

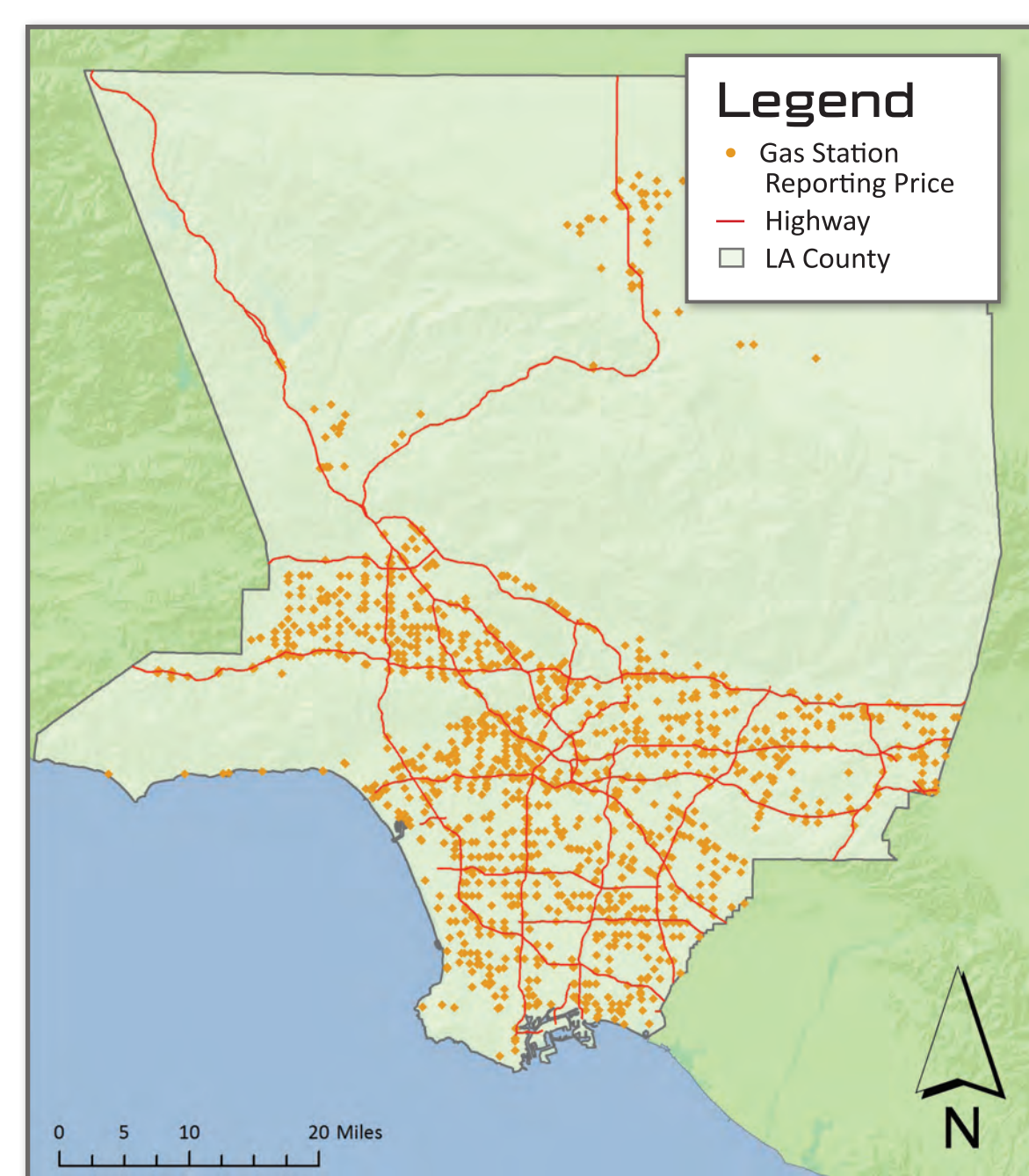
Commuting and the Real Cost of Gas in LA County

Lewis Center Award Winner for Innovative Use of Spatial Analysis and GIS in Policy Analysis

A Policy Question

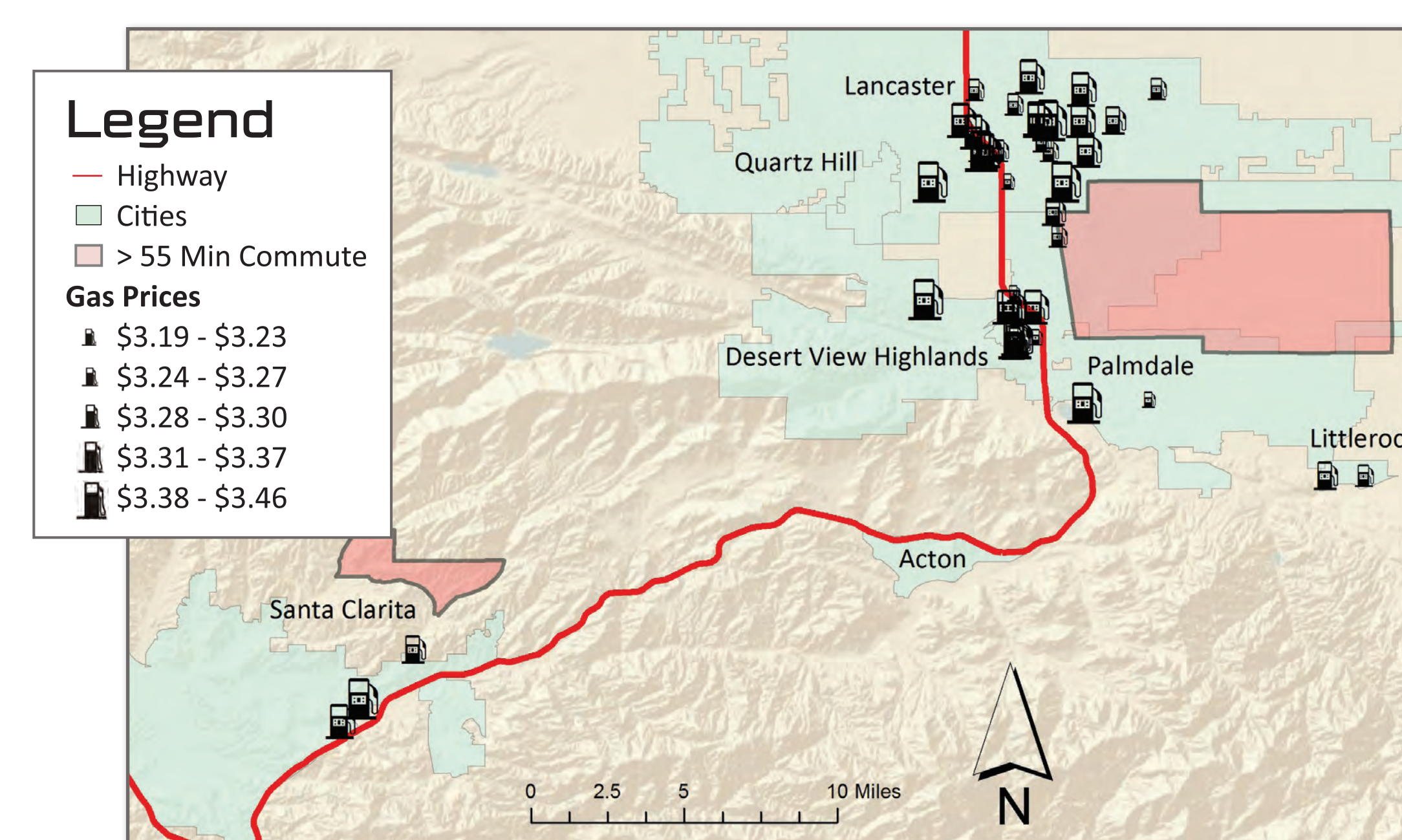
- How do gas prices vary within LA County?
- What areas are most affected by rising gas prices?
- 3 components studied: gas price, commute time, and modal share

1 Gas Price



- Data accessed January 20, 2011
- 2054 unique stations reporting
- \$3.35 per gallon average
- Nat'l avg on Jan 24: \$3.11 (EIA)

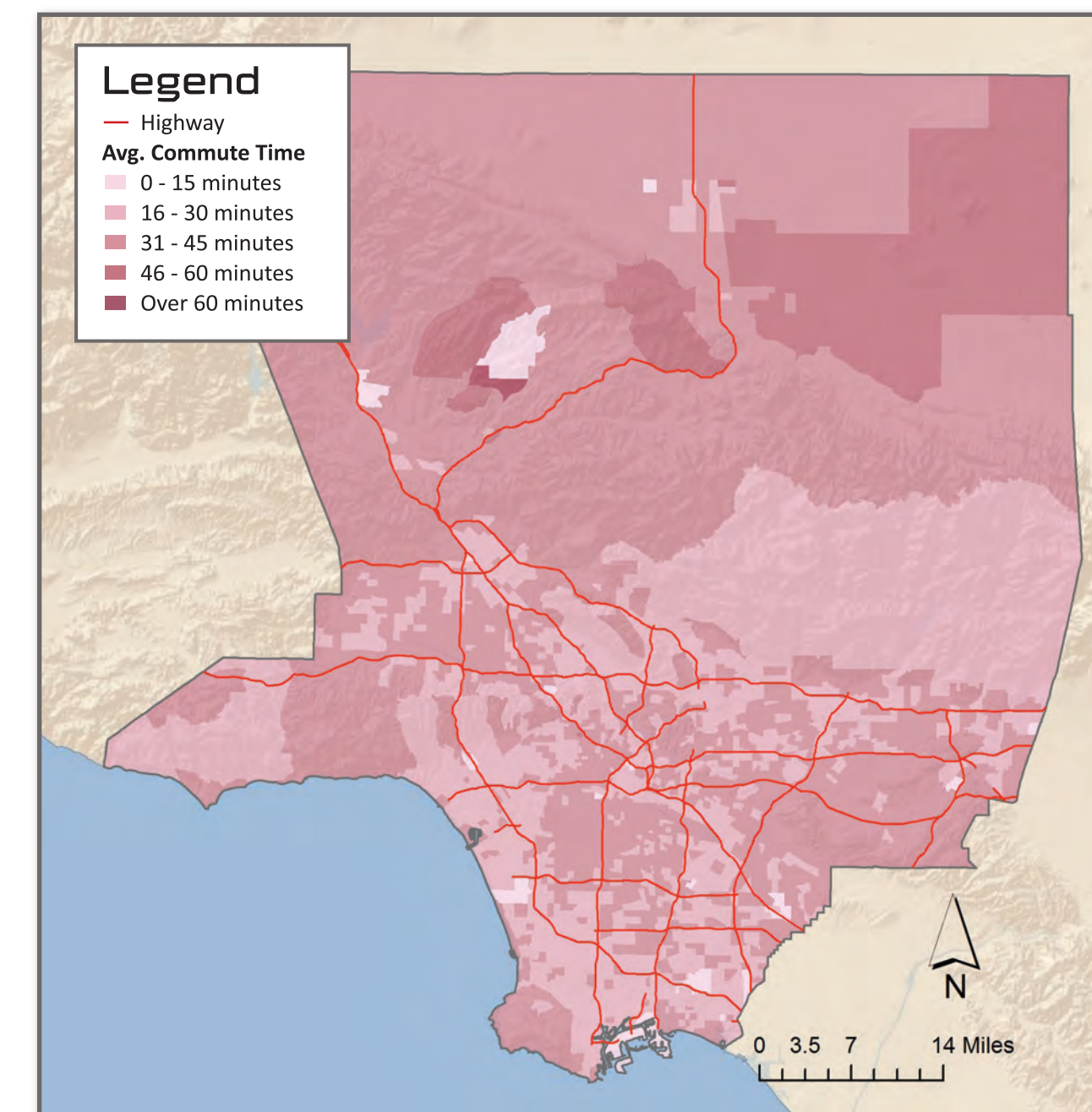
- Average near high commutes: **\$3.33**



Source: OPIS (Top); American Community Survey 2005 - 2009 (Above)

2 Commute Time

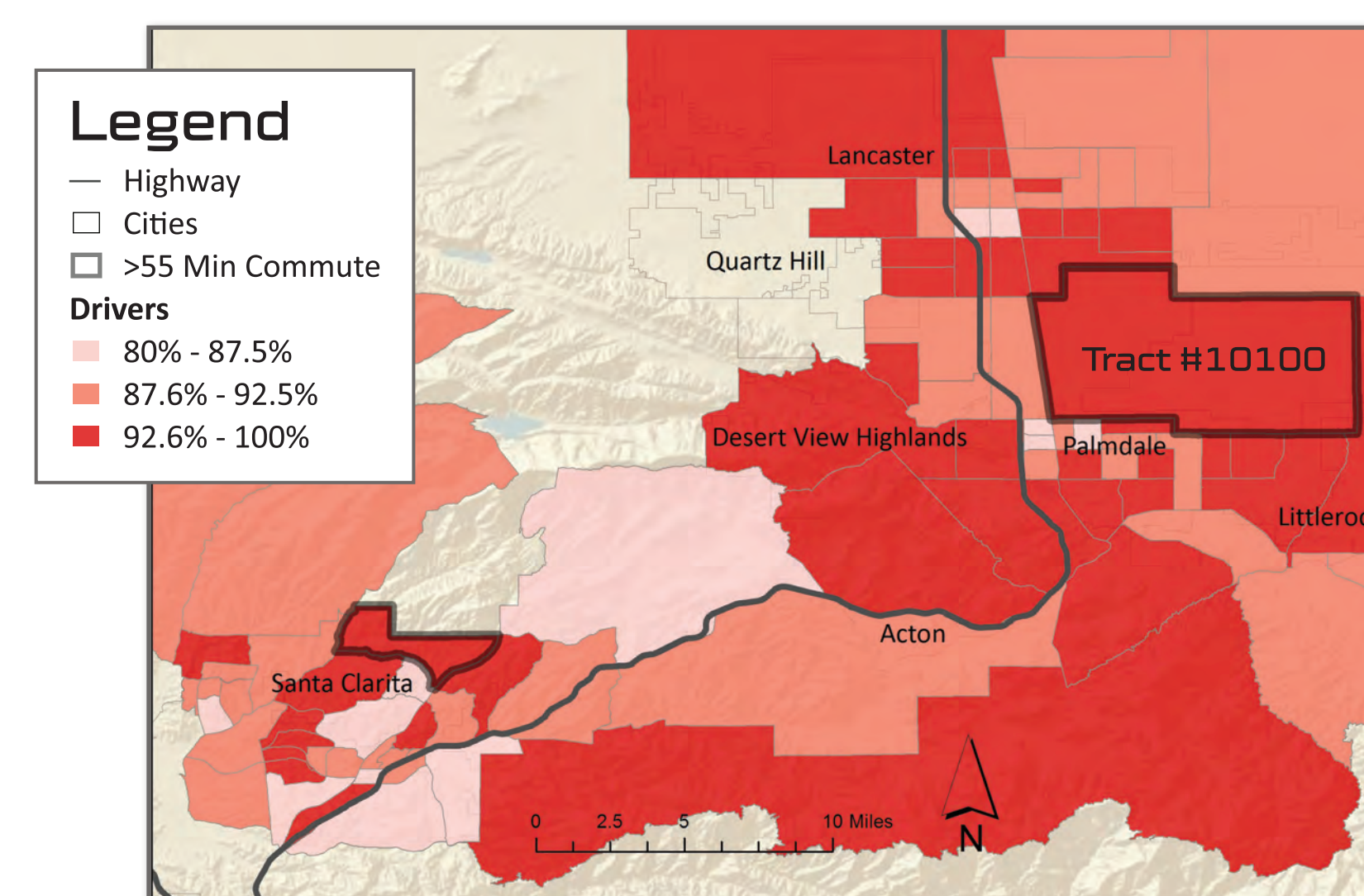
- Low commutes occur near freeways and in LA Basin
- Highest commutes: Santa Clarita & Antelope Valley



Source: American Community Survey 2005 - 2009

3 Modal Share

- High rates of auto commuting countywide; highest in Santa Clarita/Antelope Valley



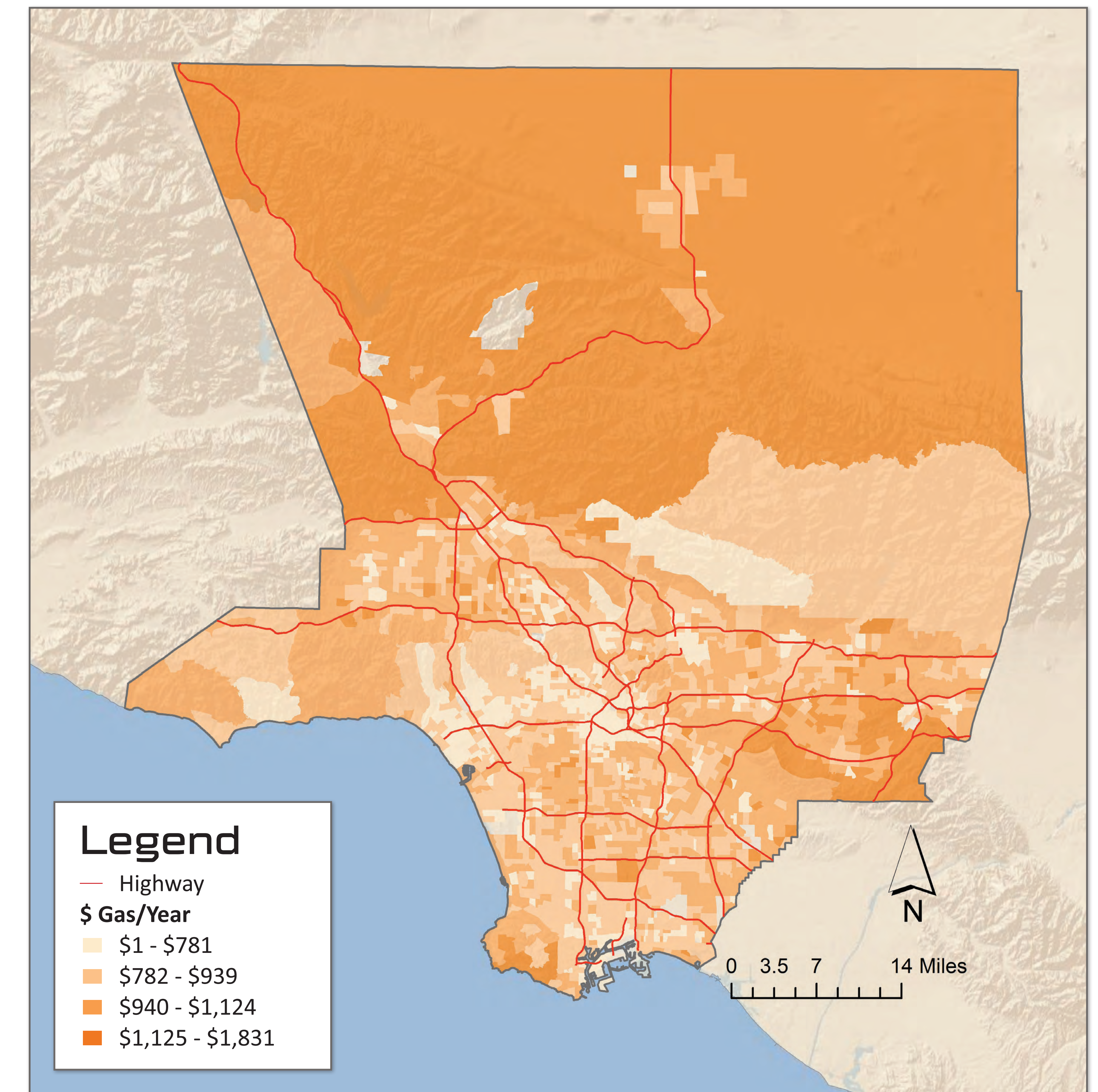
Source: American Community Survey 2005 - 2009

B Conclusions

- North and northeastern portions of county likely to have highest fuel expenditures
- Low gas expenditures occur around Downtown LA and Wilshire Corridor

4 Fuel Cost Index

- Provides means to compare expenditure across LA County



Source: OPIS, RITA/Bureau of Transportation Statistics, American Community Survey 2005 - 2009

$$\text{Commute Minutes} \times \frac{0.5 \text{ Avg Miles}}{\text{Minute}} \times \frac{.04 \text{ Avg Gallons}^B}{\text{Mile}} \times \frac{\text{Price}}{\text{Gallon}} =$$

Price of Fuel for 1 Commute to Work

$$\frac{\text{Proportion of Commutes by Driving}}{\text{Year}} \times \frac{480 \text{ Trips}}{\text{Year}} \times \frac{\text{Price}}{\text{Commute}} =$$

***Index Price of Gas for 1 Year's Commute**