Given the possible change of reimbursing all toll costs to try and encourage drivers to be available across both cities, how would we test to see if this is working?

KPI : How long is the wait for a ride in any given city? The goal of increasing driver partner availability across the two cities isn't the goal in of itself. Ultimately the intention is to improve the experience provided by the service. It's also possible that this is data that is wanted as a constituent for more complex analysis' so it may be prudent to focus on the direct KPI of 'How many trips start in one city and end in the other?

Experiment Design:

We need two sets of data, a before and after. We're going to have a bunch of before, essentially all the data before the change is implemented. And the test should go on long enough for us to achieve a sufficiently small p-value or we cease to see the p-value shrink.We're going to be using a t-test to derive this p-value. We're going to want to account for seasonality in the data, and the overall trend of the data from year to year so that we can isolate the effect of the change.

The interpretation is relatively simple, did we get a low p-value? Then we can be pretty clear as to the impact being statistically significant!