Class Sessions #5  
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# Determinants of Affluence Growth

## Discussion

## What are the determinants?

## Why is it so hard to change?

## How does it relate to CO2 emissions?

## Environmental Kuznets curve

### Graph of the relationship between increasing affluence (income: GDP per capita) and pollution levels

### What do you expect it to be?

### http://junglewallah.files.wordpress.com/2011/01/ekc.png

### Logic

#### As people get richer, three competing things happen:

#### People have more money and so buy more stuff and so pollution/emissions increase

#### But, after a certain point, this is more than offset by the fact that as people have more money, they start caring more about the environment and demand government protection of it

#### And, more money correlates with service economy which “displaces” or “offshores” the pollution

# Changing Affluence Growth

## Some policies do influence consumption patterns

### Buddhist monks

### Jewish observance of Shabbat

### Mormon tithing

### Voluntary simplicity: “frugality of consumption”

## So do social norms

### “More, More, More said the baby.”

### “I want a better life for my kids.”

### “I need a raise.”

### “I need a vacation.”

## Yet affluence also appears “off limits” politically (though see “Confronting Consumption”)

# Determinants of Technology growth

## Discussion

## What are the determinants?

## Why is it so hard to change?

## How does it relate to CO2 emissions?

# Changing Technology: Rebound and the Jevons Paradox

## Jevons Paradox: technological progress that increases efficiency of a resource being used leads to MORE of that resource being used. “Technological improvements that increased the efficiency of coal-use led to the increased consumption of coal [and therefore] could not be relied upon to reduce fuel consumption” (Wikipedia)

## [York (UO Sociology Prof)](http://www.youtube.com/watch?v=55D3bOhC3s8) showed in most countries for past 50 years, each unit of nonfossil-fuel energy displaced less than ¼ unit of fossil-fuel energy and each unit of nonfossil-fuel electricity displaced less than 1/10th” (York 2013).

## As technology becomes more efficient, the price of that technology declines and two competing things happen.

### Pollution per unit goes down

### Number of units used goes up, because they are cheaper

### York’s point is that: We might expect people to shift to renewables but actually, it lowers the overall prices of energy and we end

# Changing Behavior: How Hard Can It Be?

## If I told you I had a new technology that could increase your car’s fuel efficiency by 20% and reduce your CO2 emissions by 20%, would you use it?

## How much would you pay for it?

### It’s the gas pedal

### Most people drive 75 mph on freeways

### Slowing to 65 mph decreases emissions by ~10%

### Slowing to 55 mph decreases emissions by ~20%

### No law is required!

# Which of these drivers are we addressing?

## We are not addressing two of the drivers

### Population - No

### Affluence - No

### Technology – Yes

## I don’t think improving technology alone can get us there

## Can we invent new technology?

## If we do, can we get people to use it?

# Population and affluence: the role of government

## Population and affluence reflect deep-seated values

## Democracies usually see values as inputs to government policy not targets of government policy

## Democracies tend NOT to see “shaping values” as an appropriate role for government

## Population and affluence: alternatives to government

## Many people DO see “shaping values” as an appropriate role for other institutions

### Religions

### Families

### Corporations

### Social movements

### Conscious communities