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9/1/25

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Dice Experiment:

Modified dice and 20 tries

Result:

Rolled on 6: **4 time**
Did not roll on 6: **16 times**
0 0 1 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 0
25% success despite 16.67% chance

modified probability, or just got lucky?

Household pulse Data

Data: d_HHP2020_24 on Rstudio
Data presumes stats for household rapid responses from the covid pandemic (2020) till 2024.

Load file: load("d_HHP2020_24 (1).Rdata")

names(d_HHP2020_24)

Results:

```
[1] "Age"                   "Gender"                "Education"
 [4] "Mar_Stat"              "income_midpoint"       "Race"
 [7] "Hispanic"              "Number_people_HH"      "Number_kids_HH"
[10] "Number_adults_HH"      "private_health_ins"    "public_health_ins"
[13] "work_kind"             "workloss"              "income_midpoint_factor"
[16] "State"                 "Region"                "Census_division"
[19] "DOWN"                  "ANXIOUS"               "WORRY"
[22] "INTEREST"              "YEAR"                  "Begin_Date"
[25] "K4SUM"
```

These are all the listed column names.

Average age for men
mean(d_HHP2020_24$Age[d_HHP2020_24$Gender=="male"],na.rm = TRUE)

Results: 53.28
Average age for women

mean(d_HHP2020_24$Age[d_HHP2020_24$Gender=="female"],na.rm = TRUE)

Results: 51.61

Interesting finding: Mental health by income

```
Library (dplyr)
d_HHP2020_24 %>%
  group_by(income_midpoint_factor) %>%
  summarise(avg_anxiety = mean(ANXIOUS, na.rm = TRUE),
            avg_worry   = mean(WORRY, na.rm = TRUE))
```

Results:

	income_midpoint_factor	avg_anxiety	avg_worry
	<fct>	<dbl>	<dbl>
1	12500	2.26	2.12
2	30000	2.07	1.93
3	40000	2.02	1.85
4	62500	1.94	1.75
5	82500	1.88	1.68
6	125000	1.81	1.60
7	175000	1.76	1.53
8	225000	1.68	1.45

More money, more problems? Don't think so.

Questions

1. How does marital status relate to the average number of kids in the household?
2. What is the relationship between education level and income and probability of work loss?
3. Do people with private insurance have better mental health than people with public insurance?