Tutorial 10

1. There are three short articles that discuss incentive schemes at various organisations (linked in Canvas). Read each of the articles and describe why the incentives schemes identified are likely to work well or not.

2. Consider the principal-agent problem we examined in lectures last week. Assume that an individual has a cost of effort function of the following form:

$$C(e) = \begin{cases} 0 & e < 40 \\ (e-40)^2 & e \geq 40 \end{cases}$$

   Interpret.

   Why is what happens at the margin important for understanding the principal-agent problem?

3. Consider a standard principal-agent problem in the context of a computer salesperson. Performance of the salesperson is measured by the number of computers they sell, Q where $Q = e$ (for the moment we will ignore any measurement error associated with the relationship between output and effort).

   Assume that the disutility or cost of effort (e) is given by the following:

$$C(e) = 2e^2$$

   You should assume that the salesperson is risk neutral and so only cares about the expected values of his or her remuneration.

   If the firm is to offer a linear payment contract of the following form to the salesperson:

$$Pay = a + bQ$$

   what is the value of *b, e* and *a*? Note, for the purpose of this question assume that each unit of effort produces an extra \$1 in profit – that is, net revenue from each extra unit of effort equals \$1.

   Interpret your answer.

4. Reconsider the problem described in Question 3. Suppose now that output is an imprecise measure of effort so that:

$$Q = e + \varepsilon$$

What will be the variance of pay now?

If the disutility from riskiness of pay is given by $0.5 \cdot R \cdot \sigma_{pay}^2$ where R is a risk aversion parameter that captures how risk averse the worker is, write out the workers utility maximization problem. Assuming risk neutrality on the part of the worker, how will your answer to question 1 change?