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HW 11

3/31/15

"faithful" dataset

"state.x77" head(state.x77)

help(state.x77)

Data:

State.x77 (pre-loaded in R)

Research Question:

Is high school graduation rate a good predictor of dichotomized income?

per capita 1977 income  $\rightarrow$  \$5,750

set D.Income =  $\begin{cases} 1 & \text{if Income} > 5,750 \\ 0 & \text{if Income} < 5,750 \end{cases}$

Address this research question with a Logistic Regression Analysis:

• Using HW#9 techniques (Bayesian Inference and plots)

• Using SAS (built-in)

• Using R (built-in)

-summary(glm(Y~X, family=binomial))

• SAS questions

Analysis:

• hist. of marginal posterior of beta

• where does zero fall relative to hist.

-fail to reject null if zero is "in" hist