HEALTH

# Lecture 14: Topics in Economics

Chandler Lester



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- ► This is because at its core economics is the study of *choice*

# WHAT DO ECONOMISTS STUDY?





## DEVELOPMENTAL ECONOMICS

- ► There are very large differences in income per capita and output per worker across countries today
- ► Countries at the top of the world income distribution are more than 30 times as rich as those at the bottom
- ► For example in 2000 GDP per capita was:
  - ▶ \$34,000 in US
  - ▶ \$ 8,000 in Mexico
  - ▶ \$4.000 in China
  - ▶ \$2,500 in India
  - ▶ \$1,000 in Nigeria

#### INCENTIVES WORK: GETTING TEACHERS TO COME TO SCHOOL



Esther Duflo



Rema Hanna Harvard



Stephen P. Ryan WashU

- ► In India 24 percent of teachers are absent during school hours
- Uses a randomized experiment to test whether monitoring and financial incentives increase teacher attendance
- ► Absenteeism fell by 21 percent
- ► Children's test scores improved

### METALS OR MANAGEMENT?



Lisa D. Cook Michigan State



Laura Beny University of Michigan

- Recently, economists have attempted to explain what The Economist has called Africa's new "period of unparalleled economic success"
- Average annual real GDP growth was 1.8 percent between 1980 and 1989 and increased to 4.4 percent between 2000 and 2005
- ► May be due to economic reforms African countries instituted during the 1990s
- ▶ But it may also be due to the recent boom in international prices of oil, copper, and other primary com modities that constitute a significant fraction of Africa's exports
- Or both



# ENVIRONMENTAL ECONOMICS I

- Production and distribution of goods and services unavoidably alter the environment.
- ► Climate change resulting from economic activity is a major threat to future human wellbeing, and it illustrates many of the challenges of designing and implementing appropriate environmental policies.
- ► Well-designed environmental policies implement the least-cost ways of reducing environmental damages and balance the cost of reducing environmental damage against the benefits.
- ► Evaluating environmental policies raises challenging questions about how to value our natural surroundings and the wellbeing of future generations.

### Environmental Economics II

- ▶ In 1980, Paul Ehrlich, a biologist, predicted that rapidly increasing population would make mineral resources scarcer.
- ► Julian Simon, an economist, thought that humanity would never run out of minerals because higher prices would stimulate the search for new reserves, and ways of economizing on the use of resources.
- ► Ehrlich bet Simon that the price of a basket of five commoditiescopper, chromium, nickel, tin, and tungstenwould increase in real terms over the decade, reflecting increased scarcity.
- ► On 29 September 1980, they bought \$200 of each of the five commodities (a total wager of \$1,000).

# ENVIRONMENTAL ECONOMICS III

- ▶ If prices of these resources went up faster than inflation over the next 10 years, Simon would pay Ehrlich the difference between the inflation-adjusted prices and \$1,000. If real prices fell, Ehrlich would pay Simon the difference.
- ► In those 10 years, the inflation-adjusted prices of the commodities fell from \$1,000 to \$423.93. Ehrlich lost the bet and sent Simon a check for \$576.07



#### UNWATCHED POLLUTION: THE EFFECT OF MONITORING ON AIR QUALITY



Eric Zou University of Oregon

- Intermittent monitoring of environmental standards may induce strategic increases in polluting activities during unmonitored times
- Using satellite data of monitored areas, this paper shows that air quality is significantly worse on unmonitored days.
- Correspondingly, cities use of air quality warnings increases on monitored days, which suggests local governments role in coordinating emission reductions
- ► Higher levels of pollution on unmonitored days lead to measurable changes in outcomes, including lower school test scores and elevated crime.

#### DECLINING BAT POPULATIONS, INCREASED PESTICIDES USE & INFANT MORTALITY



Eyal Frank University of Chicago

- ► Pesticides are a form of pollution
- This paper uses mortality shocks for bats a predator of insects to measure changes in pesticide usage
- ► Then links this data to birth and death certificates
- ► Finds that infant mortality rate increases by 1.01 deaths per 1,000 births
- ► Mostly driven by female infant mortality
- ► Finds that even usage of certain pesticides can affect health even if inside legal thresholds

## LABOR ECONOMICS I

- ► The study of labor economics seeks to understand the relationship between workers and employers
- ▶ It's important to society as it determines wages, the causes of discrimination, the impact of migration on employment, and how governments should manage recessions.
- ► One of the most important ideas in labor economics is to think of the set of marketable skills of workers as a form of capital in which workers make a variety of investments.

### Labor Economics II

- ► There are some issues with labor markets that may can inefficiencies or discrimination
  - Compensating differentials: a worker may be paid less in money, because he is receiving part of his compensation in terms of other (hard-to-observe) characteristics of the job, which may include lower effort requirements, more pleasant working conditions, better amenities etc.
  - Labor market imperfections: two workers with the same human capital may be paid different wages because jobs differ in terms of their productivity and pay, and one of them ended up matching with the high productivity job, while the other has matched with the low productivity one.
  - Taste-based discrimination: employers may pay a lower wage to a worker because of the workers gender or race due to their prejudices



### BAN THE BOX



Jennifer Doleac Texas A&M



Ben Hansen University of Oregon

- Jurisdictions across the United States have adopted "ban the box" (BTB) policies
- Goal is to improve employment outcomes for those with criminal records with a secondary goal of reducing racial disparities in employment
- Could lead employers who don't want to hire ex-offenders to try to guess who the ex-offenders are
- ► Find that BTB policies decrease the probability of being employed by 3.4 percentage points (5.1%) for young, low-skilled black men, and by 2.3 percentage points (2.9%) for young, low-skilled Hispanic men.

#### THE ECONOMIC CONSEQUENCES OF FAMILY POLICIES



Claudia Olivetti Darthmouth



Barbara Petrongolo

- ► Examines the details regarding family policies currently in effect across high-income nations
- ► Length of leave seems to have negative effects on female employment
- ► The policies with the strongest evidence for reducing gender disparities seem to be childhood education (in both cross-country and micro data) and in-work benefits (in the micro data).
- A potential common theme here is that making it easier to be a working mother may matter more than the length of leave or the payments that new parents receive while out of the labor force.

#### ECONOMICS OF CRIME

- ▶ Researches the causes and consequences of crime, as well as the ways to reduce the costs of crime to society.
- ► Among the topics of interest are:
  - Estimating the costs and benefits of criminal justice programs and policies
  - The analysis of underground markets, including drugs, firearms, prostitution, human smuggling, money laundering, and other illicit goods and services
  - ► The influence on crime of other aspects of economic life, including education, health care, substance abuse, and the labor market



# KEEP THE KIDS INSIDE? JUVENILE CURFEWS AND URBAN GUN VIOLENCE



Jillian B. Carr



Jennifer Doleac

Gun violence is an important problem across the United States. However, the impact of government policies on gunfire has been difficult to test due to limited and low-quality data

CRIME

- ► This paper uses new, more accurate data on gunfire (generated by ShotSpotter audio sensors) to measure the effects of juvenile curfews in Washington, DC.
- ► Using variation in the hours of the DC curfew, we find that this policy increases gunfire incidents by 150% during marginal hours.
- ► In contrast, voluntarily-reported crime measures suggest that the curfew decreases gun violence, likely because of confounding effects on reporting rates.



### Medical Marijuana Laws and Teen Drug Use



D. Mark Anderson Montana St.



Ben Hansen UO



Daniel Rees UC Denver

- While at least a dozen state legislatures in the United States have recently considered bills to allow the consumption of marijuana for medicinal purposes, the federal government is intensifying its efforts to close medical marijuana dispensaries.
- ► Federal officials contend that the legalization of medical marijuana encourages teenagers to use marijuana.
- Using data, they estimate the relationship between medical marijuana laws and marijuana use.
- ► Results suggest legalization decreases teenage marijuana usage

## HEALTH ECONOMICS

- ► Focuses on the determinants and consequences of differences in health outcomes.
- ► Interests in basic determinants of health as substance use, obesity, and formal schooling.
- ► Also extends to things such as effects of the business cycle, pollution, and overseas military deployment on health outcomes.

Motivation Growth & Development Environmental Labor Crime **Health** Macro

# Are Recessions Good For Your Health?



Christopher J. Ruhm

- ► Finds that people tend to be healthier during recession
- Could be due to a few mechanisms, mostly likely is caused by an increase in leisure time during recessions
- Since individuals have more free time they can more easily go to doctor's appointments
- ► There is a suggested 0.5% decrease in the total death rate given a one percent increase in joblessness
- As the economy improved deaths from most causes studied increased

# MACROECONOMICS

- ► You should probably know what macro is at this point...
- ► In case you don't, Macroeconomics is the study of how many people and entire markets interact within the whole economy
- ▶ There are two main approaches to examining the macroeconomy:
  - 1. Empirical analysis:
    - uses data on macroeconomic variables like GDP, CPI, interest rates, etc.
  - 2. Theoretical Modeling:
    - uses key macroeconomic beliefs to create a model that can provide information on particular concern or element of the economy



### FISCAL SPACE



Christina Romer UC Berklev



David Romer UC Berklev

- ► In OECD countries over the period 19802017, countries with lower debt-to-GDP ratios responded to financial distress with much more expansionary fiscal policy and suffered much less severe aftermaths.
- Suggests that the relationship between the debt ratio and the policy response is driven partly by the choices of domestic and international policymakers.
- ► Conducting policy in normal times to maintain fiscal space provides valuable insurance in the event of financial crises, and domestic and international policymakers should not let debt ratios determine the response to crises unnecessarily.

#### Monetary Policy according to HANK



Greg Kaplan University of Chicago



Ben Moll Princeton



Giovanni L. Violante

- Looks at heterogenous agents and how an economy with individuals with unique characteristics reacts to changes
- Results in heterogenous agent models different from traditional representative agent models due to individual's differing reactions
- ► The model in this paper yields empirically realistic distributions of wealth and marginal propensities to consume because of two features: uninsurable income shocks and multiple assets with different degrees of liquidity and different returns

# Sources

- ► The Economy by the Core team
- ► IZA—Institute of Labor Economics website
- ► Lectures in Labor Economics by Daron Acemoglu and David Autor
- ► Introduction to Modern Economic Growth by Daron Acemoglu
- ► NBER website
- ► All of the research papers discussed on previous slides