Biostatistics - Homework 0

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1. Test whether there is a significant difference in IQ between the "high" and "low" lead level groups.

a. Let μ_{high} and μ_{low} be the average IQ score for all childern with high and low lead exposure respectively. $H_0 : \mu_{high} = \mu_{low}$ vs. $H_A : \mu_{high} \neq \mu_{low}$

b. I performed a two-sample independent t-test with pooled variance.

c. Test statistic: -1.71

d. p-value: 0.0925

e. Conclusion in context: Since our p-value is > 0.05, we fail to reject H_0. In context, this means that we do not have evidence of a significant difference between the mean IQ scores for children with a high or low lead exposure.

2. SAS code:

/* Generated Code (IMPORT) *//* Source File: LeadExposure.csv */ /* Source Path: /home/mattisaac0/BioStatistics */