

# EPPS 6313 : Recitation Session #6

## Problem 1

$H_0$  : Dog ownership and heart attack survival are independent.

Test it.

		survived over 1 year?		
		Yes	No	Total
Owned a Dog?	Yes	50	3	53
	No	28	11	39
Total		78	14	92

# EPPS 6316 : Recitation Session #6

## Problem 1

Considering the following model

$$Y_i = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + u_i$$

The result from an OLS regression is as follows ;

$$Y_i = 0.034 + 0.164x_1 - 0.265x_2 + 0.765x_3 + 1.116x_4 + u_i$$

(0.054) (0.066) (0.111) (0.337) (0.421)

Numbers in the parentheses are standard errors for coefficients.

RSS = 0.1658,  $R^2 = 0.425$ , N = 64

(1) Test the hypothesis  $\beta_1 = 0$

(2) Test the hypothesis that all coefficients are equal to zero.

(3) The restricted model has two restrictions ;  $\beta_1 = \beta_4 + 1$ ,  $\beta_3 = -3\beta_2$ . The RSS from the restriction model is 0.1889. Test the validity of the restrictions.