

Three Wests: The Impact of Access to Markets on Economic Performance in the West

Methods, Definitions, and Data Sources
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Data Sources and Methods

Research shows there are three different types of counties in the West, defined by their access to major markets and population centers:

1. “Metro”: counties classified by the Office of Management and Budget as metropolitan statistical areas.
2. “Connected”: non-metro counties with population centers that are within a one-hour drive of the nearest major airport with daily passenger service.
3. “Isolated”: non-metro counties further than a one-hour drive from the nearest major airport with daily passenger service.

The three county types have different economic performance and socioeconomic characteristics. The Metro and Isolated counties are the most distinct, while the counties that are Connected, in a rural setting but with airports, exhibit a mix of urban and rural characteristics.

Following is a list of economic and demographic measures that are used to compare performance in “Metro” versus “Connected” versus “Isolated” western counties.

Data Visualization: <http://headwaterseconomics.org/dataviz/three-wests>.

Economic Performance Data

INCOME VOLATILITY (1970-2013)

Methods: Volatility in personal income is shown for the 1970 to 2013 period. All sources of personal income were included with the exception of earnings from government jobs. Personal income volatility was calculated as the standard deviation of personal income from 1970 to 2013 divided by the absolute value of the mean. The natural log of the resulting value was taken and 0.3 was added so that the final volatility rank would contain only numbers greater than zero.

Data Source: U.S. Department of Commerce. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

AVERAGE EARNINGS PER JOB (2013)

Methods: Average earnings per job is displayed as reported by the Bureau of Economic Analysis.

Data Source: U.S. Department of Commerce. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

PERCENT OF JOBS IN HIGH WAGE SERVICES (2013)

Methods: The following list of NAICS codes were considered to be high wage services:

- 523 Securities, commodity contracts, investments
- 519 Other information services
- 511 Publishing industries, except Internet
- 525 Funds, trusts, and other financial vehicles
- 711 Performing arts and spectator sports
- 521 Monetary authorities - central bank
- 551 Management of companies and enterprises
- 486 Pipeline transportation
- 221 Utilities
- 533 Lessors of nonfinancial intangible assets
- 518 Data processing, hosting and related services
- 541 Professional and Technical Services
- 517 Telecommunications
- 483 Water transportation
- 512 Motion picture and sound recording industries
- 425 Electronic markets and agents and brokers
- 515 Broadcasting, except Internet
- 524 Insurance carriers and related activities
- 423 Merchant wholesalers, durable goods

Data Source: U.S. Department of Commerce. Census Bureau, County Business Patterns, Washington, D.C.

Demographic Performance Data

POPULATION CHANGE PER 1000 (2000-2013)

Methods: The change in population was calculated for the 2000 to 2013 time period. This value was divided by the total 2000 population expressed as thousands of people.

Data Source: U.S. Department of Commerce. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

ADULTS WITH A BACHELOR'S DEGREE (2013)

Methods: This variable shows the percent of the population of working age (18 to 64 years of age) with a Bachelor's Degree or higher. We relied on the 5-year American Community Survey estimates for these data, therefore the values actually represent the average percent of people with college degrees during the 2009 to 2013 period.

Data Source: U.S. Department of Commerce. Census Bureau, American Community Survey Office, Washington, D.C.

CHANGE IN MEDIAN AGE (2000-2013)

Methods: The median age in 2000 subtracted from the median age in 2013. We relied on 2000 Census and the 5-year American Community Survey estimates for these data, therefore the 2013 value actually represents the median age during the 2009 to 2013 period.

Data Source: U.S. Department of Commerce. Census Bureau, Systems Support Division, Washington, D.C.; U.S. Department of Commerce. Census Bureau, American Community Survey Office, Washington, D.C.

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ABOUT HEADWATERS ECONOMICS

Headwaters Economics is an independent, nonprofit research group whose mission is to improve community development and land management decisions in the West.