Chapter 5. Econometrics

1. From Figure 5.7, it is clear that even though the relationship is not perfect, greater amounts of OJ T yield higher percentage increases (on average) in both productivity and wages. Thus, one would expect $\alpha_1, \beta_1 > 0$. Moreover, since the percentage increase in productivity is greater than the percentage increase in wages, one would expect $\beta_1 > \alpha_1 > 0$. This is consistent with firms paying at least some of the training costs in the initial period and recouping their costs by paying workers below their marginal product in the second period.

2. In the sub-sample of individuals receiving only specific training, firms do not need to worry about individuals being hired away by rival firms. As a result, these firms can get away with paying for the initial cost of training and recouping its expenditures in subsequent periods by paying workers below their marginal product. Consequently, one would expect $\alpha_1, \beta_1 > 0$ since OJ T increases productivity and increase wages (as depicted in Figure 5.4). However, the increase in productivity will outpace the increase in wages as firms recoup the training costs. Thus, $\beta_1 > \alpha_1 > 0$. In the sub-sample of firms offering only general training, firms will not be able to pay workers below their marginal cost in subsequent periods (rival firms will always find it optimal to steal these workers in such cases). As a result, if firms do offer general training, they do so only if workers pay for it themselves. Consequently, these workers receive wages equal to their productivity in each period. Thus, $\alpha_1, \beta_1 > 0$ since OJ T still increases productivity, but unlike in the specific training case, now one would expect $\alpha_1 = \beta_1$. 