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# **Behavior Changes During COVID-19: Who People Are and How That Affects Their Activity Level**

— Rachel Rowe and Frederick Sell —

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# Data!

- UMD National Center for Smart Growth (NCSG) created a survey
  - How did habits change?
- Distributed
  - Social media
  - Email lists
  - Two international airports

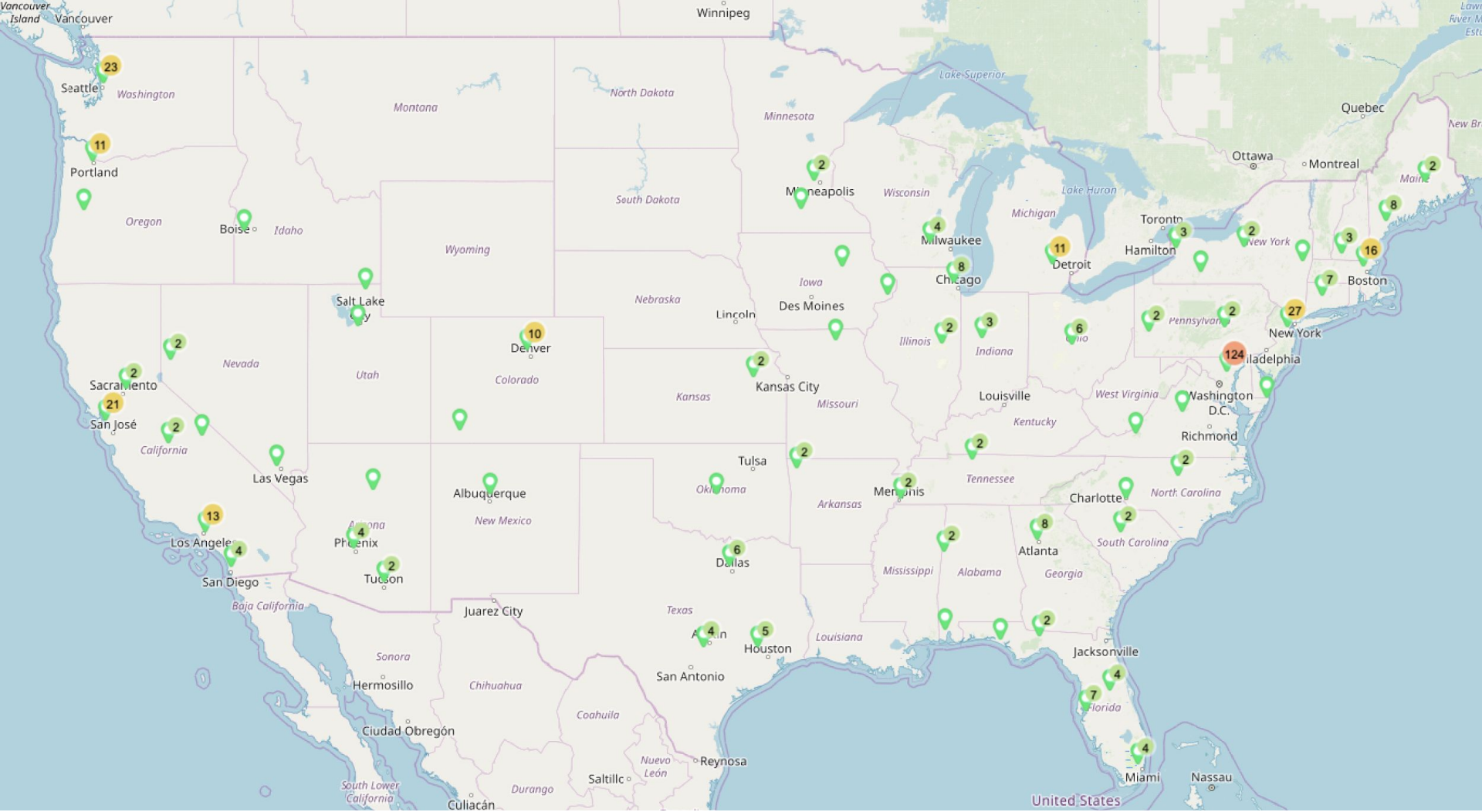
# Respondents by the Numbers



557 individuals  
surveyed

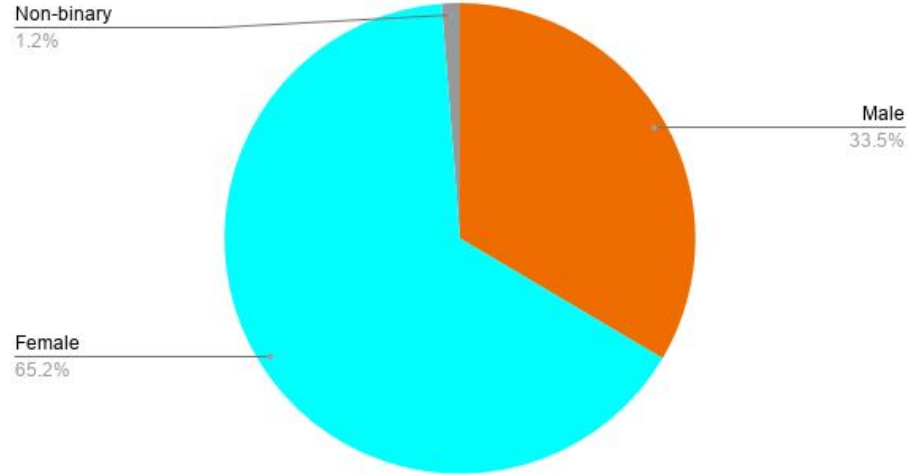


403 zip codes  
represented

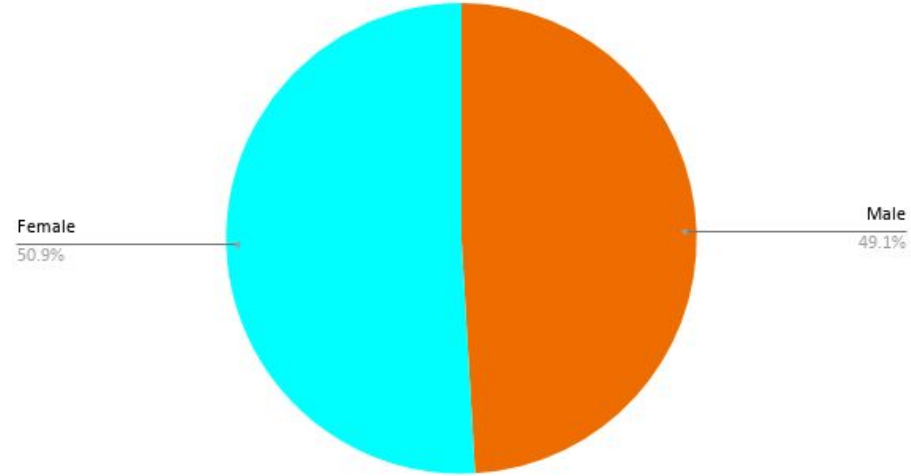


# Who Is in Our Dataset?

Gender Distribution



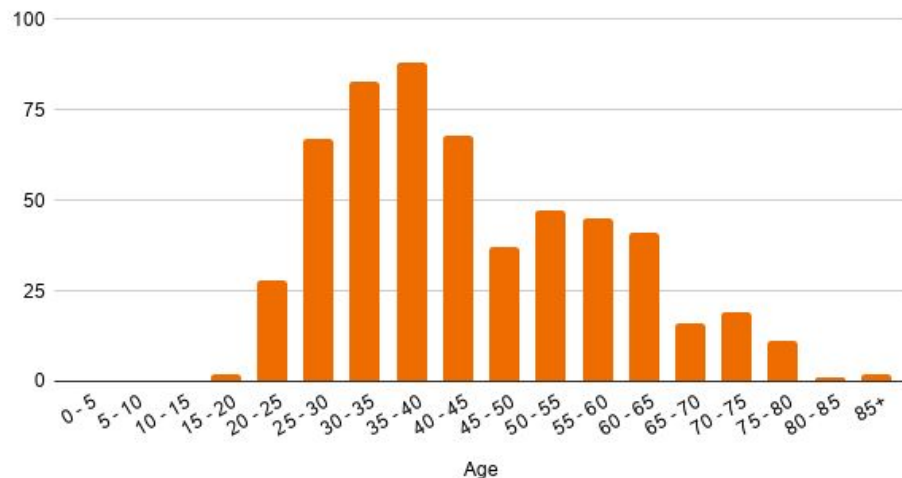
Gender Distribution According to Census 2019



SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2019.

# Who Is in Our Dataset?

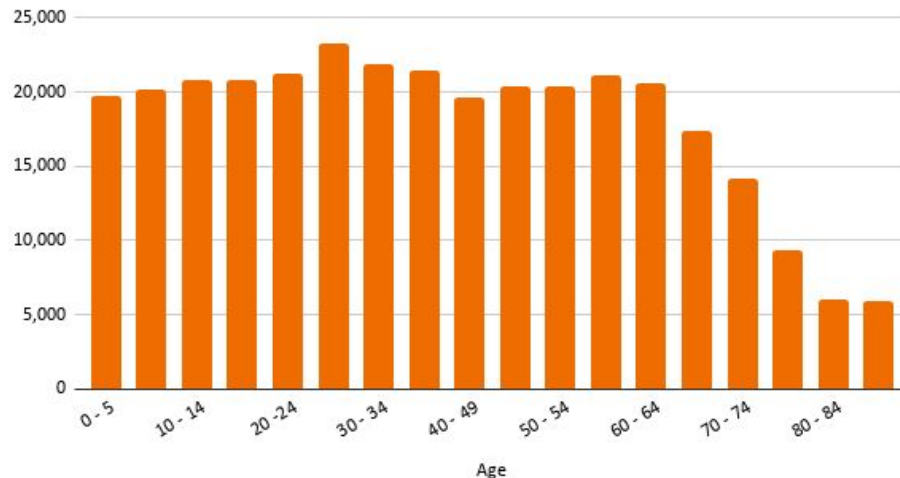
Distribution of Ages



Mean: 43.3 years

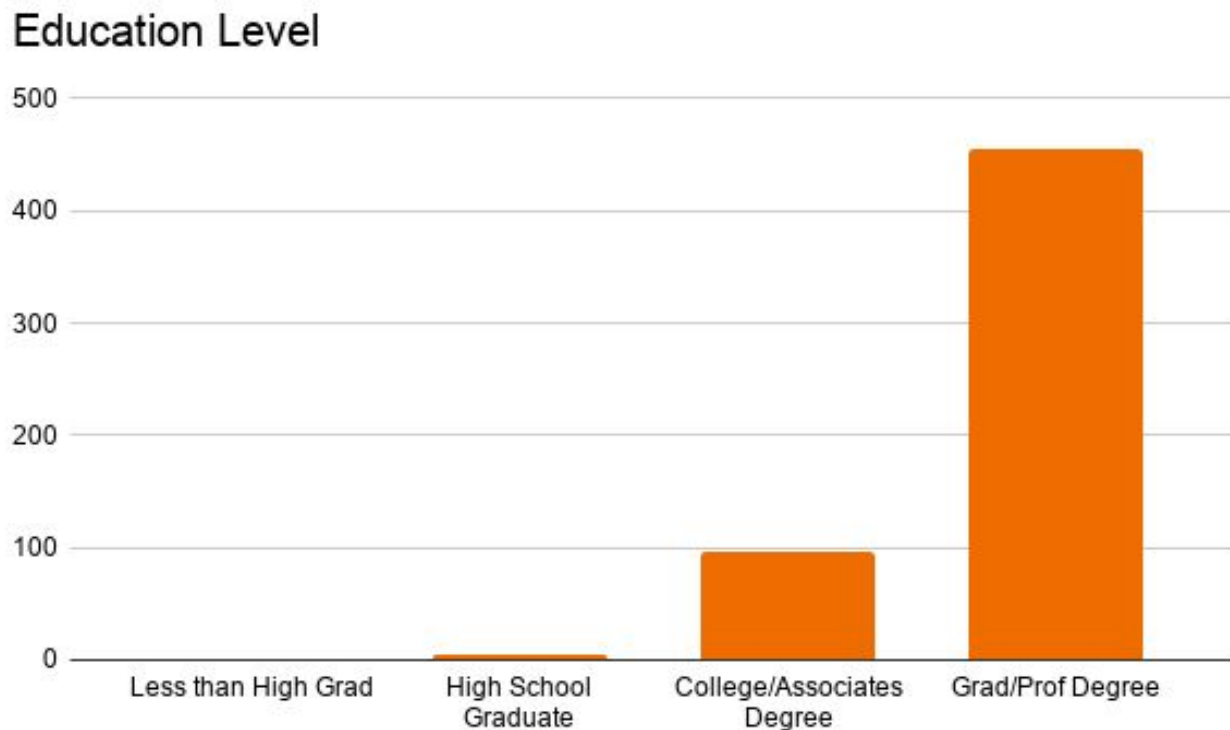
Median: 40 years

Distribution of Ages According to the 2020 Census

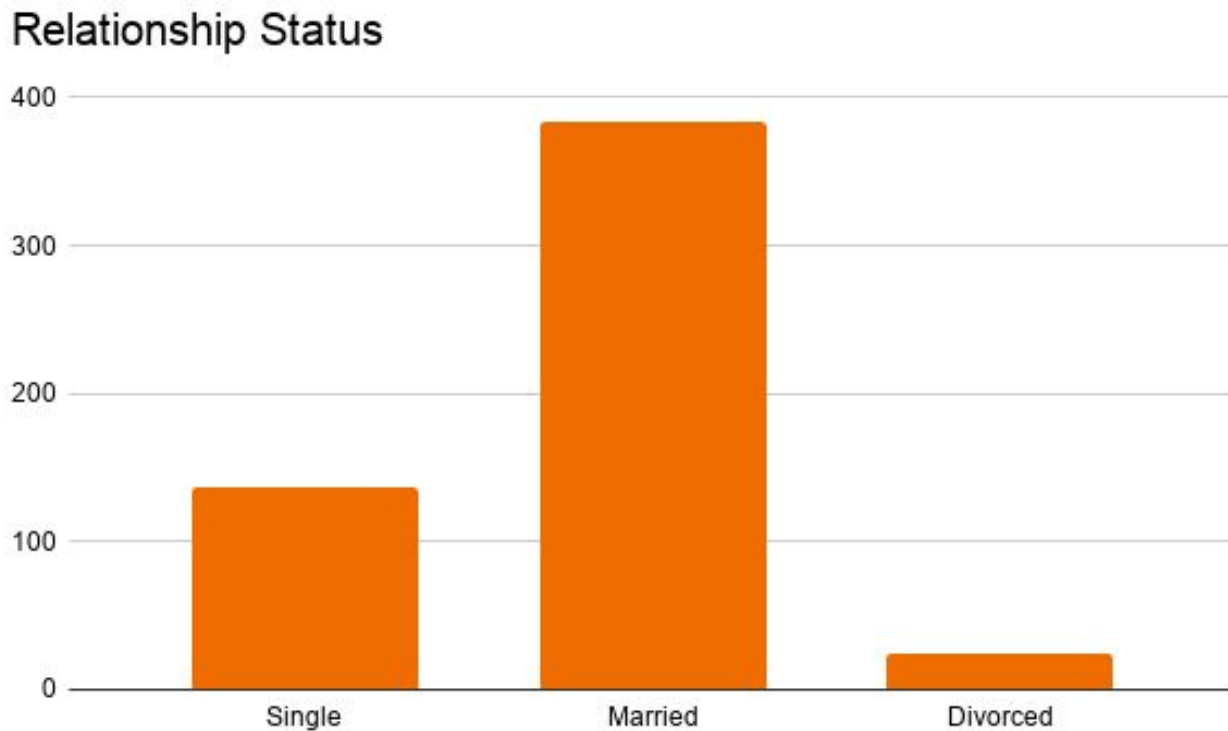


SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2019.

# Who Is in Our Dataset?

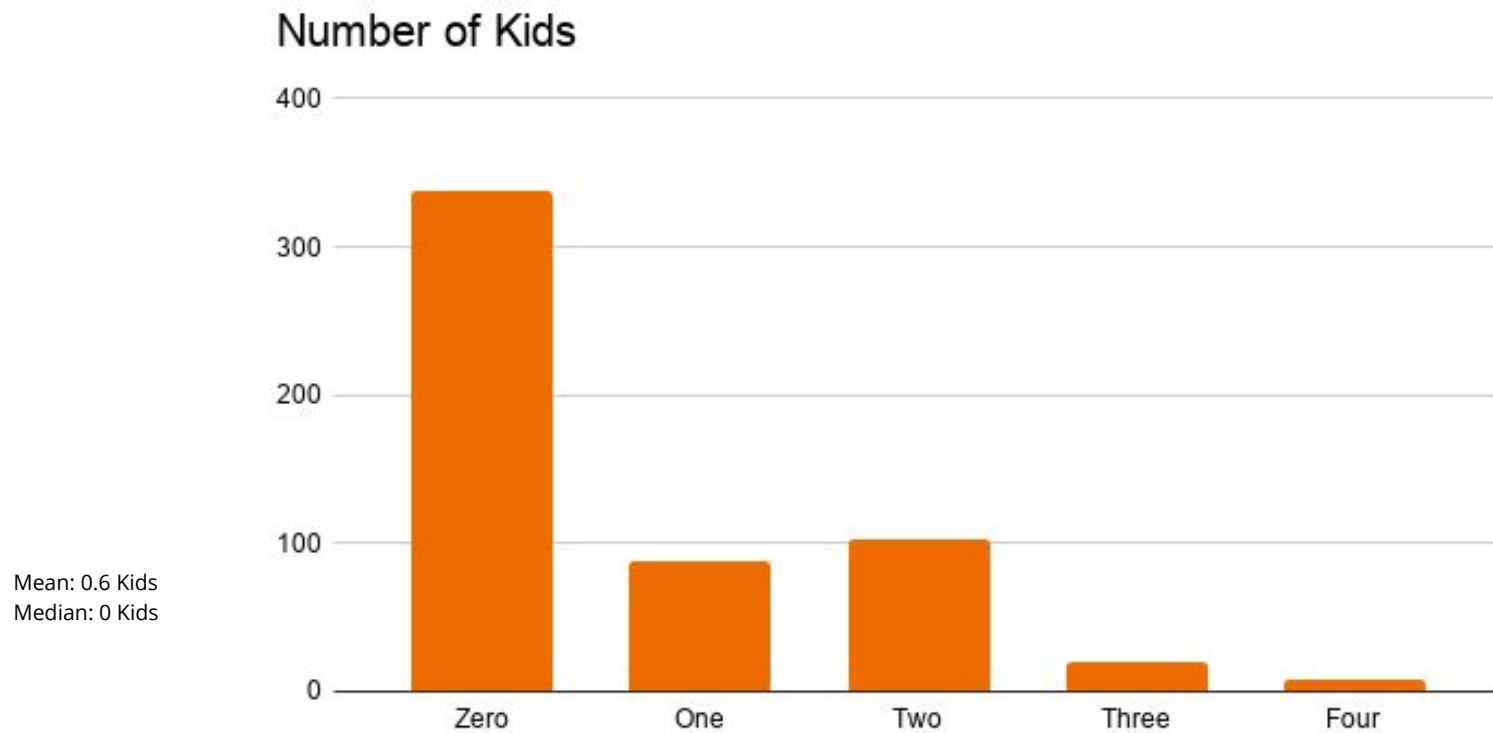


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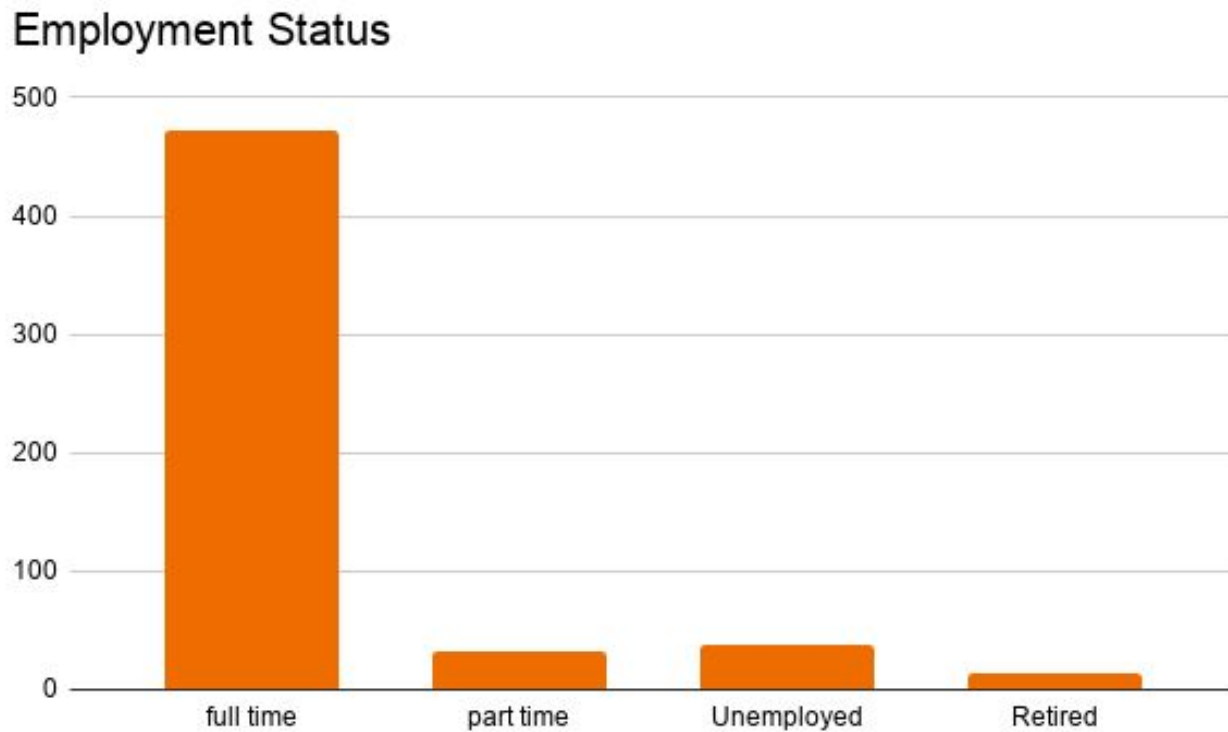




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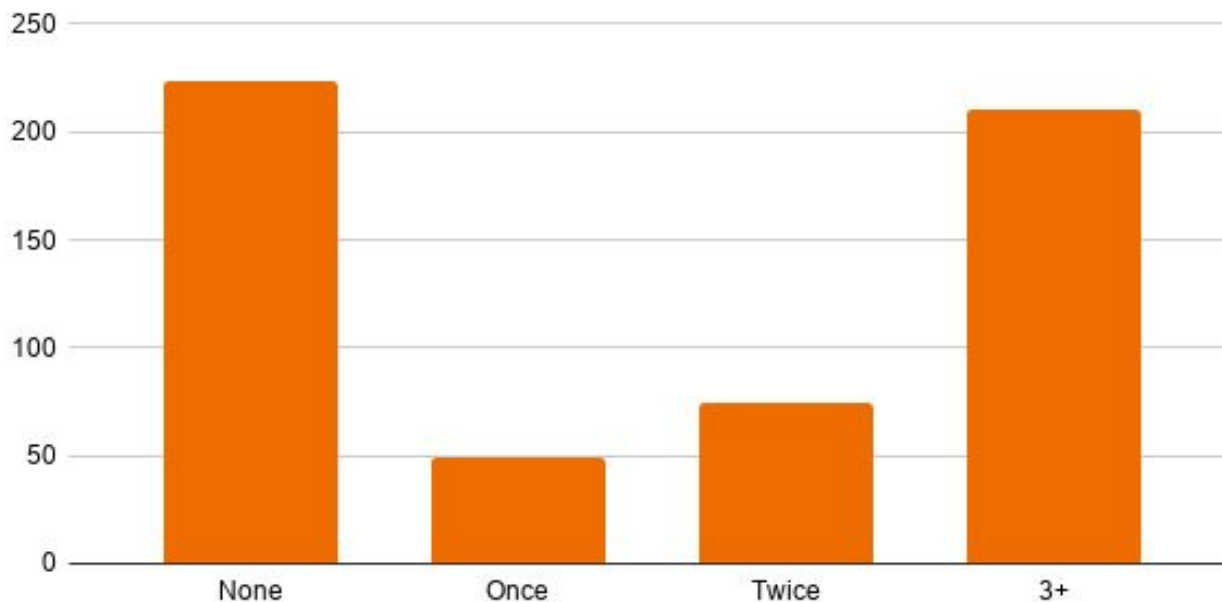


# Who Is in Our Dataset?



# Who Is in Our Dataset?

Times Participants Left Home Other Than for Grocery Shopping or Exercise





# Who Is in Our Dataset?

Interesting notes:

Majority women

Age Skew

Very Educated

# What Factors are Related to Exercise Change?

- The WHO: “Physical activity...
  - Has significant health benefits
  - Reduces depression and anxiety
  - Helps improve quality of life”

SOURCE: The World Health Organization, Fact Sheet on Physical Activity



18. How many minutes a day were you physically active before the lockdown?

- None
- 0-15 minutes a day
- 15-30 minutes a day
- 30-60 minutes a day
- 60+ minutes a day

19. How many times a week did you use to exercise inside or outside your home (i.e., in a gym, sport club or in your neighborhood/recreational trail) before the lockdown?

- 1-2 times a week Mild
- 3-4 times a week Mild
- 5+ times a week Hardcore
- None None

20. How many times a week do you leave your house for a walk/run in the neighborhood or a close-by trail during the lockdown?

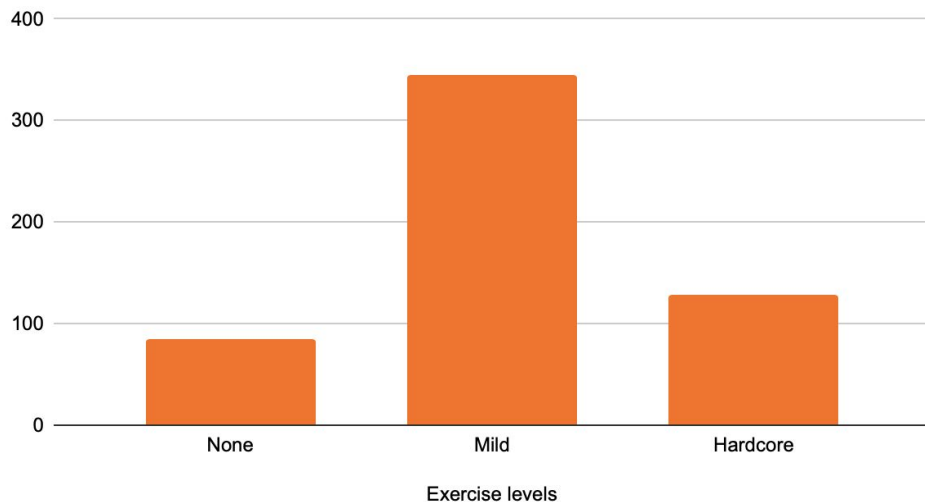
- 1-2 times a week Mild
- 3-4 times a week Mild
- 5+ times a week Hardcore
- None None

21. How often do you exercise at home during the lockdown? Select the best that applies.

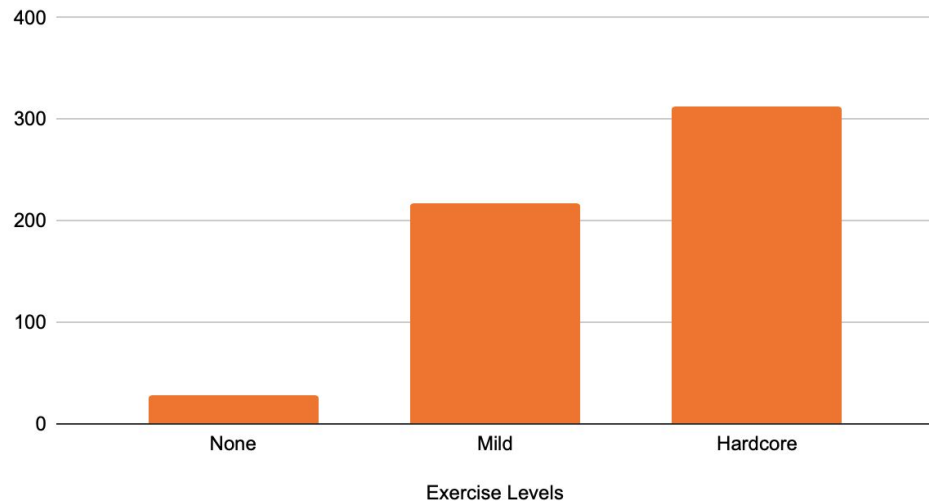
- 5-30 minutes every day Hardcore
- 30+ minutes every day Hardcore
- 5-30 minutes 1-3 days a week Mild
- 5-30 minutes 3-5 days a week Mild
- 30+ minutes 1-3 days a week Mild
- 30+ minutes 3-5 days a week Mild
- None None

# Exercise Levels

Exercise Levels Pre-Lockdown



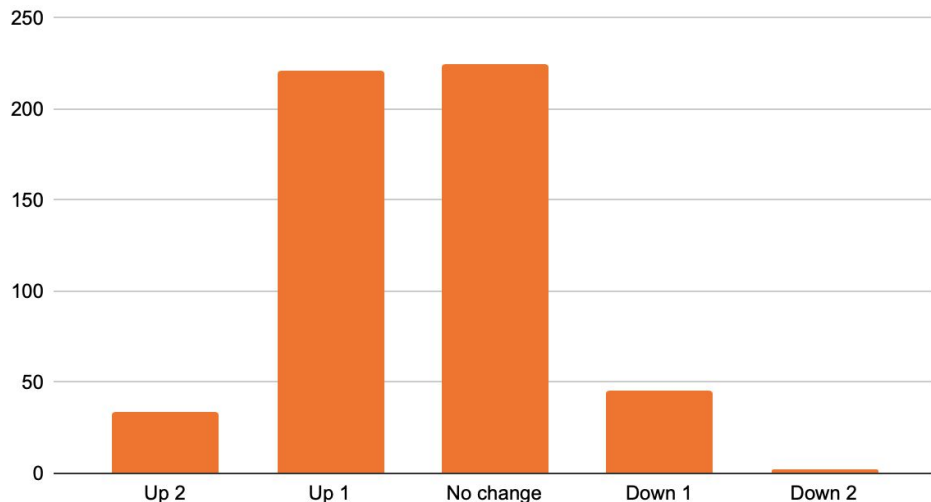
Exercise Levels Post-Lockdown



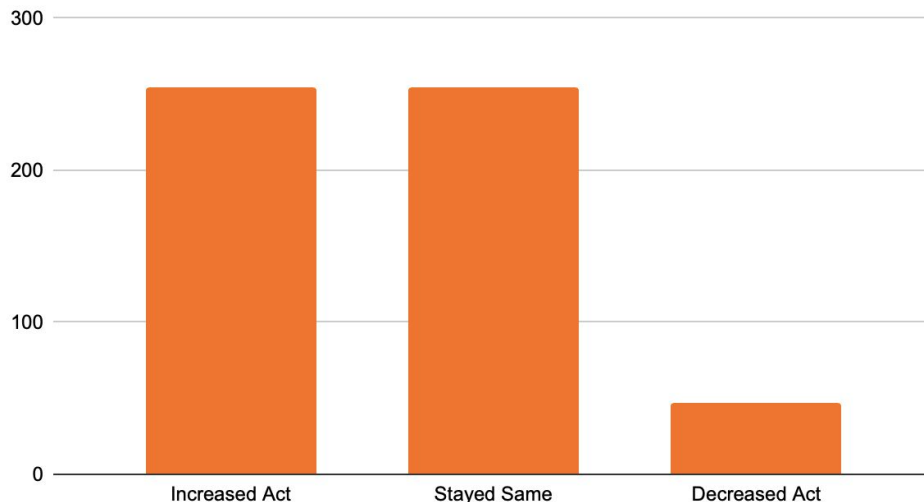


# Two Perspectives on the Change in Exercise

Change in Exercise Level

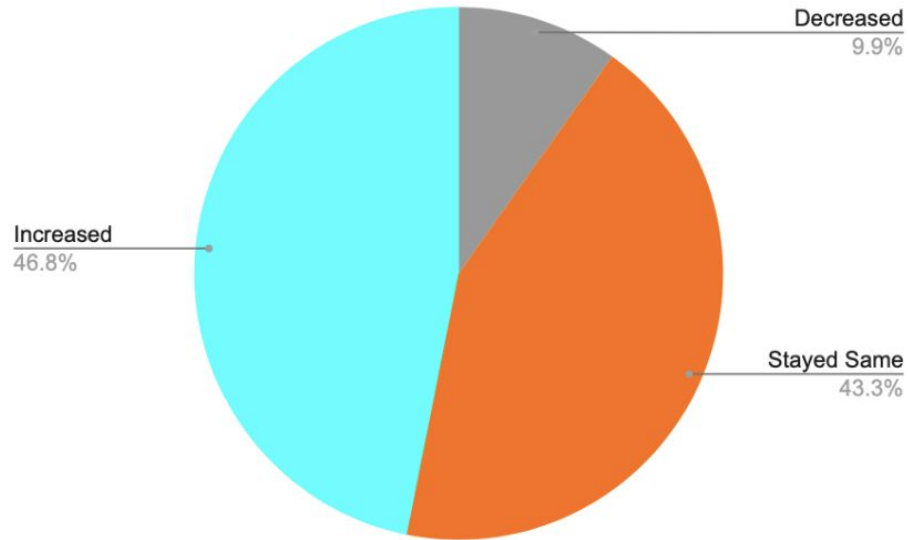


Binned Distribution of Exercise Change

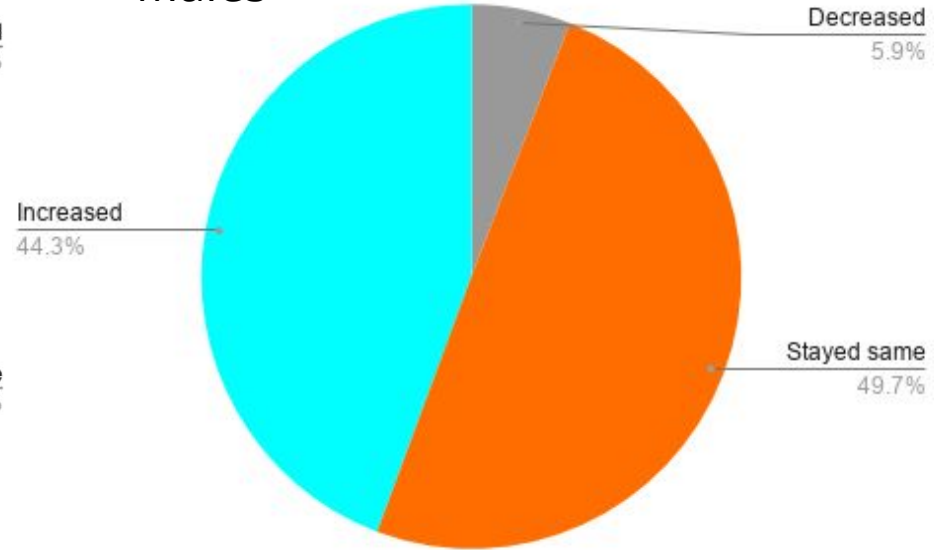


# Gender and Exercise

Females



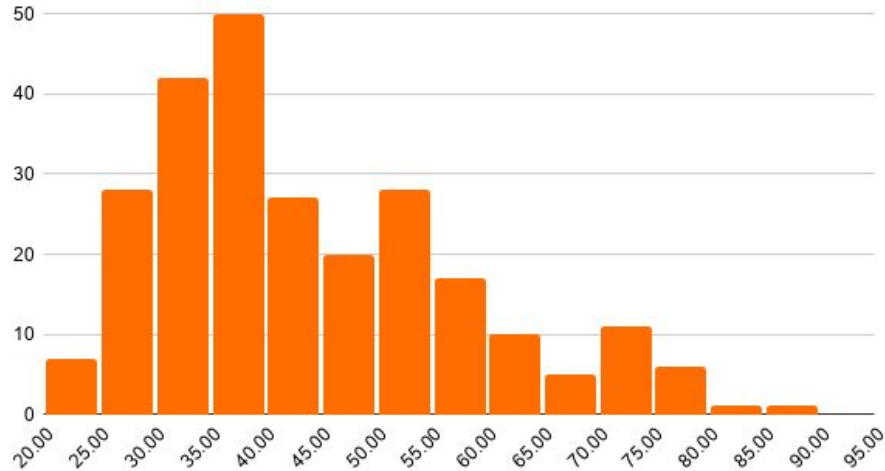
Males



\* Note: 65.2% of respondents were female

# Age and Exercise

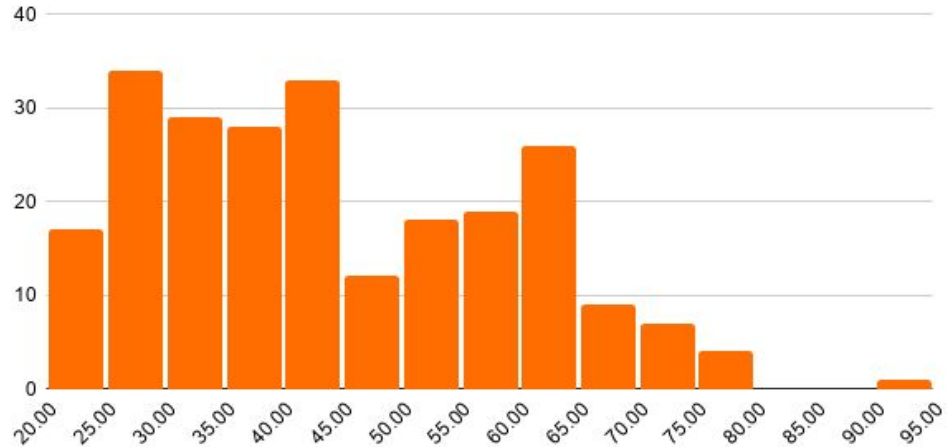
Distribution of Ages for People Who Increased Activity



Mean: 43.2 years

Median: 39 years

Distribution of Ages for People who Maintained the Same Exercise Level



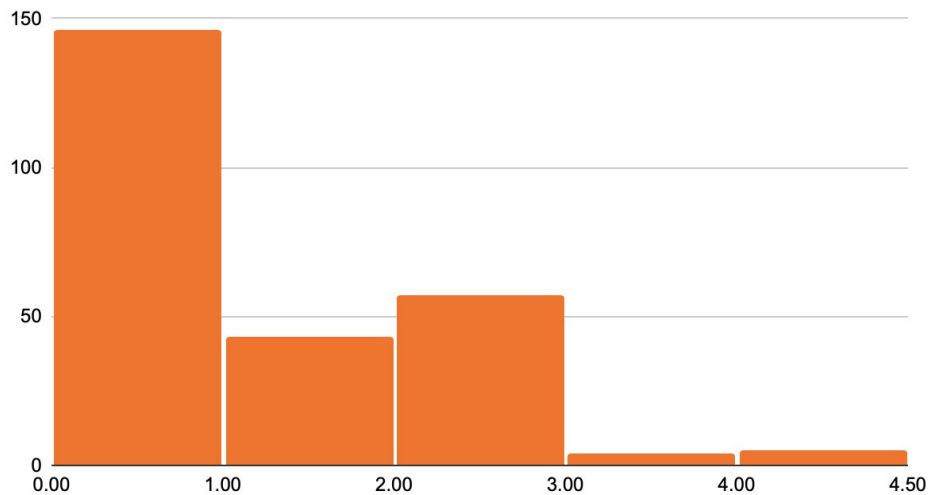
Mean: 39.6 years

Median: 38 years

\* Note: The percentage of respondents who reported decreased activity (47) was too small to produce relevant results, so we omitted that distribution here

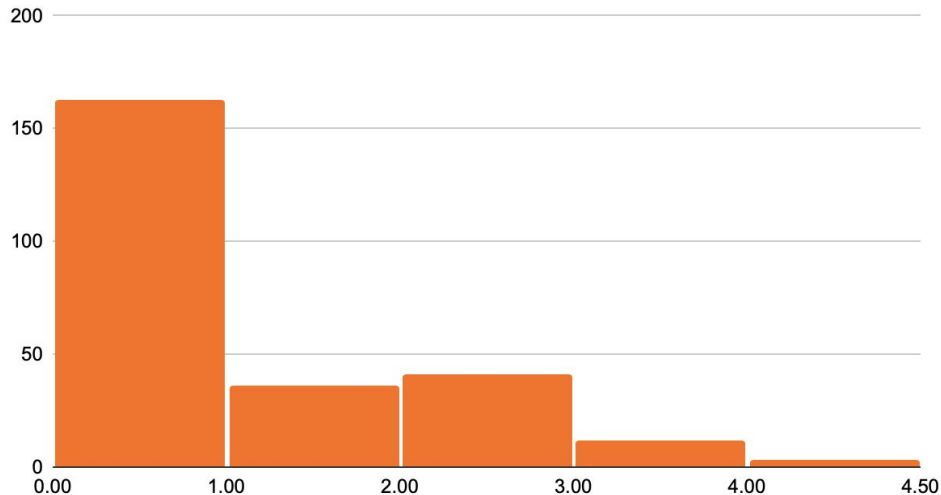
# Number of Kids and Exercise

Distribution of Number of Kids for Those Who Increased Activity



Mean: 0.7 kids  
Median: 0 kids

Distribution of Number of Kids for Those Who Stayed the Same

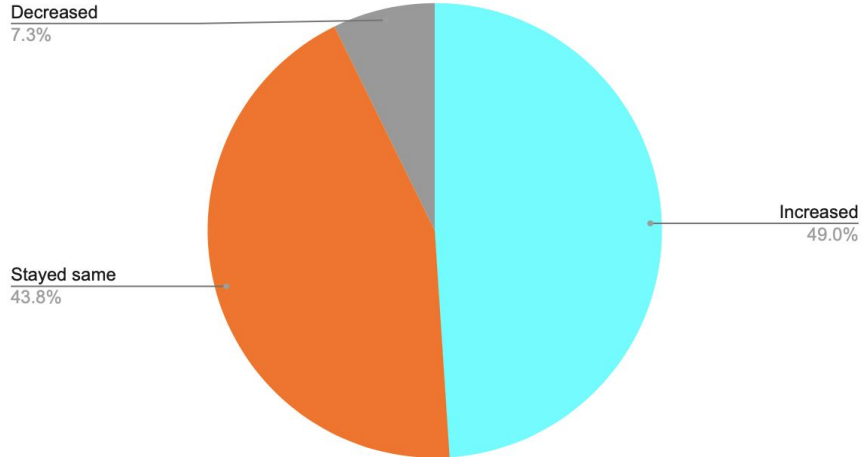


Mean: 0.6 kids  
Median: 0 kids

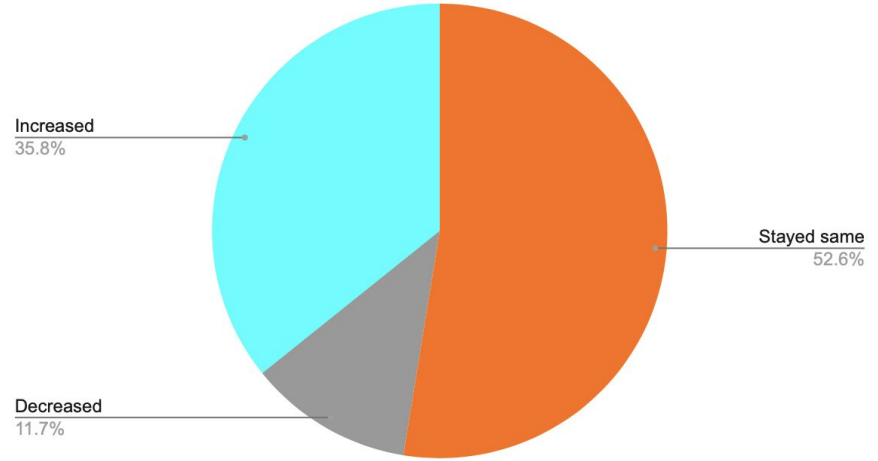
\* Note: The percentage of respondents who reported decreased activity (47) was too small to produce relevant results, so we omitted that distribution here

# Marriage and Exercise

Married



Single



\* Note: Omitted divorced/separated (25) due to limited representation in the data set

# Observations

- Increase in exercise
- Gender, number of kids: little correlation
- 50+ years old: overrepresented for stayed same
- Married people were more likely to increase

# Conclusions

- Female, highly educated, employed, married, 30s-40s
  - More socially, financially stable
- Stability
- Companionship

**Thank You!**

**Any Questions?**