ECNS 491
Measuring Amount and Cost of Crime

To-do list

- Readings:

McCollister, Kathryn, Michael French, and Hai Fang. 2010. "The Cost of Crime to Society: New Crime-Specific Estimates for Policy and Program Evaluation." *Drug and Alcohol Dependence*, 108: 98-109.

Anderson, David. 1999. "The Aggregate Burden of Crime." *Journal of Law and Economics*, 42: 611-642.

To-do list

- Due next Tuesday:

-Find a popular press article that discusses some crime-related problem (e.g., meth-related crime in rural areas, unemployment and crime, white collar crime, etc., etc....just about anything crime-related is fair game)

-Type up a brief description of the problem and propose a cost-effective strategy for addressing the issue. Keep in mind the possible costs of your proposal and the costs of crime in your discussion. For example, proposing to spend a billion dollars to clean up meth labs around Lewistown, MT isn't likely to be a viable policy proposal.

-Instructions (follow these!!!)

-Times New Roman, size 12 font, double spaced

-NO MORE THAN ONE PAGE...you will lose points if you go over one page

-Print off the article and staple it to the back of your typed up proposal

Sources and Types of Data on Crime

- Q. What is the most obvious source of information on crime?
- Incident reports (aka crime reports)
  - Reports generated when police officials take criminal complaints from the public or investigate incidents that they observe directly.
- Arrest and conviction records
- Victim surveys
- Self-reporting by offenders
- Street prices of drugs

Incident Reports

- Come from law enforcement agencies
  - Benefit of prior professional screening
  - Reporting among some agencies can be spotty, unfortunately
- Can include valuable information on details of incident
  - Weapon involvement
  - Offender relationship with victim (when offender known/caught)
  - Individual characteristics of offender and victim
    - Race, age, gender
- Inadequate source of information on crimes without victims
  - E.g., transactions involving drugs and prostitution, because participants do not repot these incidents
- Tend to provide information only on number of attempted offenses that are successful
  - E.g., Offenses such as fraud may involve many unsuccessful attempts for every actual incident reported

Incident Reports

- Most commonly used sources in the United States
  - Uniform Crime Reports (UCR)
    - Great source when interested in aggregated crime statistics at, for instance, county or state levels
  - National Incident Based Reporting System (NIBRS)
    - Provides much more details concerning each incident, but do not have the spatial nor temporal coverage that the UCR data have
    - Coverage of NIBRS: http://www.jrsa.org/ibrrc/background-status/nibrs-states.html.

Arrest, Conviction, and Corrections Data

- Benefit: Great amount of detail available on offenders (because they were caught)
- Q. Are these data necessarily representative of the underlying distribution of criminal activity?
  - Not necessarily. Individuals who are arrested and convicted are differentiated by their lack of skill in avoiding arrest and conviction. Selection bias issue.
- Research has found arrest rates are highly correlated with incident rates.
  - Economists frequently use arrest data to proxy for the amount of crime in an area that is committed by, for instance, juveniles vs. adults, whites vs. blacks, males vs. females, etc.
- Arrest data also available through the UCR and NIBRS

Victim Surveys

- Tend to produce significantly higher estimates of crime than incident reports. Why? Three reasons:
  - 1.) Victims are more likely to report small violations in surveys because they are unwilling to file police reports
  - 2.) Several victims may report the same incident
  - 3.) Individuals may be unaware of the law or misperceive the way in which the criminal justice system would treat an incident they believe to be a crime.
    - For example, conflicts over ownership of property may be civil, rather than criminal, matters
- Do victim surveys always overestimate crime?
  - Underreporting for some types of crimes may exist
    - Sensitive topics, such as sexual assault
      - Underreporting less severe when survey administered by computer as opposed to a person
      - Youths more likely to report risky behavior when taking survey at school rather than at home
    - Crimes that go unnoticed by victims, such as petty larceny or fraud

Reporting by Offenders

- Questions on past offending can be attached to survey instruments and can provide low-cost information on self-reported involvement in crime.
  - Especially the case for crimes without victims or those involving deception (e.g., fraud)
  - Again, context in which questions are asked can impact reporting (computer vs. in-person)
  - Surveys of incarcerated individuals: Accused or incarcerated individuals may understate past criminal behavior if they think it might affect, for instance, future possibility of parole

Drug Prices

- Provide information on the state of markets for illegal substances
- Available from formal government drug-purchase programs
  - STRIDE (DEA drug seizure data): https://www.dea.gov/resource-center/stride-data.shtml.
  - Information on purity also available
  - Price and purity play important role in economic models of drug markets
- High Times (https://hightimes.com/tag/thmq/)
  - Information on marijuana purchases
    - Price, quantity, strain (quality), location of purchase
  - MMLs => lower street price of high-quality strains of marijuana

In general, when is measurement error in the reporting of crime a problem?

- If measurement error is random (i.e., just noise), then not a big problem. What do I mean by random here?
- When is measurement error a problem?
  - When it is systematic to the, for instance, policy of interest.
  - Can you guys give me an example?
    - Suppose we are interested in estimating the relationship between an anti-drug campaign and self-reported drug use among youths. We suspect that youths underreport their past drug use. When is this underreporting problematic within this particular context?

Measuring Economic Burden and Costs of Crime

- Read McCollister et al. (2010) and Anderson (1999)!!!
- Anderson (1999) estimated economic burden of crime for 1997 was $1.2 trillion…that's more than 14% of GDP!
- How is this number computed?
  - Add the real resource costs associated with producing, combating, and punishing crime.
    - This requires that the opportunity costs of these activities be measured.
- Economic costs of crime include
  - Criminal justice system costs (everything from enforcement through prisons)
    - Direct resource costs of police, courts, and corrections expenditures (≈ 8.5% of total burden)
    - Total expenditure on drug trafficking to produce and distribute illegal substances (≈ 13% of total burden). This is an estimate of the opportunity cost of the labor, capital, and materials required to supply illegal drugs.

- Expenditures by potential victims to avoid crime
  - Private expenditure for locks, security systems, etc. (≈ 17% of total burden).
- Other major victim costs include
  - Loss of life, medical expenditures, injury costs, etc.
  - Combined with injury costs born by offenders and bystanders, this accounts for almost 45% of the total burden
- Opportunity cost of time for offenders
  - Calculated by estimating an market wage and applying it to time spent on criminal activities, including time spent incarcerated (≈ 3% of total burden)
- Time potential victims spend securing assets and lost work time due to injury (≈ 8% of total burden)

- Who bears a large portion of the total economic burden of crime?
  - Victims!
  - Read McCollister et al. (2010) for details on how researchers attach dollar values to various victim costs (e.g., statistical value of a life)