

Supplementary File

## Can Educational Policy Influence Major Choices in Higher Education Through Changes in School Curriculum?

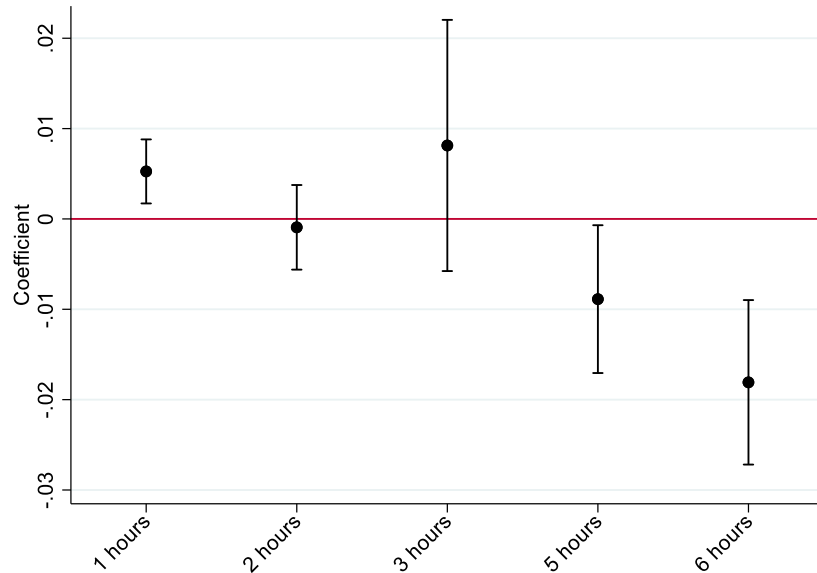
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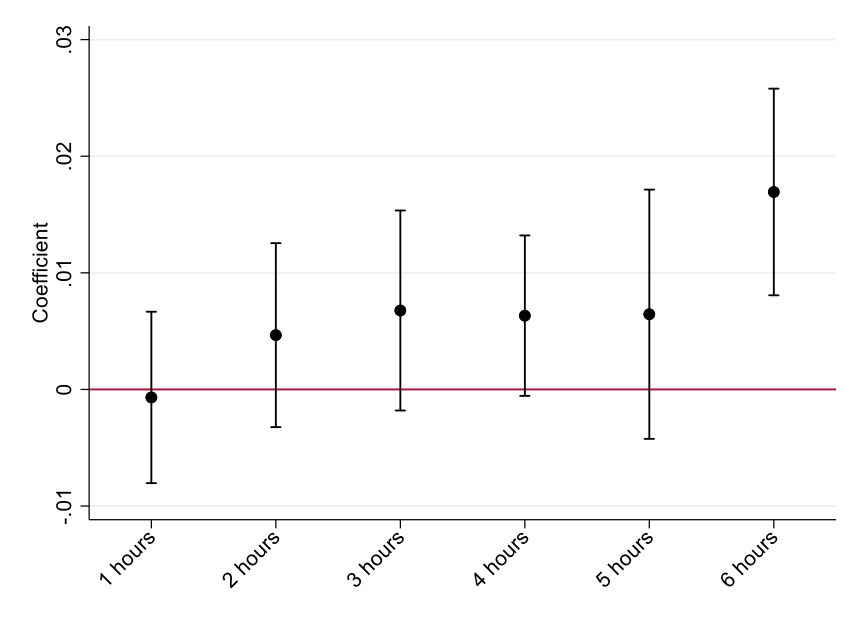
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**Figure A1.** Effect of instruction in computer science on major choice by amount of instruction time.



**Figure A2.** Effect of instruction in economics on major choice by amount of instruction time.

**Table A1.** Distributions of instruction time by states.

	Civic Education				Economics				Computer Science			
	<i>mean</i>	<i>min</i>	<i>max</i>	<i>miss</i>	<i>mean</i>	<i>min</i>	<i>max</i>	<i>miss</i>	<i>mean</i>	<i>min</i>	<i>max</i>	<i>miss</i>
Schleswig-Holstein	0.28	0.00	3.38	0	1.42	0.00	6.50	0	0.00	0.00	0.00	0
Hamburg	3.11	1.83	3.99	13	1.67	1.00	2.00	12	0.00	0.00	0.00	13
Lower Saxony	4.42	3.00	6.00	0	1.50	0.00	4.00	0	0.00	0.00	0.00	0
Bremen	3.60	2.67	5.00	0	1.36	0.00	5.00	0	0.00	0.00	0.00	0
North Rhine-Westphalia	5.23	3.01	7.00	0	2.97	0.00	5.25	0	0.00	0.00	0.00	0
Hessen	5.92	3.00	10.0	0	2.75	0.00	4.50	0	0.00	0.00	0.00	0
Rhineland Palatinate	2.81	1.50	3.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Baden-Württemberg	2.74	0.78	4.68	0	2.13	0.00	6.00	0	0.54	0.00	1.00	0
Bavaria	1.08	0.00	1.50	0	1.67	1.50	2.50	0	0.71	0.00	3.00	0
Saarland	4.29	4.00	5.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Berlin	5.12	4.18	5.50	0	0.00	0.00	0.00	0	0.38	0.00	1.00	0
Brandenburg	6.47	6.00	7.00	5	2.43	0.89	6.00	5	0.00	0.00	0.00	5
Mecklenburg Western Pomerania	3.39	2.25	4.33	5	2.27	2.00	2.50	8	3.88	0.00	6.00	8
Saxony	1.34	1.34	1.34	5	1.33	1.33	1.33	5	1.76	1.00	2.60	5
Saxony-Anhalt	3.00	3.00	3.00	5	0.06	0.00	0.33	6	0.08	0.00	0.50	6
Thuringia	2.00	2.00	2.00	4	3.08	3.00	4.00	4	0.98	0.70	1.00	4
Total	3.45	0.00	10.0	37	1.52	0.00	6.50	40	0.45	0.00	6.00	41

**Table A2.** Results for the effect of instructional time in computer science on share of students within these fields in higher education without Mecklenburg-Western Pomerania.

	Computer Science
Hours in computer science	0.000
Constant	0.035***
Observations	327
Number of States	15
R <sup>2</sup> within	0.823
R <sup>2</sup> between	0.082
R <sup>2</sup> overall	0.735

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; all models with time-fixed effects while coefficients for the time (cohort) dummies are not displayed here.

**Table A3.** Results for the instructional time effect on share of student within these fields in higher education with random effects models.

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>
	<b>Civic Education</b>	<b>Economic</b>	<b>Computer Science</b>	<b>Economic</b>	<b>Computer Science</b>
Hours in civic education	0.001***				
Hours in economics		0.002***			
Hours in computer science			-0.002***		
Economics provided (0/1)				0.008***	
Computer science provided (0/1)					0.003**
Constant	0.054***	0.156***	0.036***	0.154***	0.035***
Observations	347	344	343	344	343
Number of States	16	16	16	16	16
R <sup>2</sup> within	0.566	0.554	0.816	0.552	0.814
R <sup>2</sup> between	0.027	0.017	0.106	0.044	0.071
R <sup>2</sup> overall	0.316	0.272	0.723	0.247	0.721

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; all models with time-fixed effects while coefficients for the time (cohort) dummies are not displayed here.

**Table A4.** Results of TWFE models with different control variables.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
	<b>Civic Education</b>				<b>Economics</b>			<b>Computer Science</b>	
Instruction hours	0.001***	0.001***	0.001***	0.002***	0.002***	0.002***	-0.002**	-0.002***	-0.002***
Growth in high school graduates	-0.000			0.012***			0.007***		
Number of high school graduates		-0.000			0.000**			0.000***	
Number of first semester students			-0.000			0.000**			0.000***
Cohort									
1996	0.001	0.001	0.001	0.009	0.010*	0.010	0.005*	0.005*	0.005*
1997	0.001	0.001	0.001	0.026***	0.026***	0.026***	0.018***	0.018***	0.018***
1998	0.004	0.004	0.004	0.030***	0.031***	0.031***	0.030***	0.031***	0.031***
1999	0.001	0.001	0.001	0.034***	0.035***	0.034***	0.044***	0.045***	0.045***
2000	0.004	0.004	0.004	0.022***	0.024***	0.023***	0.043***	0.043***	0.043***
2001	0.009***	0.009***	0.009***	0.017***	0.019***	0.018***	0.028***	0.029***	0.029***
2002	0.008***	0.008***	0.009***	0.003	0.005	0.004	0.016***	0.017***	0.017***
2003	0.007**	0.007**	0.007**	0.004	0.006	0.005	0.011***	0.012***	0.012***
2004	-0.000	-0.000	0.000	0.004	0.006	0.005	0.008***	0.009***	0.009***
2005	-0.006**	-0.006**	-0.006*	0.009*	0.011**	0.011**	0.008***	0.009***	0.008***
2006	-0.009***	-0.009***	-0.009***	0.009*	0.011**	0.011**	0.007**	0.008***	0.007***
2007	-0.009***	-0.009***	-0.009***	0.018***	0.020***	0.020***	0.007**	0.008***	0.008***
2008	-0.009***	-0.009***	-0.008***	0.017***	0.019***	0.019***	0.007**	0.008***	0.008***
2009	-0.007**	-0.007**	-0.007**	0.002	0.005	0.004	0.009***	0.010***	0.010***
2010	-0.009***	-0.009***	-0.008***	-0.002	0.001	-0.000	0.010***	0.011***	0.011***
2011	-0.011***	-0.011***	-0.010***	0.002	0.005	0.004	0.015***	0.015***	0.015***
2012	-0.010***	-0.010***	-0.010***	-0.003	-0.000	-0.001	0.017***	0.018***	0.018***
2013	-0.014***	-0.014***	-0.014***	-0.002	-0.000	-0.001	0.022***	0.022***	0.022***
2014	-0.014***	-0.014***	-0.013***	-0.009*	-0.008	-0.008	0.027***	0.027***	0.027***
2015	-0.012***	-0.012***	-0.012***	-0.014**	-0.012**	-0.012**	0.028***	0.028***	0.029***
2016	-0.011***	-0.011***	-0.010***	-0.019***	-0.018***	-0.018***	0.032***	0.032***	0.033***
2017	-0.013***	-0.013***	-0.012***	-0.021***	-0.021***	-0.021***	0.037***	0.036***	0.037***
2018	-0.018***	-0.018***	-0.018***	-0.019***	-0.022***	-0.020***	0.057***	0.054***	0.056***
Constant	0.054***	0.054***	0.054***	0.147***	0.152***	0.151***	0.031***	0.032***	0.033***
Observations	347	347	347	344	344	344	343	343	343
Number of states	16	16	16	16	16	16	16	16	16
R <sup>2</sup> within	0.566	0.566	0.566	0.570	0.561	0.563	0.826	0.830	0.825
R <sup>2</sup> between	0.025	0.031	0.037	0.071	0.008	0.005	0.056	0.169	0.130
R <sup>2</sup> overall	0.312	0.320	0.325	0.347	0.227	0.222	0.711	0.526	0.560

Notes: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ ; all models with time-fixed effects with time (cohort) dummies.