

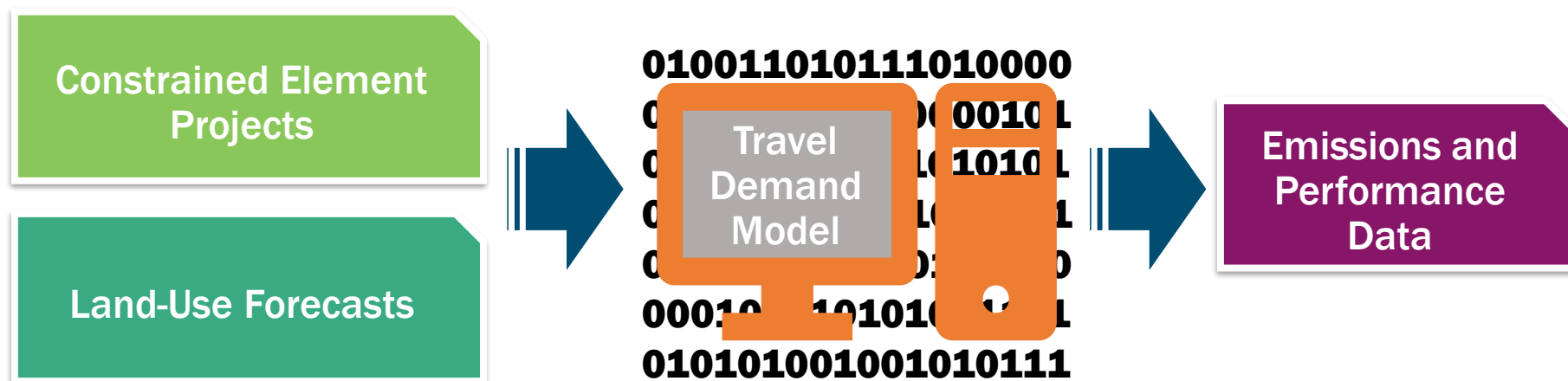
Performance Analysis Summary

Sergio Ritacco
Transportation Planner

TPB Travel Forecasting Subcommittee
Item #2
November 30, 2018



What is the Performance Analysis?



- Round 9.1 Cooperative Land-Use Forecasts
- Version 2.3.75 Travel Demand Model
- Analysis of TPB Planning Area
- 2016 Vehicle Registration Data
- EPA's MOVES 2014a Mobile Emissions Model



Comparison of Three Scenarios



Today (2019)

Today's
households and
jobs

Projects on the
ground in 2019



2045 No-Build

*Grow but
don't build*

Forecast growth
for 2045
households and
jobs

No new projects
beyond what is
on the ground in
2019



2045 Planned Build

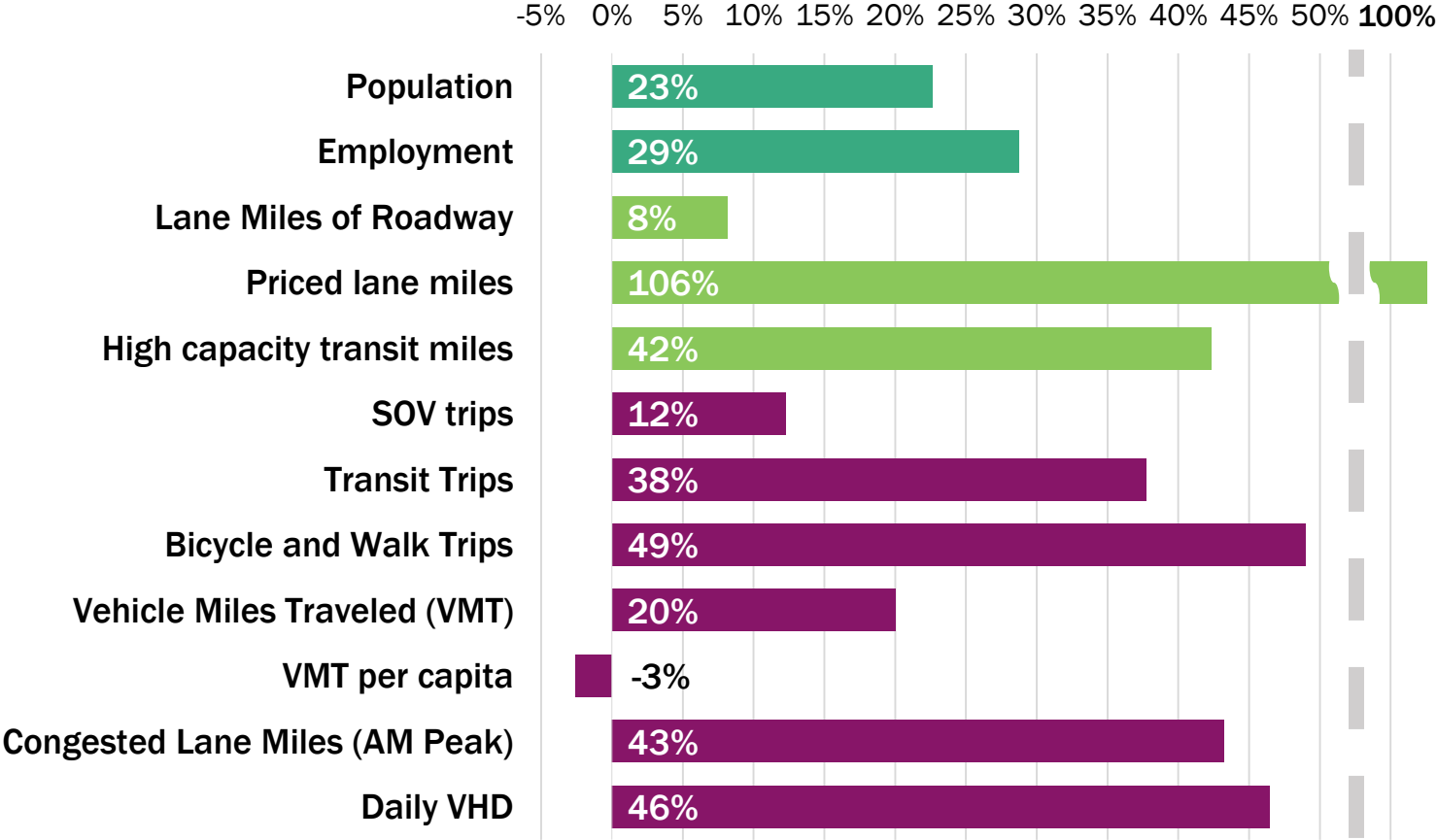
*Grow and
build*

Forecast growth
for 2045
households and
jobs

All constrained
element projects
would be built
by 2045



Performance Overview, % Change 2019 – 2045 Build



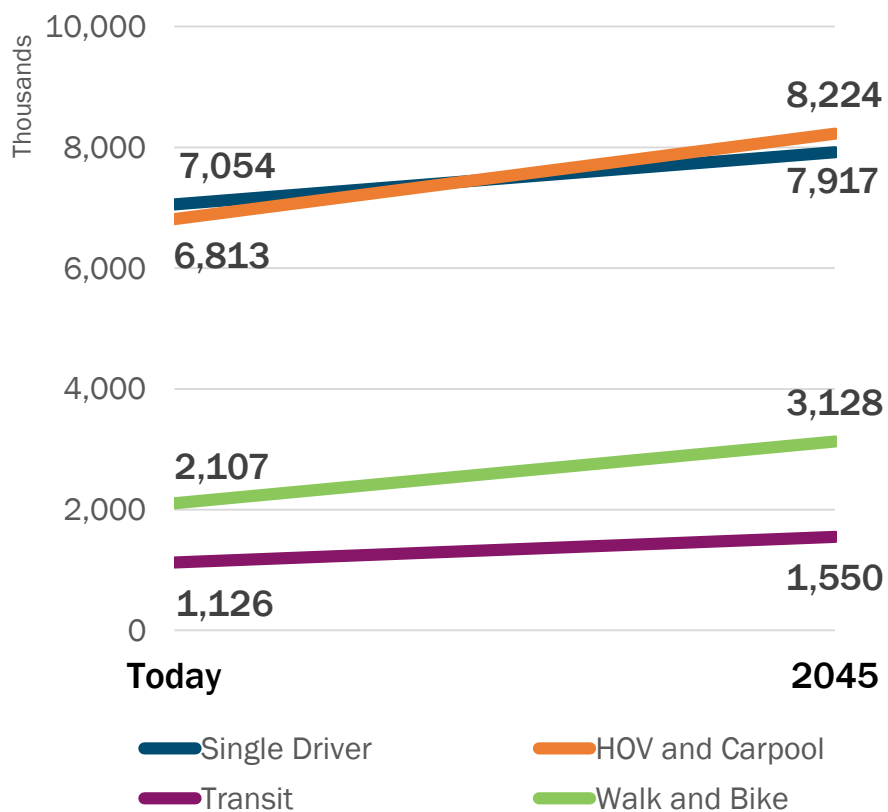
How does the plan provide for a comprehensive range of transportation options?



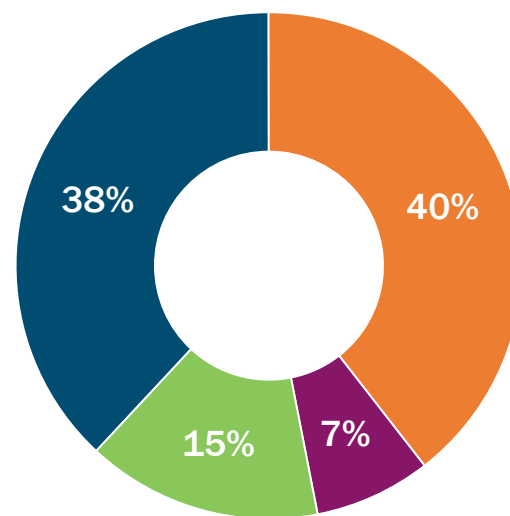
All Trips: HOV surpasses SOV

HOV trips will be more common than driving alone.

Walk and Bicycle trips ↑ by 49% and Transit trips ↑ by 38%.

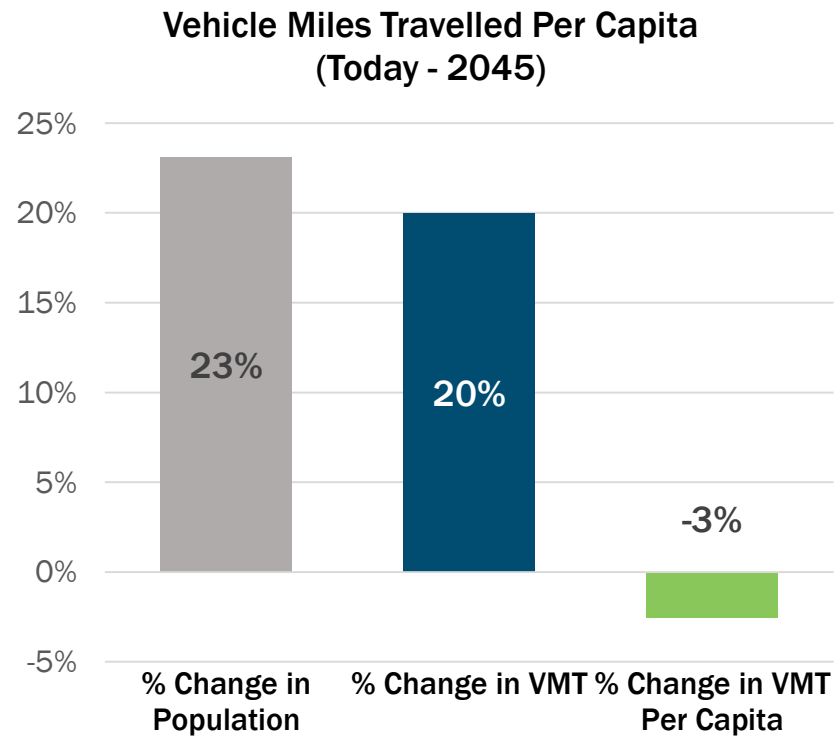


Mode Share in 2045



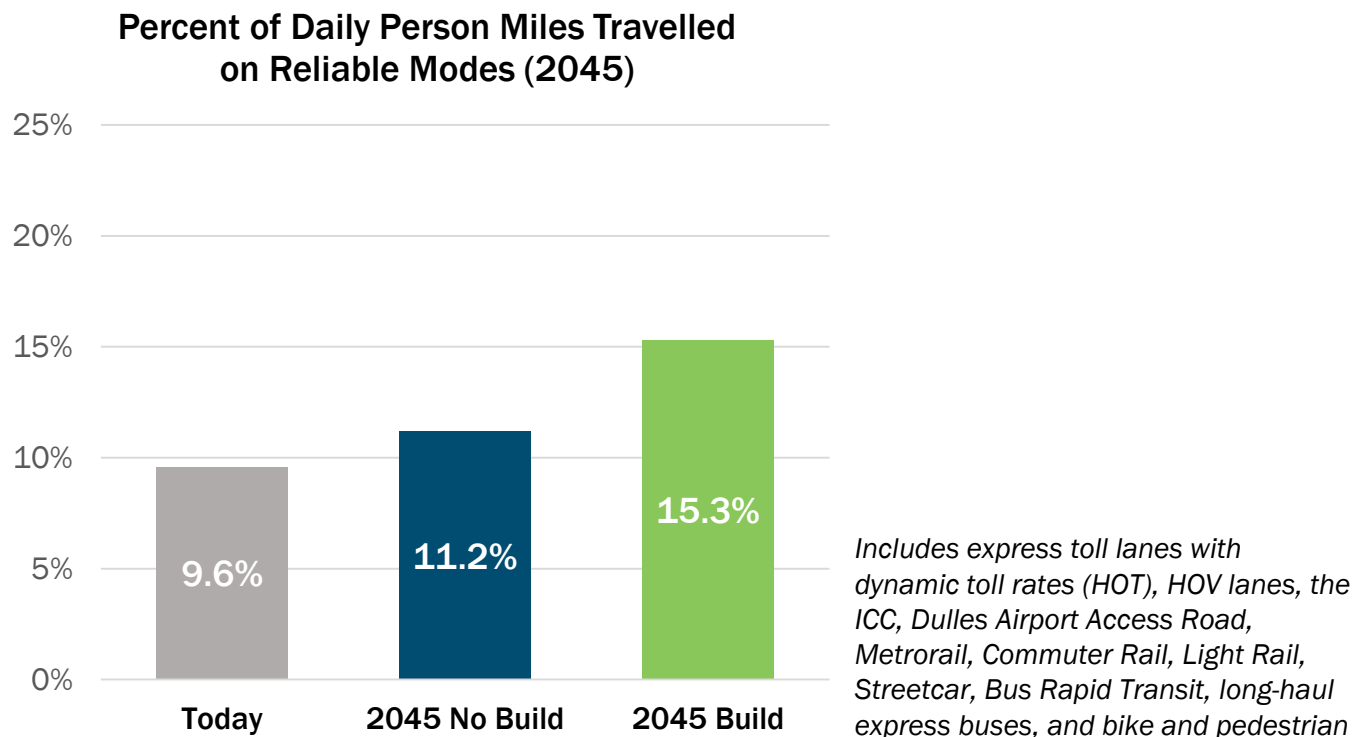
Average driving per person decreases

Total daily driving in the region is expected to grow but at a rate lower than population growth.



Travel on reliable modes will increase

A 59% increase in the proportion of daily travel on reliable modes in 2045 Build relative to Today suggest people will use modes with greater reliability if available.

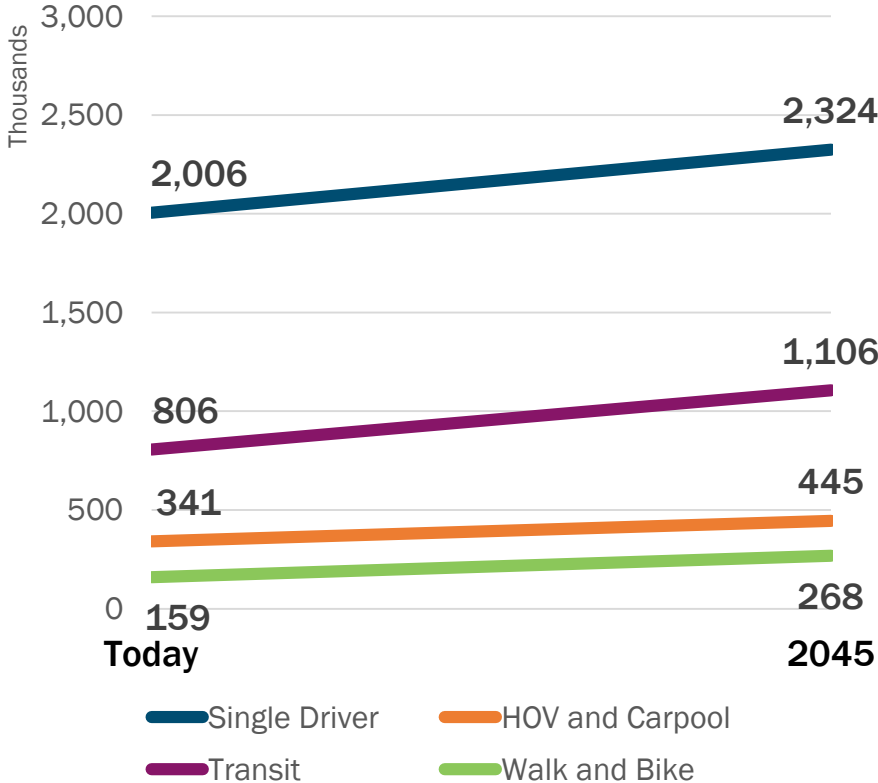


How does the plan affect commuting to work?

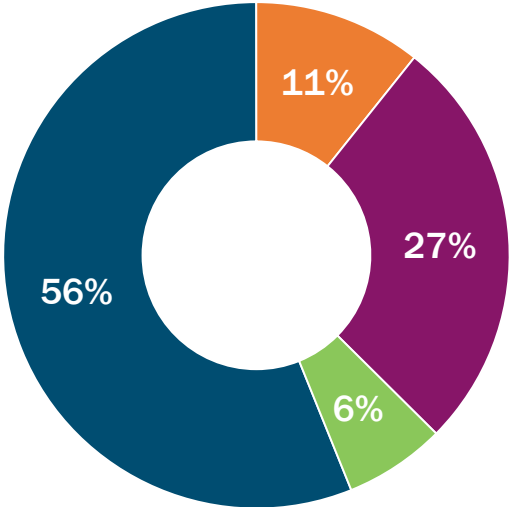


Work Trips: Driving alone predominates

Though **Walk and Bicycle** trips ↑ by 68% and **Transit** trips ↑ by 37%.



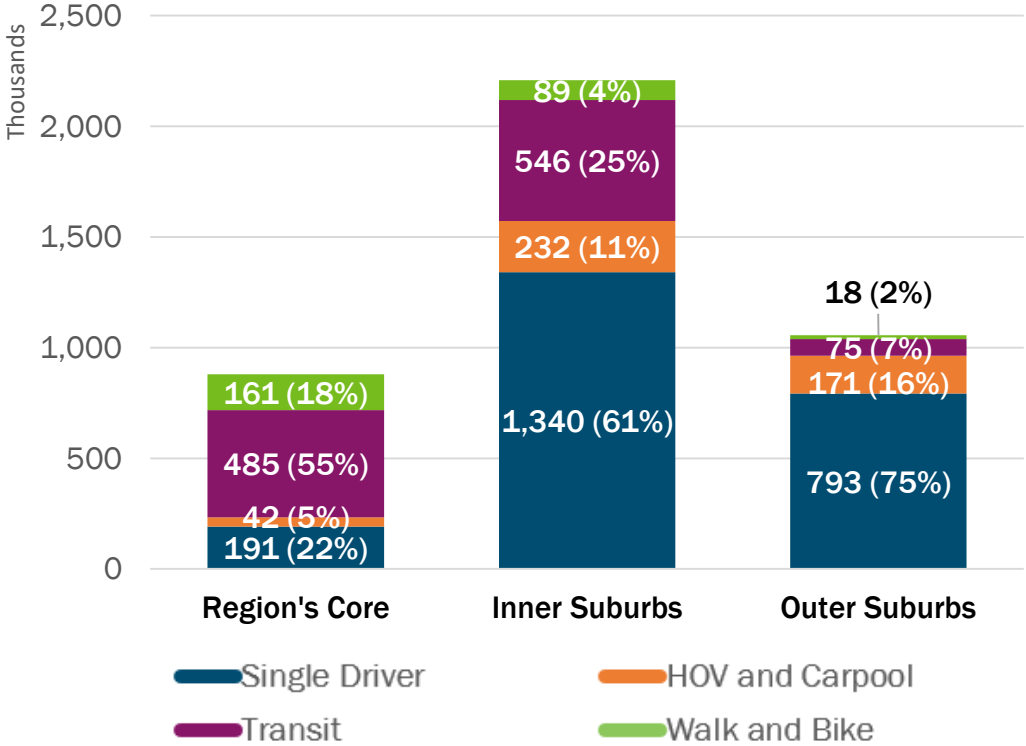
Mode Share in 2045



Work Trips: Geographic Differences

In the Region Core workers are more likely to use **transit**.
 Outside the core **driving alone** is the predominant mode.

Work Trips by 2045



- Regional Core:**
 District of Columbia
 Arlington Co.
 Alexandria
- Inner Suburbs:**
 Montgomery Co.
 Prince George's Co.
 Fairfax Co.
 Fairfax City
 Falls Church
- Outer Suburbs:**
 Charles Co.
 Frederick Co.
 Prince William Co.
 Loudoun Co.
 Manassas
 Manassas Park
 Fauquier Co.
 (Urbanized Area)

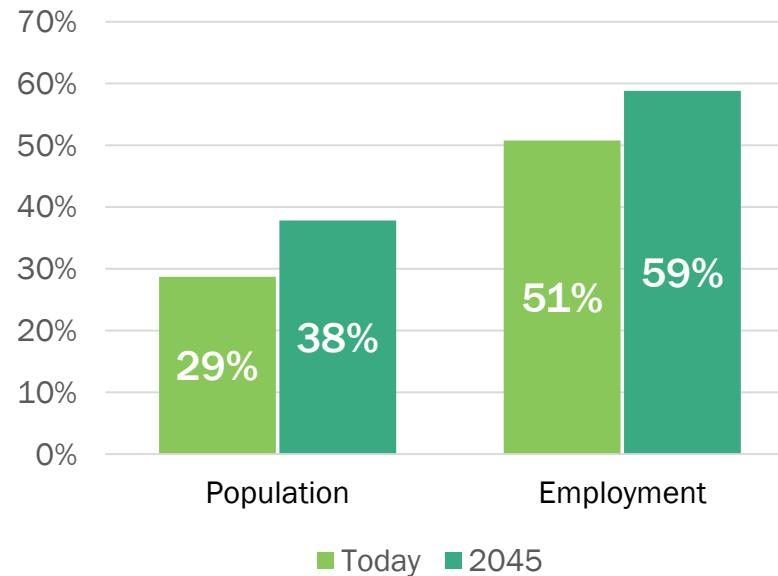


How does the plan affect transit access and connectivity?



Increase in People and Jobs close to High Capacity Transit (HCT)

% of Population and Jobs in Proximity to HCT

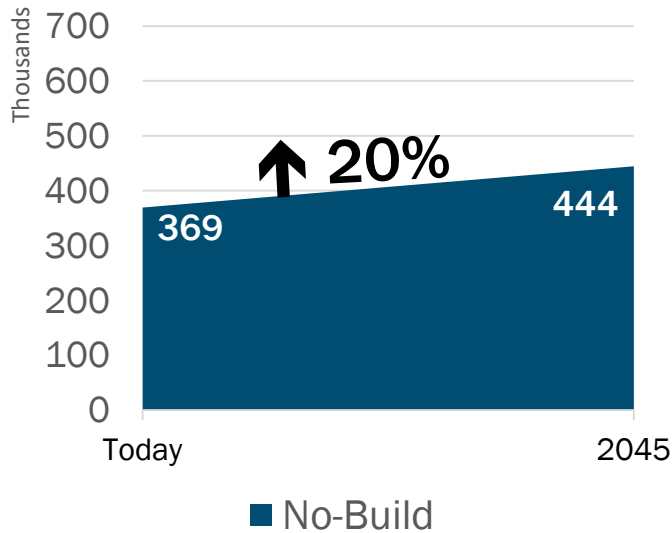


- “Proximity” defined as within one mile of rail or within a ½ mile of bus rapid transit (BRT)
- “High-capacity transit” defined to include Metrorail, commuter rail, streetcar, light rail or BRT.



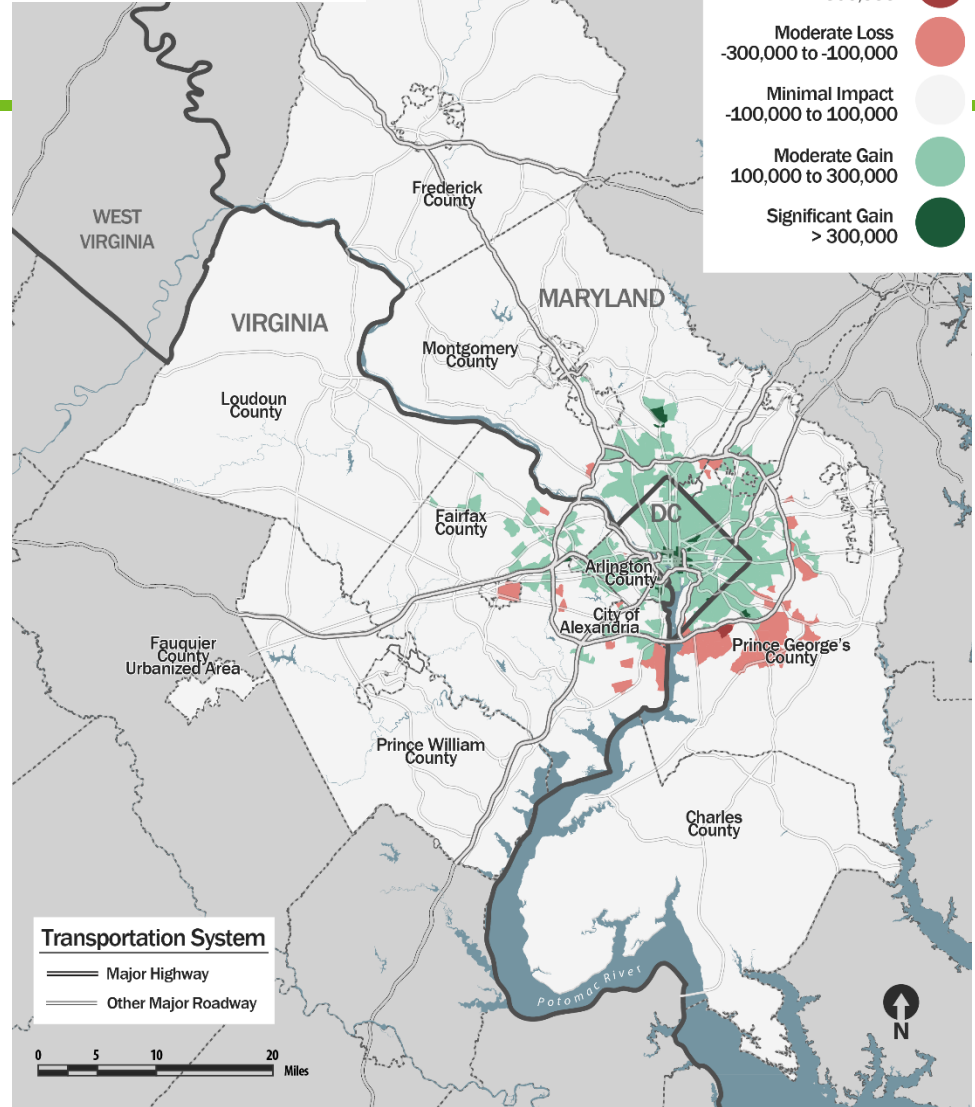
Change in Access to Jobs by Transit

Regional Change in Access to Jobs by Transit



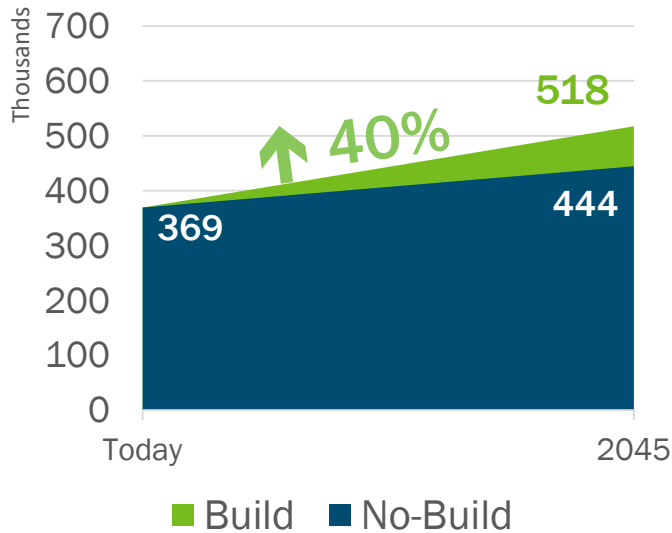
These numbers represent the average number of jobs accessible via transit within a 45-minute commute based on where people live.

Today to 2045 No Build



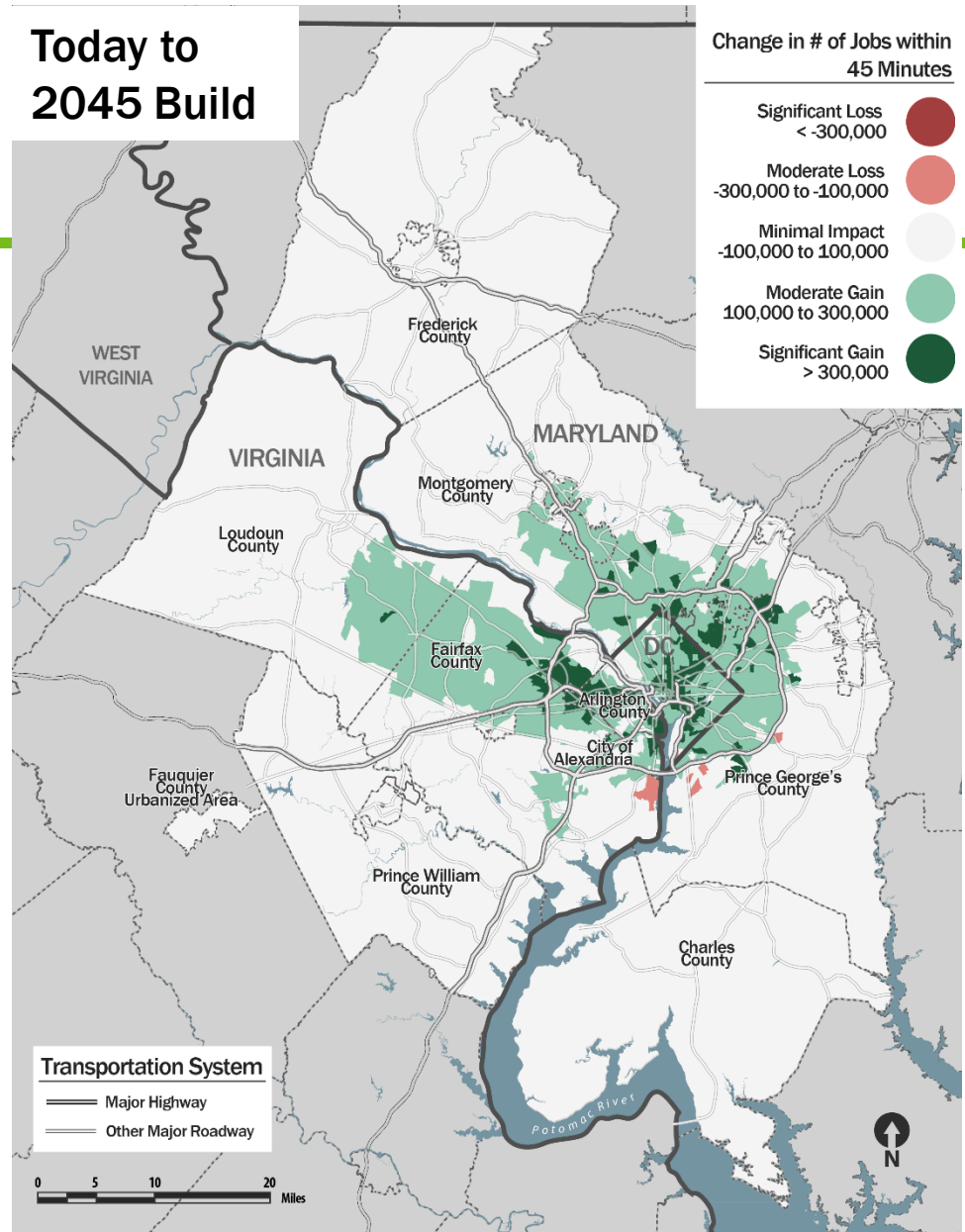
Change in Access to Jobs by Transit

Regional Change in Access to Jobs by Transit



These numbers represent the average number of jobs accessible via transit within a 45-minute commute based on where people live.

Today to 2045 Build



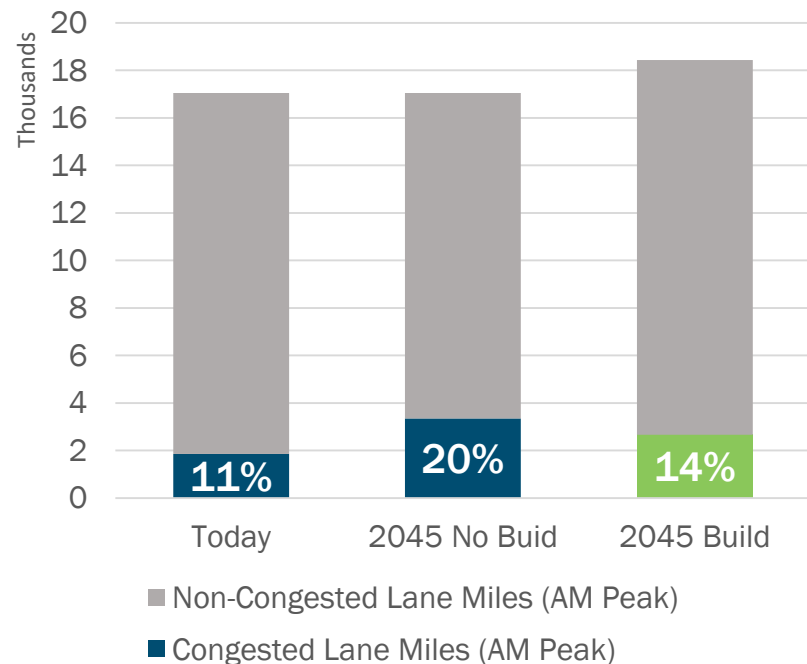
How will roadway congestion change?



System-wide roadway congestion will increase

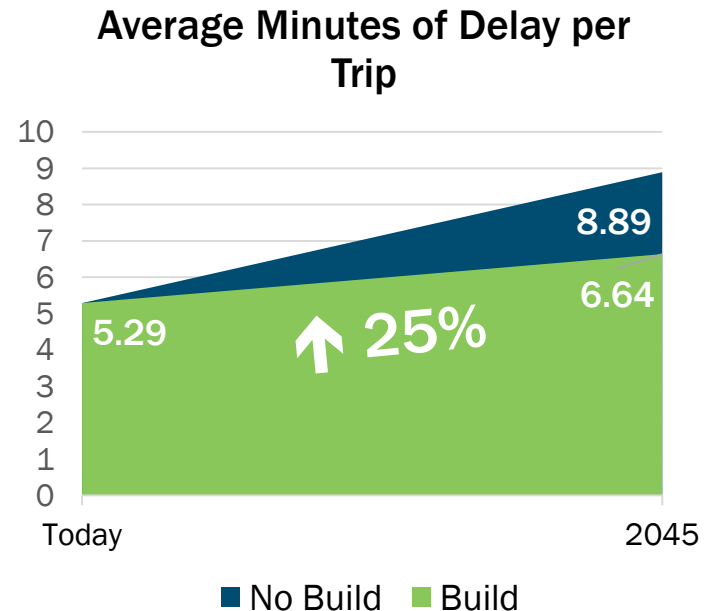
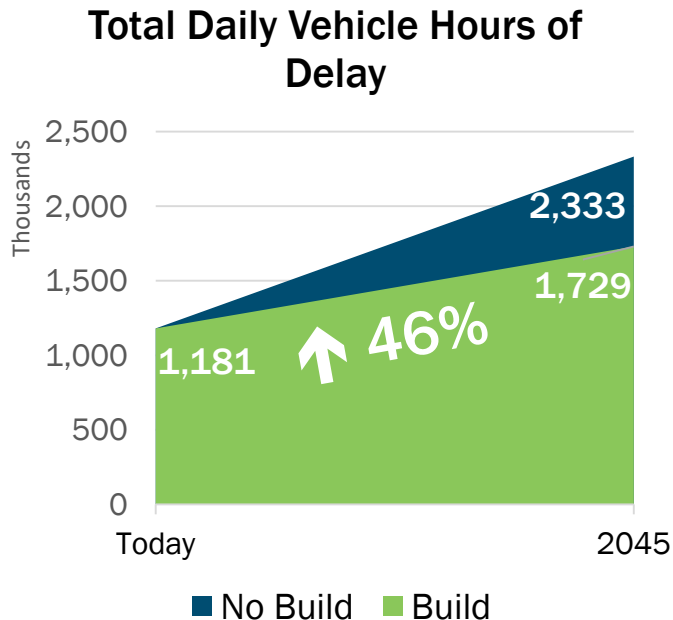
- By 2045, congested lane miles during the AM peak will increase from 1,857 to 2,660, a 43% increase to Today.
- Share of lane miles congested make up a small but growing percent of roadways.
- Congested lane miles will be 21% lower than in No Build scenario (*Grow but don't build*).

Share of Total Lane Miles Congested



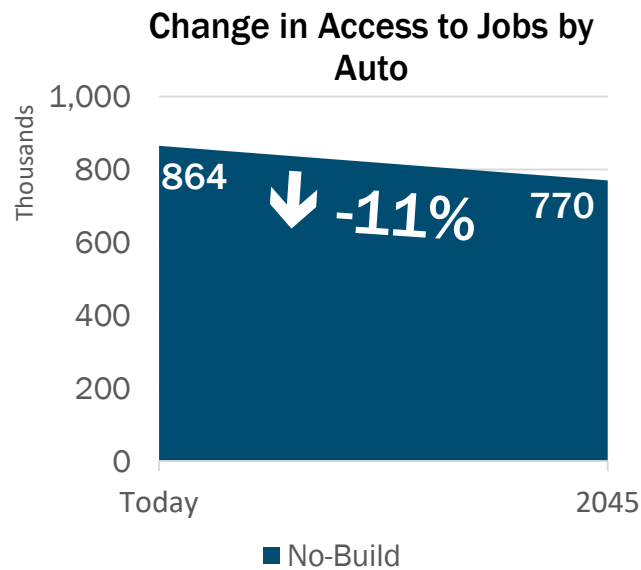
Lost time in traffic

If we grow and build what is planned, total vehicle hours of delay and avg. delay per trip will still grow though less severe.

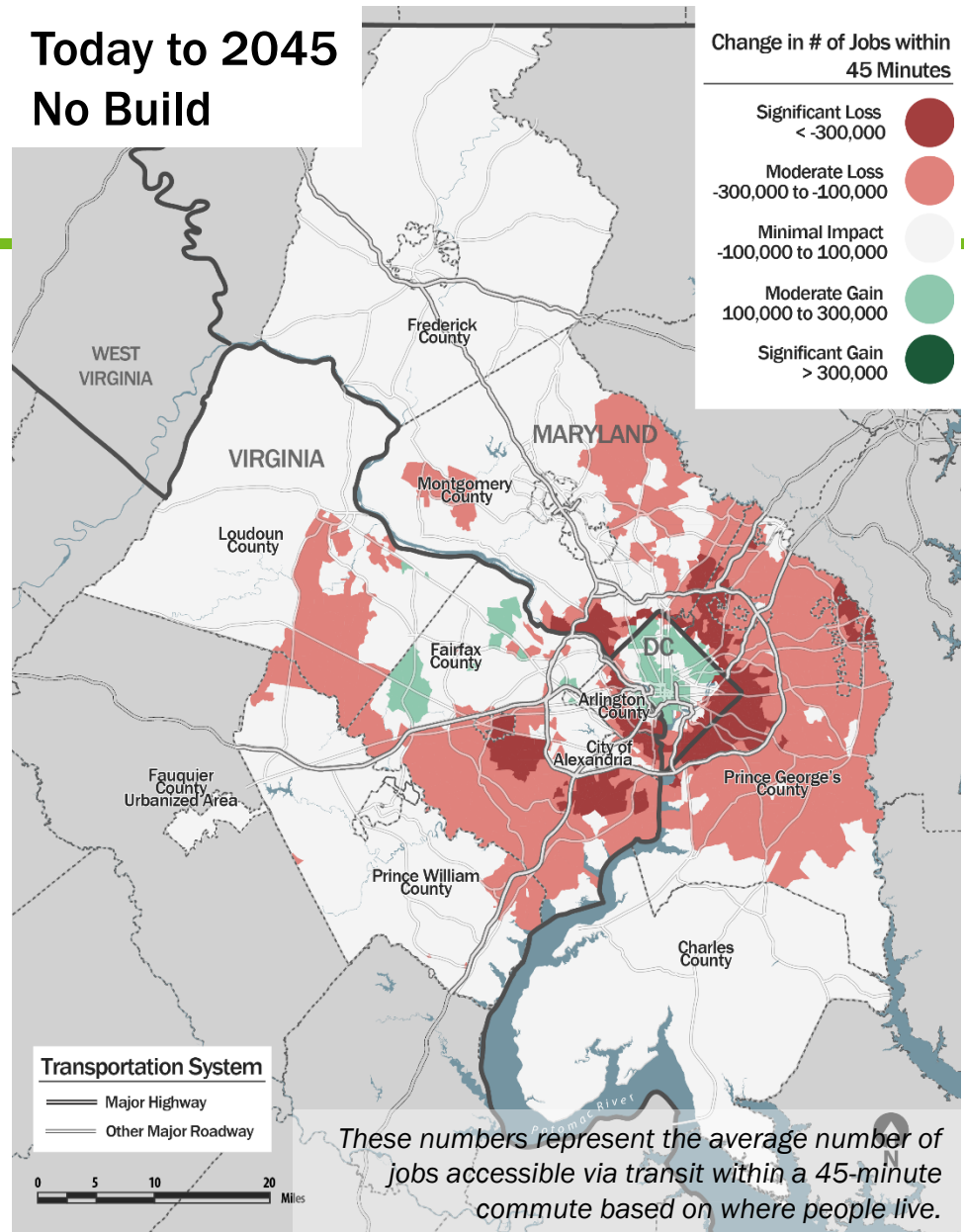


Change in Access to Jobs by Auto

- If we grow and do not build, the region will experience significant declines in job access in 2045 compared to today.

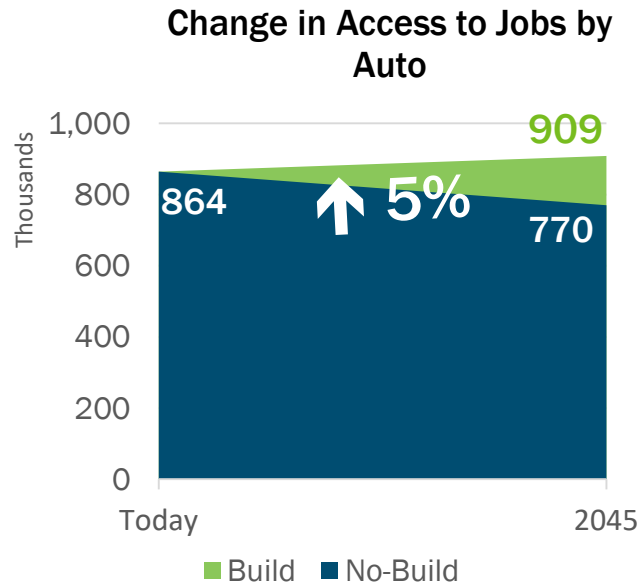


Today to 2045 No Build

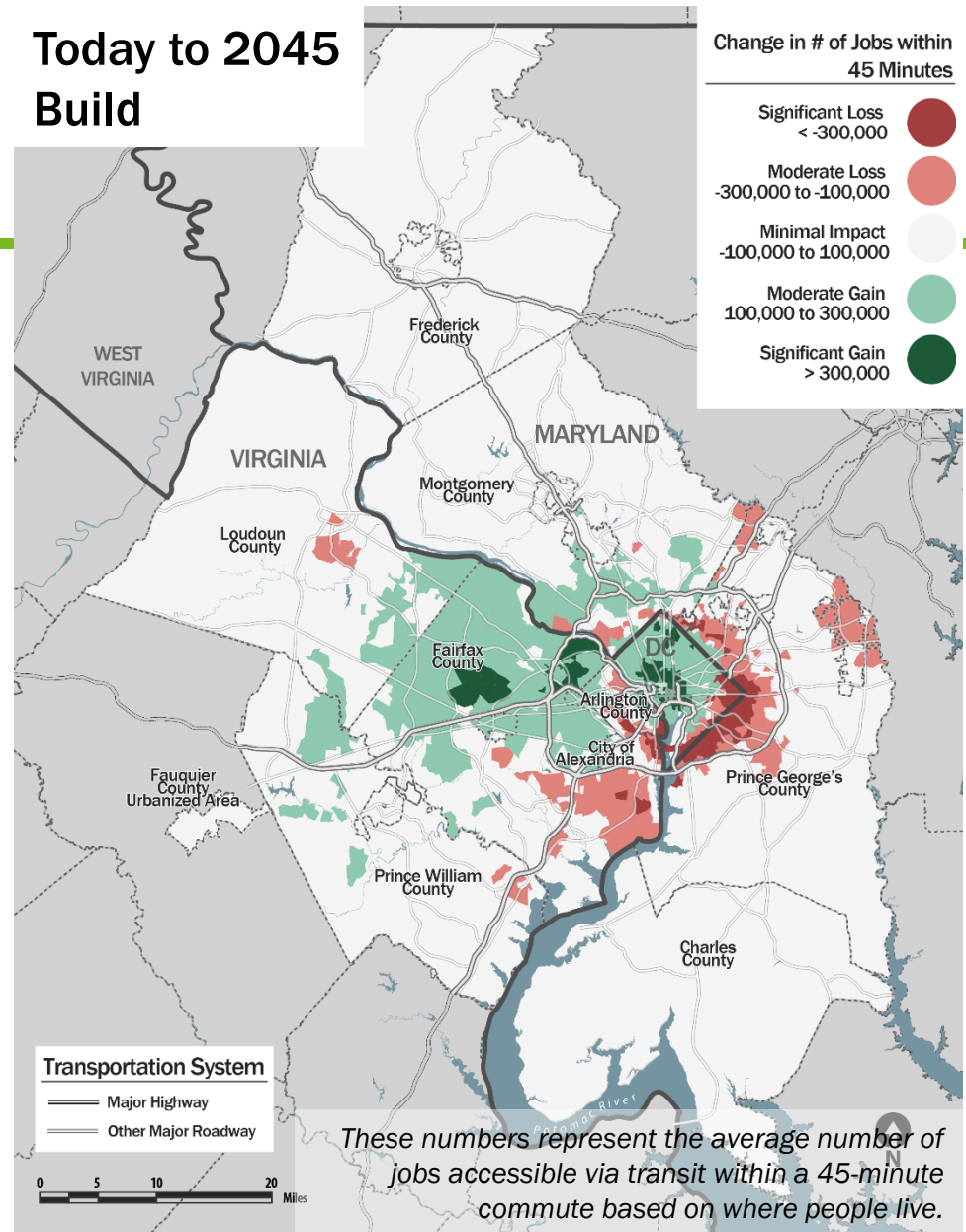


Change in Access to Jobs by Auto

- If we grow and build as planned, the region will experience more access to jobs on average.
- Some areas will continue to see declines in access to jobs within 45 mins.



Today to 2045 Build



Sergio Ritacco

Transportation Planner
(202) 962-3232
sritacco@mwcog.org

visualize2045.org

Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, DC 20002

