

## How Would we use Experiments to Answer these Questions?

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

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## 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?

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## \_\_\_\_\_ 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?

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\_\_\_\_\_ Statistics

What are the \_\_\_\_\_ of each set of numbers?

2	1
3	3
4	3
4	4
5	4
5	5
5	5
6	6
6	6
7	6
8	

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What is a \_\_\_\_\_?

A \_\_\_\_\_ Provides More Information than the \_\_\_\_\_ (still a \_\_\_\_\_ statistic)

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	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

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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

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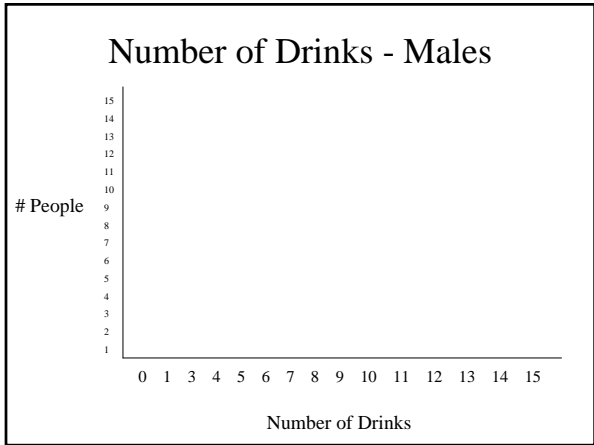
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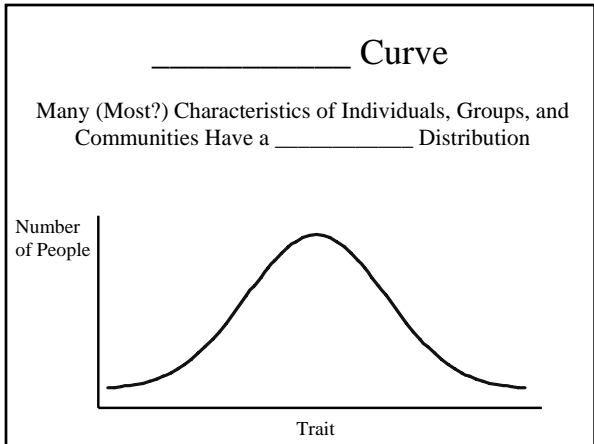
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## Parameters of a

Central Tendency –

Dispersion – (also Range)

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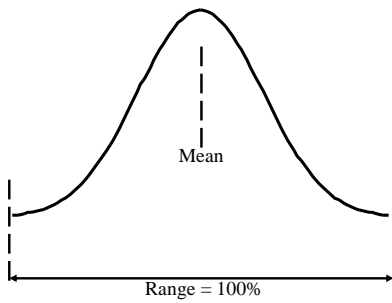
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## Range and Mean



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\_\_\_\_\_

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

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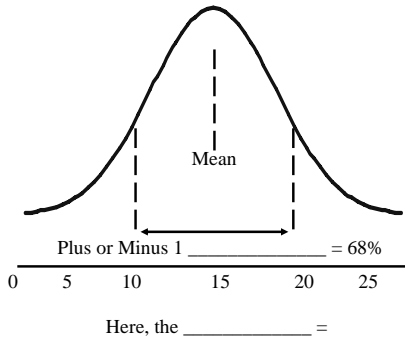
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Range and \_\_\_\_\_



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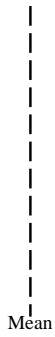
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Range and \_\_\_\_\_



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### Adding a Second Measure/Variable

Introduction to \_\_\_\_\_ Statistics  
(2 measures/variables)

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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

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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

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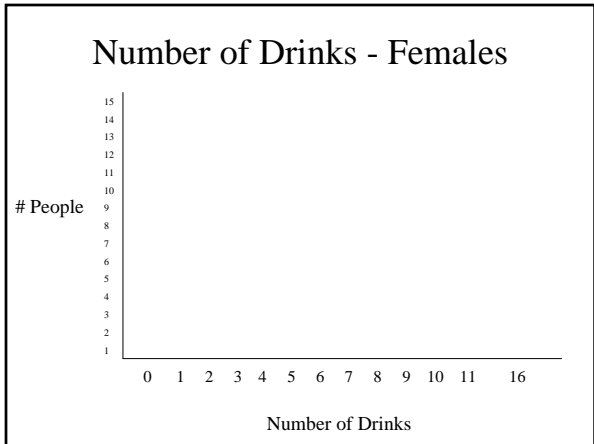
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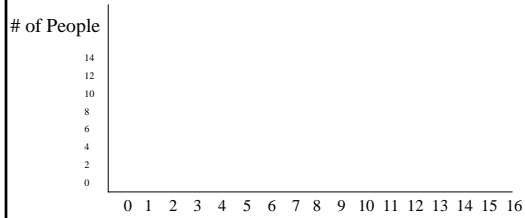
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## Group Differences in Behavior Usually Look Like This



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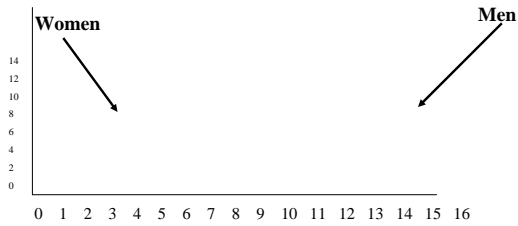
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## But People Often Think They Look Like This



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## 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 \_\_\_\_\_

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Generalization Example:  
Education and Income

College Graduates  
\_\_\_\_\_

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Education and Income

Example of an \_\_\_\_\_

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

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Generalizations vs. Stereotypes

Generalizations	Stereotypes

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## Generalizations and Stereotypes

**Generalization:**

10% of Young Adults

Or –

Young adults

**Stereotype:**

Young People Today

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