

Workflows

based on interview recording.

Steam Workflow by Zone:

1. Faceted bar chart of portfolio steam consumption over 2 year interval spaces grouped by "sector" tags, normalized by area. Observation: absolute value also increases for sector: NW and sector: SE groups, decreases for other groups, large decrease for "sector: NW".
- 1b (possible). LineUp plot of portfolio steam consumption over 2 year interval, spaces grouped by "sector" tags, normalized by area. Observation: "sector: NW" group moves up in the rankings from 5th to 1st, absolute value also increases; reverse for "sector: SE" group.
2. Faceted Bar chart of "sector: NW" consumption over 2 year interval, individual spaces, normalized by area. Observation: several considerable increases; are these caused by anomalous spikes or by a gradual increase?
3. Faceted Box plot of "sector: NW" consumption over 2 year interval, individual spaces, normalized by area. Observation: x-axis scale is skewed by "sector: NW" / outliers in 2012 and in 2013. Single outliers not important, especially for steam (meters are less reliable than Electricity); groups of outliers closer to whisker are more interesting. Omit single distant outliers.
4. Faceted Box plot of "sector: NW" steam consumption over 2 year interval, individual spaces (not including "sector: NW"), normalized by area; (desired: still show "sector: NW", but omit distant outliers). Observation: what's most interesting are shifts in IQRs (e.g. "sector: NW" Building: IQR increases, median increases); prevalence of outliers is next-most-interesting, as well as combinations of these two events (e.g. "sector: NW" IQR increases, outliers only in 2012).
- 5i (possible). Small multiple time series line plots plot of "sector: NW" steam consumption over 2 year interval by month, individual spaces, normalized by area.
- 5ii (possible). Small multiple time series line plots plot of "sector: NW" steam consumption in May 2012, 2013 by week, individual spaces, normalized by area.
- 5a (possible). Heatmap plot of "sector: NW" steam consumption over 2 year interval, individual spaces, normalized by area. Observation: some IQR / median increases from step 5, such as "sector: NW" can be explained by observation that the building wasn't reporting any consumption in the first several weeks of 2012. "sector: NW" is more difficult to diagnose.
- 5b (possible). Differential % Heatmap of "sector: NW" steam consumption over 2 year interval individual spaces, normalized by area. Observation: increase in IQR / median observed earlier could be explained by non-repeating spikes in consumption throughout the year.
- 5b (possible). Differential % heatmap of "sector: NW" steam demand; week 19 highlighted; line plot tooltip by weekday, year-over-year comparison. Desirable: show a finer time scale than a day (requires date correction). Observation: Week 19 in the "sector: NW" is worse this year than last year, especially at the start of the week.
6. Time series line plots of "sector: NW" steam consumption in week 19 by weekday for 2 years, individual spaces, normalized by area. Desirable: show a finer time scale than a day (requires date correction). Observation: "sector: NW" and education buildings exhibiting different trends from one year to the next.

