

Experiment 4



Some Externalities

- Pollution
- Smoking
- Ugly houses
- Drunk driving
- Loud noises
- Strong perfume
- Barking dogs
- Fire hazards
- Education
- Bad Drivers
- Disease



Lawn Ornament Market

- Buyers have value written on sheet
- Seller's costs are on sheet
- Every lawn ornament sold inflicts a $\star \frac{1}{2}$ cost on every other person - whether they buy or sell or do nothing.



Experiment 4.1



- Market unrestricted
- Note that there are many possible values for buyers and sellers
- Everyone loses $\star \frac{1}{2} n$, where n is the number of lawn ornaments.
- Buyers obtain value minus (price + $\star \frac{1}{2} n$)
- Sellers obtain (prices minus costs) - $\star \frac{1}{2} n$

Experiment 4.1, Cont'd



- Sellers can sell up to 3 units
- First costs $\star 6$, second costs $\star 12$, third costs $\star 18$

Experiment 4.2



- A tax (equal to #units in experiment 4.1 divided by two) is imposed on sellers
- Buyers obtain value minus (price + $\star \frac{1}{2} n$)
- Sellers obtain prices minus (cost + \star tax) minus $\star \frac{1}{2} n$

Experiment 4.3



- Some people are given pollution permits.
- These are tradable - if you have a permit, you can sell it.
- In order to sell a lawn ornament, a permit is necessary.
- Note that two markets are operating simultaneously in this experiment
 - the market for permits
 - the market for lawn ornaments.

Experiment 4.3, Continued



- In order to trade, a buyer and seller approach the market maker together with
 - filled out transaction report
 - a pollution permit
- Traded but not used pollution permits should be turned in to record prices
