

R package for statistical auditing

JASP for Audit (jfa) is a multi-functional R package for statistical auditing. The package provides the user with four generic functions for planning, performing, and evaluating an audit and its results. Specifically, it contains functions for calculating sample sizes for substantive testing, sampling from data according to standard auditing techniques, and calculating various confidence bounds for the maximum error from data or summary statistics. The package also allows the user to create a Bayesian prior distribution for use in these functions. The jfa package can be used to set up the entire audit sampling workflow.

Prior specification

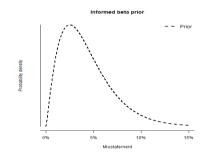
• Function: auditPrior()

jfa prior distribution for arm method:

Dr.i

Prior sample size: 51
Prior errors: 1.27

Prior: beta(2.275, 50.725) # Sample size:



Planning

• Function: planning()

jfa planning results for beta prior

with binomial likelihood:

#

Materiality: 5%
Confidence: 95%
Sample size: 169
Allowed sample errors: 4.23
Prior parameter alpha: 2.275
Prior parameter beta: 50.725

Selection

Function: sampling()

jfa sampling results for random

monetary unit sampling:

#

Population size: 1000
Sample size: 169
Proportion n/N: 0.169
Percentage of value: 16.84%

Evaluation

• Function: evaluation()

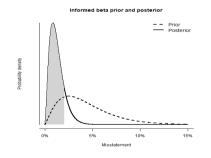
jfa evaluation results for binomial

likelihood with prior:

#

Materiality: 5%
Confidence: 95%
Upper bound: 2.729%
Sample size: 169
Sample errors: 1

Conclusion: Approve population



jfa's Audit Workflow

