

Category: Economic Productivity

Indicator: Value of Water in the Economy

Methodology

Value of Water in the Economy is an indicator of the economic productivity and contribution of water to Texas county economies. Two sub-indicators summarize this information. Gross Sales per Acre-Foot is measured at the county level as the total sales per acre-foot of water used. Employees per Acre-Foot is measured at the county level as the total number of employees per acre-foot of water used.

We calculated Gross Sales per Acre-Foot by comparing data on gross sales to water use at the scale of counties. Historical water use estimates by county, from 1990 to 2010, were provided by the Texas Water Development Board. Data on the annual gross sales from 1990 to 2010 by county were provided by the Texas Comptroller of Public Accounts and were converted to 2010 USD. We then divided the annual gross sales value by the annual total water use (in acre-feet) to calculate the annual gross sales per acre-foot.

We calculated Employees per Acre-Foot by comparing data on number of employees to water use at the scale of counties. Data on the number of employees per county from 2001 to 2010 for all industries was downloaded from the US Bureau of Labor Statistics. We then divided the number of employees by the annual total water use (in acre-feet) to calculate the annual employees per acre-foot.

County-level GIS layers of Gross Sales per Acre-Foot and Employees per Acre-Foot are included in the Explorer map viewer. The user can select any year from 1990 to 2010 for which to view the data.

Data Sources

Texas Comptroller of Public Accounts. County Sales Data, 1990-2011. Provided to The Nature Conservancy February 20, 2014 and March 11, 2014.

US Bureau of Labor Statistics. Quarterly Census of Employment and Wages 1990-2011 (all industries and all Texas counties). Accessed March 19, 2014.

<http://www.bls.gov/cew/data.htm>

Texas Water Development Board. Historical Water Use Estimates, County Summaries 1990-2011.

<http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/>

TNRIS. StratMap County Boundaries shapefile.

<https://tnris.org/data-download/#/statewide>

US Bureau of Labor Statistics. CPI Inflation Calculator.

Texas Water Explorer

Methodology

<http://data.bls.gov/cgi-bin/cpicalc.pl>