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The Dot Placeholder

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dot placeholder



RAFAEL IRIZARRY: In this video, we're going

to learn how to make dplyr functions return vectors as opposed to data

frames.

This can be useful sometimes.

We're going to use the US murder data as an

Video



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Textbook links

This video corresponds to the [textbook section on the dot operator](#).

Note that a common replacement for the dot operator is the `pull` function. Here is the [textbook section on the pull function](#).

Key points

- The dot operator allows you to access values stored in data that is being piped in using the `%>%` character. The dot is a placeholder for the data being passed in through the pipe.
- The dot operator allows **dplyr** functions to return single vectors or numbers instead of only data frames.
- `us_murder_rate %>% .$rate` is equivalent to `us_murder_rate$rate`.
- Note that an equivalent way to extract a single column using the pipe is `us_murder_rate %>% pull(rate)`. The `pull()` function will be used in later course material.

Code



```
library(tidyverse)
library(dslabs)
data(murders)

murders <- murders %>% mutate(murder_rate = total/population*100000)
summarize(murders, mean(murder_rate))

# calculate US murder rate, generating a data frame
us_murder_rate <- murders %>%
  summarize(rate = sum(total) / sum(population) * 100000)
  us_murder_rate

# extract the numeric US murder rate with the dot operator
us_murder_rate %>% .$rate

# calculate and extract the murder rate with one pipe
us_murder_rate <- murders %>%
  summarize(rate = sum(total) / sum(population * 100000)) %>%
  .$rate
```

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