

HW6

8.8, 8.14, 8.20, 8.42, 8.46, 10.12 (ex10_011.xls), 10.18,
10.22, 11.14 (ta11_003.xls), 11.22 (ta02_001.xls),
11.45, 11.46 (ex11_045.xls), 11.70

8.8 a) $\tilde{p} = 0.1932$. b) (0.124, 0.2624).

8.14 (0.186, 0.2016).

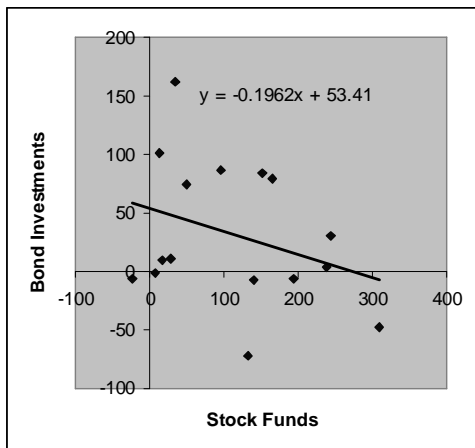
8.20 $n = 1048$.

8.42 a) $H_0: p_1 = p_2$ $H_a: p_1 \neq p_2$, $z = 5.07$, P-value ≈ 0 . This data provides strong evidence that the proportion of men college students employed during the summer is greater than women college students employed during the summer. b) (0.0443, 0.1369). Yes, this difference has practical importance. A difference of 4% can translate into hundreds of unemployed women from a large campus.

8.46 $H_0: p_1 = p_2$ $H_a: p_1 \neq p_2$, $z = 5.22$, P-value = 0. Based on this P-value there is gender bias.

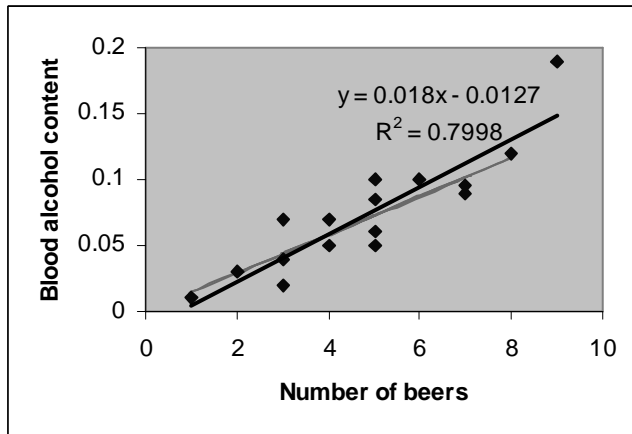
10.12 a) The large sample size almost guarantees that there will be a statistically significant result.
b) (771, 1013). c) (732, 1052).

10.18 a)



The data suggest a negative linear relationship between stock funds and bond investments. b) $H_0: \beta_1 = 0$ $H_a: \beta_1 < 0$, $t = -1.27$, P-value = 0.113. Conclude that there is not enough evidence to say that the slope is less than zero. c) The scatterplot does not show any kind of relationship between the two variables.

10.22 a) $r^2 = 0.7998$. The data show a strong positive linear relationship.



b) $H_0: \beta_1 = 0$ $H_a: \beta_1 > 0$, $t = 7.48$, $P\text{-value} < 0.0001$. Conclude that drinking more beers increases blood alcohol on the average.