



**Date:** May 12, 2008

# Memorandum

**To:** Dan Wayne, Shasta RTPA

**cc:**

**From:** Mike Aronson, Dowling Associates

**Reference:** Shasta RTPA Blueprint Modeling

P070116

**Subject:** Economic Accessibility Measure

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A measure of Economic Accessibility has been developed for the ShastaFORWARD>> study. Sample graphics and database files were transmitted to RTPA on March 26, 2008. The measure can be used to identify areas of higher and lower economic activity with various land use patterns.

The Economic Accessibility measure indicates the amount of job and shopping activity in each area of Shasta County, weighted by how close people live to that activity center. A 500,000 square foot shopping center near urban population centers will have a higher Economic Accessibility rating than a 500,000 square foot shopping center out in a rural area, even though the two shopping centers would generate the same numbers of jobs and customers.

The Economic Accessibility measure is calculated for each transportation analysis zone (TAZ) as:

$$\text{ACCPE} = \text{EmpTrips}/\text{Area} * \text{SUM for all TAZs: (HH Trips / Travel Time}^2\text{)}$$

Where:

ACCPE = Economic Accessibility for a specific TAZ based on Population and Employment

EmpTrips = Employment based trips in the TAZ (daily home-work and home-shop "attraction" trips, all work-other, other-other and commercial vehicle trips)

Area = Area of the employment TAZ in square feet

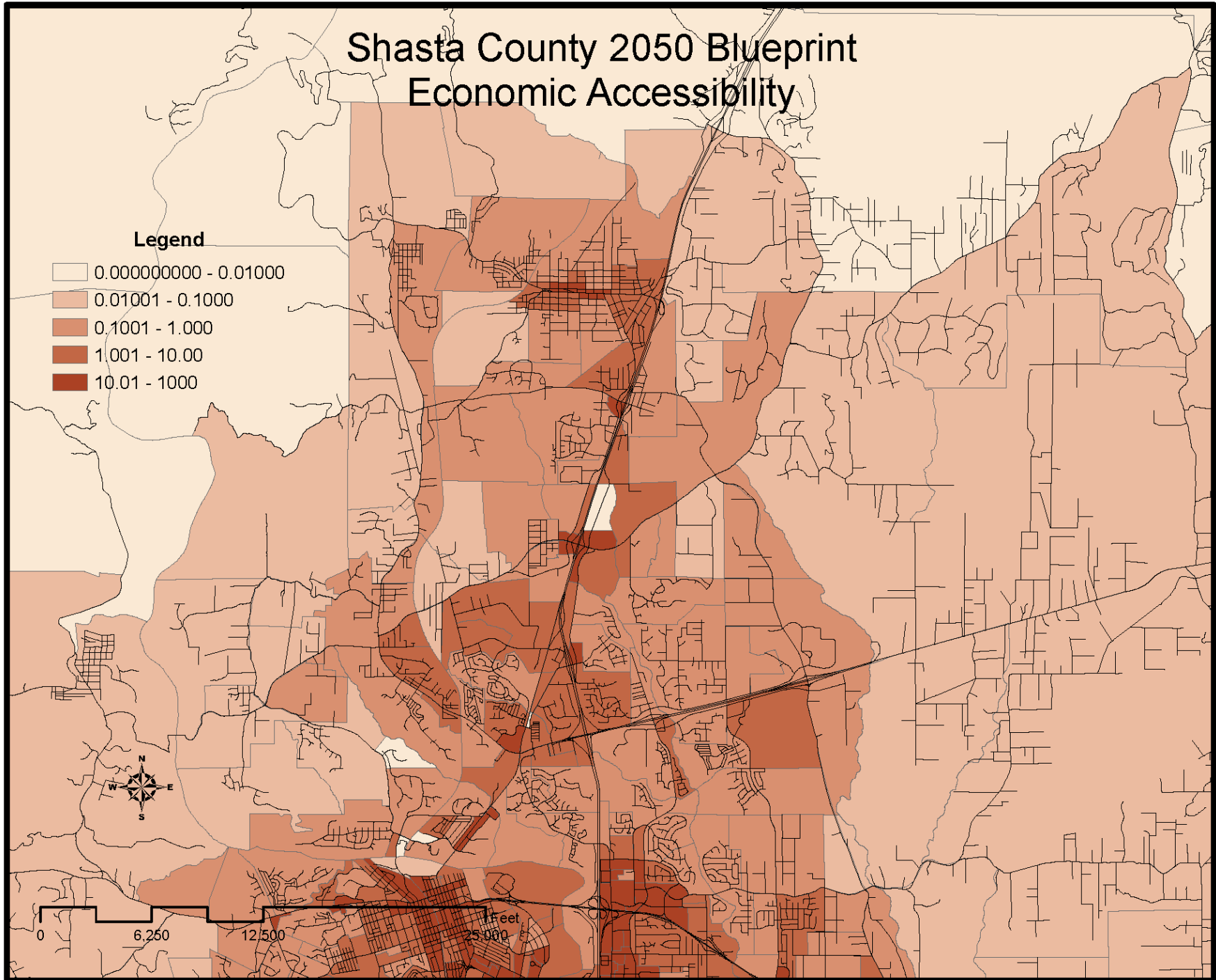
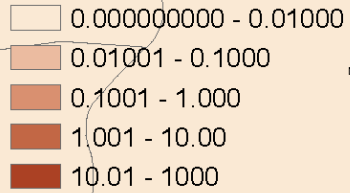
HH Trips = Household-based trips (daily home-work and home-shop "production" trips)

Travel Time = Congested daily average road travel time between the  
employment TAZ and each housing TAZ

An example graphic displaying the Economic Accessibility measure is attached.

# Shasta County 2050 Blueprint Economic Accessibility

## Legend



Accessibility =  $\text{Employment-based trips per square foot land area} * \text{Household-based trips} / (\text{Travel time from households} ^ 2)$