

# **Supplementary Material: Entry into and completion of vocational baccalaureate school in Switzerland: Do differences in regional admission regulations matter?**

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Table S1: Entry requirements into FVB1 and FVB2 school in Swiss cantons

Canton	Entry requirement FVB1	Entry requirement FVB2*	FVB profiles**
Appenzell Inner-Rhodes	no FVB1 school, criteria of Appenzell Outer-Rhodes or St. Gall apply for most of its students <sup>c</sup>	no FVB1 school, criteria of St. Gall or Zurich apply for most of its students <sup>c</sup>	no FVB school
Appenzell Outer-Rhodes	Mandatory entrance exam (in combination with grade average)	no FVB1 school, criteria of St. Gall or Zurich apply for most of its students <sup>c</sup>	BS (only FVB1)
Argovia	Grade average (or entrance exam)	Mandatory entrance exam	TALS, BS, ARTS, HESO, NLF
Basle-City	Grade average (or entrance exam)	Grade average (or entrance exam)	TALS, BS, ARTS, HESO (only FVB1)
Basle-Country	Grade average (or entrance exam)	Grade average (or entrance exam)	TALS, BS (for FVB2 only track business), HESO
Berne	Teacher recommendation (or entrance exam)	Passing of preparatory course (or entrance exam)	TALS, BS, ARTS, HESO, NLF (only FVB2)
Friburg	Grade average (or entrance exam)	Passing of preparatory course (or entrance exam)	TALS, BS, ARTS (only FVB1), HESO, NLF (only FVB2)
Geneva	Grade average (or entrance exam)	Mandatory entrance exam	TALS, BS (for FVB1 only type business), ARTS, HESO, NLF
Glarus	Mandatory entrance exam	Grade average (or entrance exam)	TALS (only FVB1), BS (only type business), HESO (only FVB1)
Grisons	Mandatory entrance exam	Mandatory entrance exam in combination with grade average <sup>a</sup>	TALS, BS (only type business), ARTS, HESO, NLF (only FVB2)
Jura <sup>d</sup>	Grade average (or entrance exam)	Grade average (or entrance exam)	TALS, BS (for FVB1 only type business), HESO
Lucerne	Grade average (or entrance exam)	Mandatory entrance exam	TALS, BS, ARTS, HESO, NLF (only FVB2)
Neuchâtel	Grade average (or entrance exam)	Passing of preparatory course (or entrance exam)	TALS, BS (only type business), ARTS, HESO, NLF (only FVB2)
Nidwald	Grade average (or entrance exam)	Grade average (or entrance exam) <sup>b</sup>	BS (only FVB1 and only type business)
Obwald	Grade average (or entrance exam) <sup>b</sup>	Grade average (or entrance exam)	TALS, BS, HESO (all types only FVB2)

Schaffhouse	Mandatory entrance exam	Mandatory admission interview and (potentially) additional criteria	TALS, BS (for FVB1 only type business), HESO (only FVB2)
Schwyz	Mandatory entrance exam	Mandatory entrance exam	TALS, BS (only type business), HESO (only FVB2)
Soleure	Grade average (or entrance exam)	Passing of preparatory course (or entrance exam)	TALS, BS (for FVB1 only type business), Arts (only FVB2), HESO
St. Gall	Mandatory entrance exam	Mandatory entrance exam	TALS, BS, ARTS, HESO, NLF (only FVB2)
Tessin	Grade average (or entrance exam)	Mandatory admission interview and (potentially) additional criteria	TALS, BS, ARTS, HESO, NLF
Thurgovia	Mandatory entrance exam	Grade average and teacher recommendation (oder entrance exam)	TALS, BS (for FVB1 only type business), ARTS, HESO, NLF (only FVB2)
Uri	Grade average (or entrance exam)	Mandatory entrance exam	TALS (only FVB2), BS (only FVB1 and only type business), HESO (only FVB2)
Vaud	Grade average (or entrance exam)	Mandatory entrance exam	TALS, BS, ARTS, HESO, NLF (only FVB2)
Wallis	Grade average (or entrance exam)	Grade average (or entrance exam)	TALS, BS (for FVB1 only type business), ARTS, HESO (only FVB1)
Zug	Teacher recommendation (or entrance exam)	Mandatory entrance exam	TALS, BS (for FVB1 only type business), HESO (only FVB2)
Zurich	Mandatory entrance exam	Mandatory entrance exam	TALS, BS, ARTS, HESO, NLF

Notes: \* Entry requirements for FVB2 type "Economy" differs. In all cantons access without examinations is possible for apprentices of commercial education as long as they fulfill a certain grade average.

\*\* FVB types: Technic, Architecture, life sciences (TALS), Business and Services (BS; includes subtypes business and services), Design and Arts (ARTS), Health and Social Occupations (HESO), Nature, Landscape, Food (NLF)

a) Entry requirements for type GESO differs as well

b) Despite not having a FVB1 school, the canton specifies admission criteria for its students

c) since we eventually code Appenzell Outer-Rhodes and St. Gall into the same category (mandatory entrance exam) this poses no problem

d) Canton of Jura not included into analyses

Table S2: Individual and contextual determinants for entry into FVB1- and FVB2-school (regression results)

	FVB1				FVB2		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Entry requirements FVB, Ref=mandatory entrance exam</i>							
Grade average	0.46*	0.05	0.58**				
	(0.23)	(0.19)	(0.11)				
Teacher recommendation	-0.11	-0.18*	-0.24				
	(0.15)	(0.08)	(0.16)				
Admission interview					0.43***	0.42***	0.36*
					(0.09)	(0.05)	(0.17)
Preparatory course					0.22**	0.23***	0.27***
					(0.07)	(0.02)	(0.07)
Grade average/Teacher Recommendation					0.11	0.11***	0.06
					(0.08)	(0.03)	(0.09)
Admission without entry exam (Dummy)				0.54**			
				(0.15)			
Women	-0.27***	-0.24**	-0.26**	-0.28**	0.02	0.02	0.02
	(0.07)	(0.07)	(0.10)	(0.10)	(0.03)	(0.02)	(0.06)
Swiss	0.16	0.23*	0.09	-0.03	-0.01	-0.01	-0.26**
	(0.12)	(0.11)	(0.17)	(0.17)	(0.04)	(0.03)	(0.09)
Age at IVET beginning	-0.49***	-0.44***	-0.46***	-0.47***	-0.17***	-0.15***	-0.10*
	(0.11)	(0.09)	(0.08)	(0.08)	(0.04)	(0.01)	(0.04)
High SES			0.48***	0.68***			0.27***
			(0.10)	(0.18)			(0.06)
School track with additional requirements in lower education	1.76***	2.00***	1.82***	1.85***	0.78***	0.75***	0.72***
	(0.28)	(0.26)	(0.21)	(0.21)	(0.08)	(0.03)	(0.09)
Academic requirements of training occupation	0.15***	0.15***	0.16***	0.16***	0.05***	0.05***	0.03***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
General baccalaureate (quota)		4.11***				0.20*	
		(1.23)				(0.11)	
High SES*admission without			-0.38*				
			(0.21)				
Constant	-2.71	-4.54**	-4.06**	-3.69**	-1.29***	-1.46***	-1.56*
	(2.05)	(1.72)	(1.31)	(1.34)	(0.38)	(0.22)	(0.74)
Observations	40228	40228	4654	4616	39518	39518	4594
Observations (second step)					35209	35209	
Pseudo-R2	0.264	0.277					
Athrho					-0.21	-0.02	0.38
					(0.39)	(0.09)	(0.24)

Notes: Clustered standard errors (canton) in parentheses: +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; Models 1-4 are logistic regression models, models 5-7 on entry into FVB2 are Heckman models; Step 2 is presented here. Models 3, 4, and 7 include weights to adjust for the fact that information on SES is only available for a subset of the sample.

Table S3: Individual and contextual determinants for the successful completion of FVB1 and FVB2 (Heckprobit models)

Step 2	FVB1 completion				FVB2-completion
	(1)	(2)	(3)	(4)	(5)
<i>Entry requirements FVB, Ref=mandatory entrance exam</i>					
Grade average	0.16*	0.15 <sup>+</sup>	0.25*		
	(0.07)	(0.08)	(0.10)		
Teacher recommendation	0.15	0.13	0.02		
	(0.10)	(0.09)	(0.17)		
Admission interview					0.43***
					(0.06)
Preparatory course					0.29***
					(0.06)
Grade average/Teacher recommendation					0.16**
					(0.05)
Admission without entry exam (dummy)				0.25 <sup>+</sup>	
				(0.14)	
Women	0.24***	0.22**	0.17	0.20 <sup>+</sup>	0.09
	(0.06)	(0.08)	(0.12)	(0.12)	(0.06)
Swiss	0.17 <sup>+</sup>	0.22*	0.49**	0.49**	0.06
	(0.09)	(0.09)	(0.17)	(0.18)	(0.06)
Age at IVET beginning	-0.20***	-0.23***	-0.24***	-0.23**	-0.20***
	(0.05)	(0.06)	(0.07)	(0.08)	(0.03)
Socio-Economic Background			0.24*	0.28 <sup>+</sup>	
			(0.10)	(0.16)	
School track with additional requirements in lower secondary education	0.99***	0.95***	1.00***	0.98***	0.79***
	(0.16)	(0.17)	(0.20)	(0.22)	(0.05)
Intellectual requirements of training occupation	0.04*	0.04*	0.06***	0.05***	0.04***
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)
Drop out (Termination of training contract)		-0.60***	-0.55**	-0.60**	
		(0.07)	(0.19)	(0.19)	
SES* Entry without mandatory exam				-0.10	
				(0.20)	
Constant	-0.02	0.38	-1.12	-0.81	-0.19
	(1.17)	(1.43)	(1.24)	(1.29)	(1.31)
Athrho	0.38	0.47	0.96*	0.78*	1.37
	(0.29)	(0.39)	(0.40)	(0.32)	(0.95)
Observations (first step)	40228	39873	4602	4564	34326
Observations (second step)	5982	5627	-	-	4876

Notes: Clustered standard errors (canton) in parentheses: <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . The second step of the Heckprobit models includes the selection of students who initially participated in FVB-training. Models 3 and 4 include weights to adjust for the fact that information on SES is only available for a subset of the sample.

Table S4: Individual and contextual determinants for entry into FVB2-school (logistic regression models)

	Entry into FVB2		
	(1)	(2)	(3)
Admission interview	0.81*** (0.10)	0.78*** (0.10)	0.65* (0.33)
Preparatory course	0.42** (0.15)	0.42** (0.15)	0.49*** (0.13)
Grade average/ Teacher recommendation	0.18 (0.18)	0.17 (0.19)	0.11 (0.18)
Women	0.05 (0.04)	0.05 (0.04)	0.09 (0.11)
Swiss	-0.02 (0.07)	-0.02 (0.07)	-0.40* (0.18)
Age at IVET beginning	-0.27*** (0.03)	-0.27*** (0.03)	-0.24** (0.08)
Socio-Economic Background			0.51*** (0.11)
School track with additional requirements in lower secondary education	1.44*** (0.13)	1.44*** (0.13)	1.46*** (0.18)
Academic requirements of training occupation	0.08*** (0.00)	0.08*** (0.00)	0.08*** (0.01)
General baccalaureate (quota)		0.27 (0.48)	
Constant	-2.57*** (0.43)	-2.65*** (0.51)	-2.60* (1.36)
Observations	35470	35470	4025
Pseudo $R^2$	0.156	0.156	

Notes: Clustered standard errors (canton) in parentheses: +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; Models 5-7 on entry into FVB2 school exclude individuals who already obtained a FVB1 during their IVET. Models 3, 4, and 7 include weights to adjust for the fact that information on SES is only available for a subset of the sample.

Table S5: Entry into and completion of FVB-school: robustness tests

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FVB1-			FVB2-				
	Entry	Graduation	Graduation	Entry	Graduation	Graduation	Entry	Graduation
<i>Entry requirements FVB, Ref=mandatory entrance exam</i>								
Grade average	0.40 <sup>+</sup> (0.24)	0.13 <sup>+</sup> (0.07)	0.42 <sup>*</sup> (0.19)					
Teacher recommendation	-0.15 (0.17)	0.10 (0.10)	-0.06 (0.16)					
Admission interview				0.65 <sup>***</sup> (0.14)	0.41 <sup>***</sup> (0.06)	0.82 <sup>***</sup> (0.09)	0.71 <sup>***</sup> (0.13)	0.41 <sup>***</sup> (0.04)
Preparatory course				0.36 <sup>*</sup> (0.16)	0.28 <sup>***</sup> (0.05)	0.46 <sup>***</sup> (0.13)	0.38 <sup>*</sup> (0.15)	0.29 <sup>**</sup> (0.05)
Grade average/teacher recommendation				0.08 (0.17)	0.14 <sup>**</sup> (0.05)	0.21 (0.15)	0.13 (0.16)	0.18 <sup>**</sup> (0.05)
Women	-0.05 (0.04)	0.09 (0.06)	-0.07 (0.05)	-0.06 (0.04)	0.02 (0.06)	0.08 <sup>*</sup> (0.04)	0.07 (0.04)	0.08 (0.05)
Swiss	0.22 <sup>*</sup> (0.11)	0.21 <sup>**</sup> (0.08)	0.24 <sup>+</sup> (0.14)	0.07 (0.06)	0.10 <sup>*</sup> (0.05)	0.03 (0.07)	-0.05 (0.06)	0.08 (0.05)
Age at VET beginning	-0.52 <sup>***</sup> (0.11)	-0.22 <sup>***</sup> (0.04)	-0.51 <sup>***</sup> (0.11)	-0.28 <sup>***</sup> (0.03)	-0.21 <sup>***</sup> (0.03)	-0.31 <sup>***</sup> (0.03)	-0.25 <sup>***</sup> (0.03)	-0.20 <sup>***</sup> (0.02)
Lower Secondary Track with add. requirements	2.12 <sup>***</sup> (0.32)	1.14 <sup>***</sup> (0.14)	2.22 <sup>***</sup> (0.30)	1.54 <sup>***</sup> (0.11)	0.89 <sup>***</sup> (0.05)	1.49 <sup>***</sup> (0.13)	1.33 <sup>***</sup> (0.11)	0.78 <sup>***</sup> (0.05)
Academic requirements of training occ.			0.14 <sup>***</sup> (0.01)			0.08 <sup>***</sup> (0.01)	0.09 <sup>***</sup> (0.00)	0.04 <sup>***</sup> (0.01)
Constant	5.19 <sup>**</sup> (1.95)	2.33 <sup>***</sup> (0.59)	-2.92 (2.18)	2.19 <sup>***</sup> (0.44)	2.16 <sup>**</sup> (0.70)	-2.21 <sup>***</sup> (0.47)	-2.82 <sup>***</sup> (0.39)	0.19 (1.13)
Observations	40504	40504	40228	36157	34990	34466	34792	33679
Pseudo R <sup>2</sup>	0.260		0.248	0.152		0.151	0.154	
Fixed effects for occupation fields	yes	yes		yes	yes			
Without canton of Grisons							yes	yes
Logistic regression model			yes			yes		
Athrho		0.52 <sup>+</sup> (0.29)			1.26 <sup>+</sup> (0.75)			1.10 <sup>+</sup> (0.59)

Clustered standard errors in parentheses: <sup>+</sup>  $p < 0.10$ , <sup>\*</sup>  $p < 0.05$ , <sup>\*\*</sup>  $p < 0.01$ , <sup>\*\*\*</sup>  $p < 0.001$