

Maps of Kernel-Based Urban Areas (KBUs)

“A Better Delineation of U.S. Metropolitan Areas: Supplemental Materials.” Jordan Rappaport and McKenzie Humann. 2025. Federal Reserve Bank of Kansas City. Mendeley Data, V1, doi: 10.17632/pg64w4hkjh.1 (<https://data.mendeley.com/datasets/pg64w4hkjh/1>)

“A Better Delineation of U.S. Metropolitan Areas.” Jordan Rappaport and McKenzie Humann. 2025. Federal Reserve Bank of Kansas City. Research Working Paper no. 25-01. doi: doi.org/10.18651/RWP2025-01 (Forthcoming, *Journal of Urban Economics*)

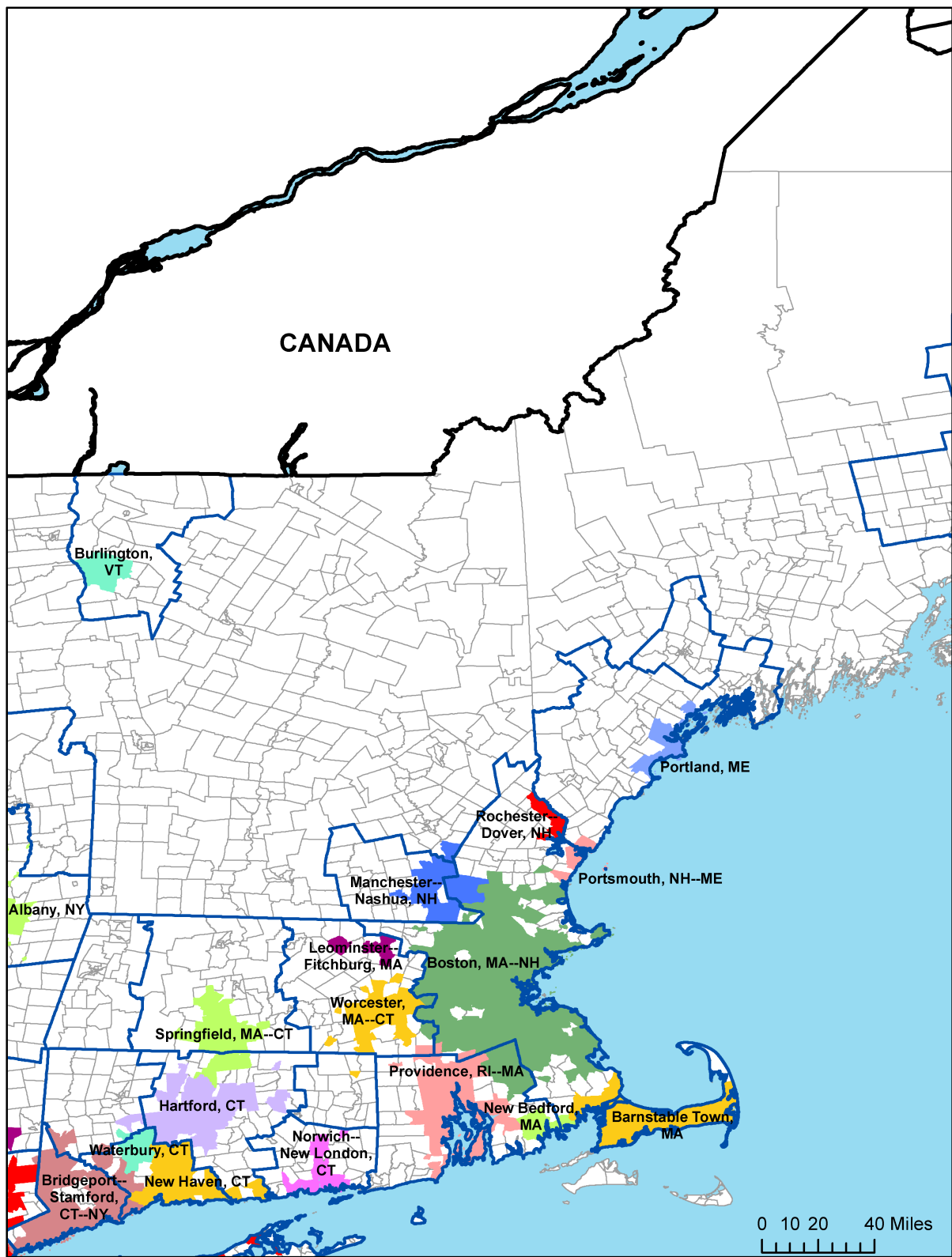
The paper broadly defines metropolitan areas as unions of built-up locations near each other with combined population of at least moderate scale and among which a significant share of residents and workers travel on a day-to-day basis between places of residence, places of employment, and places of consumption. A wide range of parameterizations of our delineation algorithm are arguably consistent with this broad definition.

Kernel-Based Metropolitan Areas (KBMs), our preferred parameterization, are likely to be appropriate for most questions and purposes. They balance encompassing commuting flows with excluding locations that are farther away or less densely settled. Kernel-Based Urban Areas (KBUs) are an alternative benchmark with more stringent criteria for combining locations: a higher threshold strength for commuting ties, a lower maximum separating distance, and a higher threshold density for outlying census tracts. In consequence, KBUs are more compact than KBMs and typically encompass a lower share of commuting flows.

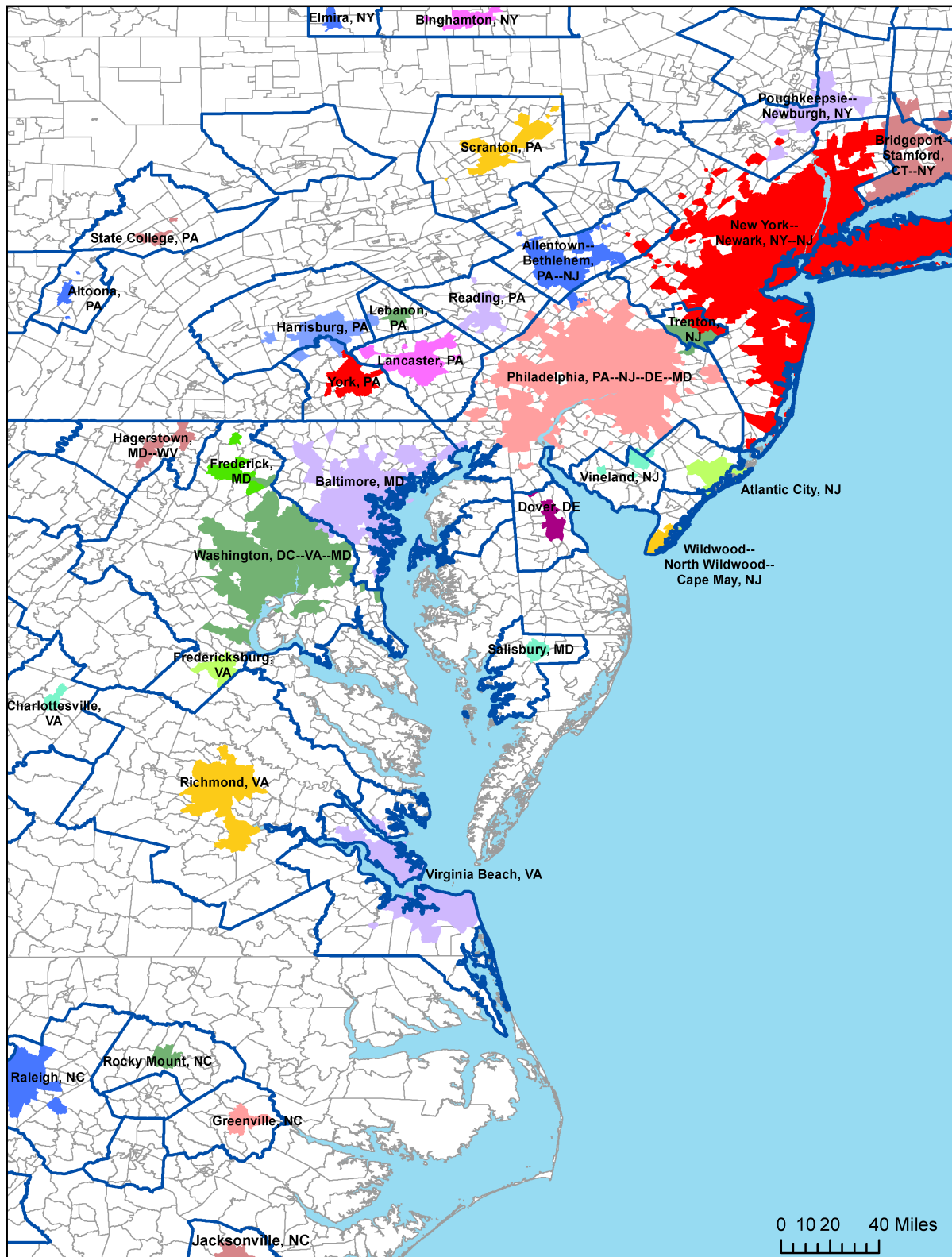
This file includes maps of KBUs, based on commuting flows in 2000, for each of the following regions:

1. New England
2. New York City to Virginia Beach
3. North and South Carolina
4. Louisville to Atlanta
5. Florida
6. Cleveland to Chicago
7. Minneapolis to Omaha
8. Saint Louis to Kansas City
9. Texas
10. Mountain States
11. Southern California
12. Northern California
13. Pacific Northwest

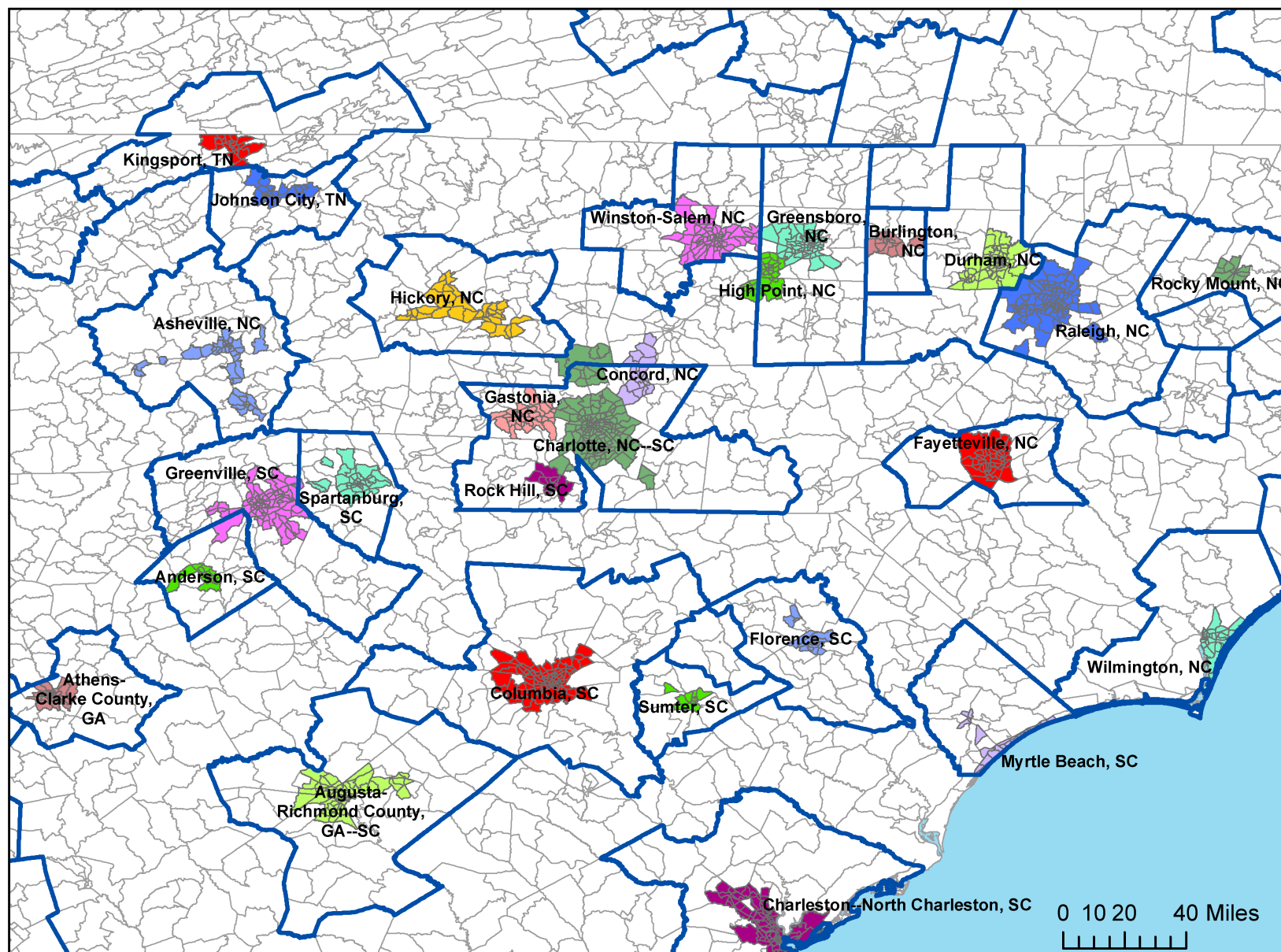
In addition to the archive of supplemental materials cited above, enumerations, maps, and workbooks for KBMs, KBUs, and a third benchmark can be individually downloaded from the working paper’s [webpage](#).



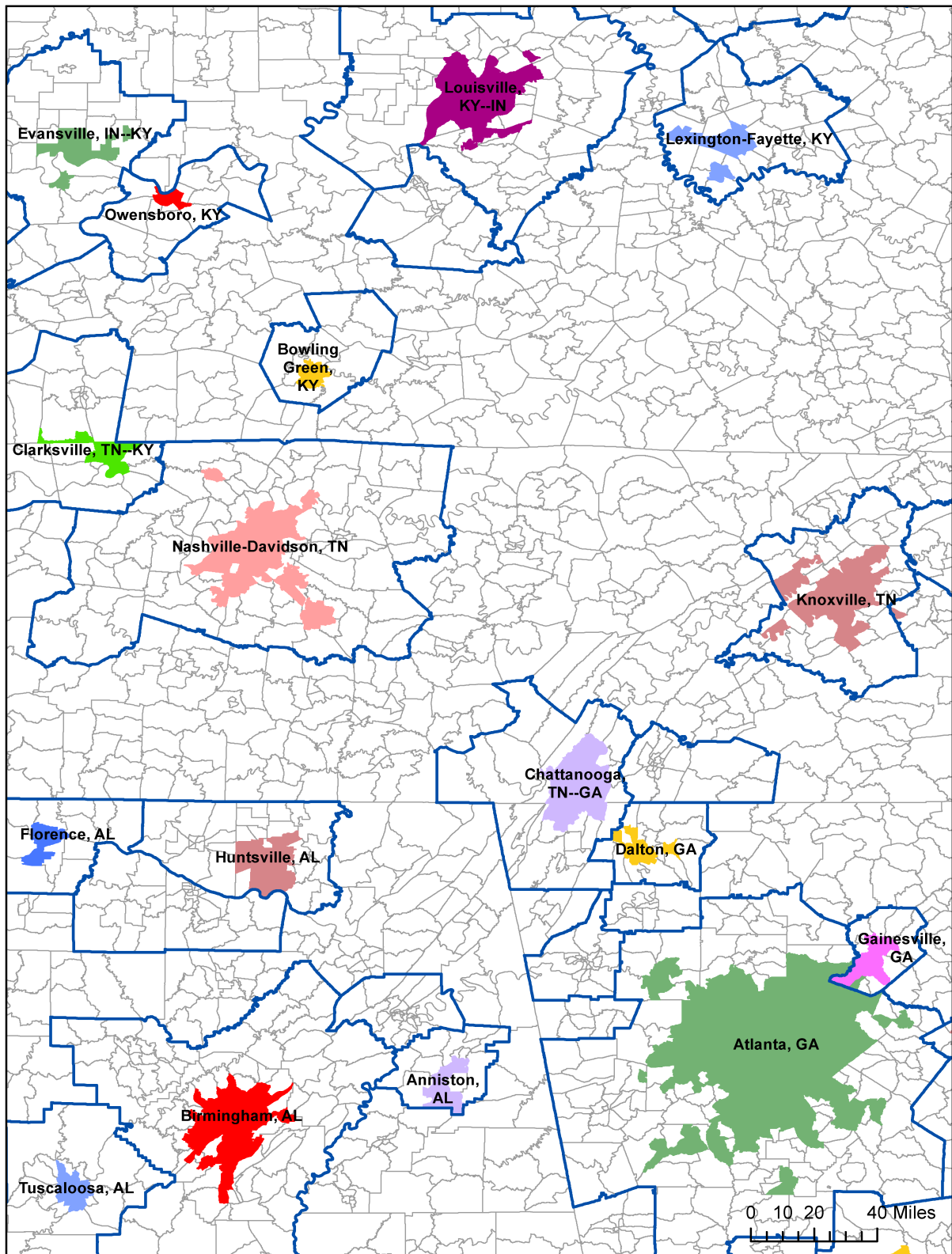
KBUAs in New England. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



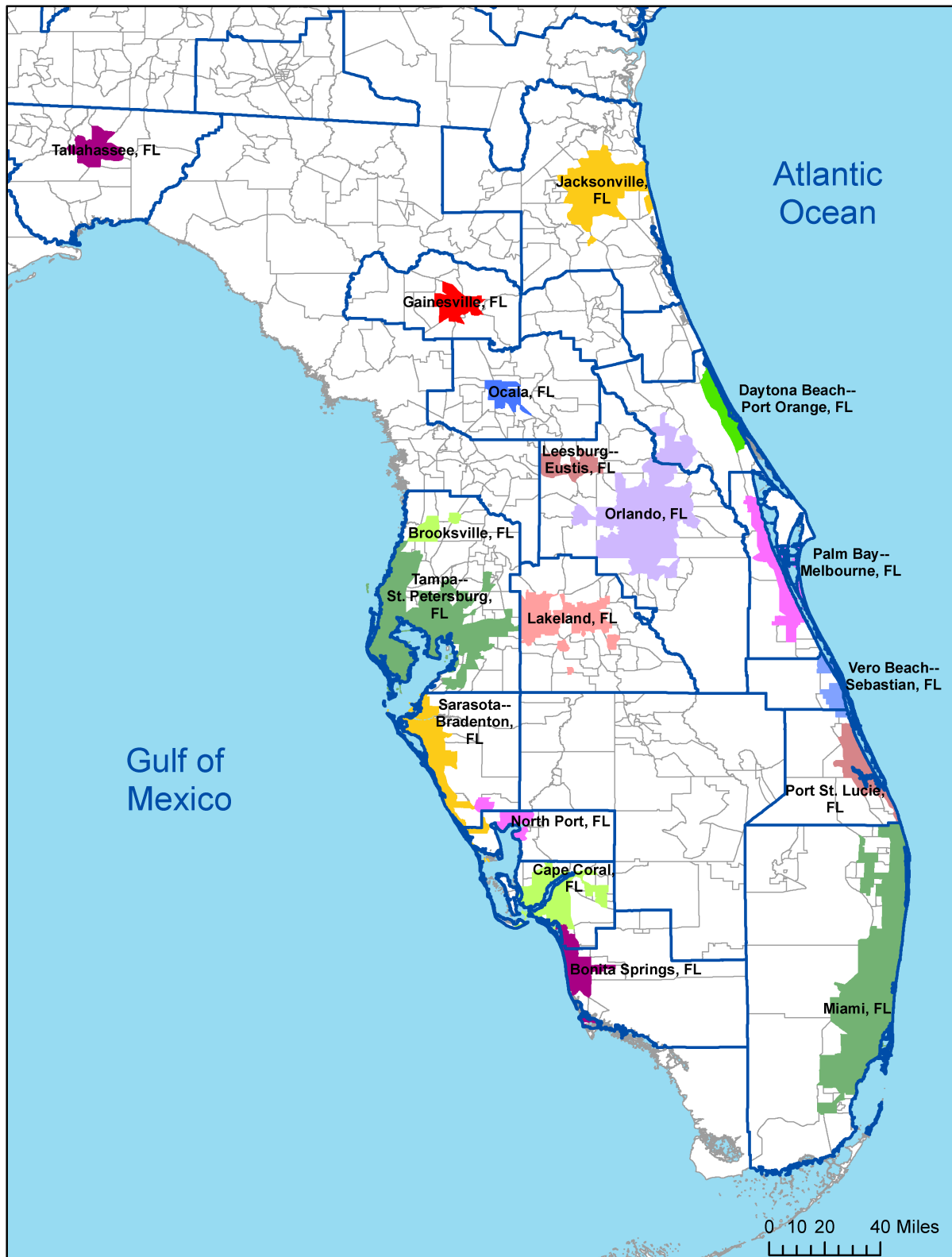
KBUAs from New York City to Virginia Beach. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



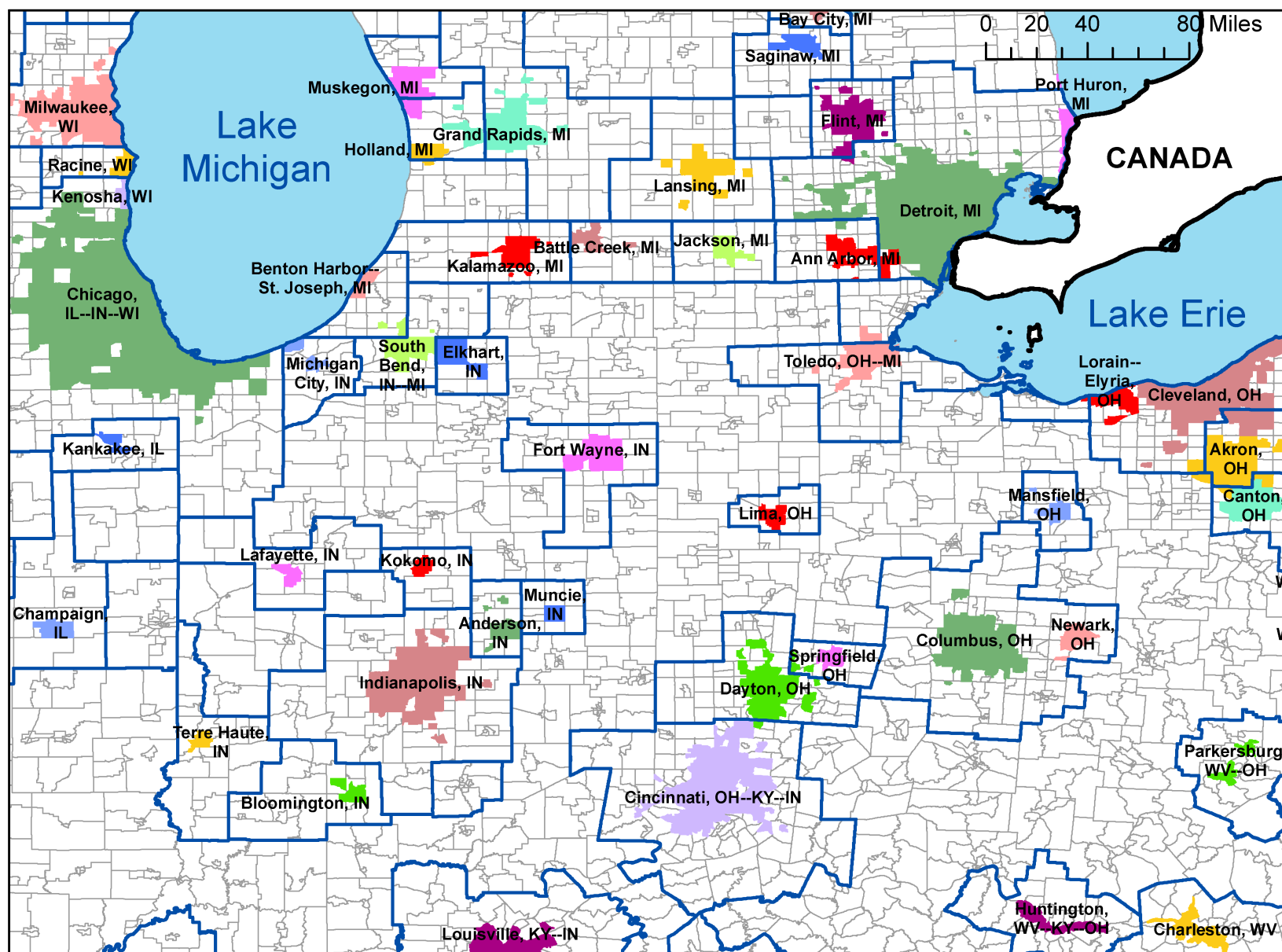
KBUAs in North and South Carolina. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



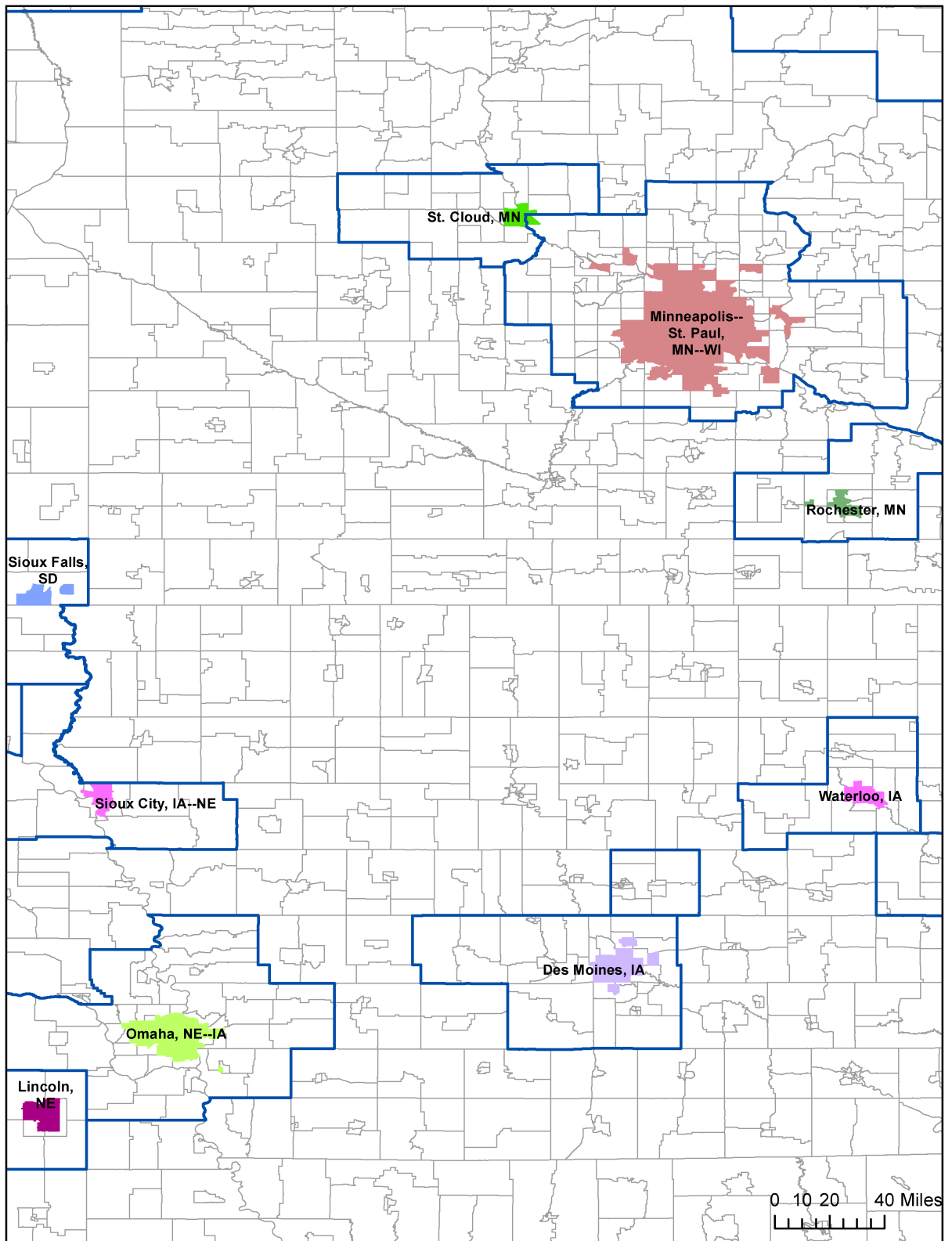
KBUAs from Louisville to Atlanta. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



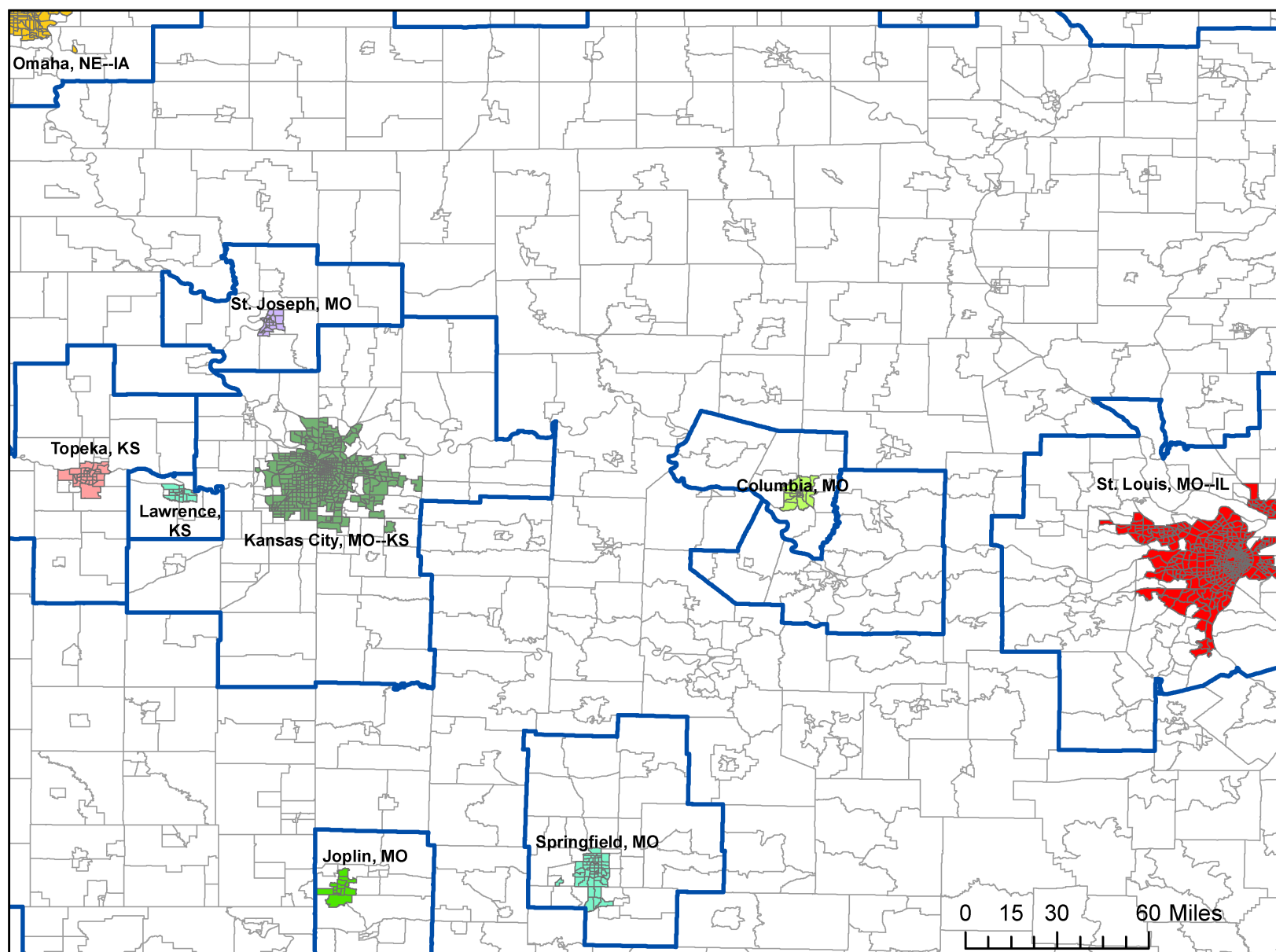
KBUAs in Florida. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



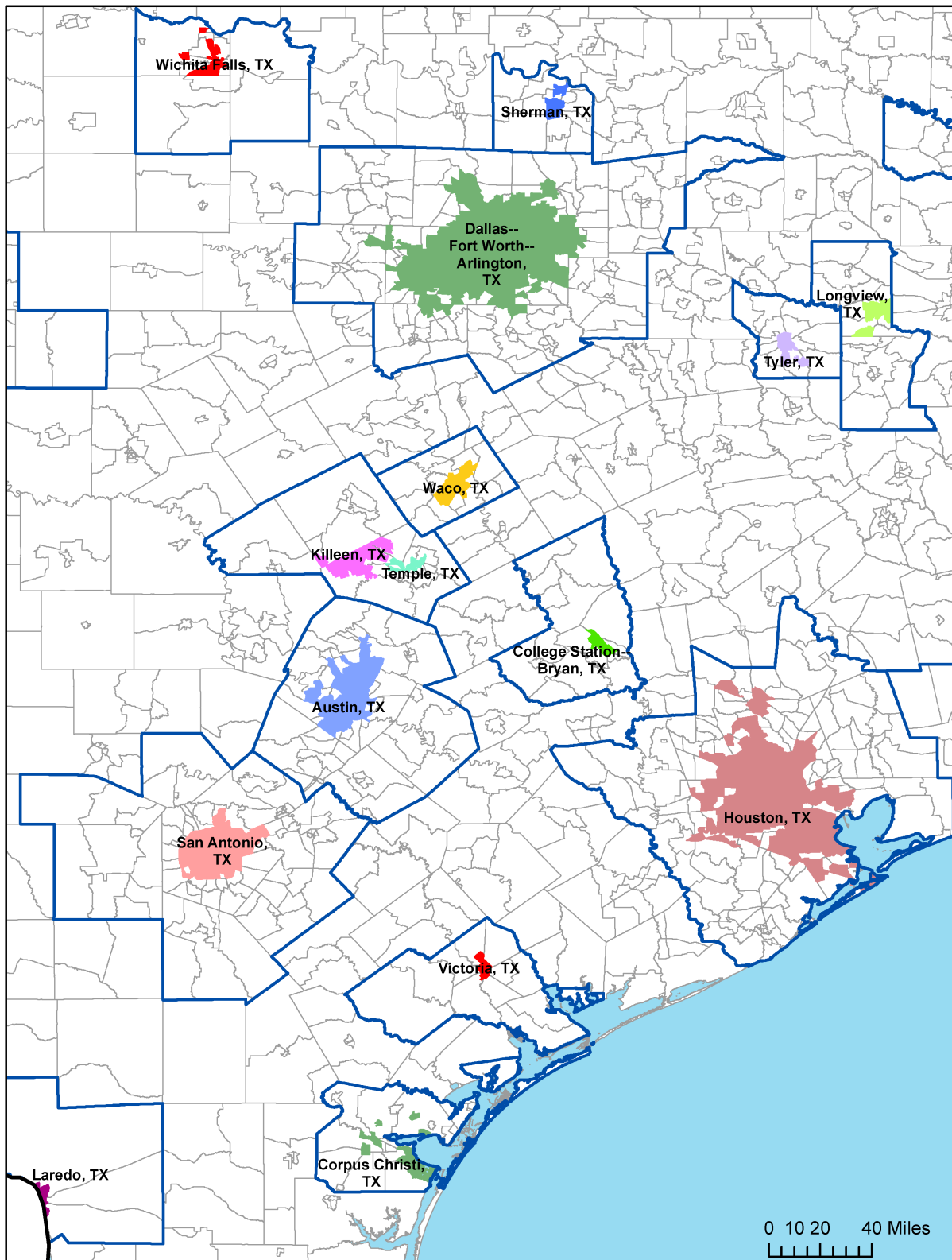
KBUAs from Cleveland to Chicago. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



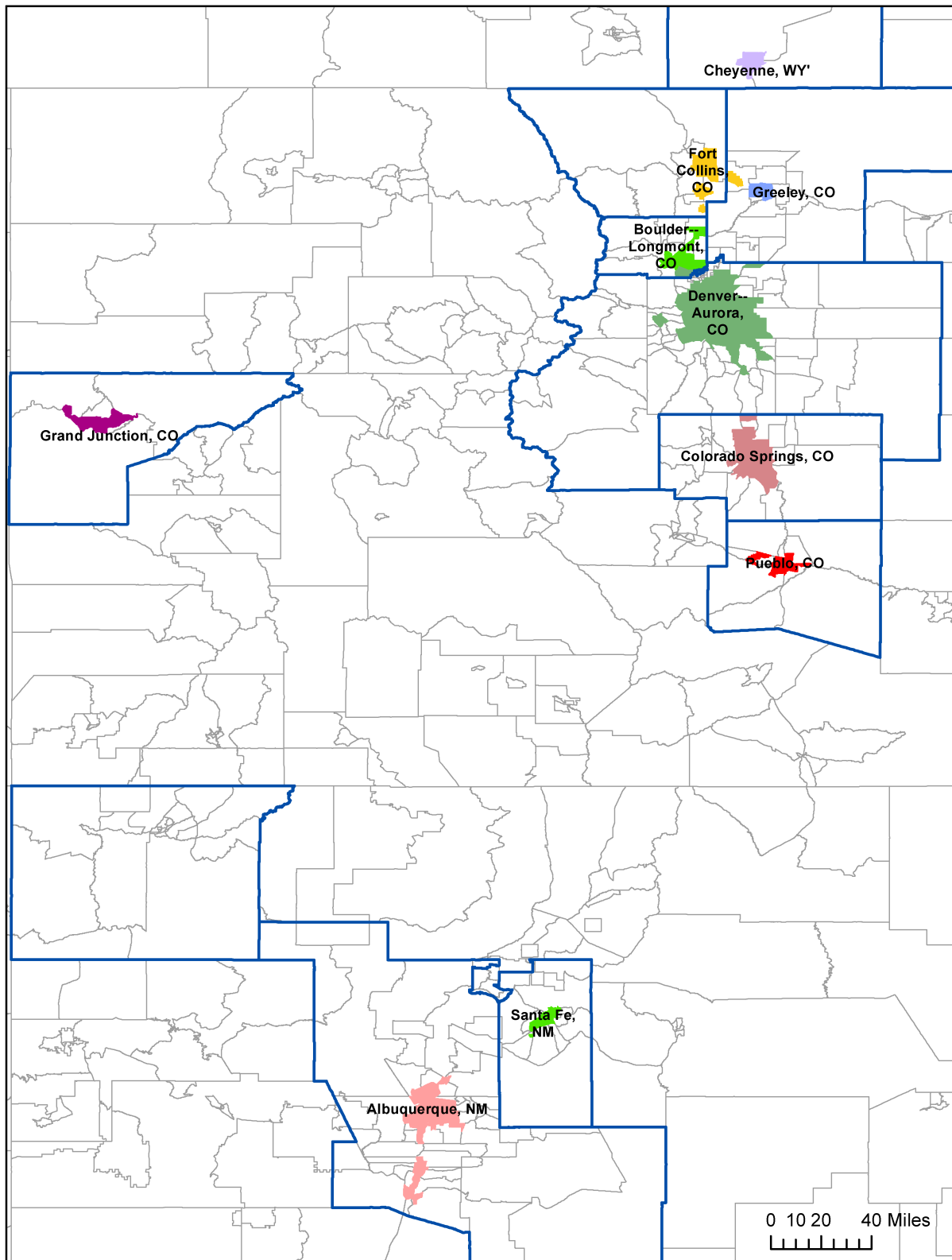
KBUAs from Minneapolis to Omaha. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



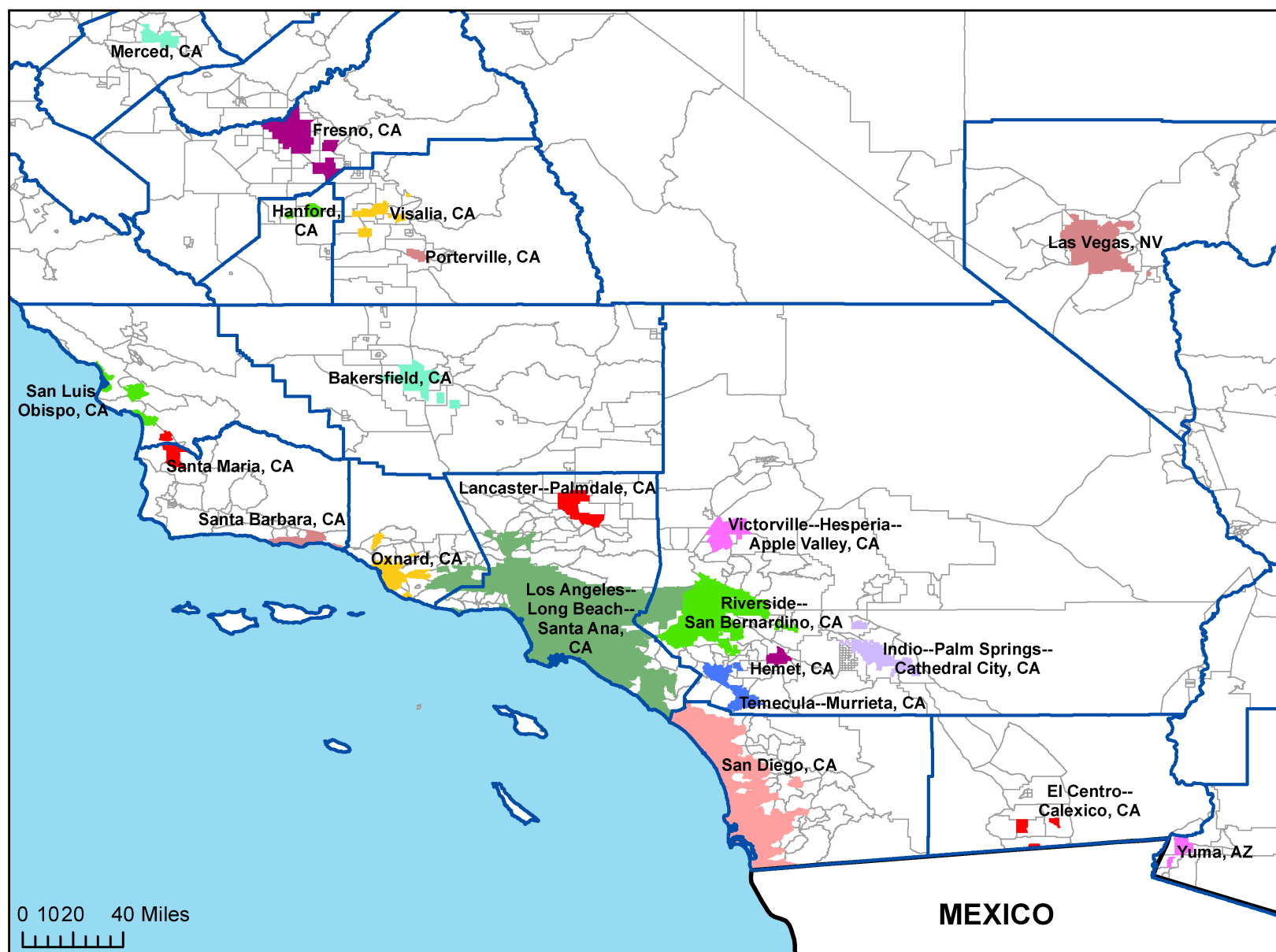
KBUAs from Saint Louis to Kansas City. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



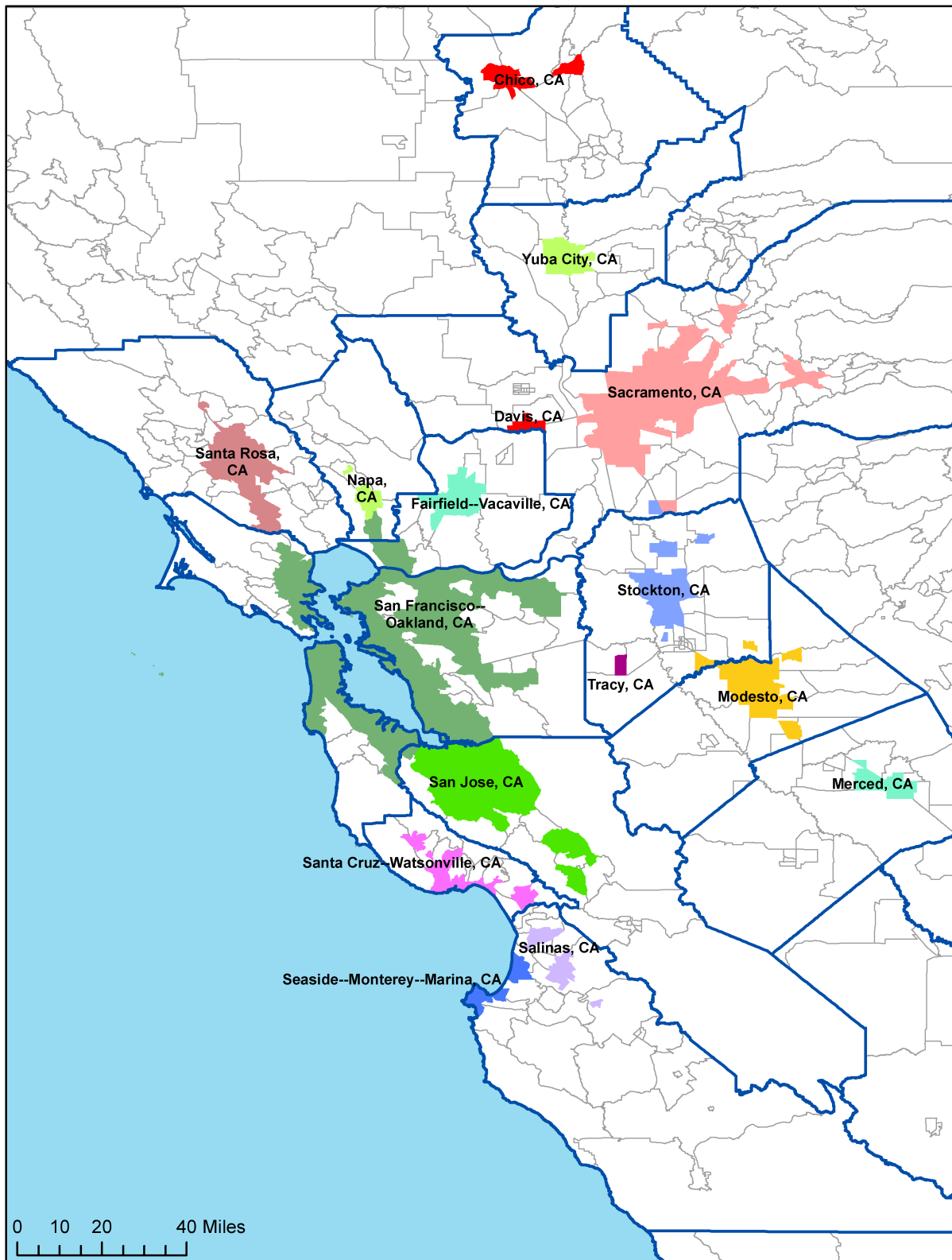
KBUAs in Texas. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



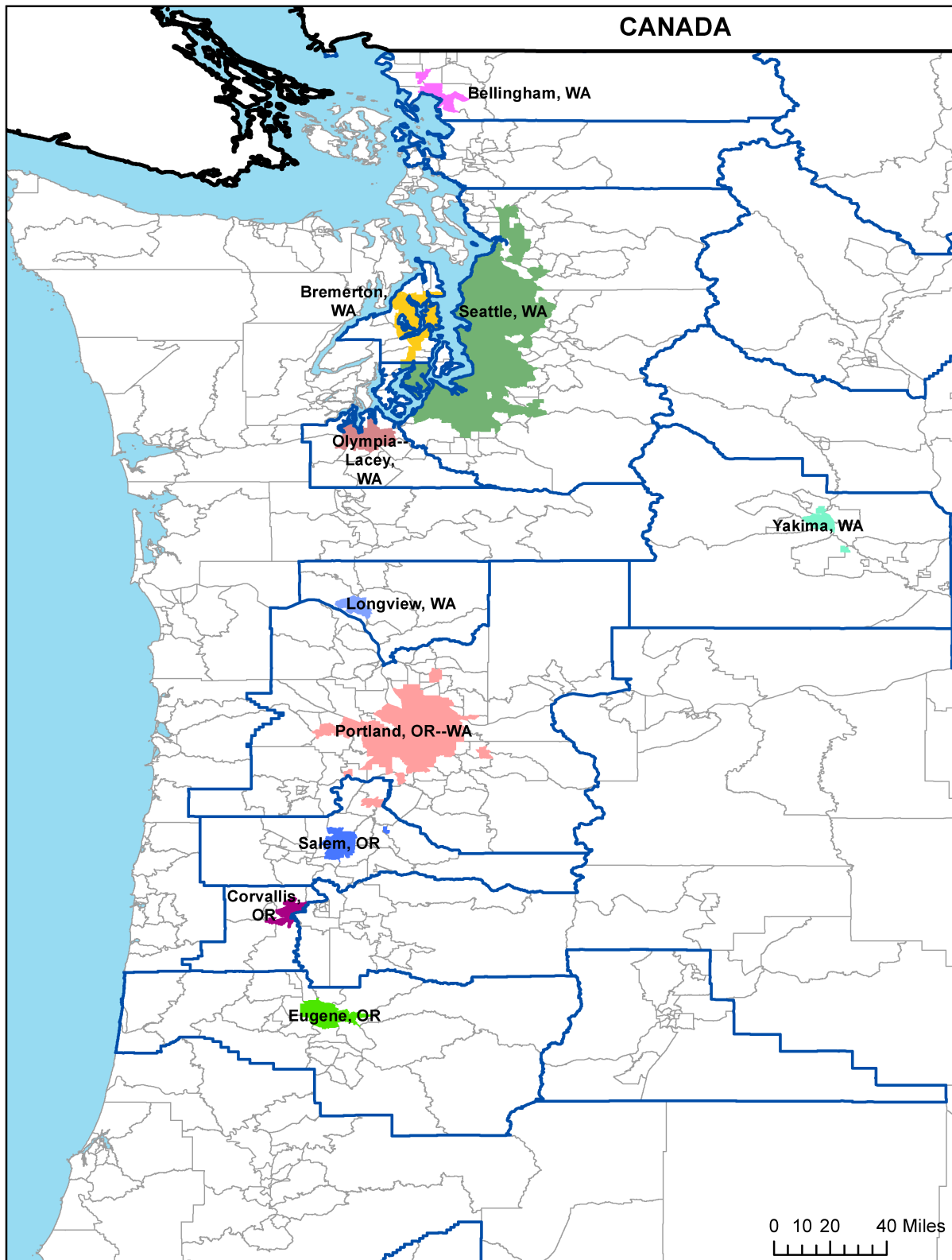
KBUAs in Mountain States. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



KBUAs in Southern California. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



KBUAs in Northern California. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.



KBUAs in the Pacific Northwest. Blue lines demarcate the borders of metropolitan CBSAs. Gray lines demarcate tract borders. Delineations are based on commuting flows in 2000.