

## **StatCrunch Contest**

## How's the weather out there?

For this project you will be focusing on something that affects each of us every day; the weather! The news coverage of extreme weather events and the politics related to global warming/climate change are now very much a part of the national discourse in the United States. Your challenge (if you choose to accept it) is to dig into more than 20 years of daily temperature data for **two** American cities to tell a compelling and insightful story.

The <u>required data sets</u> you will analyze provide the average daily temperature for a number of U.S. cities dating back to January 1, 1995. The average daily temperature is the average of twenty-four hourly temperature measurements taken over the course of the day. The data fields for each city are the month, day, year and average daily temperature (in Fahrenheit). A value of -99 is used when data are not available.

Your job is to use this data set to tell a compelling and insightful story. You can think about how your two cities are similar or different and why, and other factors such as climate change, the effects of wind changes and cloud coverage, government programs like FEMA & The National Weather Service, or anything else that interests you!

In addition to using the data provided for two cities, you may also add up to two additional data sets of your choosing in your analysis to enhance your story. (Make sure to cite where the data came from and any pertinent information about how it was collected, etc.) You can search <a href="StatCrunch.com">StatCrunch.com</a> or the web for another data set of your choosing. (You may want to use the <a href="StatCrunch This">StatCrunch This</a> App.)

Tip: Consider the required temperature data sets as your starting point. What questions does it prompt you to ask? It's likely the most interesting questions need more data to be answered. This is where your additional data set(s) comes in and where you can set yourself apart from your peers. Analyzing the additional data with the data sets provided will really help your story come to life.

## **Submissions:**

Your report will include your written insights in 1,000 words or less, your visualizations in StatCrunch, and your data sets, including the required daily temperature data sets and your optional additional data set(s). Your written report must cite the source of your additional data set(s).

Consideration for finalists and winners will be based on a panel's review of your project in accordance with the following criteria:

- Your usage of statistical methods
- Your usage of visualization/graphing tools
- Your usage of data sets
- Your written report -- evaluated both for content and presentation
- Additional merit given for innovative reflection and/or usage of StatCrunch resources

