

# What explains the gender gap in college track dropout? Experimental and administrative evidence: Online Appendix

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## 1 Data and definition of variables

**Some parental college** We define a person to have some college education if he or she has reached NUS-level 5 in the Norwegian classification system of education (Statistics Norway, 2000). Most of the studies at level 5 require that the person has followed the college track at high school. For more details on the Norwegian educational system, see Kai Liu, Kjell G. Salvanes and Erik Ø. Sørensen (2014). The variable is taken from the central register of education (Elisabetta Vassenden, 1995). Raising the cut-off to level 6 would decrease the share with only 5 percentage points, with minimal impact on our point estimates.

**Family income** is the rank of the CPI-corrected average income of the parents in 2000-2009, ranging from 0 (lowest family income in the sample) to 1 (highest family income in the sample).

**Ability** is performance on a math task. Participants in the experiment added numbers for three minutes, and scored a point if their sum was correct. If they scored a total number of points higher than the average in their session, they would get 50 NOK, otherwise they would not get anything.

**Patience** Participants chose between a given monetary amount they could take home on the day of the experiment and a larger amount they would receive after three weeks. The waiting premium varied, and there were eight choices altogether (one of which would be randomly realized). The variable is the the number of times the participants chose to wait three weeks for the larger amount.

**Risk-taking** Participants chose between 75 NOK for sure or a lottery with 150 NOK with a given probability or 0 NOK. The probability of 150 NOK varied, and

the participants made 11 choices altogether (one of which would be randomly realized).

**Compete** An indicator variable for whether participants chose to compete in a setting modeled after Muriel Niederle and Lise Vesterlund (2007). After completing the math task used to elicit ability, the participants were asked to repeat task, but now they could choose between a piece rate (1 NOK/point) or competing against the group average from the first round (with 3 NOK points if they scored above the average).

**Informed beliefs** Participants were asked four factual questions about the labour market: 1) Average earnings differences between those who complete the academic track and the vocational track; 2) Average earnings differences between those with five years of post-secondary education and those without; 3) Average earnings difference between lawyers and nurses; and 4) Average earnings differences between electricians and hair-dressers. There were 10 categories to choose from for each question and participants were incentivized with 10 NOK for each correct answer. For each answer, we measure how much the participants deviate from the correct answer. The variable is the negative of the sum of these deviations for all the four questions. The correct answers were taken from Lars Johannessen Kirkebøen (2010).

**Confidence** Participants were asked about which decile of the adding-number-performance they believed they fit into.

**BF Agreeableness – BF Openness** The Big-Five personality traits were elicited with the 44-item Big-5 inventory (translated into Norwegian), and each trait was calculated using the ‘ipsatizing’ procedure (Oliver P. John, Laura P. Naumann and Christopher J. Soto, 2008).

For the variables Ability, Patience, Risk-taking, Compete, Beliefs, Confidence, and the Big-5 personality traits, we standardize the variables to overall zero mean and unit variance for inclusion in the regression analyses.

## 2 Supplementary analysis

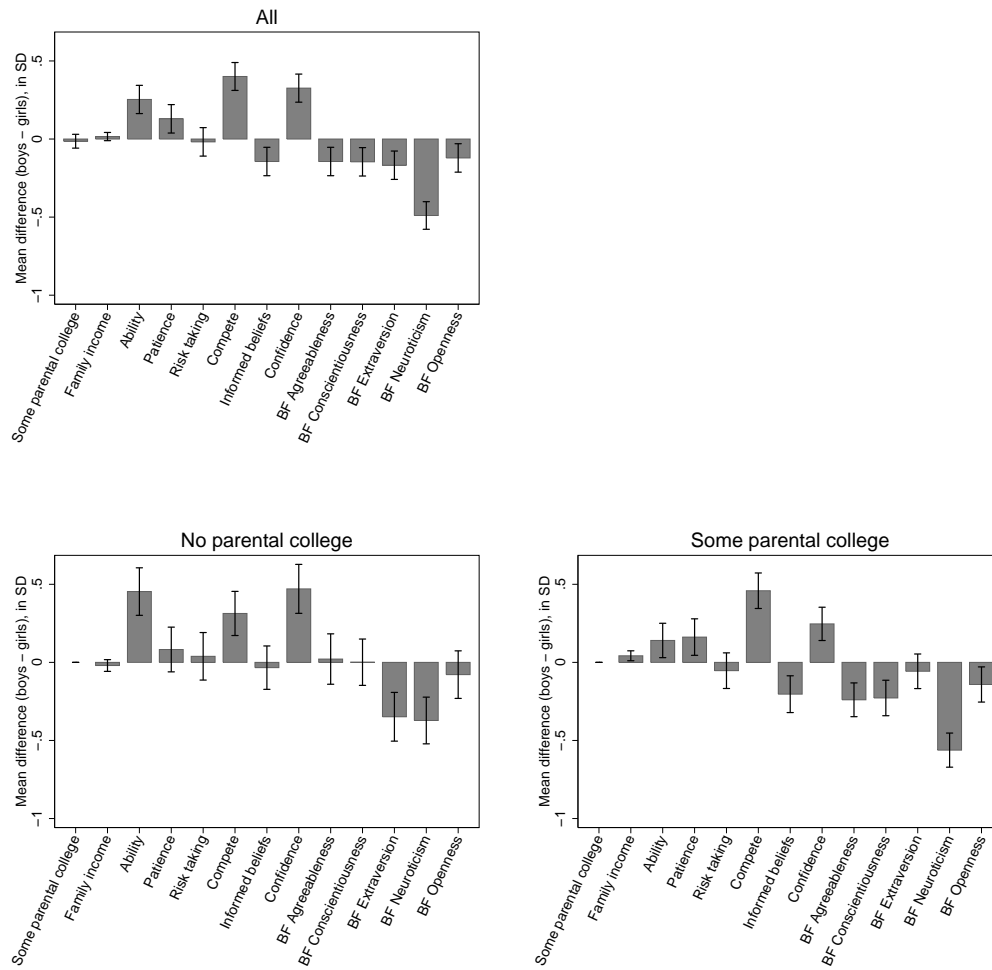
In Figure A1 we graph the gender differences in the explanatory variables in the regression analyses in the paper.

In Figures A2 and A3, we break Figure 3 from the main paper down by parental education.

Table A1 includes the same linear probability regressions as in columns (1) and (2) in Table 1 in the paper. In addition, the table includes regressions introducing separately the different types of variables from the experiment.

Table A2 reports the same linear probability regressions as in Table 1, separately for selection into the college track and dropout within the college track.

Figure A1: Mean differences in participant characteristics by gender



*Note:* The figure displays the differences in characteristics between boys and girls. Standard errors of means are indicated by the bars. For levels and standard deviations of the underlying variables, see Ingvild Almås, Alexander W. Cappelen, Kjell G. Salvanes, Erik Ø. Sørensen and Bertil Tungodden (Forthcoming).

Figure A2: Flows of participants for children *without* any college level education among parents

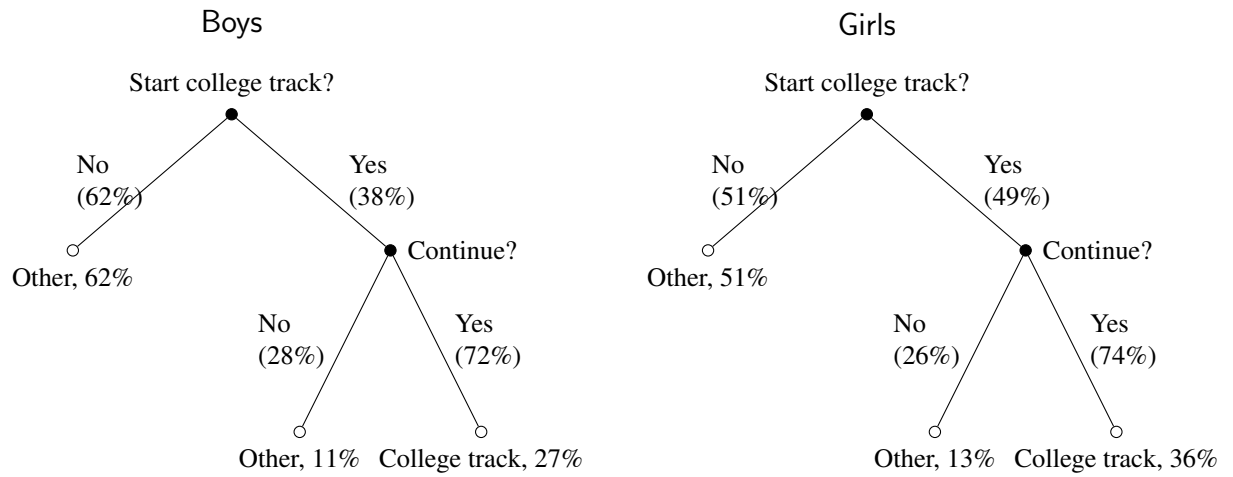


Figure A3: Flows of participants for children *with* some college level education among parents

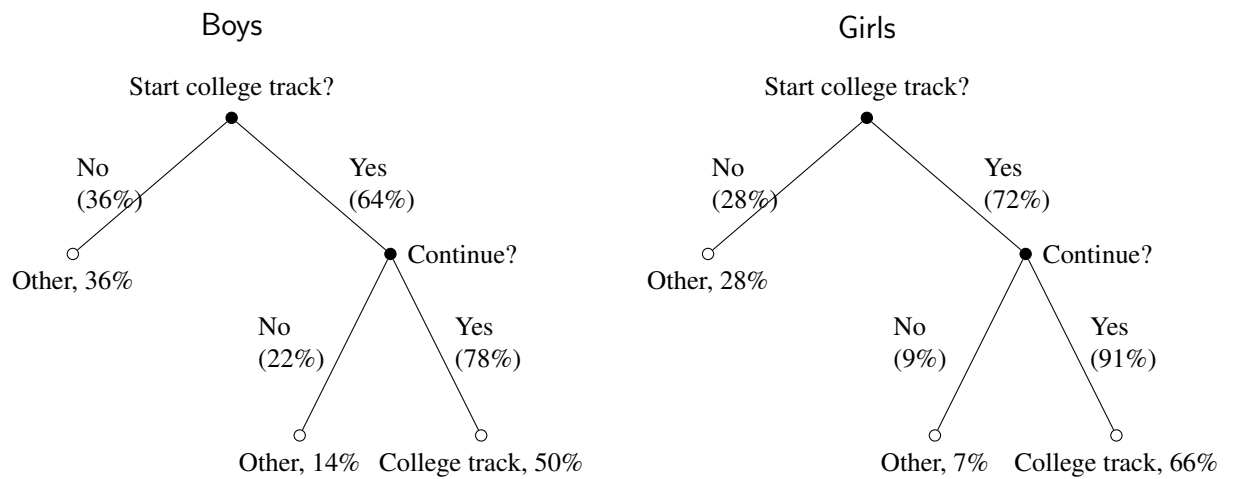


Table A1: Explaining adolescent dropout from college track

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Male	0.133*** (0.045)	0.133*** (0.044)	0.169*** (0.043)	0.168*** (0.045)	0.164*** (0.043)	0.122*** (0.047)	0.156*** (0.044)
Parents with some college		-0.216*** (0.049)					-0.141*** (0.049)
Family income		-0.192** (0.081)					-0.165** (0.076)
Ability			-0.139*** (0.021)				-0.085*** (0.023)
Patience				-0.047** (0.022)			-0.019 (0.021)
Risk taking				0.024 (0.022)			0.001 (0.022)
Compete				-0.070*** (0.023)			-0.009 (0.024)
Informed beliefs					-0.069*** (0.023)		-0.052** (0.022)
Confidence					-0.124*** (0.021)		-0.054** (0.025)
BF Agreeableness						0.027 (0.024)	0.022 (0.021)
BF Conscientiousness						-0.104*** (0.025)	-0.071*** (0.024)
BF Extraversion						-0.030 (0.024)	-0.024 (0.022)
BF Neuroticism						0.009 (0.025)	-0.010 (0.024)
BF Openness						-0.001 (0.023)	-0.001 (0.022)
Constant	0.453*** (0.033)	0.684*** (0.050)	0.435*** (0.031)	0.435*** (0.032)	0.437*** (0.031)	0.459*** (0.032)	0.612*** (0.051)
Observations	483	483	483	483	483	483	483
R <sup>2</sup>	0.018	0.091	0.094	0.049	0.104	0.066	0.199

The table displays estimation results for linear probability models explaining an indicator for dropout from college track by participant characteristics. Robust standard errors are given in parentheses (\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ).

Table A2: Explaining adolescent choice of college track and dropout within the college track

	Choice of college track				Dropout within college track			
	All		Boys	Girls	All		Boys	Girls
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Male	-0.095** (0.045)	-0.135*** (0.046)			0.096** (0.047)	0.101** (0.047)		
Parents with some college		0.147*** (0.050)	0.165** (0.070)	0.122* (0.072)		-0.062 (0.060)	-0.029 (0.099)	-0.041 (0.082)
Family income		0.123 (0.077)	0.155 (0.109)	0.082 (0.111)		-0.114 (0.078)	-0.097 (0.148)	-0.116 (0.085)
Ability		0.073*** (0.023)	0.109*** (0.030)	0.045 (0.035)		-0.048* (0.026)	-0.003 (0.040)	-0.086*** (0.032)
Patience		0.010 (0.021)	0.001 (0.027)	0.041 (0.033)		-0.018 (0.026)	-0.051 (0.042)	0.022 (0.031)
Risk taking		0.005 (0.022)	-0.037 (0.029)	0.057* (0.030)		0.014 (0.028)	-0.042 (0.041)	0.073** (0.034)
Compete		0.055** (0.023)	0.052 (0.033)	0.057* (0.033)		0.054** (0.024)	0.058 (0.041)	0.064* (0.034)
Informed beliefs		0.032 (0.022)	-0.034 (0.027)	0.105*** (0.031)		-0.043* (0.025)	-0.030 (0.036)	-0.058* (0.032)
Confidence		0.030 (0.024)	0.071** (0.034)	-0.013 (0.034)		-0.060** (0.025)	-0.068* (0.040)	-0.058* (0.032)
BF Agreeableness		-0.018 (0.022)	0.029 (0.033)	-0.040 (0.030)		0.002 (0.023)	0.021 (0.044)	-0.031 (0.028)
BF Conscientiousness		0.062*** (0.024)	0.004 (0.031)	0.111*** (0.033)		-0.025 (0.026)	-0.022 (0.042)	-0.042 (0.035)
BF Extraversion		0.018 (0.022)	-0.011 (0.032)	0.045 (0.030)		-0.018 (0.022)	-0.052 (0.035)	0.008 (0.027)
BF Neuroticism		-0.007 (0.023)	-0.038 (0.033)	0.016 (0.034)		-0.022 (0.025)	-0.039 (0.044)	-0.025 (0.033)
BF Openness		0.007 (0.022)	0.049 (0.030)	-0.022 (0.028)		0.012 (0.023)	0.004 (0.039)	0.023 (0.025)
Constant	0.637*** (0.032)	0.504*** (0.053)	0.319*** (0.062)	0.517*** (0.070)	0.141*** (0.029)	0.266*** (0.063)	0.311*** (0.100)	0.253*** (0.072)
Observations	483	483	249	234	284	284	135	149
R <sup>2</sup>	0.009	0.169	0.223	0.207	0.015	0.123	0.098	0.239

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