Sampling Strategies Supplemental Handout

Probability Sampling: Simple Random Sampling, Systematic Sampling, Stratified Sampling, Cluster Sampling
Non-Probability Sampling: Availability (convenience) Sampling, Quote Sampling, Purposive Sampling, Snowball Sampling

Simple Random Sampling

Example of simple random sampling of 10 households from a list of 40 households

We have a list of 40 heads of households. Each has a unique number, 1 through 40. We want to select 10 households randomly from this list. Using a random number table, we select consecutive 2-digit numbers starting from the upper left. If a random number matches a household's number, that household is added to the list of selected households. If a random number does not match a household's number (for example, if it is greater than 40), then it does not select a household. After each random number is used, it is crossed out so that it is never used again. We continue to select households until we have 10.

Heads of households

1	Iwais M	21	Awalum E
2	Teiaba C	22	Douna B
3	Marau G	23	Guba V
4	Aaron L	24	Posou P
5	Oksen V	25	Huape H
6	Pinpin B	26	Makaen J
7	Mabong P	27	Veia D
8	Ngatia T	28	Hainapa B
9	Gunure N	29	Narakine G
10	Agua C	30	Haung E
11	Mogina W	31	Tito M
12	Aulakua W	32	Pasi N
13	Wasoraba C	33	Kapua K
14	Zonggonau M	34	Tulia R
15	Tobena M	35	Koddy F
16	Mabong F	36	Tulia E
17	Yaman H	37	Tripp K
18	Bagita J	38	Bowen B
19	Baria M	39	Temple V
20	Harekin J	40	Bowen B

Random number table

~~3647~~	~~2352~~	~~6959~~	~~1937~~	~~2554~~	~~6804~~	~~9898~~	~~4316~~
~~4318~~	~~2346~~	~~7276~~	~~4880~~	~~7436~~	~~9603~~	0463	3152
7000	2865	8357	4475	9804	0042	1106	7949
2932	9958	9582	2235	1140	1164	7841	1688
4097	8995	5030	1785	5420	0125	4953	1332
5540	6278	1584	4392	3258	1374	1617	7427
3320	8788	7658	9615	9862	7960	8140	6807
8077	2065	2560	2091	8921	0970	3134	8441

Selected households

1	Tulia E
2	Guba V
3	Baria M
4	Tripp K
5	Huape H
6	Aaron L
7	Mabong F
8	Bagita J
9	Marau G
10	Iwais M

Note that even though the selected households appear somewhat clustered, if the random number table is truly random, the selected households have been randomly selected.

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Systematic Random Sampling

Example of systematic random sampling of 10 households from a list of 40 households

We first calculate the sampling interval by dividing the total number of households in the population (40) by the number we want in the sample (10). In this case, the sampling is 4. We then select a number between 1 and the sampling interval from the random number table (in this case 3). Household #3 is the first household. We then count down the list starting with household #3 and select each 4th household. For example, the second selected household is 3 + 4, or #7. Note that when you reach the end of the list, you should have selected your desired number of households.

This is what your final selection should look like:

Households

1	Iwais M	21	Awalum E
2	Teiaba C	22	Douna B
3	Marau G	23	Guba V
4	Aaron L	24	Posou P
5	Oksen V	25	Huape H
6	Pinpin B	26	Makaen J
7	Mabong P	27	Veia D
8	Ngatia T	28	Hainapa B
9	Gunure N	29	Narakine G
10	Agua C	30	Haung E
11	Mogina W	31	Tito M
12	Aulakua W	32	Pasi N
13	Wasoraba C	33	Kapua K
14	Zonggonau M	34	Tufa R
15	Tobena M	35	Koddy F
16	Mabong F	36	Tufa E
17	Yaman H	37	Tripp K
18	Bagita J	38	Bowen B
19	Baria M	39	Temple V
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Random number table

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Selected households

1	Marau G
2	Mabong P
3	Mogin W
4	Tobena M
5	Baria M
6	Guba V
7	Veia D
8	Tito M
9	Koddy F
10	Temple V

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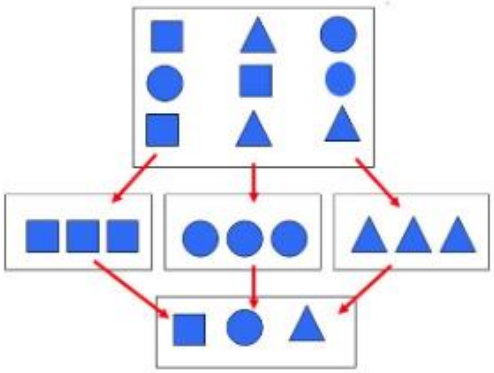
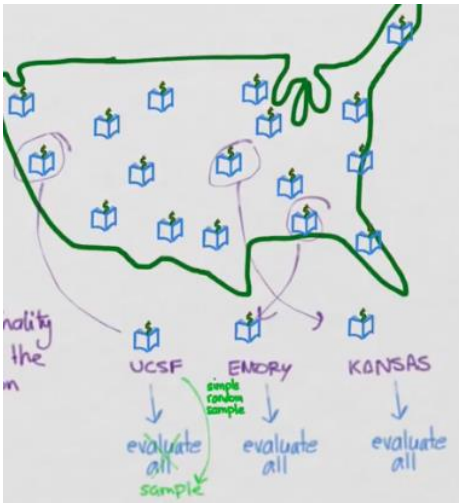
Stratified Sampling

With stratified sampling, rather than selecting a sample from the total population at large, we ensure that appropriate numbers of elements are drawn randomly from homogeneous subsets of that population



Cluster Sampling

Cluster sampling: A multistage sampling procedure that starts by sampling groups (clusters) of elements in the population and then subsampling individual members of each selected group afterward.



Quota Sampling Matrix

Main Sampling Criteria	**Quotas** **(Of your 20 interviews, you will interview)**
(A) Labor market history	10 parents who have never worked 10 parents who worked prior to children
(B) Education	10 parents who left school at or before 16 10 who left school at 17+
(C) Age of youngest child	At least 6 parents whose youngest child is under 6 At least 6 parents whose youngest child is 6-10 At least 6 parents whose youngest child is 11+

Snowball Sampling