

Table 1. Classical Versus Bayesian Economic Plan.

| Factor | Classical Plan | | Bayesian Plan (Not Economic) | | B: |
|------------|-------------------------------------|------------------------------|--|--|--|
| | Attribute | Variable | Attribute | Variable | Attribute |
| Parameters | α, β, c, s AOQ, ATI | α, β, X, L, U | $\alpha, \beta, c, s, \sigma_\mu^2$ p Has Known Distribution | $\alpha, \beta, X, L, U, \sigma_\mu^2$ μ Has Known Distribution And $x, f(x \mu)$ | $\alpha, \beta, c, s, \sigma_\mu^2,$ Cost Param $\omega(p)$ Assum |
| Compute | p' | p' | $E(p x), E(p \mu),$ $E(p \bar{x})$ | $E(p x), E(p \mu),$ $E(p \bar{x})$ | $E(p x), E(p \mu)$ $E(p \bar{x})$ |
| Decision | If $s < c$ Accept Lot | If $L < x < U$ Accept Lot | $E(p x), E(p \mu),$ $E(p \bar{x})$ Control Limits | $E(p x), E(p \mu),$ $E(p \bar{x})$ Control Limits | $E(p x), E(p \mu)$ $E(p \bar{x})$ Estimated For Each Decision To Dispose L |

α = Producer's Risk β = Consumer's Risk s = Sample Size c = Acceptance
 X = Quality Characteristic L = Lower Control Limit U = Upper Control Limit
 AOQ = Average Outgoing Quality ATI = Average Total Inspection p' = Fraction