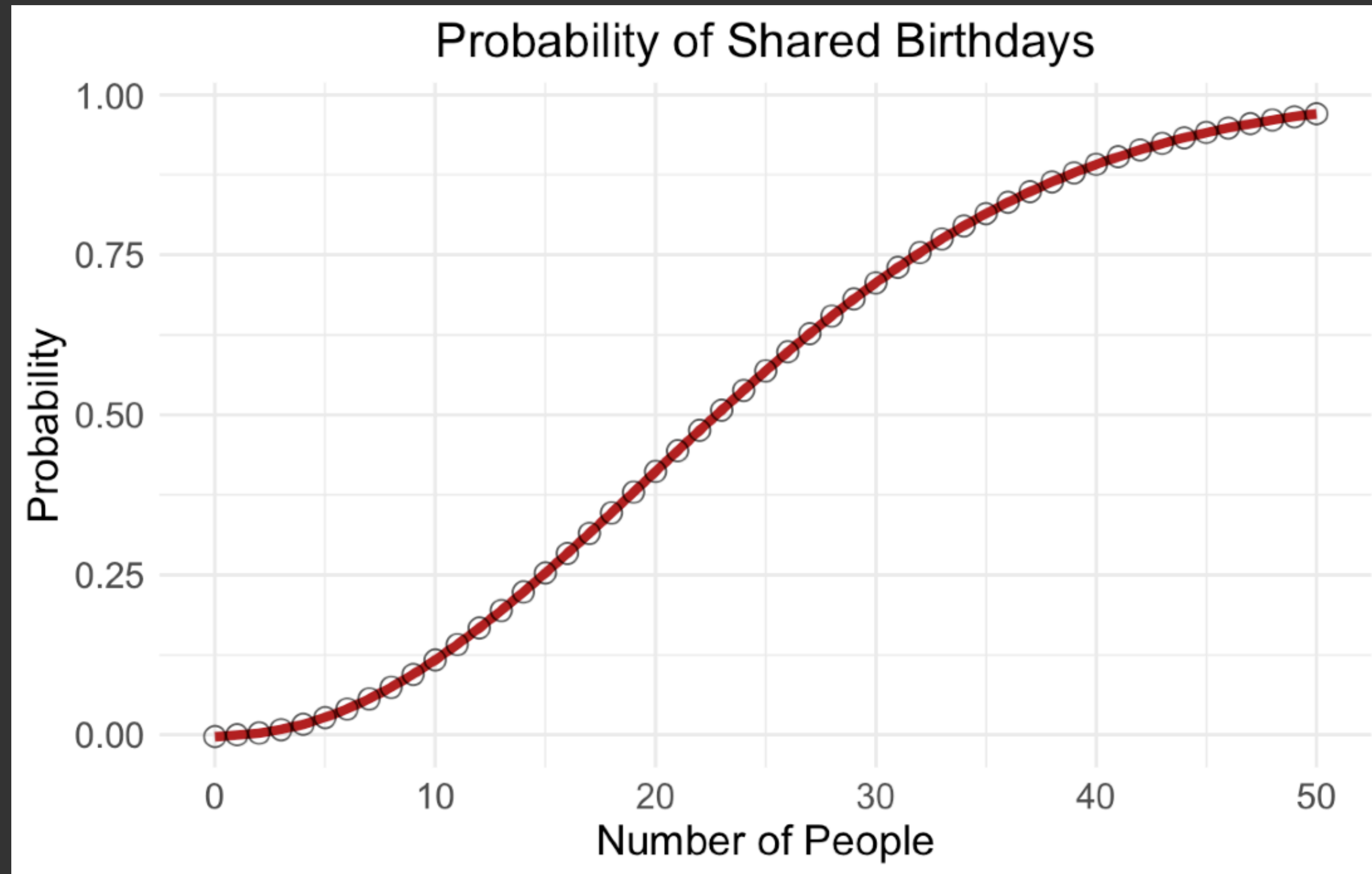


probabilities are rarely intuitive

example 2: happy birthday you two! 🎂



what is probability?

Frequentist interpretation of the probability

- probability as the long-run fraction of time that it would happen if the random process occurs over and over again under the same conditions
- many interesting random phenomena cannot be repeated over and over again, e.g., weather

Bayesian interpretation of the probability

- probability as a subjective degree of belief: for the same event, two separate people could have different viewpoints and therefore assign different probabilities

"Probability is orderly opinion... inference from data is nothing other than the revision of such opinion in the light of relevant new information."

– Thomas Bayes (1701-1761)

both interpretations agree on the probability rules introduced!