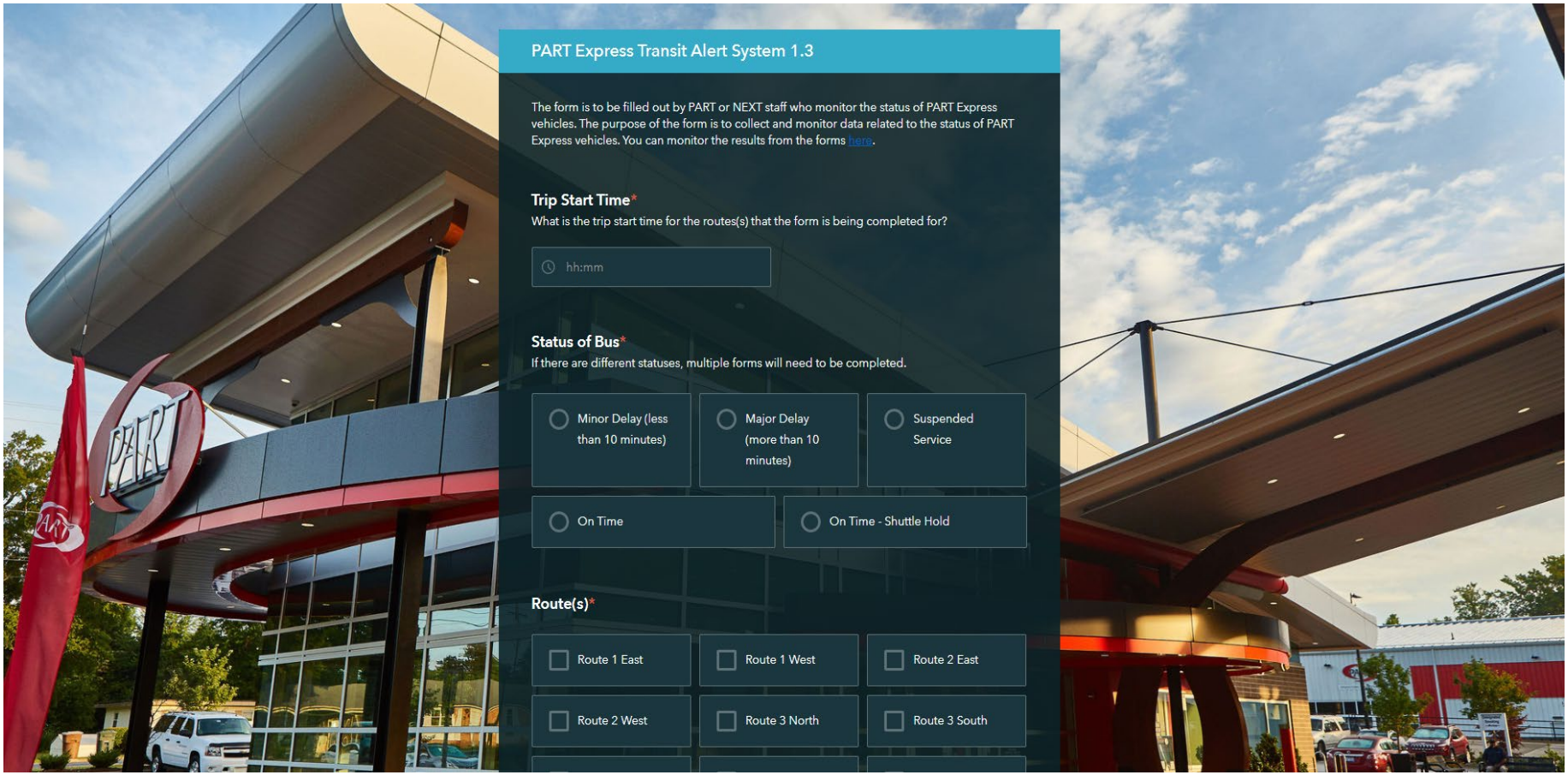
APC Trip Report Data



Performance Measures



Transit Alert System



Transit Alert System

Challenges

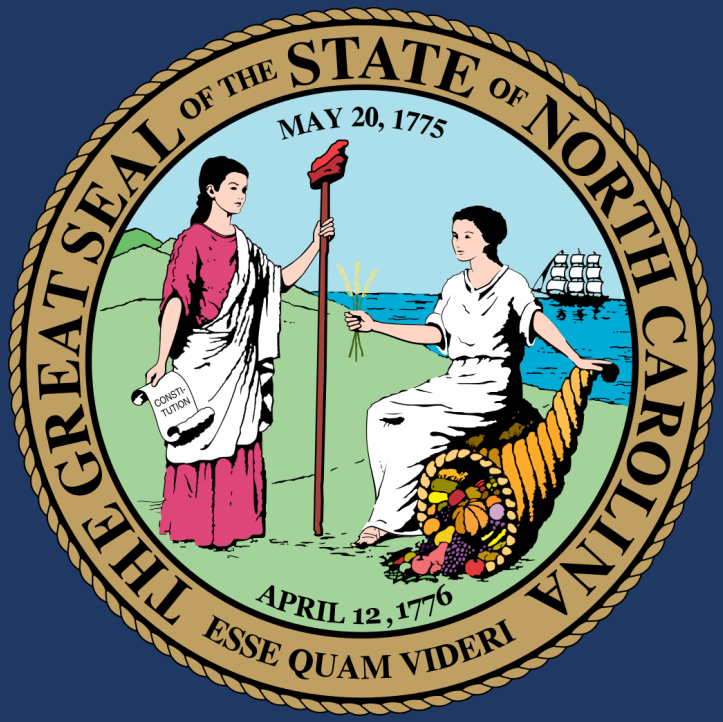
- Longitudinal Employer-Household Dynamics data from 2015
- No deployment plan for buses and APC's
- Updating the Performance Measures dashboard is a very manual process
- There was a learning curve when PART made the switch from the email blast to the Transit Alert System

Looking Forward

- Deep analysis of Transit Alert System
- Conduct further passenger surveys to refine PART's rideshed
- Update Bus Stop Inventory

Thank you!

Miguel Fernandez
Transportation Planner
Piedmont Authority for Regional Transportation
miguelf@partnc.org



Making NC Count
Piedmont Authority for Regional Transportation
January 14, 2020

Bob Coats
Governor's Census Liaison
North Carolina State Data Center
Office of State Budget & Management,
Demographic & Economic Analysis Section

Bob.Coats@osbm.nc.gov

North Carolina Population vs. Other States

9th Largest State at 10.5 Million

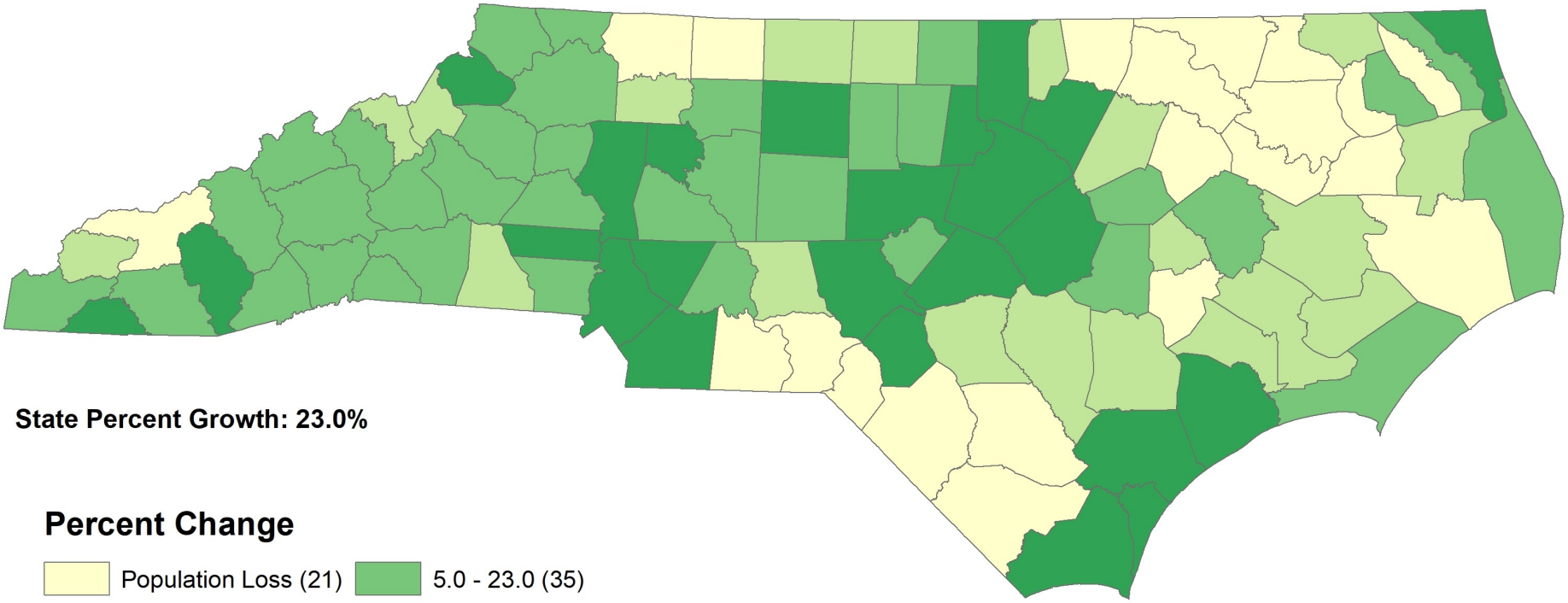
4th Largest Population Gain (952,000 people), April 2010 to July 2019

	Population Estimate		Change, 2010-2018	
Geographic Area	**April 1, 2010**	**July 1, 2018**	**Numeric**	**Percent**
United States	*308,758,105*	*328,239,523*	*19,481,418*	*6.3*
California	37,254,519	39,512,223	2,257,704	6.1
Texas	25,146,091	28,995,881	3,849,790	15.3
Florida	18,804,564	21,477,737	2,673,173	14.2
New York	19,378,144	19,453,561	75,417	0.4
Pennsylvania	12,702,868	12,801,989	99,121	0.8
Illinois	12,831,572	12,671,821	-159,751	-1.2
Ohio	11,536,751	11,689,100	152,349	1.3
Georgia	9,688,729	10,617,423	928,694	9.6
North Carolina	9,535,751	10,488,084	952,333	10.0
Michigan	9,884,116	9,986,857	102,741	1.0

Source: U.S. Census Bureau, Population Estimates, Vintage 2019. 2010 census estimates base.

Projected Population Change, July 1, 2019 – July 1, 2039

Projected Growth in Majority of NC Counties

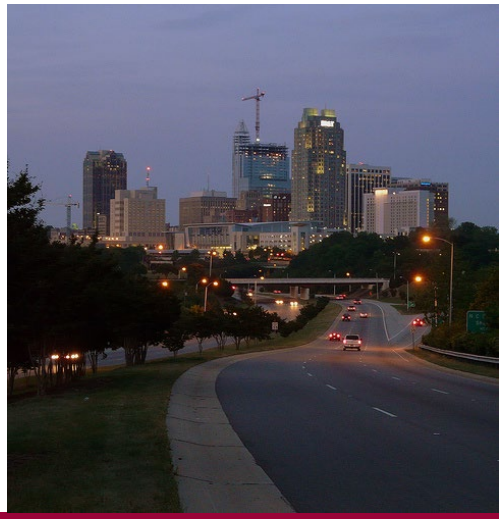


Source: North Carolina Office of State Budget & Management, Demographic & Economic Analysis, Population Projections, Vintage 2019.

You May Have Heard …

MAKE NC COUNT

CENSUS 2020



Census Impact

- **Our Voice (Representation)**
  - Census is required by the US Constitution
  - Count every resident, once, and in the right place
  - Apportionment and Redistricting
- **Our Tax Dollars (Funding)**
  - $1,623 per person, per year in Federal Funding to NC based on Census data in FY2015
  - About $200 per person, per year in state funding based on Census data
- **Our Future (Planning)**
  - Largest survey in the US providing reliable, comparable data
  - Vital for business and local government service

Decennial Census is a Foundation

- **Geographic Foundation**
  - Census Redistricting
    Establishes the smallest geographic units (census blocks) used for redistricting
  - Participant Statistical Areas Survey (PSAP)
    Defining statistical boundaries for the next decade including tribal areas and Census Designated Areas
  - Boundary Annexation Survey (annual)
    Verifying boundary changes
- **Demographic Foundation**
  - Largest and most granular survey
    Foundation for other Census estimates, models, and surveys throughout the decade like ACS and LEHD

Census Data at Work

Classroom size

Service Audience

Infrastructure Workload

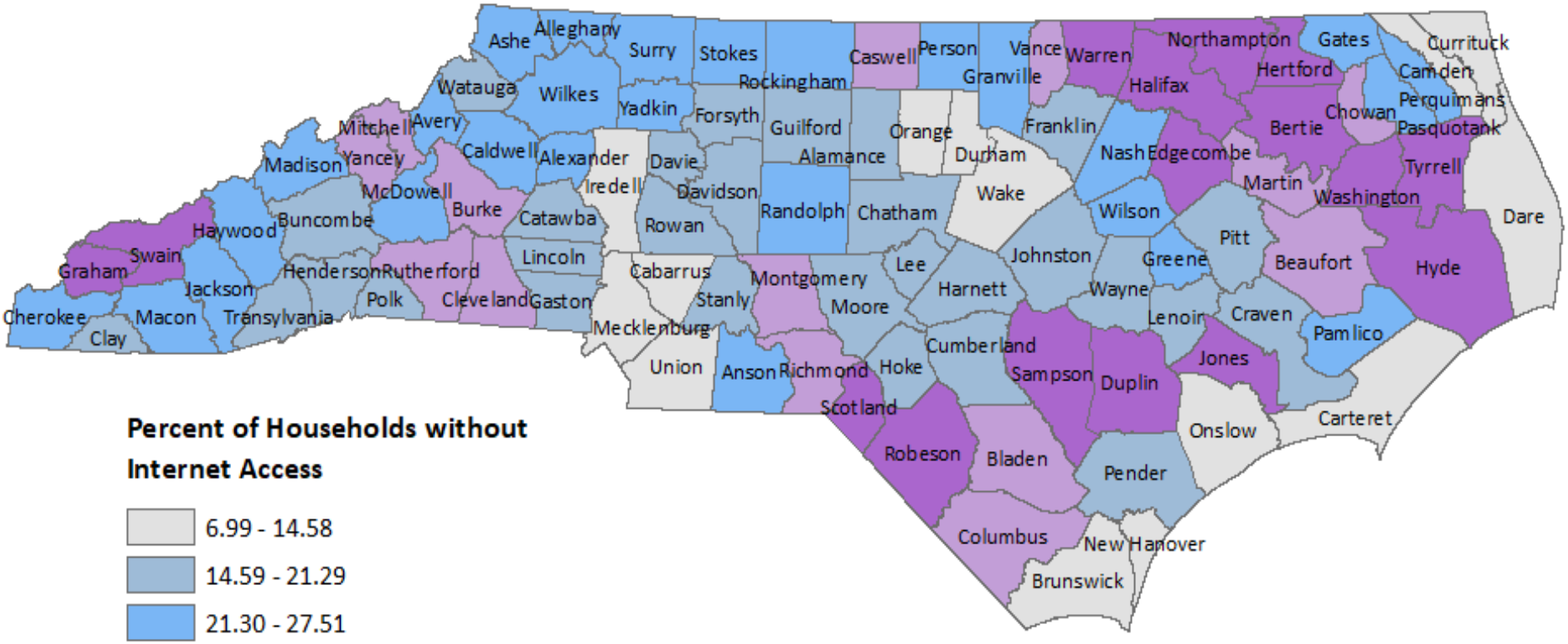
What Can We Expect?

- **Census Mailings in March 2020**
  Internet, phone, and paper response options will be available
- **April 1, 2020 is Census Day**
  Non-response Follow Up will begin in April
- **State Populations must be reported by December 31, 2020**
  These numbers determine apportionment of seats in Congress
- **Redistricting Files will be delivered in Spring 2021**
- **Census Count Challenges can be submitted through 2023**
  Challenges can only be submitted by local/tribal governments
- **Metropolitan Statistical Areas will be redefined in 2023**

Internet Access in North Carolina

Percent of Households Without Internet Access

Source: 2014-2018 American Community Survey, US Census Bureau



Percent of Households without Internet Access

- 6.99 - 14.58
- 14.59 - 21.29
- 21.30 - 27.51
- 27.52 - 33.61
- 33.62 - 43.98

Statewide - 694,999 (17.74%)

Produced by the North Carolina Office of State Budget and Management

Questionnaire Assistance

- Assistance in responding to the 2020 Census will be available through online chat or by phone
- Census staff may be available on the ground in mid-March to assist
- Local communities should plan to schedule Census assistance at locations with internet access

You Can Help!

Here's Where to Start

- Start/join a Complete Count Committee
  Stay connected with the NC CCC
- Involve agency partners - staff and customers
- Leverage your existing resources

  Add the NC Census Logo to your website and email taglines

  Link to census.nc.gov

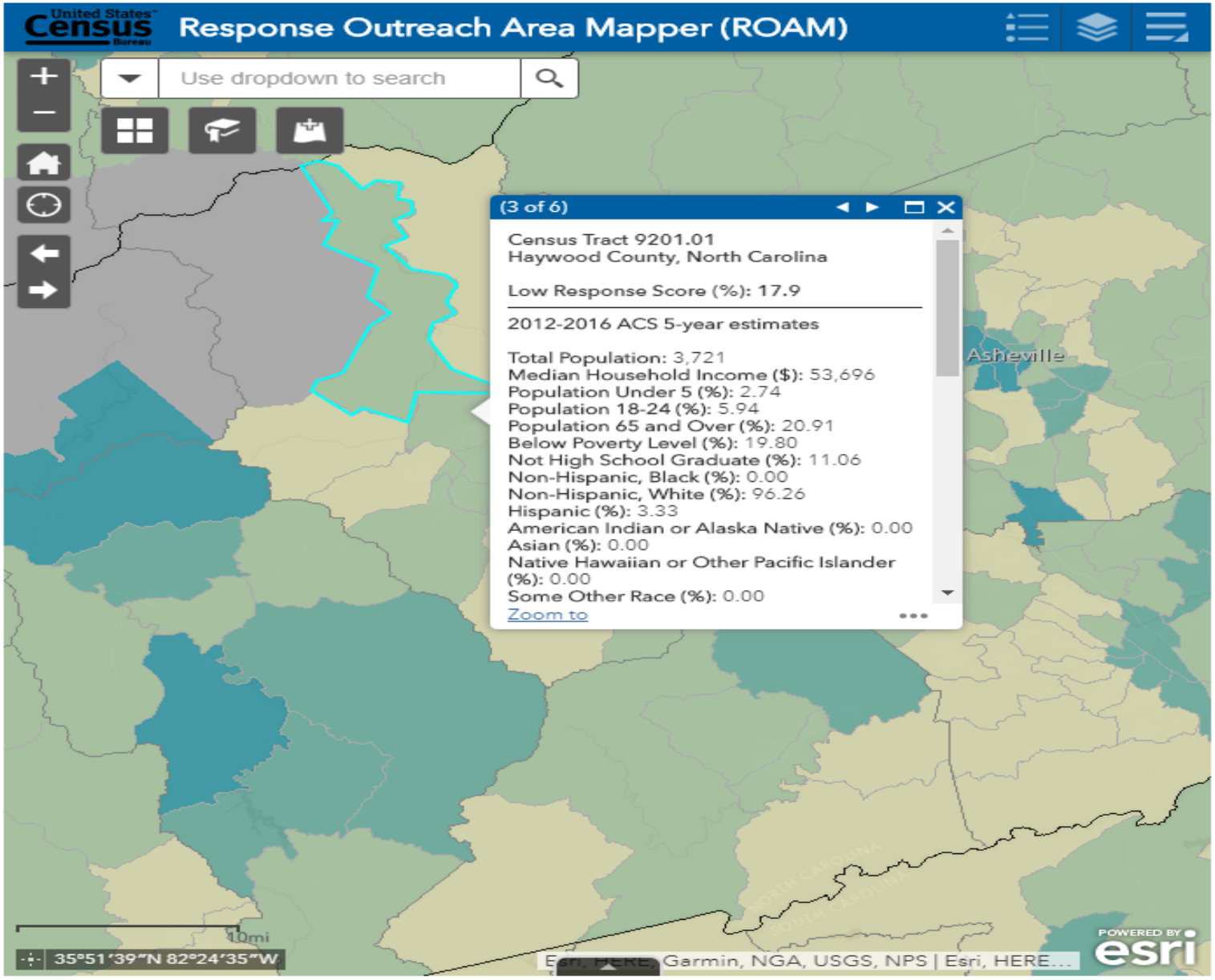
  Use #MakeNCCount and @NCCensus on social media

  Include Census logo, reference, or content on standard work processes (mailings, documents, listservs, blogs, etc.)

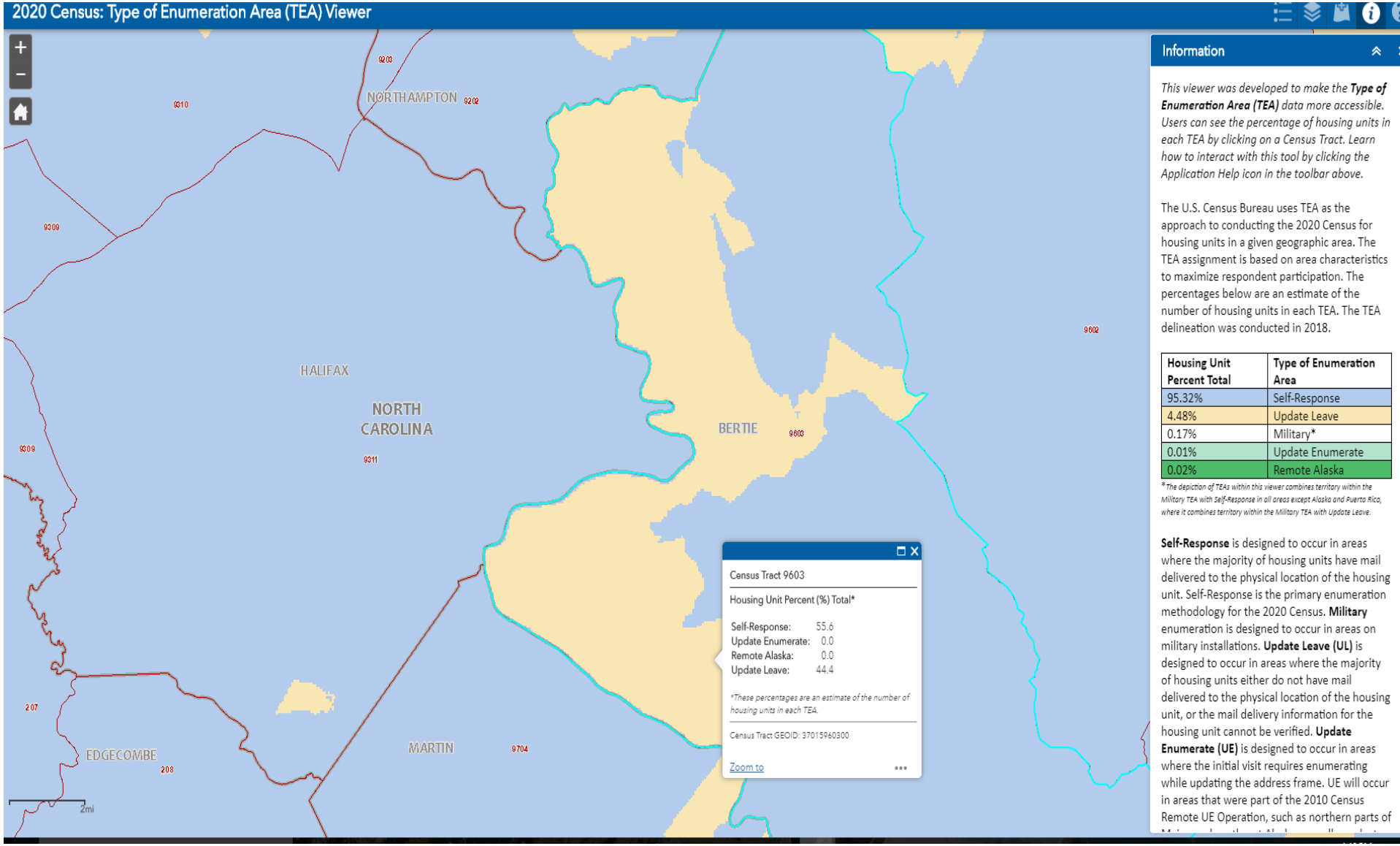
  Add Census message at conferences

Recent Migration
Poverty
Language
Participation Risk
Preschool Age
Race
Literacy

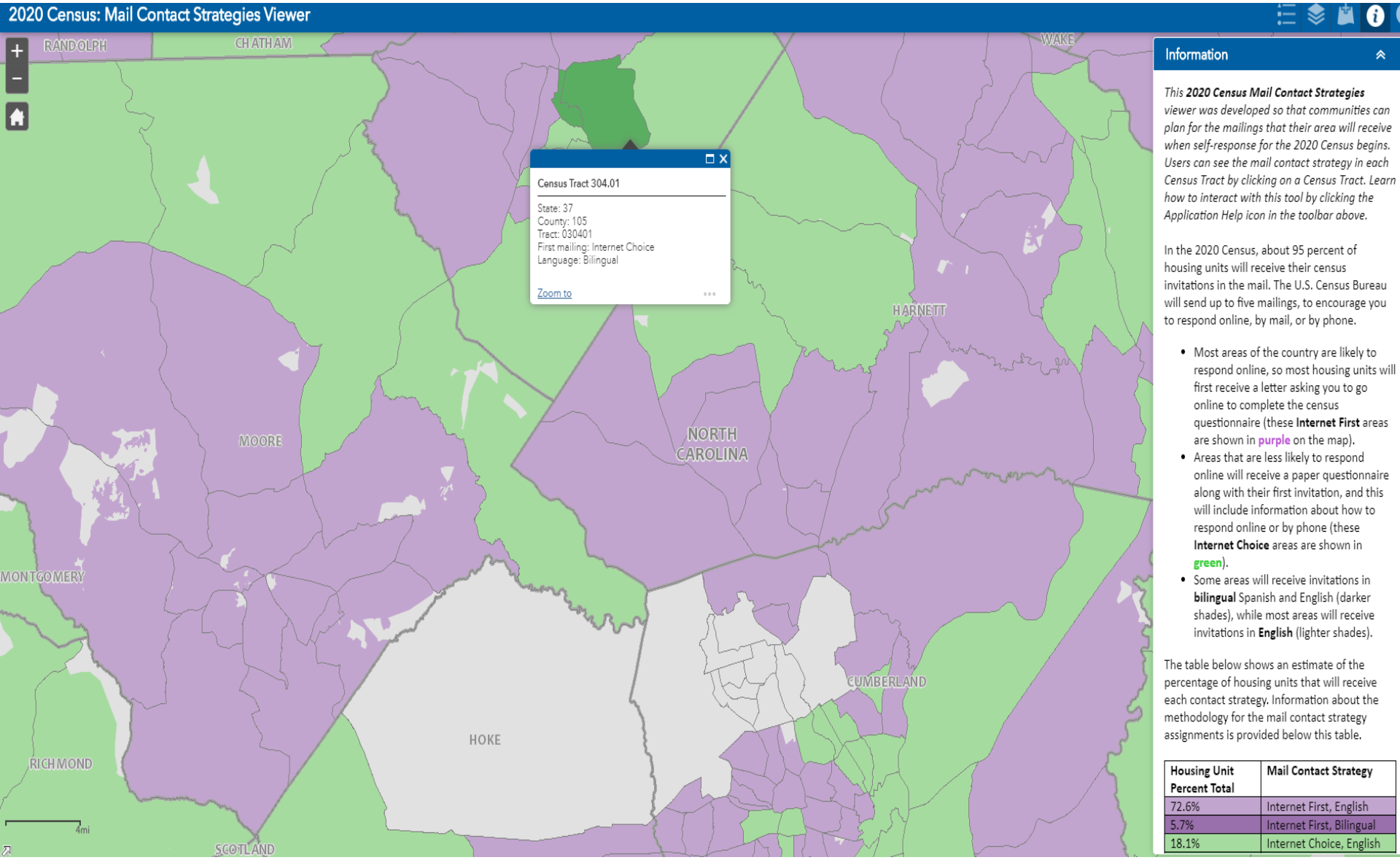
ROAM – https://www.census.gov/roam



Type of Enumeration Area (TEA) Viewer



Mail Contact Strategies Viewer



NC Census Website – https://census.nc.gov

MAKE NC COUNT
CENSUS 2020

Home Contacts

North Carolina 2020 Census

Make NC Count

The Census is your chance to make sure your community counts. Participating in the Census will help make sure your community gets:

- Fair representation in Congress
- Financial resources for health, schools, transportation, and more
- Information leaders need to help your community plan for the future.

What is the Census?

Differential Privacy

- New privacy strategy that will better protect confidentiality
- Introduces privacy-loss budget (or epsilon) that will decrease data accuracy to protect confidentiality
- Data tables for small population groups or geographies may not be produced … at least initially

Summary of Proposed 2020 Data Products

Proposed 2020 Data Product	Status
Apportionment Product	The current disclosure avoidance system either supports or is being expanded to support these 2020 Census data products
Redistricting File	
Demographic Profiles	
Demographic and Housing Characteristics File (DHC)	
Tables that require complex person/household joins	We continue to research ways to create public data products that include these tables that will meet user needs yet maintain data confidentiality.
Tables that include detailed race and Hispanic Origin groups	
Tables that include data for American Indian and Alaska Native groups	
Congressional District Demographic and Housing Characteristics File	Data in these files are primarily dependent on the production of the files listed above.
Census Briefs	
Population and Housing Tables (CPH-Ts)	
Special Reports	
Public Use Microdata Sample (PUMS) File	We continue to discuss the release of a PUMS file for the 2020 Census.
Summary of Population and Housing Characteristics (CPH-1)	We are proposing not to publish these files in 2020. Data from these products will be available in other files.
Population and Housing Unit Counts Report Series (CPH-2)	

Shape your future START HERE >
United States Census 2020

MAKE NC COUNT

CENSUS 2020

Contact

Bob Coats
(984) 236-0687
Bob.Coats@osbm.nc.gov

Governor's Census Liaison,
North Carolina State Data Center
Demographic and Economic Analysis Section
NC Office of State Budget and Management

Question & Answer Session:

Please use the Chat option on the right to ask your questions.

- Please use the Chat option to let us know how many people are at your location.

Please visit our website for this presentation, previous presentations and our schedule of future Webinars on exciting topics in today's Mobility solutions and related subjects.

https://connect.ncdot.gov/business/Transit/Pages/Transit-Lunch-Learn-Series.aspx

Thank you and please join us for our next Webinar in March. More details to come.