

# Optimizing Measurement of 4G LTE Broadband Access in Virginia

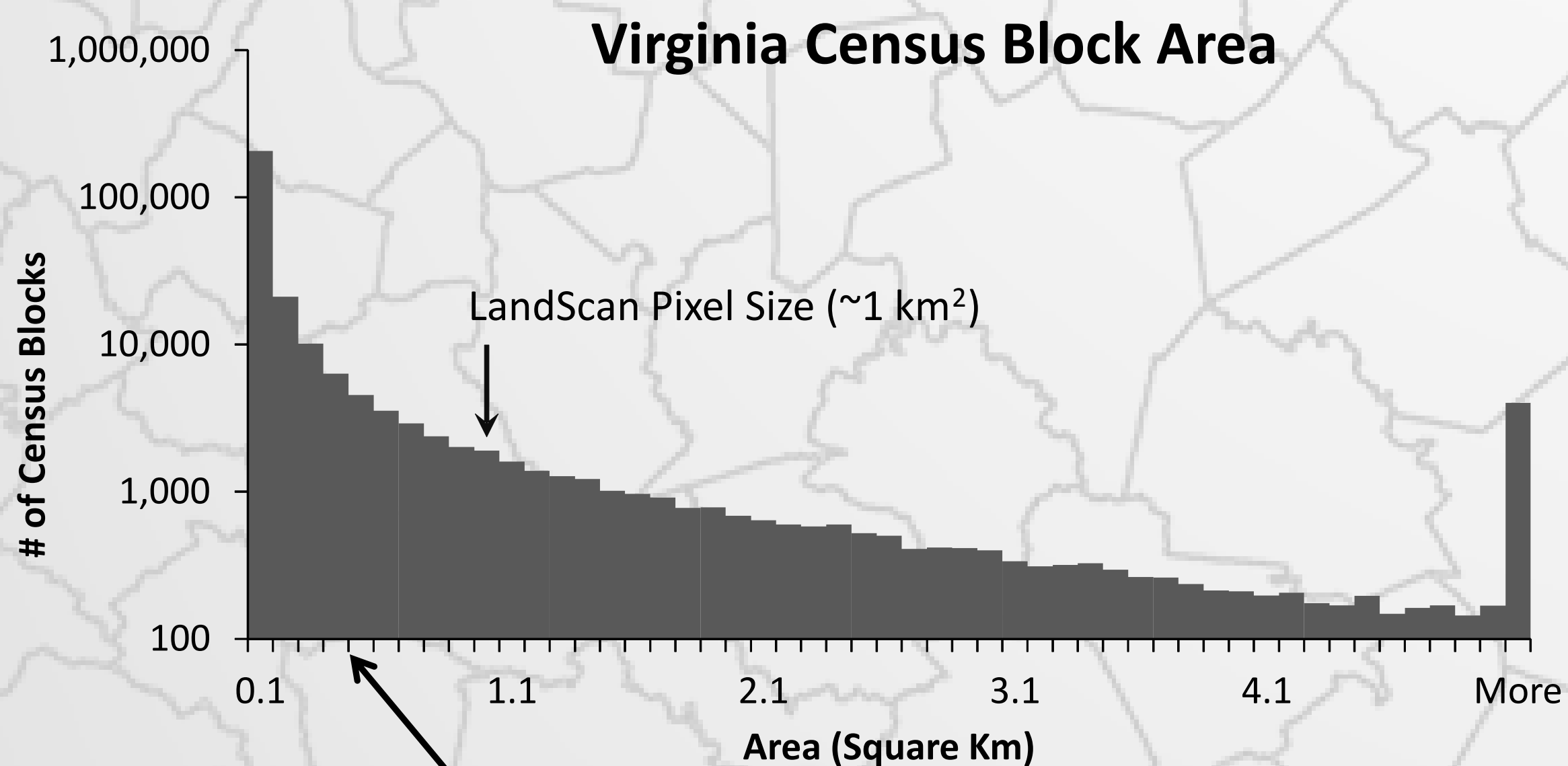
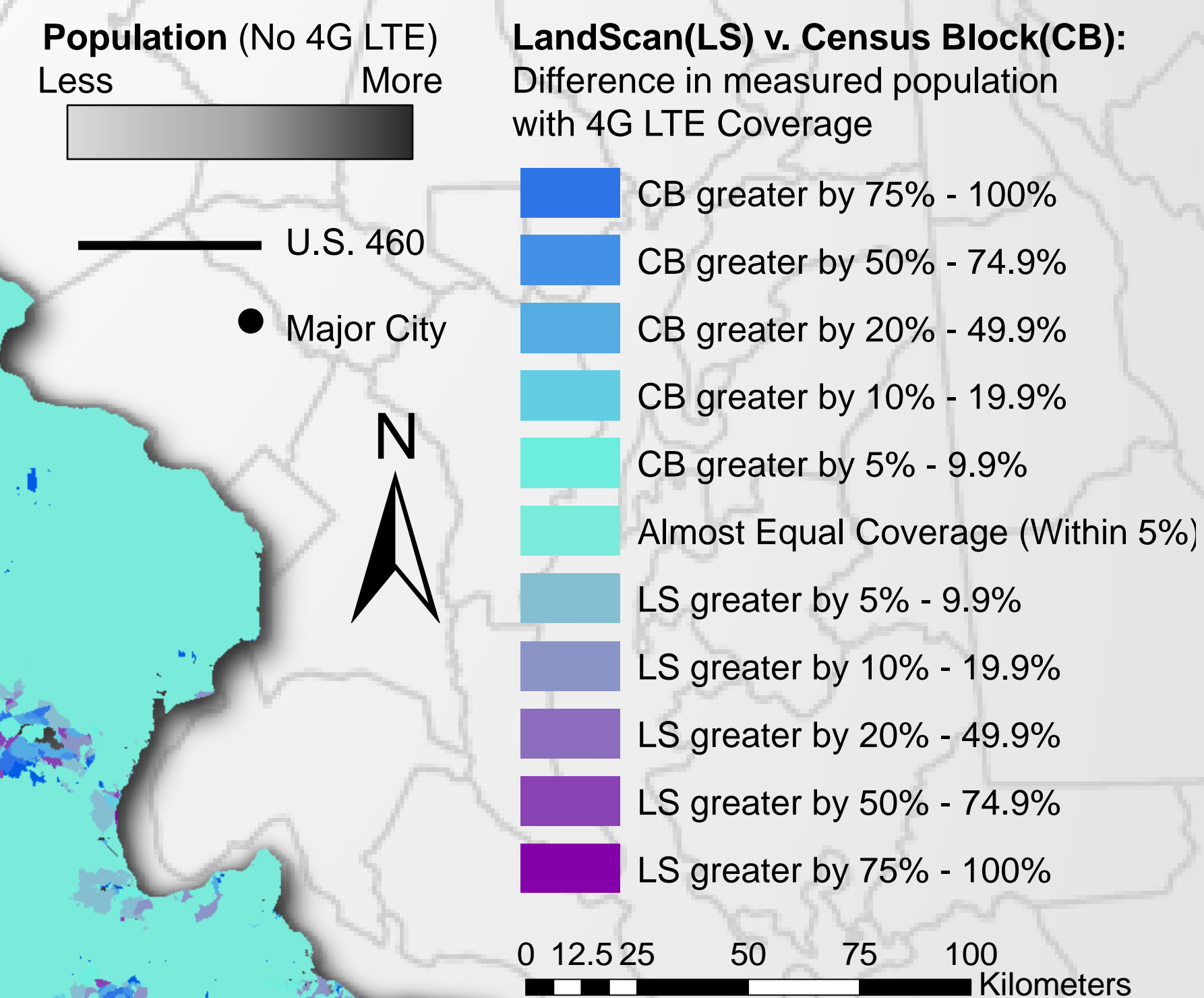
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This analysis compared the use of U.S. Census population data at the block level (vector) and LandScan's ambient population model (raster) to calculate the percent of population with 4G LTE broadband access (NTIA broadband coverage data).

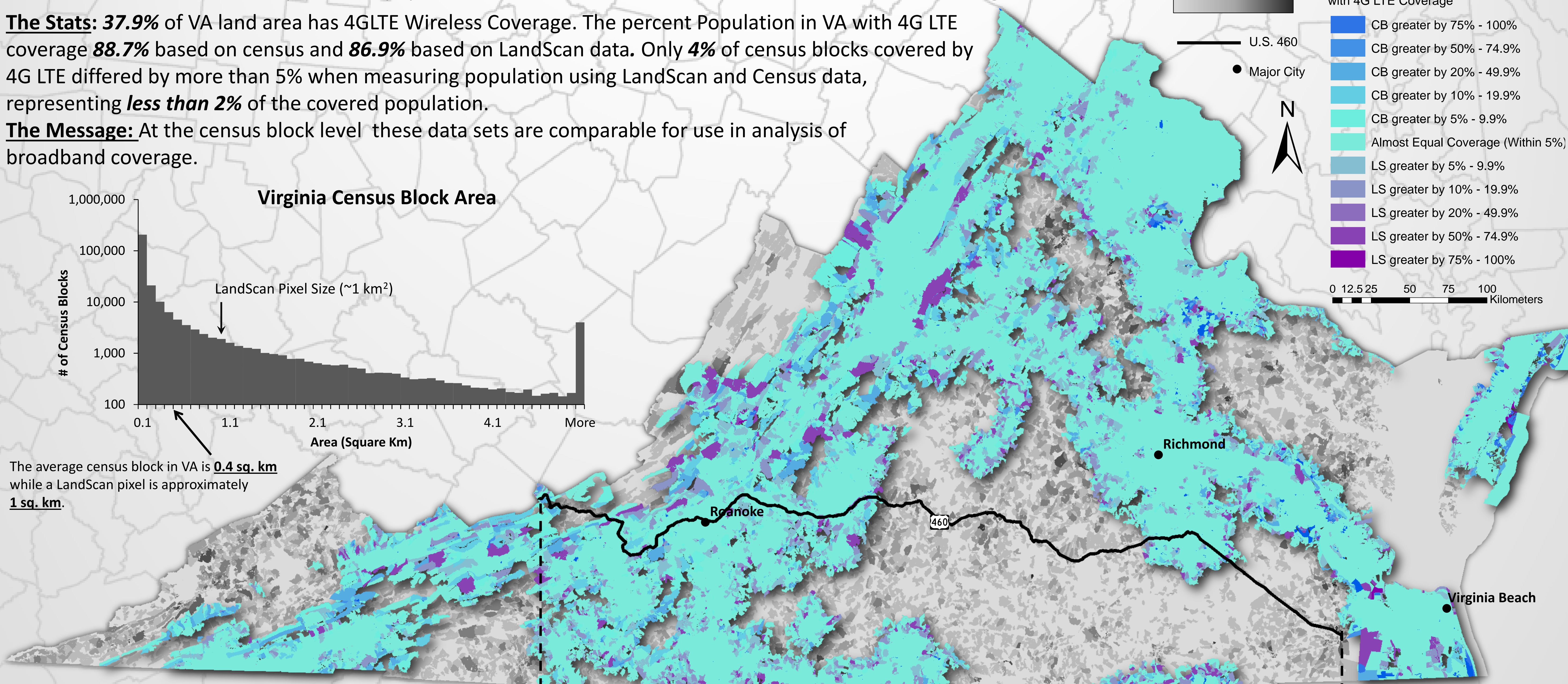
**The Stats:** 37.9% of VA land area has 4GLTE Wireless Coverage. The percent Population in VA with 4G LTE coverage 88.7% based on census and 86.9% based on LandScan data. Only 4% of census blocks covered by 4G LTE differed by more than 5% when measuring population using LandScan and Census data, representing *less than 2%* of the covered population.

**The Message:** At the census block level these data sets are comparable for use in analysis of broadband coverage.

## Map Legend



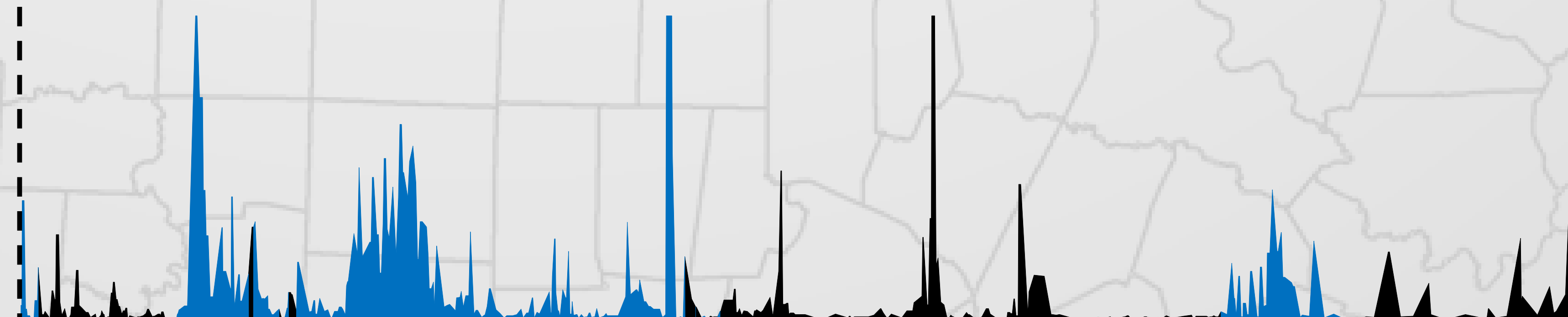
The average census block in VA is **0.4 sq. km** while a LandScan pixel is approximately **1 sq. km**.



## Data Sources and Attribution:

U.S. Census Bureau Population and Boundaries Data  
Oak Ridge National Laboratory Landscan Ambient Population Dataset  
National Telecommunication and Information Administration Broadband Coverage Data  
Virginia Geographic Information Network Road Centerlines  
Virginia Tech Center for Geospatial Information Technology -  
Analysis completed by Erica Adams with assistance from Thomas Dickerson

Population



4G LTE Wireless Coverage along U.S. Highway 460