Section 1.3

Simple Random Sampling

Definitions

- Random Sampling = The process of using chance to select individuals from a population to be included in the sample

Note: If convenience is used to obtain a sample, the results of the survey are meaningless

Four Basic Sampling Techniques

1. Simple Random Sampling
2. Stratified Sampling
3. Systematic Sampling
4. Cluster Sampling

Definition

- A sample of size n from a population of size N is obtained through **simple random sampling** if every possible sample of size n has an equally likely chance of occurring. The sample is then called a **simple random sample**.

Definition

- Sample Without Replacement: an individual who is selected is removed from the population and cannot be chosen again
- Sample With Replacement: a selected individual is placed back into the population and could be chosen a second time.

1. Given the following names, pick three names at random using table 1 in Appendix A (Similar to p.27 #5-15

Frank	David	Bill
Mary	Sherry	Sam
Eric	Michelle	Danielle

1. (continued) Number the names

1. Frank	2. David	3. Bill
4. Mary	5. Sherry	6. Sam
7. Eric	8. Michelle	9. Danielle

TABLE I

Row Number	Random Numbers Column Number 01–05	06–10	11–15	16–20	21–25	26–30
01	89392	23212	74483	36590	25956	36544
02	61458	17639	96252	95649	73727	33912
03	11452	74197	81962	48443	90360	26480
04	27575	04429	31308	02241	01698	19191
05	36829	59109	88976	46845	28329	47460
06	81902	93458	42161	26099	09419	89073
07	59761	55212	33360	68751	86737	79743
08	46827	25906	64708	20307	78423	15910
09	24040	66449	32353	83668	13874	86741
10	98144	96372	50277	15571	82261	66628
11	14228	17930	30118	00438	49666	65189
12	55366	51057	90065	14791	62426	02957
13	96101	30646	35526	90389	73634	79304
14	38152	55474	30153	26525	83647	31988
15	85007	18416	24661	95581	45868	15662

1. (continued) Answers

- Michelle
- Sherry
- Sam