Calculating trip rates

Polina Butrina

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## R Markdown

For general HHTS data analysis tips and tricks, please refer to this intro from RSG.

There are several analyses you can do with trips: • Find trip rates • Find a number of trips

### Find Trip Rates

Trips rates (or the number of trips per day among groups) can be found using following steps:

1. Filter trip table to just shopping trips

trip.query = paste("SELECT \* FROM HHSurvey.v\_trips\_2017\_2019")  
trips = read.dt(trip.query, 'sqlquery')  
  
shop\_trips <- trips %>% filter(d\_purp\_cat=='Shop')

1. Sum trip\_wt\_combined multiplied

sum(shop\_trips$trip\_wt\_combined)

## [1] 2283929

shop\_trips\_gender<-create\_table\_one\_var('gender', shop\_trips, 'trip')

## `summarise()` ungrouping output (override with `.groups` argument)

shop\_trips\_gender

## # A tibble: 3 x 10  
## gender n sum\_wt\_comb sum\_wt\_2017 sum\_wt\_2019 perc\_comb perc\_2017  
## <chr> <int> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 Female 7053 1241815. 891681. 1072194. 55.7 60.1   
## 2 Male 5752 984365. 592035. 1120854. 44.2 39.9   
## 3 Anoth~ 62 1675. 195. 4652. 0.0752 0.0132  
## # ... with 3 more variables: perc\_2019 <dbl>, delta <dbl>, MOE <dbl>

1. Merge trip counts with the day table

days<-paste("SELECT \* FROM HHSurvey.v\_days\_2017\_2019\_in\_house")  
person\_days=read.dt(days, 'sqlquery')  
  
person.query = paste("SELECT \* FROM HHSurvey.v\_persons\_2017\_2019")  
person = read.dt(person.query, 'sqlquery')  
  
person\_days\_2<-merge(person\_days, person, by.x='personid', by.y='person\_dim\_id')

1. Summarize day trips by gender

person\_day\_gender <- person\_days\_2 %>% group\_by(gender) %>%  
 summarise(n=n(), day\_combined = sum(hh\_day\_wt\_combined.x))

## `summarise()` ungrouping output (override with `.groups` argument)

person\_day\_gender

## # A tibble: 4 x 3  
## gender n day\_combined  
## <chr> <int> <dbl>  
## 1 Another 113 5999.  
## 2 Female 15393 1967804.  
## 3 Male 14920 1950827.  
## 4 Prefer not to answer 456 126951.

1. Calculate trip rate as sum of shopping trips divided by the number of weighted person days

shop\_trips\_3 <- merge(shop\_trips\_gender, person\_day\_gender, by = 'gender')  
shop\_trips\_3 %>% mutate(trip\_rate = sum\_wt\_comb/day\_combined) %>% select(gender,trip\_rate)

## gender trip\_rate  
## 1 Another 0.2792599  
## 2 Female 0.6310663  
## 3 Male 0.5045885

Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.