

ECNS 316

Benefit/Cost Analysis of the
Enforcement Decision

To-do list

- Second quiz: Next Tuesday
 - Will cover lecture material from this week
 - Next set of readings are now 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