

The youth labor market problem in cross-country perspective

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Concerns of policy institutions

- OECD
 - 1980, 1993, 1996, 1998, 1999, 2002, 2008 : Chapters in OECD Employment Outlook Reports and other publications
 - Currently: Jobs for youth project – studies 16 countries
- ILO
 - 2001: Monograph by O'Higgins - analyses the characteristics, causes, and consequences of youth unemployment and examines policy responses.
 - Various years: *Global Employment Trends for Youth Reports*
- ECB
 - 2002: Research paper by Jimeno and Rodriguez-Palenzuela - study youth unemployment rates relative to those of adults in OECD
 - 2008: Research paper by Gomez-Salvador and Leiner-Killinger - study youth unemployment rates in the Euro area

Concerns of academics

- Freeman and Wise (1982) - based primarily on the US experience, and concluded that the youth employment problems were driven by aggregate economic fluctuations, affecting only specific disadvantaged groups and not the vast majority
- Levy and Murnane (1992) - documented a marked deterioration in total youth outcomes in the US labour market, starting as far back as the mid-1970s
- Blanchflower and Freeman (2001) - provided evidence of a general deterioration in youth labour market performance common across European and North American countries, confirmed the causal role of aggregate economic activity, and presented the failure of computerization to favour youths as a puzzle.

Cyclicality

Demand for youth labor is more responsive to macroeconomic developments than is demand for older workers (OECD 1996; Blanchower and Freeman 2000; O' Higgins 2001; Bell and Blanchower 2010)

- youths constitute the market's most common job-seekers
- 'last in, first out' practices for youth employees in internally structured labor markets

Skill-bias

- Traditional skill-bias hypothesis (Wood, 1994; Autor, Katz, and Krueger, 1998)
 - the successful use of new technologies requires employers to replace less skilled workers with more skilled ones.
 - as advanced economies export to the rest of the world the more skill-intensive types of goods and services, and import from it the less skill-intensive ones, the growth of international trade is decreases the relative demand for less skilled workers
- Routinization hypothesis (Autor, Levy and Murnane , 2003; Goos and Manning , 2007) :
 - technology and trade displace less skilled workers in jobs whose content can be routinized, a category that includes very skilled ones but also less skilled jobs. The result is a polarisation rather than a simple upgrading of skill requirements.

Institutions

On the demand-side:

- Laws regarding hiring and firing
- Temporary work contracts

On the supply-side:

- Unemployment benefits
- Active labor market policies

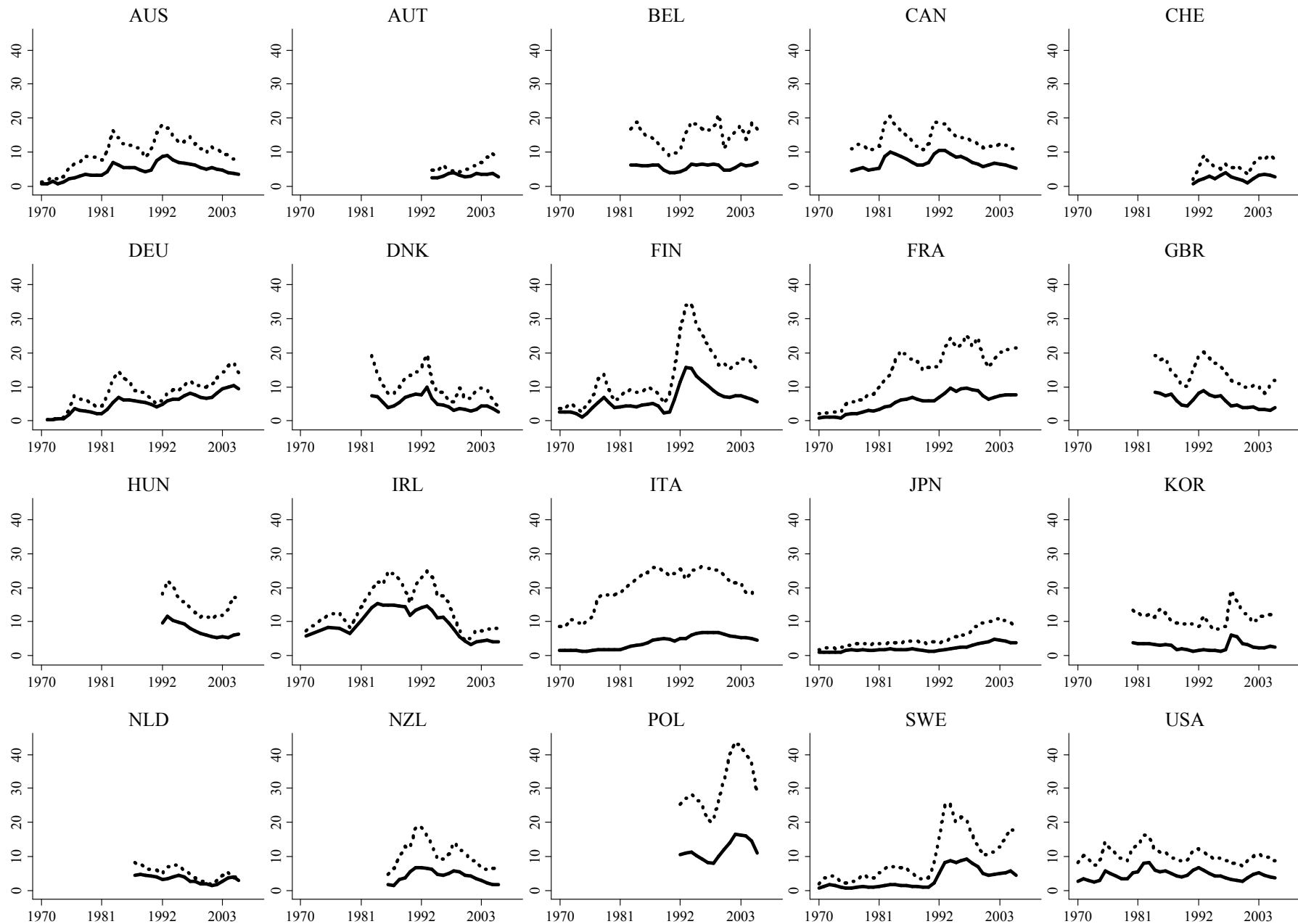
Wage-setting institutions:

- Minimum wage legislation
- Labor unions

School-to-work institutions:

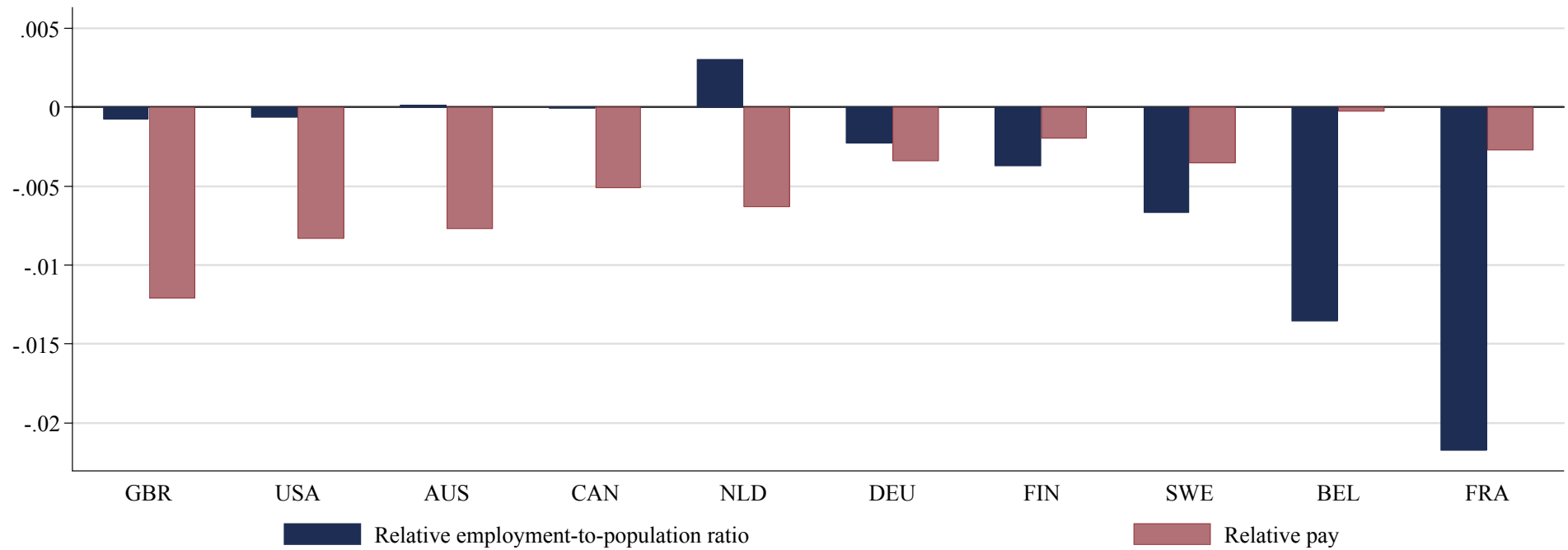
- School-employer networks
- Apprenticeships/Vocational training

Data: Unemployment rates



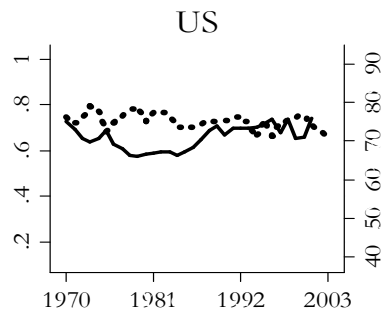
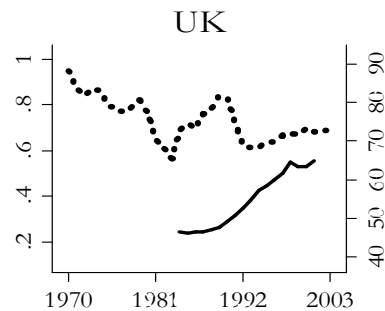
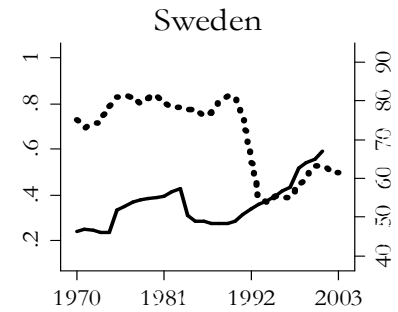
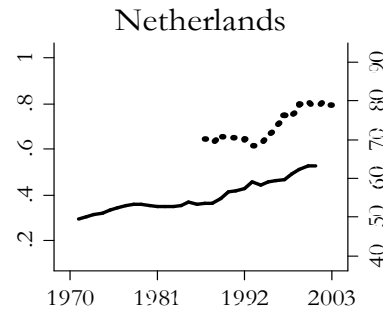
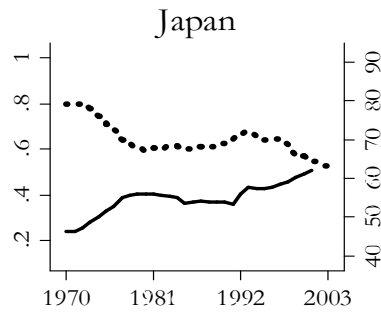
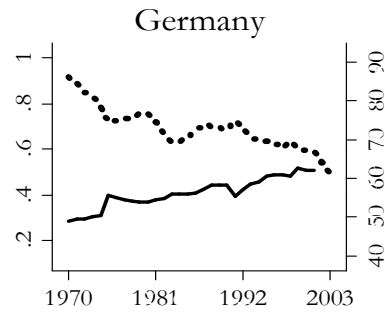
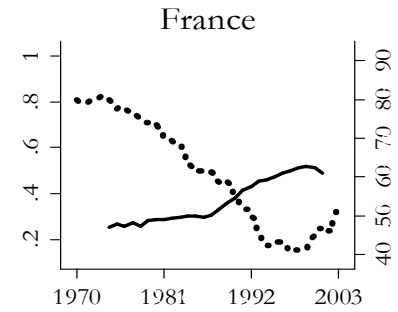
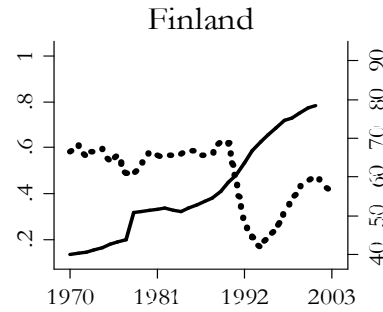
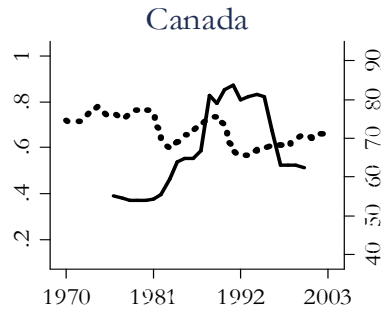
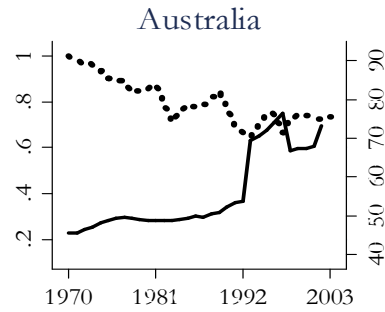
Data: Employment and pay

Average annual growth rates in relative employment and pay
of 20-24 and 25-54 year-old males



Data: Employment and education

Participation in tertiary education/population of 20-24 year olds

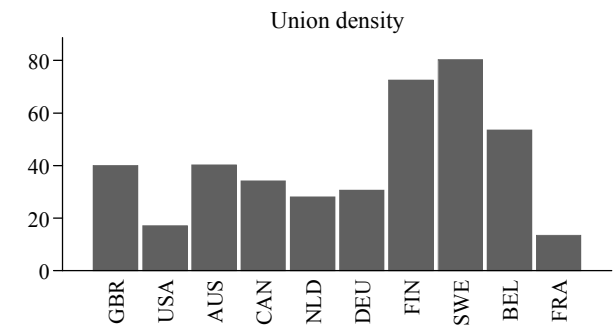
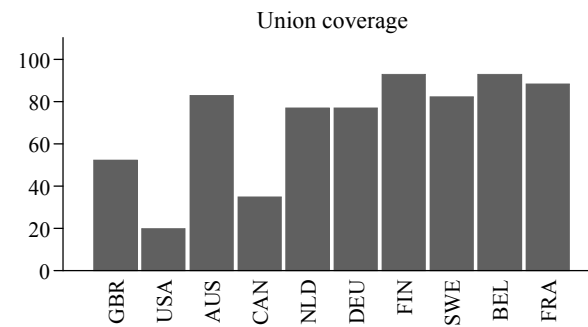
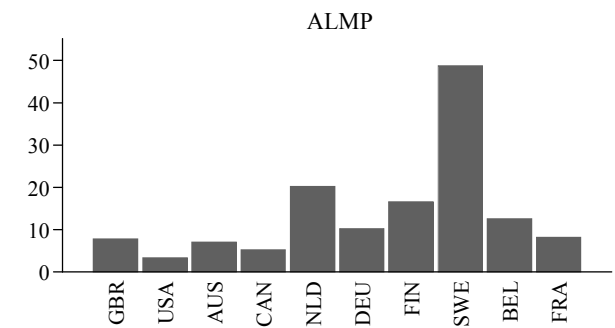
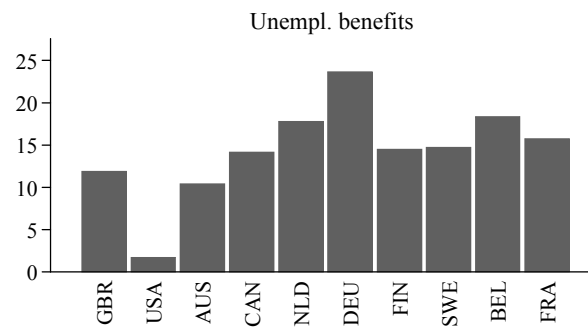
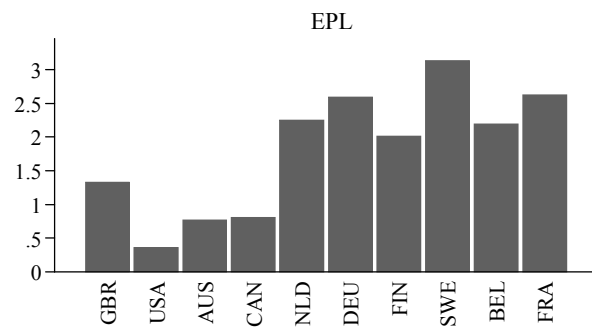


Educational participation – Solid line
Employment/population – Dots

Employment as a % of population of 20-24 year olds

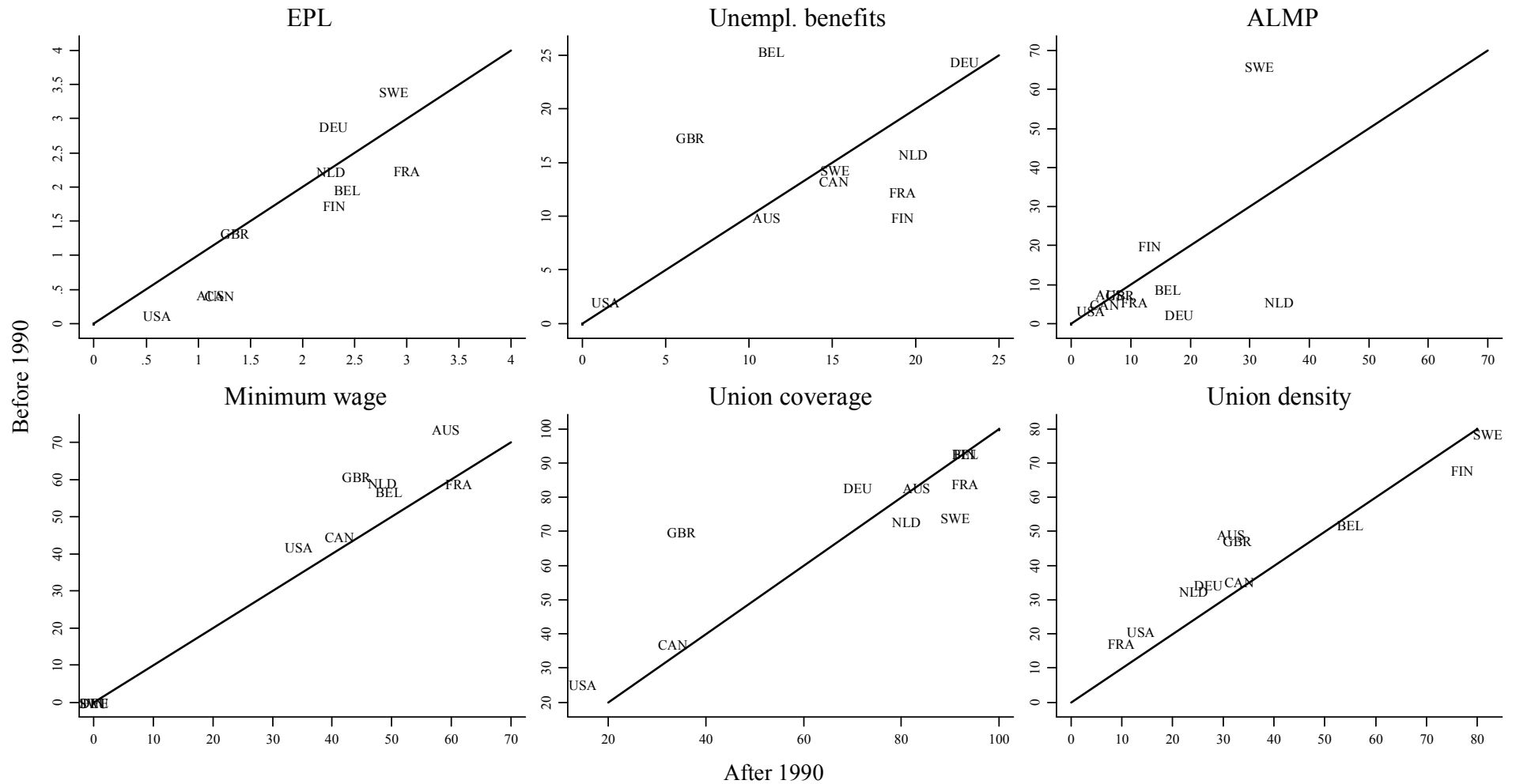
Data: labor market institutions

Mean value of selected institutions over 1975-2005



Data: Changes in labor market institutions

Mean values of selected institutions before and after 1990



Data: Apprenticeships

Country	Year	Number of registered apprentices	Apprentices as a % of the 20-24 year-old cohort
Australia	1998	124500	9.3
Canada	1997	172343	8.7
Finland	1997	36289	11.6
France	1998	337690	9.5
Germany	1997	1622000	36.7
Netherlands	1998	138000	14.3
Sweden	2000	2000	0.4
UK	1998	117700	3.4
US	2000	360511	2.0

Empirical assessment of proposed explanations: structural approach

Relative demand:
$$\ln \left(\frac{D_i}{D_j} \right)_{ct} = a_0 + a_1 \ln \left(\frac{W_i}{W_j} \right)_{ct} + \sum_k a_{2k} \ln X_{kct} + e_{1ct}$$

Relative supply:
$$\ln \left(\frac{S_i}{S_j} \right)_{ct} = b_0 + b_1 \ln \left(\frac{W_i}{W_j} \right)_{ct} + b_2 \ln E_{ct} + \sum_k b_{3k} \ln X_{kct} + e_{2ct}$$

Educ. participation:
$$\ln E_{ct} = c_0 + c_1 \ln \left(\frac{W_i}{W_j} \right)_{ct} + \sum_k c_{2k} \ln X_{kct} + e_{3ct}$$

Disequilibrium condition:
$$\ln \left(\frac{U_i}{U_j} \right)_{ct} = \ln \left(\frac{S_i}{S_j} \right)_{ct} - \ln \left(\frac{D_i}{D_j} \right)_{ct}$$

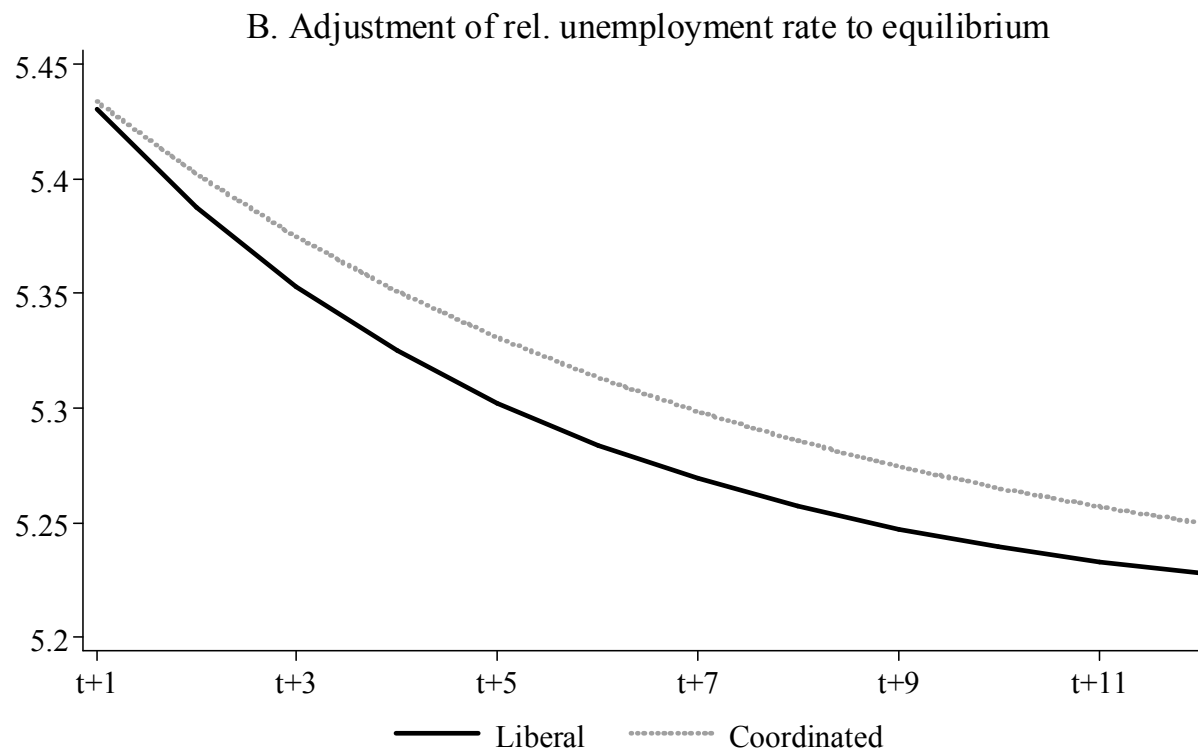
Relative wage adjustment:
$$\Delta \ln \left(\frac{W_i}{W_j} \right)_{ct} = d_0 + d_1 \ln \left(\frac{U_i}{U_j} \right)_{ct} + \sum_k d_{2k} \ln X_{kct} + e_{4ct}$$

Results for the 'typical' labor market

- Deterioration in youth relative labor outcomes is demand-driven: sources of the adverse shift are both aggregate economic cycles and skill-biased trends related to international trade and technical change.
- Supply-side developments have dampened the effects of falling relative demand: relative population declined, young people increasingly participate in education instead of the labor force.
- Educational participation is often forced by lack of job opportunities or good pay in the labor market.
- On average, wages have moved to clear the market at a slow pace

Differences in relative pay adjustment

Adjustment to equilibrium relative unemployment rate (log points)



Liberal:
English-speaking
countries
(AU, CA, UK, US)

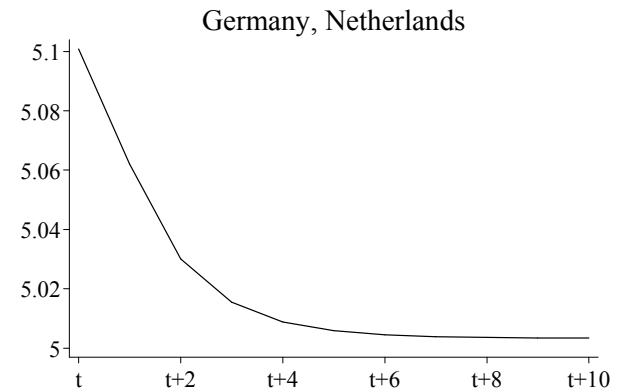
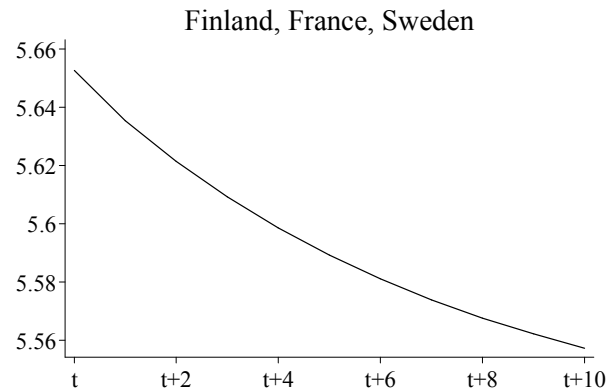
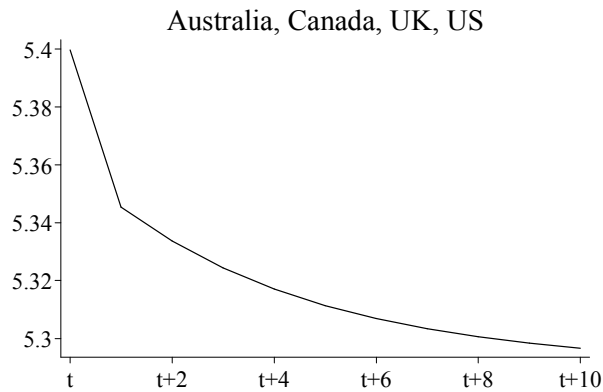
Coordinated:
Continental
European
countries
(BEL, GER, FIN,
FRA, NET, SWE)

There is need for more research!

- **School-to-work institutions:** can they protect youths from adverse demand shifts and to what degree?
- **Macro cycles vs. skill-biased forces:** which are more important for youth performance? Does their relative importance change over time?
- **Job polarization:** how does it affect youth labor outcomes?
- **Computerization:** why does it not work in favor of young people? Is it because new technologies are job-specific and require labor market experience?

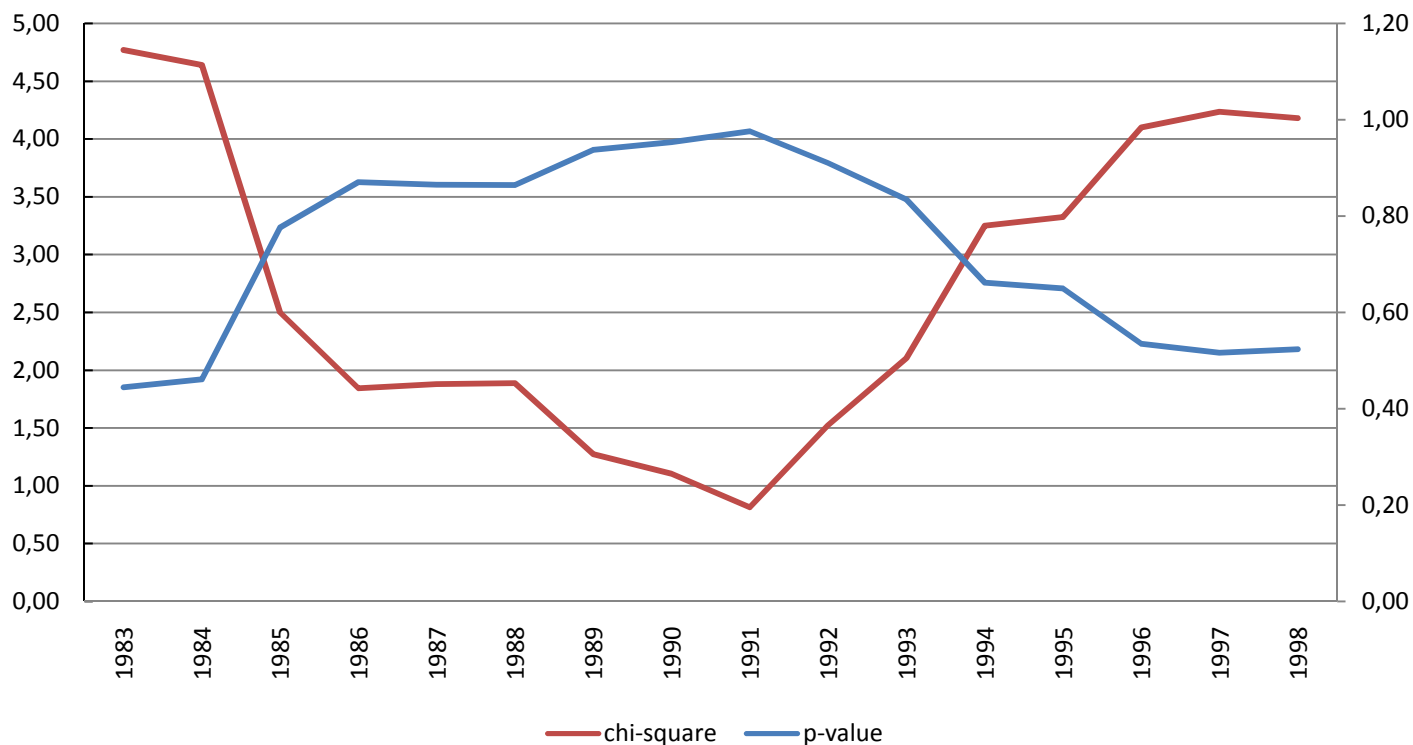
Germany and the Netherlands: special?

Adjustment to equilibrium relative unemployment rate (log points)



Structural break in relative demand?

Chow-test for structural break

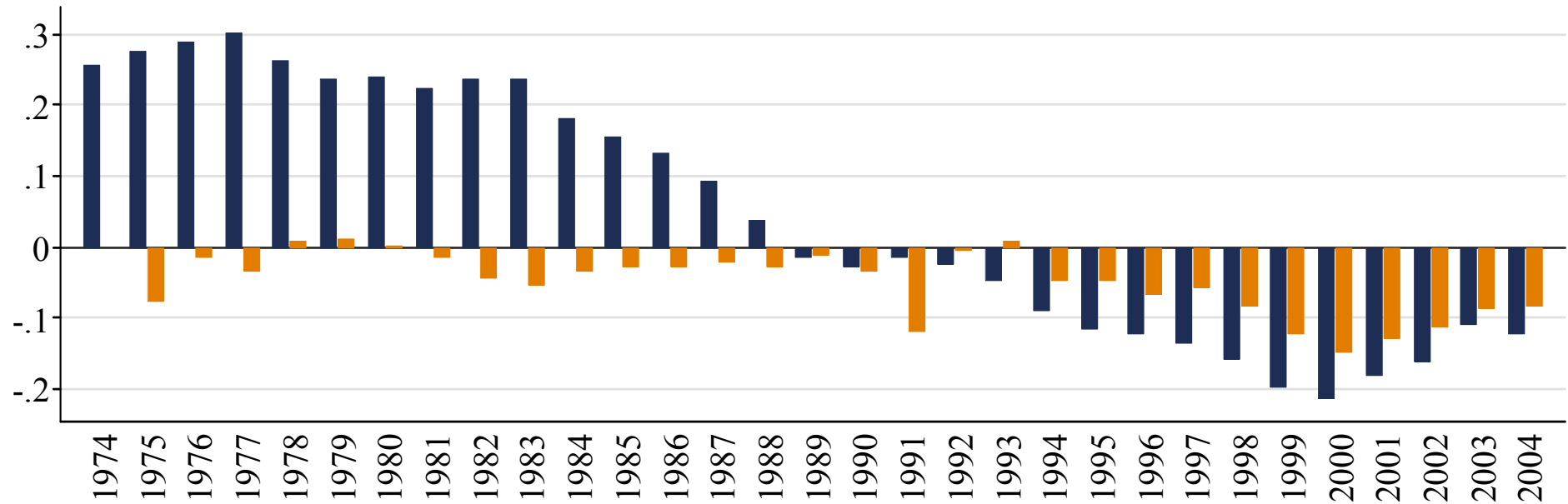


Relative labor demand:
$$\ln\left(\frac{E_i}{E_j}\right)_{ct}^D = \alpha_{0c} + \alpha_{0t} + \alpha_1 \ln\left(\frac{W_i}{W_j}\right)_{ct} + \sum_{\kappa} \alpha_{2\kappa} \ln X_{\kappa ct} + \varepsilon_{ct}$$

Relative pay is instrumented by relative labor force participation, net migration rates.
 Controls are: output gap, time-trend, import penetration, ICT capital services

Structural break in relative demand?

Estimated time effects of relative labor demand

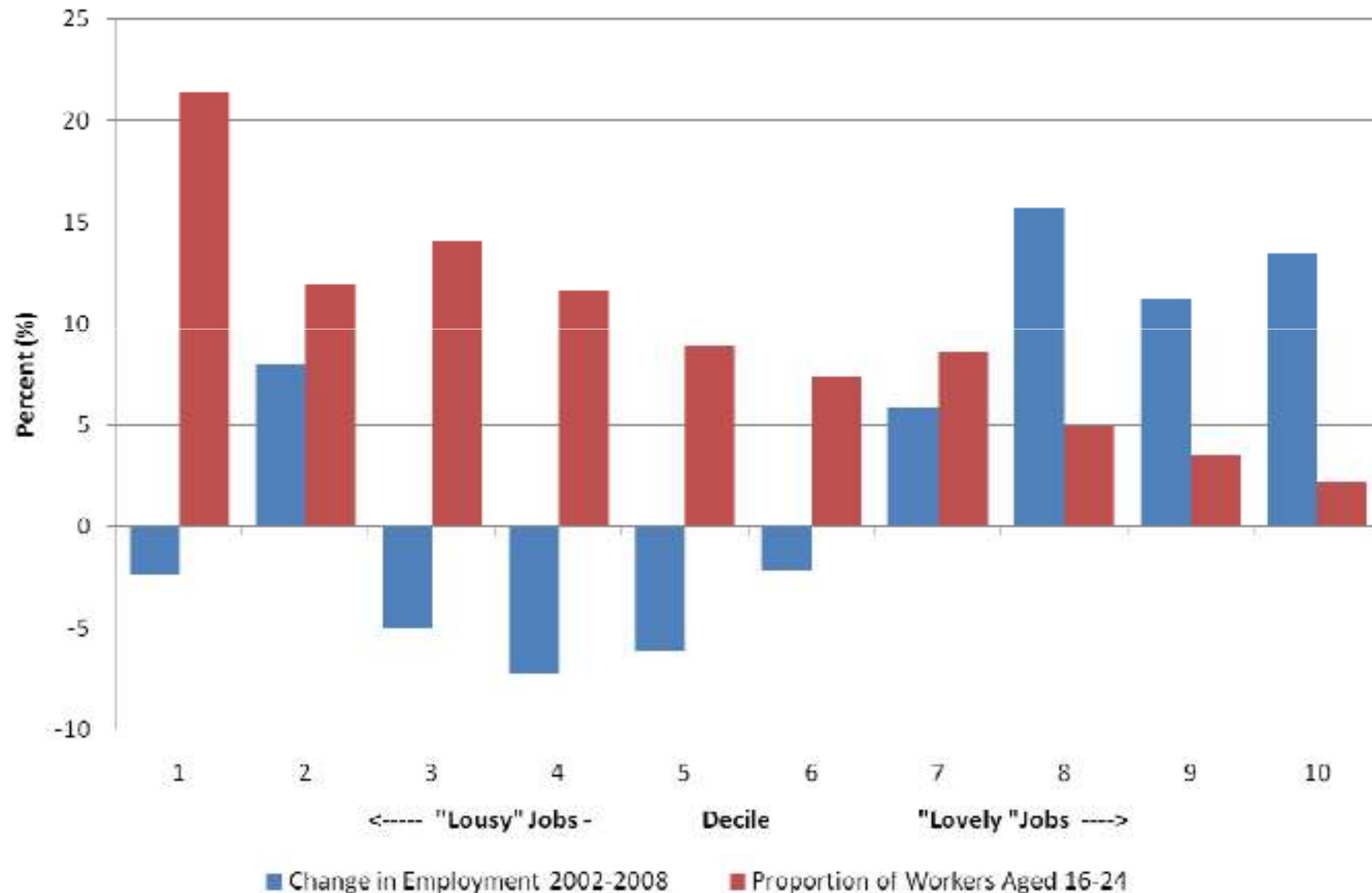


Blue bars: Specification controls for macro cycles (output gap); technical change (ICT capital services); trade (import penetration); and institutions (EPL, PMR)

Orange bars: Specification controls for macro cycles (output gap) **before 1992**; technical change (ICT capital services) **after 1992**; trade (import penetration); and institutions (EPL, PMR)

Job polarization?

Employment growth and % of jobs of 16-24 Year Olds across wage deciles
UK, 2002-2008 (Source: Bell & Blanchflower, 2010)



Thank you for your attention!