ECNS 316
Benefit/Cost Analysis of the Enforcement Decision

To-do list

- Required reading for the week (posted on class webpage)

  Ehrlich, Isaac. 1996. "Crime, Punishment, and the Market for Offenses." *Journal of Economic Perspectives*, Vol. 10, No. 1, Pgs. 43-67.
- Optional reading for the week (posted on class webpage)

  Becker, Gary. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy*, Vol. 76, No. 2, Pgs. 169-217.
- First quiz: Next Tuesday
  - Will cover lecture material from this week
  - Required reading (i.e., Ehrlich (1996)) also fair game
    - Pay particular attention to the section on "Estimates of the Effects of Positive and Negative Incentives" (pgs. 55-63)
  - Quiz will consist of 1 to 2 questions
    - 15-20 minutes
    - Problem-solving and short-answer type questions

To-do list

- Reading for next week is posted

McCollister et al. (2010)

Anderson (1999)

Building upon the rationale for criminalizing behavior

- Q. What was missing from the reckless driving analysis in the last lecture? What unrealistic assumption were we making?
- Ans. In the previous analysis, we were assuming enforcement costs were zero.

[insert benefit/cost analysis of the reckless driving problem with consideration of enforcement costs]

Optimal Enforcement and Limits on Technology and Sanctions

- Enforcement costs function, E(R), plays a major role in determining whether to criminalize an activity as well as the optimal level of enforcement and violation.
  - As enforcement becomes more expensive, criminalizing becomes less attractive, and the net benefit obtained, even under optimal enforcement, tends to decrease.
- Effect of enforcement depends on perception or reaction to expected sanction
  - Offender must estimate probability of arrest and conviction as a cost of crime and, hence, as a deterrent.
  - Deterrence is separated into two components:
    - 1.) probability of conviction
    - 2.) expected sanction if convicted

Optimal Enforcement and Limits on Technology and Sanctions

- Formally, deterrence is based on expected sanction, $p_c s$

  where p_c is the probability of conviction

  and s is the sanction expected, conditional on conviction

- Deterrent effect of enforcement can be increased if either or both p_c and s can be increased without raising the cost of enforcement.
- For the reckless driving example, how may we raise the probability of conviction?
  - Technological advancements
    - New vehicle systems require driver ID before vehicle is started
    - Cut off engine of a vehicle being driven recklessly
  - Changes in policing methods

Optimal Enforcement and Limits on Technology and Sanctions

- How might we raise expected sanctions?
  - Fines could be raised
  - Driving privileges could be revoked
- Based on our cost-benefit analysis of reckless driving (and a host of other crimes), it is easy to conclude that taking steps to substantially increase p_c or s would enhance social welfare.
- What are some difficulties with this conclusion?
  - Many steps to raise p_c involve limiting privacy of offenders and non-offenders (e.g., traffic cameras, gov't access of private vehicle information)
  - Fines are collected by government...some might fear that fines become an attractive source of revenue
    - Makowsky and Stratmann (2011) found that municipal budgets in MA were inversely related to traffic citations
  - Harsh sanctions may make drivers extremely cautious to the extent that driving habits change, creating an externality of impeded traffic flow.
- In sum, raising p_c or s does not come without costs or possible unintended consequences for society