Calculating trip rates

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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')
```

2. 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>
```

3. 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')
```

4. 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.
```

5. 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.