

## Tableau Iron Viz: Student Edition - Data Set Description

The 2020 Tableau Iron Viz: Student Edition Data Set consists of three data sets on the theme of the Environment.

### Data Set descriptions and background information

- **Climate at a Glance (NOAA)**
  - Global Monthly Deviation from the avg temperature of Land and Sea from Jan 1880 – July 2020
  - Temperature value is recorded in Celsius
  - Source: <https://www.ncdc.noaa.gov/cag/global/time-series>
  - Simple dataset - 1 dimension, 1 measure
  
- **CO2 Emissions and Ancillary Data for 343 Cities (Pangaea)**
  - Co2 Emissions from 343 Cities around the world
  - Complex dataset - many dimensions, many measures
  - This dataset is comprised of several datasets - these are referenceable here:
    - Summary & Methodology: <https://www.nature.com/articles/sdata201828>
    - Detailed Data Dictionary: <https://www.nature.com/articles/sdata2018280#Sec14>
    - Simplified Data Dictionary: <https://www.nature.com/articles/sdata2018280/tables/3>
  
- **WHO Global Urban Ambient Air Pollution**
  - Particulate Matter Readings (PM 2.5 & PM 10) from the WHO for approx 3000 cities
  - 230 of the cities can be joined in Tableau Prep (if required)
  - Source: [https://www.who.int/phe/health\\_topics/outdoorair/databases/cities/en/](https://www.who.int/phe/health_topics/outdoorair/databases/cities/en/)
    - Data Source FAQ: [https://www.who.int/phe/health\\_topics/outdoorair/databases/PHE-AAP-database-FAQ\\_s.pdf?ua=1](https://www.who.int/phe/health_topics/outdoorair/databases/PHE-AAP-database-FAQ_s.pdf?ua=1)
    - Details on Particulates: <https://en.wikipedia.org/wiki/Particulates>

### How data was prepped

- **Climate at a Glance (NOAA)**
  - Date format adjusted to be easily imported into Tableau
  - Limited changes
- **CO2 Emissions and Ancillary Data for 343 Cities (Pangaea)**
  - Significant changes - lots of detail in the Prep flow
  - A host of fields have been merged/cleaned/removed in Tableau Prep

- Multiple measures have been combined from across the datasets that make up this dataset:
  - Emissions, Population, Definitions, GDP, City Area, Temperature
- Year of measurements all converted to date fields (01/01/XXXX)
  
- **WHO Global Urban Ambient Air Pollution**
  - Split the PM2.5 and PM10 data in excel
  - Unioned the two sheets in Prep
  - Limited changes