Section Exercise for February 17/18

Local Monopoly: Suppose a small fast-food company faces an upward-sloping supply of workers: that if it offers $7 hour it will get no workers to staff its shifts over a week. And suppose that for each dollar it raises its wage it can attract ten more workers to staff its shifts over a week. It will then sell the products that the workers make at $11/worker-hour.

a) What is the profit-maximizing wage that the fast-food company should set?

This is a monopoly problem in reverse: a monopsony problem, single buyer whose actions control the price rather than a single seller. The marginal cost curve that the fast-food company faces has the same y-axis intercept as the supply curve—$7—and is twice as steep—rises by 20 workers for each $1 it raises the wage. The marginal cost thus reaches the price the company can sell the product for—$11—at 20 workers. It will choose to set its wage at $9

b) How much money do workers earn and how much profits does the company make?

The 20 workers will make $180/week. the company will make $40/week off of their work in profits.

c) Suppose that the state of Euphoria imposes a minimum wage of $10/hour. What will the company do?

With a fixed wage, the marginal cost to the company is the same as the wage it has to pay up to 30 workers. At 30 workers it would have to raise the wage above $10 if it wanted to employe 31. So the marginal cost of employing the 31 worker is the $10.10 it needs to pay that worker—plus the $3 it would have to pay all the other workers if it offered a wage of $10.10 rather than $10. So the marginal cost of attracting the 31st worker is $13.10. Profit maximization is therefore to hire 30 workers. The workers take home $300/week in wages. The company makes $30/week in profits.

d) Which is the most efficient outcome here—the free-market outcome or the $10 minimum-wage outcome?

The free-market outcome produces $220/week in societal surplus; the minimum-wage outcome produces $330/week.

e) Can you think of a better way to fix the market failure here than imposing a minimum wage? If so, what and why?

I'm just interested in seeing what people come up with.

f) Fast-food jobs are relatively standard, right? Do you think it is reasonable to think that a business's ability to attract and retain workers who will actually show up for their shifts is an increasing function of the wage it offers? Why or why not?

Again, I am just interested in seeing what people come up with…