**Obervational Statistics Formulas**

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| **Sample Size Estimation** | **Sample size estimation 'double check'**  n = |
| **Simple Random Sample**  vars () = (1 – f) \* s2 / n  95% Confidence Interval:  sd () + 1.96 x | **Coefficient of Variation**  95% Confidence Interval: |
| **Sample Size Estimation for Proportions**  ***For Differences*:**  n = | **Sample Size Estimation for Proportions**  ***For Relative Differences*:**  n = |
| **Variance of Weighted Samples**  Step 1:  Step 2: Calculate '*n.tilde*':  {Used throughout}  Step 2: Calculate 'w star i':  Step 3: Calculate:  Step 4: Calculate: | **Fisher's Exact Test**  P**cutoff** =   |  |  |  | | --- | --- | --- | | A1,1 | A1,2 | R1 | | A2,1 | A2,2 | R2 | | C1 | C2 | N | |
| **Variance of Population Proportions & 95% C.I.**  var (p) = :  p + 1.96 x |