

Carleton's Energy Future

Before considering Carleton's Energy Future, I would like to explore Carleton's energy *past and present*, primarily in terms of *usage*. Carleton consumes energy in many ways: gasoline to fuel cars and vans, electricity and gas for lighting, temperature control, dining services, etc. What are the patterns in usage? what are the trends? I would approach these types of questions from a data analytical/statistical point of view.

Exploratory data analysis (EDA) is a way of approaching data to find patterns, look for structure, reveal relationships, and uncover anomalies or outliers. Statistical graphics (histograms, boxplots, scatter plots, etc.) are a major tool for EDA though there are many quantitative techniques also. The point of EDA is to conduct an open-minded exploration of data to unearth useful or interesting information. Thus, my initial course of action in considering Carleton's energy future would be to undertake a thorough EDA of Carleton's past energy usage.

The information from this EDA might guide Carleton in managing or allocating energy resources, or provide ideas for future studies. In addition, if we make any changes in energy policy (improving efficiency, choosing alternative sources, modifying behaviors, etc.), we will want to compare future results with the past.