DCHC MOBILITY REPORT CARD SUMMARY 2019

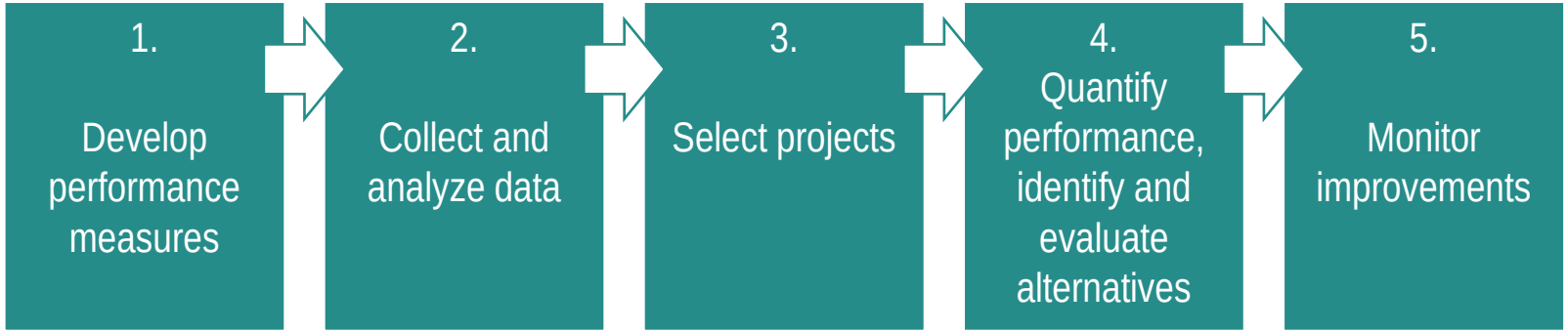
Prepared by: RENAISSANCE PLANNING

INTRODUCTION

WHAT IS THE MOBILITY REPORT CARD?

- Evaluates multimodal transportation system performance throughout the DCHC region.
- Twelve chapters addressing supply, demand, and safety across multiple modes.
  - Highlight key findings
  - Presentation of diverse metrics
  - Geographic summarizations and comparisons

CONGESTION MANAGEMENT PROCESS



- The Fixing America's Surface Transportation (FAST) Act is the current federal legislation guiding MPO planning nationwide.
- The FAST Act requires MPOs to have a Congestion Management Process (CMP).
- The Mobility Report Card's role in the CMP:
  - Develops multimodal performance measures (step 1)
  - Analyzes data (step 2)
  - Summarizes existing conditions and trends for the regional multimodal transportation system (step 4)

CHAPTERS

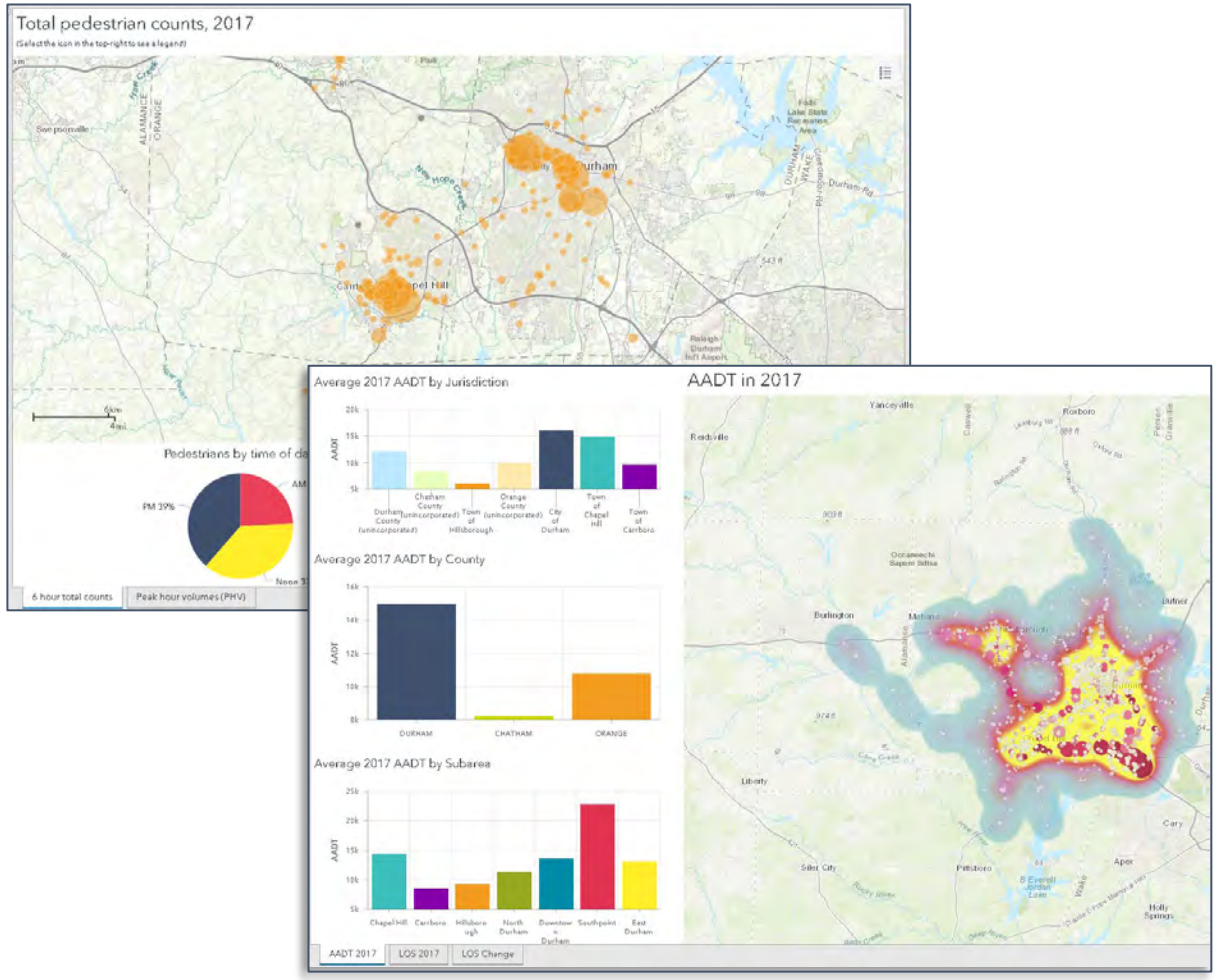
Chapters

1. Vehicle Activity and Arterial Level of Service
2. Intersection Peak Hour Level of Service
3. Vehicle Travel Time
4. Vehicle Safety
5. Pedestrian Facilities
6. Pedestrian Activity
7. Bicycle Facilities
8. Bicycle Activity
9. Pedestrian and Bicyclist Safety
10. Transit Service
11. Transit Ridership
12. Multimodal Mobility and Throughput

Detailed Appendices

A. Average Annual Daily Traffic (AADT) and Level of Service (LOS) by segment
B. Intersection Level of Service (LOS)
C. Travel Time Reliability by Segment
D. Multimodal Travel by Segment

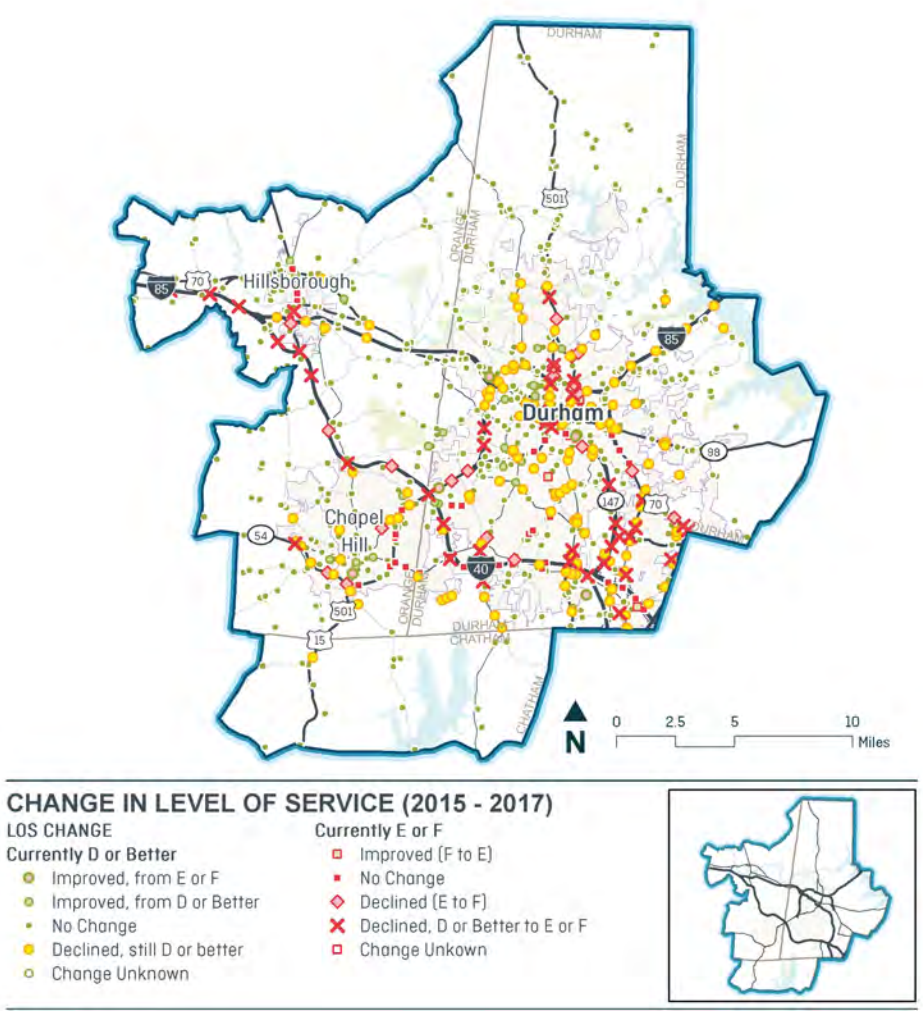
FORMAT AND ORGANZATION



- Print version is slimmer than previous Mobility Report Card (2015).
  - Body includes key findings, brief exposition, maps, and visualizations
  - Appendices provide detailed data by facility
- New online version
  - Interactive maps and visualizations simplify exploration of large quantities of data
  - Brief exposition of key findings and methodologies
- Easier to update
  - Map templates
  - Well-documented geodatabases
  - ArcGIS Online dashboards

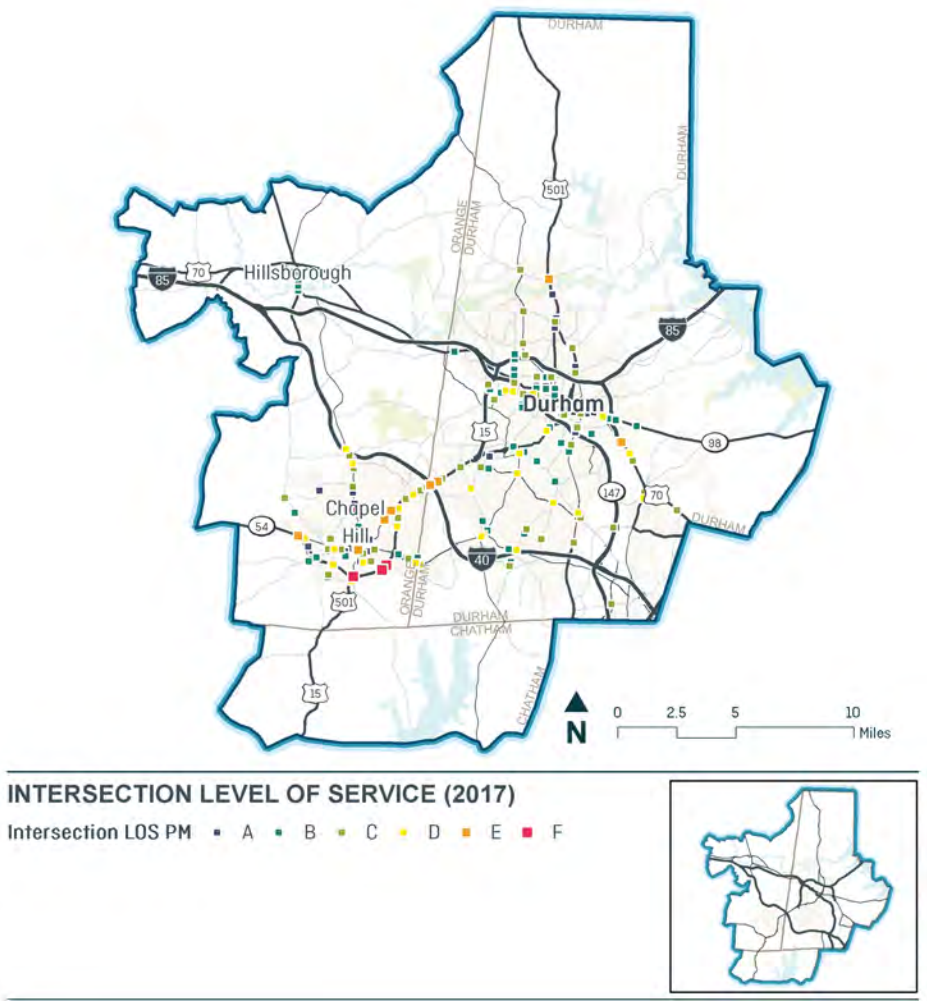
https://storymaps.arcgis.com/stories/c16aa1d9603a4e48a2acf979b6b3e328

1 | VEHICLE ACTIVITY AND ARTERIAL LEVEL OF SERVICE



- Regional traffic volume increased by 28% from 2009 to 2017.
- In 2017, fewer than 10% of stations were failing (LOS E or F)
- LOS declined at 18% of count stations throughout the region.
- Most locations with LOS decline are in Durham County

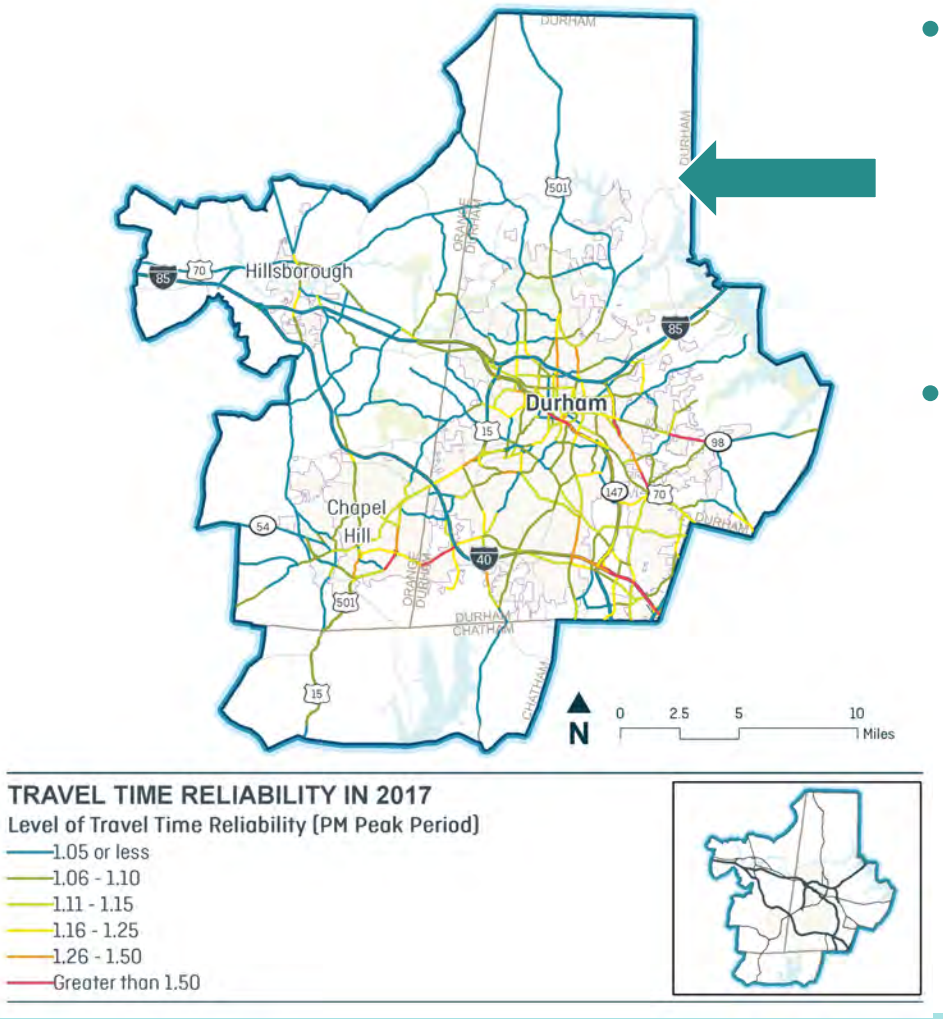
2 | INTERSECTION PEAK HOUR LEVEL OF SERVICE



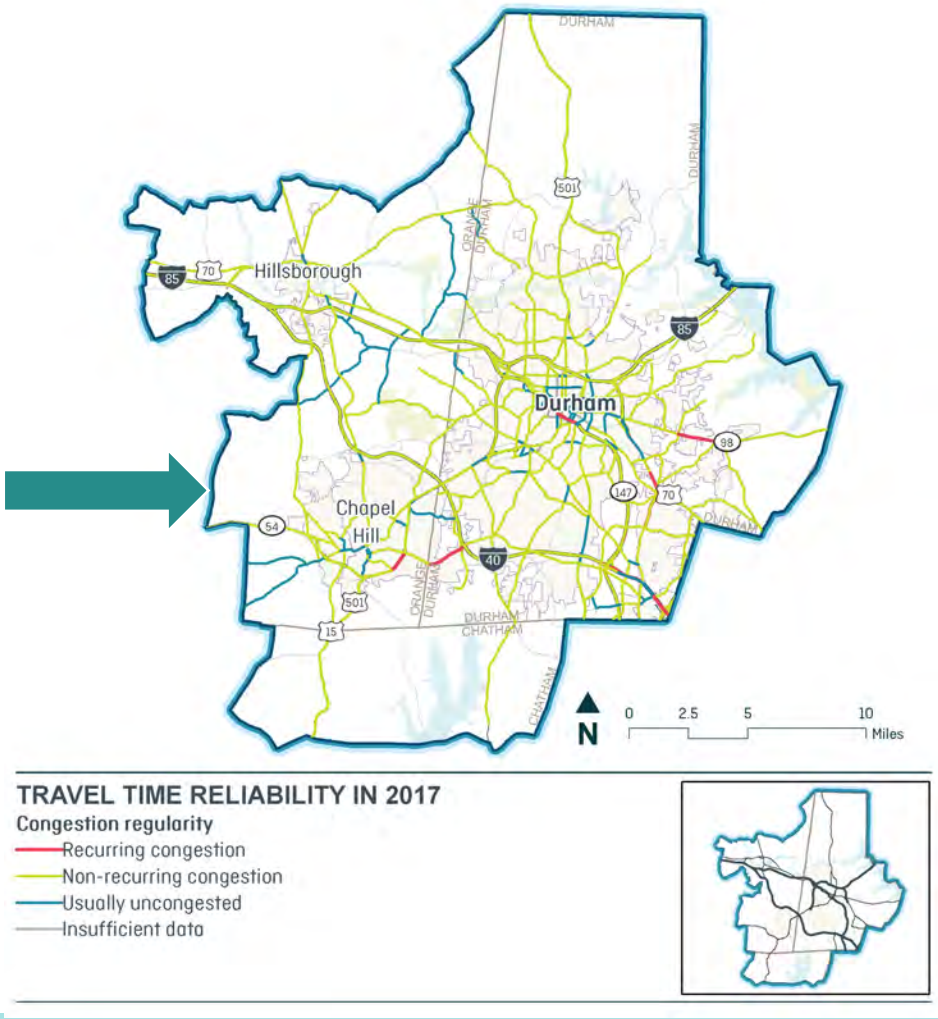
FINDINGS for AM/PM Peak periods

- 95%/94% of intersections operate at LOS D or better
- 12/15 Intersections operate at LOS E or F
- 69/66 intersections (23%) experienced a decline in LOS from 2013 to 2017
- 10/12 intersections declined to LOS E or F from 2013 to 2017
- Fewer intersections operate at LOS E or F in 2017 than 2013.

3 | VEHICLE TRAVEL TIME

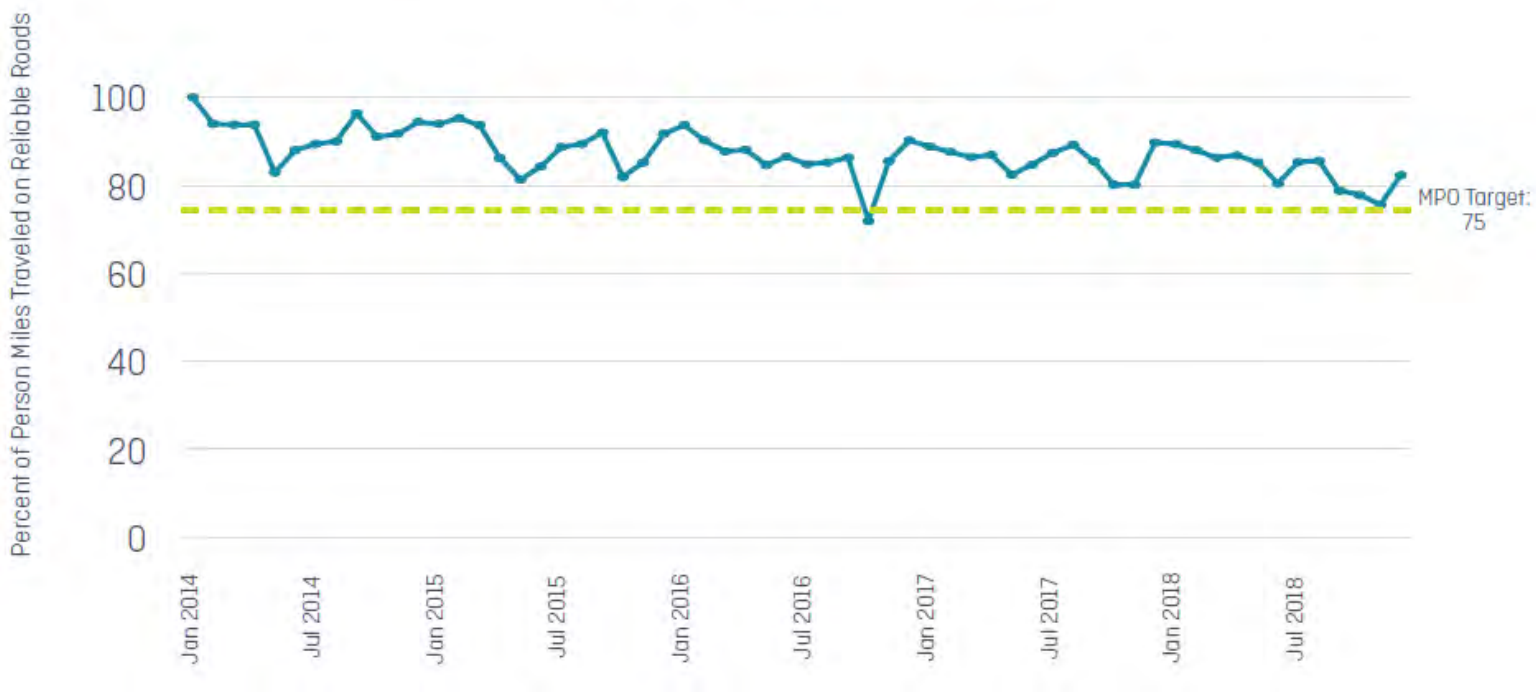


- Travel times are most unreliable in the Downtown Durham, Chapel Hill, East Durham, and Southpoint subareas.
- Recurring congestion results in persistent delays along…
  - US 15-501
  - NC-54
  - I-40
  - NC-147
  - US-70
  - NC-98.



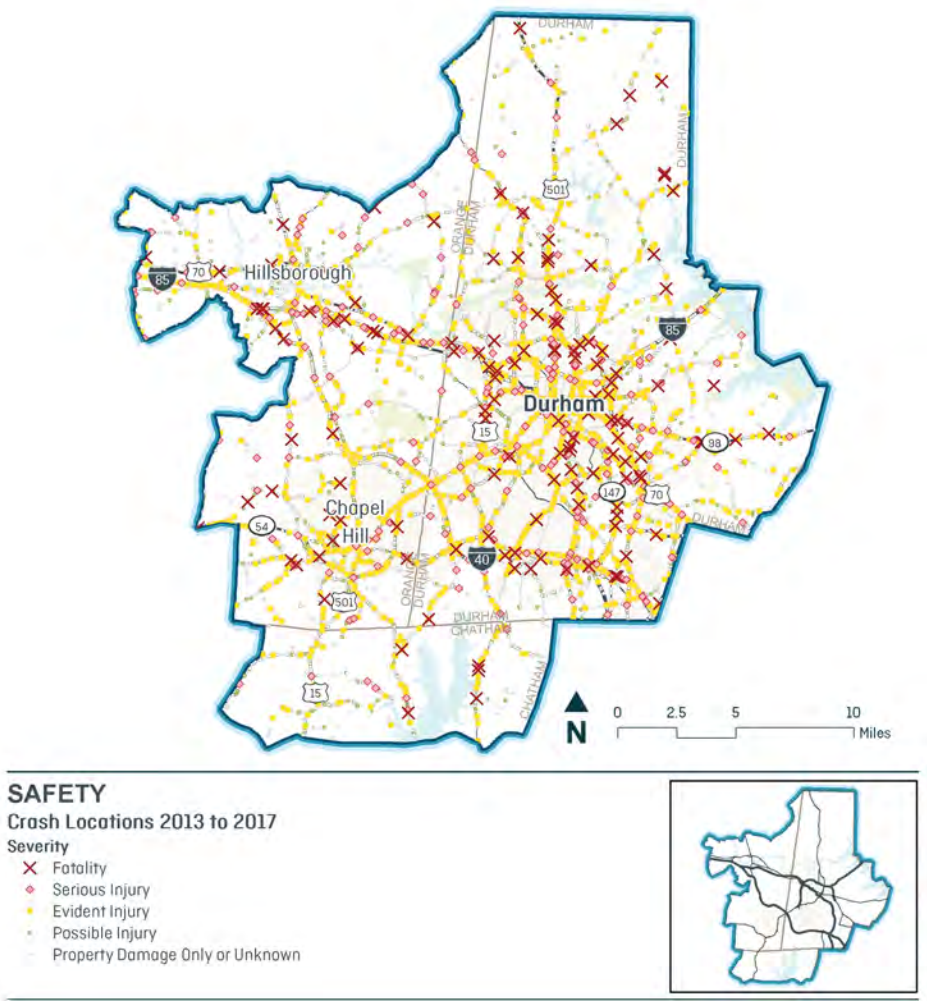
3 | VEHICLE TRAVEL TIME

Figure 3-1. Interstate Travel Time Reliability Measure



Regionwide, travel time reliability measures are at or near MPO targets.

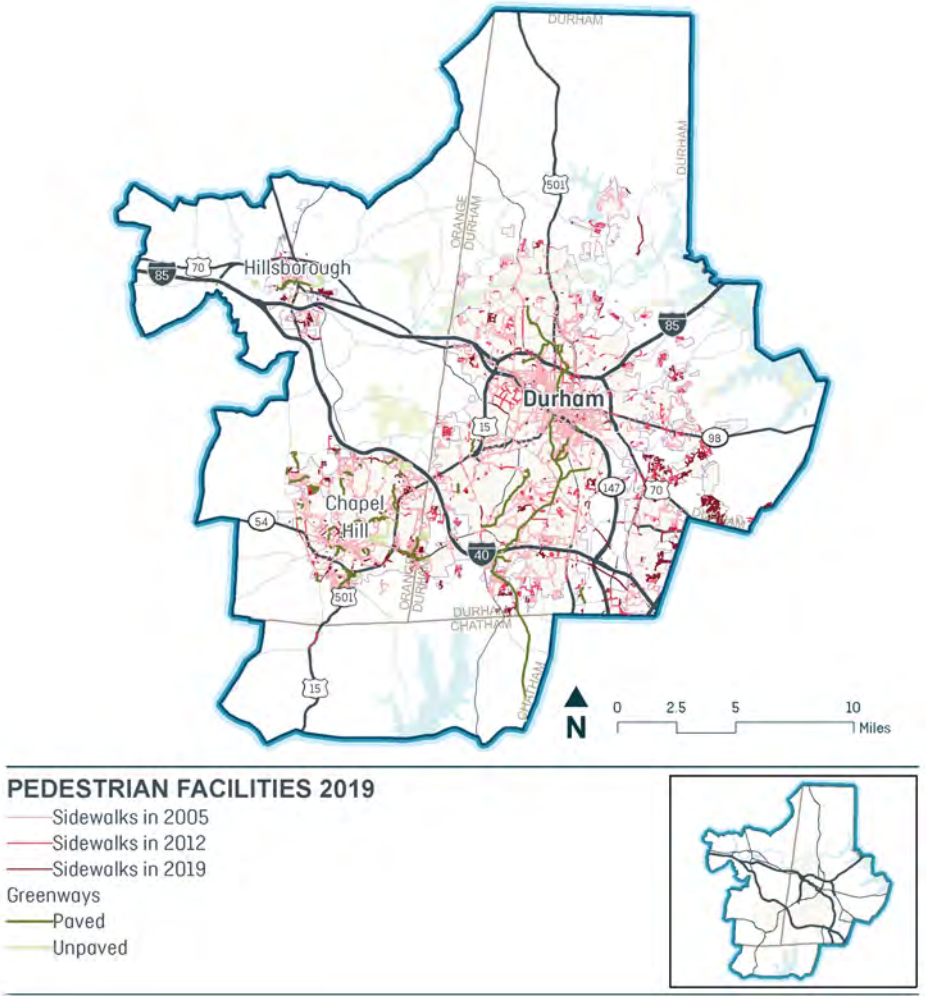
4 | VEHICLE SAFETY



FATAL	deaths that occur within twelve months of the crash
DISABLING	injuries serious enough to prevent normal activity for at least one day, such as massive loss of blood, broken bones, etc.
EVIDENT	non-fatal or disabling injuries that are evident at the scene such as bruises, swelling, limping, etc.
POSSIBLE	no visible injury but there are complaints of pain or momentary unconsciousness
NONE	no injury
UNKNOWN	unknown if any injury occurred

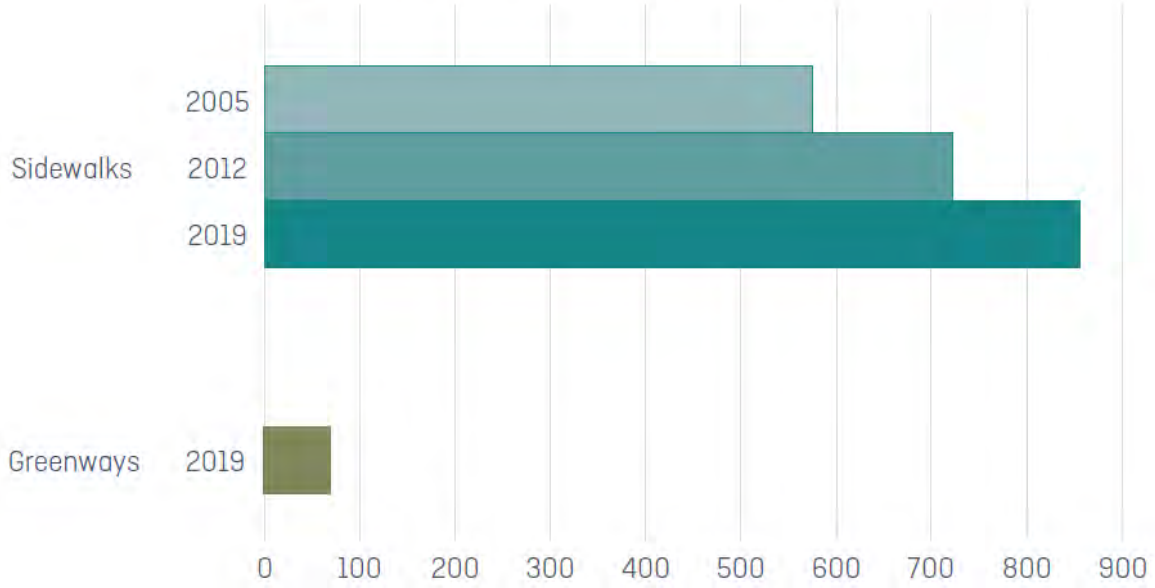
- 15,310 crashes occurred in the DCHC area in 2017
  - About 80% result in no evident injury
  - Crashes resulting in disabling injuries or death made up less than 1%.
- Rear-end collisions are the most common crash type.
- Crashes have increased along with regional population growth

5 | PEDESTRIAN FACILITIES

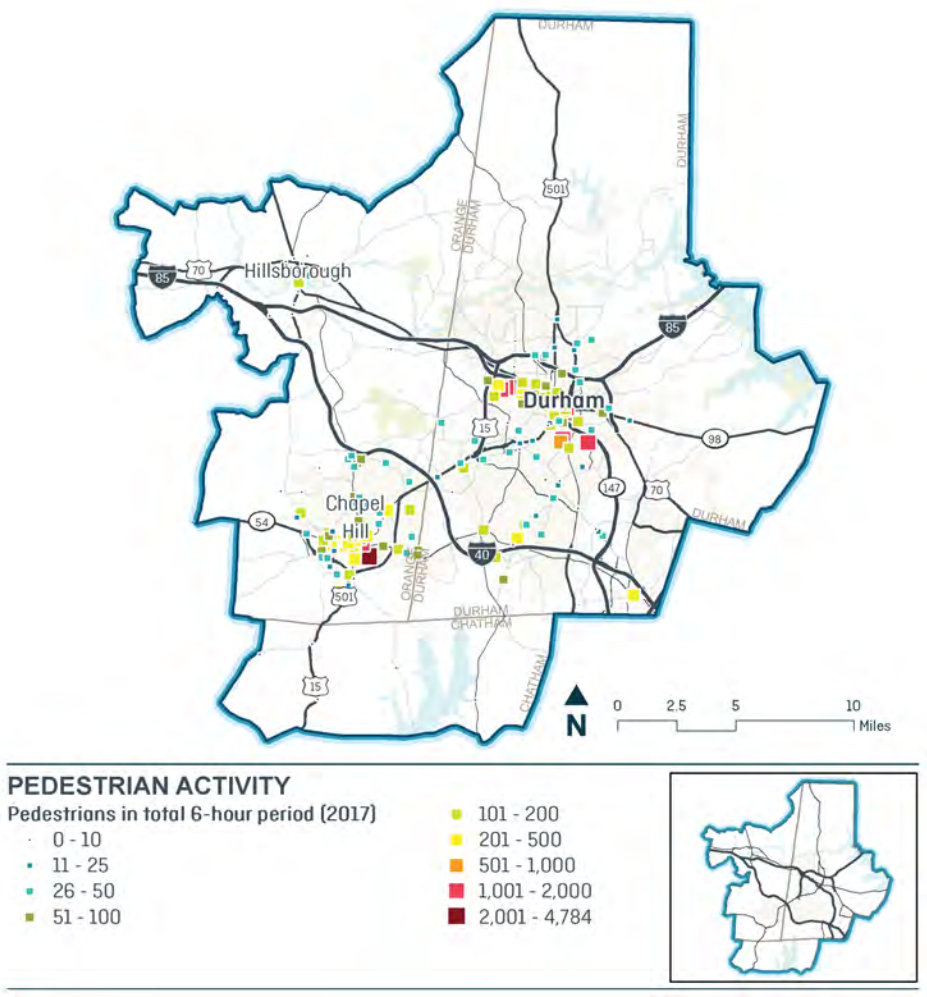


- Sidewalk mileage increased by 133.7 miles (18.5%) from 2012 to 2019.

Figure 5-2. Change in Pedestrian Facilities 2005-2019

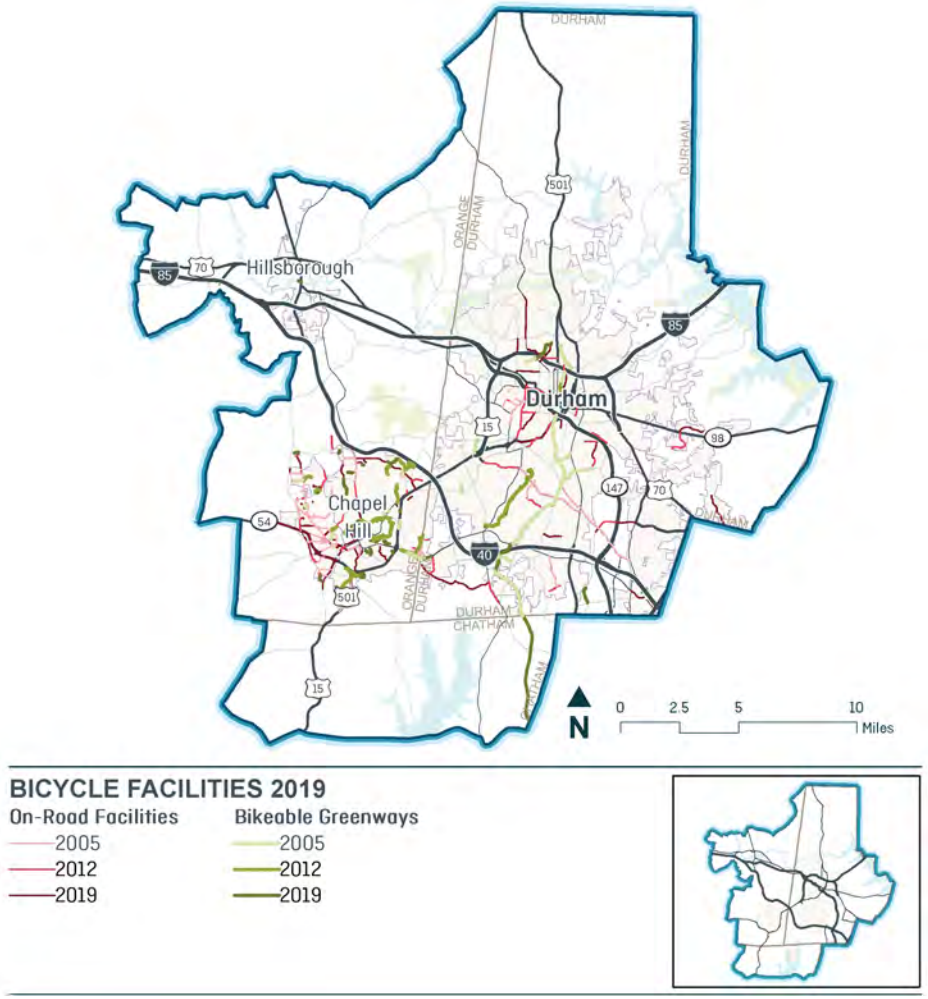


6 | PEDESTRIAN ACTIVITY



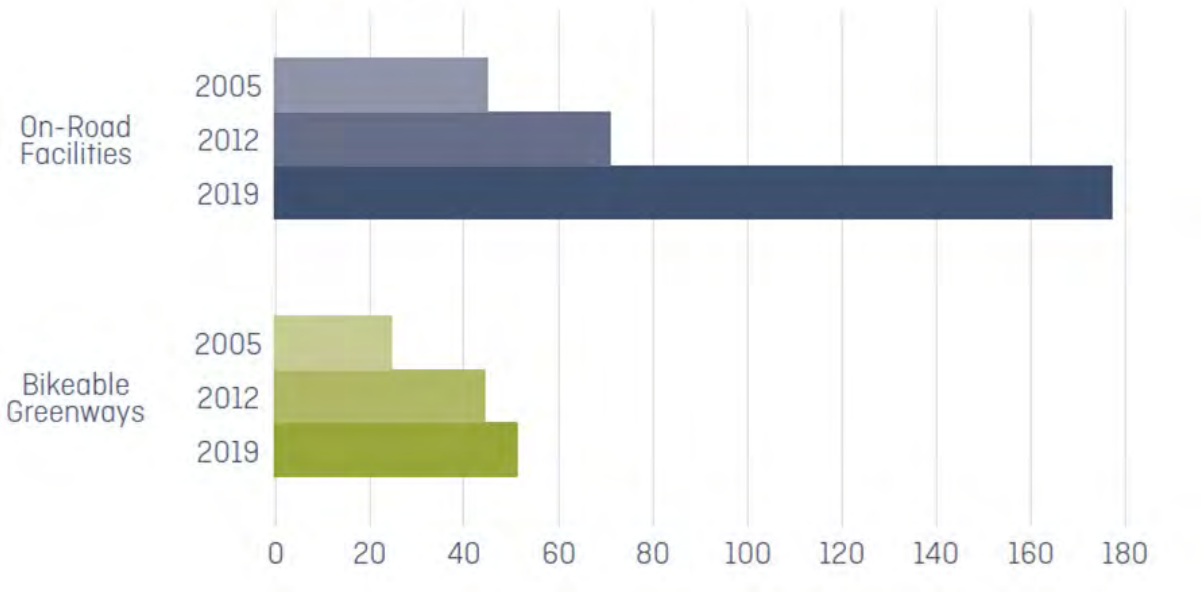
- 189 pedestrian count locations over 16 non-consecutive days in 2017 throughout the DCHC region.
- 45,034 pedestrians observed. Highest single count station at UNC.
- Pedestrian counts have increased everywhere since 2014, except in Chapel Hill.
- Variability in count locations, seasons, and days can influence year-to-year changes.

7 | BICYCLE FACILITIES

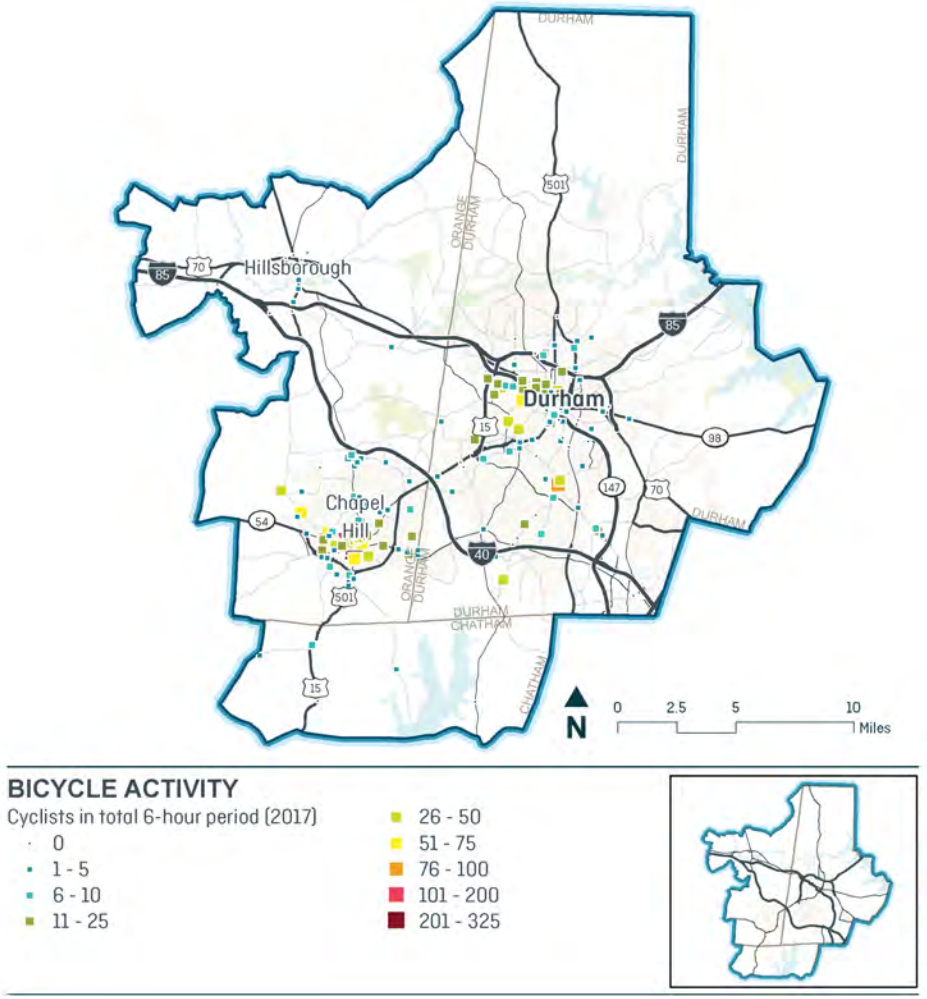


- On-road bicycle facilities have increased by 106 miles (150%) since 2012.
- Greenway mileage has increased by 7 miles (15% since 2012)

Figure 7-2. Change in Bicycle Facilities 2005-2019



8 | BICYCLE ACTIVITY



- 189 bicycle count locations over 16 non-consecutive days in 2017 throughout the DCHC region.
- 3,728 cyclists observed. About two-thirds of cyclists were counted in Chapel Hill or Carrboro.
- Bicycle counts have decreased everywhere since 2014, except in North Durham and East Durham.
- Variability in count locations, seasons, and days can influence year-to-year changes.

9 | PEDESTRIAN AND BICYCLIST SAFETY

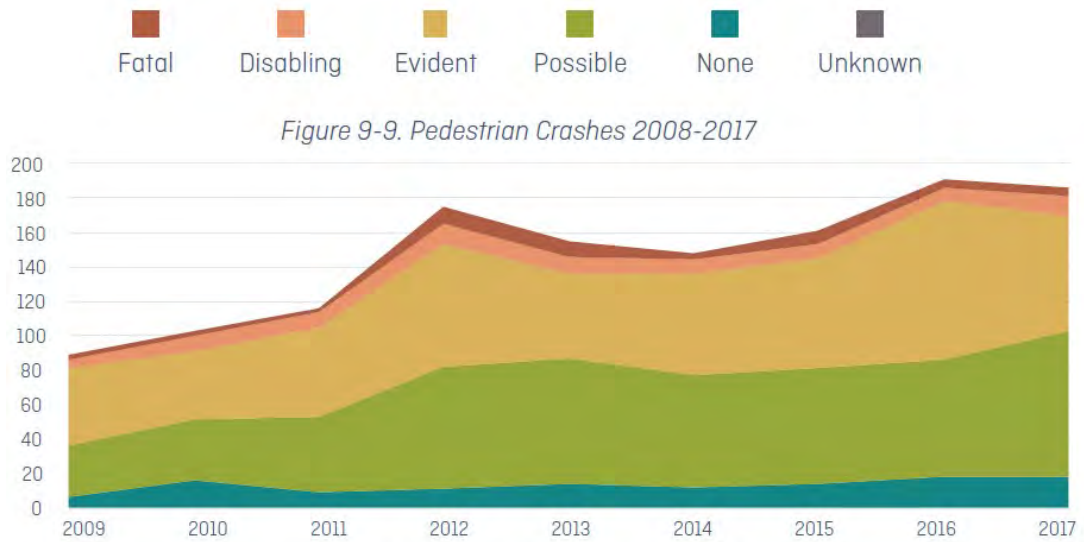


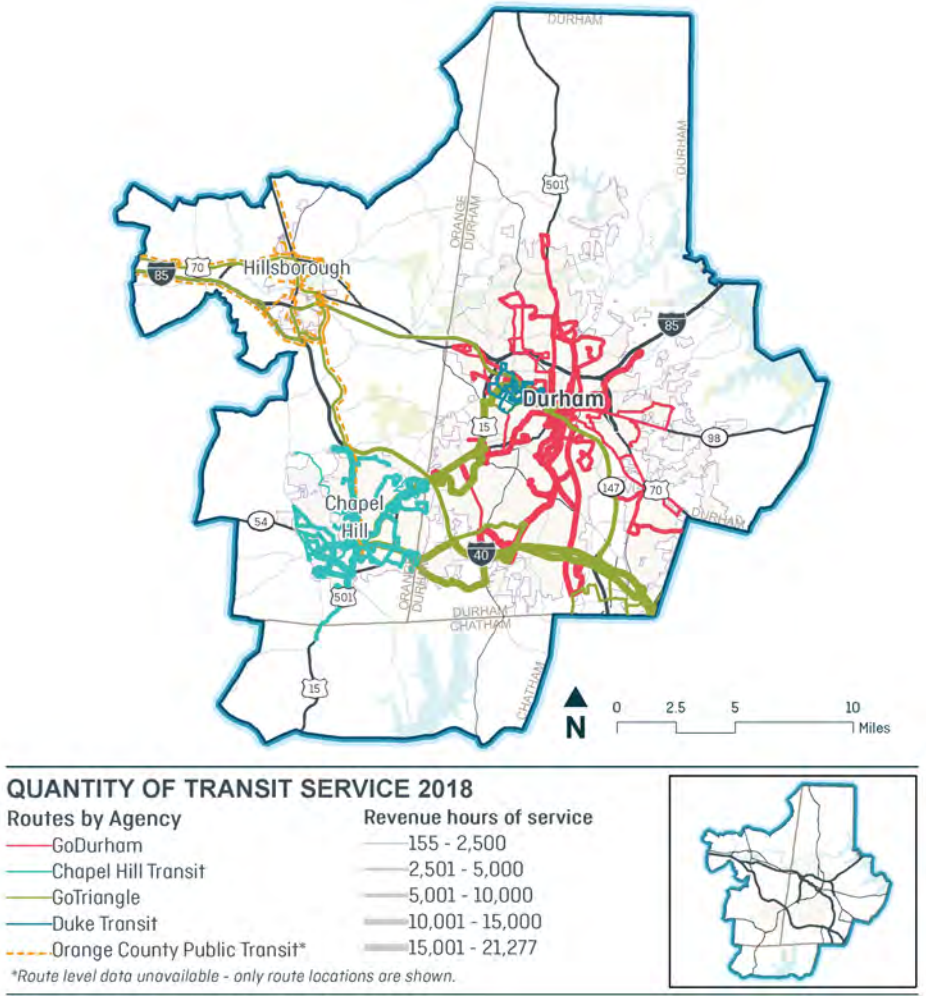
Figure 9-9. Pedestrian Crashes 2008-2017

Figure 9-8. Bicycle Crashes 2008-2017

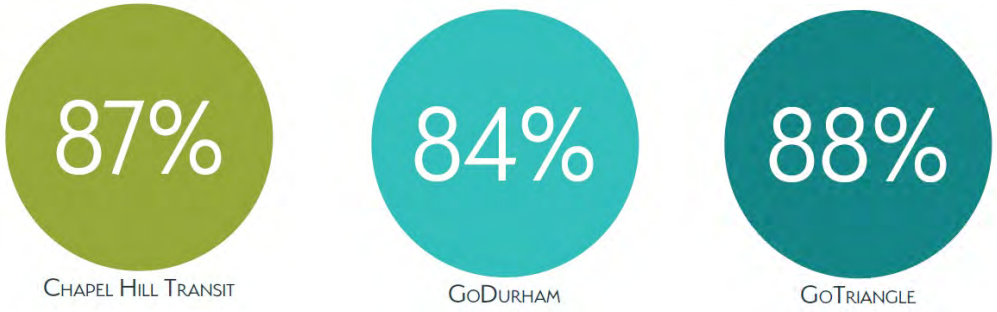
- Pedestrian crashes have increased in recent years.
- Bicycle crashes have remained stable over time.
- The shares of bicycle and pedestrian crashes resulting in death or injury are consistent over time.

FATAL	deaths that occur within twelve months of the crash
DISABLING	injuries serious enough to prevent normal activity for at least one day, such as massive loss of blood, broken bones, etc.
EVIDENT	non-fatal or disabling injuries that are evident at the scene such as bruises, swelling, limping, etc.
POSSIBLE	no visible injury but there are complaints of pain or momentary unconsciousness
NONE	no injury
UNKNOWN	unknown if any injury occurred

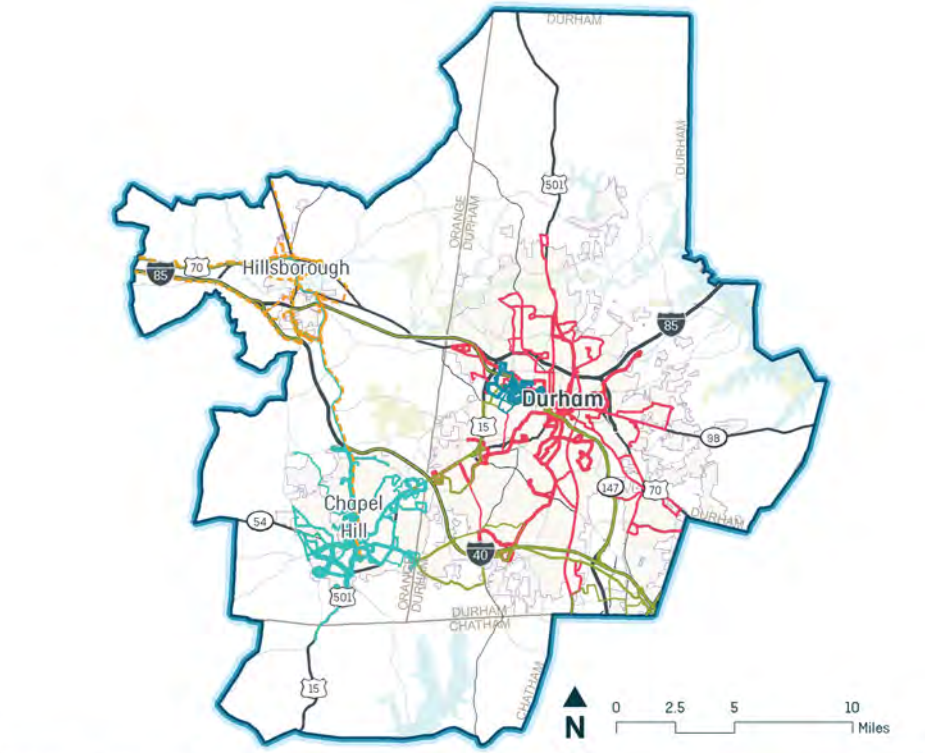
10 | TRANSIT SERVICE



- Five transit operators in the region
- GoDurham provides the most vehicle revenue hours in the region.
- GoTriangle and Chapel Hill Transit provide similar levels of revenue hours.
- Revenue hours have remained steady over time.
- Systemwide, regional operators provide reliable service (on-time performance, see below).



11 | TRANSIT RIDERSHIP



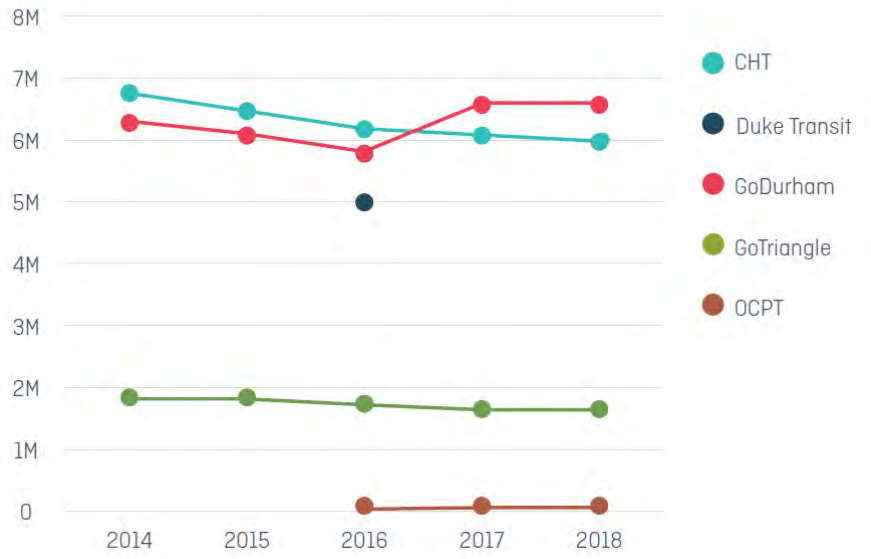
TOTAL WEEKDAY RIDERSHIP BY ROUTE IN 2018

Routes by Agency	Weekday Ridership
GoDurham	0 - 100,000
Chapel Hill Transit	100,001 - 250,000
GoTriangle	250,001 - 500,000
Duke Transit	500,001 - 1,000,000
Orange County Public Transit*	1,000,001 - 3,292,094

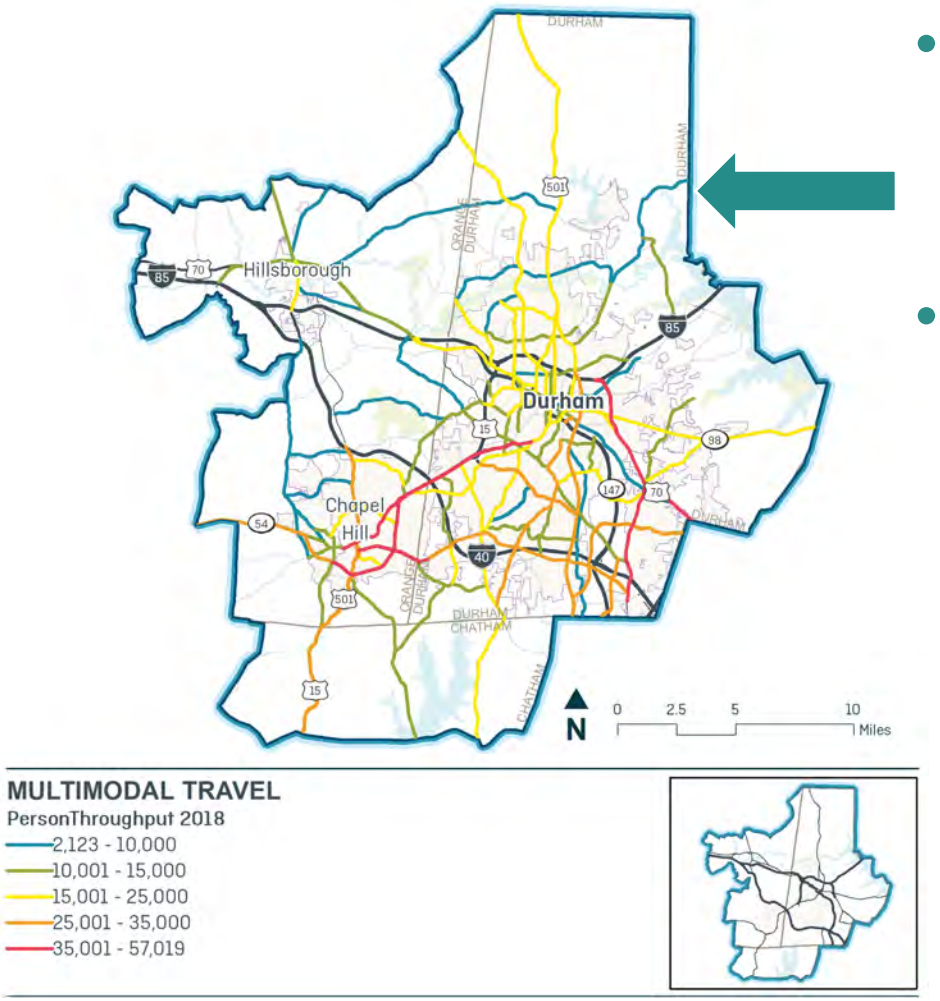
*Route level data unavailable - only route locations are shown

- Transit ridership regionally has been consistent over time.
- Increase in GoDurham riderhsip
- Reduction in CHT ridership

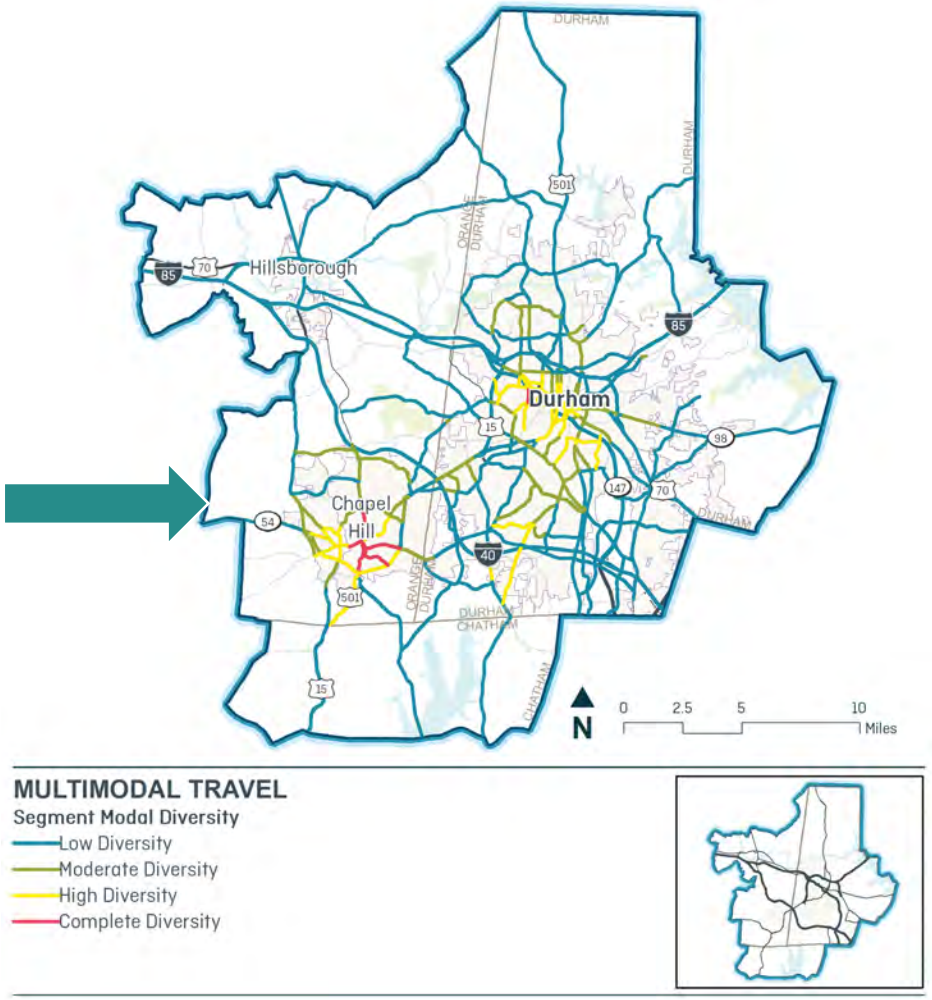
Table 11-1. Fixed-Route Ridership



12 | MULTIMODAL MOBILITY AND THROUGHPUT



- Non-interstates with high throughput: US 15-501, NC-54, US 70, Miami Blvd.
- Facilities exhibit "high" or "complete" modal diversity (high levels of walking, biking, and transit relative to driving) are in Chapel Hill, Carrboro, Downtown Durham and Southpoint.



THANK YOU

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