

Hypothesis Test Conclusion Table

	Reject Ho or Fail to reject Ho?	Conclusion if Claim is Null Hypothesis (Ho)	Conclusion if Claim is Alternative Hypothesis (Ha)	What does it tell us?
HIGH P-VALUE + GOOD DATA (P-value higher than the significance level AND data DOES meet the conditions / assumptions for the hypothesis test and is relatively unbiased.)	Fail to Reject Ho	There is NOT significant evidence to REJECT the claim that ...	There is NOT significant evidence to SUPPORT the claim that...	Unbiased good sample data does NOT significantly disagree with the null hypothesis and so cannot support the alternative hypothesis.
HIGH P-VALUE + BAD DATA (P-value higher than significance level BUT the data does NOT meet the conditions / assumptions for the hypothesis test OR has other sources of bias.)	Fail to Reject Ho	There is NOT significant evidence to REJECT the claim that ...	There is NOT significant evidence to SUPPORT the claim that...	Bad biased sample data does NOT significantly disagree with null hypothesis. P-values calculated from bad biased data should not be taken as evidence to make decisions about a population claim.
LOW P-VALUE + GOOD DATA (Low P-value AND data DOES meet the conditions / assumptions for the hypothesis test and is relatively unbiased.)	Reject Ho	There IS significant evidence to REJECT the claim that...	There IS significant evidence to SUPPORT the claim that...	Unbiased good sample data significantly disagrees with the null hypothesis and supports the alternative hypothesis.
LOW P-VALUE + BAD DATA (P-value lower than significance level BUT the data does NOT meet the conditions / assumptions for the hypothesis test OR has other sources of bias.)	Fail to Reject Ho	There is NOT significant evidence to REJECT the claim that ...	There is NOT significant evidence to SUPPORT the claim that...	Bad biased sample data significantly disagrees with null hypothesis. P-values calculated from bad biased data should not be taken as evidence to make decisions about a population claim.