



Skills and inequality: The political economy of education reforms in Western welfare states

Marius R. Busemeyer
University of Konstanz

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Introduction

“Education is special.” (Harold Wilensky 1975: 3)

Overarching question:

Political and institutional linkages between education and the welfare state

Core argument:

Institutional choices during critical juncture of postwar decades...

...shape development paths of education and training systems

...have consequences for contemporary patterns of social inequality

...feed back into popular attitudes towards education and the welfare state



Literature

- Gap in comparative welfare state research (policies, attitudes)
- Educational sociology: looks at educational inequality, not at social inequality
- Education research: lacks comparative perspective, too historical
- Varieties of Capitalism: functional complementarities between education and social policy, not political coalitions
- New debate on the social investment state: looks at contemporary period, not historical development

→ Big research gap in basic research!



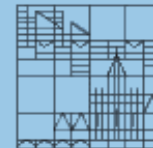
Decommodification and stratification in education and training regimes

Decommodification:

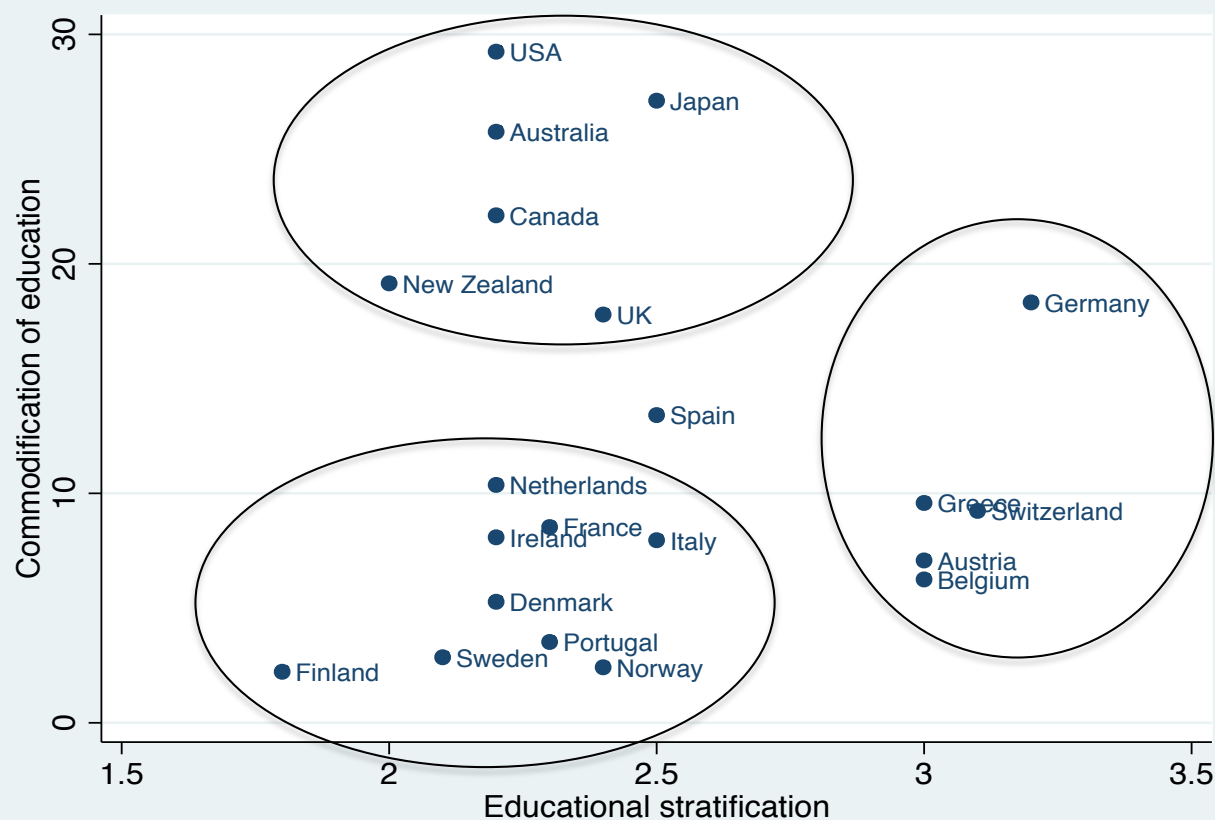
- T.H. Marshall: education as social right
- Gary Becker: education as investment
- Division of labor between public and private sources of funding

Stratification:

- How educational institutions influences class bias in access to different levels of education
- OECD measure, based on students' expectations for completing higher education

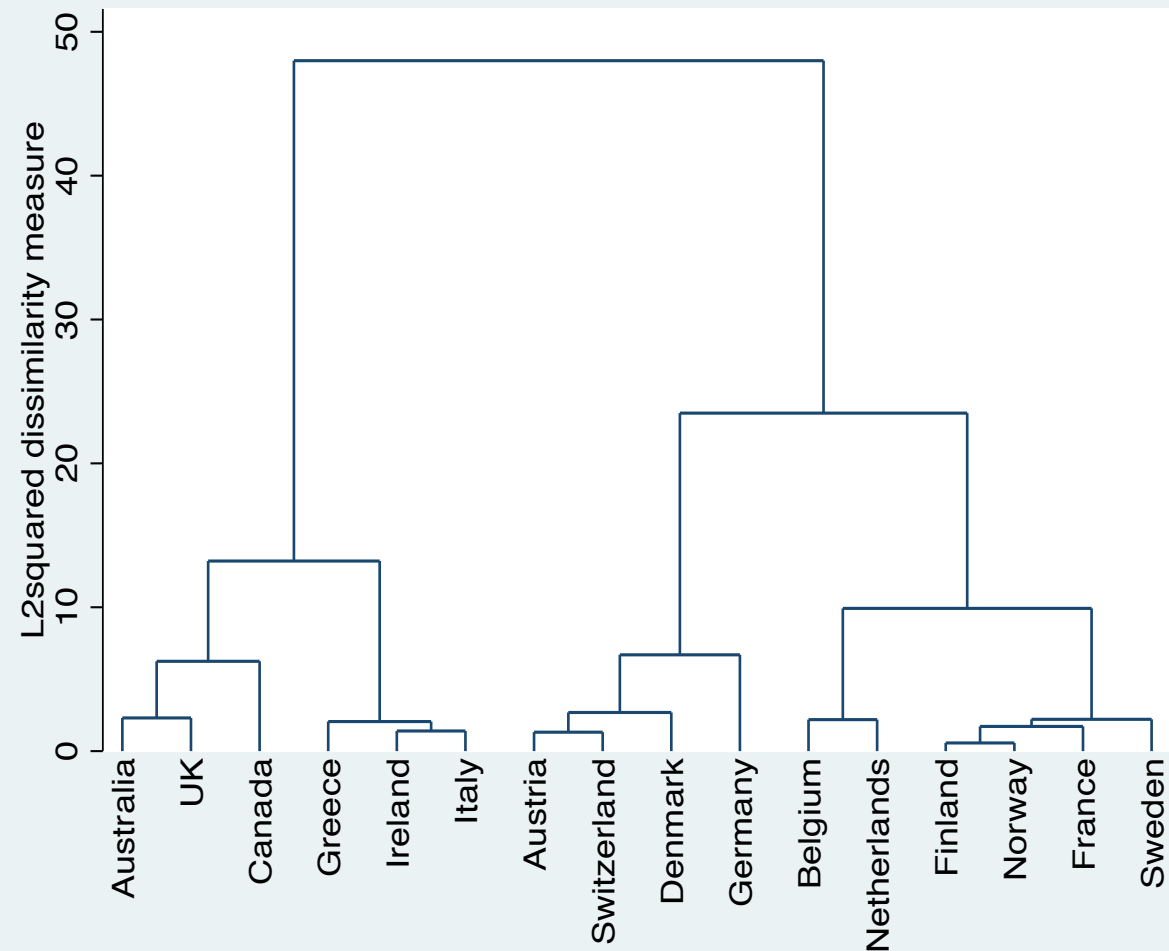


Decommodification and stratification in education and training regimes





Three worlds of skill formation





Political coalitions, institutions and policies



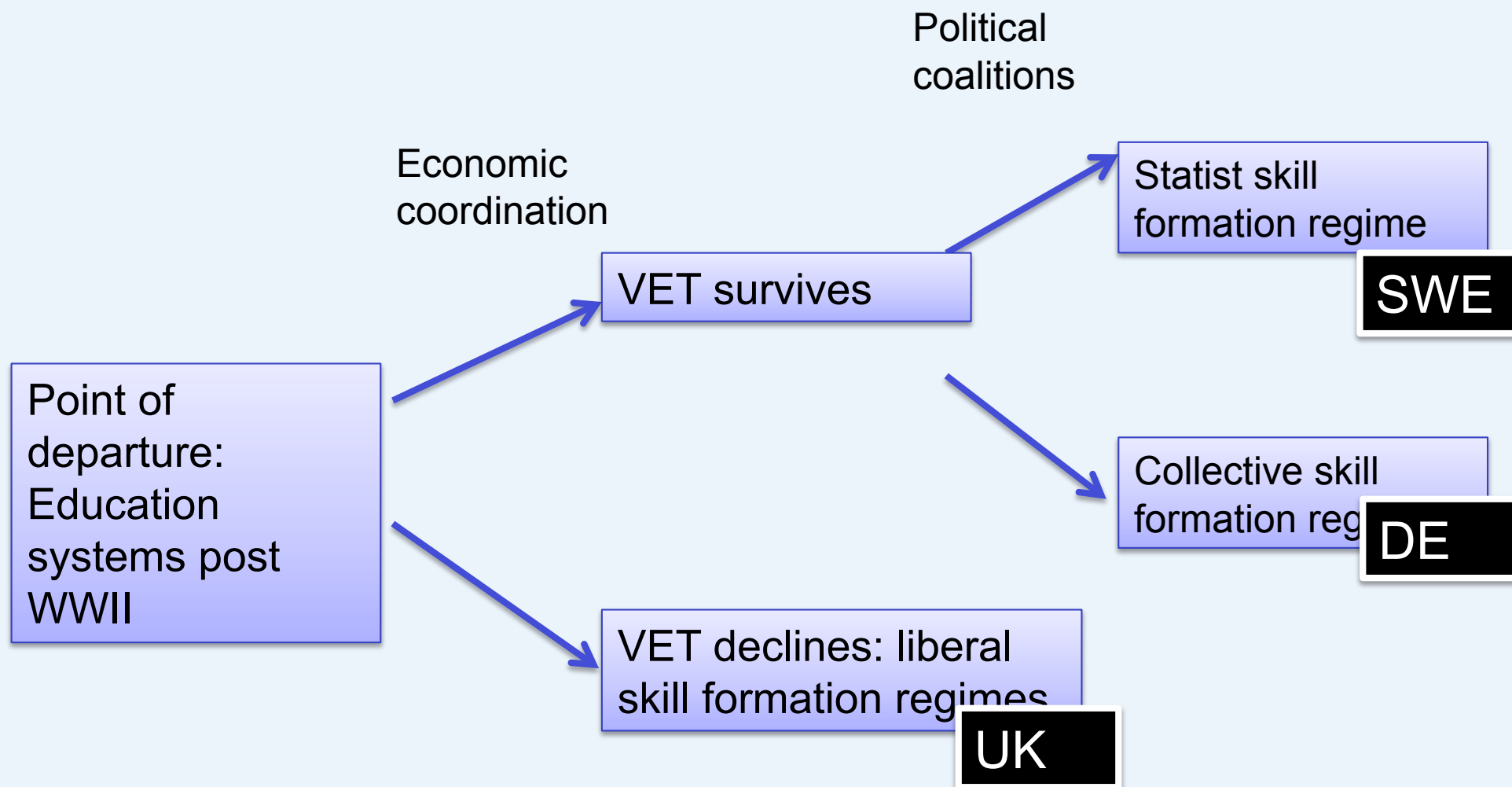
Partisan politics in context

Partisan theory:

Partisan composition of governments matters, in particular during critical junctures of policy development.

Three extensions:

- Parties do not only care about policy output, but also about process
→ Difference between Conservatives and Christian democrats
- Interplay between partisan forces and socio-economic context
→ Varieties of Capitalism shape menu of feasible policy options
- Focus on long-term effects of partisanship rather than short-term effects





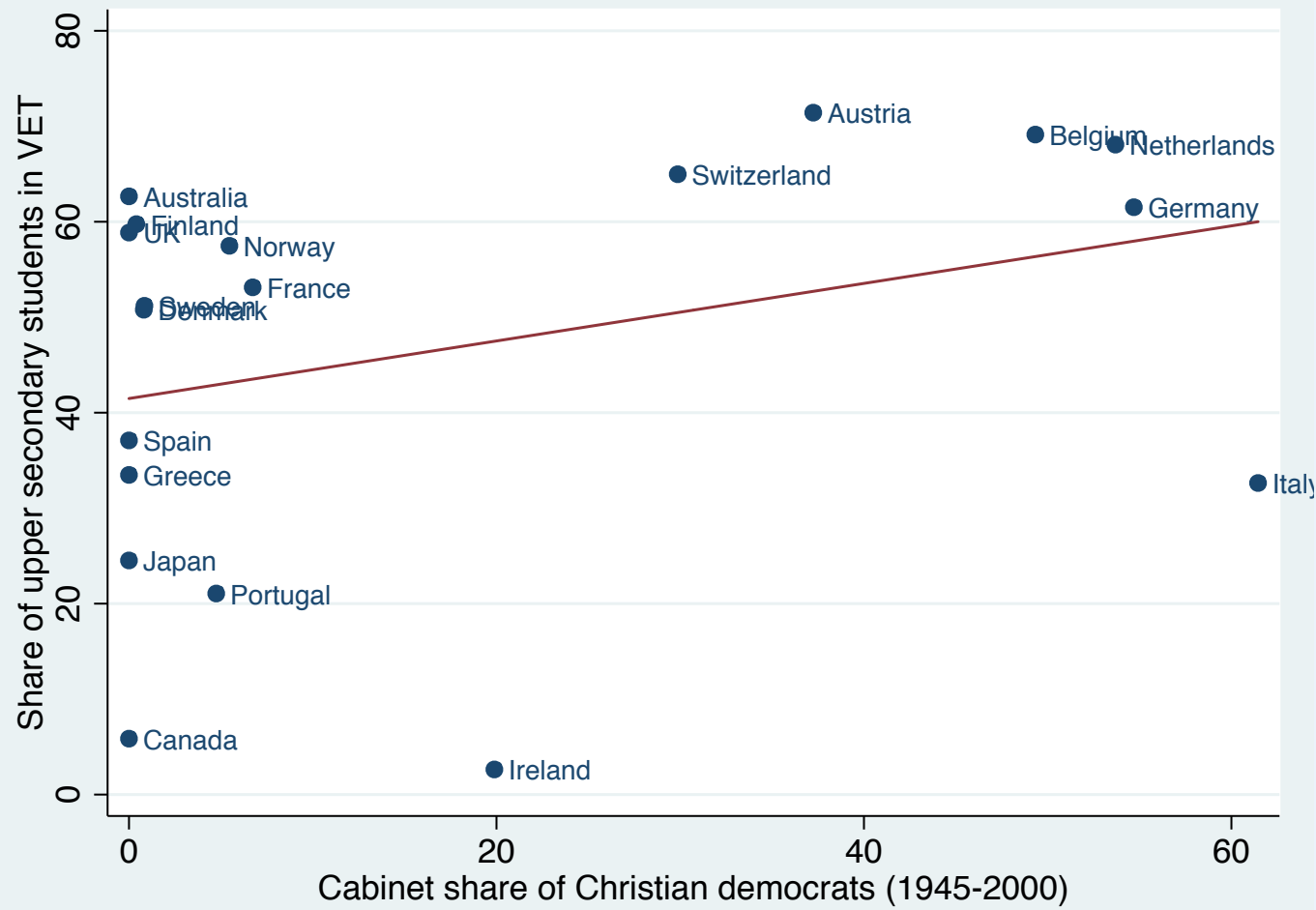
Case studies

- Political coalitions in critical juncture of development of post-secondary education and training regimes:
 - Sweden: cross-class coalition with dominant Left
 - Germany: cross-class coalition with dominant Right, Christian Democracy as driving force of firm-based VET
 - UK: no cross-class coalition, dominance of market liberalism
- Emerging path dependencies:
 - Sweden: social partners support school-based training
 - Germany: social partners support firm-based training
 - UK: „tenacity of voluntarism“ (D. King)
- Whether VET survives (and in which form) has important implications for future development of education and welfare state



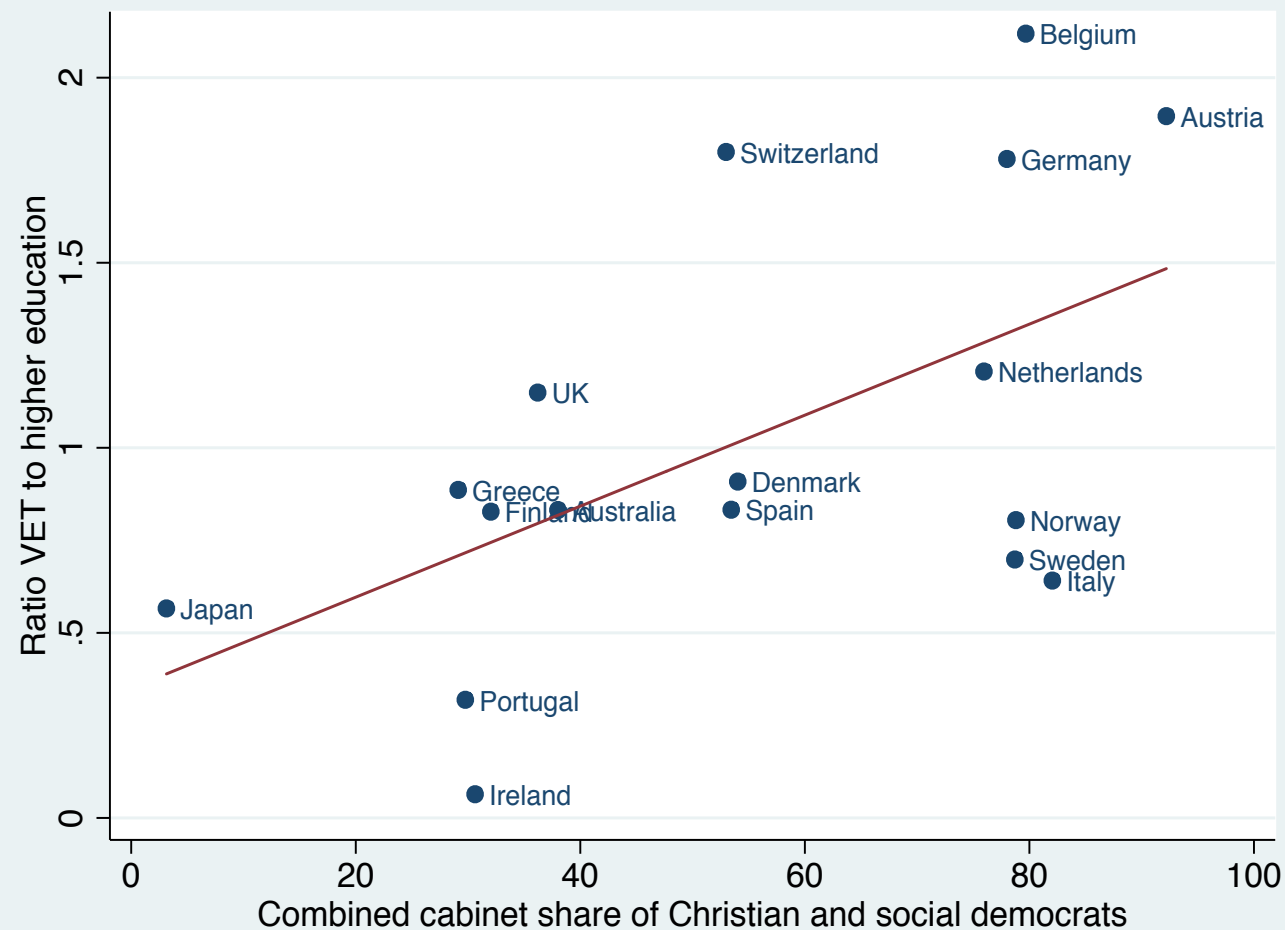
Quantitative analysis: Summary of findings

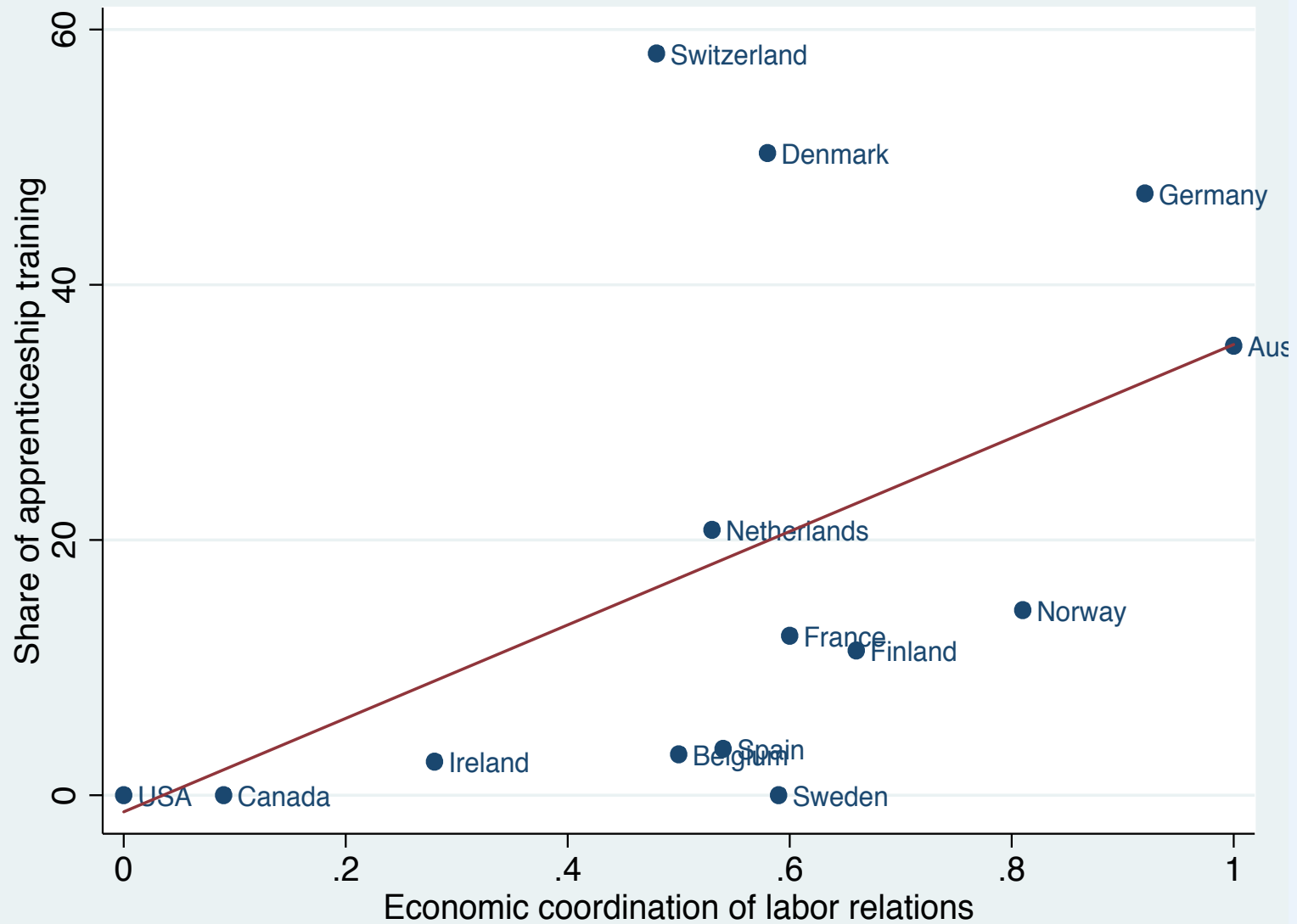
- Left parties expand enrolment in and public spending on all kinds of education
- Conservatives favor private spending and depress enrolment in VET
- Christian democratic governments lower enrolment in tertiary education, boost enrolment in VET, in particular firm-based VET
- Economic coordination is positively associated with VET and high levels of firm-based training in particular

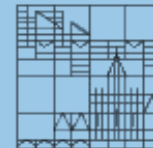




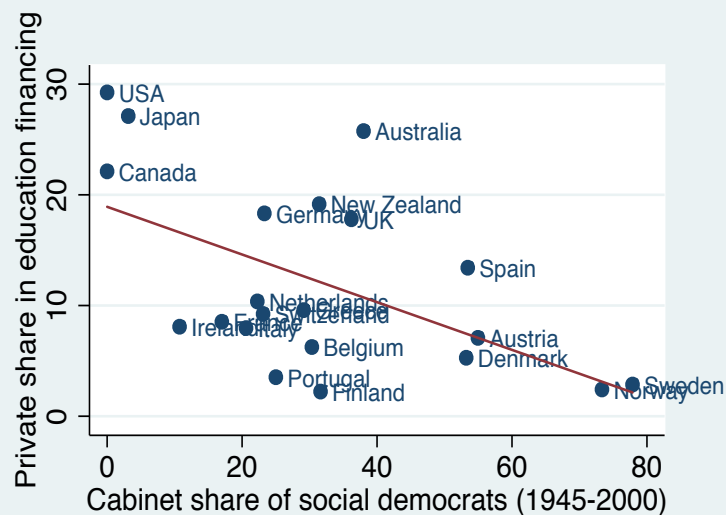
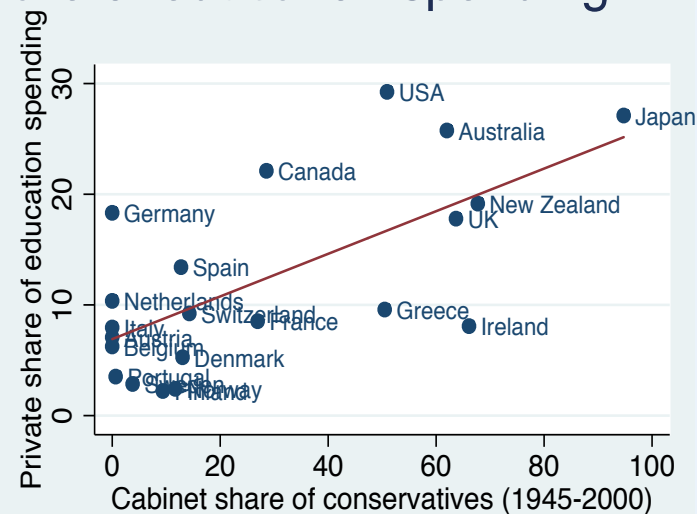
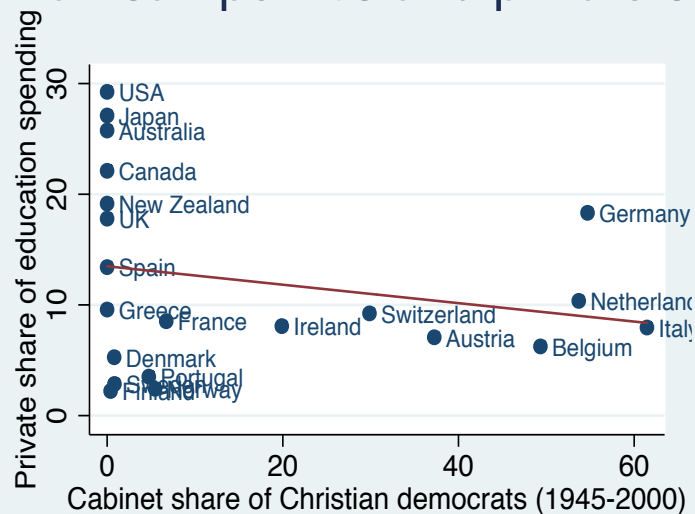
Quantitative cross-sectional evidence







Partisan politics and private share of education spending

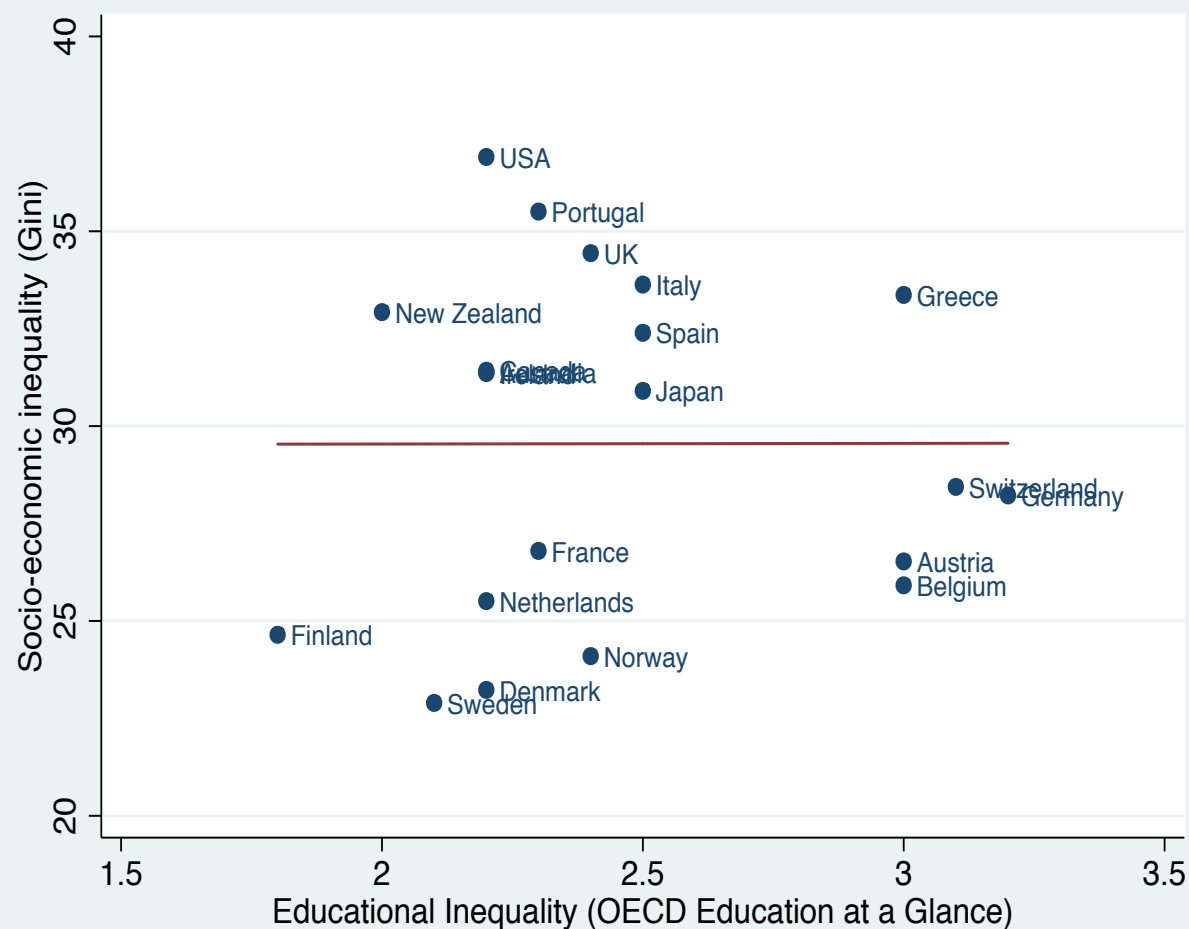




Outcomes: Educational institutions and social inequality

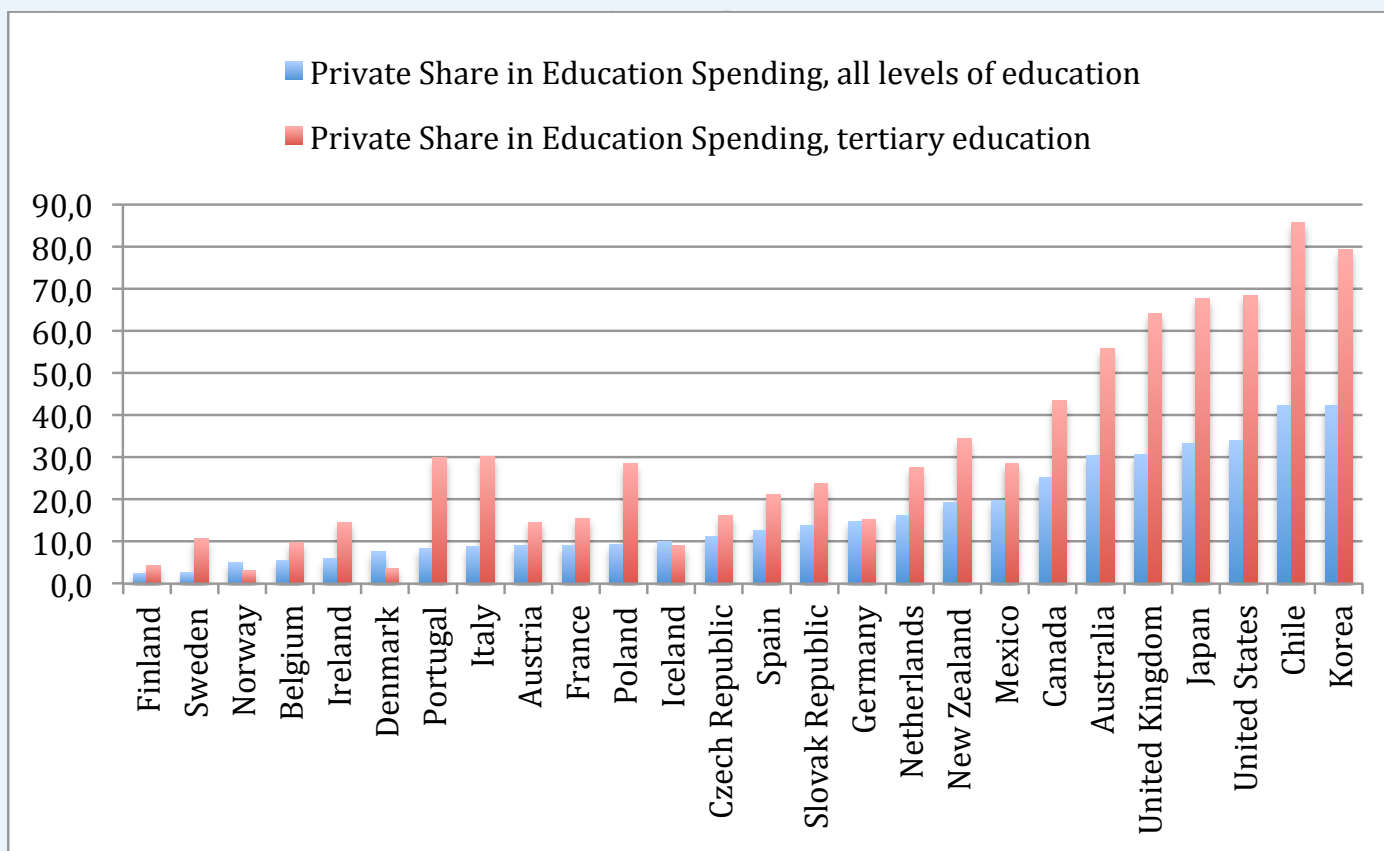


Socio-economic inequality and educational stratification





Private share in education financing

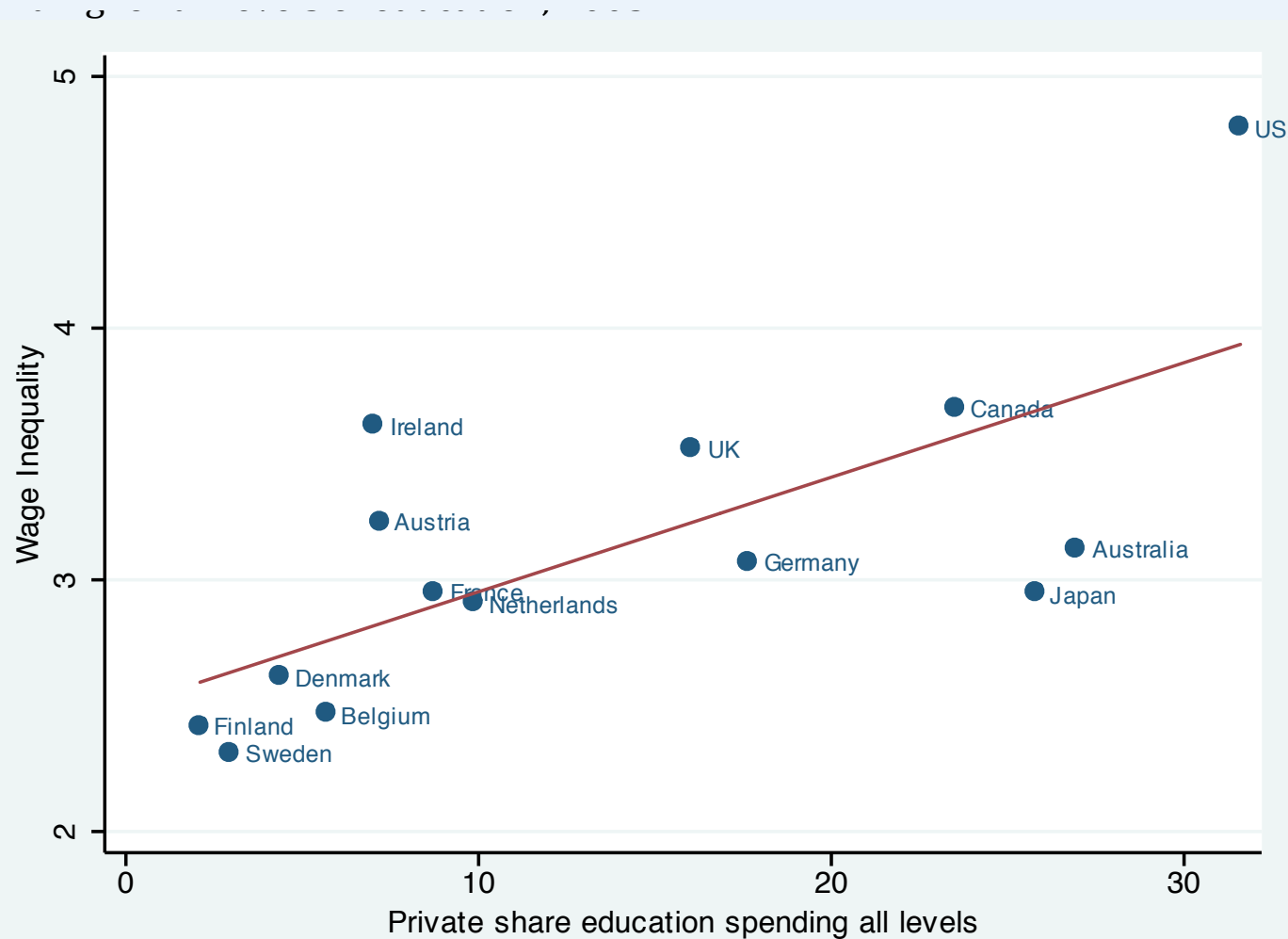


Source: OECD, 2010: Education at a Glance, 233.

Note: Data for Norway and Ireland are from earlier years (2000 and 2006, respectively).



Wage inequality and private spending share



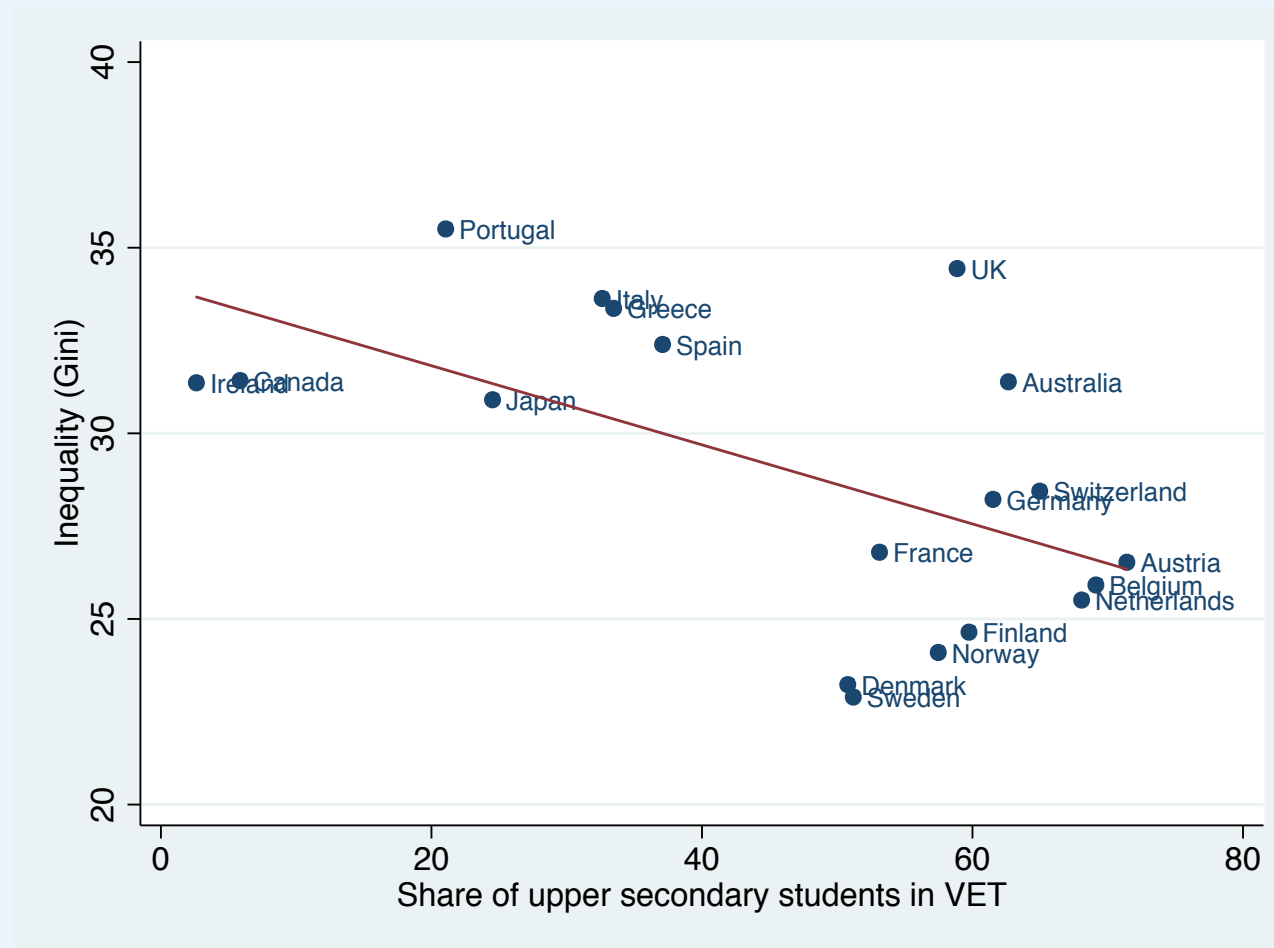


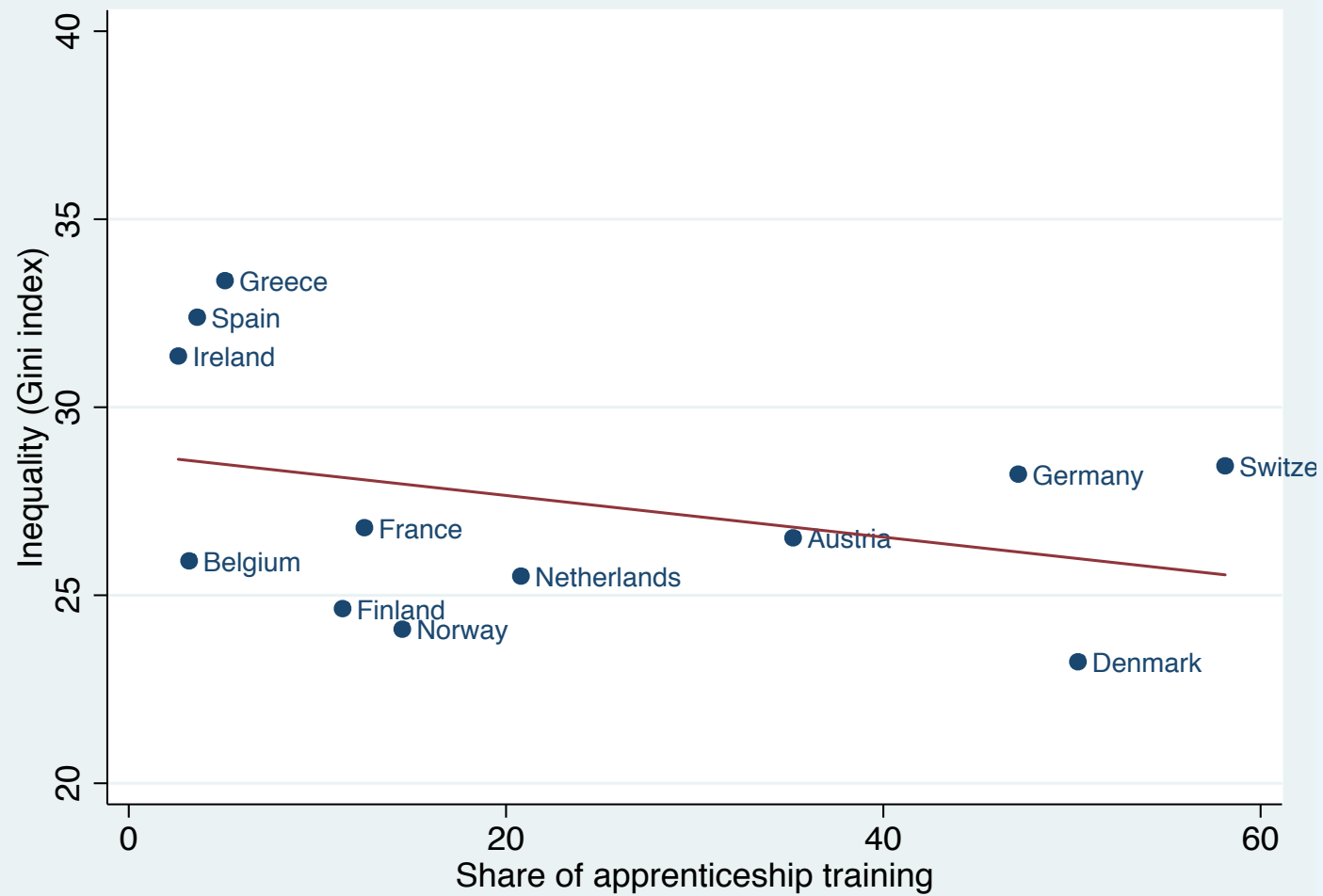
VARIABLES	(1)	(2)	(3)	(4)
	Level of Wage Inequality (D9-D1 Ratio)			
LDV	0.986*** (0.00882)		0.973*** (0.0119)	
GDP Growth	-0.000610 (0.00247)	0.00222 (0.00342)	-0.00269 (0.00233)	-0.00458 (0.00335)
Unemployment	0.00184** (0.000755)	0.00831 (0.00511)	0.00304*** (0.000945)	0.0322*** (0.00552)
Deindustrialization	-0.0894 (0.0911)	0.783* (0.412)	-0.0641 (0.0776)	0.861* (0.482)
Left partisanship	0.000111 (8.53e-05)	-0.000139 (0.000310)	0.000137 (8.58e-05)	-0.000459** (0.000199)
Wage Bargaining	-0.000655 (0.00534)	-0.0662*** (0.0146)	-0.00122 (0.00563)	-0.0192** (0.00931)
Centralization				
Social transfer spending			-0.00288** (0.00135)	-0.0545*** (0.00520)
Private Share in Education	0.00249*** (0.000847)	0.0248*** (0.00634)	0.00252*** (0.000821)	0.0208*** (0.00339)
Financing				
Constant	0.0815 (0.0591)	2.622*** (0.273)	0.171** (0.0753)	3.943*** (0.335)
Observations	276	280	268	271
R-squared	0.995	0.958	0.995	0.895
Number of centry_nr	16	16	16	16

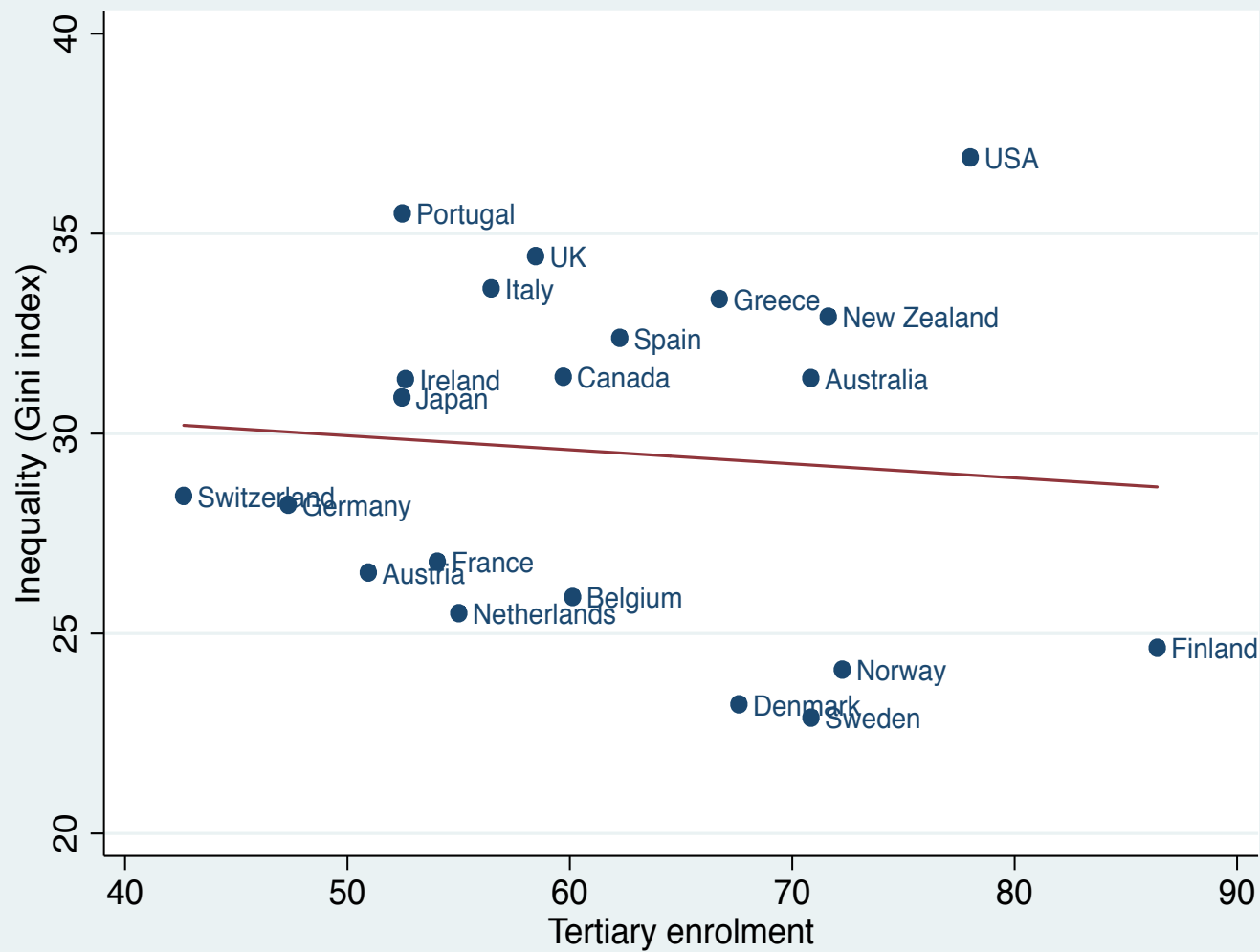
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1



Post-secondary enrolment patterns and inequality





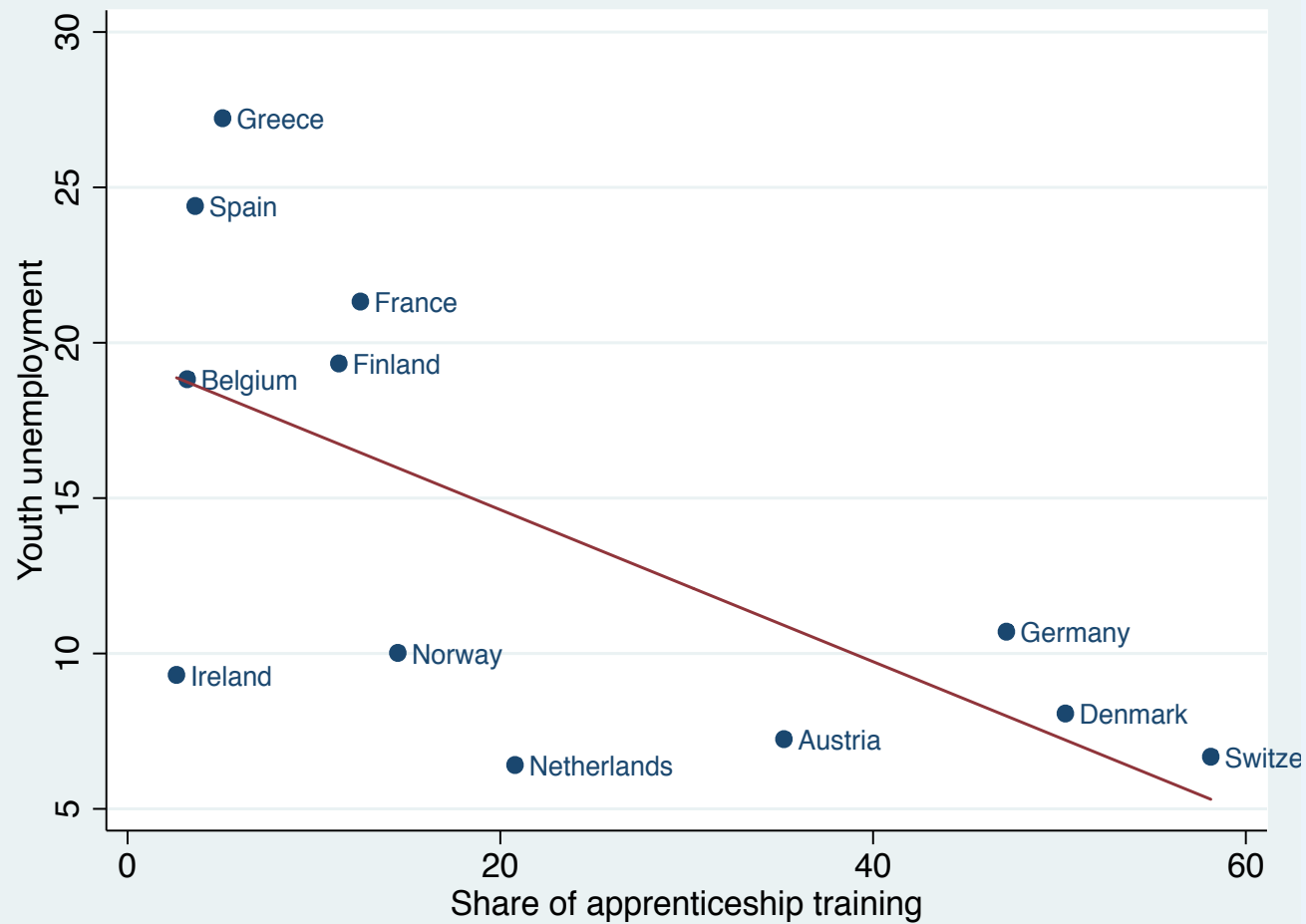




Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)
	Socio-economic inequality (Gini index)					
GDP growth	-0.00667 (0.0534)	-0.0229 (0.0438)	0.0159 (0.0778)	-0.0701 (0.0493)	-0.0449 (0.0447)	-0.0734** (0.0306)
Unemployment	0.0196 (0.0489)	0.136*** (0.0307)	-0.0801 (0.0520)	0.177*** (0.0505)	0.120*** (0.0398)	0.353*** (0.0449)
Wage Bargaining Centralization	-0.131 (0.102)	-0.264 (0.178)	-0.0601 (0.0777)	-0.160 (0.123)	-0.158 (0.106)	-0.182 (0.130)
Government partisanship	-0.266** (0.106)	-0.0330 (0.0611)	-0.252** (0.110)	-0.0375 (0.0730)	-0.221** (0.0954)	0.0195 (0.0581)
Share of apprenticeship training	-0.0150 (0.0208)		-0.0361 (0.0305)		-0.0306 (0.0241)	
Share of upper secondary students in VET		-0.0562*** (0.00873)		-0.0479*** (0.0135)		-0.0410*** (0.00840)
Public social spending (% of GDP)			0.233*** (0.0630)	-0.186* (0.0984)		
Social transfer spending (% of GDP)					-0.177*** (0.0533)	-0.545*** (0.0465)
Constant	26.95*** (0.758)	30.40*** (0.897)	24.15*** (1.041)	32.20*** (0.686)	29.70*** (0.894)	35.95*** (0.502)
Observations	95	172	85	156	95	172
R ²	0.985	0.984	0.990	0.981	0.985	0.984
Number of countries	10	17	10	17	10	17

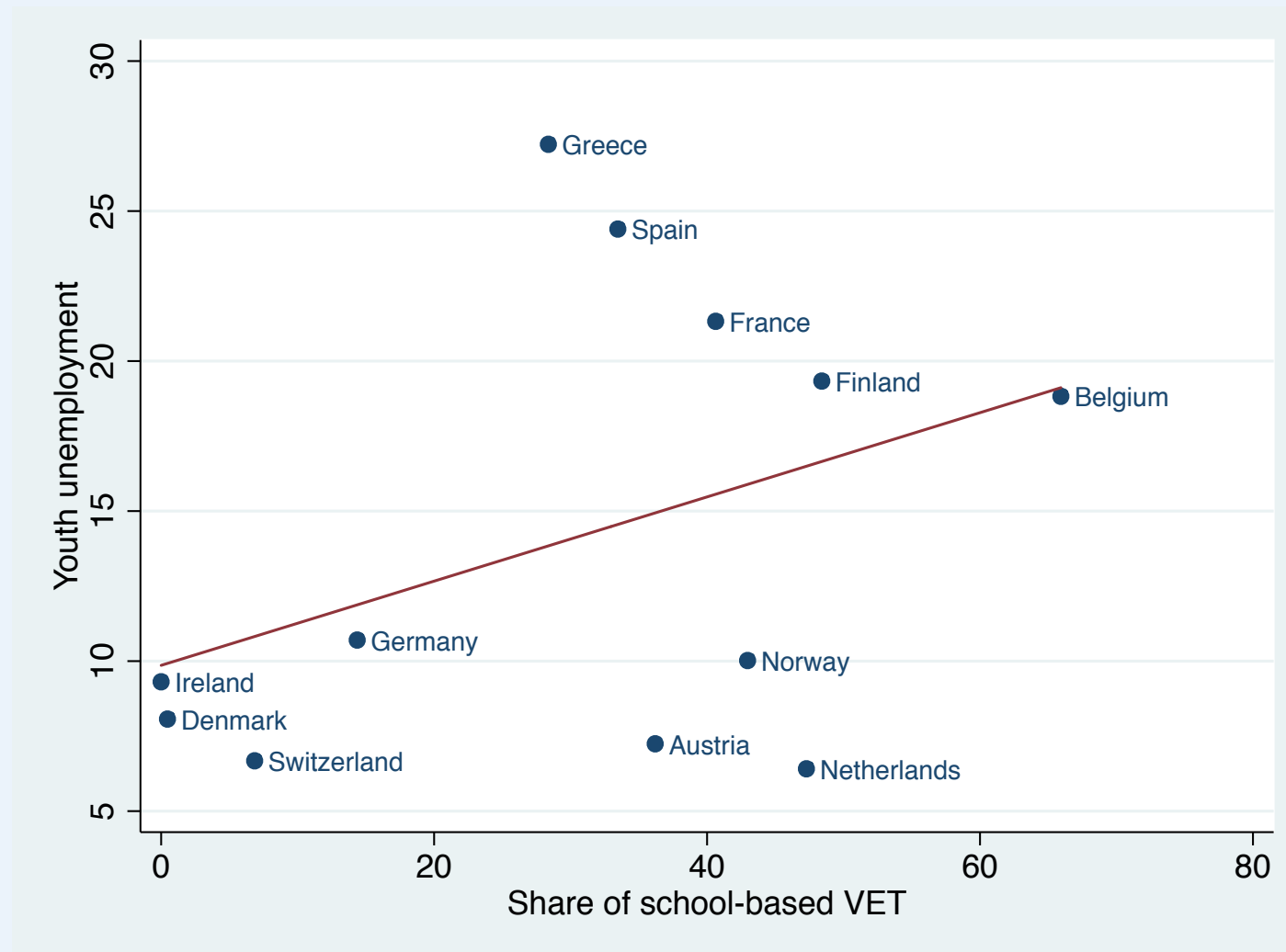


Youth unemployment





Youth unemployment (II)





Attitudes and feedback effects



Attitudes and feedback effects

Core hypothesis: education and welfare state institutions create feedback effects on the level of attitudes and preferences

→ Micro-level foundation of path dependencies

For example:

- Openness of access to higher education influences support for public education spending
- Public-private division of labor in education financing influences redistributive preferences

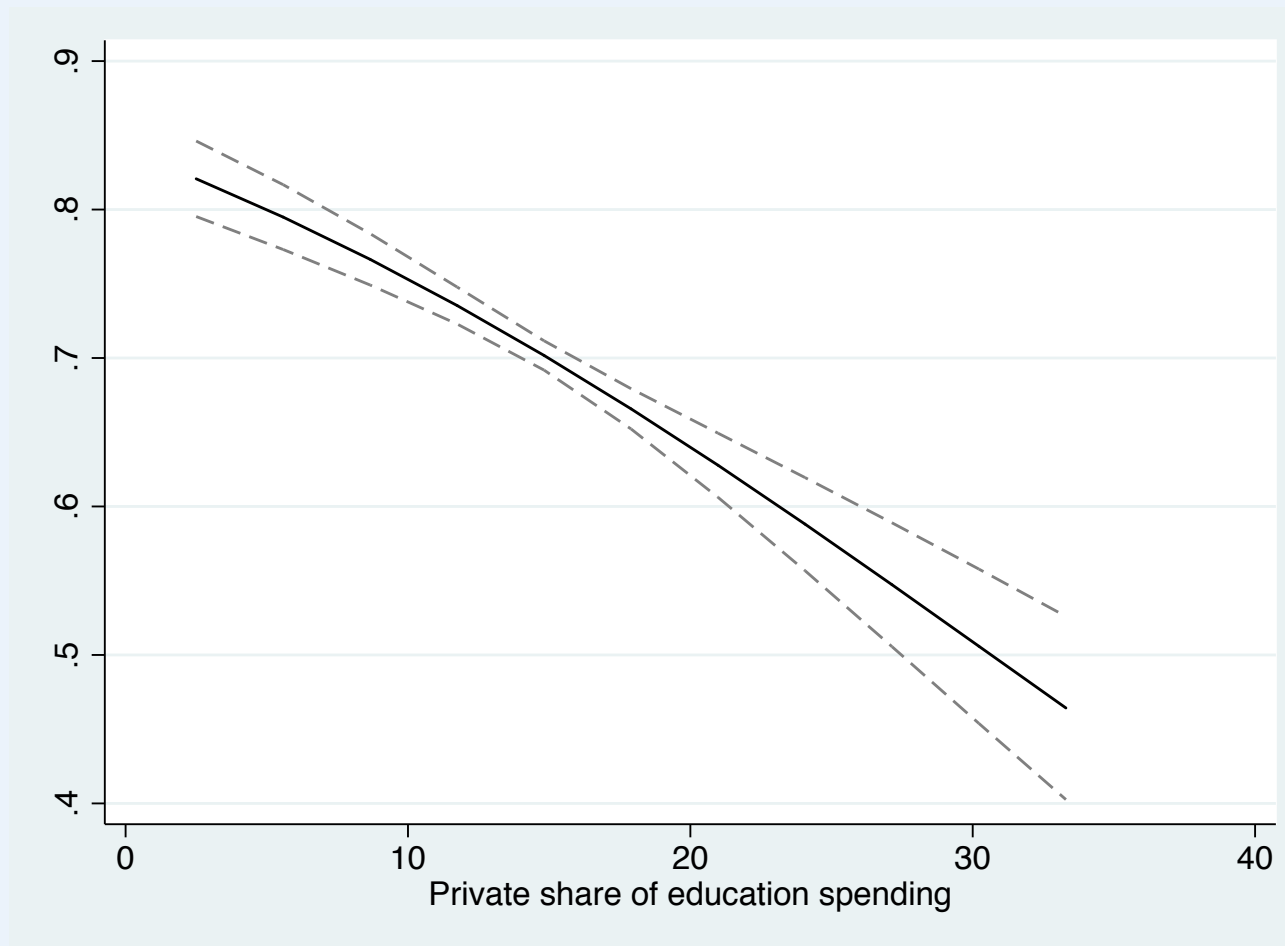


Private education spending and preferences for redistribution

- Argument: How individual stock of human capital is financed (not only the total amount or the kind of human capital) matters
 - High levels of private financing are associated with lower degree of public support for redistribution
 - Self-interest based explanation
 - Culturalist explanation
- Empirical analysis:
 - Survey data (ISSP 2006)
 - Multilevel analysis (Random-Intercept-Model) with the usual controls



Pred. prob. for individual support for redistribution and private education spending





Conclusion

Core thesis: There are political and institutional linkages between education and the welfare state!

- Politics and political coalitions
- Outcomes: educational institutions matter for socio-economic inequality, not only for educational inequality
- Attitudes and preferences: institutions shape patterns of political support (and participation), helps to explain the political sustainability of historical paths



Additional Slides

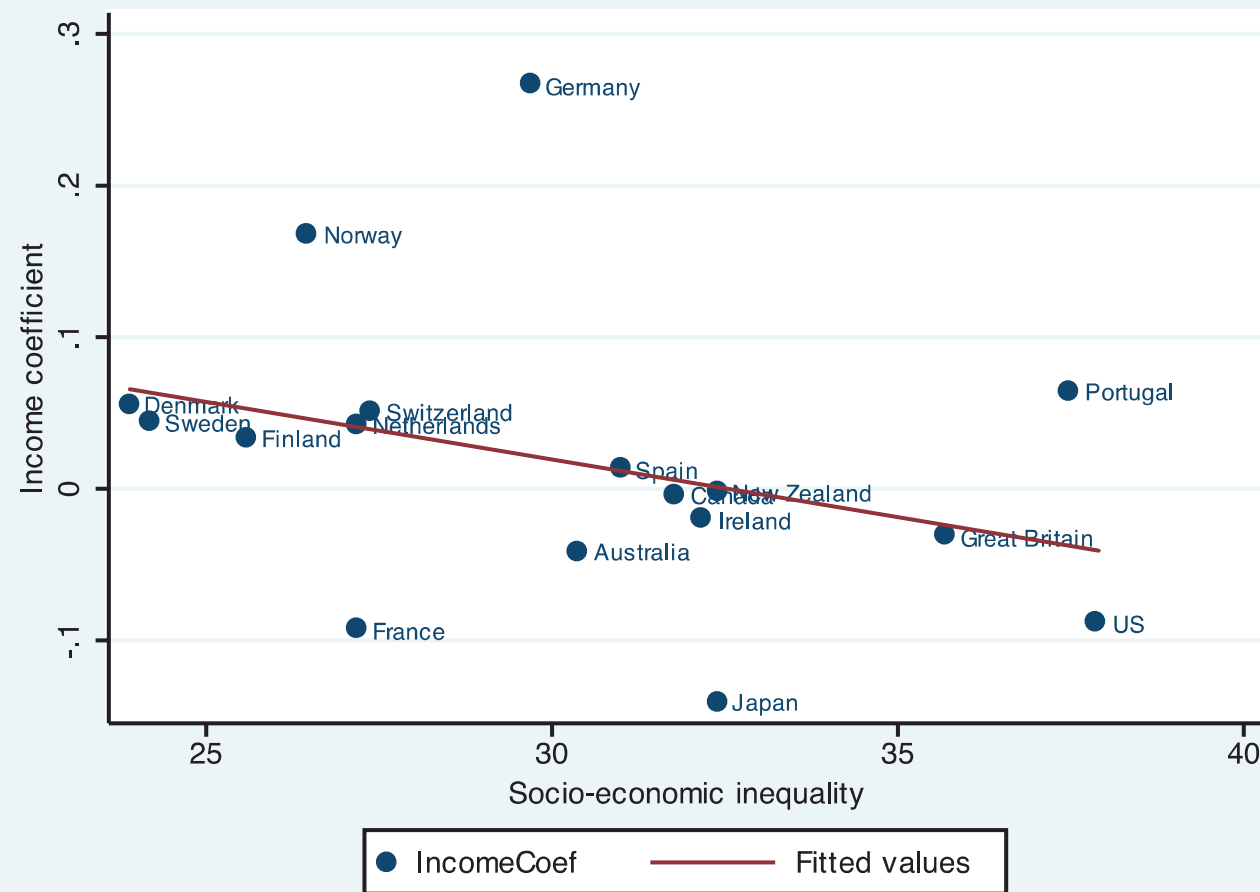


Figure 6. Relationship between the size of the income coefficient and socio-economic inequality.



Dependent variable	(1)	(2)	(3)	(4)	(5)
	Perceptions of inequality (1=Support for Statement “Income differences are too large“, 0=No Support for Statement)				
<i>Micro level</i>					
Income	-0.166*** (0.0110)	-0.155*** (0.0121)	-0.155*** (0.0121)	-0.158*** (0.0119)	-0.159*** (0.0119)
Female	0.237*** (0.0446)	0.253*** (0.0485)	0.253*** (0.0485)	0.243*** (0.0475)	0.243*** (0.0475)
Education	-0.0522*** (0.00641)	-0.0539*** (0.00679)	-0.0539*** (0.00679)	-0.0526*** (0.00668)	-0.0520*** (0.00668)
Age	0.0514*** (0.00778)	0.0511*** (0.00843)	0.0512*** (0.00843)	0.0513*** (0.00822)	0.0515*** (0.00822)
Age squared	-0.000424*** (8.29e-05)	-0.000432*** (9.02e-05)	-0.000433*** (9.02e-05)	-0.000434*** (8.77e-05)	-0.000436*** (8.77e-05)
Part-time employed	-0.228*** (0.0779)	-0.191** (0.0837)	-0.192** (0.0837)	-0.187** (0.0830)	-0.188** (0.0830)
Not in labor force	-0.506*** (0.0779)	-0.475*** (0.0841)	-0.475*** (0.0841)	-0.476*** (0.0831)	-0.477*** (0.0831)
Unemployed	0.0568 (0.128)	0.243 (0.150)	0.243 (0.150)	0.166 (0.141)	0.167 (0.141)
In education	-0.434*** (0.124)	-0.424*** (0.131)	-0.424*** (0.131)	-0.426*** (0.130)	-0.427*** (0.130)
Retired	-0.335*** (0.0868)	-0.243** (0.0946)	-0.242** (0.0946)	-0.270*** (0.0925)	-0.269*** (0.0925)
<i>Macro level</i>					
Private share in education spending, all levels		-0.0416* (0.0224)	-0.0518** (0.0250)		
Private share in education spending, tertiary education				-0.0260*** (0.00993)	-0.0433*** (0.0115)
Socio-economic inequality			0.0418 (0.0498)		0.108** (0.0471)
Constant	1.754*** (0.272)	2.193*** (0.414)	1.116 (1.349)	2.231*** (0.345)	-0.517 (1.243)
Log Likelihood	-7845.6079	-6660.7955	-6660.4525	-6942.3884	-6940.1109
Observations	19108	15446	15446	16372	16372
Number of countries	20	16	16	17	17

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1



Dependent Variable	(1)	(2)	(3)	(4)	(5)
Support for government-induced redistribution (1=yes; 0=no)					
Micro level					
Income	-0.198*** (0.0100)	-0.198*** (0.0100)	-0.198*** (0.0100)	-0.198*** (0.0102)	-0.198*** (0.0102)
Female	0.141*** (0.0378)	0.141*** (0.0378)	0.140*** (0.0378)	0.151*** (0.0387)	0.151*** (0.0388)
Education	-0.0358*** (0.00500)	-0.0358*** (0.00500)	-0.0356*** (0.00500)	-0.0343*** (0.00512)	-0.0342*** (0.00512)
Age	0.0173** (0.00707)	0.0172** (0.00707)	0.0172** (0.00707)	0.0182** (0.00731)	0.0182** (0.00731)
Age squared	-9.84e-05 (7.40e-05)	-9.69e-05 (7.40e-05)	-9.75e-05 (7.40e-05)	-0.000101 (7.67e-05)	-0.000101 (7.67e-05)
Part-time employed	-0.0596 (0.0617)	-0.0593 (0.0617)	-0.0595 (0.0617)	-0.0921 (0.0640)	-0.0923 (0.0640)
Not in labor force	-0.129* (0.0660)	-0.129* (0.0660)	-0.129* (0.0660)	-0.150** (0.0674)	-0.149** (0.0674)
Unemployed	0.467*** (0.121)	0.466*** (0.121)	0.466*** (0.121)	0.462*** (0.122)	0.461*** (0.122)
In education	-0.417*** (0.124)	-0.419*** (0.124)	-0.420*** (0.124)	-0.404*** (0.125)	-0.404*** (0.125)
Retired	-0.0703 (0.0741)	-0.0722 (0.0741)	-0.0718 (0.0741)	-0.0685 (0.0760)	-0.0686 (0.0760)
Macro level					
Private share in education funding, all levels		-0.0258** (0.0114)	-0.0394*** (0.0131)		
Private share in education funding, tertiary education				-0.00957 (0.00629)	-0.0162** (0.00797)
Socio-economic inequality			0.0493* (0.0284)		0.0434 (0.0343)
Constant	1.447*** (0.218)	1.836*** (0.270)	0.578 (0.768)	1.676*** (0.284)	0.572 (0.915)
Log Likelihood	-9681.0061	-9678.7617	-9677.3498	-9231.6671	-9230.8966
Observations	17259	17259	17259	16511	16511
Number of countries	17	17	17	16	16

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

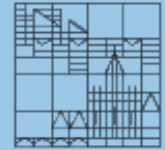


Table 2. Results from the second stage of the two-step hierarchical estimation procedure

	(1)	(2)
Dependent variable	Country-specific income coefficient	
Educational inequality	0.13289** (0.0543)	0.1069 (0.0989)
Socio-economic inequality	−0.0079** (0.0031)	−0.0088** (0.0033)
Constant		0.0744 (0.1905)
Observations	17	17
r^2	0.27	0.27

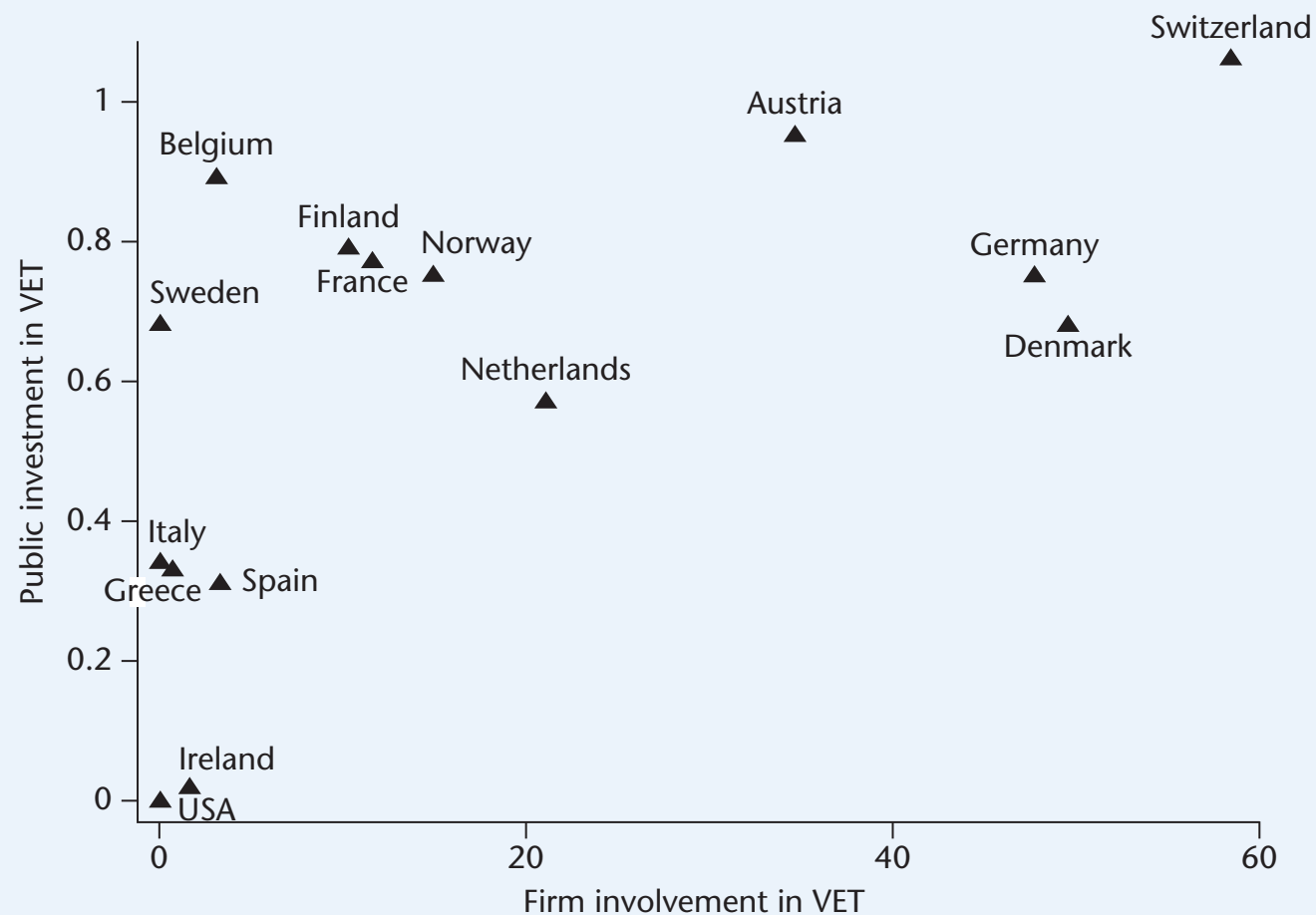
Robust standard errors in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Models were estimated using robust standard errors and weights based on the standard errors of the first stage of the two-stage procedure to correct for heteroskedasticity.



Skill formation regimes in international comparison

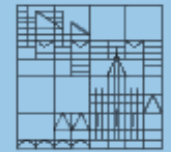


Source: Busemeyer/Iversen 2012, Collective Skill Systems, Wage Bargaining, and Labor Market Stratification.


Table 8.4 The determinants of wage dispersion

Models	(1)	(2)	(3)
Dependent variable	Wage dispersion (D9/D1 ratio)		
Firm involvement in training	0.00124 (0.00104)	−0.00428 (0.00281)	0.00157 (0.00121)
Public investment in vocational training	−0.846*** (0.147)	−0.745*** (0.150)	−1.019*** (0.187)
Log of wage bargaining centralization	−0.153*** (0.0470)	−0.225*** (0.0727)	−0.293** (0.124)
Firm involvement × bargaining centralization	0.00540* (0.00285)		
Public investment × bargaining centralization	0.323* (0.175)		
Net union density	−1.609*** (0.129)	−1.665*** (0.126)	−1.652*** (0.134)
GDP growth	0.00376 (0.00519)	0.00453 (0.00522)	0.00521 (0.00435)
Unemployment	−0.0168* (0.00874)	−0.0169* (0.00871)	−0.0138* (0.00830)
Deindustrialization	−1.998*** (0.323)	−2.092*** (0.307)	−2.125*** (0.319)
Constant	5.548*** (0.245)	5.638*** (0.240)	5.655*** (0.239)
Observations	245	245	245
R^2	0.856	0.856	0.877
Number of countries	13	13	13

 Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.


Table 8.3 The determinants of youth unemployment

Models	(1)	(2)	(3)
Dependent variable	Youth unemployment		
Firm involvement in training	−0.160*** (0.0209)	−0.112 (0.0770)	−0.169*** (0.0294)
Public investment in vocational training	1.936 (2.177)	1.024 (2.935)	11.25*** (3.236)
Log of wage bargaining centralization	1.400** (0.589)	1.960* (1.021)	13.17*** (2.132)
Firm involvement × bargaining centralization		−0.0455 (0.0615)	
Public investment × bargaining centralization			−17.30*** (3.387)
Net union density	−3.783*** (1.024)	−3.070** (1.464)	−4.878*** (1.169)
GDP growth	−0.0230 (0.0773)	−0.0238 (0.0767)	−0.0293 (0.0778)
Unemployment	1.686*** (0.0676)	1.695*** (0.0675)	1.643*** (0.0773)
Deindustrialization	−17.31*** (5.018)	−15.98*** (5.313)	−7.100 (6.951)
Strictness of employment protection legislation	−1.076*** (0.409)	−1.133*** (0.387)	−2.120*** (0.585)
Constant	18.05*** (3.583)	16.93*** (3.983)	8.837* (4.801)
Observations	188	188	188
R ²	0.861	0.862	0.875
Number of countries	13	13	13

 Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

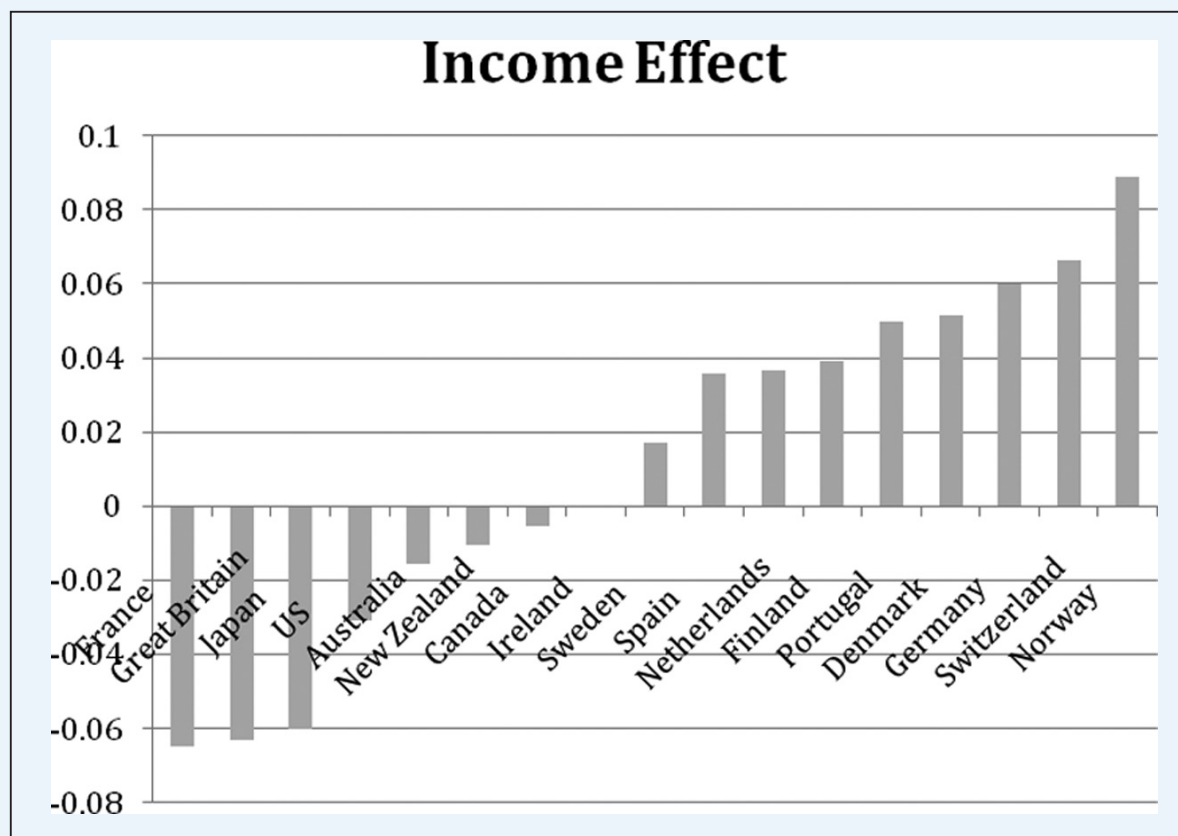


Figure 4. Estimates of the size of the income effect for 17 OECD countries.

Predicted changes in support for increased education spending when moving from one country-specific standard deviation below the mean to one standard deviation above the mean.

Quelle: Busemeyer, 2012: Inequality and the political economy of education, JESP, forthcoming.

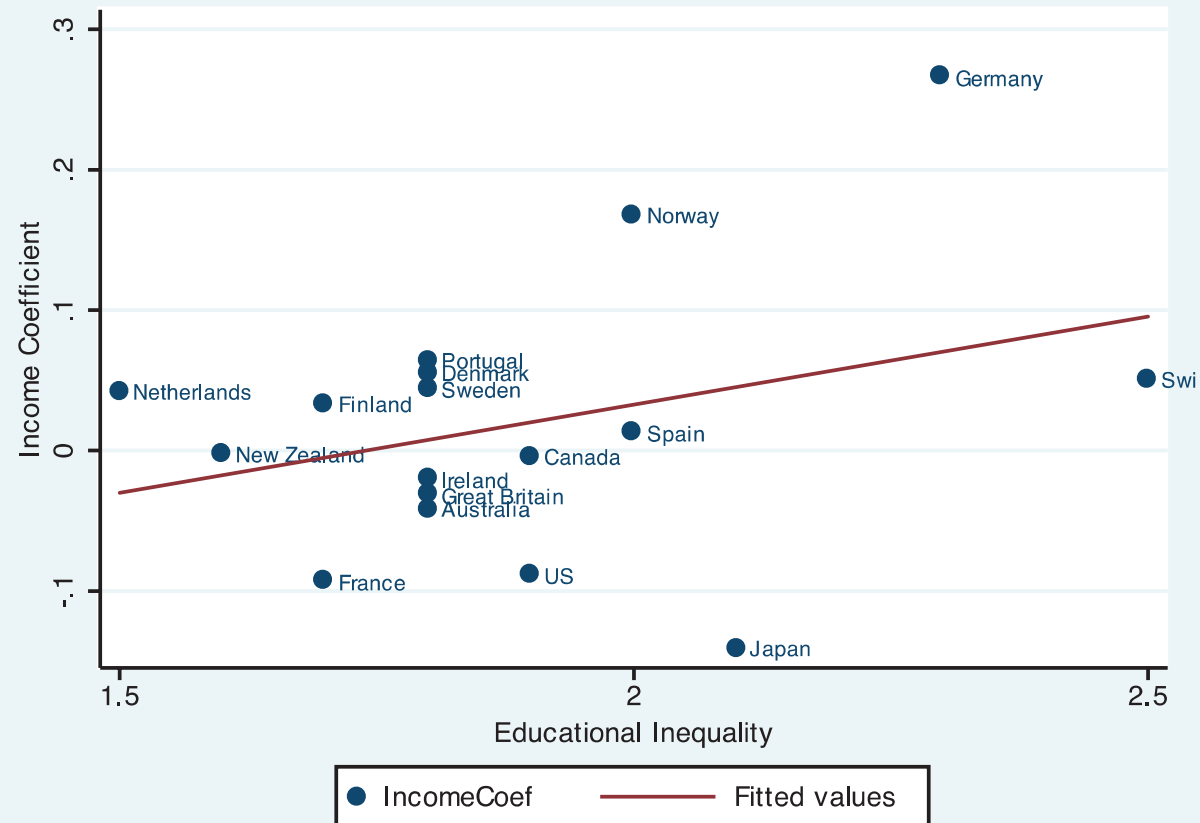


Figure 5. Relationship between the size of the income coefficient and educational inequality.

Quelle: Busemeyer, 2012: Inequality and the political economy of education, JESP, forthcoming.

