



Data analyst case

Analyzing threshold and scope

01.



Data

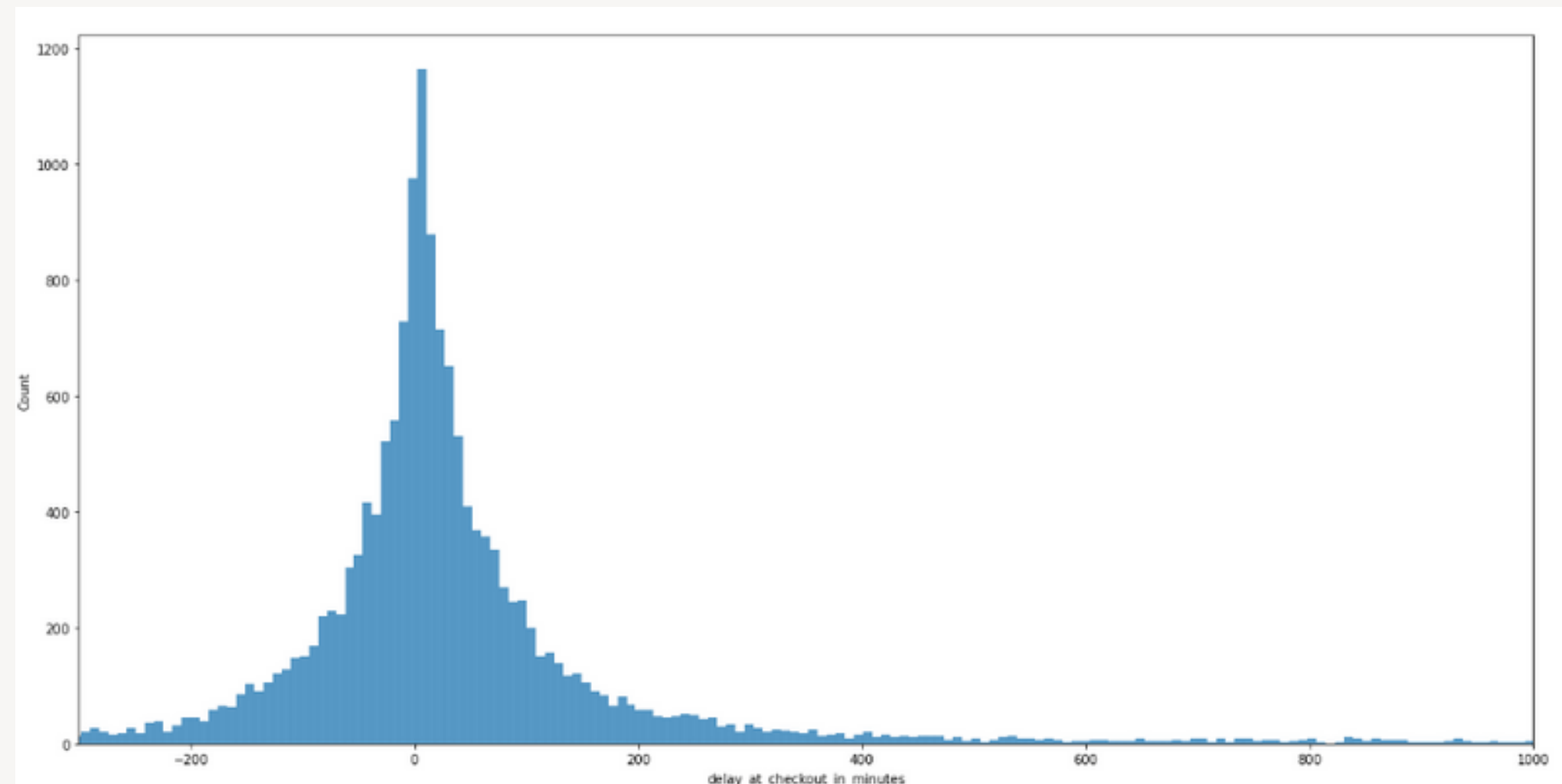
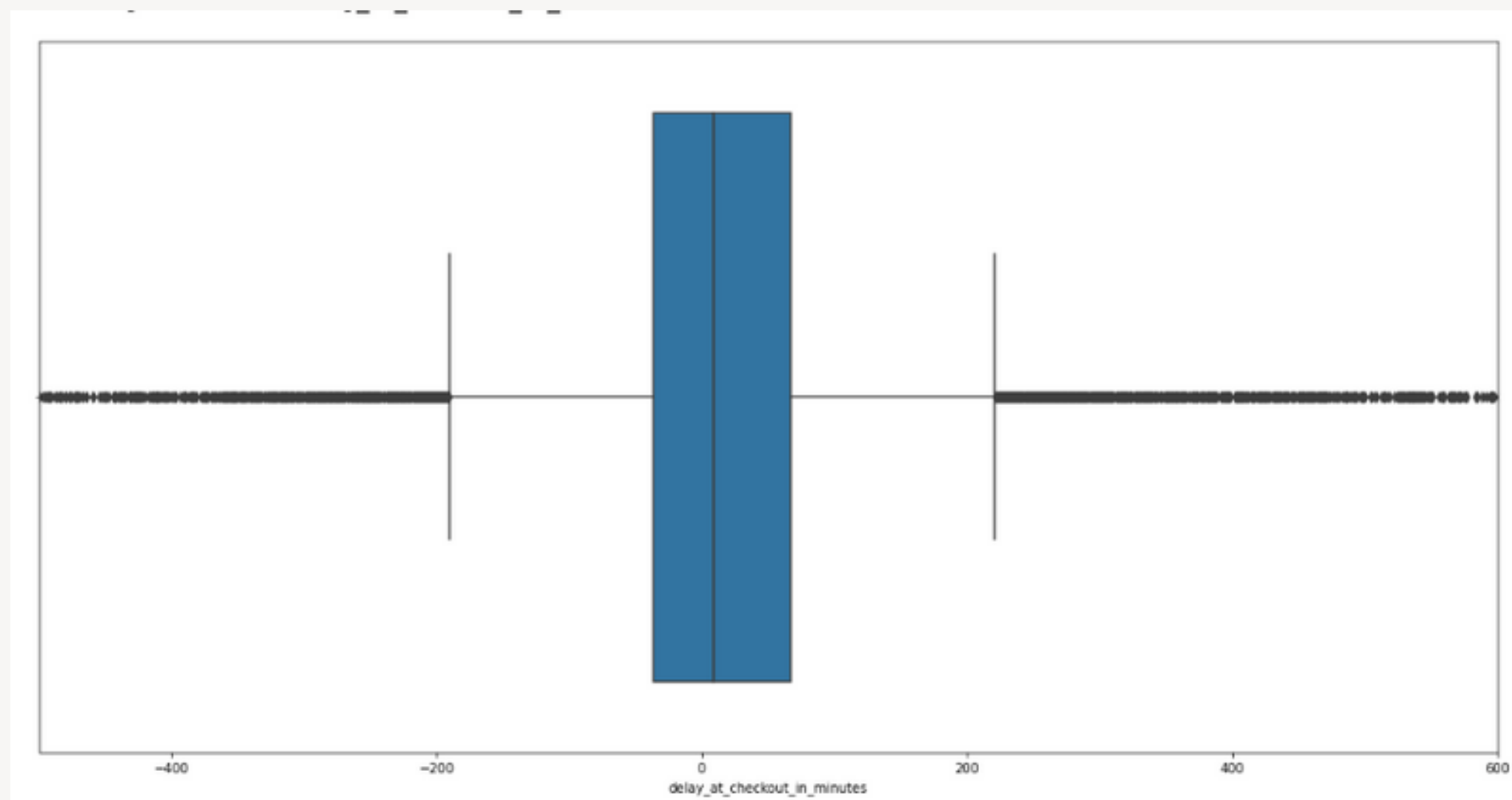
- First analysis

Canceled rentals: 18% of total rentals. We can think that those rentals were canceled because they had to wait the car.

Outliers with big delays at rental checkout (> 250 minutes)

Percentage of possible problematic drivers, the ones that checkout with delay: 54%

Average delay without outliers: 33 minutes

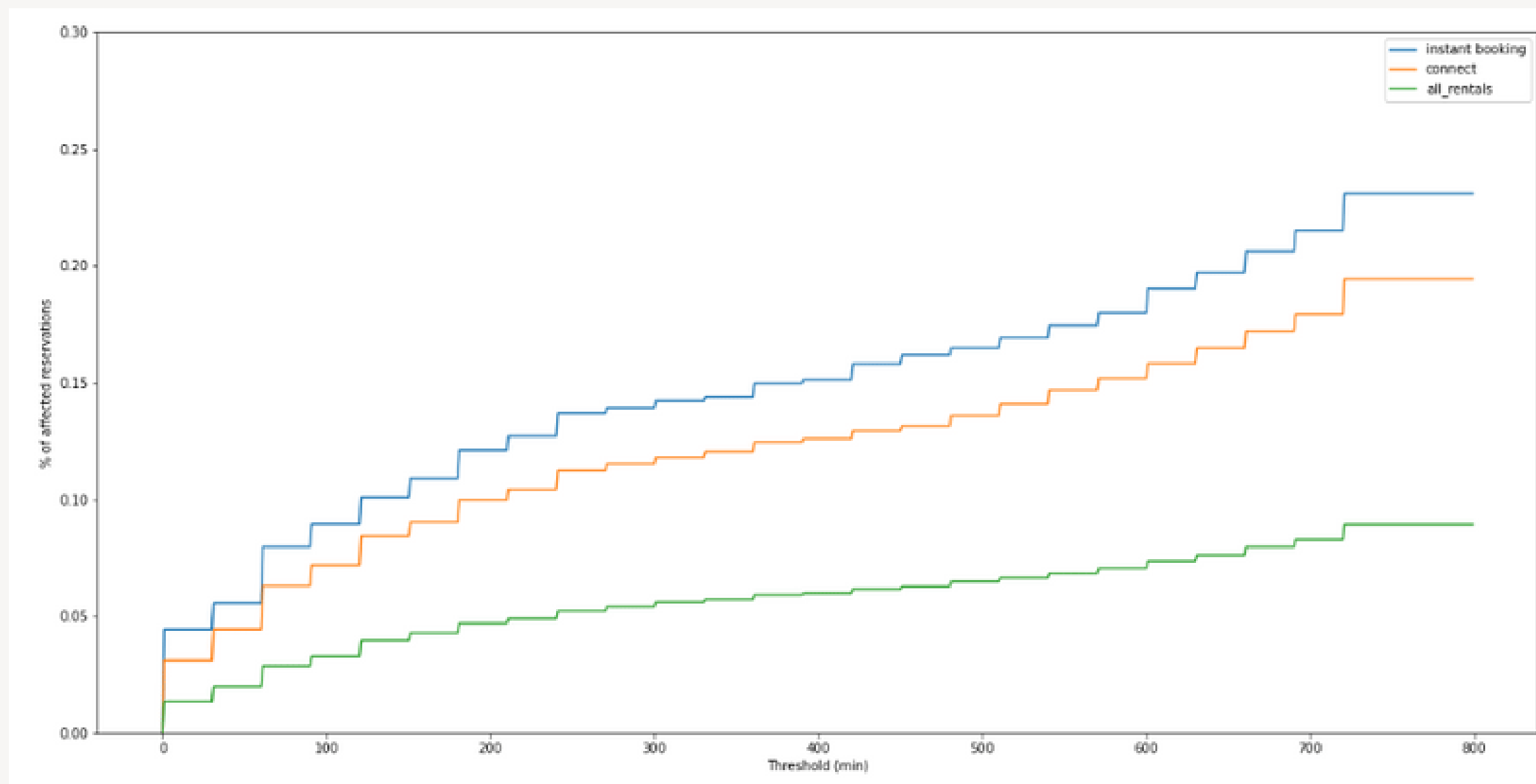


Analysis



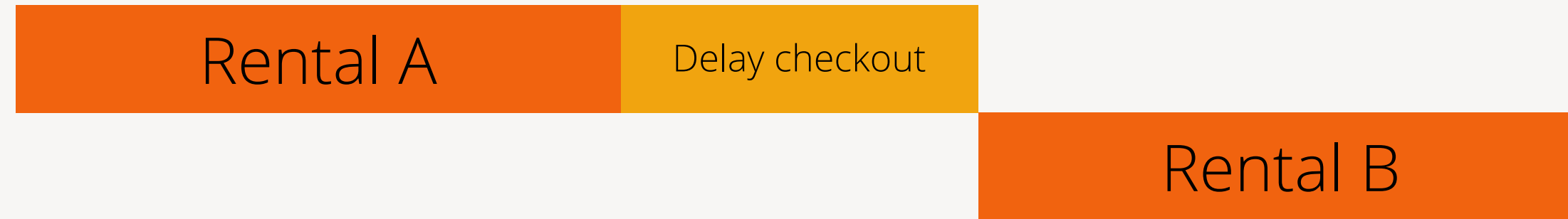
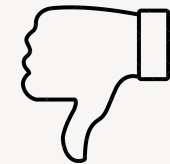
- How many rentals would be affected by the feature depending on the threshold and scope chosen?

We took the reservations that had a delay with previous rental value, and analyzed, in the case of setting a threshold, how many rentals would be affected (wouldn't be able to occur)



We can see that instant booking and connect are more affected. If we increase the threshold, their % of rentals affected are higher comparing to all rentals.

Analysis



● How often are drivers late for next check in?

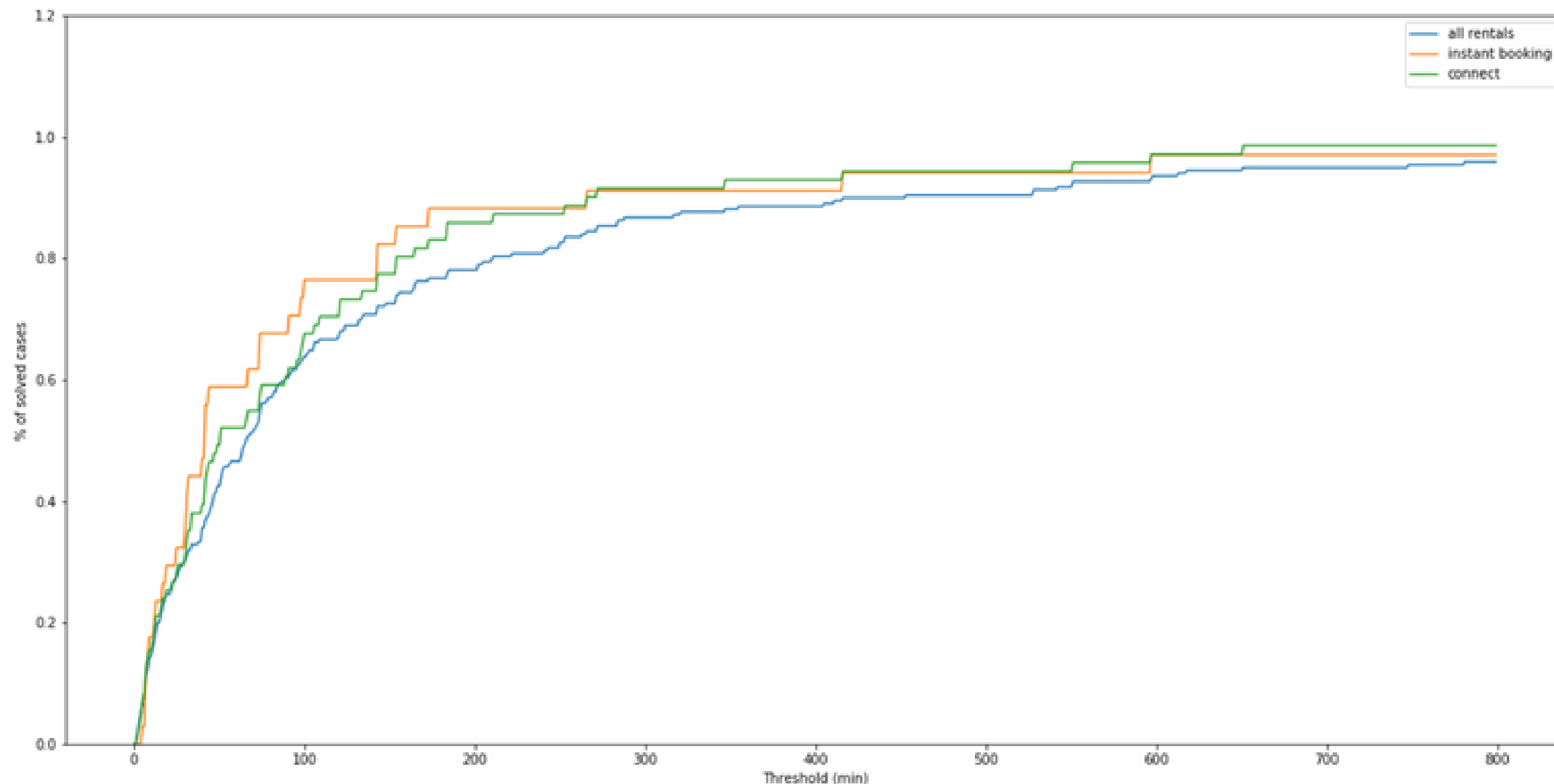
We extracted the rentals where there was a previous rental (B), and analyzed the delay at checkout of their previous rental (A) and the delay with previous rental of (B). The problematic cases would be the ones where rental A has a delay checkout, and rental B has no delay with previous, which can mean that rental B had to wait rental A, drivers were late for next check in.

We identified that this happens at 1,2% of all ended rentals.

We can suspect that some of the canceled rentals were canceled because the driver had to wait for the car, increasing this value.

Analysis

- How many problematic cases will it solve depending on the threshold and the scope?



We extracted cases where the delay at checkout of A was higher than the delay with previous of B (problematics). We analyzed the % of cases solved, where threshold > delay at checkout, depending on the threshold and the scope. We can see that instant booking, connect and all rental behave similarly.

Analysis of results and conclusions



- ✓ Problematic cases (drivers late for check out and check in waiting) represents 1,2% of all rentals. Cancelled rentals represent 20% of all rentals, and part of them can happen due to long waits for check in.
- ✓ Applying the feature only for instant booking or connect involve higher percentages of affected rentals. The amount of solved cases is similar regarding the scope.
➡ The feature has a better performance when applied to all rentals
- ✓ Based on the graphics, we can see that the graphics start to flatten their curves at 200 minutes, so a first approximation could be applying a threshold of 200 minutes. This way we could resolve the largest amount of cases, penalizing the less rentals as possible in order to lower unsatisfied clients, bad reviews and cancelled rentals.