

Experimental Probability:  $P(\text{Event}) = \frac{\# \text{ times it occurs}}{\# \text{ total trials}}$   
actually happens

Theoretical Probability:  $P(\text{Event}) = \frac{\# \text{ times possible}}{\# \text{ times total outcomes possible}}$

### Table of outcomes

two categories (usually a survey)

Example: Table of outcomes

How teachers get to school:

	car	bike	Bus
M	37	10	10
F	30	5	13

Variables: gender  
and mode of  
transportation

↑  
13 female teacher  
rode the bus

EX: Amusement Park Ride

	child	Adult
Like	55	28
dislike	17	30

a  $P(\text{Liked}) = \frac{83}{130} = .638$

b  $P(\text{chd \& dislike}) = \frac{17}{130} = .131$

c.  $P(\text{Adt \& dislike}) = \frac{75}{130} = .577$

EXPERIMENTAL