

BRAC RTF Sub-Area Model: Development and Findings

Moore County Needs



WilburSmith
ASSOCIATES

Purpose

- The purpose of the BRAC study was to develop a travel demand model that could be used to analyze future travel demand in the region surrounding Fort Bragg and to conduct an analysis of transportation needs in the region.



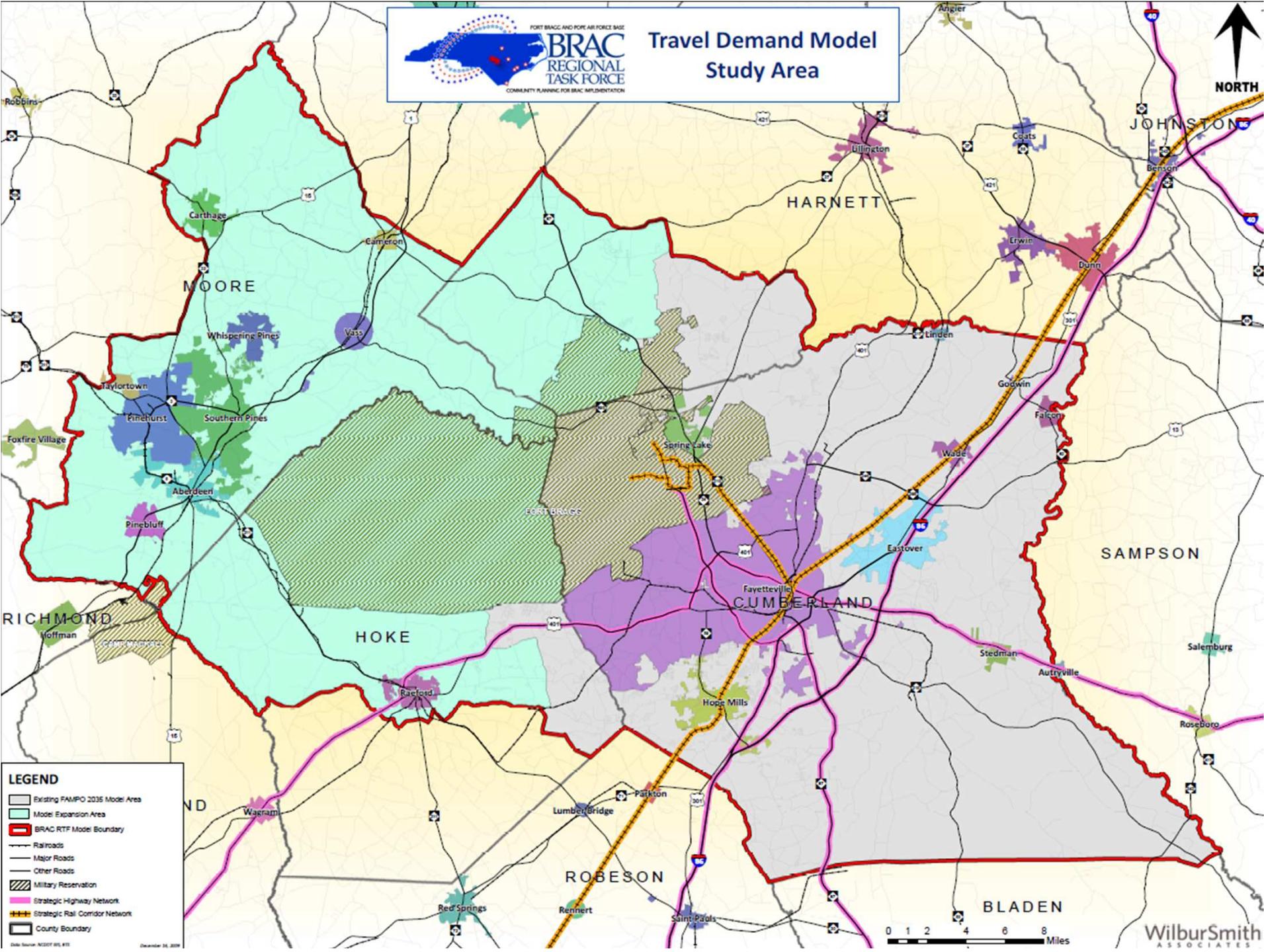
Consultant Support

- Wilbur Smith Associates
- Extensive experience with transportation planning, traffic forecasting, and roadway design
- Raleigh-based staff with easy access to the region




BRAC
 REGIONAL
 TASK FORCE
COMMUNITY PLANNING FOR BRAC IMPLEMENTATION

Travel Demand Model Study Area



LEGEND

-  Existing FMPO 2035 Model Area
-  Model Expansion Area
-  BRAC RTF Model Boundary
-  Railroads
-  Major Roads
-  Other Roads
-  Military Reservation
-  Strategic Highway Network
-  Strategic Rail Corridor Network
-  County Boundary

Date: November 20, 2019



WilburSmith
ASSOCIATES

Data Forecasting

- Used Woods & Poole data to help establish control totals.
- Spoke with NCDOT to discuss assumptions on BRAC RTF growth used in the FAMPO model.
- Used FAMPO 2035 forecasts for FAMPO model area and developed new forecasts for expanded area.

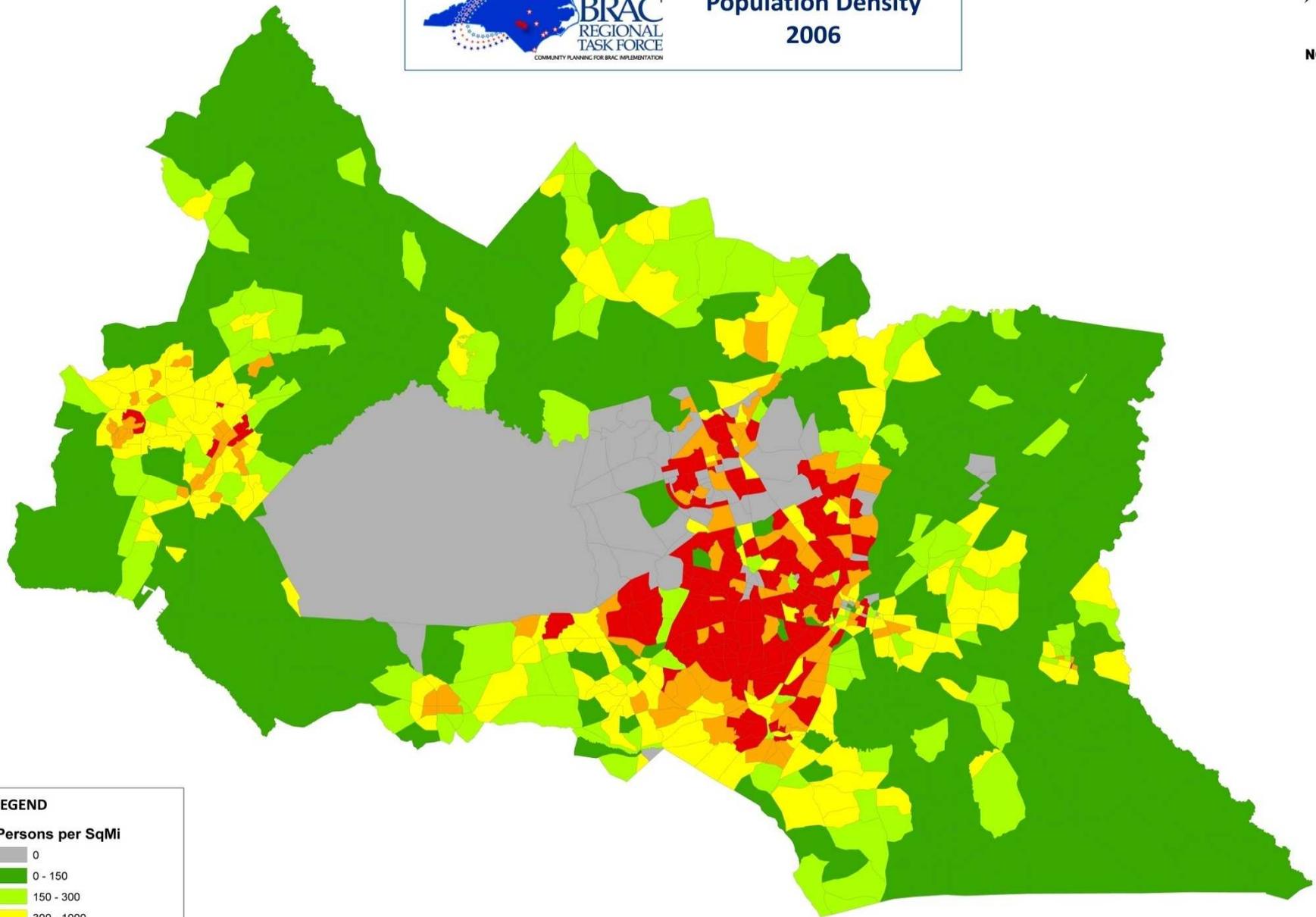


Data Forecasting (cont.)

- Conducted an extensive review of existing and planned land uses.
- Developed disaggregation factors.
- Distributed socioeconomic data throughout the study area.
- Developed 2035 data first, then 2015.
- Tried to stay conservative with growth to reflect impacts of recession.



**Population Density
2006**



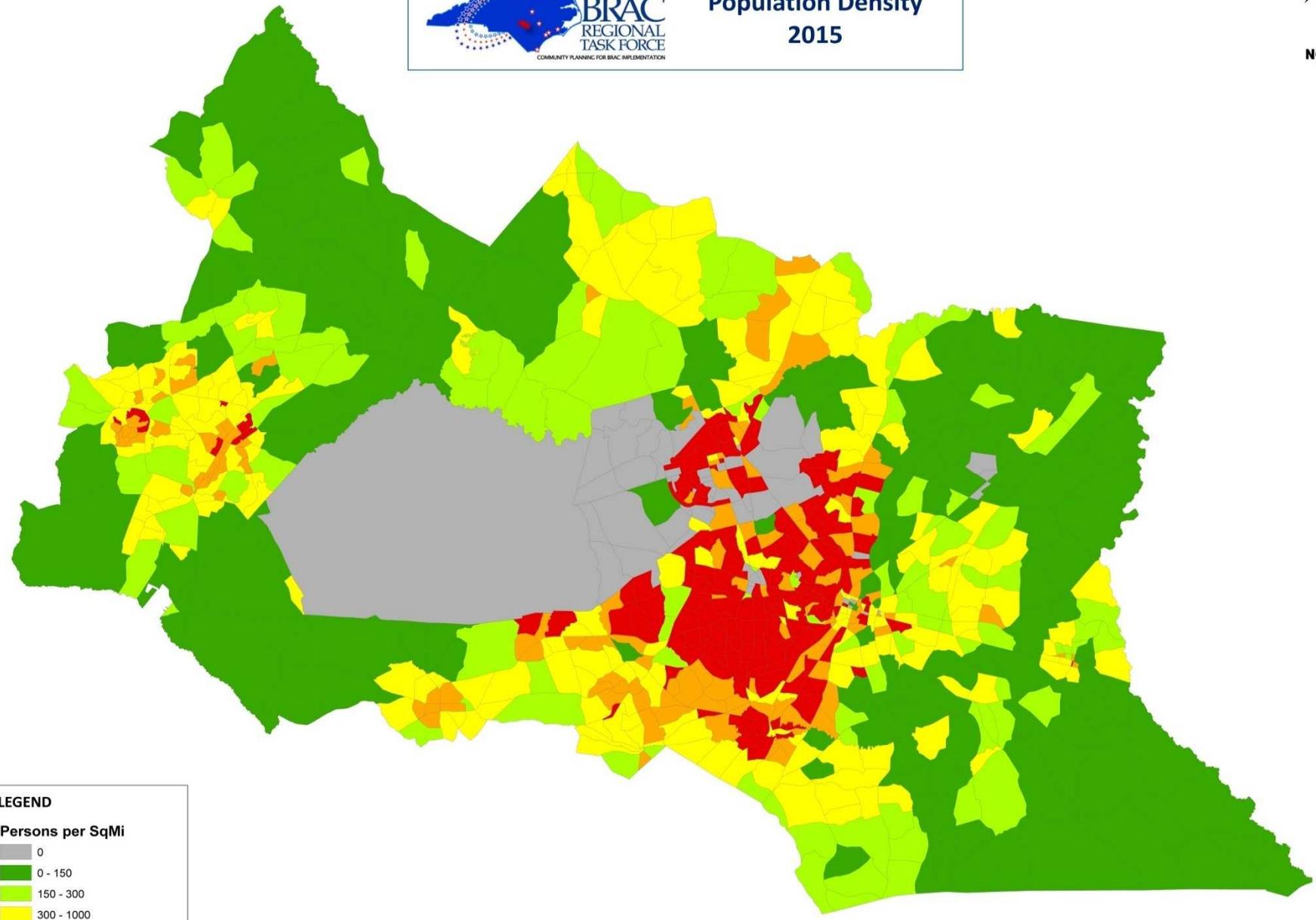
LEGEND

Persons per SqMi

-  0
-  0 - 150
-  150 - 300
-  300 - 1000
-  1000 - 2000
-  > 2000

Data Source: BRAC RTF Sub-Area Model March 23, 2012





LEGEND

Persons per SqMi

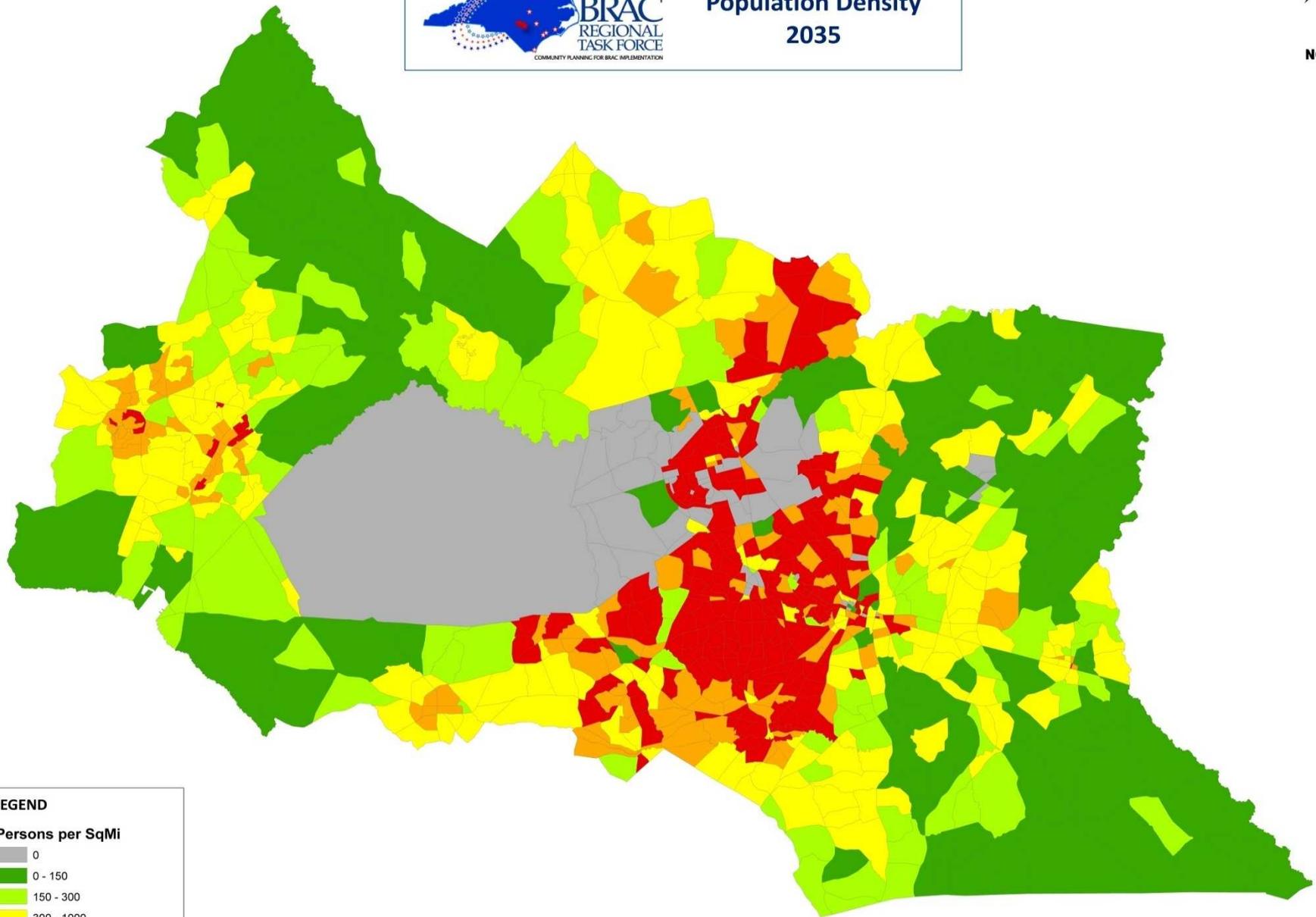
-  0
-  0 - 150
-  150 - 300
-  300 - 1000
-  1000 - 2000
-  > 2000

Data Source: BRAC RTF Sub-Area Model

March 23, 2012



**Population Density
2035**



LEGEND

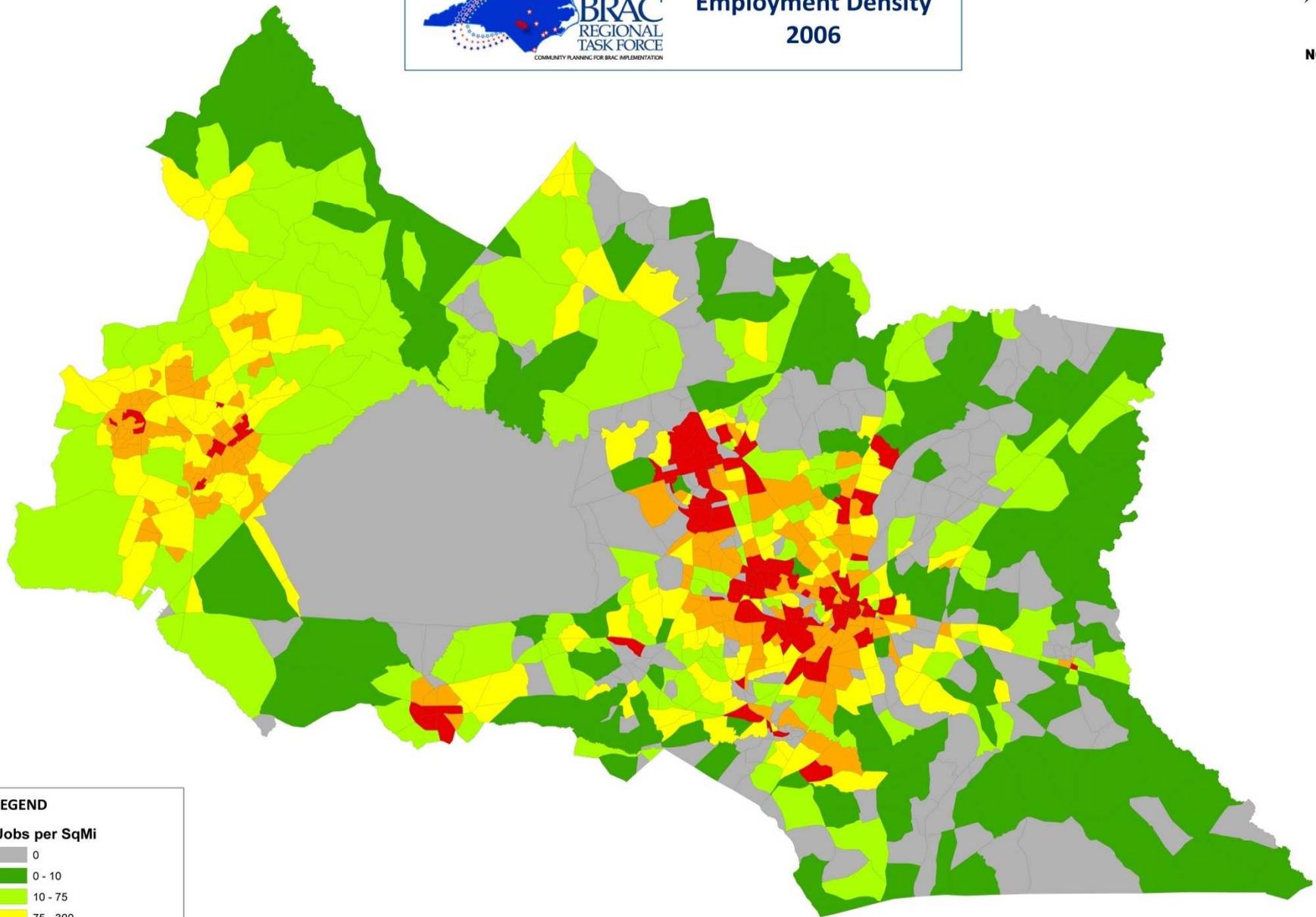
Persons per SqMi

-  0
-  0 - 150
-  150 - 300
-  300 - 1000
-  1000 - 2000
-  > 2000

Data Source: BRAC RTF Sub-Area Model March 23, 2012



**Employment Density
2006**



LEGEND

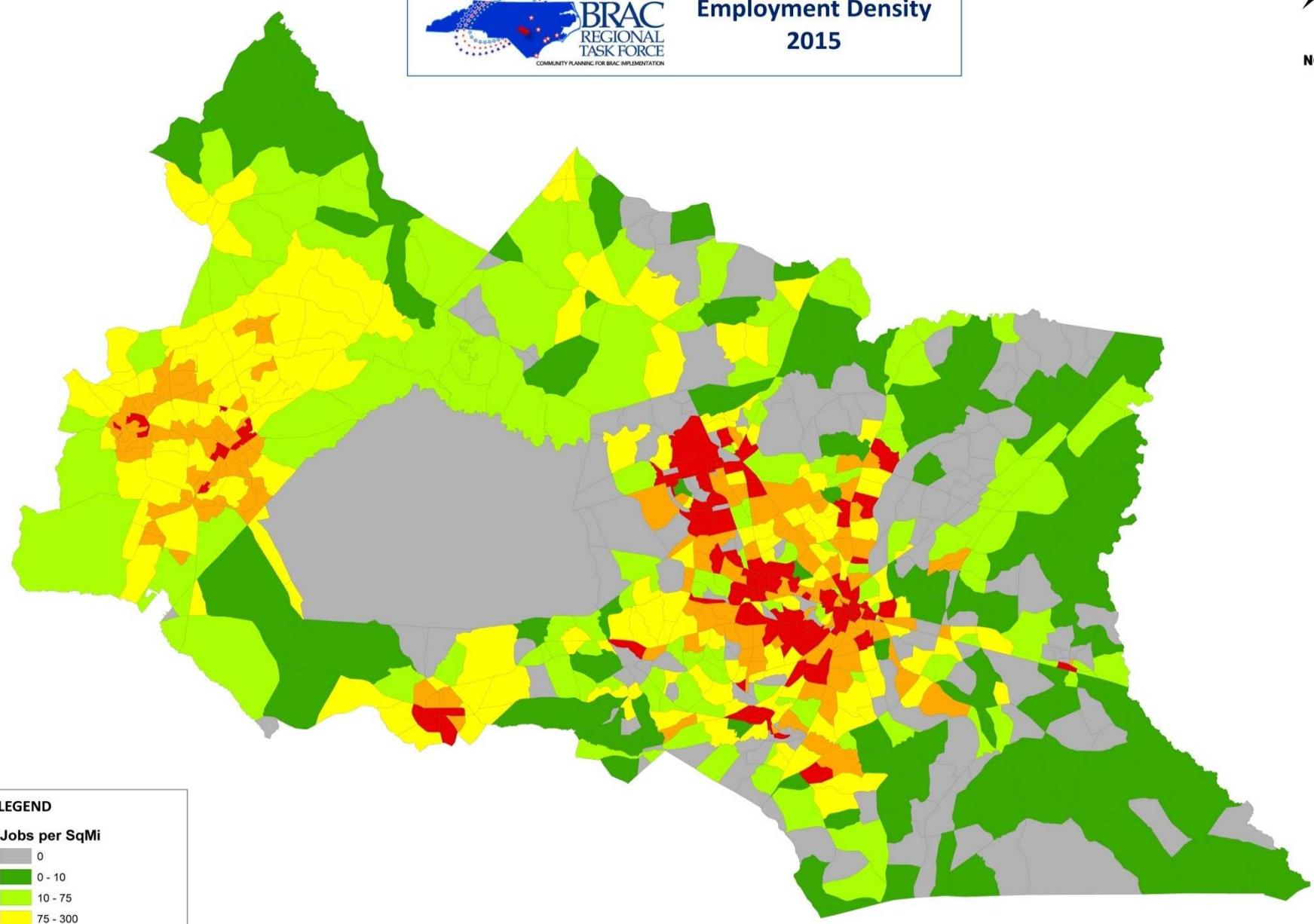
Jobs per SqMi

-  0
-  0 - 10
-  10 - 75
-  75 - 300
-  300 - 1000
-  > 1000

Data Source: BRAC RTF Sub-Area Model
March 23, 2012



Employment Density 2015



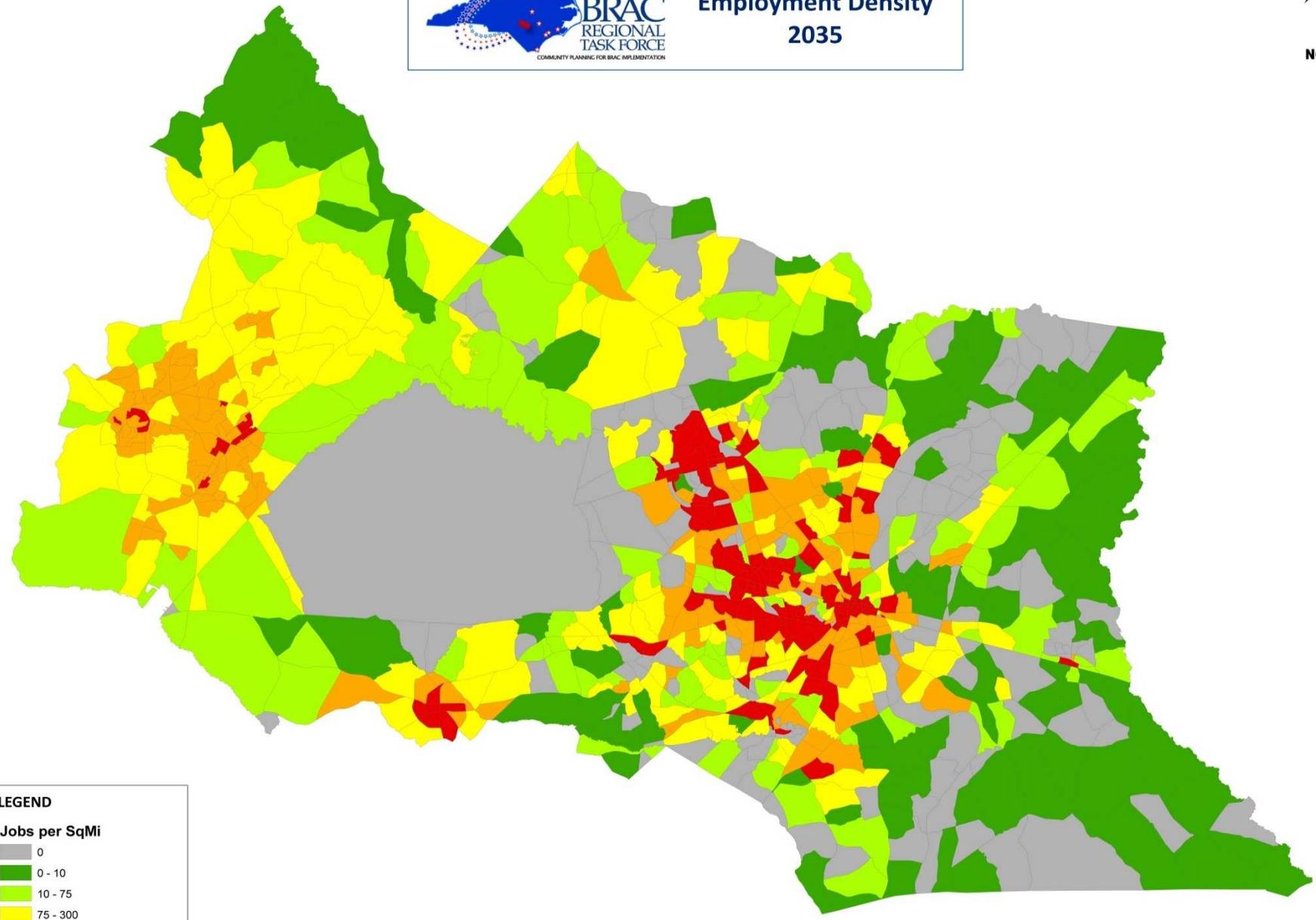
LEGEND

Jobs per SqMi

- 0
- 0 - 10
- 10 - 75
- 75 - 300
- 300 - 1000
- > 1000

Data Source: BRAC RTF Sub-Area Model
March 23, 2012





LEGEND

Jobs per SqMi

- 0
- 0 - 10
- 10 - 75
- 75 - 300
- 300 - 1000
- > 1000

Data Source: BRAC RTT Sub-Area Model

March 23, 2012



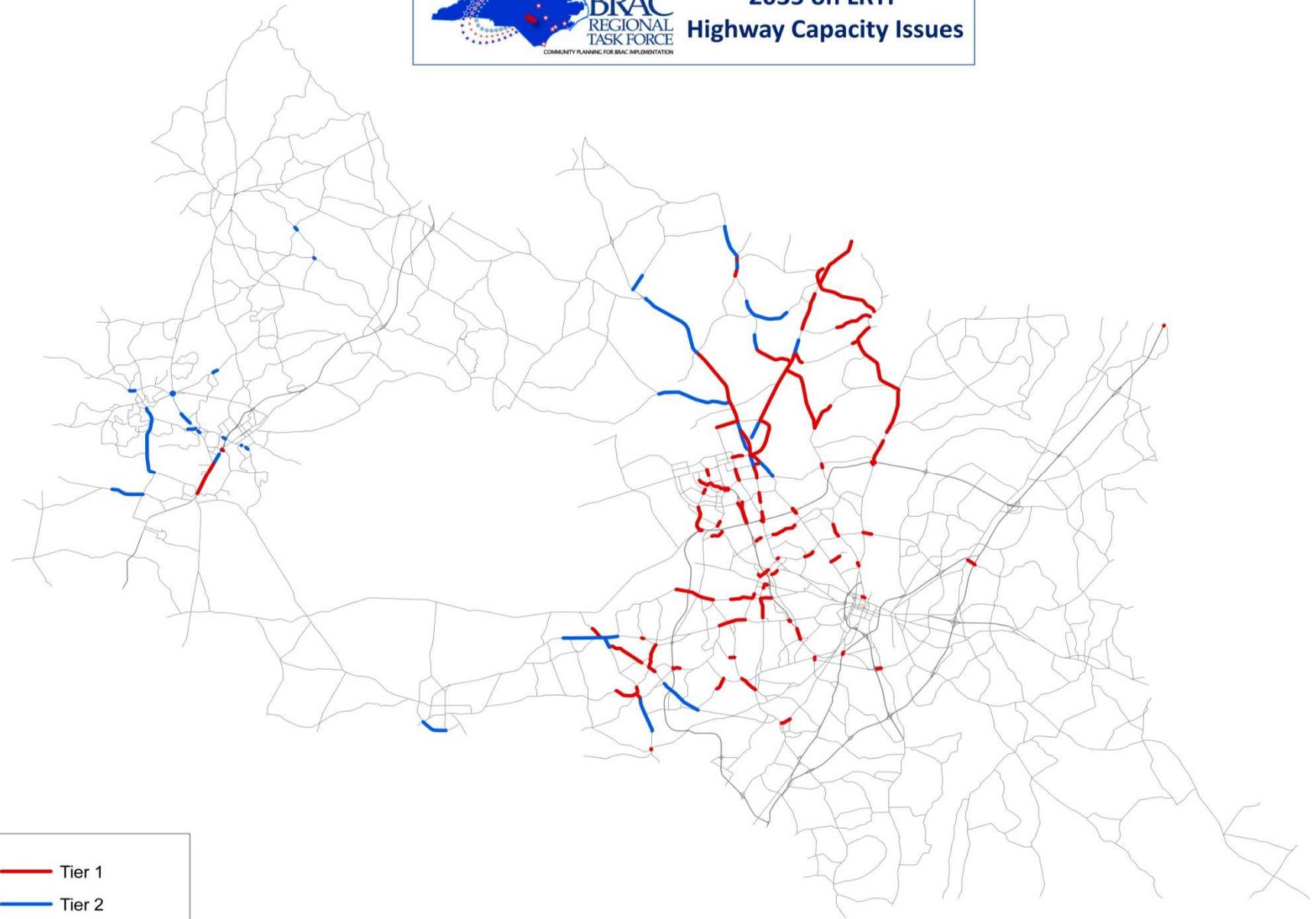
Deficiencies and Recommendations

- LOS E or worse used to identify needs.
- Needs were assessed for regional significance.
- Needs were compared to currently planned projects.
- Project corridors were identified to help mitigate these deficiencies.



FORT BRAGG AND POMEY AIR FORCE BASE
BRAC
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COMMUNITY PLANNING FOR BRAC IMPLEMENTATION

2035 on L RTP Highway Capacity Issues



- Tier 1
- Tier 2
- Highway Links

Data Source: BRAC RTP Sub-Area Model
March 18, 2012



Moore County Needs

- US 1
 - Daily volumes expected to reach 57,000 vehicles per day by 2035 between Southern Pines and Aberdeen
 - Current facility will be unable to handle this traffic
 - Existing facility will need to be upgraded to a freeway or a by-pass will need to be built to accommodate the increase in traffic



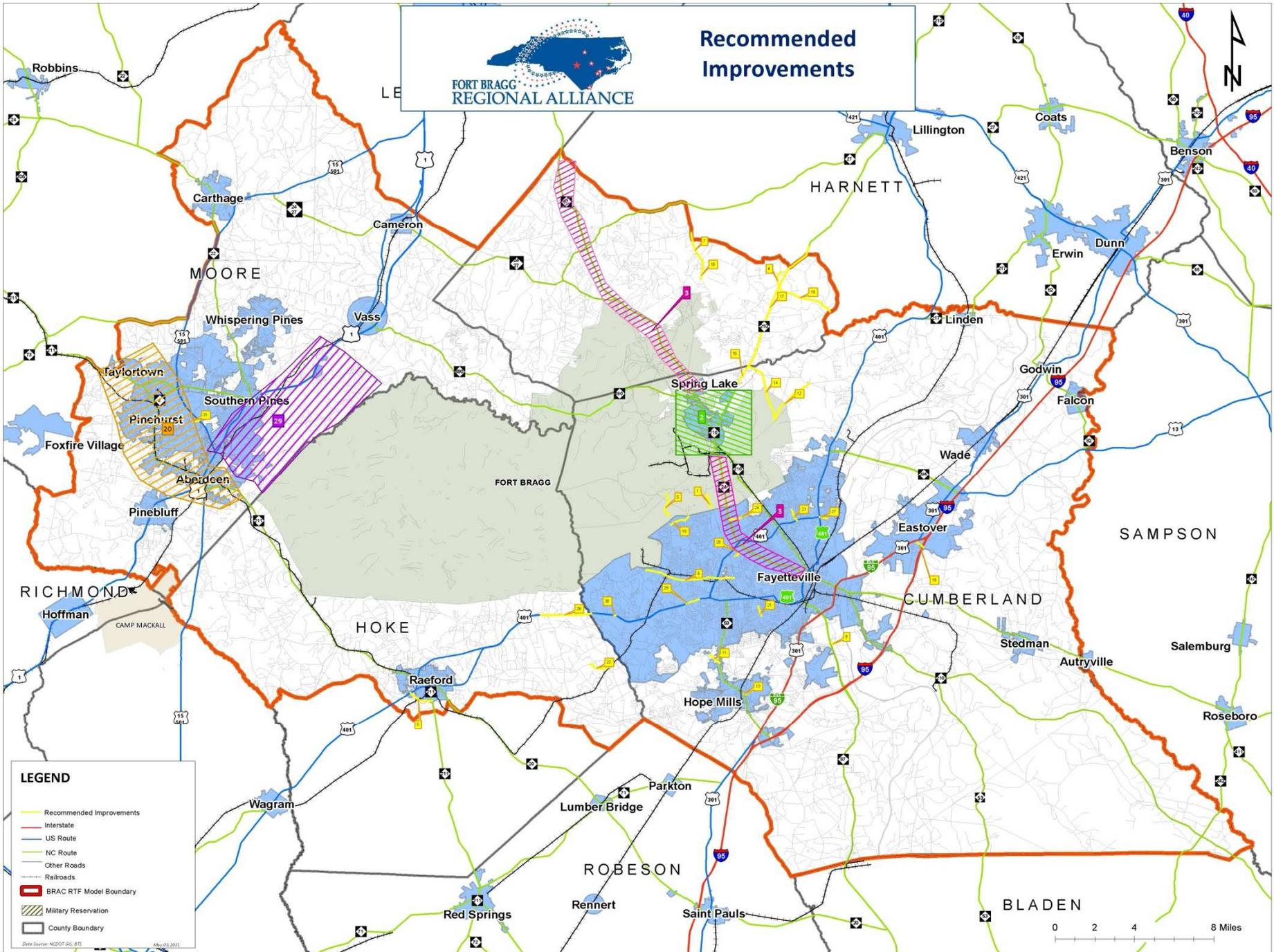
Moore County Needs (cont.)

- NC 5
 - Daily volumes expected to reach 27,000 vehicles per day by 2035 through Pinehurst
 - Current facility will be unable to handle this traffic
 - Existing facility will need to be widened or a bypass will need to be built to accommodate the increase in traffic





Recommended Improvements



LEGEND

- Recommended Improvements
- Interstate
- US Route
- NC Route
- Other Roads
- Railroads
- BRAC RTF Model Boundary
- Military Reservation
- County Boundary

Data Source: NCDOT GIS, 8/15
May 03, 2012

0 2 4 8 Miles