

# Public Economics

## Lec 1: Introduction to public economics

**Alessandro Martinello**

alfa 4035B

[alessandro.martinello@nek.lu.se](mailto:alessandro.martinello@nek.lu.se)



**LUND UNIVERSITY**

School of Economics and Management

# Organization

- **Book:** Rosen and Gayer (2010): *Public Finance*, Mc Graw-Hill
- **Lectures:** 14, 1 seminar
- **Exam:** 16/12 14:00-19:00; written, 80 points
- **Seminar/essay:** in groups, 3/4 pages
  - From list of topic, presented in seminar
  - Commented by another group
  - Will contribute to final grade for 20 points | exam  $\geq 40$
  - **Facultative**
- **Mail policy:** **No** content questions by email.
  - Preferred: ask during lectures
  - Second best: just walk over to  $\alpha$  4035B

# Today's reading list

- **Rosen & Gayer** ch. 1-2

# What is public economics?

- **Wiki:** the study of government policy through the lens of economic efficiency and equity
- **RG:** The field of economics that analyzes government taxation and spending

# What is public economics?

- **Wiki:** the study of government policy through the lens of economic efficiency and equity
- **RG:** The field of economics that analyzes government taxation and spending
- **AM:** Pretty much everything related to the public sector
  - **Journal of Public Economics**
    - Soothing politics
    - Made in China, sold in Norway: Local labor market effects of an import shock
    - What Will My Account Really Be Worth? Experimental Evidence on How Retirement Income Projections Affect Saving
    - The effect of school construction on test scores, school enrollment, and home prices
  - **The NBER Public Economics program**

# The public sector

- **Kruse: politically** decided use of resources
  - Investments, consumption, **interventions**
  - What about transfers?
- Resources need to be financed
  - **Taxes**
- Public sector as a player, but
  - $\neq$  rules
  - $\neq$  size
- How to measure public sector size?

# Size of the public sector

## Tax revenues as % of GDP



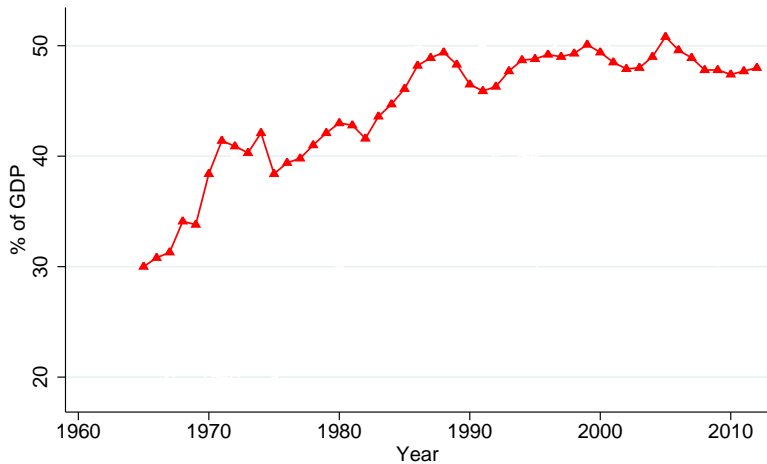
Sweden  
Greece

Italy  
Germany

US  
Denmark

# Size of the public sector

## Tax revenues as % of GDP



Sweden  
Greece

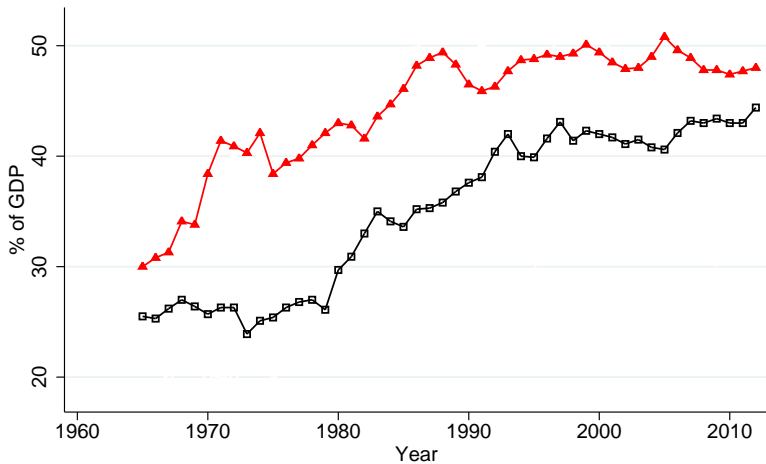
Italy  
Germany

US  
Denmark



# Size of the public sector

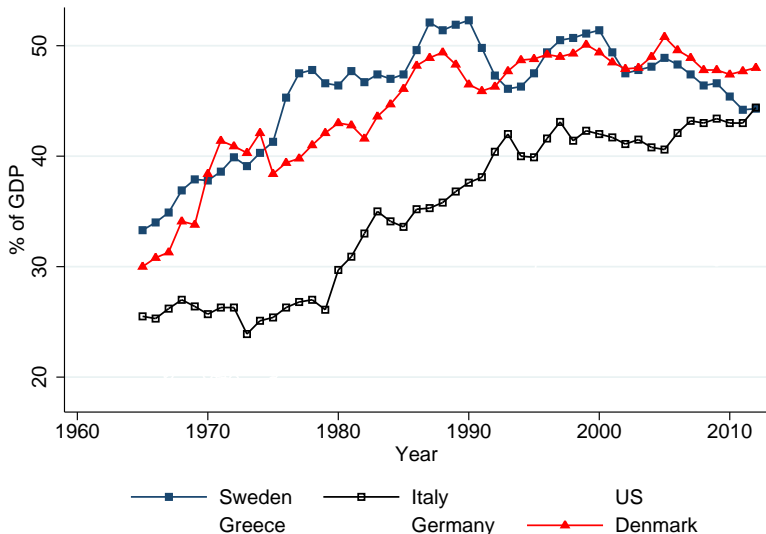
## Tax revenues as % of GDP



Sweden —■— Italy US  
Greece —■— Germany —▲— Denmark

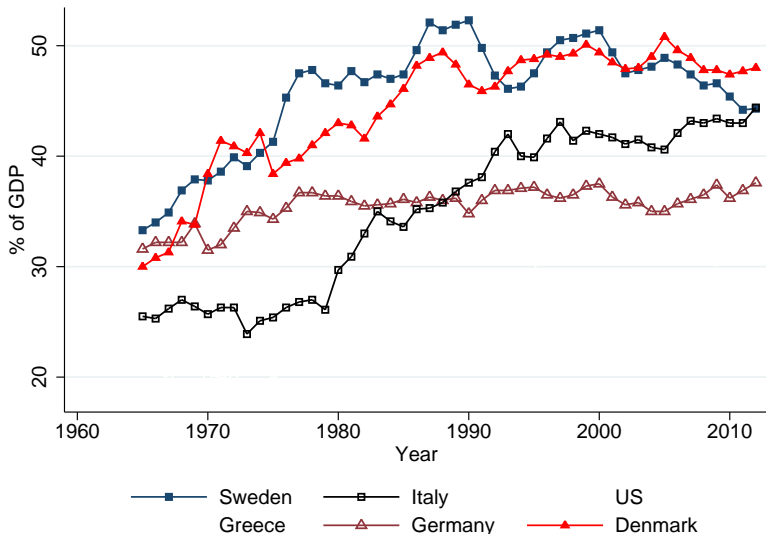
# Size of the public sector

## Tax revenues as % of GDP



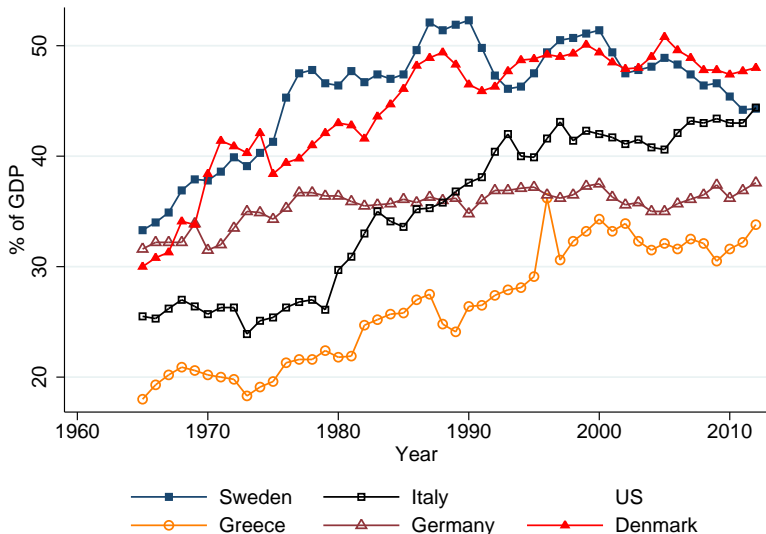
# Size of the public sector

## Tax revenues as % of GDP



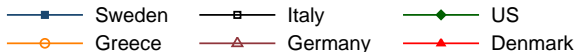
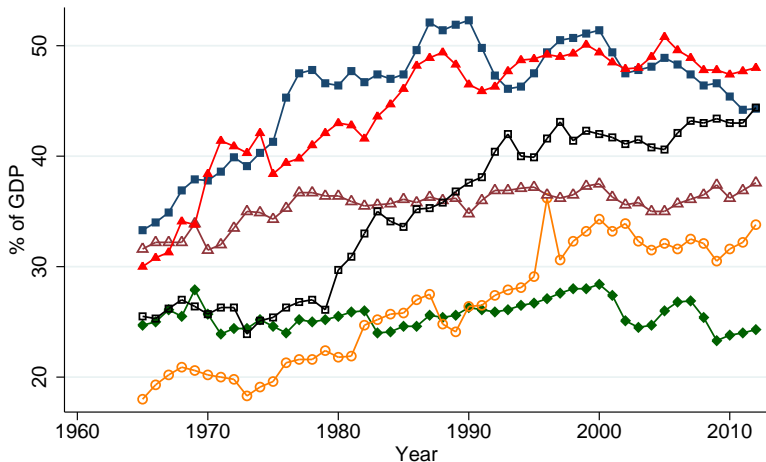
# Size of the public sector

## Tax revenues as % of GDP



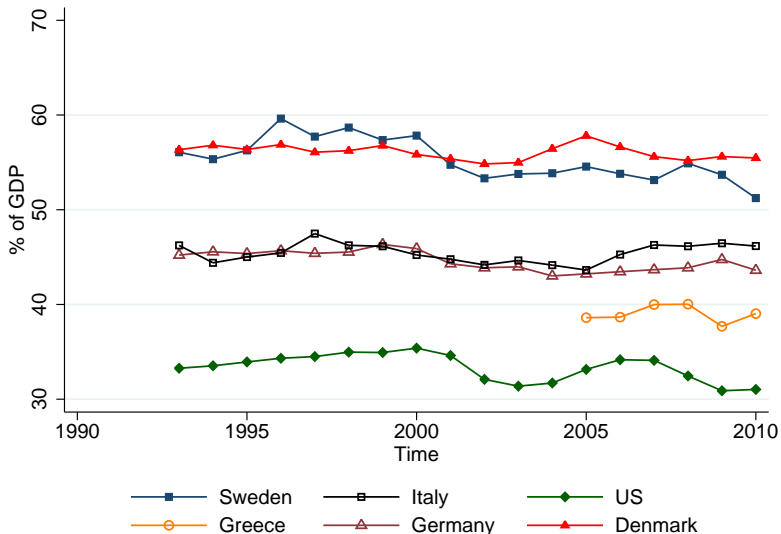
# Size of the public sector

## Tax revenues as % of GDP



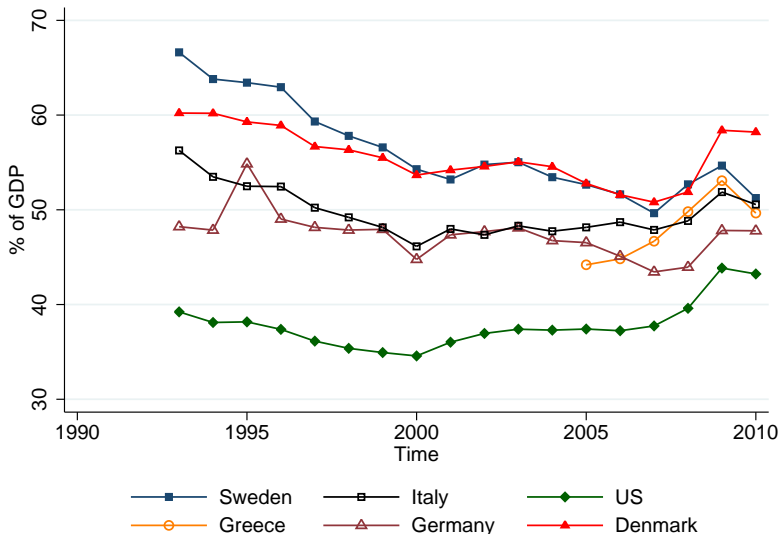
# Size of the public sector

## Government revenues as % of GDP since 1993



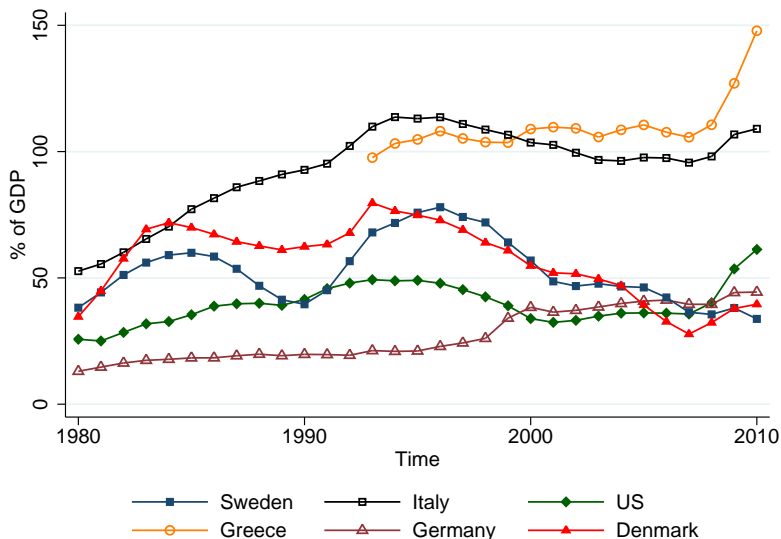
# Size of the public sector

## Government expenditures as % of GDP since 1993



# Size of the public sector

## Government debt as % of GDP





## Other measures?

- Ratio of public workers on total employment?
- Per capita?
  - Comparisons: price adjusted and in single currency
- Others?
  - <http://stats.oecd.org/>
  - <http://data.oecd.org/>
  - Eurostat

# Size of the public sector

## Other measures?

- Ratio of public workers on total employment?
- Per capita?
  - Comparisons: price adjusted and in single currency
- Others?
  - <http://stats.oecd.org/>
  - <http://data.oecd.org/>
  - Eurostat

## How to treat public regulations?

- E.g. labor market restrictions

# Scope of public economics

- 1 **When, where** and **why** should governments intervene
  - Market failures
  - Social preferences
  - Efficiency VS equity
  - Welfare economics (normative), (micro)econometrics (positive)
  - Cost-benefit analyses
- 2 **What** can they do?
  - Public insurance, retirement schemes
  - Delegation? Federalism and privatization.
- 3 **How** should we do it and finance it?
  - Optimal implementation
  - Optimal tax scheme
- 4 **Who** decides?
  - Political economics

# Lecture plan

---

Lec. 2	5/11	RG 3	Welfare economics
Lec. 3	11/11	RG 4	Public goods
Lec. 4	13/11	RG 5	Externalities
Lec. 5	17/11	RG 8	Cost-benefit analysis & privatization
Lec. 6	18/11	RG 14-19	Taxation (I)
Lec. 7	20/11	RG 14-19	Taxation (II)
Lec. 8	25/11	RG 9-11	Asymmetric information & insurance
Lec. 9	27/11	RG 6	Political economics
Lec. 10	2/12	RG 12-13	Income redistribution & social transfers
Lec. 11	4/12	+	Pensions and retirement
Lec. 12	5/12	RG 22	Fiscal federalism
Lec. 13	9/12	RG 20 +	Ageing & debt
Lec. 14	11/12	+	Fiscal competition, tax evasion

---

Seminar 12/12; Exam 16/12

# Tools of public economics

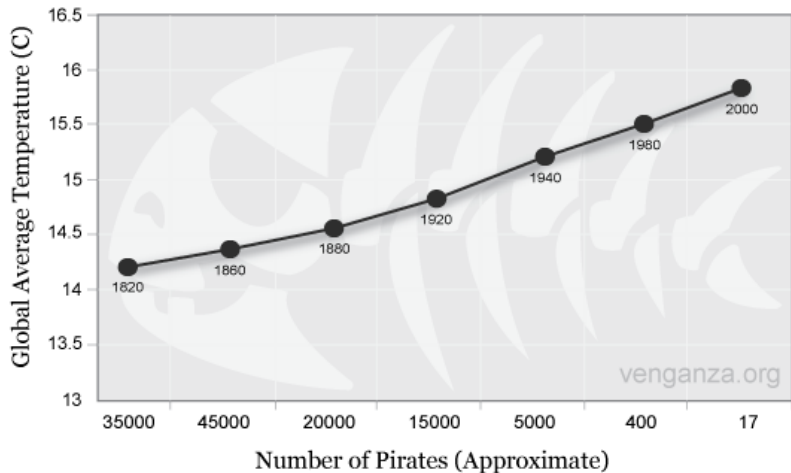
- **Normative** analysis
  - How things **should be**
  - Main focus of this course
  
- **Positive** analysis
  - How things **are**
  - Applied econometrics: using data to understand effectiveness of programs, individual choices, extent of inefficiencies
  - No experimental data (some exceptions), inference is complex

# Tools of public economics

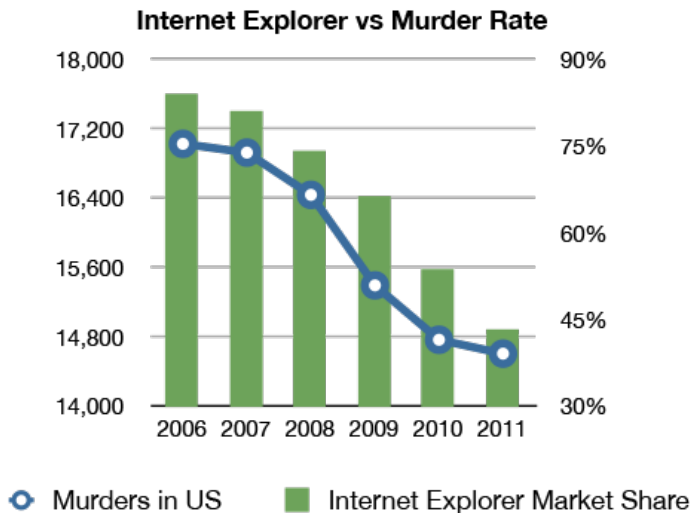
- **Normative** analysis
  - How things **should be**
  - Main focus of this course
  
- **Positive** analysis
  - How things **are**
  - Applied econometrics: using data to understand effectiveness of programs, individual choices, extent of inefficiencies
  - No experimental data (some exceptions), inference is complex
  - **CORRELATION IS NOT CAUSATION!**

# Positive: correlation is not causation

## Global Average Temperature Vs. Number of Pirates

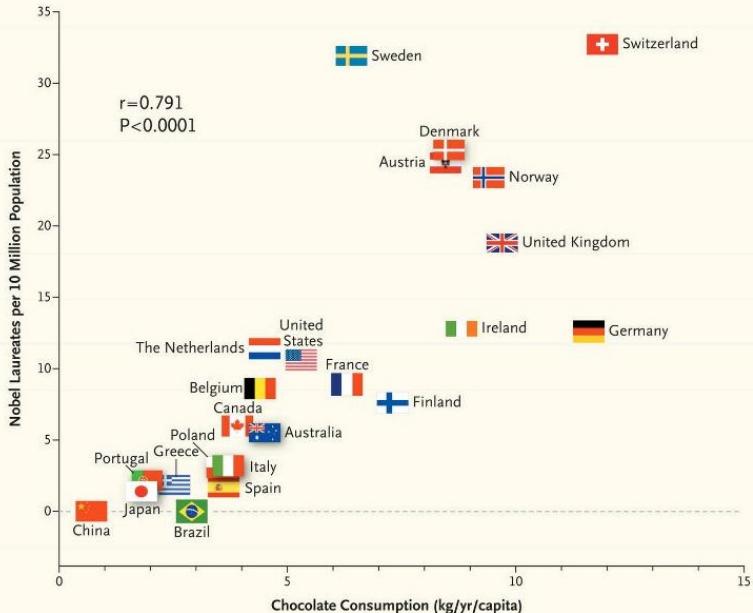


# Positive: correlation is not causation

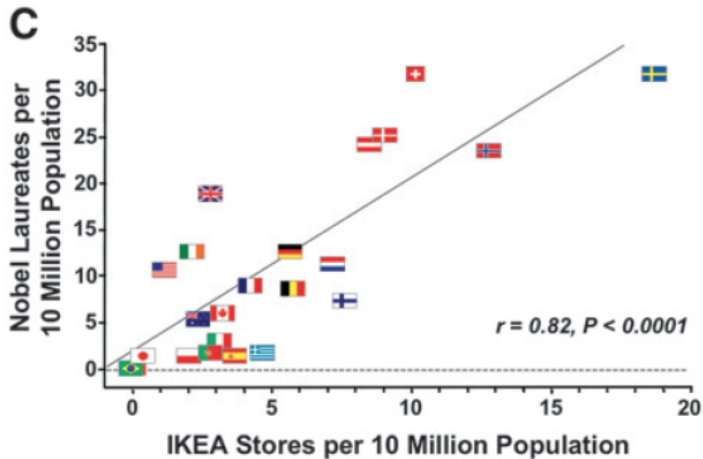




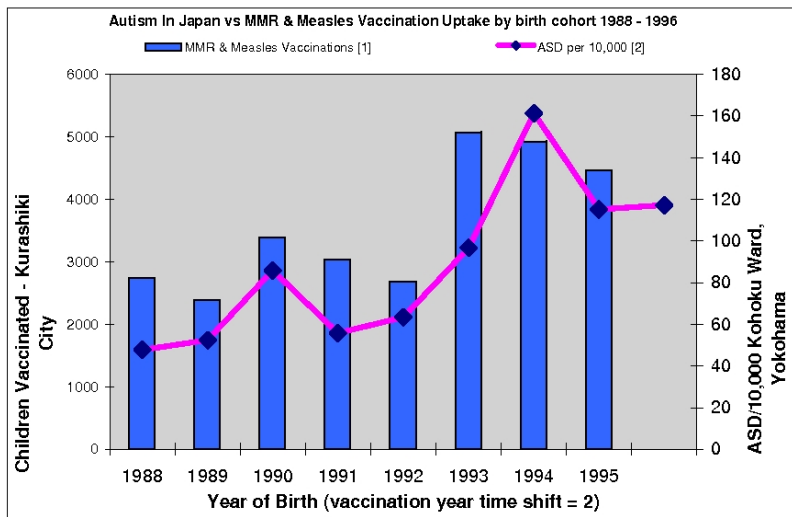
# Positive: correlation is not causation



# Positive: correlation is not causation



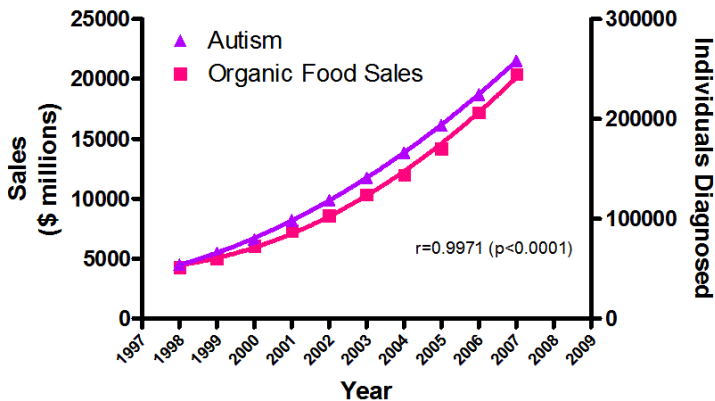
# Positive: correlation is not causation



This is a comparison of Measles and MMR vaccination uptake in Kurashiki City [1] with ASD rates in a district of Yokohama [2]. The close correspondence indicates this is unlikely to be coincidental. NB. 1993 births cohort vaccine uptake blue bar is unadjusted. It represents 114% vaccine uptake compared to birth rate and requires adjustment down. The uptake indicates catch-up vaccinations in 1995/6 for those born 1993/4. ([1] Terada [2] Honda/Rutter).

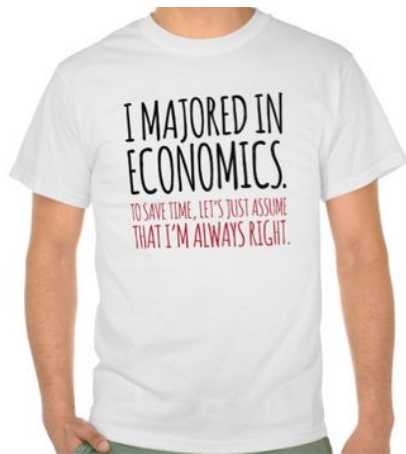
# Positive: correlation is not causation

The real cause of increasing autism prevalence?



Sources: Organic Trade Association, 2011 Organic Industry Survey; U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB# 1820-0043: "Children with Disabilities Receiving Special Education Under Part B of the Individuals with Disabilities Education Act"

# Your (future) role in public debate



... conditional on correlation  $\neq$  causation  
and a good grasp of **public economics**

# Positive analysis: key to decent policy-making

**Question statistical facts:** correlations only part of the story

- **Schooling reforms:** should we make more schooling compulsory?
  - Data: college graduates earn more on average
- **Mobility:** should we finance exchange study programs?
  - Data: exchange students suffer lower unemployment rates
- **Public health/unemployment insurance**
  - Extent of adverse selection? Extent of moral hazard?

## Defining problems and designing solutions

- What about Adam Smith's **invisible hand**?
  - Better: 1<sup>st</sup> theorem of welfare economics (tomorrow)

## Defining problems and designing solutions

- What about Adam Smith's **invisible hand**?
  - Better: 1<sup>st</sup> theorem of welfare economics (tomorrow)
- Government should just make sure that the market works
  - Police, protect individual rights, enforce contracts



## Defining problems and designing solutions

- What about Adam Smith's **invisible hand**?
  - Better: 1<sup>st</sup> theorem of welfare economics (tomorrow)
- Government should just make sure that the market works
  - Police, protect individual rights, enforce contracts

## Is efficiency all we care about?

# Social preferences & transfers

## How big should the state be? (spending=taxes)

- **"Should"**  $\implies$  **normative**
- Equity, redistribution, paternalism?

# Social preferences & transfers

## How big should the state be? (spending=taxes)

- "Should"  $\implies$  normative
- Equity, redistribution, paternalism?

**Libertarianism**

**VS**

**Welfare**



# Social preferences & transfers

## How big should the state be? (spending=taxes)

- "Should"  $\implies$  normative
- Equity, redistribution, paternalism?

**Libertarianism**

**VS**

**Welfare**



- Median voter's agenda (political economics)

# The economist's role

- 1 Understand mechanisms (normative)
  - Public programs can be beneficial
  - Taxes can create deadweight losses
- 2 Quantify benefits and costs (positive)
- 3 Balance the trade-off
  - **Welfare analysis**
    - **Optimal policy:** marginal benefits of public intervention equal to the marginal cost of public financing
  - **Regulations and restrictions?**