

Statistics – OR 155, Section 1, Homework # 5

Due: Thursday, February 19, 2007

C 14: Answer from both gray-level and yes-no viewpoints:

- (a) A TV ad claims that less than 40% of people prefer Brand X. Suppose 7 out of 10 randomly selected people prefer Brand X. Should we dispute the claim? (p-value = 0.0548)
- (b) 80% of the sheet metal we buy from supplier A meets our specs. Supplier B sends us 12 shipments, and 11 meet our specs. Is it safe to say the quality of B is higher? (p-value = 0.275)
- (c) A TV ad claims that 30% of people prefer Brand X. Should we dispute this claim if a random sample of 10 people show:
 - i. 2 people who prefer Brand X (p-val = 0.733)
 - ii. 3 people who prefer Brand X (p-val = 1)
 - iii. 6 people who prefer Brand X (p-val = 0.076)
 - iv. 10 people who prefer Brand X (p-val = 5.9e-6)
- (d) A manager asks 12 workers, of whom 7 say they are satisfied with working conditions. Does this contradict the CEO's claim that $\frac{3}{4}$ of the workers are satisfied? (p-val = 0.316)

8.22a, ignore "z statistic" (p-val = 0.0083)

8.29a, ignore "sketch ..." (p-val = 0.184)