

# descriptive\_statistics

```
library(tidyverse)
```

```
-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
v dplyr      1.1.4      v readr      2.1.5
v forcats    1.0.0      v stringr    1.5.1
v ggplot2    3.4.4      v tibble     3.2.1
v lubridate  1.9.3      v tidyr      1.3.1
v purrr      1.0.2
-- Conflicts ----- tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()     masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become
```

```
library(dplyr)
```

```
data <- read.csv("~/Documents/2024spring/summer_surf/ICIS_data_analysis/data/BabyFaces2018_
```

```
data_cleaned <- data %>%
  select("PI1CESDRT", "Comprehension.Vocabular", "Productive.Vocabulary", "PR1BITSPR",
         "PR1BITSCR", "PR1HFPIPC", "PR1CPRCL", "PI1FCONF", "PI1CHAOS", "PR1HFPISS",
         "PR1PSITS", "PR1SPCDI", "PI1CESDRM") %>%
  filter(if_all(everything(), ~ . >= 0))
```

## descriptive statistics

### full data

```
summary(data_cleaned)
```

PI1CESDRT	Comprehension.Vocabular	Productive.Vocabulary	PR1BITSPR
Min. : 0.000	Min. : 0.00	Min. : 0.00	Min. : 0.00
1st Qu.: 0.000	1st Qu.: 37.00	1st Qu.: 12.00	1st Qu.: 6.00
Median : 2.000	Median : 71.00	Median : 35.00	Median :10.00
Mean : 4.404	Mean : 61.05	Mean : 41.15	Mean :10.82
3rd Qu.: 6.000	3rd Qu.: 92.00	3rd Qu.: 67.75	3rd Qu.:14.00
Max. :52.000	Max. :100.00	Max. :100.00	Max. :51.00

  

PR1BITSCR	PR1HFPIPC	PR1CPRCL	PI1FCONF	PI1CHAOS
Min. : 4.00	Min. :18.00	Min. : 7.00	Min. :1.00	Min. : 0.00
1st Qu.:16.00	1st Qu.:43.00	1st Qu.:29.00	1st Qu.:1.00	1st Qu.: 6.00
Median :18.00	Median :46.00	Median :32.00	Median :1.40	Median :10.00
Mean :17.72	Mean :45.59	Mean :31.12	Mean :1.43	Mean :10.36
3rd Qu.:20.00	3rd Qu.:49.00	3rd Qu.:34.00	3rd Qu.:1.60	3rd Qu.:14.00
Max. :22.00	Max. :50.00	Max. :35.00	Max. :3.60	Max. :41.00

  

PR1HFPISS	PR1PSITS	PR1SPCDI	PI1CESDRM
Min. : 5.00	Min. : 36.00	Min. :12.00	Min. :0.00000
1st Qu.:19.00	1st Qu.: 42.00	1st Qu.:13.00	1st Qu.:0.00000
Median :23.00	Median : 56.00	Median :16.00	Median :0.00000
Mean :21.29	Mean : 58.47	Mean :17.97	Mean :0.01062
3rd Qu.:25.00	3rd Qu.: 72.00	3rd Qu.:22.00	3rd Qu.:0.00000
Max. :25.00	Max. :145.00	Max. :43.00	Max. :1.00000

### group by depression

0-no depression 1-depression

```
by(data_cleaned, data_cleaned$PI1CESDRM, summary)
```

data\_cleaned\$PI1CESDRM: 0

PI1CESDRT	Comprehension.Vocabular	Productive.Vocabulary	PR1BITSPR
Min. : 0.000	Min. : 0.00	Min. : 0.00	Min. : 0.00
1st Qu.: 0.000	1st Qu.: 37.00	1st Qu.: 12.00	1st Qu.: 6.00
Median : 1.000	Median : 71.00	Median : 35.00	Median :10.00
Mean : 4.025	Mean : 61.09	Mean : 41.16	Mean :10.77

3rd Qu.: 5.000	3rd Qu.: 92.00	3rd Qu.: 68.00	3rd Qu.:14.00	
Max. :44.000	Max. :100.00	Max. :100.00	Max. :51.00	
PR1BITSCR	PR1HFPIPC	PR1CPRCL	PI1FCONF	
Min. : 4.00	Min. :18.00	Min. : 7.00	Min. :1.000	
1st Qu.:16.00	1st Qu.:43.00	1st Qu.:29.00	1st Qu.:1.000	
Median :18.00	Median :46.00	Median :32.00	Median :1.400	
Mean :17.75	Mean :45.63	Mean :31.13	Mean :1.428	
3rd Qu.:20.00	3rd Qu.:49.00	3rd Qu.:34.00	3rd Qu.:1.600	
Max. :22.00	Max. :50.00	Max. :35.00	Max. :3.600	
PI1CHAOS	PR1HFPISS	PR1PSITS	PR1PSPCDI	PI1CESDRM
Min. : 0.00	Min. : 5.00	Min. : 36.00	Min. :12.00	Min. :0
1st Qu.: 6.00	1st Qu.:19.00	1st Qu.: 42.00	1st Qu.:13.00	1st Qu.:0
Median :10.00	Median :23.00	Median : 56.00	Median :16.00	Median :0
Mean :10.29	Mean :21.36	Mean : 58.11	Mean :17.87	Mean :0
3rd Qu.:14.00	3rd Qu.:25.00	3rd Qu.: 71.00	3rd Qu.:22.00	3rd Qu.:0
Max. :34.00	Max. :25.00	Max. :125.00	Max. :41.00	Max. :0

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data\_cleaned\$PI1CESDRM: 1

PI1CESDRT	Comprehension.Vocabular	Productive.Vocabulary	PR1BITSPR	
Min. :24.00	Min. : 0.0	Min. : 6.00	Min. : 8.00	
1st Qu.:32.50	1st Qu.:42.0	1st Qu.:15.25	1st Qu.: 9.75	
Median :39.50	Median :60.5	Median :37.00	Median :13.73	
Mean :39.67	Mean :57.5	Mean :39.92	Mean :15.59	
3rd Qu.:46.75	3rd Qu.:81.5	3rd Qu.:59.75	3rd Qu.:21.20	
Max. :52.00	Max. :98.0	Max. :98.00	Max. :28.00	
PR1BITSCR	PR1HFPIPC	PR1CPRCL	PI1FCONF	
Min. : 8.80	Min. :29.00	Min. :19.00	Min. :1.000	
1st Qu.:11.75	1st Qu.:39.25	1st Qu.:25.75	1st Qu.:1.400	
Median :15.50	Median :44.00	Median :31.00	Median :1.600	
Mean :15.32	Mean :42.15	Mean :29.33	Mean :1.617	
3rd Qu.:18.50	3rd Qu.:47.84	3rd Qu.:34.25	3rd Qu.:1.850	
Max. :21.00	Max. :50.00	Max. :35.00	Max. :2.200	
PI1CHAOS	PR1HFPISS	PR1PSITS	PR1PSPCDI	PI1CESDRM
Min. : 5.00	Min. : 6.00	Min. : 52.00	Min. :14.00	Min. :1
1st Qu.: 9.00	1st Qu.: 9.75	1st Qu.: 76.25	1st Qu.:17.50	1st Qu.:1
Median :17.50	Median :12.00	Median : 92.00	Median :25.00	Median :1
Mean :17.42	Mean :14.25	Mean : 92.58	Mean :26.83	Mean :1
3rd Qu.:18.50	3rd Qu.:19.25	3rd Qu.:104.00	3rd Qu.:35.00	3rd Qu.:1
Max. :41.00	Max. :25.00	Max. :145.00	Max. :43.00	Max. :1