Supplementary material to Experimental Economics article 'Willingness to compete, gender and career choices along the whole ability distribution'

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Abstract

Contains three Online Appendices, namely, Appendix A: Tables, Appendix B: Figures, and Appendix C: Additional discussions.

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Appendix A: Tables

Table A1: Full multinomial logit results: high-ability students

		Vocational						Academic			
	Outside	Low	Med	High	Com	Art	PPP	Lang	E&L	B&Ch	P&Math
Outside		-0.018	0.183	0.143	-0.611	-0.702	-0.215	0.535	0.484	-0.115	-1.507*
		(0.459)	(0.502)	(0.401)	(0.387)	(0.504)	(0.476)	(0.541)	(0.461)	(0.452)	(0.775)
Voc: Low	0.018		0.201	0.161	-0.593	-0.683	-0.197	0.553	0.502	-0.097	-1.489*
	(0.459)		(0.523)	(0.460)	(0.494)	(0.533)	(0.533)	(0.606)	(0.528)	(0.562)	(0.840)
Voc: Med	-0.183	-0.201		-0.040	-0.794*	-0.884	-0.398	0.352	0.302	-0.298	-1.690*
	(0.502)	(0.523)		(0.512)	(0.452)	(0.547)	(0.592)	(0.578)	(0.546)	(0.498)	(0.881)
Voc: High	-0.143	-0.161	0.040		-0.754**	-0.845**	-0.358	0.392	0.341	-0.258	-1.650**
	(0.401)	(0.460)	(0.512)		(0.339)	(0.410)	(0.488)	(0.510)	(0.473)	(0.482)	(0.773)
Voc: Com	0.611	0.593	0.794*	0.754**		-0.091	0.396	1.146***	1.095**	0.496	-0.896
	(0.387)	(0.494)	(0.452)	(0.339)		(0.398)	(0.462)	(0.435)	(0.452)	(0.408)	(0.747)
Ac: Art	0.702	0.683	0.884	0.845**	0.091		0.486	1.236***	1.186**	0.587	-0.806
	(0.504)	(0.533)	(0.547)	(0.410)	(0.398)		(0.512)	(0.467)	(0.500)	(0.572)	(0.791)
Ac: PPP	0.215	0.197	0.398	0.358	-0.396	-0.486		0.750	0.700	0.100	-1.292*
	(0.476)	(0.533)	(0.592)	(0.488)	(0.462)	(0.512)		(0.542)	(0.497)	(0.495)	(0.719)
Ac: Lang	-0.535	-0.553	-0.352	-0.392	-1.146***	-1.236***	-0.750		-0.050	-0.650	-2.042***
	(0.541)	(0.606)	(0.578)	(0.510)	(0.435)	(0.467)	(0.542)		(0.507)	(0.572)	(0.752)
Ac: E&L	-0.484	-0.502	-0.302	-0.341	-1.095**	-1.186**	-0.700	0.050		-0.599	-1.991***
	(0.461)	(0.528)	(0.546)	(0.473)	(0.452)	(0.500)	(0.497)	(0.507)		(0.467)	(0.741)
Ac: B&Ch	0.115	0.097	0.298	0.258	-0.496	-0.587	-0.100	0.650	0.599		-1.392*
	(0.452)	(0.562)	(0.498)	(0.482)	(0.408)	(0.572)	(0.495)	(0.572)	(0.467)		(0.723)
Ac: P&Math	1.507*	1.489*	1.690*	1.650**	0.896	0.806	1.292*	2.042***	1.991***	1.392*	
	(0.775)	(0.840)	(0.881)	(0.773)	(0.747)	(0.791)	(0.719)	(0.752)	(0.741)	(0.723)	

Note: The table shows the competition coefficient for high-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete variable. For example, the pairwise results for the Physics&Math and the Languages academic specializations show that willingness to compete is associated with a 2.042 higher relative log-odds of choosing Physics&Math instead of Languages. Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class, lower-secondary school level dummies, and GPA and math grade interacted with the level dummies. Standard errors in parentheses are clustered at the class level.

Table A2: Full multinomial logit results: high-ability girls

		Vocational					Academic				
	Outside	Low	Med	High	Com	Art	PPP	Lang	E&L	B&Ch	P&Math
Outside		0.356	0.568	-1.452	-0.456	-0.619	-0.037	0.594	0.724	-0.346	-1.580
		(0.617)	(0.555)	(0.944)	(0.516)	(0.590)	(0.578)	(0.651)	(0.665)	(0.599)	(0.987)
Voc: Low	-0.356		0.213	-1.808**	-0.811	-0.974	-0.392	0.238	0.369	-0.702	-1.936*
	(0.617)		(0.542)	(0.876)	(0.568)	(0.601)	(0.582)	(0.672)	(0.675)	(0.655)	(1.003)
Voc: Med	-0.568	-0.213		-2.020**	-1.024**	-1.187**	-0.605	0.026	0.156	-0.915	-2.148**
	(0.555)	(0.542)		(0.847)	(0.487)	(0.565)	(0.630)	(0.589)	(0.657)	(0.593)	(1.059)
Voc: High	1.452	1.808**	2.020**		0.996	0.834	1.415	2.046**	2.176**	1.106	-0.128
	(0.944)	(0.876)	(0.847)		(0.806)	(0.872)	(0.900)	(0.891)	(0.949)	(0.892)	(1.010)
Voc: Com	0.456	0.811	1.024**	-0.996		-0.163	0.419	1.050**	1.180**	0.109	-1.124
	(0.516)	(0.568)	(0.487)	(0.806)		(0.396)	(0.529)	(0.469)	(0.588)	(0.492)	(0.924)
Ac: Art	0.619	0.974	1.187**	-0.834	0.163		0.582	1.213***	1.343**	0.272	-0.961
	(0.590)	(0.601)	(0.565)	(0.872)	(0.396)		(0.527)	(0.455)	(0.647)	(0.560)	(0.935)
Ac: PPP	0.037	0.392	0.605	-1.415	-0.419	-0.582		0.631	0.761	-0.309	-1.543*
	(0.578)	(0.582)	(0.630)	(0.900)	(0.529)	(0.527)		(0.590)	(0.677)	(0.545)	(0.870)
Ac: Lang	-0.594	-0.238	-0.026	-2.046**	-1.050**	-1.213***	-0.631		0.130	-0.940	-2.174**
	(0.651)	(0.672)	(0.589)	(0.891)	(0.469)	(0.455)	(0.590)		(0.663)	(0.609)	(0.943)
Ac: E&L	-0.724	-0.369	-0.156	-2.176**	-1.180**	-1.343**	-0.761	-0.130		-1.071*	-2.304***
	(0.665)	(0.675)	(0.657)	(0.949)	(0.588)	(0.647)	(0.677)	(0.663)		(0.630)	(0.825)
Ac: B&Ch	0.346	0.702	0.915	-1.106	-0.109	-0.272	0.309	0.940	1.071*		-1.234
	(0.599)	(0.655)	(0.593)	(0.892)	(0.492)	(0.560)	(0.545)	(0.609)	(0.630)		(0.902)
Ac: P&Math	1.580	1.936*	2.148**	0.128	1.124	0.961	1.543*	2.174**	2.304***	1.234	
	(0.987)	(1.003)	(1.059)	(1.010)	(0.924)	(0.935)	(0.870)	(0.943)	(0.825)	(0.902)	

Note: The table shows the competition coefficient for female high-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete*female interaction (the regression also includes the compete*male interaction, for results on that see table below). Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class, lower-secondary school level dummies, and GPA and math grade interacted with the level dummies. Standard errors in parentheses are clustered at the class level.

Table A3: Full multinomial logit results: high-ability boys

		Vocational						Academic			
	Outside	Low	Med	High	Com	Art	PPP	Lang	E&L	B&Ch	P&Math
Outside		-1.240	-1.200	0.100	-1.011*	-0.937	-1.131	0.415	0.153	0.569	-1.521
		(1.129)	(0.949)	(0.514)	(0.605)	(1.074)	(1.147)	(0.793)	(0.624)	(0.932)	(1.209)
Voc: Low	1.240		0.040	1.340	0.229	0.303	0.109	1.655	1.393	1.809	-0.281
	(1.129)		(1.475)	(1.062)	(1.250)	(1.358)	(1.562)	(1.322)	(1.219)	(1.310)	(1.567)
Voc: Med	1.200	-0.040		1.300	0.189	0.263	0.069	1.615	1.353	1.769	-0.321
	(0.949)	(1.475)		(0.935)	(0.805)	(1.306)	(1.413)	(1.122)	(0.992)	(1.228)	(1.454)
Voc: High	-0.100	-1.340	-1.300		-1.111**	-1.037	-1.231	0.315	0.053	0.469	-1.621
	(0.514)	(1.062)	(0.935)		(0.528)	(0.941)	(1.088)	(0.707)	(0.552)	(0.914)	(1.187)
Voc: Com	1.011*	-0.229	-0.189	1.111**		0.074	-0.119	1.426*	1.164*	1.580	-0.510
	(0.605)	(1.250)	(0.805)	(0.528)		(1.080)	(1.241)	(0.783)	(0.682)	(1.004)	(1.280)
Ac: Art	0.937	-0.303	-0.263	1.037	-0.074		-0.194	1.352	1.090	1.506	-0.584
	(1.074)	(1.358)	(1.306)	(0.941)	(1.080)		(1.468)	(1.195)	(0.920)	(1.449)	(1.704)
Ac: PPP	1.131	-0.109	-0.069	1.231	0.119	0.194		1.545	1.283	1.699	-0.390
	(1.147)	(1.562)	(1.413)	(1.088)	(1.241)	(1.468)		(1.272)	(1.189)	(1.531)	(1.593)
Ac: Lang	-0.415	-1.655	-1.615	-0.315	-1.426*	-1.352	-1.545		-0.262	0.154	-1.936
	(0.793)	(1.322)	(1.122)	(0.707)	(0.783)	(1.195)	(1.272)		(0.756)	(0.928)	(1.323)
Ac: E&L	-0.153	-1.393	-1.353	-0.053	-1.164*	-1.090	-1.283	0.262		0.416	-1.674
	(0.624)	(1.219)	(0.992)	(0.552)	(0.682)	(0.920)	(1.189)	(0.756)		(0.773)	(1.203)
Ac: B&Ch	-0.569	-1.809	-1.769	-0.469	-1.580	-1.506	-1.699	-0.154	-0.416		-2.090
	(0.932)	(1.310)	(1.228)	(0.914)	(1.004)	(1.449)	(1.531)	(0.928)	(0.773)		(1.317)
Ac: P&Math	1.521	0.281	0.321	1.621	0.510	0.584	0.390	1.936	1.674	2.090	
	(1.209)	(1.567)	(1.454)	(1.187)	(1.280)	(1.704)	(1.593)	(1.323)	(1.203)	(1.317)	

Note: The table shows the competition coefficient for male high-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete*male interaction (the regression also includes the compete*female interaction, for results on that see table above). Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class, lower-secondary school level dummies, and GPA and math grade interacted with the level dummies. Standard errors in parentheses are clustered at the class level.

Table A4: Full multinomial logit results: medium-ability students

	Outside	Voc: Low	Voc: Med	Voc: High	Voc: Com	Academic Combined
Outside		0.212	0.333	0.231	0.421*	0.051
		(0.424)	(0.274)	(0.268)	(0.232)	(0.451)
Voc: Low	-0.212		0.121	0.019	0.209	-0.161
	(0.424)		(0.441)	(0.437)	(0.383)	(0.607)
Voc: Med	-0.333	-0.121		-0.102	0.088	-0.282
	(0.274)	(0.441)		(0.305)	(0.265)	(0.394)
Voc: High	-0.231	-0.019	0.102		0.190	-0.180
	(0.268)	(0.437)	(0.305)		(0.273)	(0.427)
Voc: Com	-0.421*	-0.209	-0.088	-0.190		-0.370
	(0.232)	(0.383)	(0.265)	(0.273)		(0.429)
Ac: Combined	-0.051	0.161	0.282	0.180	0.370	
	(0.451)	(0.607)	(0.394)	(0.427)	(0.429)	

Note: The table shows the competition coefficient for medium-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete variable. Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all medium-ability students study at the standard level). Standard errors in parentheses are clustered at the class level.

Table A5: Full multinomial logit results: medium-ability girls

	Outside	Voc: Low	Voc: Med	Voc: High	Voc: Com	Academic Combined
Outside		-0.484	-0.046	-0.506	0.452	-1.024
		(0.439)	(0.405)	(0.596)	(0.364)	(0.665)
Voc: Low	0.484		0.438	-0.022	0.936**	-0.539
	(0.439)		(0.474)	(0.606)	(0.392)	(0.778)
Voc: Med	0.046	-0.438		-0.460	0.498	-0.978
	(0.405)	(0.474)		(0.554)	(0.389)	(0.674)
Voc: High	0.506	0.022	0.460		0.958*	-0.518
	(0.596)	(0.606)	(0.554)		(0.542)	(0.931)
Voc: Com	-0.452	-0.936**	-0.498	-0.958*		-1.475**
	(0.364)	(0.392)	(0.389)	(0.542)		(0.715)
Ac: Combined	1.024	0.539	0.978	0.518	1.475**	
	(0.665)	(0.778)	(0.674)	(0.931)	(0.715)	

Note: The table shows the competition coefficient for female medium-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete*female interaction (the regression also includes the compete*male interaction, for results on that see table below). Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all medium-ability students study at the standard level). Standard errors in parentheses are clustered at the class level.

Table A6: Full multinomial logit results: medium-ability boys

	Outside	Voc: Low	Voc: Med	Voc: High	Voc: Com	Academic Combined
Outside		1.752*	0.834*	0.701*	0.380	1.252**
		(0.907)	(0.460)	(0.369)	(0.388)	(0.631)
Voc: Low	-1.752*		-0.918	-1.051	-1.372	-0.500
	(0.907)		(0.871)	(0.839)	(0.848)	(0.998)
Voc: Med	-0.834*	0.918		-0.134	-0.454	0.418
	(0.460)	(0.871)		(0.378)	(0.433)	(0.562)
Voc: High	-0.701*	1.051	0.134		-0.321	0.552
	(0.369)	(0.839)	(0.378)		(0.362)	(0.525)
Voc: Com	-0.380	1.372	0.454	0.321		0.873
	(0.388)	(0.848)	(0.433)	(0.362)		(0.561)
Ac: Combined	-1.252**	0.500	-0.418	-0.552	-0.873	
	(0.631)	(0.998)	(0.562)	(0.525)	(0.561)	

Note: The table shows the competition coefficient for male medium-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete*male interaction (the regression also includes the compete*female interaction, for results on that see table above). Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all medium-ability students study at the standard level). Standard errors in parentheses are clustered at the class level.

Table A7: Full multinomial logit results: low-ability students

	Outside	Voc: Low	Voc: Med	Voc: High/Com
Outside		-0.828***	-0.588**	-0.496*
		(0.283)	(0.285)	(0.295)
Voc: Low	0.828***		0.240	0.332
	(0.283)		(0.341)	(0.351)
Voc: Med	0.588**	-0.240		0.092
	(0.285)	(0.341)		(0.338)
Voc: High/Com	0.496*	-0.332	-0.092	
	(0.295)	(0.351)	(0.338)	

Note: The table shows the competition coefficient for low-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete variable. Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all low-ability students study at the low level). Standard errors in parentheses are clustered at the class level.

Table A8: Full multinomial logit results: low-ability girls

	Outside	Voc: Low	Voc: Med	Voc: High/Com
Outside		-0.404	0.097	-0.042
		(0.340)	(0.458)	(0.573)
Voc: Low	0.404		0.501	0.362
	(0.340)		(0.523)	(0.567)
Voc: Med	-0.097	-0.501		-0.139
	(0.458)	(0.523)		(0.680)
Voc: High/Com	0.042	-0.362	0.139	
	(0.573)	(0.567)	(0.680)	

Note: The table shows the competition coefficient for female low-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete*female interaction (the regression also includes the compete*male interaction, for results on that see table below). Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all low-ability students study at the low level). Standard errors in parentheses are clustered at the class level.

Table A9: Full multinomial logit results: low-ability boys

	Outside	Voc: Low	Voc: Med	Voc: High/Com
Outside		-1.532***	-1.235***	-0.912**
		(0.548)	(0.322)	(0.388)
Voc: Low	1.532***		0.296	0.620
	(0.548)		(0.597)	(0.609)
Voc: Med	1.235***	-0.296		0.323
	(0.322)	(0.597)		(0.339)
Voc: High/Com	0.912**	-0.620	-0.323	
	(0.388)	(0.609)	(0.339)	

Note: The table shows the competition coefficient for male low-ability students from multinomial logit regressions where we vary the baseline category from column to column to show all pairwise results. That is, each cell shows the relative log-odds of choosing the career option in the row over choosing the career option in the column that is associated with the compete*male interaction (the regression also includes the compete*female interaction, for results on that see table above). Controls consist of a gender dummy, experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the risk preference measures, confidence in math, the gender composition of the class and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all low-ability students study at the low level). Standard errors in parentheses are clustered at the class level.

Table A10: Career choice regressions, controlling only for performance in the task, grades, school fixed effects and school levels

Panel A: High-ability students

		Vocational				Academic						Logit
	Outs.	Low	Med	High	Com	Art	PPP	Lang	E&L	B&Ch	P&Math	p-val
Comp (b)	-0.001	0.034	0.057	-0.191**	0.091*	0.034	0.014	-0.029	-0.057	-0.044	0.092**	0.025
	(0.035)	(0.030)	(0.039)	(0.075)	(0.052)	(0.024)	(0.030)	(0.022)	(0.059)	(0.041)	(0.036)	
Comp (g)	-0.028	-0.034	-0.095**	0.038	0.038	0.045	0.024	-0.049	-0.026	0.041	0.046**	0.014
	(0.033)	(0.023)	(0.041)	(0.024)	(0.040)	(0.032)	(0.035)	(0.030)	(0.023)	(0.027)	(0.018)	
Comp	-0.018	-0.008	-0.037	-0.050	0.058*	0.041*	0.020	-0.042*	-0.038	0.009	0.063***	0.000
(all)	(0.025)	(0.020)	(0.033)	(0.030)	(0.034)	(0.021)	(0.027)	(0.022)	(0.027)	(0.022)	(0.017)	
N	490	490	490	490	490	490	490	490	490	490	490	

Panel B: Medium-ability students

		Vocational				Academic	Logit
	Outside	Low	Med	High	Com	Combined	p-val
Compete (b)	0.061	-0.034	-0.004	-0.035	0.049	-0.035	0.137
	(0.046)	(0.028)	(0.038)	(0.062)	(0.044)	(0.030)	
Compete (g)	-0.004	0.020	-0.044	0.032	-0.113**	0.109*	0.070
	(0.057)	(0.034)	(0.062)	(0.048)	(0.049)	(0.057)	
Compete (all)	0.032	-0.010	-0.022	-0.005	-0.024	0.030	0.530
	(0.034)	(0.024)	(0.032)	(0.039)	(0.034)	(0.030)	
N	441	441	441	441	441	441	

Panel C: Low-ability students

		Vocational			Logit
	Outside	Low	Med	High/Com	p-val
Compete (b)	-0.175***	0.057	0.083	0.035	0.004
	(0.056)	(0.047)	(0.052)	(0.067)	
Compete (g)	-0.016	0.098	-0.110	0.028	0.571
	(0.071)	(0.081)	(0.076)	(0.051)	
Compete (all)	-0.106**	0.075*	-0.001	0.032	0.051
	(0.044)	(0.037)	(0.048)	(0.044)	
N	413	413	413	413	

Note: Coefficients are from OLS regressions where the dependent variable is a dummy for choosing a specific career category instead of something else that is available to the student. The same structure is followed as in main Table 3. Controls consist of a gender dummy, an experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, lower-secondary school level dummies, school fixed effects, and GPA and math grade interacted with the level dummies. Standard errors in parentheses are clustered at the class level. Logit p-values are from tests of the overall significance of the competition coefficient from a single unordered logit regression (using the same controls with the standard exception of school fixed effects).

Table A11: Career choice regressions which include socioeconomic controls in addition to the standard controls

Panel A: High-ability students

		Vocational				Academic						Logit
	Outs.	Low	Med	High	Com	Art	PPP	Lang	E&L	B&Ch	P&Math	p-val
Comp (b)	-0.004	0.031	0.053	-0.182**	0.084*	0.046**	0.007	-0.010	-0.049	-0.047	0.069*	0.091
	(0.034)	(0.033)	(0.043)	(0.076)	(0.049)	(0.022)	(0.031)	(0.023)	(0.056)	(0.045)	(0.035)	
Comp (g)	-0.024	-0.030	-0.099**	0.051**	0.042	0.042	0.005	-0.039	-0.028	0.043	0.036*	0.008
	(0.035)	(0.024)	(0.046)	(0.025)	(0.040)	(0.032)	(0.039)	(0.032)	(0.028)	(0.028)	(0.019)	
Comp	-0.016	-0.007	-0.041	-0.037	0.058*	0.043**	0.006	-0.028	-0.036	0.009	0.049***	0.002
(all)	(0.026)	(0.021)	(0.037)	(0.031)	(0.032)	(0.019)	(0.030)	(0.023)	(0.027)	(0.022)	(0.017)	
N	490	490	490	490	490	490	490	490	490	490	490	

Panel B: Medium-ability students

		Vocational				Academic	Logit
	Outside	Low	Med	High	Com	Combined	p-val
Compete (b)	0.064	-0.034	-0.008	-0.047	0.055	-0.032	0.182
	(0.050)	(0.031)	(0.036)	(0.064)	(0.046)	(0.029)	
Compete (g)	-0.027	0.040	-0.058	0.052	-0.116**	0.108*	0.008
	(0.057)	(0.035)	(0.061)	(0.052)	(0.049)	(0.057)	
Compete (all)	0.023	-0.001	-0.030	-0.002	-0.021	0.031	0.749
	(0.037)	(0.025)	(0.032)	(0.041)	(0.035)	(0.031)	
N	441	441	441	441	441	441	

Panel C: Low-ability students

		Vocational			Logit
	Outside	Low	Med	High/Com	p-val
Compete (b)	-0.194***	0.070	0.099*	0.025	0.001
	(0.052)	(0.049)	(0.054)	(0.059)	
Compete (g)	-0.036	0.105	-0.124	0.055	0.454
	(0.071)	(0.076)	(0.082)	(0.051)	
Compete (all)	-0.125***	0.085**	0.001	0.038	0.004
	(0.040)	(0.042)	(0.050)	(0.041)	
N	413	413	413	413	

Note: Coefficients are from OLS regressions where the dependent variable is a dummy for choosing a specific career category instead of something else that is available to the student. Logit p-values are from tests of the overall significance of the competition coefficient from a single unordered logit regression. The same structure is followed as in main Table 3. Controls consist of the same controls as in main Table 3 plus the following socioeconomic controls: a dummy for whether both parents live at home, first-generation immigrant (i.e. child and parents born abroad) and second-generation immigrant (i.e. only parents born abroad) dummies, a dummy for whether German is spoken at home, number of siblings, and full-time and part-time employment dummies for father and for mother. Standard errors in parentheses are clustered at the class level.

Table A12: Career choice regressions that additionally show how risk seeking and confidence relates to the career choices of high-ability students

		Vocational				Academic						Logit
	Outs.	Low	Med	High	Com	Art	PPP	Lang	E&L	B&Ch	P&Math	p-val
Comp (b)	0.012	0.024	0.045	-0.180**	0.100**	0.038	-0.005	-0.019	-0.050	-0.034	0.068*	0.125
	(0.037)	(0.032)	(0.043)	(0.075)	(0.047)	(0.023)	(0.032)	(0.022)	(0.058)	(0.043)	(0.037)	
Comp (g)	-0.031	-0.031	-0.096*	0.047*	0.040	0.053	0.013	-0.045	-0.024	0.038	0.037**	0.014
	(0.034)	(0.023)	(0.049)	(0.024)	(0.040)	(0.033)	(0.038)	(0.033)	(0.025)	(0.029)	(0.018)	
Risk (b)	0.002	0.012	0.010	-0.019	-0.009	0.005	0.017*	-0.003	-0.027	-0.003	0.016	0.061
	(0.012)	(0.009)	(0.015)	(0.022)	(0.018)	(0.008)	(0.009)	(0.009)	(0.018)	(0.014)	(0.015)	
Risk (g)	-0.004	0.004	-0.008	-0.007	0.002	-0.012	0.023	-0.008	-0.003	0.004	0.008	0.121
	(0.013)	(0.013)	(0.023)	(0.008)	(0.015)	(0.011)	(0.015)	(0.014)	(0.009)	(0.011)	(0.007)	
Conf (b)	-0.026	-0.021	-0.009	-0.001	-0.010	0.008	0.021	-0.016	0.018	-0.022	0.058	0.424
	(0.031)	(0.017)	(0.031)	(0.041)	(0.049)	(0.019)	(0.022)	(0.021)	(0.031)	(0.028)	(0.038)	
Conf (g)	0.036	-0.034	0.024	-0.022	-0.011	-0.013	-0.020	0.006	0.011	0.015	0.008	0.749
	(0.024)	(0.031)	(0.037)	(0.024)	(0.042)	(0.022)	(0.037)	(0.033)	(0.022)	(0.022)	(0.024)	
Comp	-0.017	-0.010	-0.044	-0.039	0.063*	0.048**	0.008	-0.036	-0.034	0.009	0.051***	0.003
(all)	(0.026)	(0.019)	(0.037)	(0.029)	(0.033)	(0.020)	(0.030)	(0.023)	(0.028)	(0.022)	(0.018)	
Risk	-0.002	0.007	-0.002	-0.011	-0.003	-0.004	0.021**	-0.006	-0.013	0.001	0.012	0.220
(all)	(0.009)	(0.009)	(0.012)	(0.011)	(0.011)	(0.008)	(0.009)	(0.009)	(0.010)	(0.009)	(0.008)	
Conf	0.007	-0.029	0.007	-0.009	-0.012	-0.002	-0.001	-0.004	0.013	-0.001	0.031	0.972
(all)	(0.022)	(0.023)	(0.028)	(0.024)	(0.036)	(0.017)	(0.026)	(0.022)	(0.022)	(0.019)	(0.027)	
N	490	490	490	490	490	490	490	490	490	490	490	

Note: Coefficients are from OLS regressions where the dependent variable is a dummy for choosing a specific career category instead of something else that is available to the student. The first six rows are based on a regression where competition choice, the chosen lottery in the risk task, and self-judged confidence in math are interacted with gender such that the odd/even rows show the coefficients of these variables for boys/girls. In the last three rows we run a separate regression where competition choice, the chosen lottery in the risk task, and self-judged confidence in math is not interacted with gender. Controls consist of a gender dummy, an experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the gender composition of the class, lower-secondary school level dummies, school fixed effects, and GPA and math grade interacted with the level dummies. Standard errors in parentheses are clustered at the class level. Logit p-values are from tests of the overall significance of the competition coefficient from a single unordered logit regression (using the same controls with the standard exception of school fixed effects).

Table A13: Career choice regressions that additionally show how risk seeking and confidence relates to the career choices of medium-ability students

		Vocational				Academic	Logit
	Outside	Low	Med	High	Com	Combined	p-val
Comp (b)	0.073	-0.041	-0.007	-0.043	0.054	-0.037	0.110
	(0.048)	(0.032)	(0.036)	(0.059)	(0.044)	(0.033)	
Comp (g)	-0.013	0.027	-0.044	0.041	-0.122**	0.111*	0.041
	(0.061)	(0.035)	(0.063)	(0.048)	(0.048)	(0.057)	
Risk (b)	-0.019	-0.003	0.020	-0.002	0.005	-0.002	0.740
	(0.018)	(0.010)	(0.015)	(0.017)	(0.015)	(0.012)	
Risk (g)	0.037	-0.008	-0.007	0.006	-0.006	-0.021	0.388
	(0.022)	(0.014)	(0.028)	(0.014)	(0.023)	(0.017)	
Conf (b)	-0.030	0.027	-0.041	0.015	-0.007	0.036	0.177
	(0.045)	(0.026)	(0.033)	(0.054)	(0.041)	(0.029)	
Conf (g)	-0.020	-0.037	0.010	-0.056*	0.069	0.033	0.252
	(0.039)	(0.028)	(0.050)	(0.031)	(0.050)	(0.026)	
Comp	0.033	-0.008	-0.025	-0.003	-0.027	0.031	0.516
(all)	(0.032)	(0.025)	(0.032)	(0.037)	(0.035)	(0.031)	
Risk	0.003	-0.004	0.009	0.002	0.001	-0.010	0.950
(all)	(0.013)	(0.008)	(0.013)	(0.012)	(0.013)	(0.010)	
Conf	-0.034	-0.002	-0.013	-0.019	0.028	0.040**	0.095
(all)	(0.033)	(0.022)	(0.034)	(0.036)	(0.038)	(0.019)	
N	441	441	441	441	441	441	

Note: Coefficients are from OLS regressions where the dependent variable is a dummy for choosing a specific career category instead of something else that is available to the student. The first six rows are based on a regression where competition choice, the chosen lottery in the risk task, and self-judged confidence in math are interacted with gender such that the odd/even rows show the coefficients of these variables for boys/girls. In the last three rows we run a separate regression where competition choice, the chosen lottery in the risk task, and self-judged confidence in math is not interacted with gender. Controls consist of a gender dummy, an experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the gender composition of the class, school fixed effects, and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all medium-ability students study at the standard level). Standard errors in parentheses are clustered at the class level. Logit p-values are from tests of the overall significance of the competition coefficient from a single unordered logit regression that uses the same controls (with the standard exception of school fixed effects).

Table A14: Career choice regressions that additionally show how risk seeking and confidence relates to the career choices of low-ability students

		Vocational			Logit
	Outside	Low	Med	High/Com	p-val
Comp (b)	-0.195***	0.076	0.100*	0.019	0.000
	(0.055)	(0.052)	(0.053)	(0.069)	
Comp (g)	-0.047	0.115	-0.095	0.027	0.659
	(0.070)	(0.077)	(0.077)	(0.055)	
Risk (b)	0.041*	-0.021	-0.023	0.003	0.030
	(0.022)	(0.014)	(0.020)	(0.021)	
Risk (g)	0.056**	-0.038**	-0.028	0.010	0.130
	(0.021)	(0.017)	(0.018)	(0.016)	
Conf (b)	-0.056	-0.001	0.013	0.044	0.350
	(0.049)	(0.036)	(0.040)	(0.042)	
Conf (g)	-0.021	-0.023	0.053	-0.009	0.625
	(0.061)	(0.041)	(0.035)	(0.050)	
Comp	-0.132***	0.094**	0.014	0.025	0.019
(all)	(0.041)	(0.040)	(0.049)	(0.046)	
Risk	0.046***	-0.026**	-0.026*	0.006	0.000
(all)	(0.014)	(0.011)	(0.014)	(0.014)	
Conf	-0.043	-0.010	0.032	0.021	0.450
(all)	(0.041)	(0.024)	(0.030)	(0.037)	
N	413	413	413	413	

Note: Coefficients are from OLS regressions where the dependent variable is a dummy for choosing a specific career category instead of something else that is available to the student. The first six rows are based on a regression where competition choice, the chosen lottery in the risk task, and self-judged confidence in math are interacted with gender such that the odd/even rows show the coefficients of these variables for boys/girls. In the last three rows we run a separate regression where competition choice, the chosen lottery in the risk task, and self-judged confidence in math is not interacted with gender. Controls consist of a gender dummy, an experimental task dummy, performance in rounds 1 and 2 of the experiment interacted with the task dummy, the gender composition of the class, school fixed effects, and GPA and math grade (lower-secondary school level dummies and interactions are not necessary as all low-ability students study at the low level). Standard errors in parentheses are clustered at the class level. Logit p-values are from tests of the overall significance of the competition coefficient from a single unordered logit regression that uses the same controls (with the standard exception of school fixed effects).

Appendix B: Figures

Figure A1: Performance in the two tasks by gender

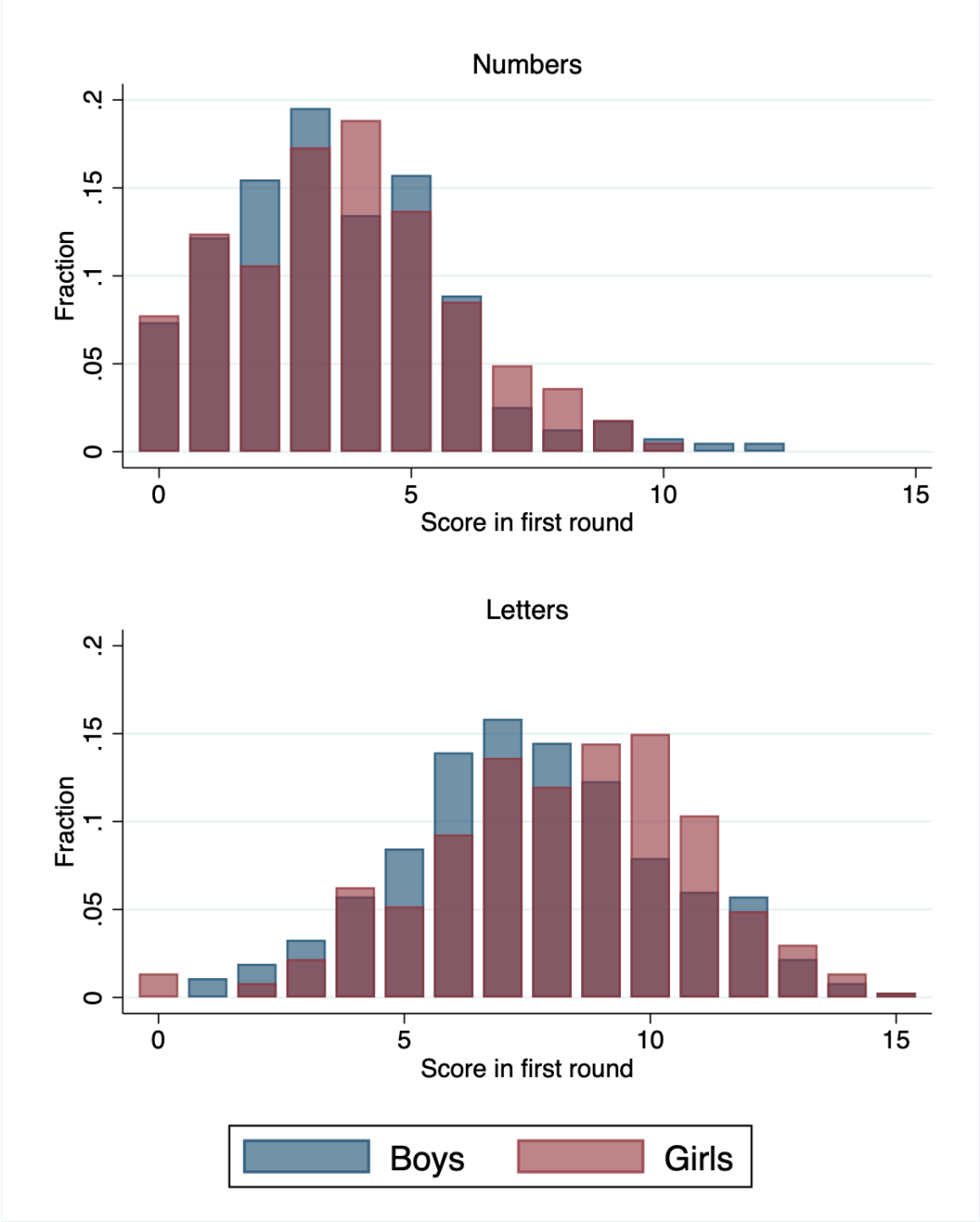
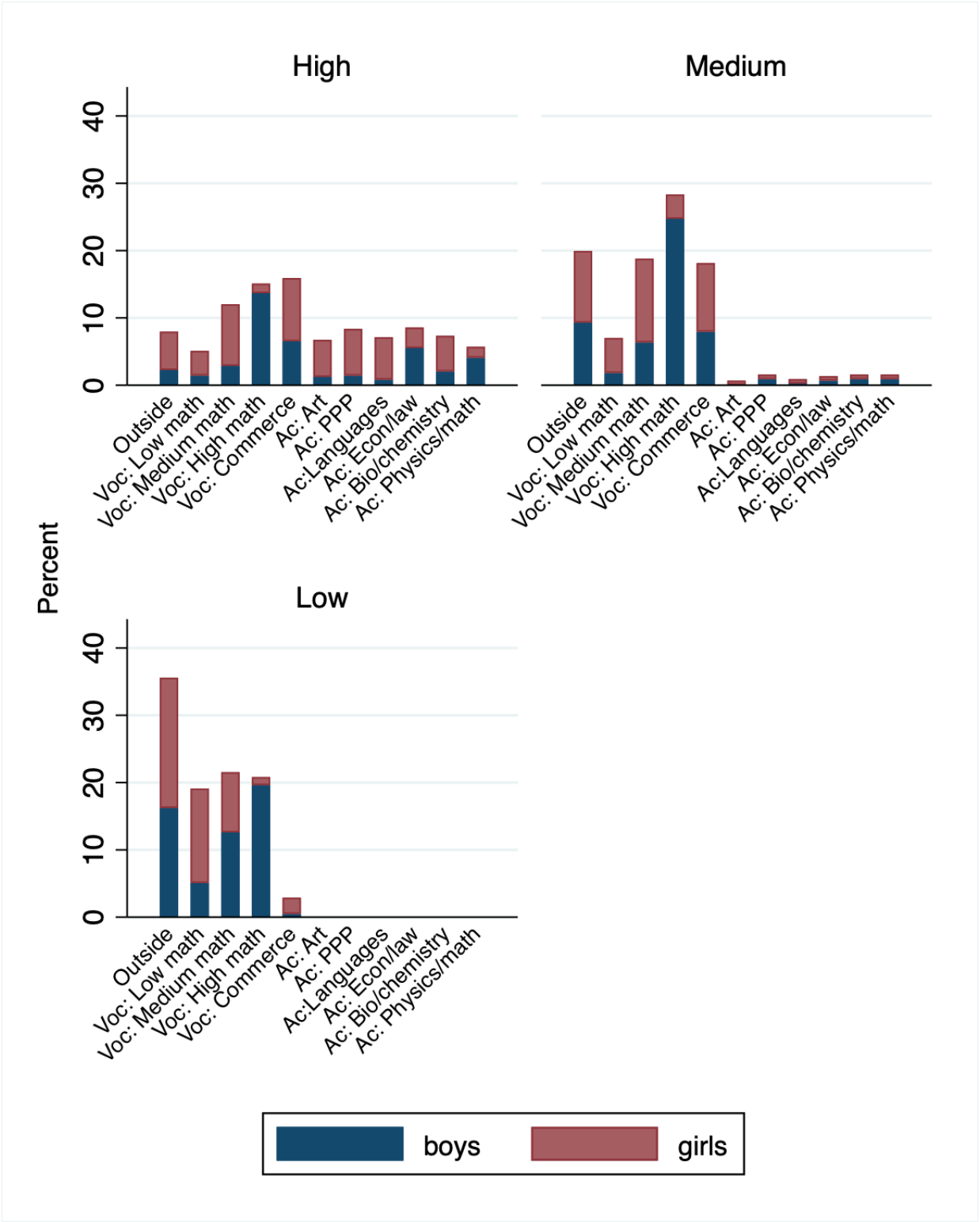
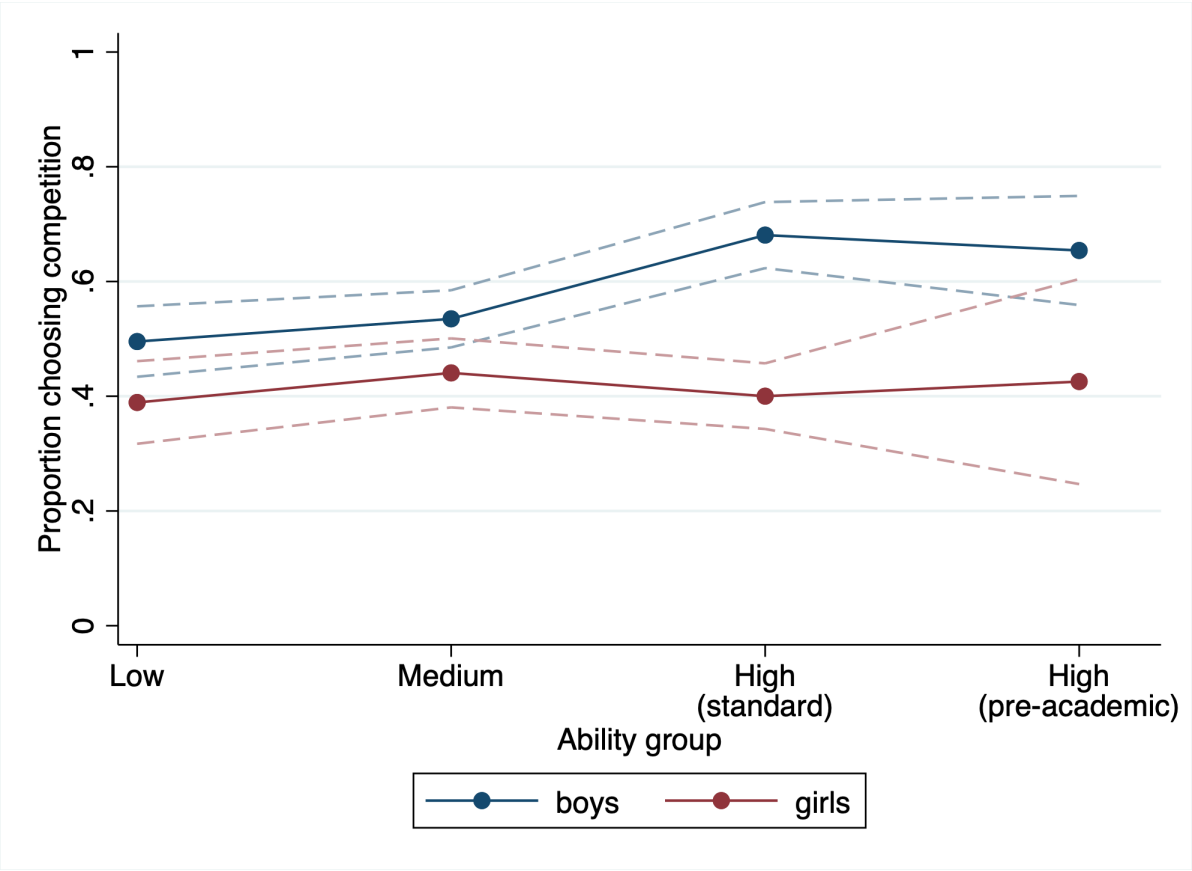


Figure A2: Career choices of girls and boys by ability group



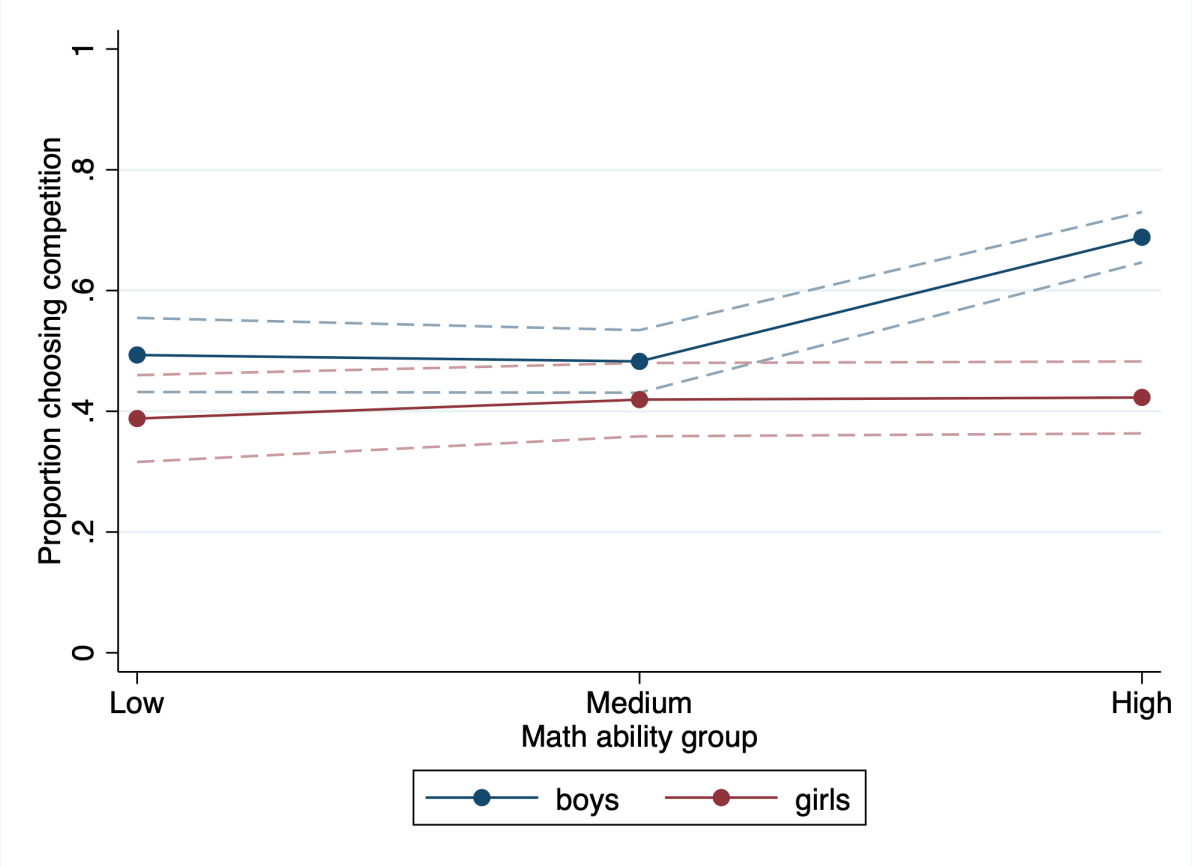
Note: "Voc" means vocational, "Ac" means academic, and "PPP" means Philosophy, Pedagogy & Psychology.

Figure A3: Gender, willingness to compete and ability



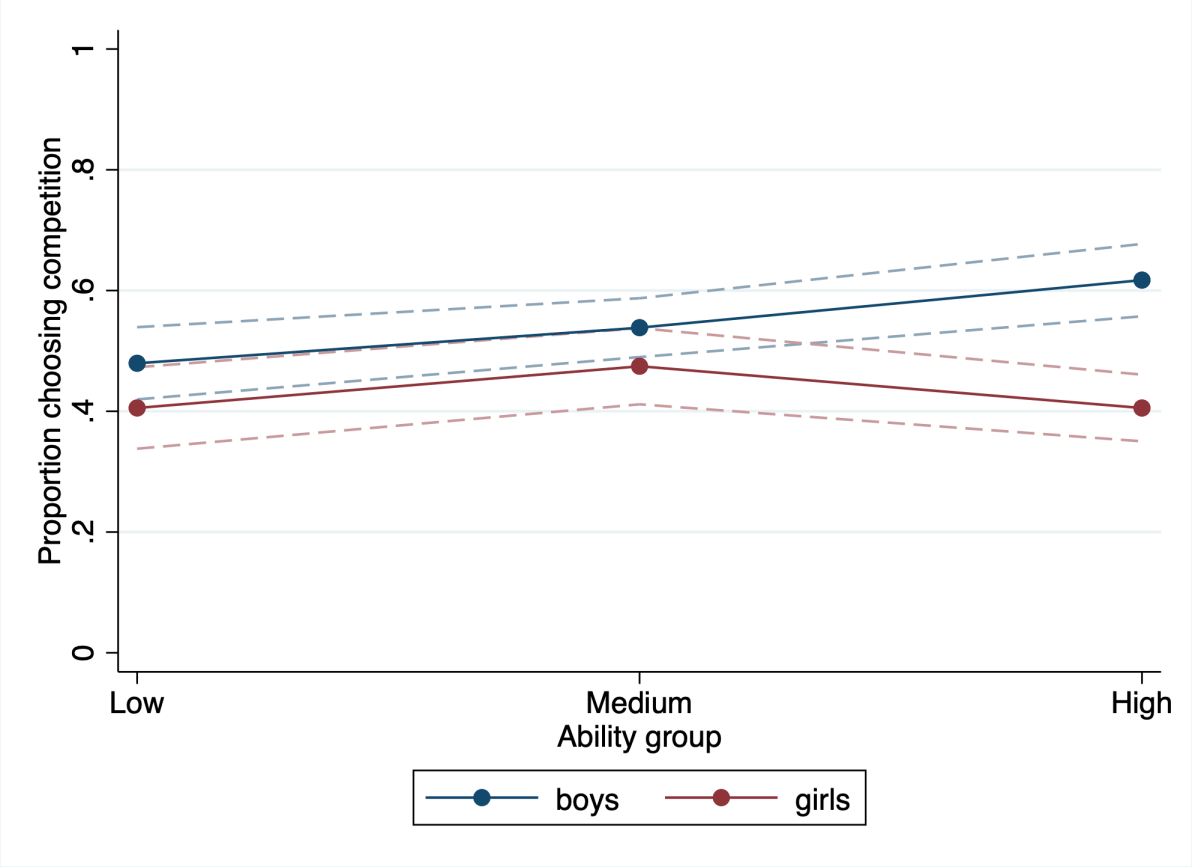
Note: The graph shows willingness to compete for students in a specific ability group conditional on experimental task and performance in rounds 1 and 2 of the experiment (interacted with task). The estimators are obtained from an OLS regression of a tournament entry dummy on a gender dummy, ability group dummies and the interaction of the two plus the mentioned controls. Confidence bands represent 90-percent confidence intervals and standard errors are clustered at the classroom level.

Figure A4: Gender, willingness to compete and math ability



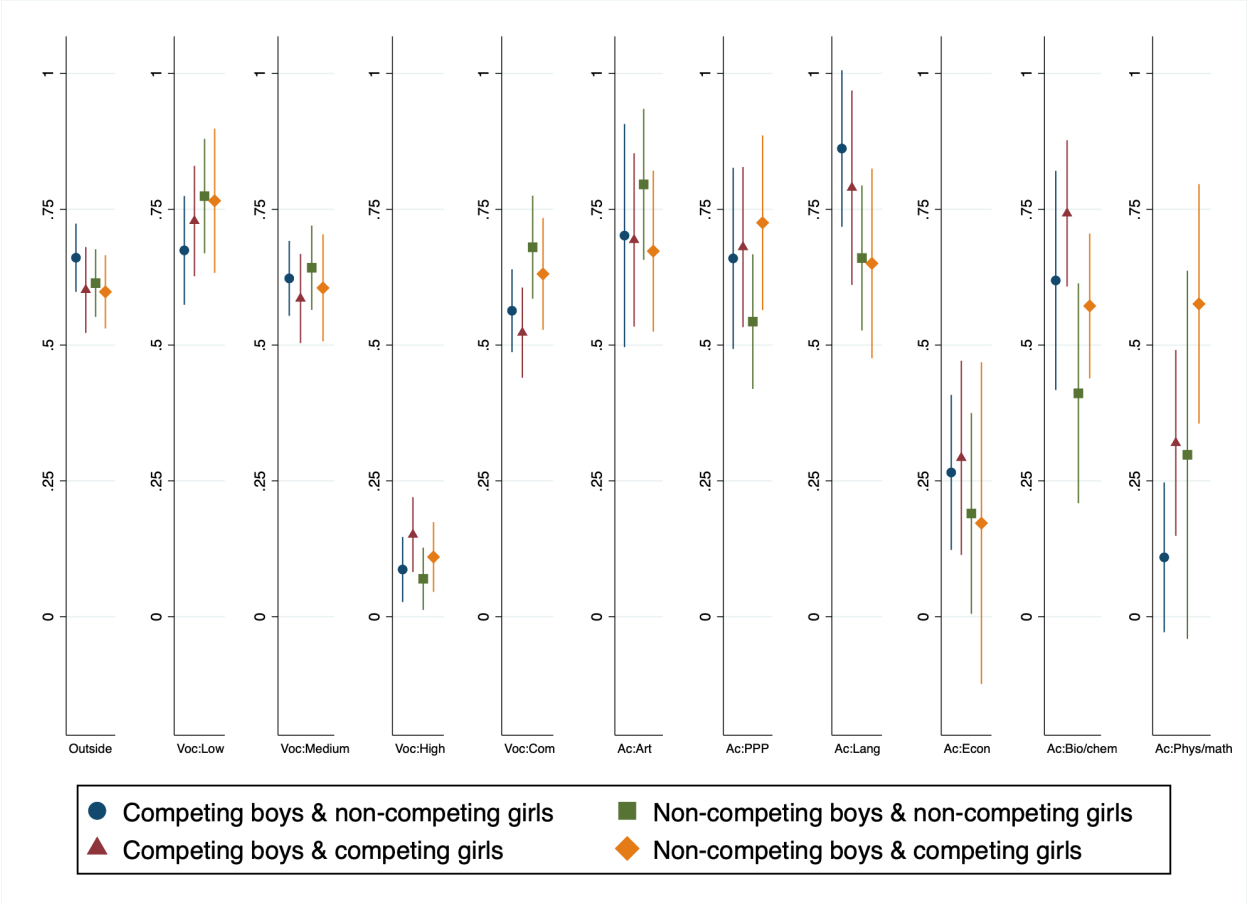
Note: The graphs show willingness to compete for students in a specific math ability group conditional on experimental task and performance in rounds 1 and 2 of the experiment (interacted with task). The low ability group consists of "Real" students, the middle ability group consists of "Sekundar" students whose math grade is below the median, and the high ability group consists of "Sekundar" students whose math grade is above the median and of "Spezielle Sekundar" students. The estimators are obtained from an OLS regression of a tournament entry dummy on a female dummy, ability group dummies and the interaction of the two plus the mentioned controls. Confidence bands represent 90-percent confidence intervals and standard errors are clustered at the classroom level.

Figure A5: Gender, willingness to compete and ability controlling for risk attitudes, confidence in math, and socioeconomic controls



Note: The graphs show willingness to compete for students from a specific ability group conditional on experimental task, performance in rounds 1 and 2 of the experiment (interacted with task), school fixed effects, and the following additional controls: two measures of risk attitudes (lottery choice and BRET), confidence in math, a dummy for whether both parents live at home, first-generation immigrant (i.e. child and parents born abroad) and second-generation immigrant (i.e. only parents born abroad) dummies, a dummy for whether German is spoken at home, number of siblings dummies, and full-time and part-time employment dummies for father and for mother. We also control for interactions of the additional controls with gender. The estimators are obtained from OLS regressions of a tournament entry dummy on a female dummy, ability group dummies and the interaction of the two plus the mentioned controls. Confidence bands represent 90-percent confidence intervals and standard errors are clustered at the classroom level.

Figure A6: Proportion of girls in each career option in four different gender-compete combinations



Note: The aim of the figure is to get a sense of what the proportion of girls could potentially be in each career option under different scenarios: when all boys compete but no girls compete, when all boys and girls compete, when neither boys nor girls compete, and when no boys compete but all girls compete (see details in Appendix C). The figure shows the predicted proportion of girls in each of the career options for different subsamples of our data. "Competing boys & non-competing girls" is the subsample that contains all boys who choose competition and all girls who choose piece rate; "Competing boys & competing girls" is the subsample that contains all boys who choose competition and all girls who choose competition. "Non-competing boys & non-competing girls" is the subsample that contains all boys who choose piece rate and all girls who choose piece rate. "Non-competing boys & competing girls" is the subsample that contains all boys who choose piece rate and all girls who choose competition. The predictions are obtained from OLS regressions of career choice dummies on a gender dummy, a task dummy, performance in rounds 1 and 2 of the experiment, interactions between task and performance, GPA, math grades, lower-secondary school level dummies, interactions of grades and level dummies, the gender composition of the classroom, and school fixed effects. Spikes represent 90-percent confidence intervals and standard errors are clustered at the classroom level.

Appendix C: Additional discussions

Appendix C.1: Grouping career options by math intensity

The vocational sector contains a large number of apprenticeships which together cover a wide range of economic activity. Some apprenticeships train students for relatively low-skilled occupations such as hairdresser or domestic worker, whereas others prepare students for high-skilled (and highly paid) occupations such as computer technician or polymechanic. A special case is the commerce apprenticeship. Instead of a specific occupation, this apprenticeship leads to a wide variety of careers, including in business administration, banking, marketing, and communication, some of which are highly paid. Students can do this apprenticeship at two different levels, the higher of which is more prestigious and has considerably higher skill requirements.

Since there are a large number of specific apprenticeship options, each of them is typically chosen by only a small fraction of people. To make the choice tractable for quantitative analysis, we group apprenticeships based on their math intensity. Our grouping makes use of the fact that the math requirements of the various apprenticeships were officially assessed in an evaluation project of the EDK (Swiss Conference of Cantonal Ministers of Education) and the Swiss Trade Association (sgv). The project measured math requirements on a scale from 1 to 100 and classified apprenticeships as follows: low requirements (1-25), medium requirements (25-50), high requirements (50-75) and very high requirements (75-100).[1] Because very few apprenticeships are classified as very high, we group the high and very high apprenticeships into a single high-math group for our analysis. We treat the commerce apprenticeship as a separate category because, unlike the other apprenticeships, it is chosen by a large fraction of people (roughly one fifth of students in our sample who do an apprenticeship make this choice), and because it leads to a large variety of careers, some of which are more math-intensive than others. Thus, we will look at four categories: low

[1]The name of the project was Educational Requirement Profiles for Vocational Education. A graphical representation of the math requirement measure and the classification can be accessed under `http://www.anforderungsprofile.ch/`. Some apprenticeships are offered in several versions. For example, students who would like to become a hairdresser can do a shorter or a longer apprenticeship; students who do the automotive mechanic apprenticeship can do so with a focus on commercial vehicles or with a focus on passenger cars, etc. If the student gives no indication on which version he/she chose, we take the average math requirements over the different versions.

math, medium math, high math, and commerce.[2]

Apprenticeships were also ranked by requirements for language skills, foreign language skills and science skills. We choose math rather than other skills for three reasons. First, we analyzed data from the Swiss Federal Statistical Office (FSO) and found that the math intensity of an apprenticeship is highly predictive of the salary graduates can expect later in life whereas the other measures are not.[3] Second, math-intensity is also a main differentiator between specializations in the academic track and has previously been used in the literature (Buser, Niederle, and Oosterbeek, 2014). Third, workers in math-intensive fields are seen as important inputs for innovation and growth and increasing the number of people, and in particular the low number of women, who specialize in STEM-related fields is therefore an explicit policy goal in many countries (Peri, Shih, and Sparber, 2015; Atkinson and Mayo, 2010; UNESCO, 2017).

As for the academic specializations, the Physics & Math specialization clearly stands out in its math-intensity, as students in that specialization study math more extensively and at a more advanced level than in any other specialization. There is also some math-related content in Biology & Chemistry and Economics & Law. The least math-intensive specializations are Languages, PPP (Philosophy, Pedagogy & Psychology), and Music & Arts. Specialization choices in high school have been found to strongly predict study majors at the university level, which, in turn, strongly affect future income (Kirkeboen, Leuven, and Mogstad, 2016). The choice of math classes in high school is a predictor of college attendance and completion (Goldin, Katz, and Kuziemko, 2006). In addition, math-intensive high school specializations have been found to have a positive causal effect on earnings (Joensen and Nielsen, 2009).

[2] As mentioned in Section 2.1, about 5 percent of students choose to study at a specialized school, and we group these choices with the apprenticeships they most closely correspond with. Thus, commerce school is categorized as commerce and applied computer science school is categorized as high math. We put schools specialized in the domain of health and social work in the medium math category based on the math scores of apprenticeships in these domains.

[3] Specifically, we analyzed the correlation with the average earnings in the profession the apprenticeship officially prepares for (the FSO calculated the averages from the Swiss Labor Force Survey of 2014; we base the correspondence between apprenticeships and occupational codes on the Occupational Database ("Berufsdatenbank") of the FSO). Regressing the log of the income measure on math requirements at the apprenticeship level, we find that a one point higher math intensity corresponds to a 0.9 percent higher average income with an R^2 of 0.36. The requirements for language skills, foreign language skills, and science skills have an R^2 of 0.09, 0.02, 0.01 respectively. Among these, only language requirements are significantly correlated with expected salary and unlike the correlation with math requirements, this correlation is negative.

Appendix C.2: Discussion of Appendix Figure A6

In this Appendix section we try to tackle the question of whether gender differences in willingness to compete can potentially account for the fact that the share of women in math-intensive academic specializations and vocational careers is low. It is important to point out that we cannot answer this question in a causal way. We can merely demonstrate how the gender gap in our data varies with willingness to compete. Figure A6 contains the following thought experiment: How would gender differences in career choices look like in an extreme world where all boys/girls are willing to compete? And in a world where boys/girls are not willing to compete? To approximate such situations, we show the proportion of girls in each career option in four partially overlapping subsamples (corrected for performance in the experimental tasks and in school): 1. The subsample of all boys who chose competition and all girls who chose piece rate; 2. the subsample of all boys who chose competition and all girls who chose competition; 3. the subsample of all boys who chose piece rate and all girls who chose piece rate; and 4. the subsample of all boys who chose piece rate and all girls who chose competition.

We previously showed that the gender gap in willingness to compete is strongest at the top of the ability distribution. We would therefore expect the highest explanatory power for choices typically made by top students. This is indeed the case. We observe the most extreme between-subsample differences in the Physics & Math specialization. In the subsample of girls who compete and boys who do not, 58 percent of the students who choose Physics & Math are female. In the subsample of boys who compete and girls who do not, the proportion of girls is a mere 11 percent. In the Language specialization, the corresponding proportions are 86 and 65 percent. Also, going from a world where girls do not compete to a world where all girls compete increases the proportion of girls in Biology & Chemistry.

When we look at vocational choices, we see smaller across-group differences in gender ratios. Going from a world where girls do not compete to a world where all girls compete increases the proportion of girls in high-math apprenticeships by roughly 6 percentage points. Going from a world where boys do not compete to a world where all boys compete increases the proportion

of boys in the commerce apprenticeship by roughly 11 percentage points. On the one hand, the difference in the proportion of girls in high-math apprenticeships between subsamples is large compared to the low proportion of girls in these apprenticeships. On the other hand, it is clear that willingness to compete can at most explain a small part of the huge gender gap in choosing such careers.

It is again important to emphasize that our estimates merely capture correlations, not causation, and therefore differences in the share of women between the different scenarios should be interpreted only as potential changes, not as the actual causal effects of interventions that change willingness to compete.

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