MC	-Insuers
1, D	
2, B	
3, A 4, C	
5. A	
6. D	
7. C 8. D	
9. D	
10, A	
11.B	
12.D	

	,

$$5.1) \overline{X} = 3 + 4 + 6 = 4.\overline{3}$$

$$\overline{Y} = 3 + 3 + 4 = 3$$

$$\overline{3}$$

$$A_{1} = (3-4.\overline{3})(2-3) + (4-4.\overline{3})(3-3) + (6-4.\overline{3})(4-3)$$

$$(3-4.\overline{3})^{2} + (4-4.\overline{3})^{2} + (6-4.\overline{3})^{2}$$

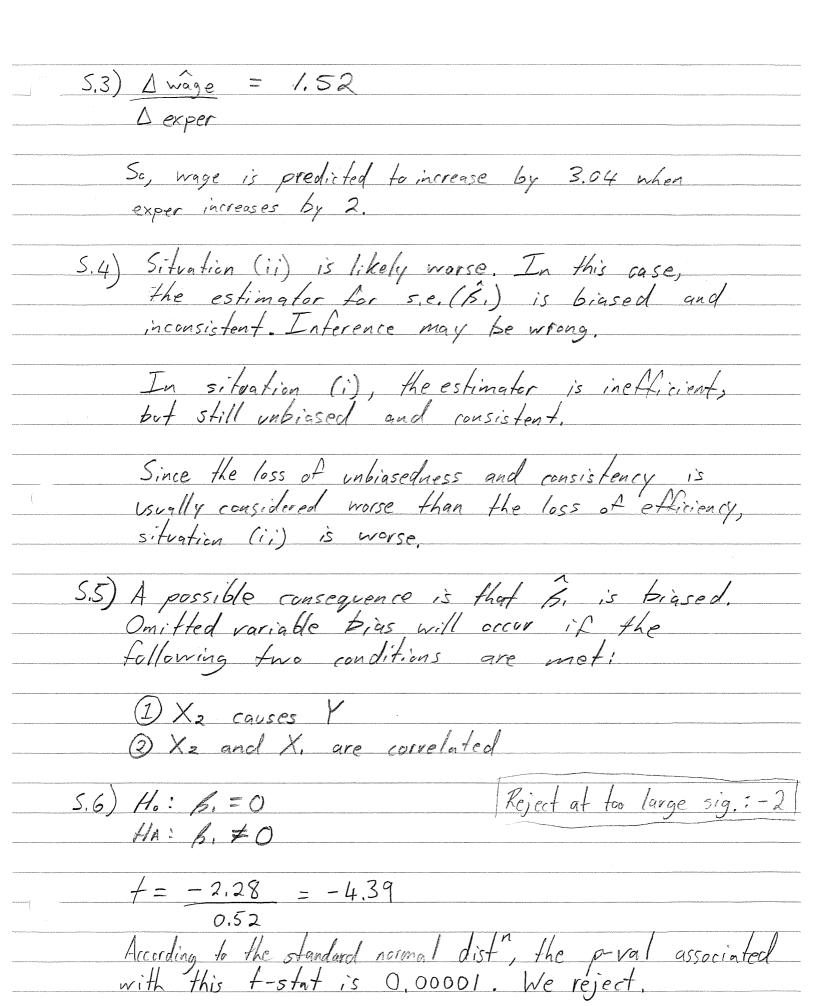
$$= \frac{1.\overline{3} + 1.\overline{6}}{1.\overline{7} + 0.\overline{1} + 2.\overline{7}} = \frac{3}{4.\overline{6}} = 0.64$$

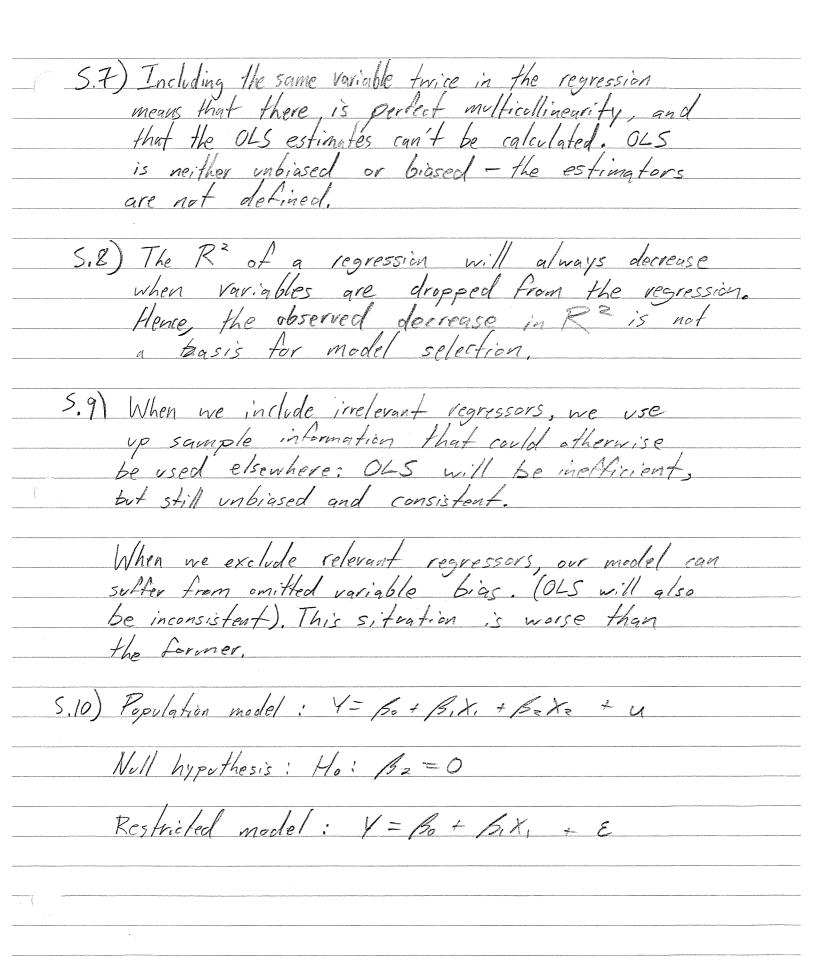
$$S.2)$$
 $\hat{\beta_0} = \bar{Y} - \hat{\beta_1} \bar{X} = 3 - 0.64(4.3) = 0.21$

$$\hat{U}_1 = 2 - (0.21 + 0.64(3)) = -0.14
\hat{U}_2 = 3 - (0.21 + 0.64(4)) = 0.21
\hat{U}_3 = 4 - (0.21 + 0.64(6)) = -0.07$$

$$S_{0}$$
, S_{0} $S_{$

$$S_0$$
, $R^2 = 1 - 0.06 \approx 0.97$





Lana	answer

a) It does not. The intercept would be the earnings of an individual with age = 0. This is clearly outside the range of the data, and doesn't make sense theoretically.

b) The estimated effect is 0.44.

The 95% confidence interval is:

 $0.44 \pm 1.96(0.03) = 0.38, 0.50$

c) When an estimate changes significantly from model to model, there is evidence of O.V.B.

We can test whether or not the change from (1) to (2) is significant:

Ho: p, = 6.86

HA: B, 7 6.86

f = 6.49 - 6.86 = -2.05

We reject the null at 5%. significance (we suspect model

(1) is suffering from O.V.B.).

d) In both of the models in which age is included, the estimated coefficient is statistically significant at the 11. level. We reject the mill of linearity.

(1-0.1898) / (7985-3-1)

