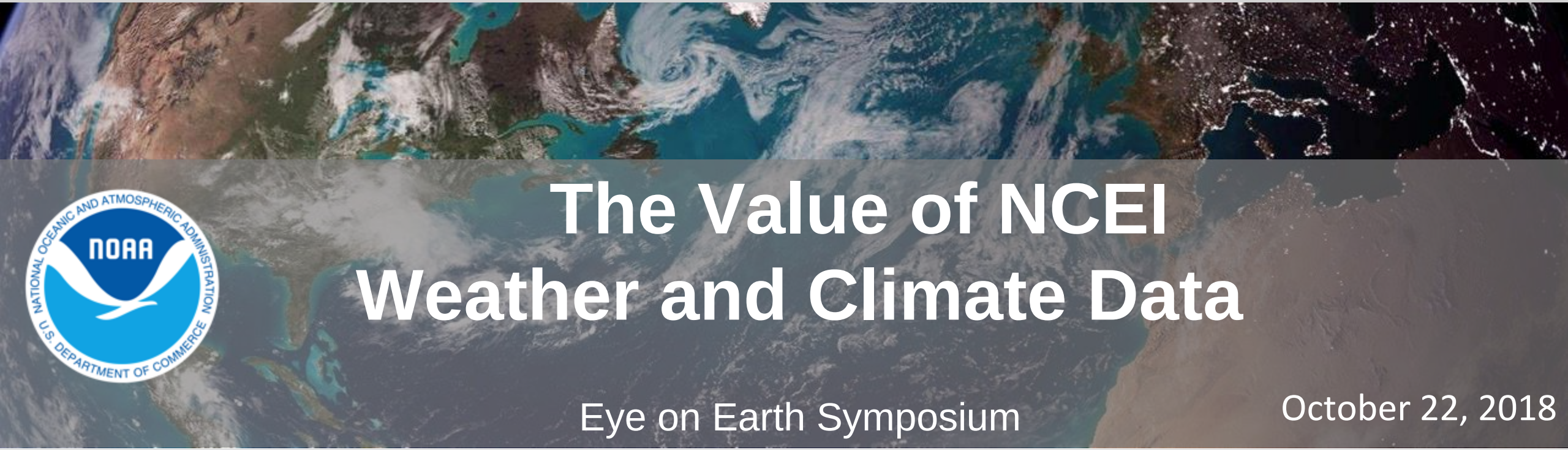


The Value of NCEI Weather and Climate Data

Eye on Earth Symposium

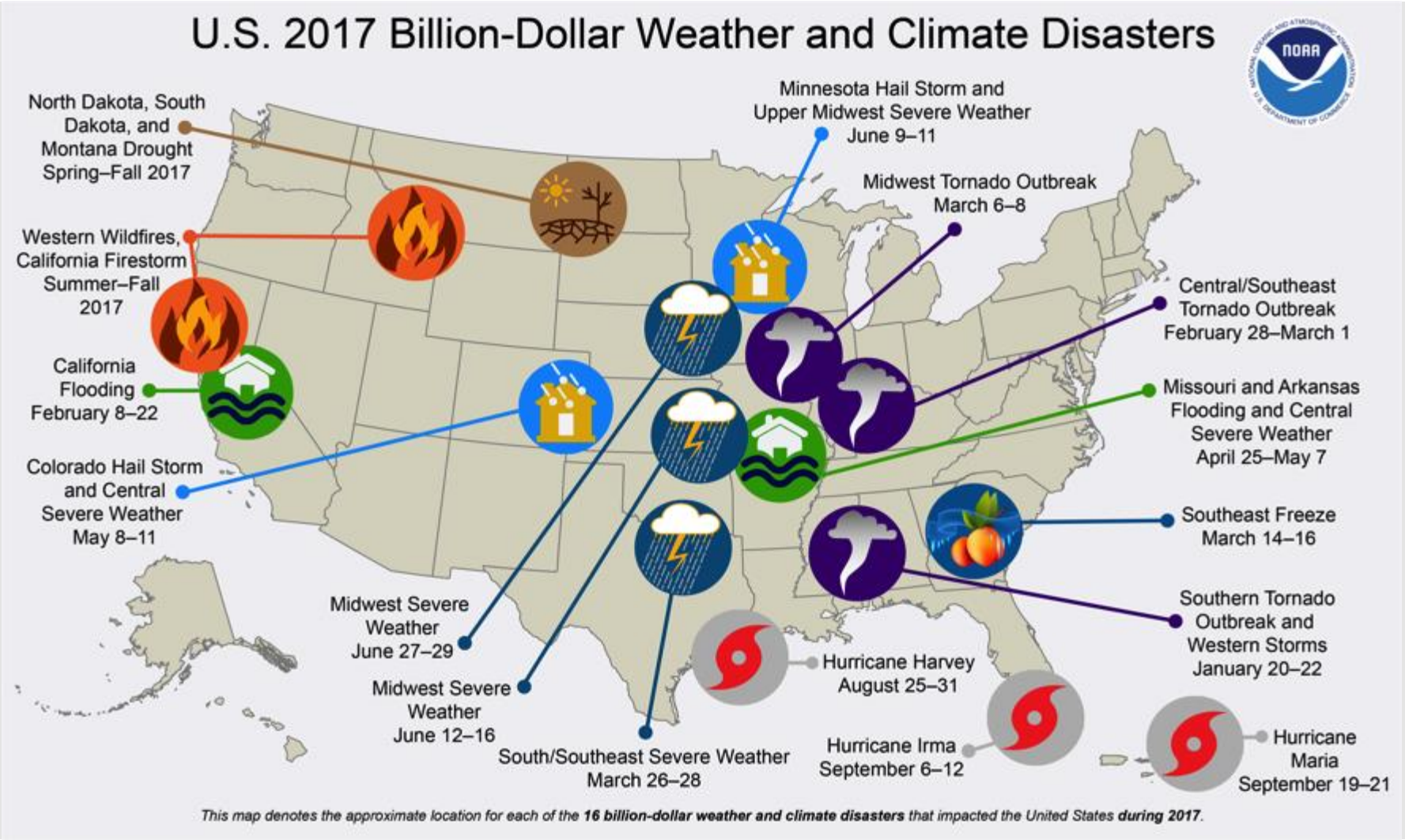
October 22, 2018

Michael Brewer
Center for Weather and Climate
National Centers for Environmental Information

Center for Weather and Climate Products

	Weekly	Monthly	Seasonal–Annual	Decadal
Local	Snowfall Impact Index – FEMA, disaster response	Heating & Cooling Degree Days – Energy Sector	Temperature & Precipitation Outlooks – Agriculture	Billion $ Disasters, Climate Extremes Index – Insurance
Regional	Hurricane Tracks – Emergency Planners	Heat Wave Prediction – Public Health Officials	Drought Outlook – Agriculture	Climate Normals – Construction, Infrastructure, Agriculture
National & Global	Drought Monitor – Agriculture	Monthly State of the Climate Reports – Decision Makers	Annual State of the Climate Reports – Decision Makers	National Climate Assessment – Govt Policymakers

U.S. 2017 Billion Dollar Disasters

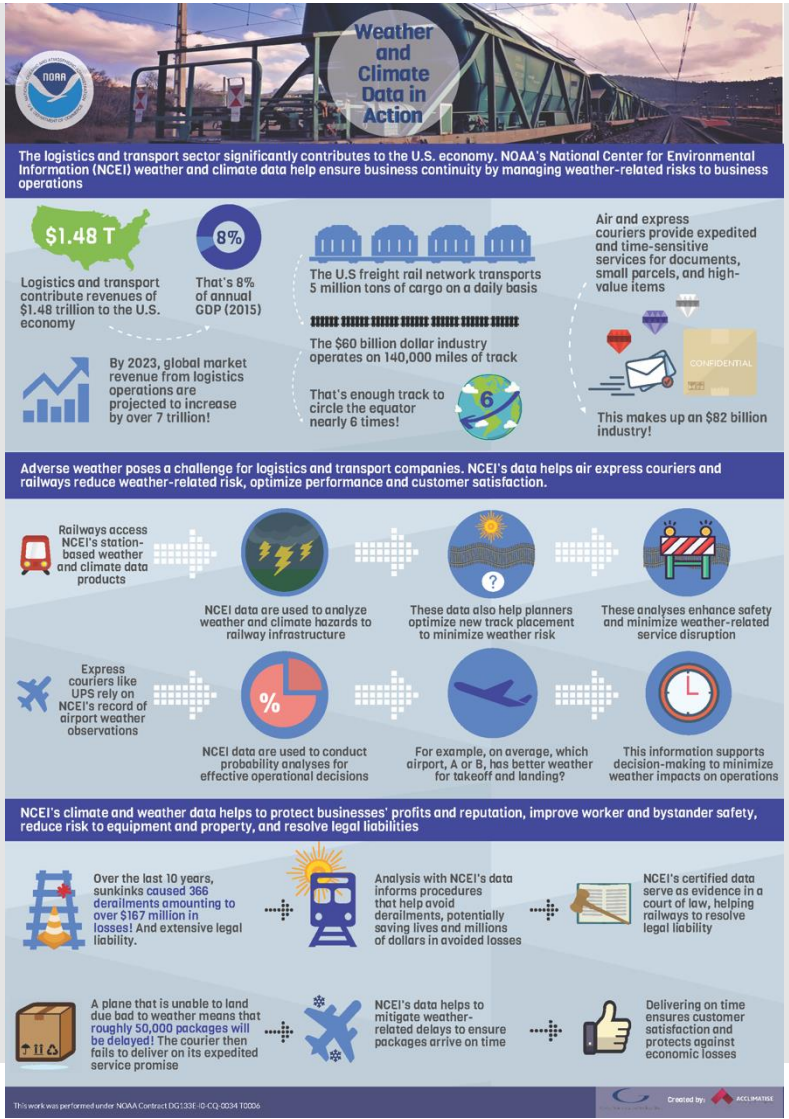


Utility Company

- ***From NCEI:*** Climatological and historical datasets
- ***Uses:*** San Diego Gas & Electric combined climate datasets to create a set of criteria that minimize grid system weaknesses and litigation
- ***Impact:*** >$2 billion in savings for similar events

Logistics and Transport Industry

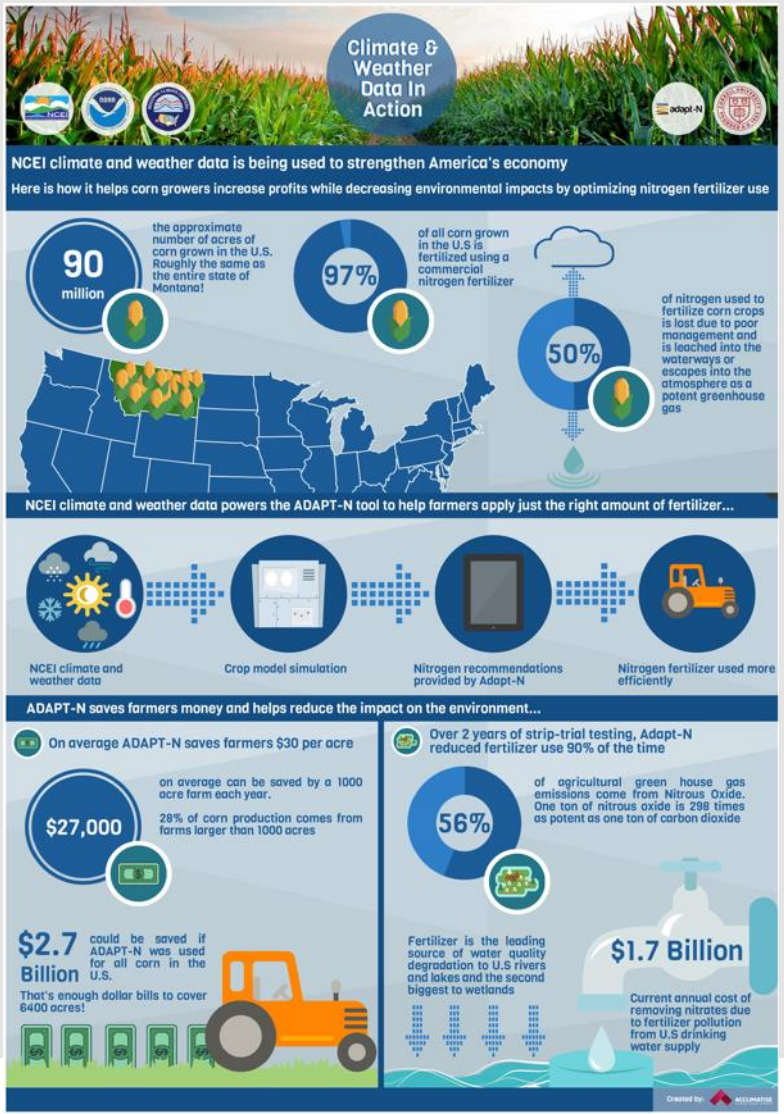
- ***From NCEI:*** International Station Meteorological Climate Summary
- ***Uses:*** FedEx, UPS, and major railways land planes, set speed limits, and determine where to hub
- ***Impact:*** $1.48T in revenues, brand image



Agriculture Industry

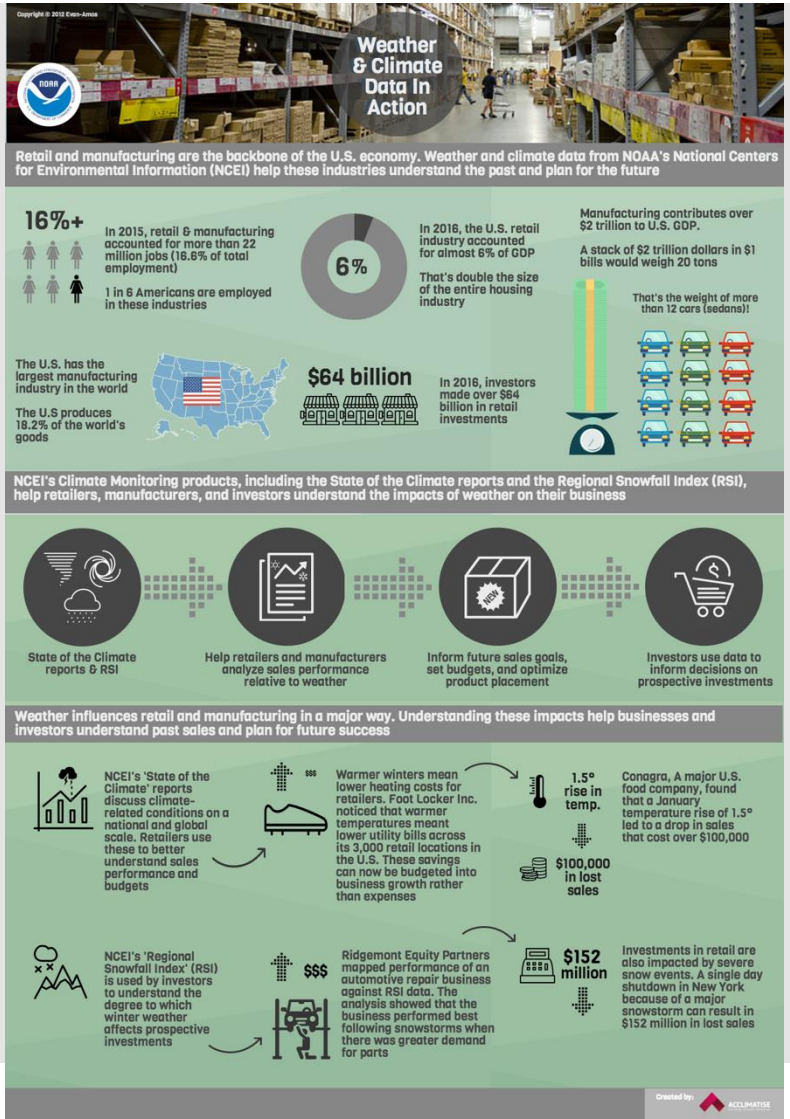
U.S. Corn Growers

- ***From NCEI:*** Global Historical Climatological Network–Daily
- ***Uses:*** Farmers use climatological data to determine how much fertilizer to apply in order to minimize waste
- ***Impact:*** $2.7B/yr saved in application costs; lessens runoff/water pollution ($1.7B annual cost avoidance)



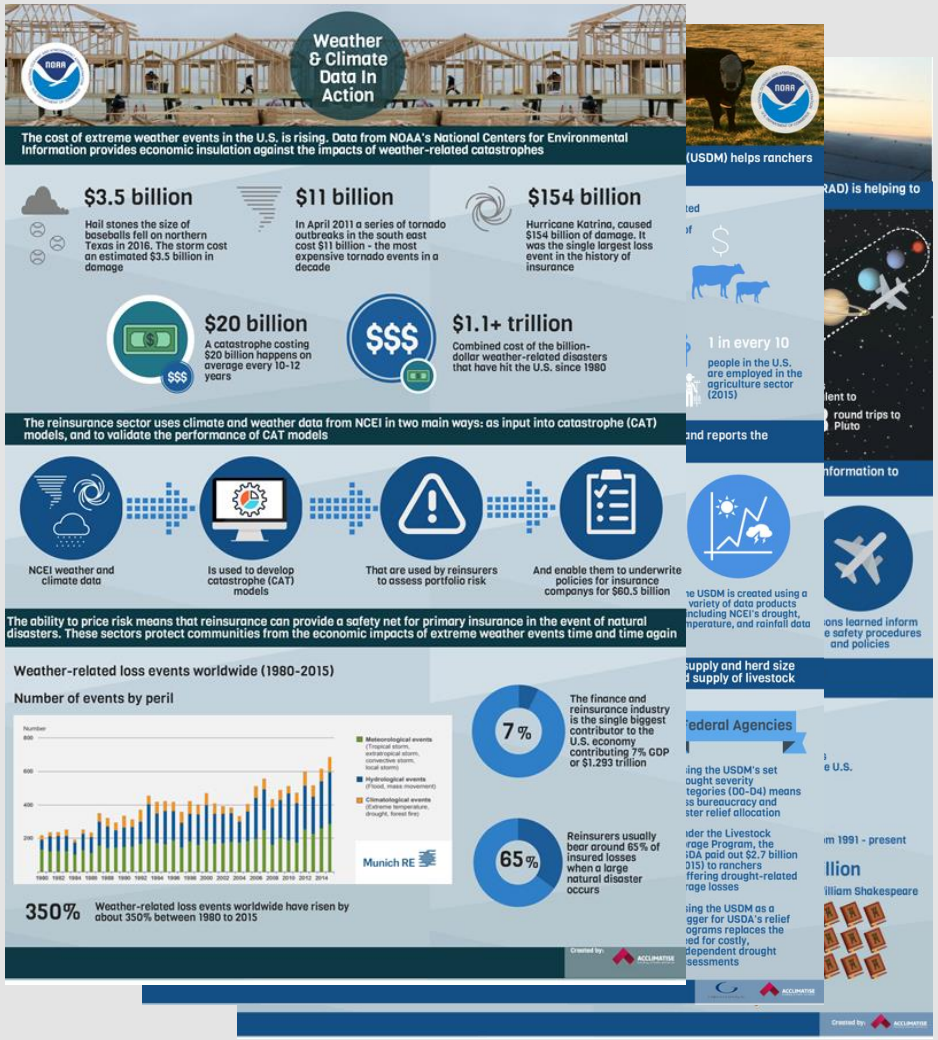
Retail Industry

- ***From NCEI:*** State of the Climate Reports
- ***Uses:*** Conagra ties sales of dry goods to weather and uses trends to inform product sales forecasts and to stock stores
- ***Impact:*** $100,000 lost revenue from in 2 regions from warm January

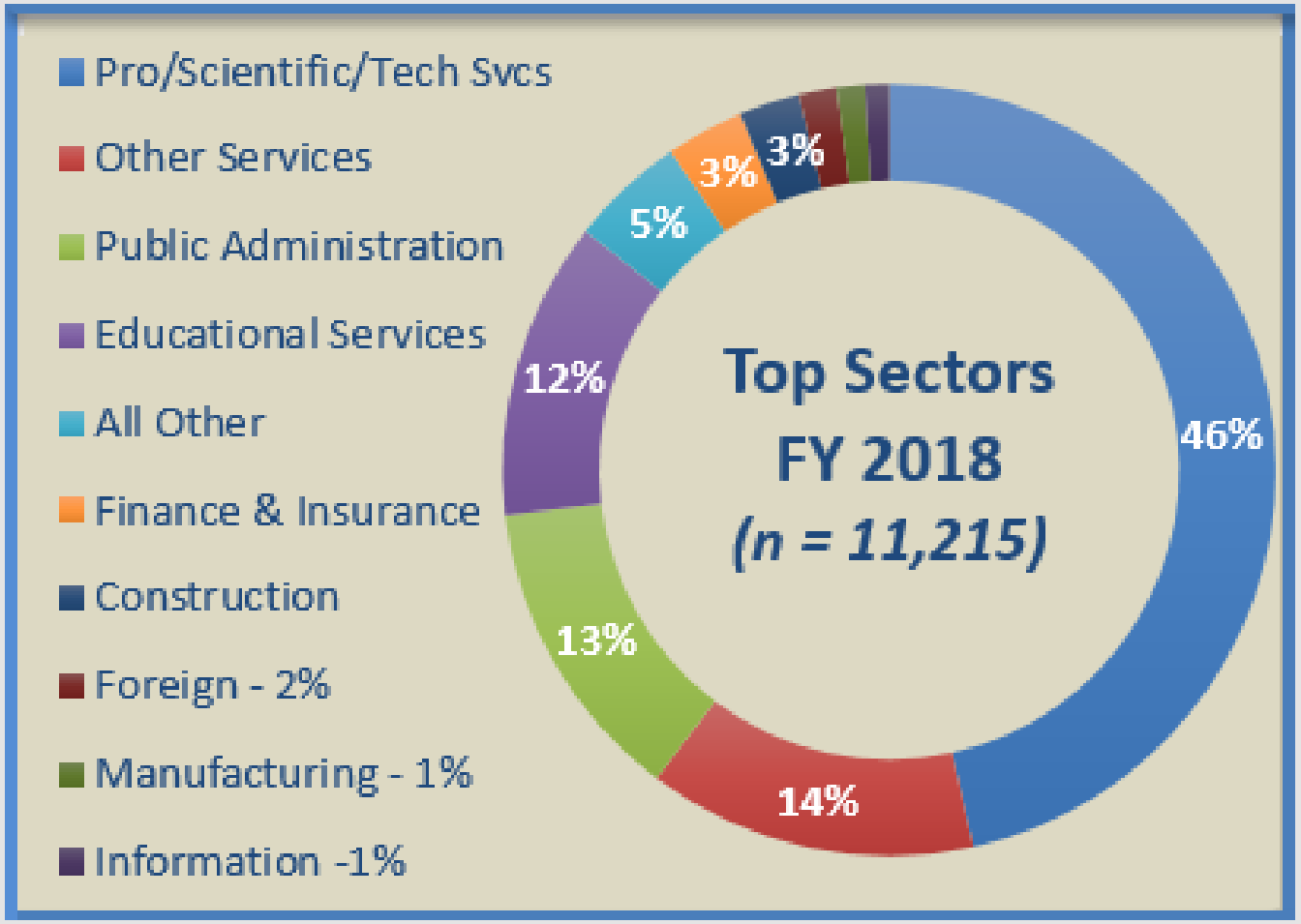


Other Case Studies

- Reinsurance
- Livestock Agriculture
- Air Transportation and Safety
- Private Sector Weather Providers
- Coral Reefs
- Fisheries (Gulf & Atlantic)



NCEI Stakeholder Profile 2018



Insights are difficult if you don't know your users

For all stakeholders that contacted NCEI. Does not include those who view or download data without contact.

Summary

- Every day, climate data adds to the quality of life of many people and communities
- From TV weather forecasts to Smartphone apps, data provide a backbone to our lives
- Safety, security, and many modern conveniences are built on climate data and information

Contacts

- Websites
- www.ncei.noaa.gov
- www.ncdc.noaa.gov
- www.ncdc.noaa.gov/customer-support
- www.ncdc.noaa.gov/data-access
- www.ncdc.noaa.gov/contact
- www.ncdc.noaa.gov/success