Figure 1: Simple Random Sampling
95\% Confidence Intervals p=. 2


Figure 2: Simple Random Sampling 95\% Confidence Intervals $\mathrm{n}=500$


Figure 3: Simple Random Sampling
95\% Confidence Intervals $\mathrm{n}=100$


Figure 4: Repeated Simple Random Sampling
Variability Plots $P=.2$


|  | 1 | 1 | 1 | 1 | 500 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | 100 | 200 | 300 | 400 | 500 |
|  |  |  |  |  |  |
|  | Sample Size |  |  |  |  |

Figure 5: Repeated Simple Random Sampling from Finite Population Variability Plots $\mathrm{n}=500 \mathrm{P}=.2$


| $\Gamma$ | 1 | 1 | 80 |
| :--- | :--- | ---: | :--- |
| 0 | 25 | 50 | 80 |
|  |  |  |  |
|  | Sampling Fraction Percent |  |  |

Figure 6: Repeated Weighted Sampling
Variability Plots 50\% Sample Fraction P = . 2


|  | 1 | 1 | 1 | 1 | 500 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | 100 | 200 | 300 | 400 | 500 |
|  |  |  |  |  |  |
|  |  | Sample Size |  |  |  |

Figure 7a: Population Distribution $\mathbf{N}=100$
for sampling proportional to degree


Figure 7b: Population Distribution N = 200 for sampling proportional to degree


Figure 7c: Population Distribution $N=400$
for sampling proportional to degree


Figure 7d: Population Distribution $\mathbf{N}=600$ for sampling proportional to degree


Figure 7e: Population Distribution $\mathbf{N = 8 0 0}$
for sampling proportional to degree


Figure 7f: Population Distribution N = 1000 for sampling proportional to degree


$$
50 \% \text { Sample Fraction } P=.2
$$



Figure 9a: Cluster Sampling 95\% CI Plots
100 Samples 25\% Sample Fraction P = . 2
Cluster probabilities $0.10,0.11, \ldots, .19, .21, .22, \ldots, .30$


Figure 9b: Cluster Sampling 95\% CI Plots
100 Samples 25\% Sample Fraction P = . 2
Cluster probabilities 10 with .10 , 10 with .30


Figure 10: Sampling Method Comparison
Variability Plots $\mathrm{N}=2000 \mathrm{n}=500 \mathrm{P}=.2$



Type of Sampling

