



Weather & Climate Data In Action

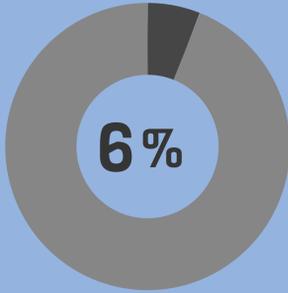
Retail and manufacturing are the backbone of the U.S. economy. Weather and climate data from NOAA's National Centers for Environmental Information (NCEI) help these industries understand the past and plan for the future

16%+



In 2015, retail & manufacturing accounted for more than 22 million jobs (16.6% of total employment)

1 in 6 Americans are employed in these industries

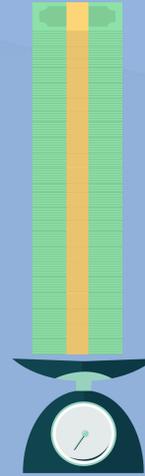


In 2016, the U.S. retail industry accounted for almost 6% of GDP

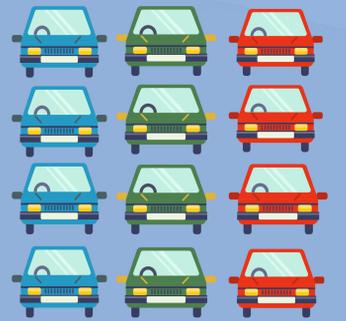
That's double the size of the entire housing industry

Manufacturing contributes over \$2 trillion to U.S. GDP.

A stack of \$2 trillion dollars in \$1 bills would weigh 20 tons

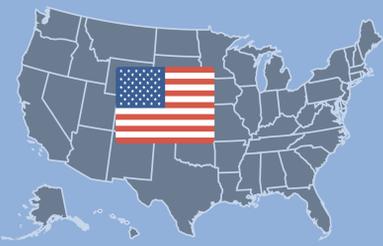


That's the weight of more than 12 cars (sedans)!



The U.S. has the largest manufacturing industry in the world

The U.S produces 18.2% of the world's goods



\$64 billion



In 2016, investors made over \$64 billion in retail investments

NCEI's Climate Monitoring products, including the State of the Climate reports and the Regional Snowfall Index (RSI), help retailers, manufacturers, and investors understand the impacts of weather on their business



State of the Climate reports & RSI



Help retailers and manufacturers analyze sales performance relative to weather



Inform future sales goals, set budgets, and optimize product placement



Investors use data to inform decisions on prospective investments

Weather influences retail and manufacturing in a major way. Understanding these impacts help businesses and investors understand past sales and plan for future success



NCEI's State of the Climate reports discuss climate-related conditions on a national and global scale. Retailers use these to better understand sales performance and budgets



Warmer winters mean lower heating costs for retailers. Foot Locker Inc. noticed that warmer temperatures meant lower utility bills across its 3,000 retail locations in the U.S. These savings can now be budgeted into business growth rather than expenses



1.5°F rise in temp.

Conagra, a major U.S. food company, found that a January temperature rise of 1.5°F led to a drop in sales that cost over \$100,000



\$100,000 in lost sales



NCEI's Regional Snowfall Index (RSI) is used by investors to understand the degree to which winter weather affects prospective investments



Ridgmont Equity Partners mapped performance of an automotive repair business against RSI data. The analysis showed that the business performed best following snowstorms when there was greater demand for parts



\$152 million

Investments in retail are also impacted by severe snow events. A single day shutdown in New York because of a major snowstorm can result in \$152 million in lost sales