Labor Economics I
Lecture 1: Introduction

Kristiina Huttunen

March 1, 2022

Lecture Slides

Practicalities

- Teacher: Kristiina Huttunen (kristiina.huttunen@aalto.fi)
- TA: Juuso Mäkinen (juuso.p.makinen@aalto.fi)
- Main lecture: Tuesdays and Thursdays 10:15-11:45
- Practice class: Fridays 10:15-11:45
  - No Tutorial on Empirical Methods (see recorded Minicourse on methods!)
  - No STATA tutorial (commonly used)
  - 1st Assigment: Friday March 18 (deadline Tuesday March 15, 23:59)
  - 2nd Assigment: Friday March 25 (deadline Tuesday March 22, 23:59)
  - 3rd Assigment: Friday April 1 (deadline Tuesday March 29, 23:59)
  - 4th Assigment: Friday April 8 (deadline Tuesday April 5, 23:59)

Practicalities

Material

- Lectures
  - Slides available before each lecture
- Journal articles
  - available in the course webpage
- Cahuc/Carcillo/Zylberberg (2014, Second edition) or alternatively Cahuc/Zylbergerg (2004): Labor Economics (Some sections)

Grading

- Final exam (50% of the grade)
- Four problem sets (50% of the grade)
- Passing grade is required both in the final exam and in problem sets
- This 50-50 scheme applies also to retakes

Problem sets/ Assigments

- Four problem sets (50% of the grade)
- Structure
  - Theory question
  - Reading exercise (Answer questions related to assigned article)
  - Empirical exercise (Data provided)
- be concise and precise [respect the word limits]
- deadlines are binding
- Problem sets are individual, you can discuss them with classmates, but plagiarism would imply automatic failure.

Tentative schedule (1/2)

Session	Date	Topic	Due Date
1	Tue, Mar 1	Introduction, Facts and Figures	
2	Thu, Mar 3	Labor Supply	
3	Fri, Mar 4	NO EXERCISE SESSION	
7	Tue, Mar 8	Labor Supply	
8	Thu, Mar 10	Labor Supply/	A1 distributed
9	Fri, Mar 11	NO EXERCISE SESSION	
7	Tue, Mar 15	Labor Demand	
8	Thu, Mar 17	Labor Demand	A1 deadline, A2 distributed
9	Fri, Mar 18	Discussion Assignment 1	

Tentative schedule (2/2)

Session	Date	Topic	Assignment Due Date
10	Tue, Mar 22	Job Search	
11	Thu, Mar 24	Job Search	A2 deadline, A3 distributed
12	Fri, Mar 25	Discussion Assignment 2	
13	Tue, Mar 29	Job Loss, Recessions	A3 deadline, A4 distributed
14	Thu, Mar 31	Active labor market policies	
15	Apr 1	Discussion Assignment 3	
16	Tue, Apr 5	Gender, Family	A4 deadline
17	Thu, Apr 7	Wrap up	
18	Fri, Apr 8	Discussion Assignment 4	
Exam	Tue, Apr 12	9:00-13:00	
Retake	May 20 2022	14:00-17:00	

Some topics NOT covered in this course

- Education, Migration, Technological Progress (Labour Economics II by Flavio Hafner)
- Collective bargaining, Compensating wage differentials, Incentive pay (Labour II)
- Empirical methods (Applied Microeconometrics, I term- Check also mini course on empirical methods)
- Population economics: Early life and human capital development, crime, health, family (Topics in Labor, not this year)
- The impact of trade on the labor market (International Trade, III term, Labor II)

Theory and Empirics

- In this course we go through the basic theory but have emphasis on empirical examples/analysis:
- Labor economics is at the forefront of an ongoing transformation of economics from being a mainly theoretical science into a more empirically oriented discipline

Theory and Empirics

A good empirical study:

- addresses a relevant question (evaluates a policy, tests a model...)
- is based on a credible and transparent empirical strategy
  - It is important to make a clear distinction between descriptive work and studies that aim to identify causal effects...

A good model:

- is meant to help us to think more carefully about human behavior
- simple (caricature, not description of everything)

Examples

Recent empirical articles from leading economic journals

- Verho et al. "Removing Welfare Traps: Employment Responses in the Finnish Basic Income Experiment", AEJ: Economic Policy 2022
  - Randomized experiment that replace unemployment benefits with basic income
- Bias and Sarsons "Flexible Wages, Bargaining, and the Gender Gap", QJE. February 2022
  - Does flexible pay increase the gender wage gap?
  - Reform that made the wage determination more flexible (instead of collective bargaining)- individual data and survey
- Huckfeldt "Understanding the Scarring Effect of Recessions", forthcoming AER 2022
  - Do job losers suffer earning losses because their need to move to lower paying occupations after job loss?
  - Descriptive analysis with individual-level data and a theoretical model

The Labor Market

- Arguably the most important market
  - time
  - income
    - about 70-75% of total domestic income goes to labor rather than capital(Gordon and Dew-Becker 2008)
    - earned income and transfers are the most important source of income for 99.9% of income earners
  - friends, spouses, identity...
- and one of the most regulated ones
  - minimum wages, maximum hours
  - pensions, unemployment insurance, social benefits
  - public provision of education, qualification requirements
  - parental leaves, safety regulations, immigration policy...

Basic Definitions and Statistics

- In this first lecture, we will define some concepts and cover some basic statistics for:
  - employment indicators
  - income measures
  - education attainment

Employment indicators (1/4)

- All persons in an economy can be classified into three different employment statuses which are roughly defined as follows:
  1. *employed*, if working for pay (at least one hour) during a reference time period (week)
  2. *unemployed*, if not working, but looking for paid work during a reference time period
  3. *not in the labor force*, if not working or looking for work
- Employed and unemployed persons are sometimes called *participants* in the labor market while the remainder are *non-participants*.
- The most important groups of non-participants are homemakers, students, disabled people, and retirees.

Employment indicators (2/4)

- Very young and very old persons are normally not participating in the labor market. Employment statistics are therefore usually only computed for the working age population which roughly corresponds to age 16 to 64.
- It can be quite difficult to distinguish between persons who are unemployed and persons who are not in the labor force. Therefore, unemployment rates have to be interpreted with care, especially in international comparison.

Employment indicators (3/4)

- The *labor force* LF of an economy is defined as the sum of employed persons E and unemployed persons U:

$$LF = E + U$$

- The *labor force participation rate* denotes the fraction of participants in the population P:

$$\text{labor force participation rate} = \frac{LF}{P}$$

Employment indicators (4/4)

- The *employment-population ratio* is defined as

$$\text{employment-population ratio} = \frac{E}{P}$$

It is quite close to the labor force participation rate in countries with little unemployment.

- The *unemployment rate* is the fraction of the labor force that is unemployed:

$$\text{unemployment rate} = \frac{U}{LF}$$

Participation rates, All

Participation rate in the US, Europe, and Japan [Cahuc, Carcillo, Zylberberg 2014]

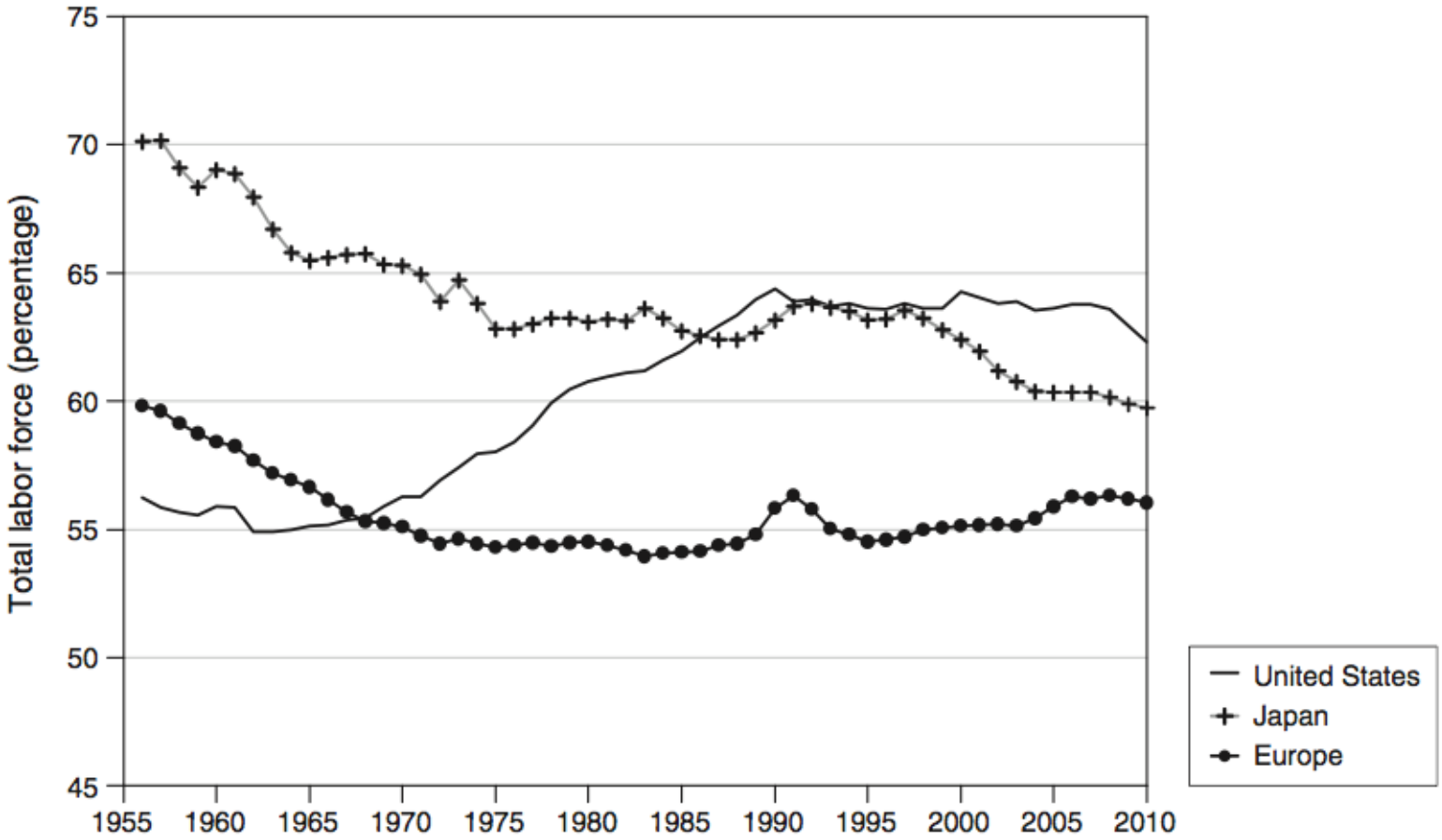


FIGURE 1.2

The evolution in civilian labor force participation rates in the United States, Europe, and Japan for persons 15 years of age and older, 1956–2010.

Source: OECD Annual Labor Force Statistics.

Participation rates, Males

Male participation rate in the US, Europe, and Japan [Cahuc, Carcillo, Zylberberg 2014]

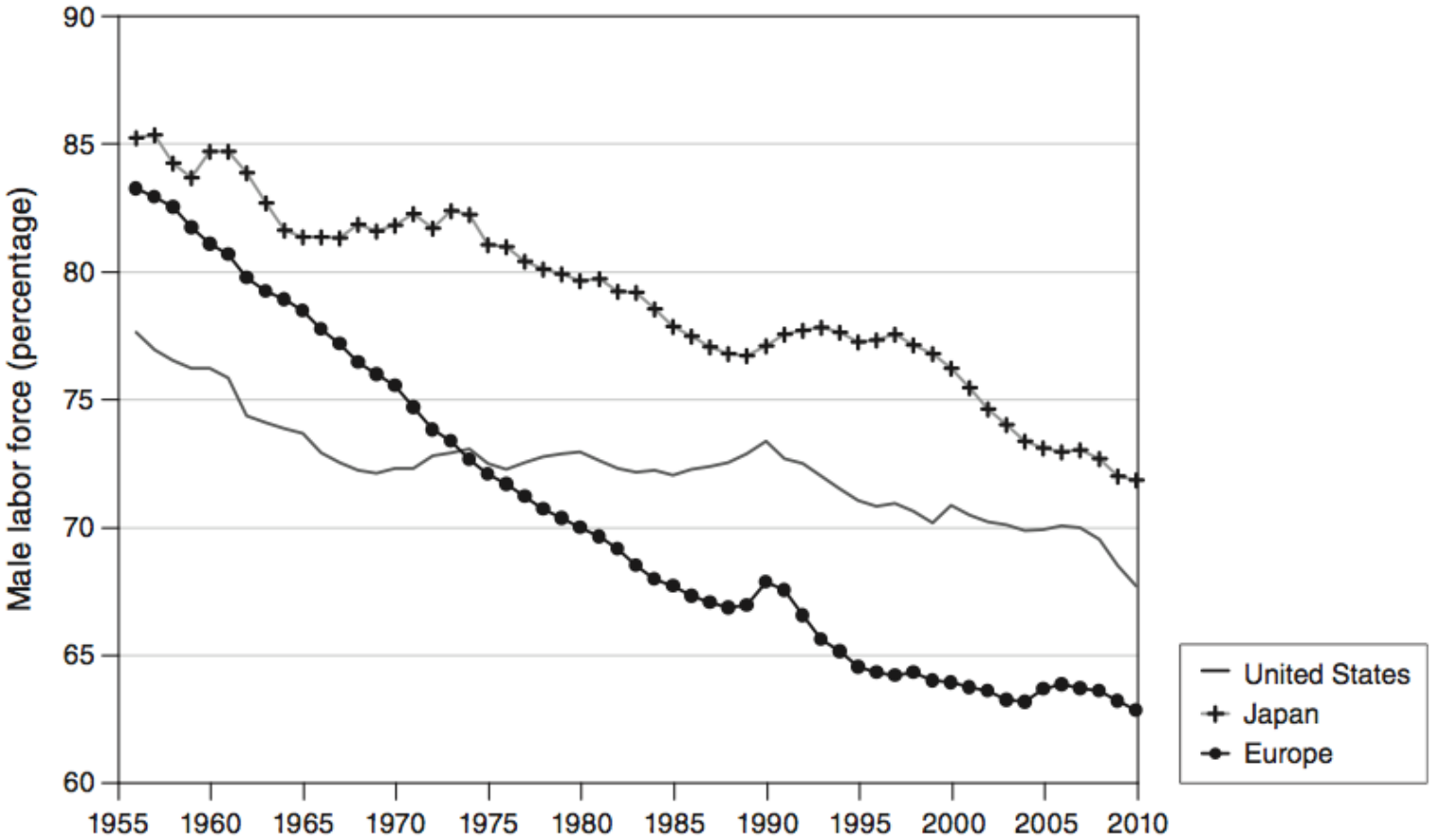


FIGURE 1.3

The evolution in civilian labor force participation rates of men in the United States, Europe, and Japan for persons 15 years of age and older, 1956–2010.

Source: OECD Annual Labor Force Statistics.

Participation rates, Females

Female participation rates in the US, Europe, and Japan [Cahuc, Carcillo, Zylberberg 2014]

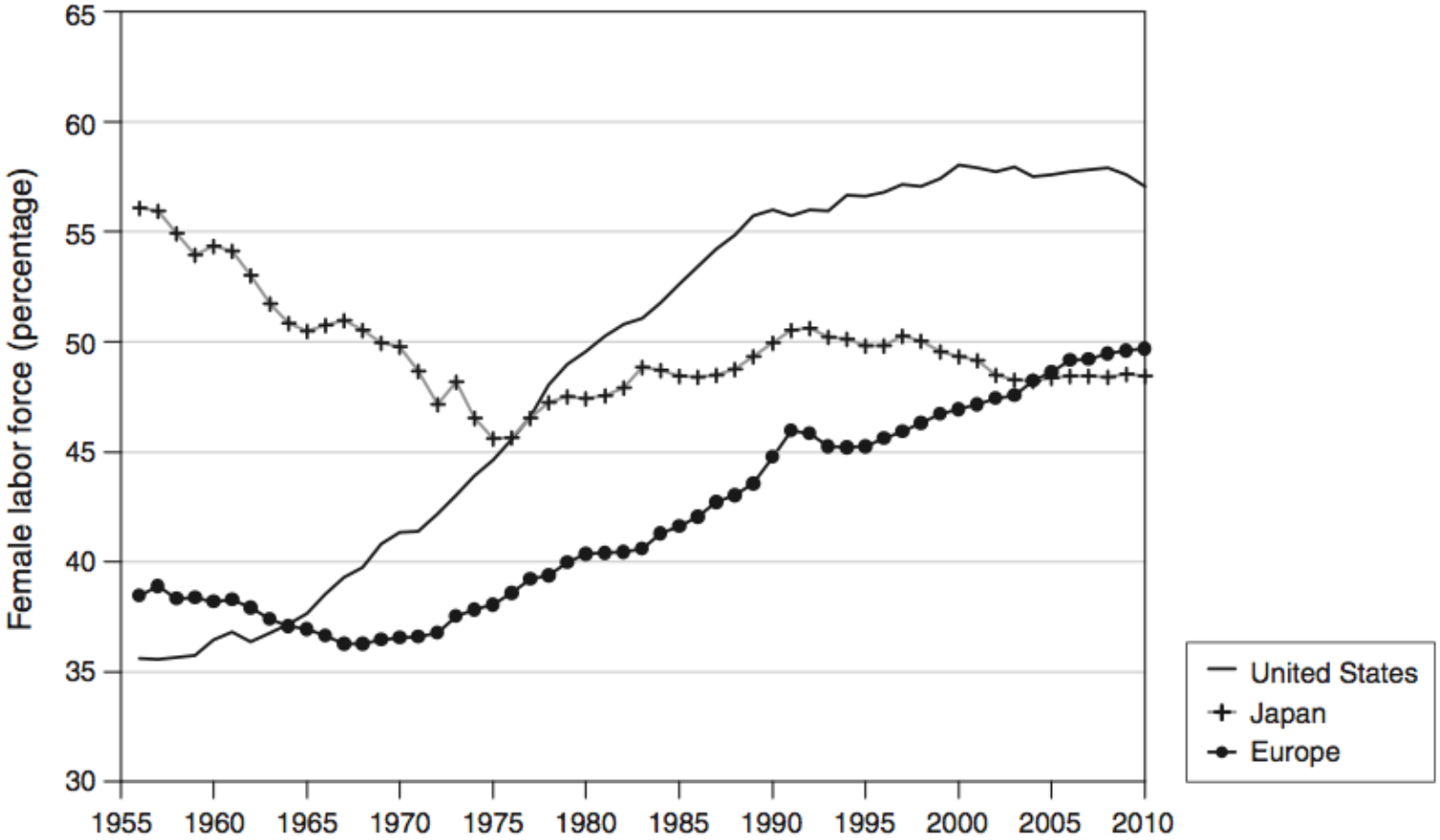


FIGURE 1.4

The evolution in civilian labor force participation rates of women in the United States, Europe, and Japan for persons 15 years of age and older, 1956–2010.

Source: OECD Annual Labor Force Statistics.

Participation rates

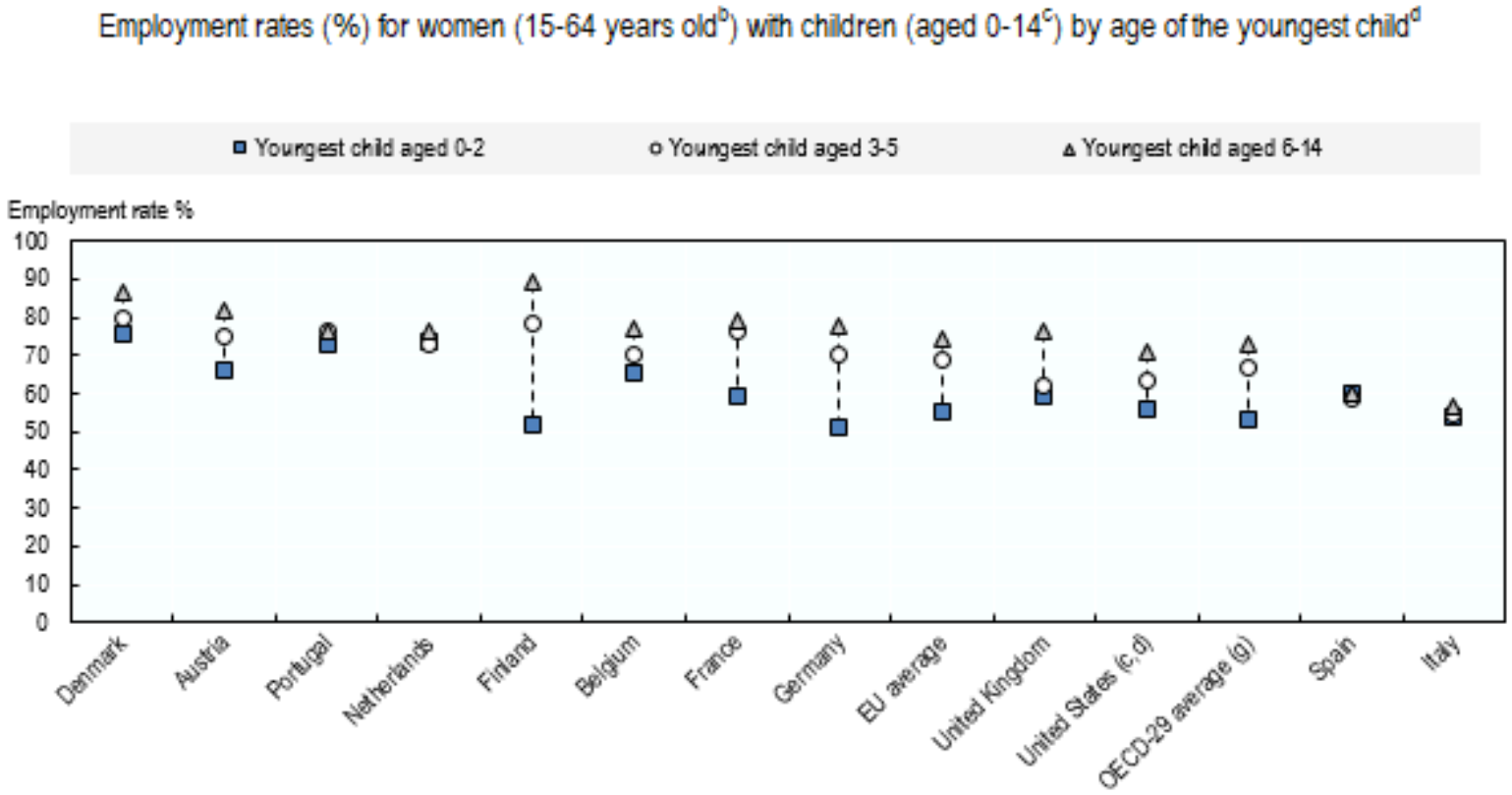
Participation rates of women by marital status in the US

	Single	Married
1900	45.9	5.6
1950	53.6	21.6
1988	67.7	56.7
2000	68.9	61.1
2010	63.3	61.0

Table: Civilian labor force participation rates of women aged 16 and over, classified by their marital status, in the United States.
Source: Ehrenberg and Smith (1994, Table 6.1, p. 165) for 1900, 1950 and 1988, and Census Bureau for 2000 and 2010.

Employment rates of women in different countries

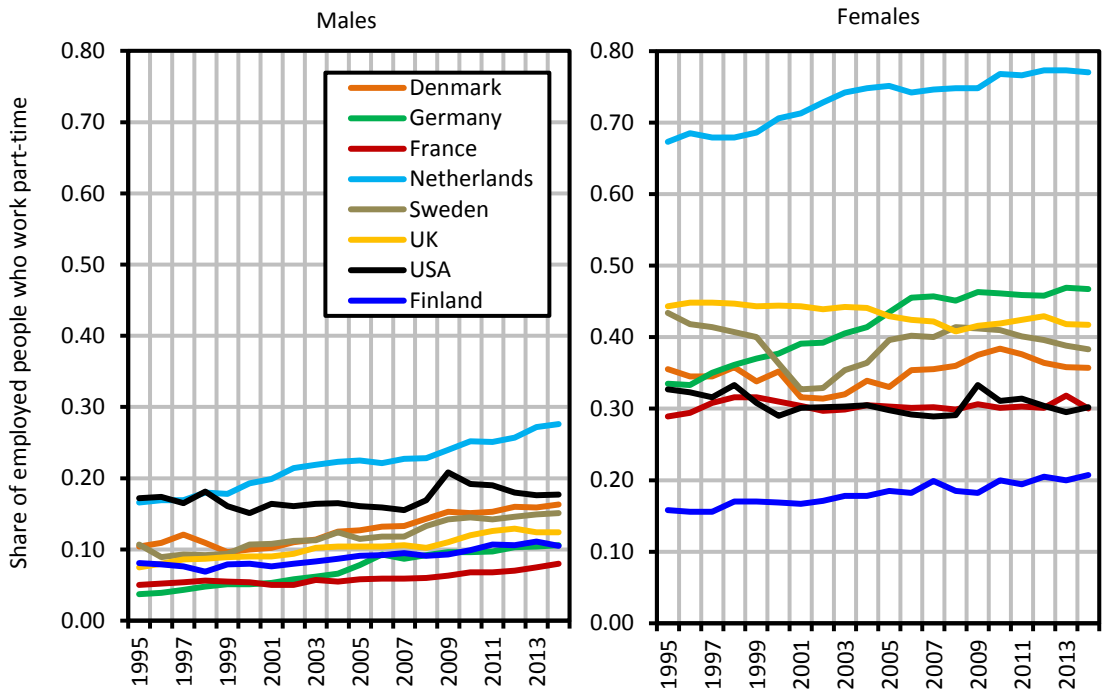
Why is the level lower in Finland than in other Nordic countries?



Source: OECD

Part-time employment , by gender

Figure 3.10: The share of employed people who work part-time: men (left) and women (right)



Sources: Calculations by the EPC based on Labour Force Survey microdata (by Eurostat) and Current Population Survey microdata (by the Bureau of Labor Statistics).

Source: Statistics Finland

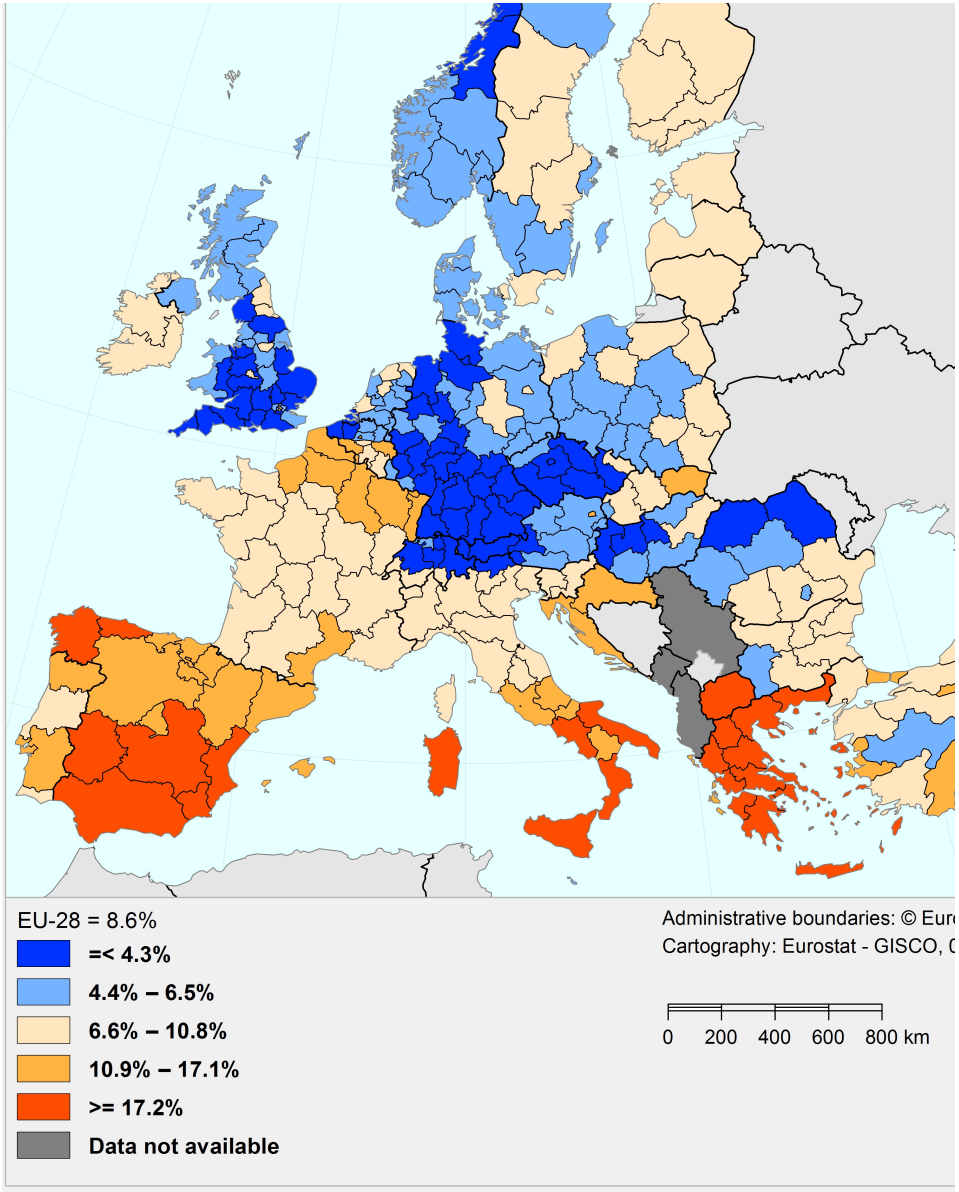
Intensive and Extensive Margins

- In labor economcis we often talk about decision to work or not to work (*extensive margine*)
- or decisions to increase hours of work (*intensive margine*)

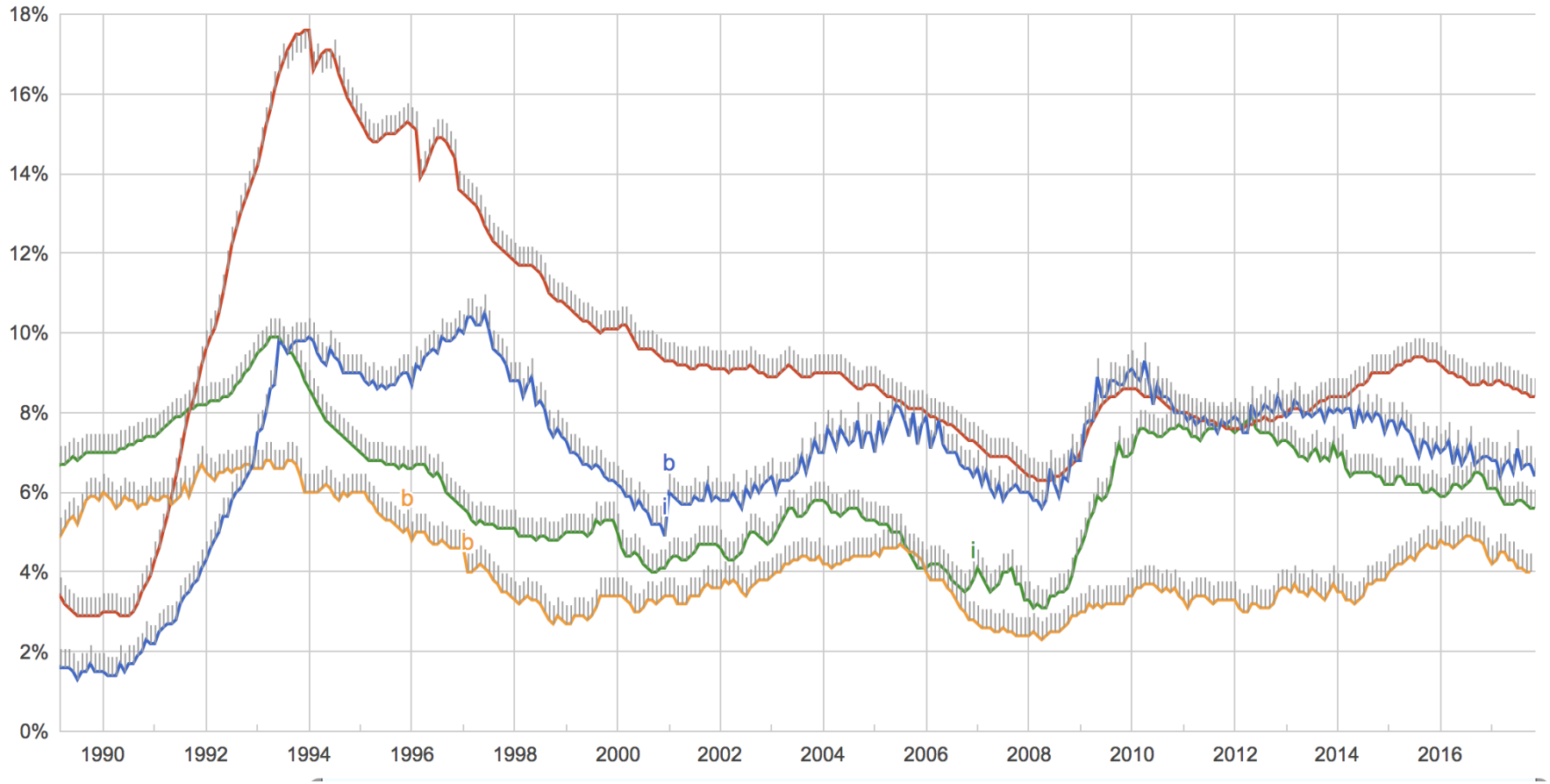
Unemployment

- Unemployment rate
  - $\frac{Unemployed}{Labor force} = \frac{U}{LF}$
  - Fluctuates strongly with the economic cycle

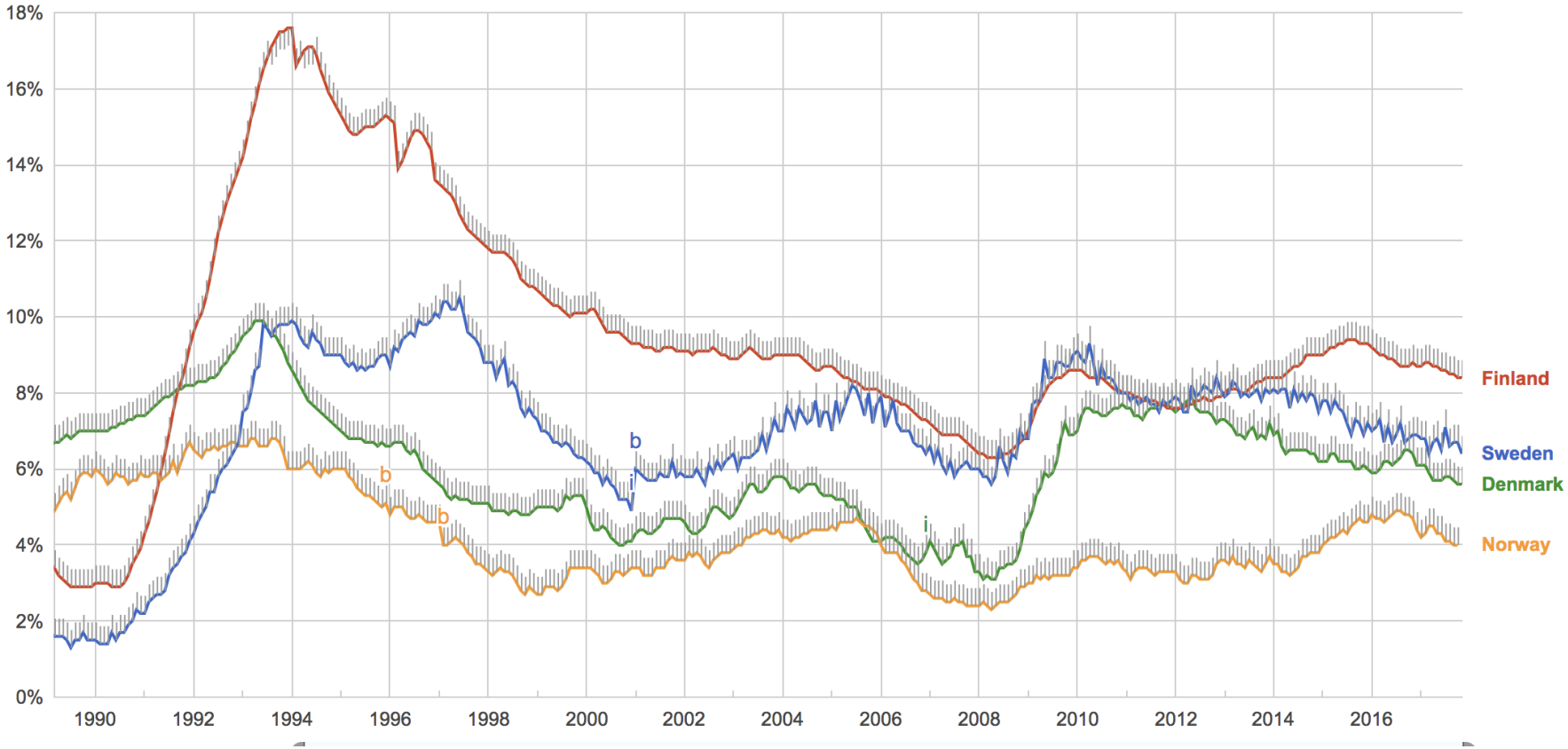
Unemployment rate by region, Europe 2016



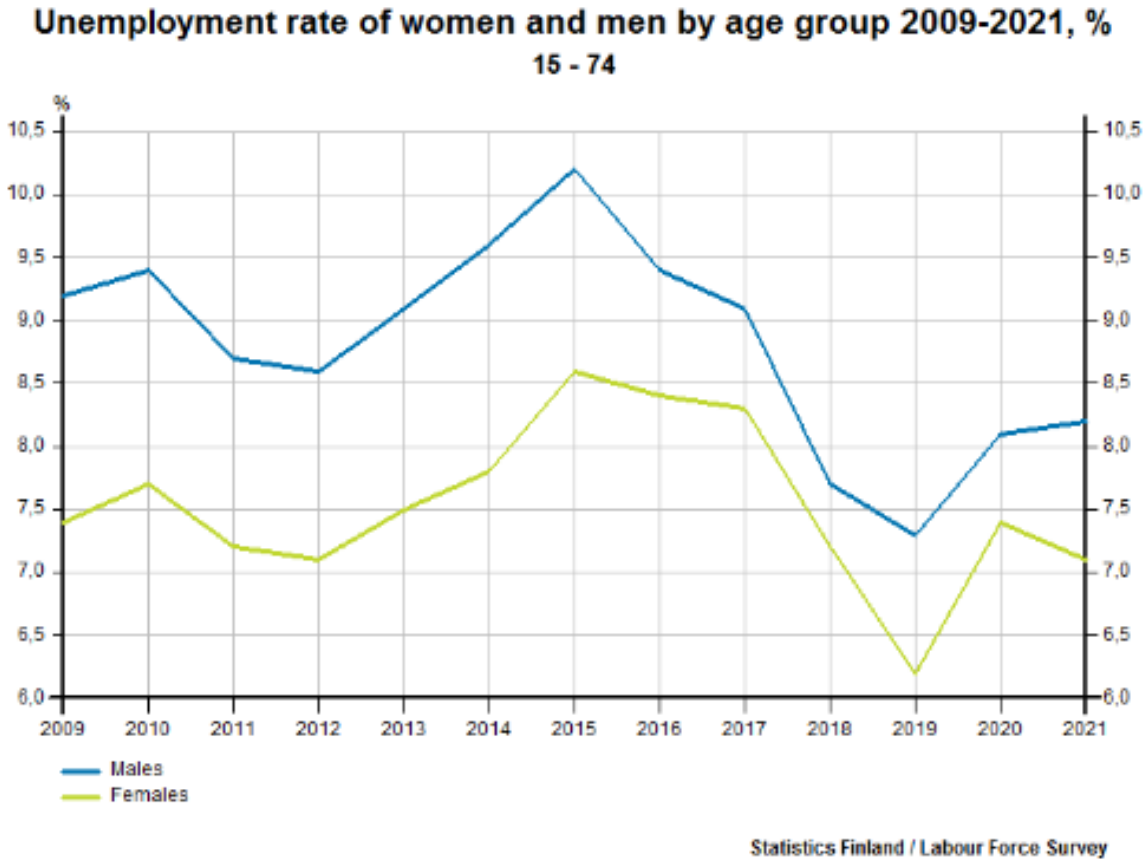
Unemployment rate, Nordic countries, 1990-2018



Unemployment rate, Nordic countries

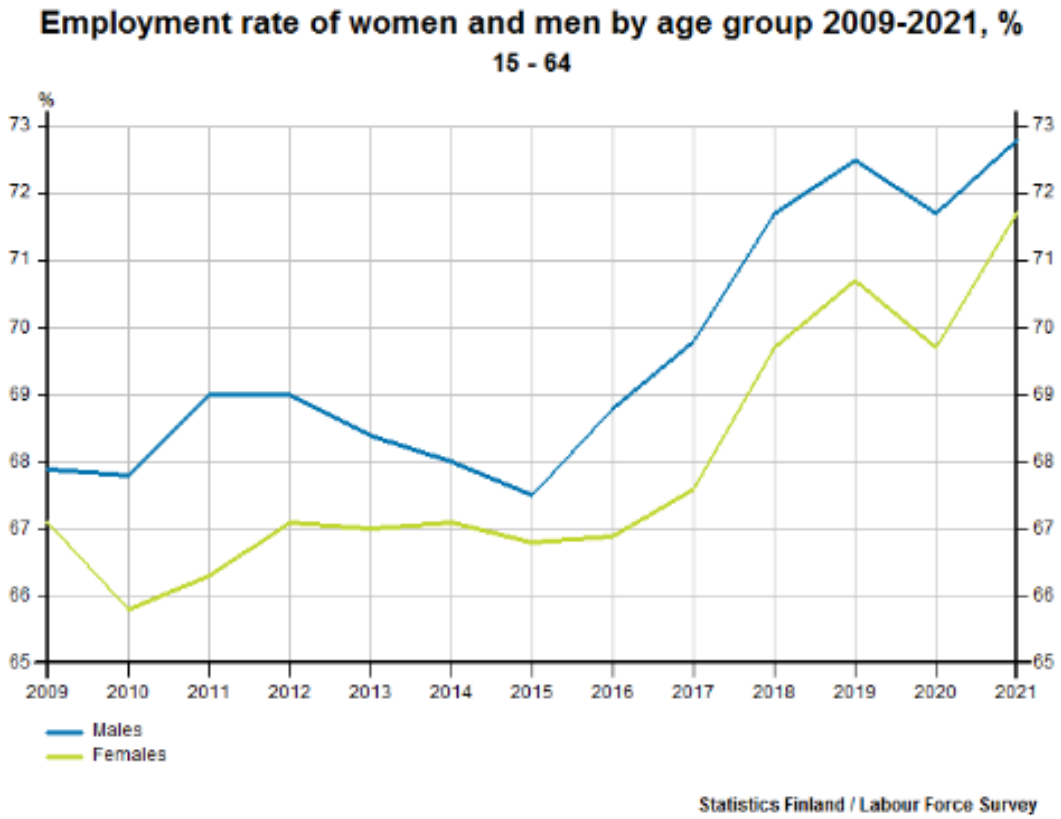


Unemployment rates by gender in Finland, 2009-2021



Source: Statistics Finland, 2018 (Employment/Population)

Employment rates by gender in Finland, 2009-2021



Source: Statistics Finland, 2018 (Employment/Population)

Income and wages

- The (monetary) income of a person or household measures the inflow of money over a certain period, often a year.
- We can distinguish two main types of income:
  1. *Earned income* (or earnings, labor income) is the income from work.
  2. *Unearned income*, (or non-labor income) is the income from all other sources.
- The main sources of unearned income are:
  - *Government transfers* such as unemployment, disability, or retirement payments.
  - *Capital income* such as interests, dividends, or business profits.

Income and wages

- Earnings are an extremely important source of income for most people in the economy.
- About 70% to 75% of total domestic income goes to labor rather than capital (Gordon and Dew-Becker, 2008).
- Earned income and transfers are the most important source of income for everyone except the top 0.1% of income earners (Saez, 2006). Only very few people have a large capital income.
- For individuals in the bottom end of the income distribution, transfers can form important share of the income.

Sources of Income for Low-Income Families

Median real income, bottom 25% of US families [Raffalovich, Monnat, Tsao 2009]

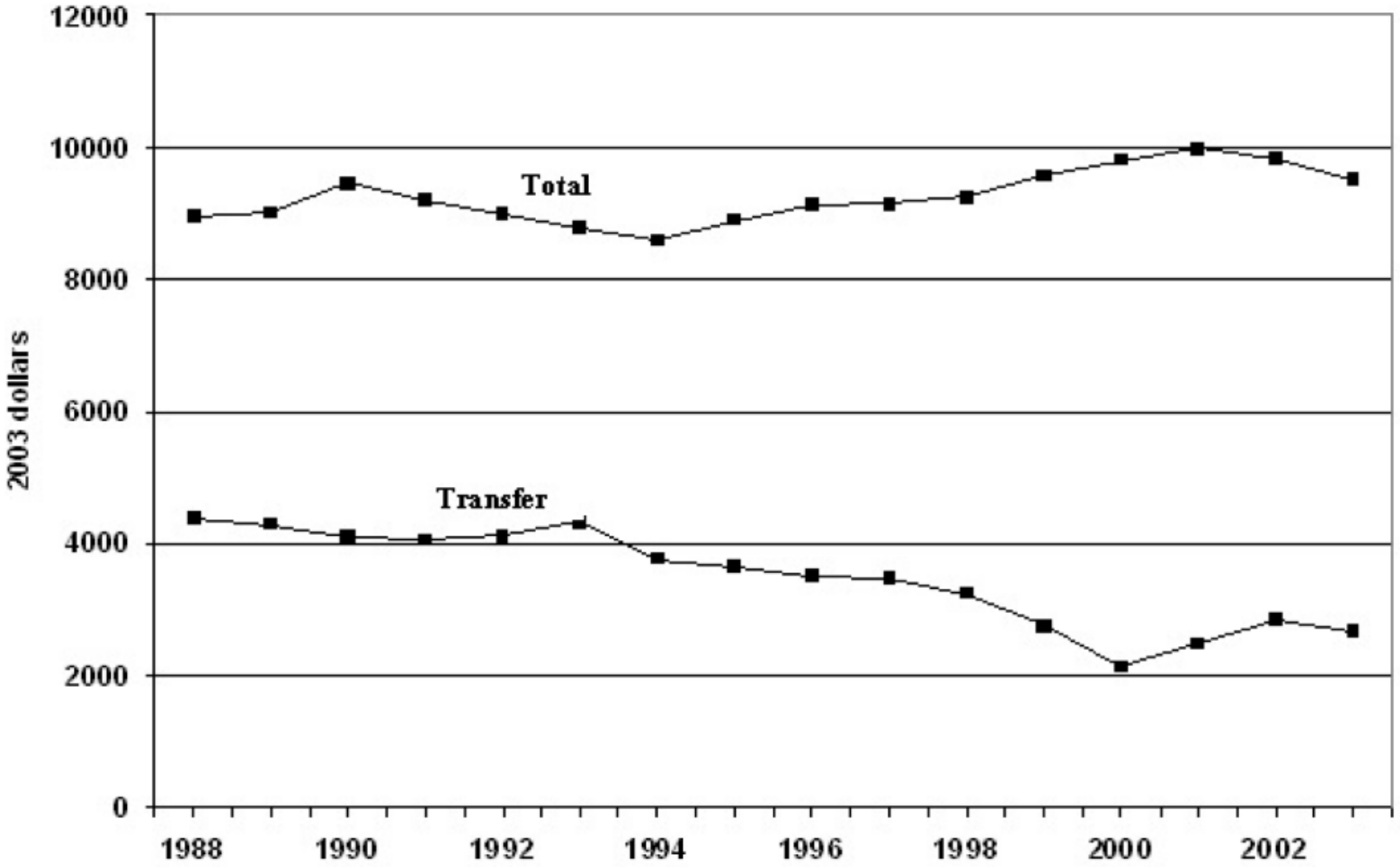


Figure 2.
Median Family Income and Components- Bottom 25% of Family Income

Sources of Income for High-Income Families

Median real income, top 10% of US families [Raffalovich, Monnat, Tsao 2009]

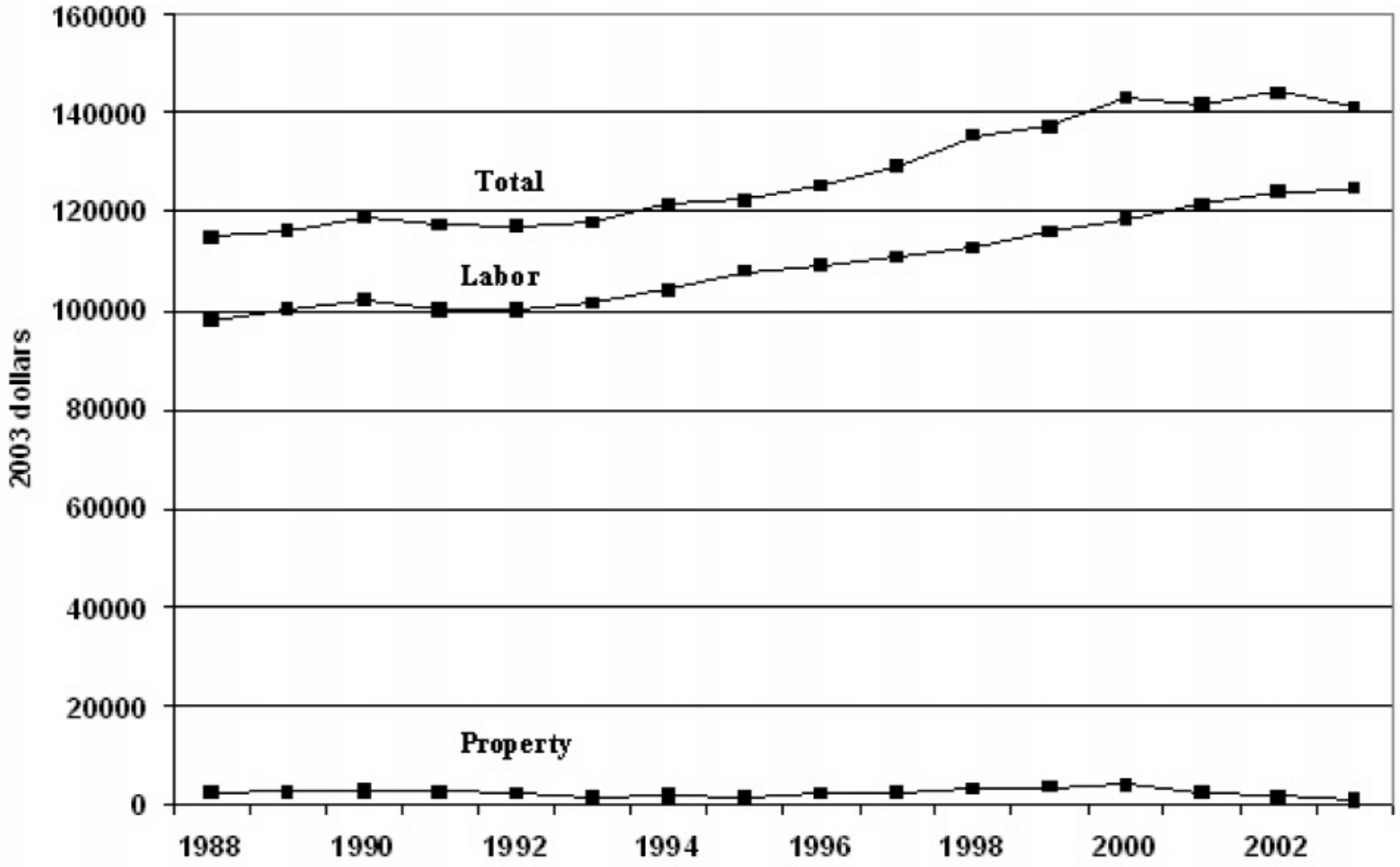
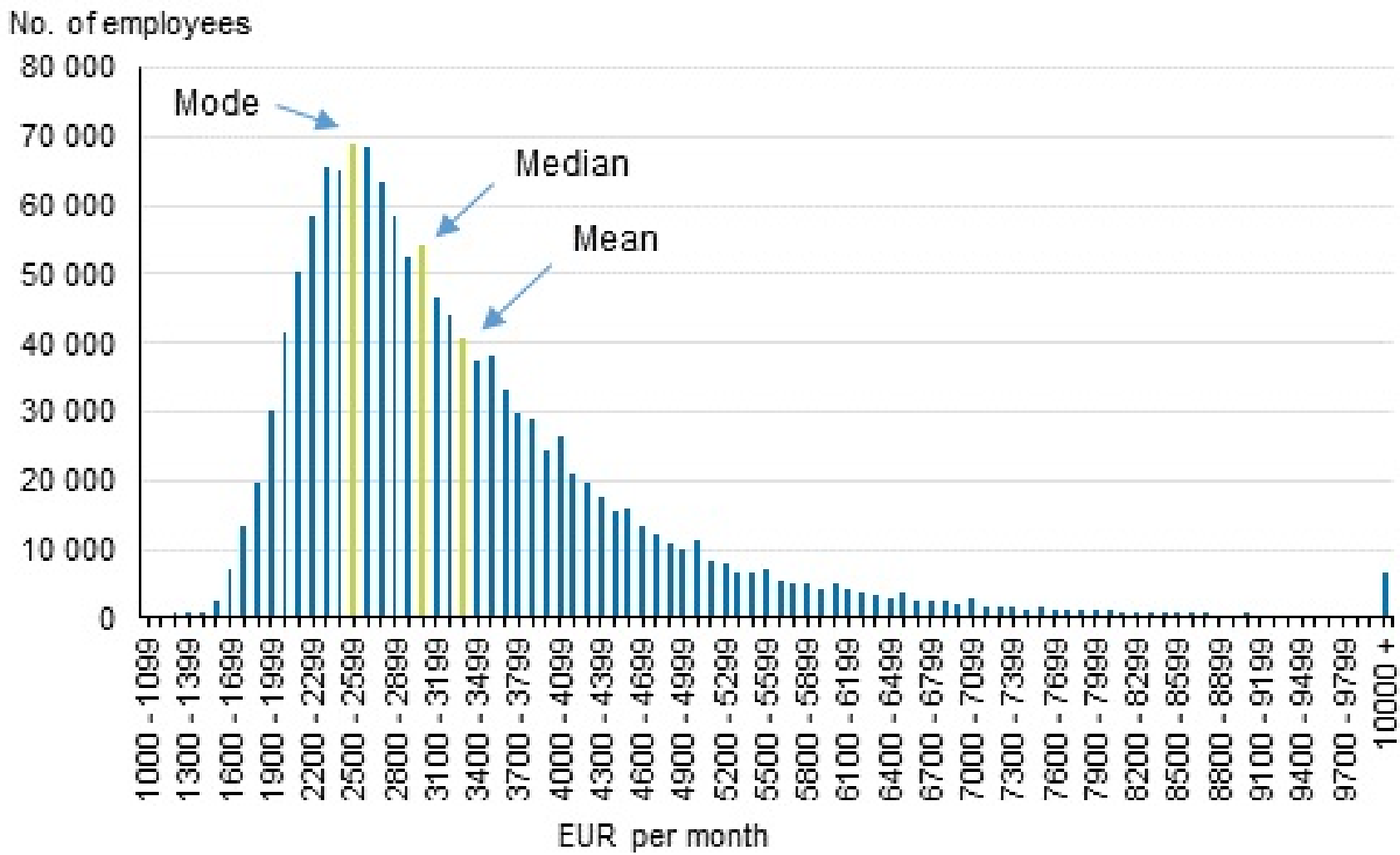


Figure 3.
Median Family Income and Components- Top 10% of Family Income

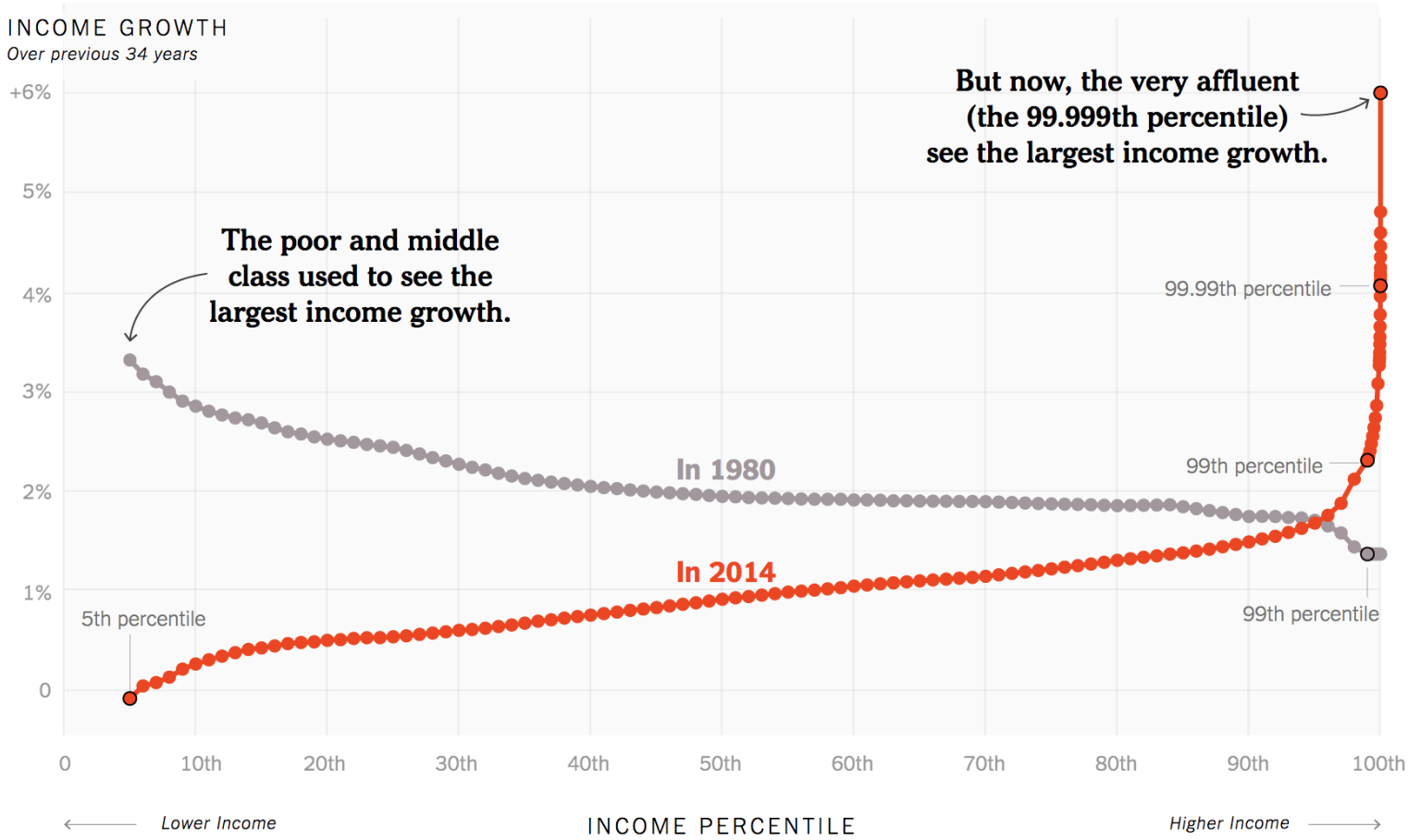
Distribution of monthly earnings, Finland, 2016

Source: Statistics Finland's Structure of Earnings statistics



Income growth, US, 1946-1980 vs 1980-2014

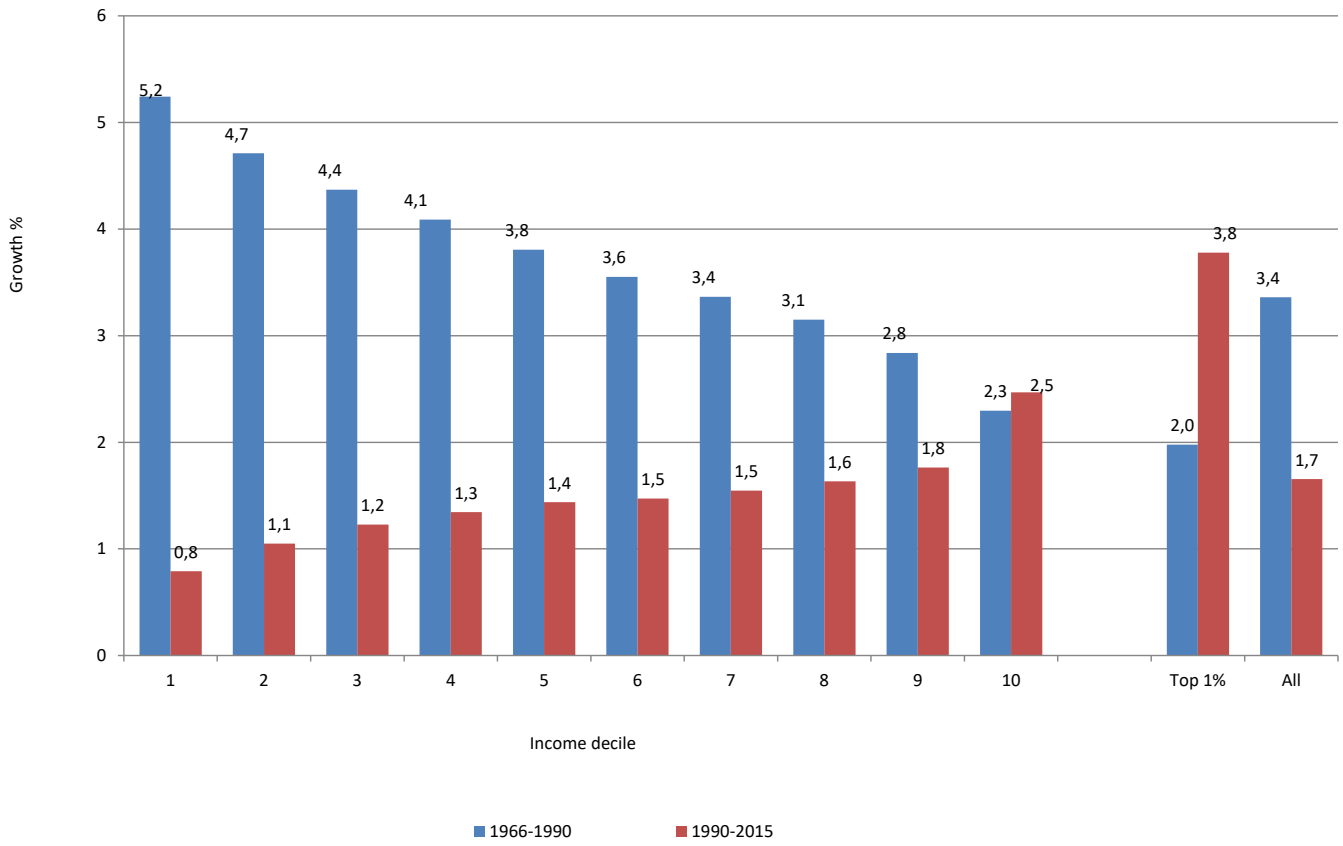
Source: Piketty, Saez and Zucman (2016)



Note: Inflation-adjusted annual average growth using income after taxes, transfers and non-cash benefits.

Income growth, Finland

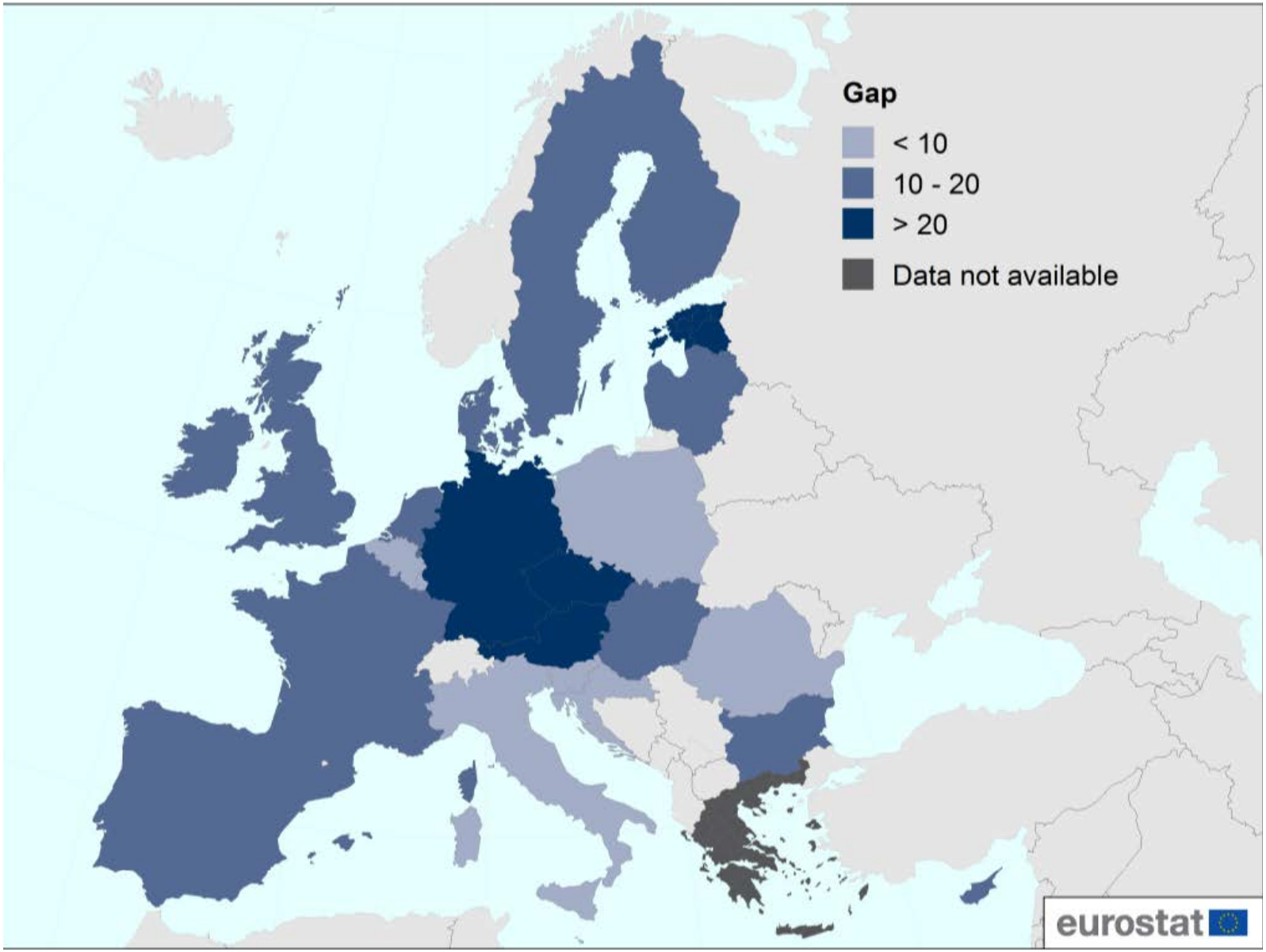
Real disposable income growth, 1966-1990 and 1990-2015 [Source: Riihela 2009]



Education as a measure of "skill"

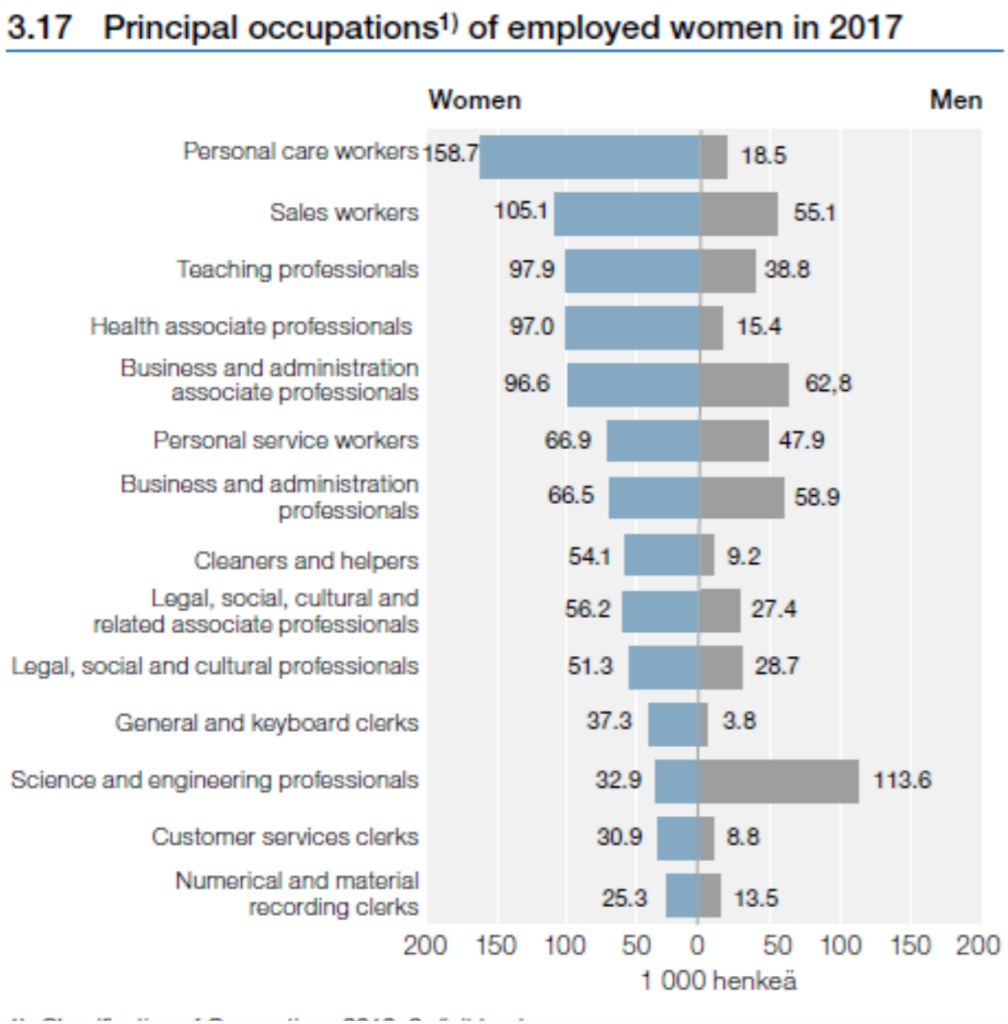
- A person's *education* is usually measured by:
  1. the number of years spent in school or university
  2. or by the highest academic degree obtained (e.g., high school diploma, university degree, etc.)
- When economists speak about 'high-skilled' or 'low-skilled' people, they usually mean people with different educational attainment.
- Large part of labor economics is devoted in understanding differences in labor market outcomes across different worker groups (skill, gender, race). Labour II course discusses this more.

Gender pay gap in the European Union, 2013 (%)



Occupational Segregation by Gender (Finland, 2017)

Source: Kauhanen, 2019



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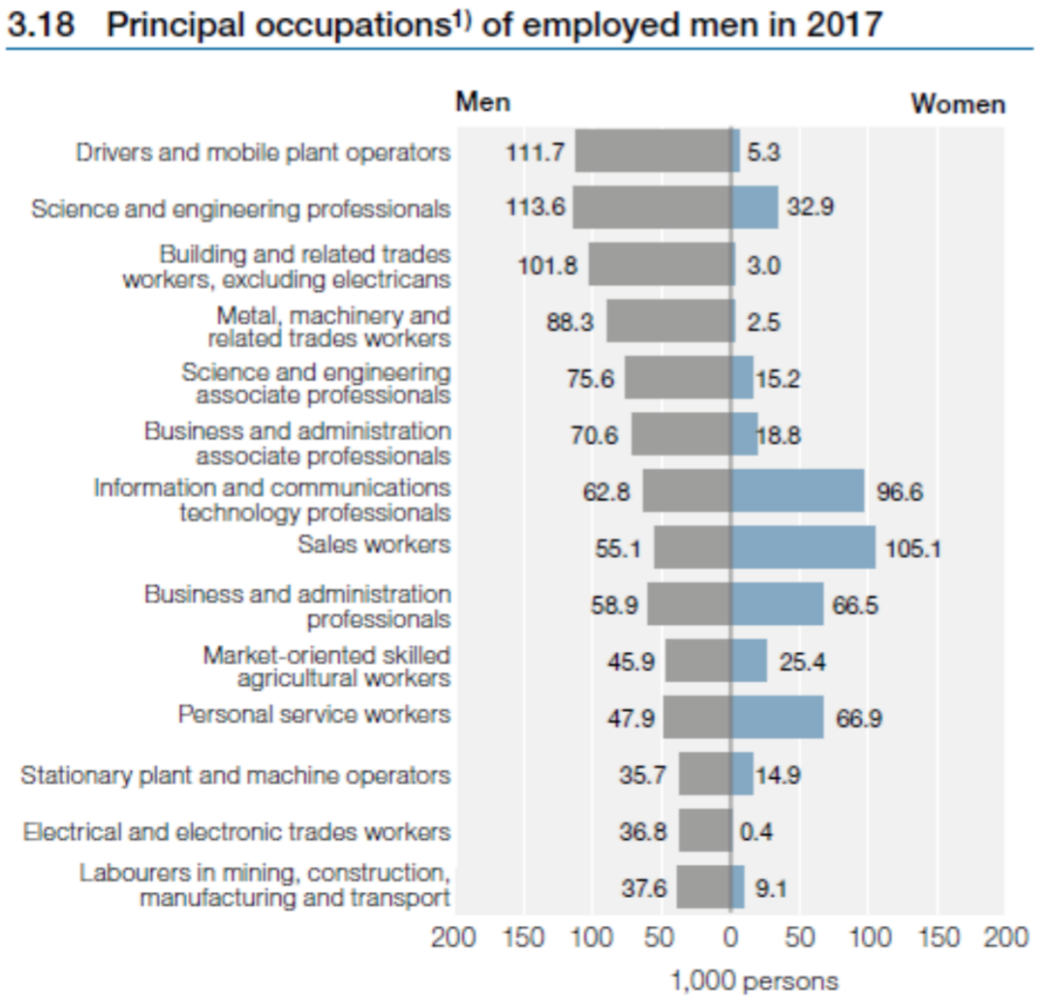
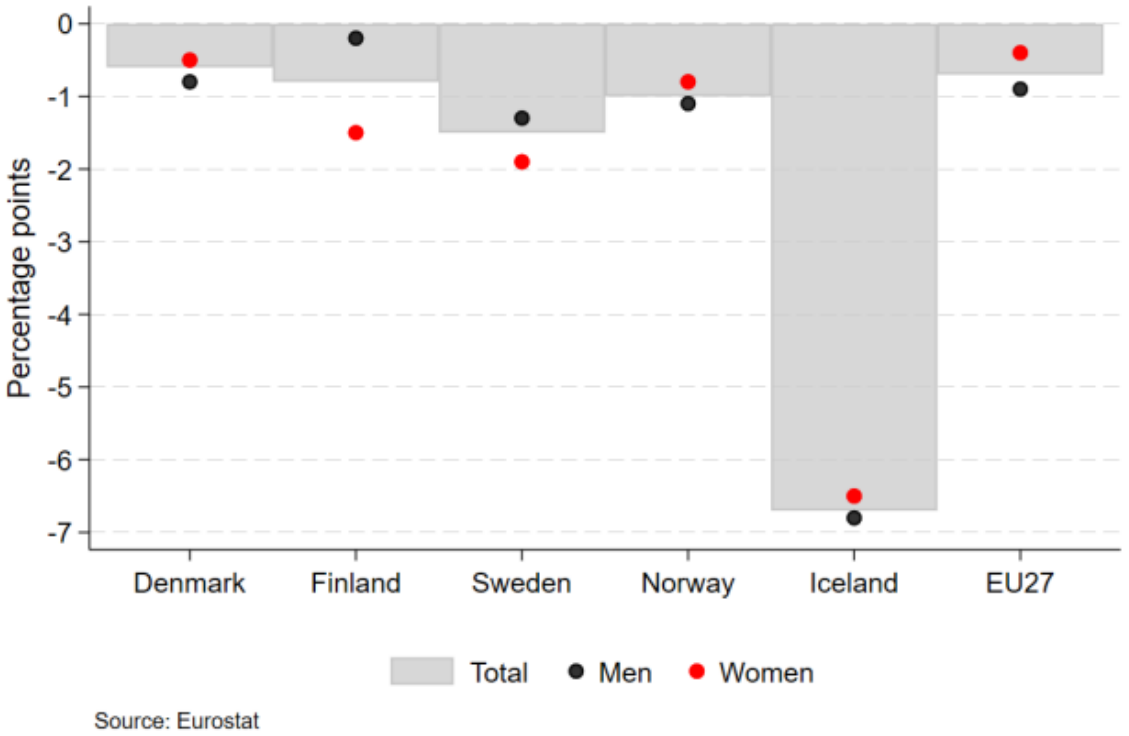


COVID-19 Pandemic and the Labor Market

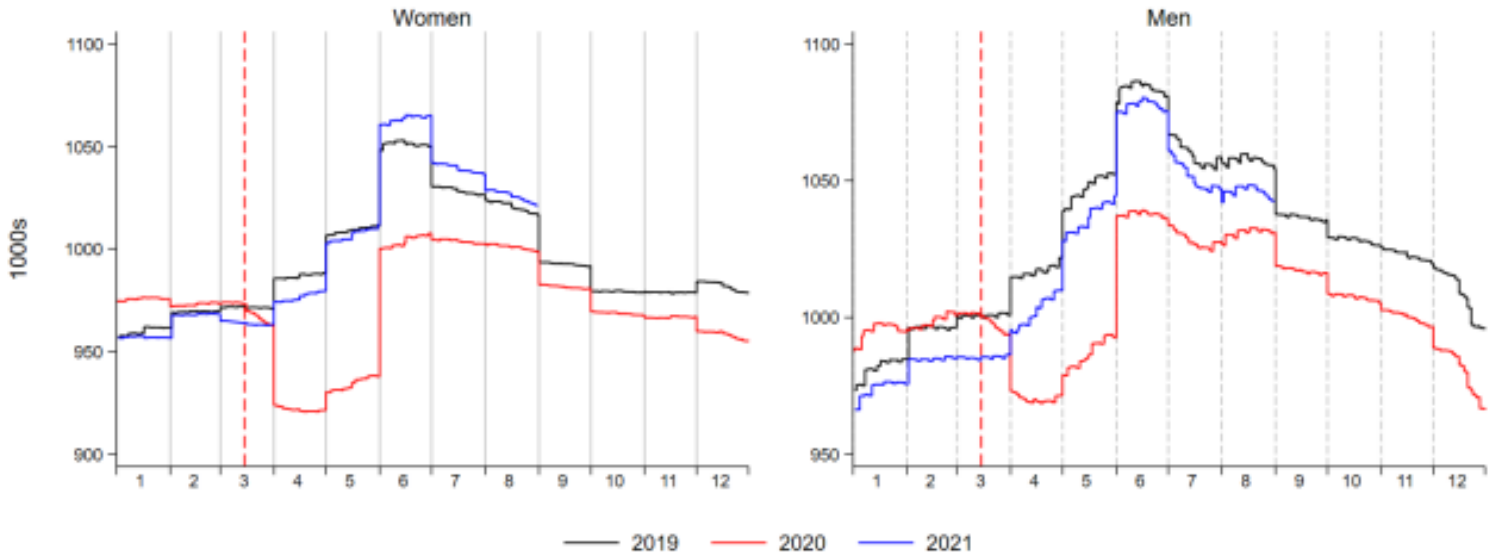
- The Pandemic has hit hard many countries: still little evidence on the overall impacts
  - Temporary employment losses
  - Women were hit more hard than in many other recessions (service sector, school closures)
  - Income inequality

Changes in employment rates between 2019Q4 and 2020Q4



Source: Eurostat

Number of employed men and women in 2019-2021



Source: Helsinki GSE situation room

Summary of Trends

- We have seen that over the past few decades:
  - female participation has risen while male participation has fallen
    - Important gender differences in part-time work and/or employment around childbirth (Family policies can matter)
  - hours per worker have fallen
  - unemployment has country-specific levels and fluctuations
  - inequality has increased
  - Clear differences in labor market outcomes by worker groups (skill-level, gender, race)
- We will see more labor market statistics later in the course.