Internet Appendix for

Are CEOs born leaders? Lessons from traits of a million individuals

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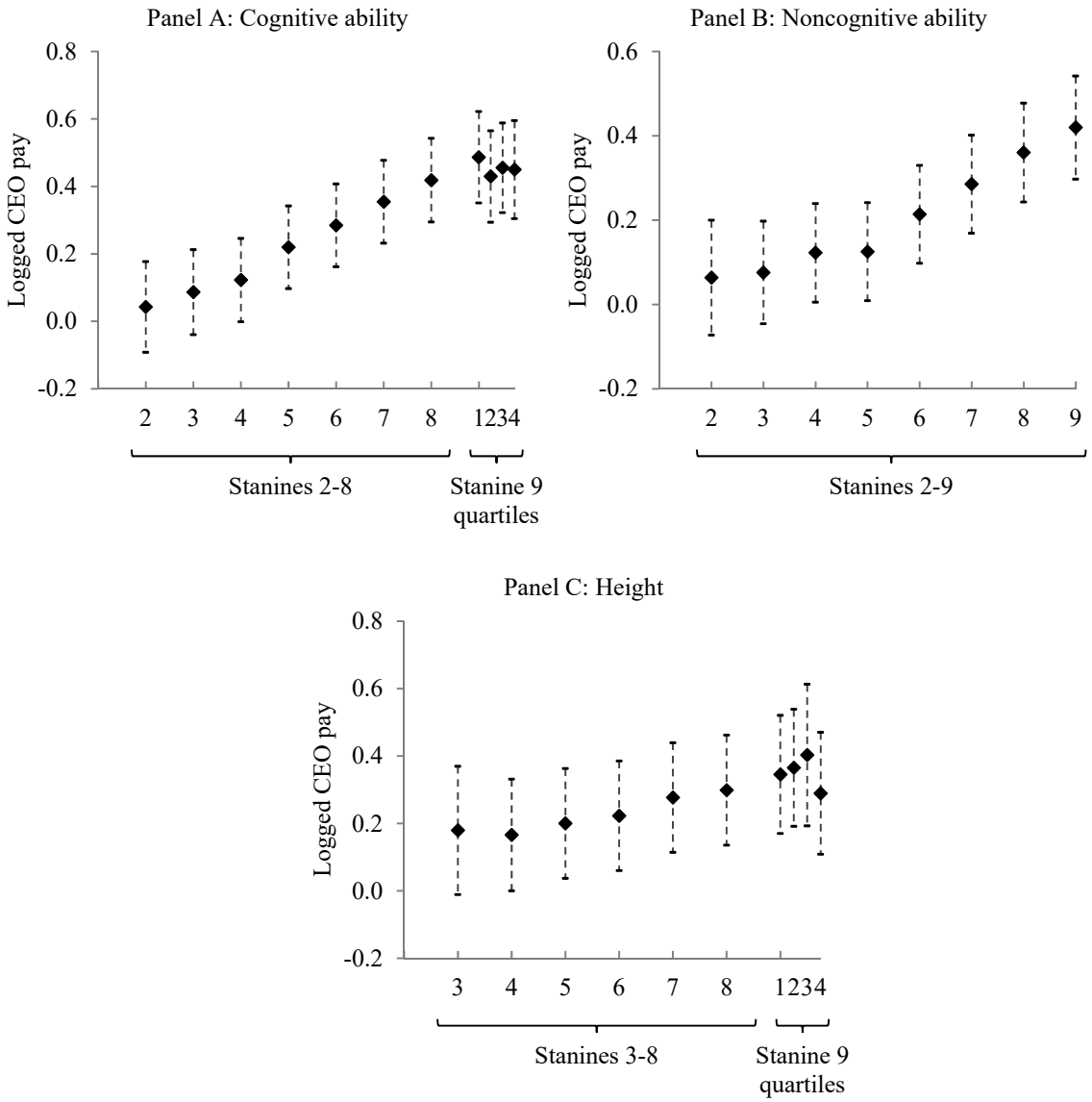

Fig. IA1. CEO pay at the top of the trait distributions. This figure reports results from regressions that replace the traits in Table 4 Column 2 with their stanine indicators. The top stanine for cognitive ability is further divided into quartiles according to the sum of the four subscores (induction, verbal, spatial, and technical). The omitted category for height includes the two lowest stanines as the bottom stanine has a small number of observations. Breakdown of the top height stanine uses raw height. The top stanine for noncognitive ability cannot be stratified to finer categories as the underlying test scores are not available. The figure reports the coefficients for indicators along with their 95% confidence intervals.

Table IA1

Standard deviations of the traits for the population, for CEOs by firm size and family firm status, and for other high-skill professions

The table reports standard deviations of traits, the year an individual was enlisted, taxable labor income (in SEK), and, for CEOs, the total assets of the firm they manage. The statistics are calculated separately for the population and for physicians, engineers, lawyers, and finance professionals, and for CEOs of various types. The unit of observation is an individual. The CEOs are assigned to categories according to the largest firm they have managed during the sample period 2004−10.

	Popu-lation	CEOs by firm size				CEOs by family firm status				High-skill professions			
		<100 mil	100 mil – 1bil	1 bil – 10 bil	>10 bil	Non-family firm	Family firm, external	Family firm, founder	Family firm, heir	Physi-cians	Lawyers	Engi-neers	Finance profes-sionals
Cognitive ability	1.93	1.65	1.48	1.41	1.21	1.60	1.58	1.67	1.67	1.35	1.42	1.43	1.46
Induction	1.93	1.68	1.53	1.44	1.27	1.63	1.65	1.70	1.69	1.41	1.46	1.49	1.50
Verbal	1.82	1.58	1.49	1.46	1.27	1.56	1.49	1.61	1.58	1.43	1.39	1.45	1.42
Spatial	1.90	1.73	1.66	1.58	1.47	1.70	1.69	1.77	1.73	1.58	1.65	1.57	1.68
Technical	1.88	1.71	1.67	1.59	1.71	1.70	1.68	1.72	1.72	1.63	1.63	1.57	1.62
Noncognitive ability	1.74	1.59	1.47	1.42	1.32	1.57	1.55	1.61	1.60	1.71	1.63	1.51	1.51
Height (cm)	6.54	6.25	6.17	5.94	5.96	6.23	6.33	6.21	6.27	6.34	6.27	6.44	6.16
Enlistment year	7.69	6.92	6.27	5.83	5.35	6.79	6.68	6.84	7.70	8.08	7.82	7.28	7.46
Income, 1,000 SEK	370	635	1,601	3,263	5,362	1,438	1,272	427	456	357	567	241	1,394
Total assets, mill. SEK		27.1	287	2,594	94,100	9,901	5,712	287	711				
Number of individuals	1,268,176	21,937	3,266	672	148	16,609	1,503	6,417	1,494	9,384	6,192	39,567	8,823

Table IA2

Traits of high-skill professionals whose income matches that of CEOs

The table reports average traits for high-skill professionals whose income matches that of CEOs. The analysis determines the position of each CEO and high-skill professional in the income distribution. It then calculates average traits for high-skill professionals that fall between the 25th and 75th percentiles of CEOs in each firm-size category.

	CEOs				Physicians			
	<100M	100M - 1B	1B - 10B	>10B	<100M	100M - 1B	1B - 10B	>10B
Cognitive ability	6.02	6.60	6.84	7.16	7.49	7.57	7.45	7.45
Induction	5.95	6.55	6.87	7.06	7.33	7.38	7.36	7.37
Verbal	5.71	6.30	6.63	6.99	7.19	7.26	7.30	7.32
Spatial	5.82	6.12	6.21	6.48	6.62	6.67	6.49	6.55
Technical	5.59	5.86	5.91	6.08	6.71	6.64	6.53	6.53
Noncognitive ability	6.14	6.67	6.93	7.36	6.33	6.64	6.55	6.92
Height (cm)	180.3	181.4	181.6	183.5	181.2	181.3	181.3	180.8

	Lawyers				Engineers			
	<100M	100M - 1B	1B - 10B	>10B	<100M	100M - 1B	1B - 10B	>10B
Cognitive ability	6.69	6.93	7.02	7.24	7.23	7.48	7.40	7.36
Induction	6.82	7.06	7.22	7.34	6.97	7.25	7.22	7.04
Verbal	6.91	7.03	7.08	7.14	6.52	6.81	6.79	6.92
Spatial	5.89	6.10	6.12	6.16	6.78	6.79	6.73	6.67
Technical	5.63	5.79	5.80	5.90	6.91	6.91	6.68	6.55
Noncognitive ability	6.14	6.54	6.70	6.77	5.97	6.45	6.71	6.91
Height (cm)	180.7	181.2	181.0	181.2	180.6	180.9	181.3	181.7

	Finance professionals			
	<100M	100M - 1B	1B - 10B	>10B
Cognitive ability	6.31	6.68	6.81	6.90
Induction	6.46	6.75	6.88	7.01
Verbal	6.33	6.59	6.62	6.67
Spatial	5.83	6.14	6.21	6.24
Technical	5.58	5.83	5.97	6.01
Noncognitive ability	6.22	6.56	6.68	6.76
Height (cm)	180.8	181.1	181.1	181.0

Table IA3

Regressions of traits on family firm indicators

The table regresses each trait on firm characteristics. Three dummies indicate family firms (nonfamily firm omitted) and logged total assets measures firm size. Columns 1−2 report regressions of the standardized value of cognitive ability. The first specification includes dummies for each year and each enlistment year. The second specification adds fixed effects for industries. Columns 3−4 and 5−6 follow the same structure for standardized values of noncognitive ability and height, respectively. The *t*-values reported in parentheses are based on standard errors that allow for clustering at the CEO level. The *p*-values in brackets report the tests of equality for each pairing of the family firm coefficients.

Dependent variable	Cognitive ability		Noncognitive ability		Height	
Specification	1	2	3	4	5	6
Family, external	−0.075	−0.034	−0.094	−0.066	−0.032	−0.017
	(−2.96)	(−1.38)	(−3.42)	(−2.45)	(−1.04)	(−0.55)
Family, founder	−0.226	−0.115	−0.120	−0.049	−0.095	−0.065
	(−16.21)	(−8.24)	(−8.03)	(−3.20)	(−5.97)	(−4.02)
Family, heir	−0.271	−0.145	−0.226	−0.138	−0.092	−0.057
	(−10.23)	(−5.49)	(−7.95)	(−4.79)	(−3.03)	(−1.85)
Total assets	0.069	0.073	0.088	0.096	0.049	0.050
	(20.56)	(20.89)	(23.59)	(24.30)	(11.99)	(11.31)
Tests of coeff., *p*-values						
External = founder	[<0.01]	[<0.01]	[0.38]	[0.56]	[0.06]	[0.15]
External = heir	[<0.01]	[<0.01]	[<0.01]	[0.06]	[0.16]	[0.35]
Founder = heir	[0.11]	[0.28]	[<0.01]	[<0.01]	[0.93]	[0.79]
Controls						
Year	Yes	Yes	Yes	Yes	Yes	Yes
Enlistment year	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	No	Yes	No	Yes	No	Yes
Mean dependent variable	0.51	0.51	0.65	0.65	0.21	0.21
Adjusted R^2	0.053	0.112	0.040	0.061	0.013	0.018
Number of observations	96,815	96,815	96,815	96,815	96,815	96,815

Table IA4

Distributions of personal traits for the population, high-skill professions, and CEOs

This table reports the distribution of cognitive ability, noncognitive ability, and height. In Panel A, the statistics are calculated separately for the population and for physicians, engineers, lawyers, and finance professionals. In Panel B, the statistics are separately calculated for the CEOs of firms with less than 100 million, 100 million to 1 billion, 1 billion to 10 billion, and more than 10 billion in total assets. Panel C reports the statistics for firms that are and are not family owned. The family firms are further divided into companies managed by a professional nonfamily CEO, the founder, or a later-generation family member.

Panel A: Population and high-skill professions									
Ability score stanines	1	2	3	4	5	6	7	8	9
Height categories		<165cm	165–69	170–74	175–79	180–84	185–89	190–94	>195cm
Population									
Cognitive ability	3.1%	6.7%	10.4%	15.0%	22.3%	17.3%	13.0%	7.9%	4.2%
Noncognitive ability	2.0%	5.8%	10.7%	17.2%	23.4%	18.9%	13.9%	6.3%	1.8%
Height		1.2%	5.5%	17.2%	28.7%	27.1%	14.6%	4.7%	1.0%
Physicians									
Cognitive ability	0.1%	0.2%	0.5%	1.4%	6.5%	13.4%	23.2%	26.5%	28.1%
Noncognitive ability	0.6%	1.8%	3.9%	7.8%	14.3%	18.8%	25.4%	18.2%	9.2%
Height		0.4%	2.7%	11.8%	26.4%	29.6%	20.0%	7.1%	2.0%
Engineers									
Cognitive ability	0.1%	0.2%	0.8%	2.7%	10.5%	17.9%	24.8%	23.8%	19.3%
Noncognitive ability	0.2%	1.4%	4.4%	11.8%	21.8%	24.1%	22.2%	11.1%	3.1%
Height		0.6%	3.4%	13.4%	26.9%	29.2%	18.0%	6.7%	1.7%
Lawyers									
Cognitive ability	0.2%	0.4%	1.2%	3.9%	15.2%	22.7%	27.3%	19.3%	9.8%
Noncognitive ability	0.6%	1.7%	4.4%	9.3%	16.5%	21.9%	25.4%	15.3%	4.9%
Height		0.4%	3.1%	12.3%	26.7%	30.6%	18.8%	6.8%	1.4%
Finance professionals									
Cognitive ability	0.1%	0.6%	2.1%	6.4%	20.7%	25.1%	22.6%	15.2%	7.2%
Noncognitive ability	0.2%	1.4%	3.0%	8.1%	17.5%	23.4%	27.2%	14.7%	4.5%
Height		0.3%	3.3%	11.8%	27.1%	30.2%	19.8%	6.1%	1.3%

Panel B: CEOs by firm size									
CEOs, <100 million									
Cognitive ability	0.4%	1.7%	4.6%	9.9%	21.9%	22.0%	19.7%	13.3%	6.6%
Noncognitive ability	0.4%	1.5%	3.8%	9.1%	18.5%	22.4%	24.2%	14.7%	5.5%
Height		0.6%	3.3%	13.5%	27.6%	30.1%	17.8%	5.8%	1.3%
CEOs, 100 million − 1 billion									
Cognitive ability	0.1%	0.3%	1.6%	5.3%	16.2%	23.1%	24.4%	18.5%	10.6%
Noncognitive ability	0.0%	0.8%	2.0%	5.1%	13.0%	19.9%	27.6%	23.0%	8.7%
Height		0.2%	2.1%	10.7%	25.9%	29.6%	22.2%	7.5%	1.9%
CEOs, 1 billion − 10 billion									
Cognitive ability	0.0%	0.0%	0.7%	4.3%	14.1%	18.8%	28.0%	20.8%	13.2%
Noncognitive ability	0.0%	0.4%	1.2%	3.4%	11.9%	16.2%	30.5%	22.8%	13.5%
Height		0.3%	1.9%	9.5%	23.2%	34.4%	22.2%	7.3%	1.2%
CEOs, >10 billion									
Cognitive ability	0.0%	0.0%	0.0%	0.7%	7.4%	23.0%	30.4%	21.6%	16.9%
Noncognitive ability	0.0%	0.0%	0.0%	2.7%	6.1%	18.2%	20.3%	30.4%	22.3%
Height		0.7%	0.7%	4.7%	17.6%	33.1%	25.7%	15.5%	2.0%

Panel C: CEOs by family ownership									
CEOs, Nonfamily firms									
Cognitive ability	0.3%	1.1%	3.1%	7.6%	19.6%	22.4%	21.6%	15.9%	8.5%
Noncognitive ability	0.4%	1.2%	3.1%	7.3%	15.9%	21.7%	25.9%	17.7%	6.8%
Height		0.5%	2.8%	11.9%	26.6%	30.9%	19.0%	6.7%	1.5%
CEOs, Family firms, external									
Cognitive ability	0.1%	1.2%	3.7%	9.5%	20.2%	22.8%	21.2%	14.8%	6.6%
Noncognitive ability	0.3%	1.1%	3.6%	9.4%	16.7%	23.0%	26.1%	14.6%	5.2%
Height		0.6%	3.1%	14.0%	26.9%	28.9%	18.3%	7.0%	1.3%
CEOs, Family firms, founder									
Cognitive ability	0.4%	2.3%	6.5%	12.1%	23.7%	20.7%	18.4%	10.8%	5.1%
Noncognitive ability	0.4%	1.7%	4.2%	10.4%	21.3%	21.6%	22.3%	12.7%	5.4%
Height		0.5%	3.7%	15.1%	28.5%	29.0%	17.2%	4.8%	1.2%
CEOs, Family firms, heir									
Cognitive ability	0.8%	2.4%	5.5%	12.7%	23.6%	23.4%	16.7%	9.7%	5.2%
Noncognitive ability	0.4%	1.8%	5.2%	11.4%	20.1%	24.0%	20.3%	13.4%	3.4%
Height		0.6%	3.9%	14.9%	28.8%	28.3%	17.6%	4.9%	0.9%

Table IA5

Contribution of traits to attaining a CEO position

The table reports results from linear probability models which explain the dummy for CEOs with standardized values of cognitive and noncognitive ability and height. Columns 1−3 add each trait separately. They, along with all other specifications, also include dummies for each year and each enlistment year. Column 4 includes all traits in the regression. The *t*-values reported in parentheses are based on standard errors that allow for clustering at the individual level. The mean dependent variable and the coefficients are multiplied by one hundred.

Dependent variable	CEO dummy			
Specification	1	2	3	4
Cognitive ability	0.552			0.307
	(71.09)			(38.51)
Noncognitive ability		0.724		0.591
		(81.81)		(64.64)
Height			0.244	0.122
			(31.09)	(15.56)
Mean dependent variable	1.113	1.113	1.113	1.113
Adjusted R^2	0.004	0.006	0.002	0.007
Number of observations	8,760,402	8,760,402	8,760,402	8,760,402

Table IA6

Alternative trait combinations by firm size

The table reports the fraction of the population that has a lower combination of personal traits than the CEOs. Panel A reports the results for firms whose total assets are less than 100 million and Panel B for firms whose total assets exceed 10 billion. The three leftmost columns assign cognitive ability, noncognitive ability, and height in turn a weight of zero, with the two remaining traits attaining equal weights. The multiplicative specification calculates the product of the standardized traits in which the standardized traits have been transformed to have a minimum value of one. The minimum specification uses the smallest standardized value of the three traits to rank CEOs.

Panel A: <100 million					
Cumulative CEO trait distribution	Trait combination				
	0%-50%-50%	50%-0%-50%	50%-50%-0%	Multiplicative	Minimum
5%	16.4%	16.5%	20.2%	19.9%	17.1%
25%	48.4%	44.0%	51.4%	51.4%	45.4%
50%	72.5%	67.3%	74.0%	73.8%	69.5%
75%	88.8%	85.0%	89.5%	89.3%	87.8%
90%	96.2%	94.1%	96.2%	96.2%	95.3%
95%	98.2%	97.1%	98.4%	98.2%	97.9%
100%	100.0%	100.0%	100.0%	100.0%	100.0%

Panel B: >10 billion					
Cumulative CEO trait distribution	Trait combination				
	0%-50%-50%	50%-0%-50%	50%-50%-0%	Multiplicative	Minimum
5%	50.1%	52.6%	57.1%	66.0%	46.7%
25%	79.1%	74.2%	83.2%	83.3%	73.2%
50%	91.0%	86.0%	93.6%	93.1%	90.5%
75%	97.9%	95.3%	97.8%	97.7%	96.2%
90%	99.3%	98.4%	99.5%	99.5%	99.3%
95%	99.8%	99.0%	99.6%	99.7%	99.7%
100%	100.0%	100.0%	100.0%	100.0%	100.0%

Table IA7

Pay premiums using total income in lieu of labor income

The table estimates the pay premiums of CEOs, physicians, lawyers, engineers, and finance professionals compared to the population. The regressions follow the structure of Table 3, but replace the dependent variable with total taxable income. The *t*-values reported in parentheses are based on standard errors that allow for clustering at the individual level in all but the family fixed effects specifications where the clustering is at the level of the family.

Dependent variable	Logged income			
Specification	1	2	3	4
CEO, <100 mil	0.750	0.635	0.605	0.321
	(175.62)	(150.91)	(144.98)	(57.85)
...100 mil − 1 bil	1.528	1.344	1.239	0.593
	(130.65)	(114.85)	(104.77)	(39.60)
...1 bil − 10 bil	2.040	1.821	1.677	0.768
	(65.54)	(58.80)	(55.22)	(19.68)
...>10 bil	2.628	2.348	2.179	0.970
	(25.59)	(23.33)	(21.59)	(8.62)
Physician	0.813	0.595		
	(194.72)	(134.21)		
Lawyer	0.677	0.519		
	(89.70)	(69.79)		
Engineer	0.501	0.337		
	(253.53)	(159.30)		
Finance professional	0.828	0.679		
	(104.68)	(89.15)		
Cognitive ability		0.103	0.065	0.072
		(159.73)	(91.48)	(38.36)
Noncognitive ability		0.116	0.106	0.078
		(172.80)	(158.09)	(46.36)
Height		0.024	0.022	0.018
		(41.19)	(38.05)	(10.08)
Controls				
Year	Yes	Yes	Yes	Yes
Enlistment year	Yes	Yes	Yes	Yes
Education	No	No	Yes	Yes
Family fixed effects	No	No	No	Yes
Mean dependent variable	12.60	12.60	12.60	12.60
Adjusted R^2	0.050	0.094	0.110	0.522
Number of observations	7,765,917	7,765,917	7,765,917	7,687,378

Table IA8

Pay premium of CEOs and other professions when cognitive ability subcomponents are controlled for

The table estimates the pay premiums of CEOs, physicians, lawyers, engineers, and finance professionals relative to the population. The regressions follow the structure of Table 3, but break down cognitive ability into its four subcomponents. The number of observations is smaller than in Table 3 because the subscores are missing for about 135,000 individuals. The *t*-values reported in parentheses are based on standard errors that allow for clustering at the individual level in all but the family fixed effects specifications where the clustering is at the level of the family.

Dependent variable	Logged income			
Specification	1	2	3	4
CEO, <100 mil	0.601	0.489	0.460	0.279
	(154.10)	(128.70)	(123.00)	(49.55)
...100 mil − 1 bil	1.389	1.204	1.101	0.568
	(124.58)	(109.71)	(99.52)	(38.06)
...1 bil − 10 bil	1.965	1.744	1.598	0.754
	(67.56)	(61.07)	(56.48)	(19.25)
...>10 bil	2.519	2.246	2.076	0.981
	(30.25)	(27.61)	(26.14)	(8.58)
Physician	0.843	0.622		
	(182.36)	(127.67)		
Lawyer	0.643	0.476		
	(81.36)	(60.72)		
Engineer	0.506	0.344		
	(223.38)	(142.58)		
Finance professional	0.811	0.669		
	(111.14)	(95.56)		
Induction		0.074	0.052	0.049
		(74.42)	(51.67)	(19.31)
Verbal		0.024	0.011	0.015
		(25.48)	(11.43)	(6.50)
Spatial		0.005	−0.001	0.002
		(6.30)	(−1.63)	(1.12)
Technical		0.020	0.012	0.024
		(23.14)	(13.66)	(10.85)
Noncognitive ability		0.106	0.098	0.074
		(139.44)	(128.72)	(37.25)
Height		0.021	0.019	0.017
		(32.00)	(29.47)	(8.07)
Controls				
Year	Yes	Yes	Yes	Yes
Enlistment year	Yes	Yes	Yes	Yes
Education	No	No	Yes	Yes
Family fixed effects	No	No	No	Yes
Mean dependent variable	12.57	12.57	12.57	12.57
Adjusted R^2	0.035	0.074	0.093	0.549
Number of observations	6,815,471	6,815,471	6,815,471	6,744,952

Table IA9

Correlations of CEOs' traits with firm size

The regressions in this table correlate firm size with the standardized values of CEO traits. Column 1 reports the regression that includes traits and dummies for each year and each enlistment year for the full sample. Columns 2−5 run the regression in subsamples stratified by family firm status. The explanatory power is separately reported for models that include and exclude traits. The *t*-values reported in parentheses are based on standard errors that allow for clustering at the CEO level.

Dependent variable	Logged total assets				
Specification	All firms	Nonfamily firms	Family firms, external	Family firms, founder	Family firms, heir
	1	2	3	4	5
Cognitive ability	0.224	0.217	0.129	0.104	0.110
	(17.05)	(12.43)	(2.28)	(5.52)	(2.73)
Noncognitive ability	0.234	0.296	0.094	0.081	0.057
	(18.40)	(17.79)	(1.70)	(4.59)	(1.47)
Height	0.113	0.130	0.150	0.040	−0.022
	(9.75)	(8.49)	(3.49)	(2.43)	(−0.59)
R^2 with controls only	0.025	0.043	0.043	0.007	0.022
R^2 with controls and traits	0.071	0.091	0.063	0.021	0.031
Mean dependent variable	9.80	10.06	9.85	9.22	9.61
Number of observations	96,815	61,437	4,207	25,427	5,744

Table IA10

Descriptive statistics of firm policies and their CEO fixed effects

Panel A reports descriptive statistics on five firm policies and the operating return on assets. The variables, reported in the respective rows, are defined as follows: 1) relative change in gross fixed assets, 2) number of acquisitions, 3) total debt scaled by total assets, 4) cash and marketable securities scaled by total assets, 5) dividends scaled by net income, and 6) EBIT scaled by average total assets. All variables are winsorized at the 5th and 95th percentiles. Panel B reports descriptive statistics on CEO fixed effects, estimated by requiring each CEO to have at least four observations from at least two firms.

Panel A: Descriptive statistics of firm policies							
	Mean	Median	Sd	10%	25%	75%	90%
(1) Investment	0.706	0.171	1.254	0.000	0.003	0.678	2.313
(2) # of acquisitions	0.020	0.000	0.181	0.000	0.000	0.000	0.000
(3) Leverage	0.305	0.260	0.219	0.050	0.130	0.440	0.630
(4) Cash ratio	0.138	0.050	0.188	0.000	0.004	0.213	0.411
(5) Payout ratio	0.111	0.000	0.237	0.000	0.000	0.000	0.521
(6) OROA	0.095	0.089	0.155	−0.109	0.011	0.190	0.307

Panel B: Descriptive statistics of CEO fixed effects							
	Mean	Median	Sd	10%	25%	75%	90%
(1) Investment	0.020	−0.262	0.868	−0.677	−0.547	0.327	1.089
(2) # of acquisitions	−0.002	−0.026	0.557	−0.614	−0.351	0.320	0.667
(3) Leverage	−0.002	−0.026	0.176	−0.207	−0.140	0.113	0.235
(4) Cash ratio	−0.002	−0.055	0.153	−0.135	−0.117	0.066	0.212
(5) Payout ratio	−0.001	−0.088	0.167	−0.120	−0.113	0.069	0.243
(6) OROA	−0.004	−0.009	0.115	−0.139	−0.071	0.066	0.147

Table IA11

CEO traits, firm policies, and performance requiring longer tenure in the sample

The table estimates the association between CEO traits, firm policies, and performance assuming at least six observations from at least two firms as opposed to four observations from at least two firms in Table 5. The dependent variable is the CEO-firm policy fixed effect, estimated from a first-stage regression where the dependent variable is a firm policy or performance variable winsorized at the 5th and 95th percentiles. The policy and performance variables, reported in the respective columns, are defined as follows: 1) relative change in gross fixed assets, 2) number of acquisitions, 3) total debt scaled by total assets, 4) cash and marketable securities scaled by total assets, 5) dividends scaled by net income, and 6) EBIT scaled by average total assets. All second-stage regression specifications include the standardized values of cognitive and noncognitive ability, and height, and dummies for enlistment year. The *t*-values reported in parentheses are based on standard errors that allow for clustering at the individual level.

Dependent variable	Investment	Number of acquisitions	Leverage	Cash ratio	Payout ratio	OROA
Specification	1	2	3	4	5	6
Cognitive ability	0.007	0.006	0.019	−0.007	−0.010	−0.005
	(0.22)	(1.61)	(2.31)	(−0.98)	(−1.24)	(−0.99)
Noncognitive ability	−0.017	0.005	0.007	0.001	0.007	−0.006
	(−0.58)	(1.45)	(0.93)	(0.20)	(1.01)	(−1.57)
Height	−0.049	−0.006	−0.003	0.000	0.005	−0.001
	(−1.82)	(−1.89)	(−0.52)	(0.00)	(0.87)	(−0.31)
F-statistic of CEO fixed effects	3.12	1.85	15.57	11.30	3.48	5.18
First stage R^2	0.378	0.192	0.803	0.743	0.412	0.541
Second stage R^2	0.035	0.037	0.042	0.029	0.023	0.037
Number of observations	832	837	837	837	833	835

Table IA12

Additional traits

Panel A reports means, medians, and standard deviations of cardiovascular fitness and muscle strength for the population, high-skill professions, and for CEOs. The statistics for CEOs are calculated separately by firm size and by family firm status. Panel B builds on the regressions in Columns 2 and 6 of Table 4 by regressing logged CEO pay or CEO pay fixed effects on standardized values of cardiovascular fitness, muscle strength, cognitive and noncognitive ability, and height. Cardiovascular fitness is measured in a cycle ergometry test and muscle strength in a combination of knee extension, elbow flexion, and hand grip tests. The number of observations is smaller than in Table 4 because additional traits are missing for some individuals. The *t*-values reported in parentheses are based on standard errors that allow for clustering at the individual level.

Panel A: Descriptive statistics			
		Cardiovascular fitness	Muscle strength
Population	Mean	6.26	5.65
	Sd	1.71	1.90
	Median	6	5
Physicians	Mean	7.10	5.96
	Sd	1.67	1.87
	Median	7	6
Engineers	Mean	6.80	5.91
	Sd	1.60	1.82
	Median	6	6
Lawyers	Mean	6.78	5.98
	Sd	1.63	1.88
	Median	6	6
Finance professionals	Mean	6.89	5.72
	Sd	1.56	1.84
	Median	7	5
CEOs, <100 million	Mean	6.77	5.98
	Sd	1.71	1.88
	Median	7	6
CEOs, 100 million − 1 billion	Mean	7.16	5.93
	Sd	1.65	1.87
	Median	7	6
CEOs, 1 billion − 10 billion	Mean	7.38	5.86
	Sd	1.64	1.87
	Median	8	6
CEOs, >10 billion	Mean	7.47	5.75
	Sd	1.58	1.83
	Median	8	5

Panel A continued			
		Cardiovascular fitness	Muscle strength
CEOs, nonfamily firms	Mean	6.92	5.96
	Sd	1.70	1.87
	Median	7	6
CEOs, family firms, external	Mean	6.83	5.91
	Sd	1.71	1.82
	Median	7	6
CEOs, family firms, founder	Mean	6.50	6.02
	Sd	1.69	1.89
	Median	6	6
CEOs, family firms, heir	Mean	6.70	5.99
	Sd	1.73	1.89
	Median	7	6

Panel B: Regressions of CEO pay on additional traits						
Dependent variable	Logged CEO pay					
Specification	Full sample				CEO fixed effects	
	1	2	3	4	5	6
Cardiovascular fitness	0.088	0.027			0.039	
	(19.17)	(5.47)			(2.20)	
Muscle strength			0.106	0.021		0.042
			(18.43)	(3.33)		(1.83)
Cognitive ability		0.125		0.126	0.113	0.107
		(23.99)		(24.08)	(5.40)	(4.86)
Noncognitive ability		0.101		0.105	0.109	0.112
		(17.99)		(18.74)	(5.46)	(5.10)
Height		0.042		0.042	0.047	0.039
		(9.16)		(8.94)	(2.75)	(2.12)
F-statistic for CEO fixed effects						
Adjusted R^2	0.043	0.099	0.042	0.098	0.100	0.100
Number of observations	83,530	83,530	83,530	83,530	1,485	1,485