Microeconomics for Public Policy I
Fall 2025

Problem Set 13

On what and how to submit

- For this and all future problem sets, questions are from the "Problems" section of the questions at the end of the chapter.

- Due before 8 pm December 9.

- Name the file "ps13_[lastname].pdf". For example, my file would be "ps13_brooks.pdf".

- Turn in via this google survey.

- Make sure your name is at the top of the submission.

- You do not need to type your submission. Any **legible** submission in pdf format is ok. For example, you can write the problem set with hand-drawn graphs, take a picture, make a pdf, and submit the pdf.

1. Externalities

Suppose that consumers demand plastic junk with a demand curve of $Q = 300 - 4P$. Suppose also that producers make plastic junk with a market supply curve of $Q = P - 15$. As seems like, we will assume that plastic junk has an external cost of \$10/unit.

A graph is not not required for these problems, but will likely help you think through the steps and equilibria.

(a) In a market without taxes or regulation, what is the equilibrium quantity and price of plastic junk?

(b) Now suppose that the government recognizes the cost of plastic junk and charges producers a Pigouvian tax of \$10/unit. What is the new supply curve with this tax?

(c) Find the new equilibrium price and quantity for plastic junk with the Pigouvian tax.

(d) Name two external costs of plastic junk (on the production or conumpstion side), explaining why they are external costs.

2. Chapter 17, Question 2

3. Externality example

Find an news article that describes an externality – without using the word "externality"!
Explain what the economic transaction is, who the parties to the transaction are, to whom
the externality occurs, whether the market produces too much or too little, and whether the
externality is positive or negative. Include the link to the article. A few short paragraphs
should be sufficient to answer this question.