

MODELING AMENITY IN REMI

WEBINAR

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What is Amenity?



- Represents a quality of life measure
 - Region with positive amenity considered to have a high quality of life rating relative to the nation
- Drivers of amenity value include:
 - Environmental factors (e.g., air quality, visibility)
 - Cultural valuation
 - Weather
 - Health impacts (e.g., morbidity, mortality)
 - Transportation-specific impacts
 - Crime rates
 - Quality of public services

About REMI



REMI's 38-year history of rigorous academic research and software development has led to the development of the the industry standard in macroeconomic research methodology:

Input-Output

Close analysis of inter-industry relationships

Econometrics

Advanced statistical analyses underpinning the model

General Equilibrium

Estimate of long-run stability of the economy allows for analysis of policy decisions

Economic Geography

Effects of geographic concentration of labor and industry



Integrated REMI economic modelling approach



what does REMI say? sm



What is Amenity in REMI?



- Non-Pecuniary (Amenity) Aspects policy variable changes the non-market 'quality of life' component within the Economic Migration equation
 - Change quantified in terms of a real compensation change equivalent for Economic Migrants
 - Amenity increase perceived as a real compensation gain makes the region more attractive, so a greater number of economic migrants enter the region annually

Migration Equation



$$\square \text{ECMIG}_t^k = \left((\lambda^k + \beta_1 \ln(\text{REO}_t^k * \text{MIGPROD}_t^k)) + \beta_2 \ln(\text{RWR}_t^k * \right.$$

Impacts of Amenity Changes



- Economic migration > Population
 - Consumption
 - Labor force, wages
 - Personal income (incl. property income, transfer payments)
 - State & local government spending
 - Housing price
 - Births, deaths, retirement migration

Valuation of Amenity



- Amenity acts as “deferred compensation” in the migration equation
 - ▣ Hedonic pricing - Willingness to Pay
 - ▣ Program-specific taxation as valuation
 - ▣ Estimated value of morbidity & mortality
 - South Coast Air Quality Management District