H_0 :
H_a :
H_0 :
$p_1 =$
p_2
H_a :
$p_1 <$
p_2
t
$np, nq \geq$
5
population distribution
sampling distribution
$_{binom}(x >$
$10) \approx$
$_{binom}(x =$
$8) \approx$
$P_{norm}(x >$
$10.5)$
F
H_0 :
$\mu =$
5
H_a :
$\mu >$
5
$t =$
2.2
$n =$
15
t

$$P(z > 2.2) = 1 - F(2.2, df = n - 1)$$

short succinct standard deviation, interquartile range, range
Q_3
in words
$p =$
50
$p =$
5000
$n/N \leq$
0.05
$^{50}approx.asindep$
$=$
$1 -$
$(1 -$
$15/5000)^{50}$
$=$
0.139
n
$\hat{p}\hat{q}\left(\frac{z_{\alpha/2}}{E}\right)^2,$
$(\hat{p} =$
$\hat{q} =$
0.5
$2 >$
n

$$P(4 females) = \frac{8}{28} \cdot \frac{7}{27} \cdot \frac{6}{26} \cdot \frac{5}{25} = 0.00342$$

H_0
H_0
H_0
p
α
H_0
H_a
H_0 :
$\mu_1 =$
μ_2
H_a :
$\mu_1 <$

$(-0.00797)\cdot$
$(weight)$
$\hat{y}$
Assume σ is unknown.
E
$\bar{x}\pm$
E
$\bar{\bar{x}}\pm$
$t_{\alpha/2}\frac{s}{\sqrt{n}}$
$90.2\pm$
2.03
$(88.2, 92.3)$
$\bar{\bar{x}}_{95}\cdot$
n
$\bar{x}_{95}$
sampling distribution
$\bar{x}$

$P(x >$
6.1)
$P(\bar{x} >$
6.1)
$\bar{y} =$
$\{a, -2a, 4a\}$
a
$(\sum y_i)^2 -$
2
$9a^2 -$
2