Recitation 11: Weighting

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Lab preview

Since we had to cruise through the code demo, I will offer a bit of review focused on the problem set. My goal here is to do a bit of a guided walkthrough where we fill out code and I will update the .rmd after recitation with what we come up with. That way we can have a bit of a more engaged session and you still get the benefit of having code to refer to along with comments for the problem set. I will be focusing on the questions that are more code-intensive and will leave the others to clarifying questions after you have spent some time with the recitation.

Problem 1

```
rm(list=ls())
set.seed(123321)
library(data.table)
n_covariates <- 8
n_obs <- 1000
# How to approach question 1?

# Why does this only give 1 column, how to make it 8?
x <- matrix(rnorm(n_obs * n_covariates))

# Once you have it for 8, how to make a data.table with the other three variables?
#dt[, ':=' (
#id = ?,
#Y1 = ?,
#Y0 = ?
#)]
#ps. use ctrl+shift+a to reorganize chunks of code you highlight, try it on above once you uncomment it
#pps. if you hold alt+up/down arrow, you can shift a line of code up or down and swap it with the exist
```

Problem 2

```
# Once we have some data, how do we set up the logit model?
# logitmodel <- lm()

# After, how do we calculate e? If lost, check the weighting demo propensity score sections.
# ??
```

Problem 4

```
# We will go over what the function is and leave 5 and 6 to interpretation for you to work on alone or
```

Problem 7

```
# What is the data.table command to filter
```

Problem 8

```
# Outer performs an operation on two arrays with syntax x,y, "function").
```

Problem 9

```
# How would we set this up? What functions give us the min?
```

Problem 10

```
# Break it into two parts, making the data, then graphing. Merging, filtering, iteration, or rbind/cbin
```

Problem 11

```
# What kind of merge would give us this? What alternatives are there?
```