Discrete Response Model
Lecture 1

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Interpretation of the CI

There are two problems:

1. The interval "works" if the sample size is large. The field goal kicking example has n = 10 only!
2. The discreteness of the binomial distribution often makes the normal approximation work poorly even with large samples.

- The result is a confidence interval that is often too "liberal." This means when 95% is stated as the confidence level, the true confidence level is often lower.
- There are "conservative" intervals. These intervals have a true confidence level larger than the stated level.
- The limitations of this particular confidence interval have been discussed for a long time in the statistical literature. There have been many alternative confidence intervals for π proposed.

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