### Economic access

**Layer type(s):** Resource Access Opportunities goal layer

**Data description(s)**  
1. US Energy Information Administration (EIA) data on gasoline prices by county (Price data from the State Energy Data System (SEDS): 1960-2017 (complete)).

1. Bureau of Labor Statistics (BLS) data on wages. Specifically, “Statewide Average Annual Pay All establishment sizes Total Covered Total”. BLS dataseries IDS: ENU0900050010, ENU2300050010, ENU2500050010, ENU3300050010, ENU3600050010, ENU4400050010. This data was accessed from R using the R package blscrapeR for years 2001 to 2017.

**Methods summary**  
We calculated the ratio of gas prices to median wages for each state in the region. The target for this layer is to maintain a constant ratio each year. When no change, or a negative change indicating increased economic access occurs, this results in a perfect score. If the ratio doubles, the region scores 0.

*Median wages*  
Median annual wages were provided at the state level by the Bureau of Labor Statistics. No additional processing was needed.

*Gas Prices*  
Data on gas prices was converted from $/MMBtu (Millions of British thermal units), to approximate dollars per gallon using the heat contents provided by the EIA to get prices in US Dollars per gallon for each state.

*Calculate ratio*  
Mean dollars per gallon was divided by mean wages for each region and year, and the change in that ratio year over year was calculated.

**Resource Access Opportunities layer**  
The target for this layer is to keep the ratio constant year over year. If the change remains the same (no change) or becomes negative, indicating a drop in the ratio, a region receives a score of 100. A score of 0 is assigned to a region if they experience a doubling in the ratio, as this would quickly and dramatically reduce economic access by half.

**Gapfilling**  
There was no gapfilling

**References**  
U.S. Energy Information Administration (Oct 2008). Gasoline and Diesel Fuel Update. <https://www.eia.gov/petroleum/gasdiesel/>

Bureau of Labor Statistics, U.S. Department of Labor, Statewide Average Annual Pay All establishment sizes Total Covered Total.