Variables That Impact The Ability To Run On Incline

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Introduction

- Previously collected data to see differences between good and poor incline runners
- Fifty-five (17 female and 38 male) subjects

Methods

- Measurement of relative incline running performance used was ratio of incline/level distance covered

Statistics Calculated

- Mean & Standard Deviation: indicates how far measurements are from the mean
- Standard Error: standard deviation of the sampling distribution of an estimate

$$s = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

- Frequency Distribution: how frequent a certain variable is in a sample
- T-test: the significance between different groups

Results & Conclusion

- Frequency Distribution:
  - there are few subjects in the older age group
  - having more older subjects would better help determine the effects of age on incline running ability.
- The graph for level distance is a bimodal shape, while the graph for incline distance is a positively skewed, asymmetric graph.
- Males had greater running distance
- negative correlation between age and incline/level distance ratio was highly significant (P=0.023)