

ALL ROADS LEAD TO TRAFFIC

Where are Tennessee's roads being hit hardest
by population growth?

Matt Parker | January 23, 2020

DATA

- TN GIS Traffic Counts
 - <https://www.arcgis.com/apps/webappviewer/index.html?id=075987cdae37474b88fa400d65681354>
 - Daily traffic counts conducted by TDOT at over 12,000 stations in all 95 counties
- US Census
 - Population and Commute Time, 2010-2019



TN POPULATION

(2019) est:

6,829,174



TN POPULATION

(2030) proj:

7,397,302



TN AVG COMMUTE

(2019, minutes)

25.2



TN AVG COMMUTE

Rank in US

24th

TIMELINE OF ROAD CONSTRUCTION



PLANNING

6 – 24+ MONTHS

- Data Collection
- Identify and Acquire right of way
- Analyze environmental concerns
- Determine community impact
- Identify and Secure Funding



DESIGN & ENGINEERING

6-36+ MONTHS

- Survey Land
- Consider factors (such as):
 - Terrain/Soil
 - Traffic Volume
 - Ratio of cars vs other
 - Project future growth
- Gather public input
- Hire Contractors for Building



CONSTRUCTION

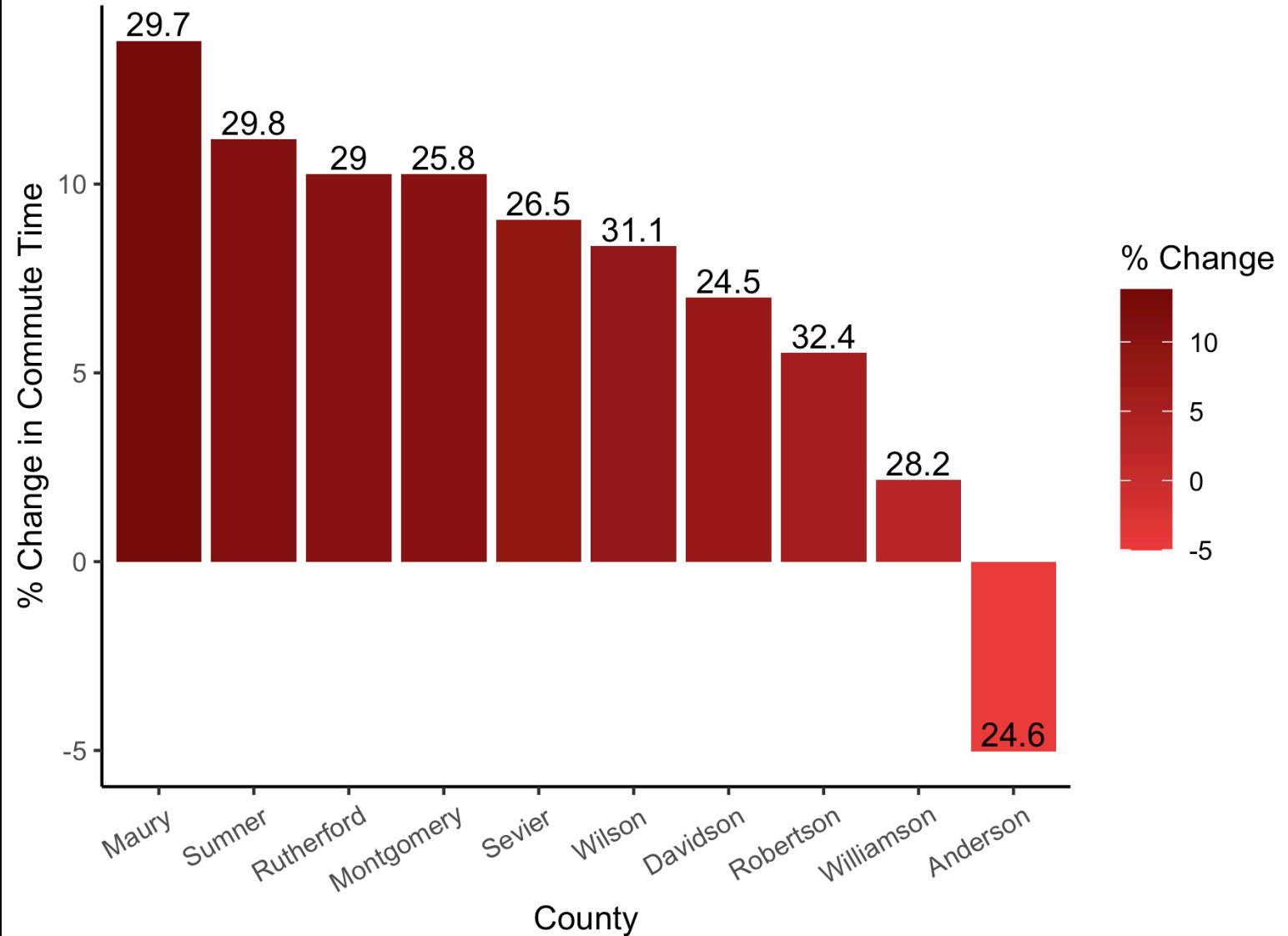
6 – 36+ MONTHS

- Build Embankments and level dirt
- Install drains, sewers, and other utilities
- Lay Gravel, Pave, Paint
- Complete necessary infrastructure (sidewalks, road signs, traffic signals, etc)

COMMUTE TIME

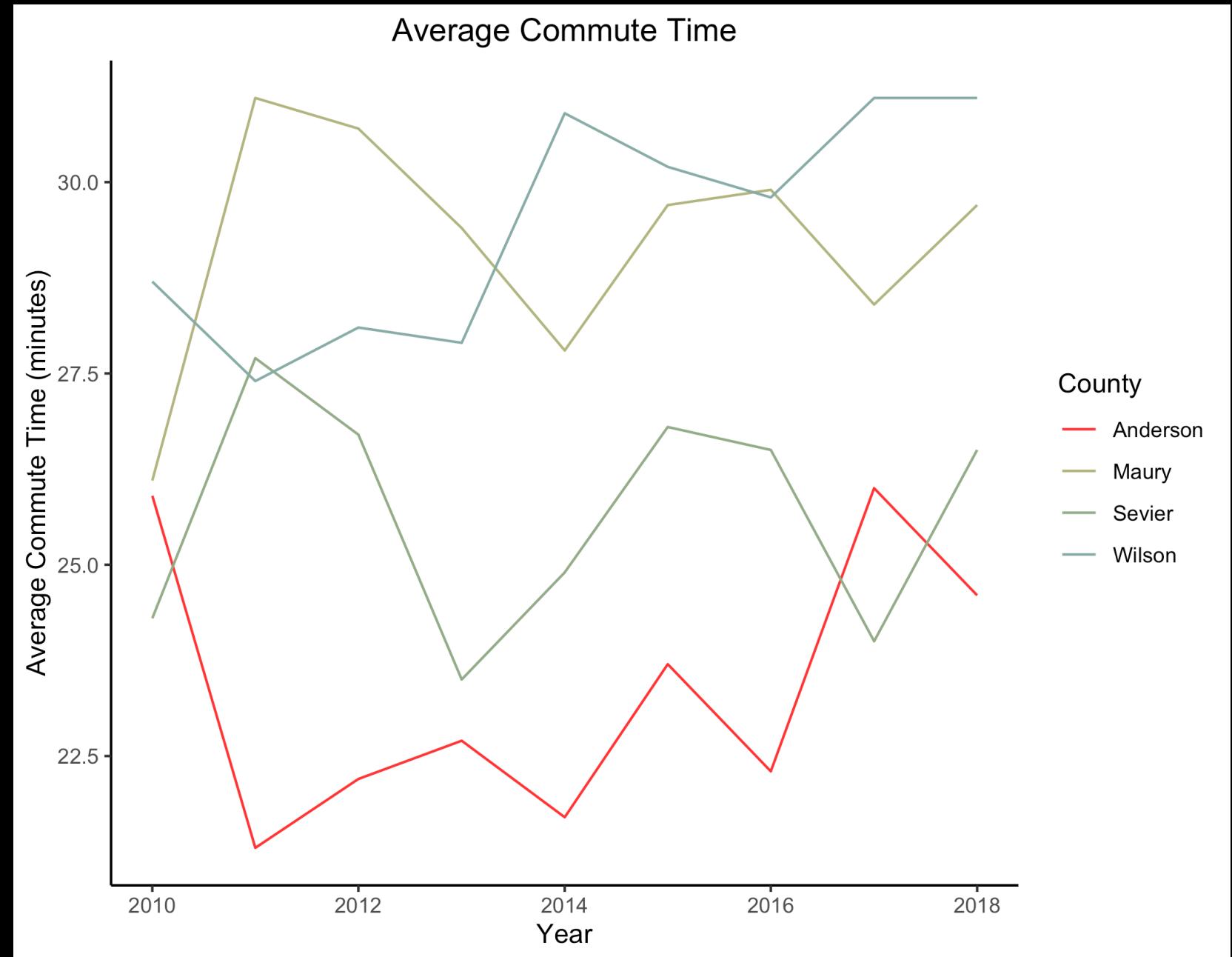
COUNTY
BY
CHANGE
2010-2018

Percent Change in Commute Time, 2010-2018
(2018 Commute Time in mins)



COMMUTE TIME

NOTE:
Year-to-Year changes can vary greatly with commuter and traffic data.
Be sensitive to noisy data, and focus on multi-year trends over single year changes.



SOURCES

DATA:

- <https://www.arcgis.com/apps/webappviewer/index.html?id=075987cdae37474b88fa400d65681354>
- <https://www.census.gov/>
- <https://www.census.gov/geographies/mapping-files/time-series/geo/carto-boundary-file.html>
- <https://developers.google.com/maps>

CONSTRUCTION PLANNING:

- <https://www.michigan.gov/mdot/0,4616,7-151-9615-129011--,00.html>
- <https://www.rcocweb.org/166/Steps-in-a-Road-Project>
- <https://www.virginiadot.org/projects/pr-howroadblt.asp>

POPULATION PROJECTIONS:

- <https://www.tn.gov/content/dam/tn/tacir/documents/Population2010.pdf>

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