

Analytics for Social Good



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What is data analytics?

Data analytics is the process of collecting information and looking for patterns to solve problems. Common examples of everyday data analysis include diet, sleep, and exercise tracking.

Why should I use data analytics?

Data analytics is used to solve problems. Right now, data is being used to predict natural disasters, diagnose and treat disease, and predict trending restaurants.

How do I design and complete a data project?

Every data project can be broken up into three steps:

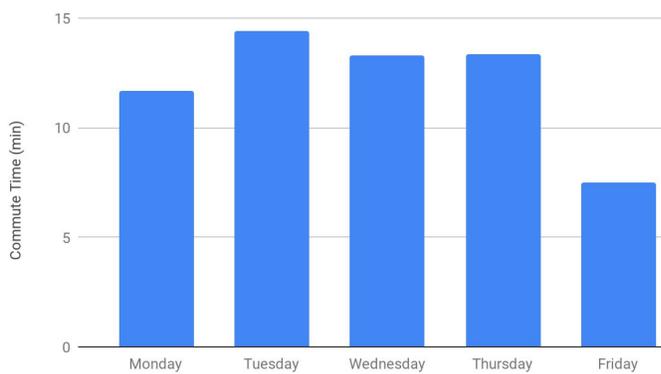
1. Data collection: conducting an experiment or recording observations to collect numbers, words, or images for analysis
2. Data analysis: creating visualizations or conducting statistical tests to find relationships between variables
3. Value creation: solving problems based on the analytical findings

Here's an example:

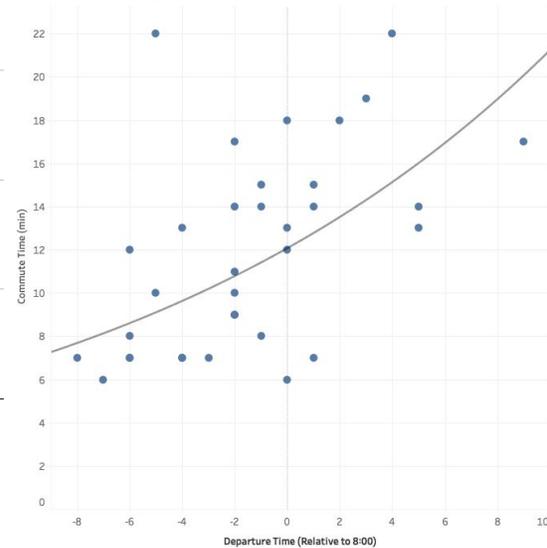
Problem - There's a lot of traffic on my way to school and I want to figure out what's the best time to leave the house to get to school on time.

1. Data collection: Everyday for about a month, my sister recorded the time we left for school and the time we arrived at school.
2. Data analysis: I looked for relationships between the time it took to get to school and the time we left the house and the day of the week.

Day of Week Averages



Departure Time Impact



3. Value creation: I learned that we could leave later on Fridays since there is less traffic and that it's important to leave before 8:00 to avoid most of the traffic.

What tools do I need to complete a data project?

Simple data projects can be completed in Google Sheets or Excel, more advanced projects need tools like Tableau while can handle larger quantities of data and make more complicated visualizations. The graph on the left above was created using Google Sheets and the graph on the right above was created using Tableau.

In this session, we will be designing and completing our own data projects based on social problems that inspire us to take action. We will follow the three steps and learn how to utilize cool tools along the way.