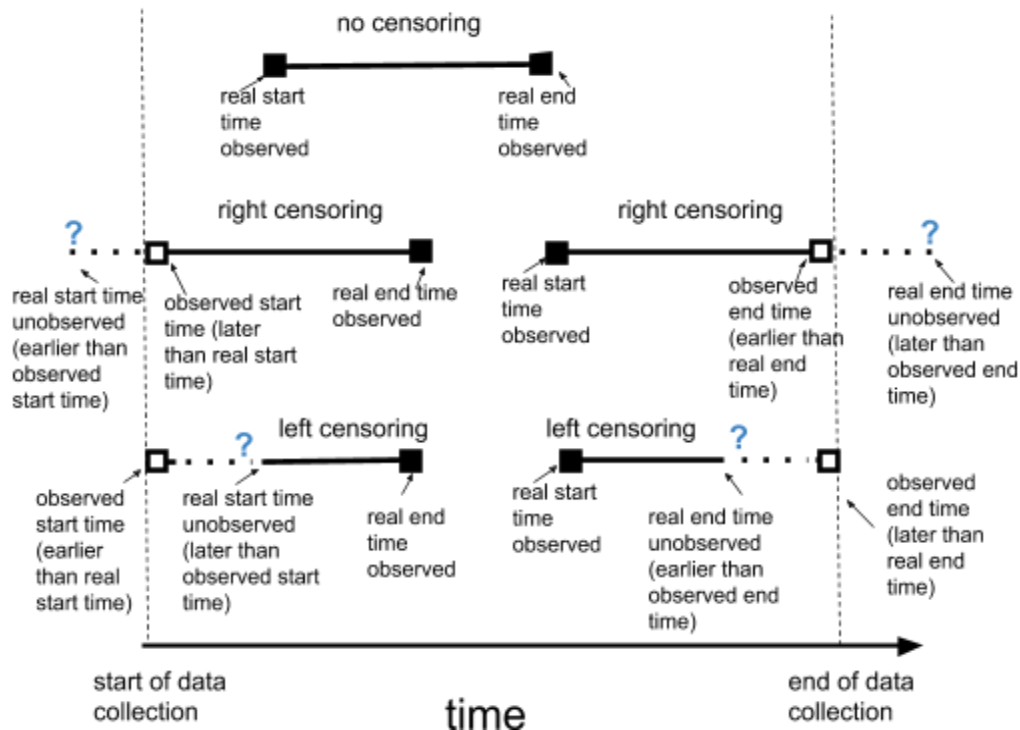


Breakout Activity: Censoring

All materials (presentation slides, Jupyter notebooks with code generating the plots and additional exercises) available on github: github.com/zuzannna/can-you-survive-this/

In the next 5 minutes, we would like you to discuss the following cases of censoring amongst yourselves. Break into small groups of 2-3 and try to agree on whether examples on the other side of this sheet are left- or right censoring (or perhaps something else?) using the cheat sheet below:



<div> <p>X</p> </div> <div> <p>Left censoring: we know something lasted at most x</p> </div> <div> </div> <div> <p>Example: You run a routine quality control at a farm after 24 hours from planting seeds. Turns out only 40% of seeds survived and the rest died. You know they must have died before hitting the 24 hour mark but you don't know how old they were exactly.</p> </div>	<div> <p>Right censoring: we know something lasted at least x</p> </div> <div> </div> <div> <p>Example: In a 13-week clinical trial for pain relief, as many as 35% of patients failed to complete the study because of side effects from the medication or lack of relief from the placebo. In general, drop-outs from trials are very common: a 2010 report by the National Academy of Sciences states that patient dropout rates can sometimes exceed 30%. Thus, we know 35% of respondents didn't experience pain symptoms for at least until they didn't drop out.</p> </div>
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Discussion questions:

1. You are in charge of measuring exact lap times in a car race. For the first lap, you have sensors that precisely measure when a car crosses the end line, but for the starting times, all you know is when the starting sign was given.

This is an example of:

- ☐ Left censoring
- ☐ Right censoring
- ☐ Other, namely:

2. You are trying to measure the width of your sofa with a piece of string that has a known length. It comes just slightly short. You simply write down the length of the string with a note that the sofa is actually slightly wider.

This is an example of:

- ☐ Left censoring
- ☐ Right censoring
- ☐ Other, namely:

3. When measuring pollutants in our water a researcher may not care about (or instruments may not be able to detect) the level of pollutants if it falls below a certain threshold (e.g., .005 parts per million). In this case, any pollutant level below .005 ppm is reported as "<.005 ppm.

This is an example of:

- ☐ Left censoring
- ☐ Right censoring
- ☐ Other, namely:

4. Everyday you commute to work using a city-wide rental bike system which allows you to take an unlimited number of 45-minute long trips. The docking station is located 40 minutes away from the one next to your office so it's imperative that you know how much time you have left - if you go beyond 45 minutes you pay an extra \$2.50. You usually set a timer which

you turn on before checking out the bike and stop the moment you dock it but today you forgot to stop it and when you got to your office it was still running at 55 minutes.

This is an example of:

- ☐ Left censoring
- ☐ Right censoring
- ☐ Other, namely:

5. You are working on a hydroponic farm and it is recommended that you use a special plant food on Boston lettuce leaves for a short amount of time, starting on the 14th day after planting it. It's very risky to use it earlier because it would destroy the crops but after the 17th day it doesn't improve the growth at all, so there is a narrow window when it would be useful (and it's costly so you don't want to waste it). Today is 9/14 and your colleague who was doing the planting says it happened either on 09/01 or 09/02.

This is an example of:

- ☐ Left censoring
- ☐ Right censoring
- ☐ Other, namely:

What would you do?

- ☐ give plant food today
- ☐ give plant food later (when?)
- ☐ It's too risky, you wouldn't give plant food at all