Dreams Dominicus La Romana

Everyday life analysis, episode 1.

Topic: Trip to attend an event in the Dominican Republic with a flight stop in Madrid

Situation:

My girlfriend, who hates everything connected to numbers, received an email from the airline offering to change our flight, which was scheduled for 11:35 a.m., to an earlier one that takes off at 7:35 a.m. “to guarantee our connection” to the flight that would take us to the final destination.

To which I, a person who likes math, replied: We need to find data to support our decision. I know that it sounds cliche, but it happened like this.

Decision to be made: Should we fly early to ensure we get there on the planned date?

General information:

- **The time at the destination is 5 hours behind my home place, so** getting the suggested flight meant waking up at 11 p.m. at the destination time.
- The original flight would arrive at Madrid airport at 1:50 p.m. **The second flight would leave 1 hour and 45 minutes later**, at 3:35 p.m.
- **No checked baggage,** reducing the complexity of connecting flights.
- **Thirty minutes is enough** to get to another gate at Madrid's airport.
- Getting the early flight meant **waiting four additional hours at the airport**.
- The airline has **daily flights to the final destination.**

Event agenda:

- Arrival day: Welcome cocktail around 9 p.m.
- 2nd day: Night party
- 3rd day: **Main event**

Remarks:

- Changing the flight would mean waking up at 4 a.m. so we would arrive at the destination "more tired and jet-lagged."
- Since 30 minutes is enough to get to the other gate at Madri's airport, the original flight could take off about 1 hour after scheduled, which would mean no impact (but more rush).
- In these cases, the airline usually holds the second flight for a few minutes.
- The second flight could be delayed.

Questions to be answered from data:

1 - How many flights landed after the schedule (1:30 p.m.) in the last months?

2 - How many of those would cause the passengers to miss the second one?

3 - How much time, in general, do passengers have between these flights?

Data: I collected the flight data for the previous 91 days on flightaware.com.

After some time, I called my girlfriend and answered all three questions.

1 - How many flights landed after the schedule (1:30 p.m.) in the last months?

52% (47 out of 91)

2 - How many of those would cause the passengers to miss the second one?

2,2% (2 out of 91)

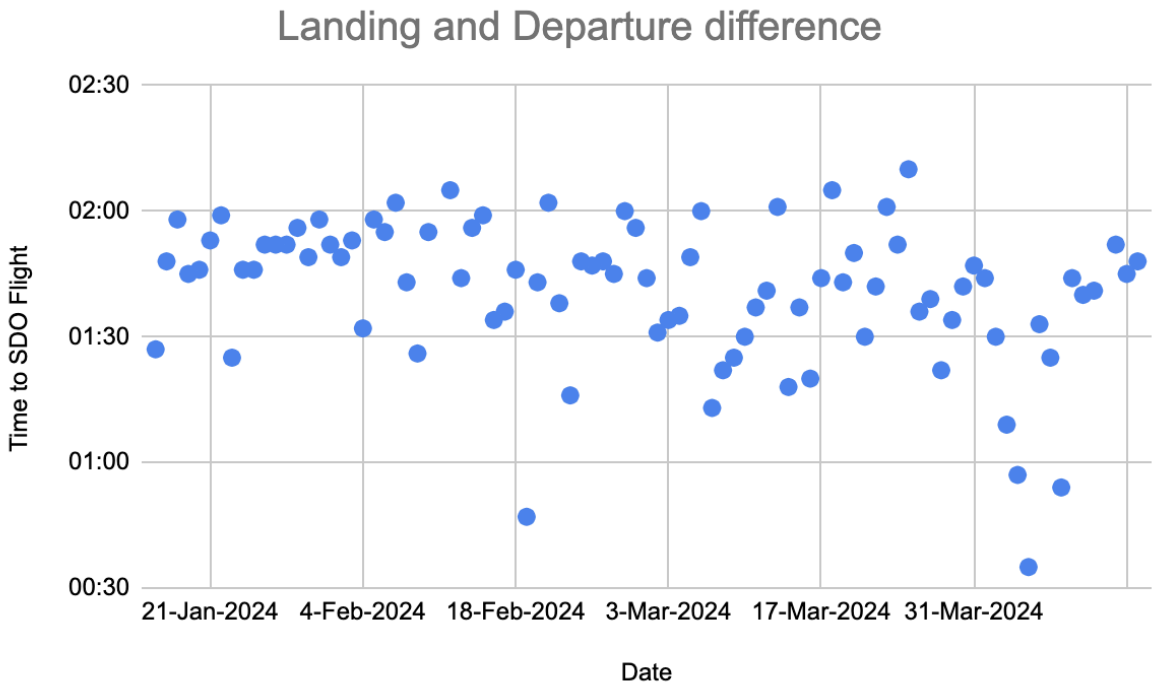
3 - How much time, in general, do passengers have between these flights?

Average: 1:41

Median: 1:44

Min: 0:35

After hearing the answers, she seemed biased about keeping the original flight, but I asked her to check the chart that shows the time difference (in minutes) between the flights.



Tempo entre a chegada do primeiro voo e a decolagem do segundo

- Taking those two flights out, the worst is this one? She asked, pointing to the do closer to the X-axis.
- Exactly
- Let's keep the original flight. Everything will be all right!

How beautiful data analysis is and how easy the decision-making process can be, even for people who do not like numbers. The process becomes natural when you show it so they can feel the data and not simply see it. (Thank you to my professor, Adriana Silva, for teaching me that the most crucial thing in data analysis is capturing the feeling behind the number/metric, not the number/metric itself.)

Ok, but it worked?

Before going to the airport, I checked, and the flight was confirmed. The landing time was 23 minutes before scheduled. However, after the "boarding is complete" announcement, the pilot warned…

“Ladies and gentlemen, due to traffic conditions in Madrid’s airport, our flight will depart in up to thirty minutes. We apologise for that, but it is not related to our airline. Thank you!”

By then, we knew the window between flights was 1 hour and 40 minutes, so this 30 minutes would represent that instead of 1 hour 40, we would have 1 hour 10 to walk from one gate to the other. In the end, no risk at all.

The plane took off less than 30 minutes after the announcement. At 1:52 p.m., we were walking to get to the second gate, and I had time to enjoy a burger before getting the second flight because I deserved it.

To sum this up, the data analysis saved me some sleep hours that were partially neglected during the period.