

How Would we use Experiments to Answer these Questions?

- Does College Graduation Increase Income?
- Are High Income Individuals Happier?

Alternatives to Experiments and Natural Experiments

- _____ Involving a
 - How Many Drinks does the Average A&M Student Have Each Weekend?
- _____ Involving 2 or more
 - Do Men or Women Drink More?

_____ Statistics (____-Variable)

Mean (_____)

What is the _____ Age of the Students in This Class?

_____ (_____)

An Equal Number

_____ (_____)

What is the _____ Age of Students in This Class?

_____ Statistics

What are the _____ of
each set of numbers?

2
3
4
4
5
5
5
6
6
7
8

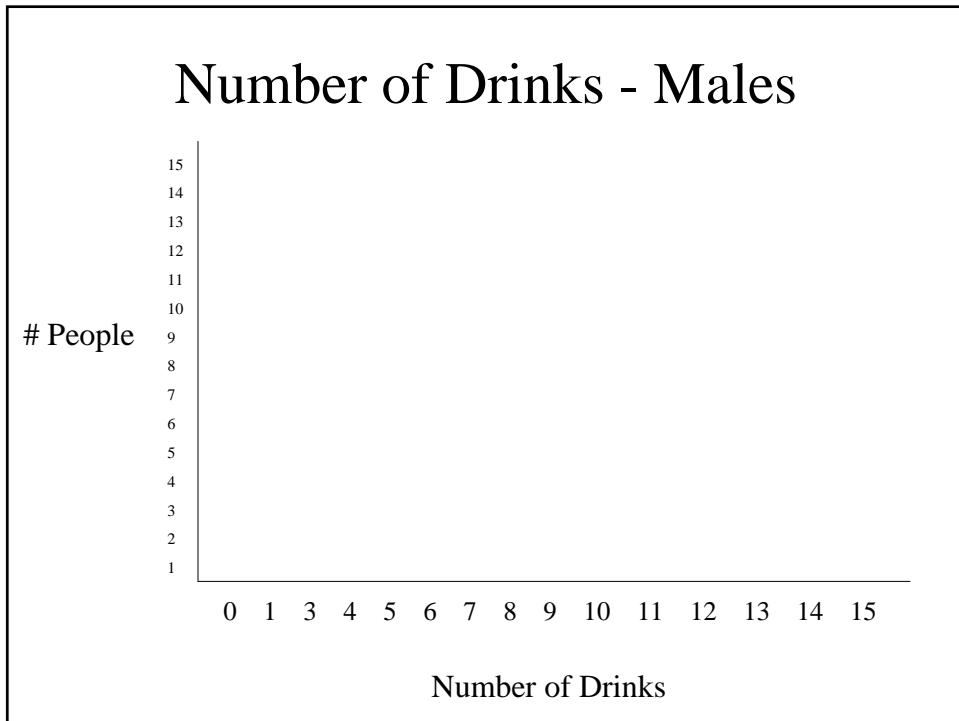
1
3
3
4
4
5
5
6
6
6

What is a _____?

A _____ Provides More Information
than the _____
(still a _____ statistic)

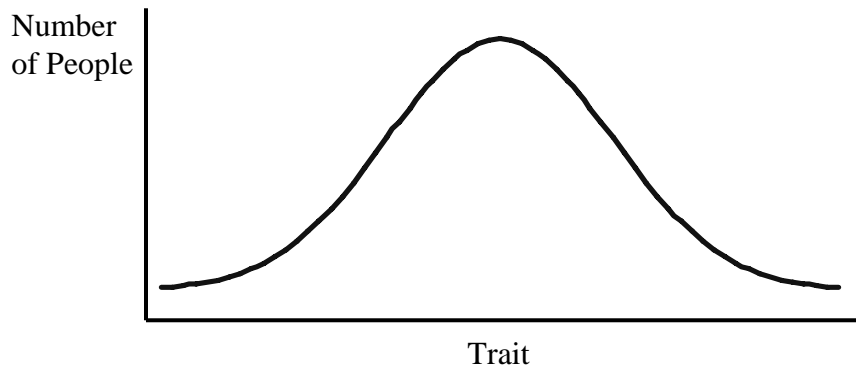
	Number of Drinks
Person 1	10
Person 2	8
Person 3	6
Person 4	12
Person 5	9
Person 6	3
Person 7	5
Person 8	0
Person 9	9
Person 10	6
Person 11	11
Person 12	9
Person 13	7
Person 14	15
Person 15	11
Person 16	8
Person 17	13
Person 18	3
Person 19	7

Number of Drinks	Number of Men
0	1
1	1
2	0
3	6
4	3
5	6
6	12
7	10
8	15
9	12
10	9
11	13
12	5
13	4
14	1
15	2
16	0



_____ Curve

Many (Most?) Characteristics of Individuals, Groups, and Communities Have a _____ Distribution

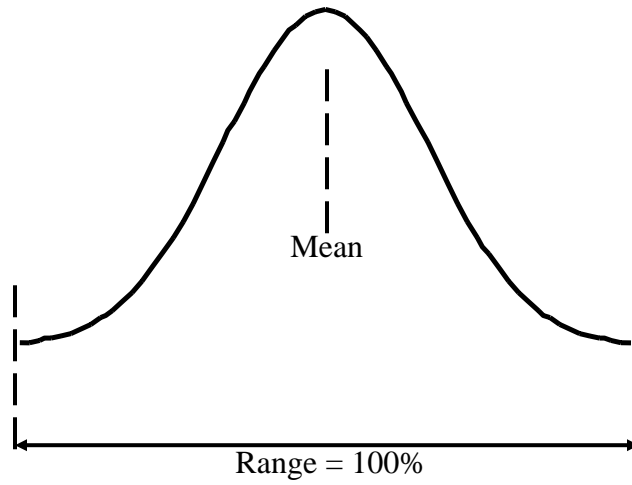


Parameters of a

Central Tendency –

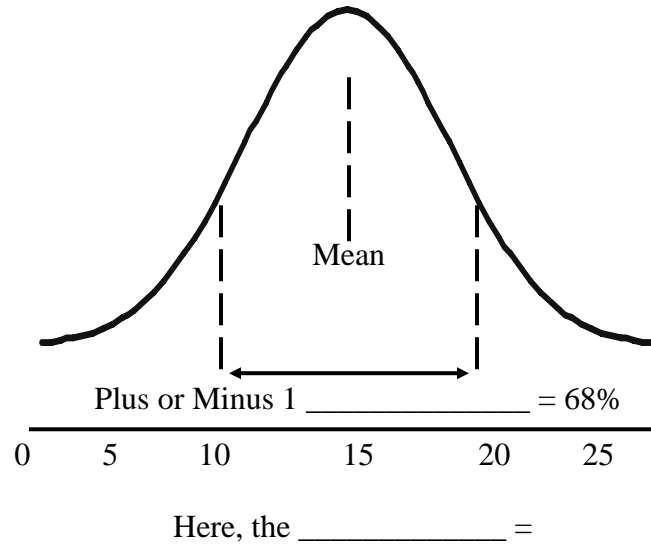
Dispersion – (also Range)

Range and Mean



The Range is not as Useful as the _____
because it is Greatly Affected by

Range and _____



Range and _____

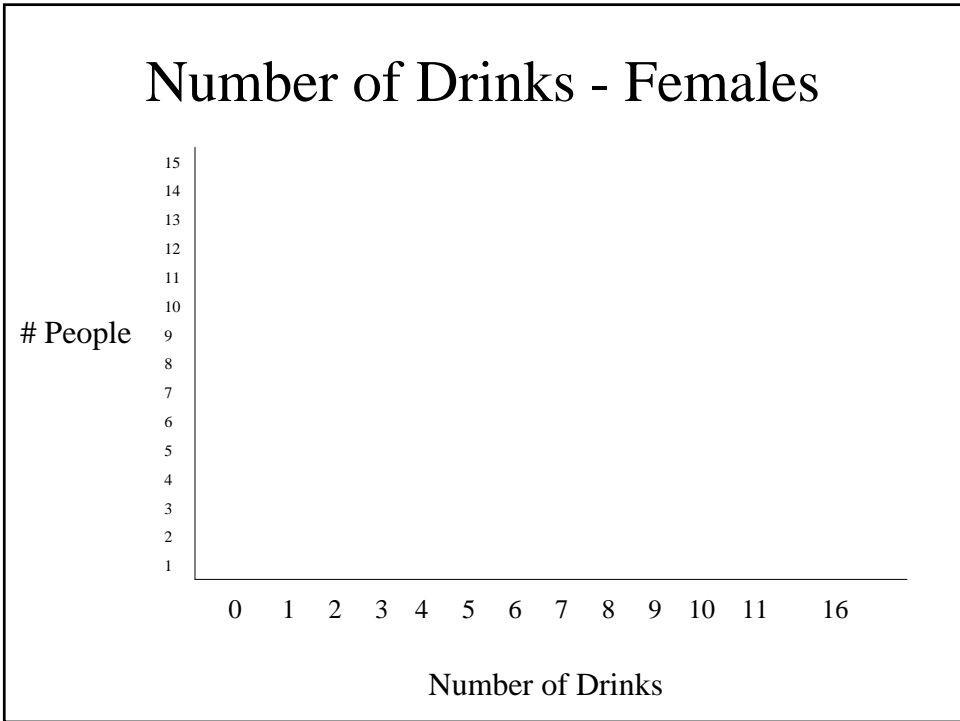


Adding a Second Measure/Variable

Introduction to _____ Statistics
(2 measures/variables)

Males	Females
10	5
8	2
6	8
12	9
9	7
3	3
5	3
0	1
9	3
6	6
11	5
9	6
7	4
15	5
11	4
8	5
13	7
3	9
7	16

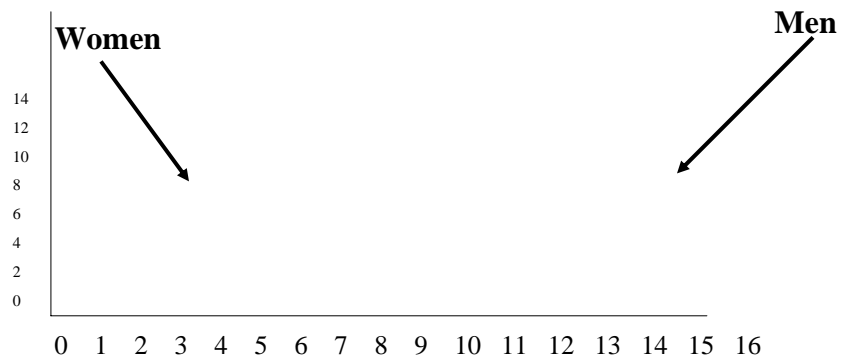
Number of Drinks	Number of People	
	Male	Female
0	1	1
1	1	3
2	0	11
3	6	12
4	3	11
5	6	18
6	12	14
7	10	16
8	15	5
9	12	3
10	9	2
11	13	3
12	5	0
13	4	0
14	1	0
15	2	0
16	0	1



Group Differences in Behavior Usually Look Like This



But People Often Think They Look Like This



What are the Conclusions of this Simple Example?

(In general)(on average)(there is a trend such that)

But there is _____ in drinking among both men and women

Not all men drink _____

Generalization Example: Education and Income

College Graduates

Education and Income

Example of an _____

Bill Gates (President of Microsoft and Richest Man in the US) _____

Generalizations vs. Stereotypes

Generalizations	Stereotypes

Generalizations and Stereotypes

Generalization:

10% of Young Adults

Or –

Young adults

Stereotype:

Young People Today