Microeconomics for Public Policy I
Fall 2020

In Class Problems Lecture 14

1. Market Demand for Public Goods

Suppose that Masie and Jeff both use the services of national defense. However, Masie is more concerned with the nuclear threat than Jeff. Therefore, Masie's marginal benefit from investments in a nuclear shield is $MB_m = 100 - Q$, where Q is the "quality" of the nuclear shield. Jeff is also worried about nuclear attack, but somewhat less than Masie and values the shield at $MB_j = 50 - Q$.

The marginal cost of each unit of quality of deterrence is $80.

(a) Suppose there were a private market for nuclear deterrence. Would be expect that this market would provide the efficient amount of nuclear deterrence? Why or why not?

(b) Supposing that it could be provided, what is the efficient quantity of nuclear deterrence? Draw a picture that includes Masie's demand curve, Jeff's demand curve, and the market demand curve.

2. What is a Public Good?

Give an example of a good that has some public good aspects. Please give an example that we have not covered in class and is not in the textbook. Explain what elements of this good are public (in the sense of being a public good) and which are private.