

**What am I learning today?**

**Main Ideas/ Questions**

Biased Sampling Review

**Notes**

**Read each scenario and determine if the results would be bias.**

**Population:** STAT 1010

**Sample:** All students in the last 3 rows

**Response:** GPA

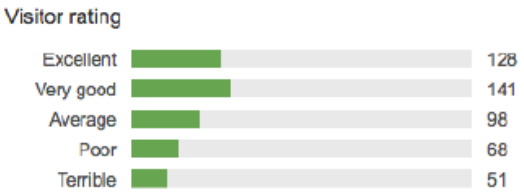


**Population:** All users of a hotel

**Sample:** Users who took the time to post a review

**Response:** Hotel quality

TripAdvisor Reviewer Highlights



Types of Sampling

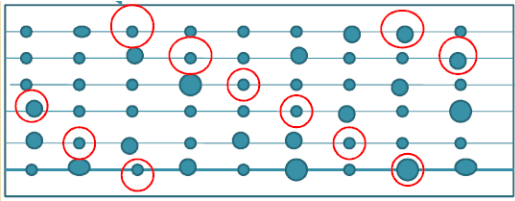
**How do we reduce bias in our data?**

\_\_\_\_\_ SAMPLING!!

**Simple Random Sample (SRS)** – Consists of individuals from a population chosen in such a way that every individual has an \_\_\_\_\_ chance to be selected. You can use a Random Number Table or a calculator to generate random numbers to select from a population.



**Systematic Random Sample** – Consists of individuals from a population chosen by starting at a \_\_\_\_\_ point and using a \_\_\_\_\_ periodic interval (i.e every 5 people)

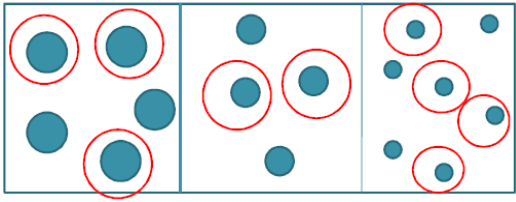


**Main Ideas/  
Questions**

Types of  
Sampling (Cont.)

**Notes**

**Stratified Random Sample** – Consists of individuals from a population that is based on the members' \_\_\_\_\_ attributes or characteristics (i.e boys & girls)



**Table of Random Digits**

|               |                |
|---------------|----------------|
| Alabama       | Montana**      |
| Alaska**      | Nebraska**     |
| Arizona**     | Nevada**       |
| Arkansas**    | New Hampshire  |
| California**  | New Jersey     |
| Colorado**    | New Mexico**   |
| Connecticut   | New York       |
| Delaware      | North Carolina |
| Florida       | North Dakota** |
| Georgia       | Ohio           |
| Hawaii**      | Oklahoma**     |
| Idaho**       | Oregon**       |
| Illinois      | Pennsylvania   |
| Indiana       | Rhode Island   |
| Iowa**        | South Carolina |
| Kansas**      | South Dakota** |
| Kentucky      | Tennessee      |
| Louisiana**   | Texas**        |
| Maine         | Utah**         |
| Maryland      | Vermont        |
| Massachusetts | Virginia       |
| Michigan      | Washington**   |
| Minnesota**   | West Virginia  |
| Mississippi   | Wisconsin      |
| Missouri**    | Wyoming**      |

1. We use random lines using the Table B. If they don't give you a line to use, you can use ANY line.
  2. Label your population – assign a number to represent each individual.
- EXAMPLE:**
- 5 individuals – use single digits, only use numbers 1-5**
- 25 individuals – use double digits, only use numbers 01-25**
- 138 individuals – use triple digits, only use numbers 001-138**
3. You must SKIP numbers that don't represent an individual and numbers that have already been used.

**Example:**

There has been much talk about teenagers' use of social media. Teens are exposed more and more to inappropriate content. Should stricter controls be imposed on social media apps that teens use? If each state nominates 1 teen to represent them.

SRS of size 8  
38573 01324 37930 43524 38301 51723

Systematic of size 3 (Use an interval of 4)  
63528 78544

Stratified of size 4 – East/West of the Mississippi River  
Line: \_\_\_\_\_