4.11 (i) In columns (2) and (3), the coefficient on profmarg is actually negative, although its t statistic is only about \(-1\). It appears that, once firm sales and market value have been controlled for, profit margin has no effect on CEO salary.

(ii) We use column (3), which controls for the most factors affecting salary. The t statistic on log(mkrval) is about 2.05, which is just significant at the 5% level against a two-sided alternative. (We can use the standard normal critical value, 1.96.) So log(mkrval) is statistically significant. Because the coefficient is an elasticity, a ceteris paribus 10% increase in market value is predicted to increase salary by 1%. This is not a huge effect, but it is not negligible, either.

(iii) These variables are individually significant at low significance levels, with \(t_{conten} \approx 3.11\) and \(t_{conten} \approx -2.79\). Other factors fixed, another year as CEO with the company increases salary by about 1.71%. On the other hand, another year with the company, but not as CEO, lowers salary by about .92%. This second finding at first seems surprising, but could be related to the “superstar” effect: firms that hire CEOs from outside the company often go after a small pool of highly regarded candidates, and salaries of these people are bid up. More non-CEO years with a company makes it less likely the person was hired as an outside superstar.

4.19 (i) There are 2,017 single people in the sample of 9,275.

(ii) The estimated equation is

\[
\hat{netfa} = -43.04 + .799 \, inc + .843 \, age
\]

\[
(4.08) \quad (.060) \quad (.092)
\]

\[n = 2,017, \quad R^2 = .119.\]

The coefficient on inc indicates that one more dollar in income (holding age fixed) is reflected in about 80 more cents in predicted netfa; no surprise there. The coefficient on age means that, holding income fixed, if a person gets another year older, his/her netfa is predicted to increase by about $843. (Remember, netfa is in thousands of dollars.) Again, this is not surprising.

(iii) The intercept is not very interesting, as it gives the predicted netfa for inc = 0 and age = 0. Clearly, there is no one with even close to these values in the relevant population.

(iv) The t statistic is \((.843 - 1)/.092 \approx -1.71\). Against the one-sided alternative \(H_1: \beta_2 < 1\), the p-value is about .044. Therefore, we can reject \(H_0: \beta_2 = 1\) at the 5% significance level (against the one-sided alternative).

(v) The slope coefficient on inc in the simple regression is about .821, which is not very different from the .799 obtained in part (ii). As it turns out, the correlation between inc and age in the sample of single people is only about .039, which helps explain why the simple and multiple regression estimates are not very different; refer back to page 79 of the text.