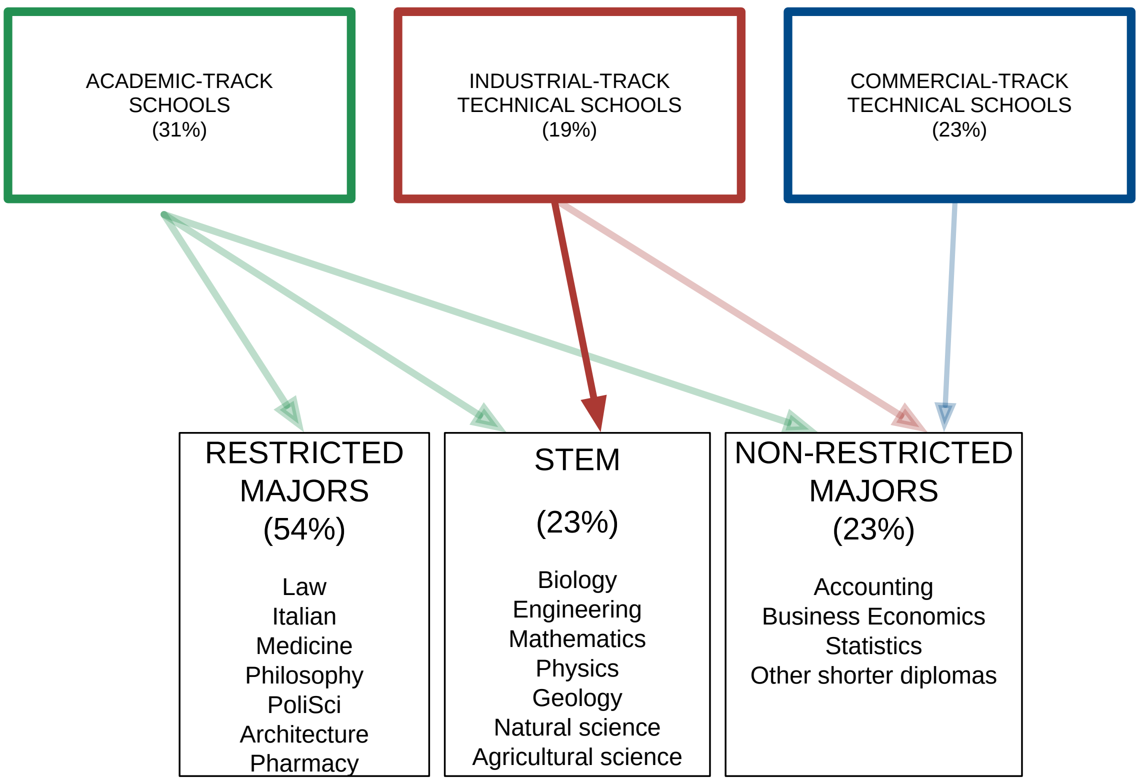
Online Appendix - Not For Publication

A Additional Figures and Tables

Figure A1: The Increased Access to University-Level STEM Majors, 1961



Notes: This graph shows the changes produced by the 1961 reform of college access. The shaded arrows describe the pre-reform situation. Graduates of academic-track schools had access to all university major. Graduates of industrial and commercial schools could enroll only in the third group of majors. The system was based on an open-door admission policy. If a student with the right diploma wanted to enroll in a major, he or she was automatically admitted. The bold arrow describes the only change caused by the 1961 reform. Industrial students could enroll in STEM majors for the first time. The percentages show the size of each school or major type (relative to the total high school or university population) in 1960.

Figure A2: Selected Headlines about Lack of STEM Skills

10/04/1956

IL PROCESSO PRODUTTIVO E LA "RICERCA"

Più avvocati che ingegneri nell'epoca delle macchine

Lo squilibrio è più forte da noi che negli altri Paesi - E si accompagna ad un "deficit" nell'istruzione di base - Solo l'84% degli iscritti alle elementari giunge al traguardo della quinta classe - La situazione si riflette sul nostro divenire industriale

01/13/1957

All'Italia mancano i tecnici per la nuova era industriale

Un monito del ministro Campilli - È necessario creare molti ingegneri e operai specializzati

11/07/1963

Il grosso problema degli ingegneri insufficienti alle necessità moderne

Nel '60 in Italia si sono laureati 2500 ingegneri, contro 90 mila negli Stati Uniti e 120 mila nell'Urss - Da nòi troppi esami e corsi ardui; soltanto il 25 % degli iscritti riesce a compiere il ciclo di studi in 5 anni - E' tempo d'adeguarci agli altri paesi sdoppiando il titolo in ingegnere-diplomato e dottore-ingegnere - La relazione del prof. Capetti

08/19/1967

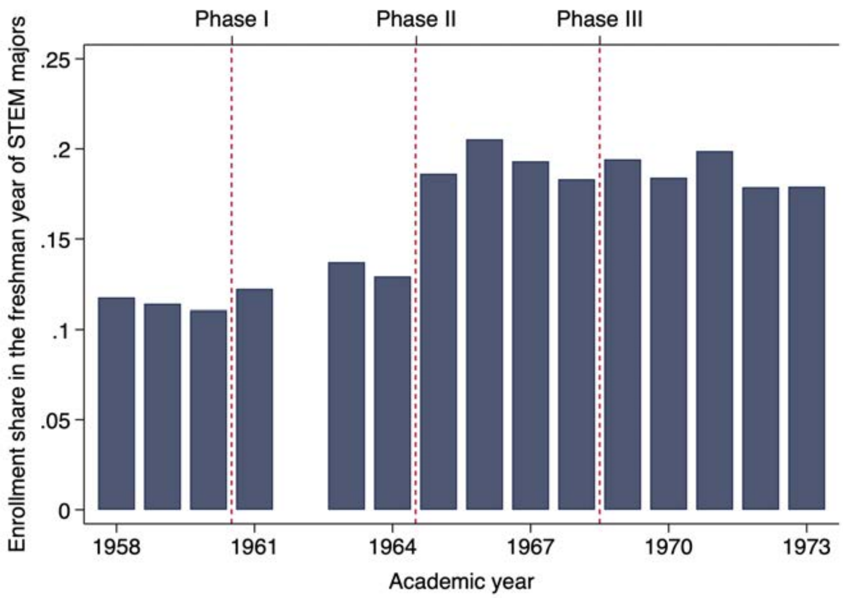
Inchiesta statistica in quasi 10 mila aziende

L'industria italiana ha bisogno di laureati più che di manovali

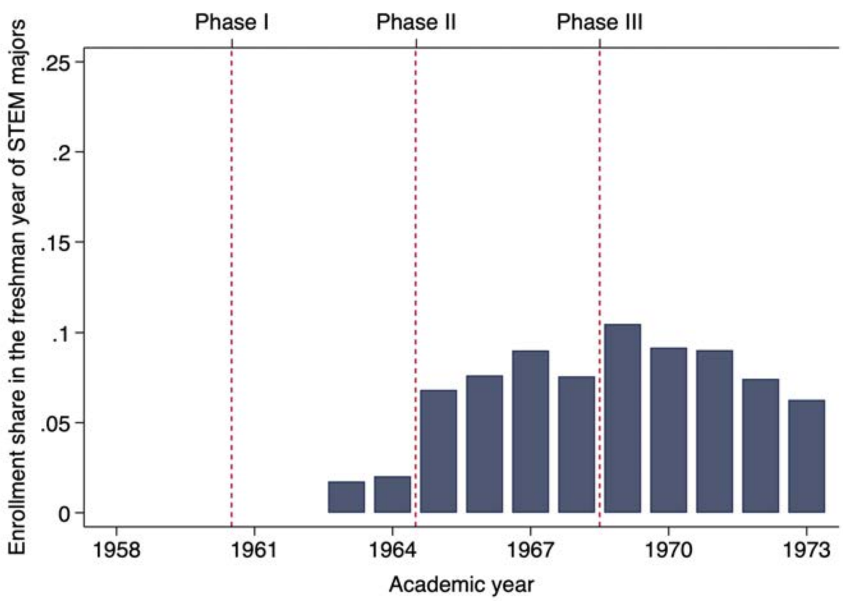
Nel 1968-'69 le possibilità di impiego saranno tanto più numerose quanto più alto è il grado di studio o di specializzazione - Le richieste maggiori: i laureati in lingue - Una previsione incoraggiante per il Sud: l'incremento delle assunzioni tra gli operai qualificati nel Meridione e nelle isole sarà doppio rispetto al Nord

Notes: Headlines of the national newspaper *La Stampa* on the lack of STEM skills in the Italian economy, *http://www.lastampa.it/archivio-storico/.* 10/04/1956: "Too many lawyers and not enough engineers in the era of the machines." 01/13/1957: "Italy lacks technicians for the new industrial era." 11/07/1963: "The big problem of insufficient engineers for the modern necessities." 08/19/1967: "The Italian industry needs university graduates more than blue-collar workers."

Figure A3: Total Enrollment of University First-Year Students as STEM Majors in Italy



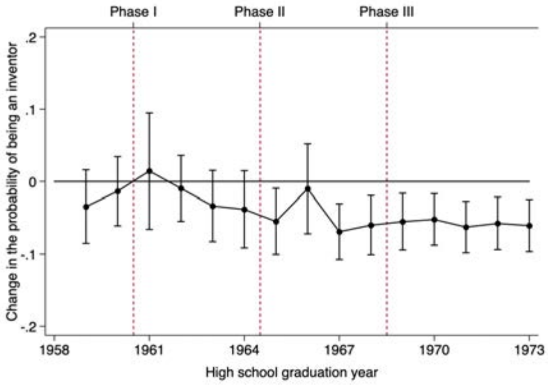
A. All Students



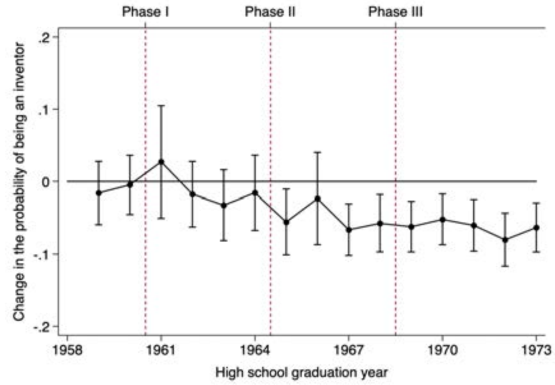
B. Industrial Students

Notes: These graphs show the enrollment change in university STEM majors measured in all Italian universities (not just in Milan). In the first panel, the total number of university freshmen students enrolled in STEM majors is divided by the total number of high school graduates in the corresponding year. In the second panel, the total number of freshmen industrial students enrolled in STEM majors is divided by the total number of high school graduates. The 1962 observation is missing in panel A, and the 1961 and 1962 observations are missing in panel B. Data coverage: all Italian universities. Source: Annals of Education Statistics, ISTAT.

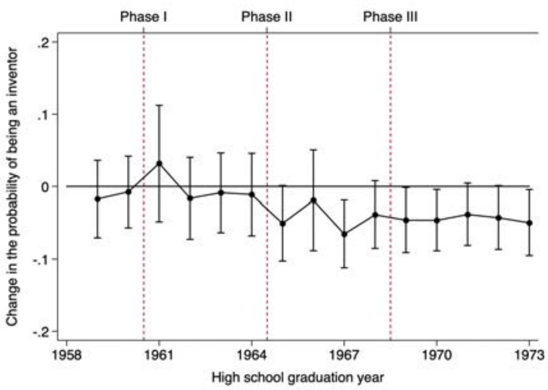
Figure A4: Cohort-Specific Variation in the Probability of Being a Patent Owner



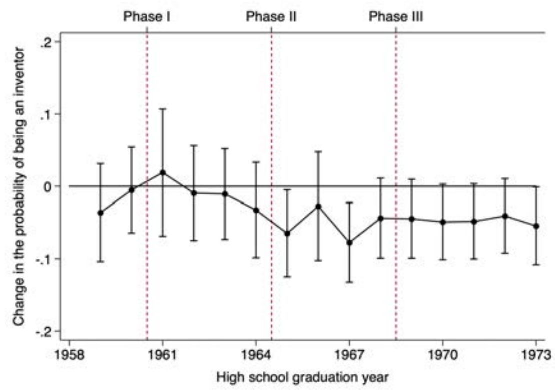
A. Top Industrial vs. Top Academic Students



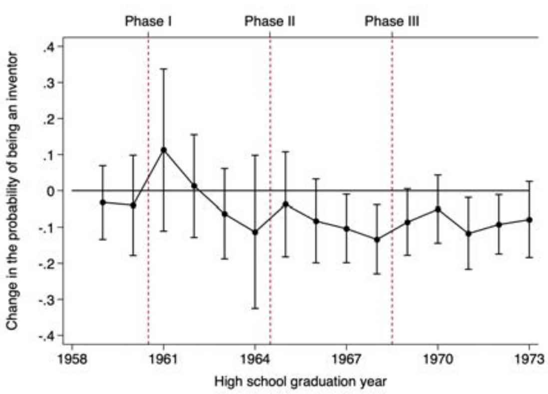
B. Top Industrial vs. Top Commercial Students



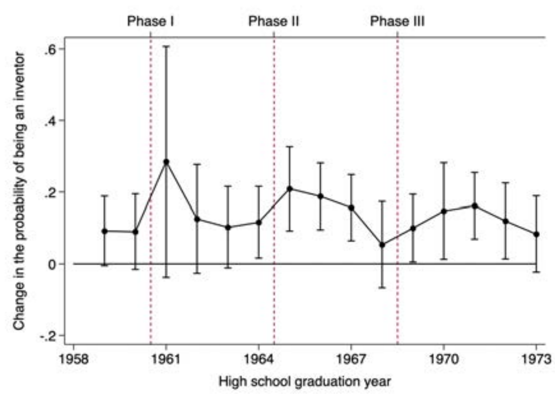
C. Top vs. Other Industrial Students



D. Top vs Other, Industrial vs. Academic Students



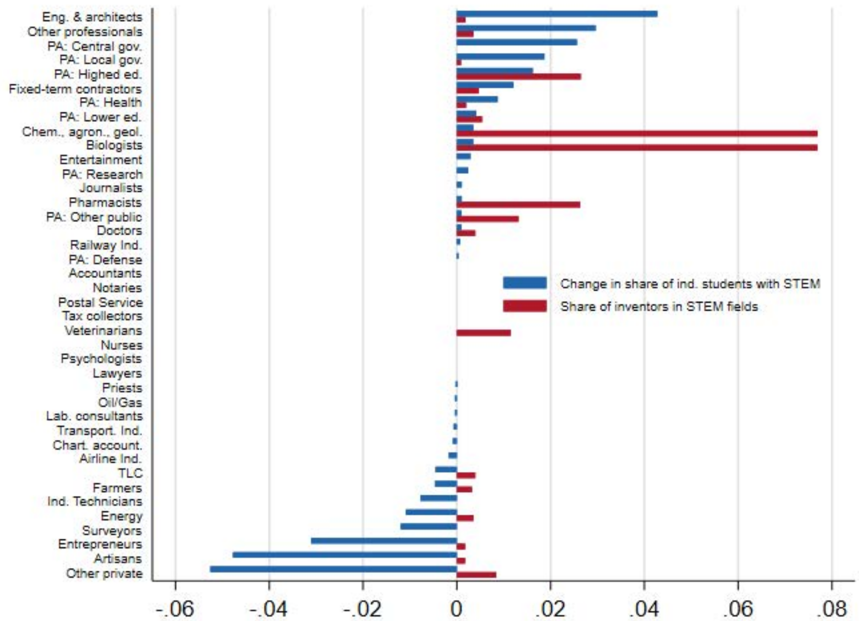
E. Matched,
Top Industrial vs. Top Academic Students



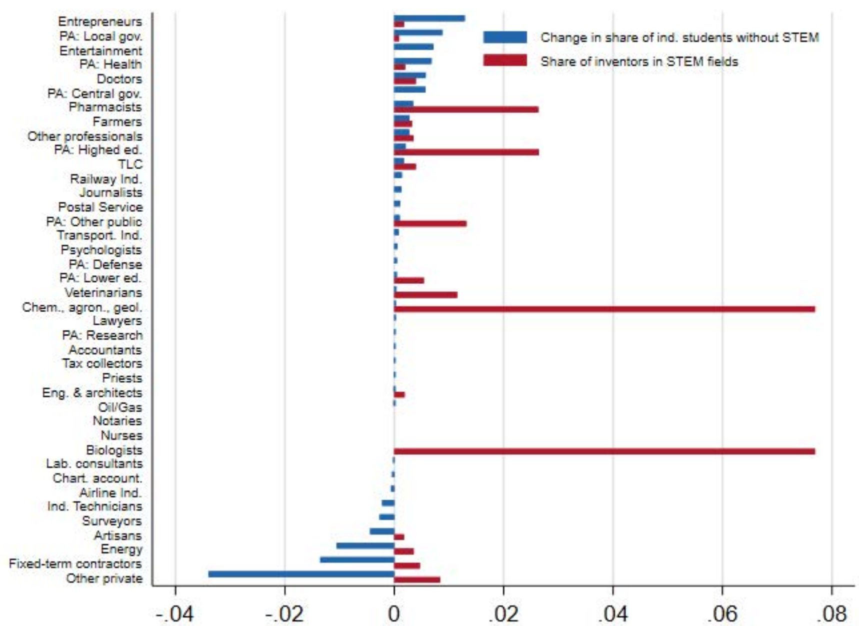
F. Matched,
Other Industrial vs. Other Academic Students

Notes: Panel A compares industrial and academic students, using only students in the top quartile of their HS class. Panel A compares top industrial and commercial students. Panel C compares top and other industrial students. Panel D compares industrial and academic students with different HS achievement. Panel E compares top (scoring in the top quartile of their high school class) industrial and academic students, using only the pre-period students matched to the post-period students with a STEM degree. Panel F compares other industrial and academic students, using only the pre-period students matched to the post-period students with a STEM degree.

Figure A5: Distribution of Inventors across Occupations, Inventions in STEM Fields



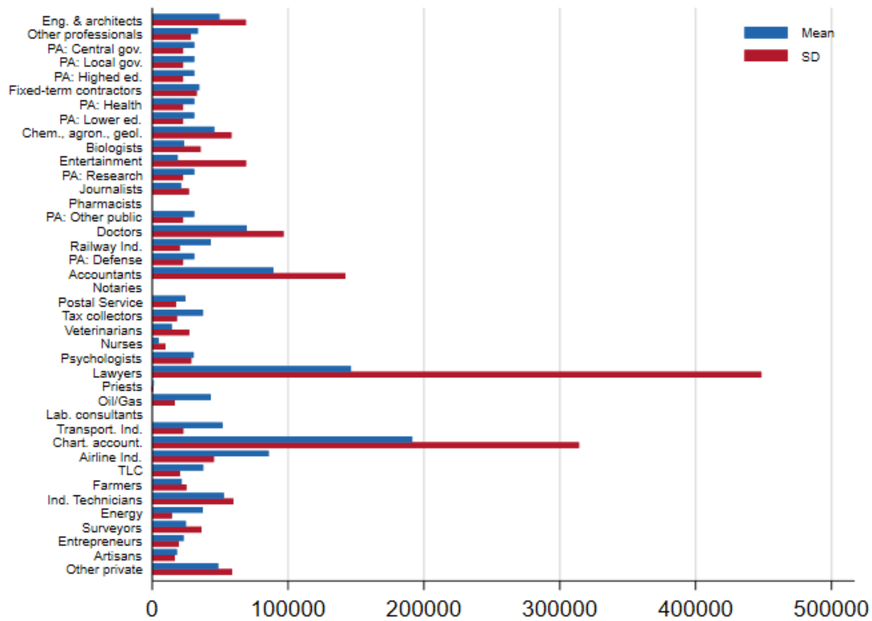
A. Change for Industrial Students with a STEM Degree



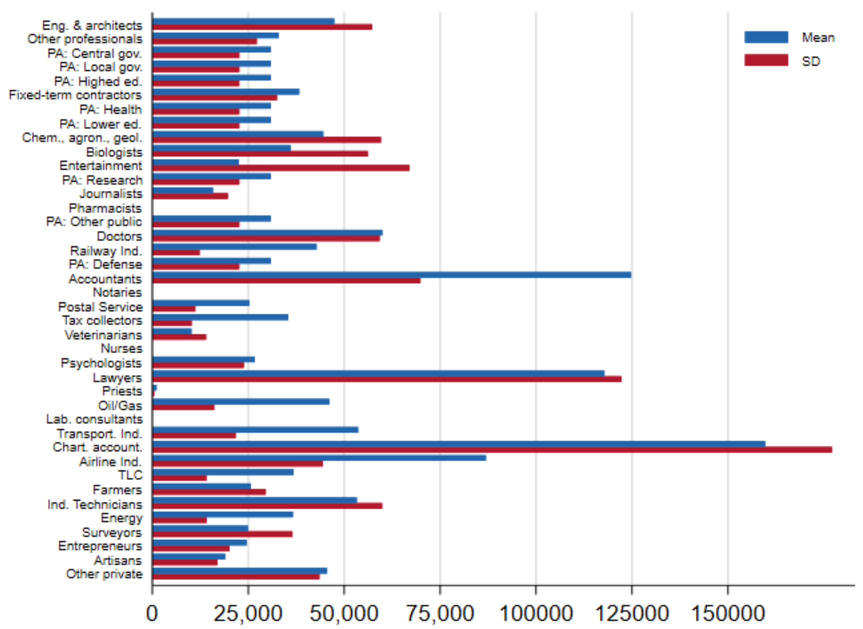
B. Change for Industrial Students without a STEM Degree

Notes: These graphs show how the distribution of industrial students across different occupations changed among the cohorts who completed high school after 1961. Panel A shows how the distribution of industrial students who received a STEM degree after 1961 changed, relative to the pre-reform distribution. Panel B shows how the distribution of industrial students who did not receive a STEM degree after 1961 changed, relative to the pre-reform distribution. Share of inventors in STEM fields measures the percentage of inventors in STEM field (medicine, chemistry, textiles, constructions, and IT) for each occupation, pooling all available years of patent data (1968-2010).

Figure A6: Distribution of Earnings Across Occupations



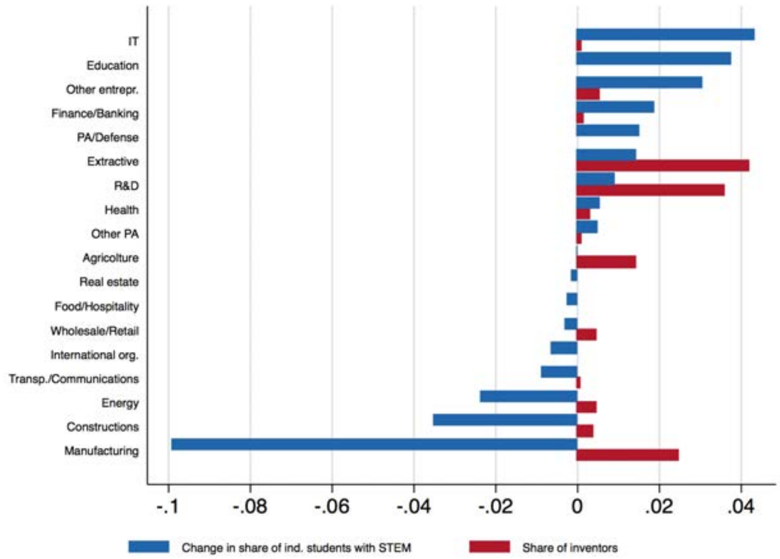
A. All Earnings



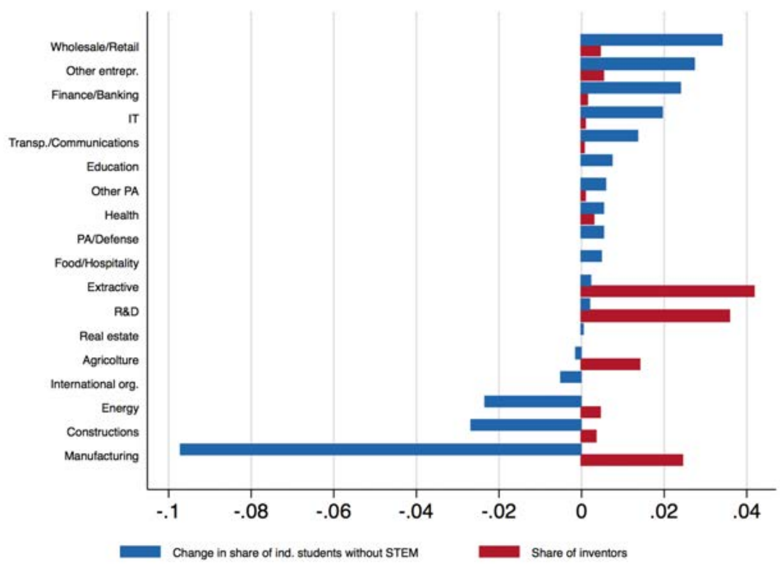
B. Earnings of Industrial Students

Notes: These graphs show how the distribution of earnings across different occupations for all individuals (panel A) and only for industrial students (panel B). Earnings are not available for public employees, notaries, pharmacists, and labor consultants.

Figure A7: Distribution of Inventors across Industries in the Private Sector



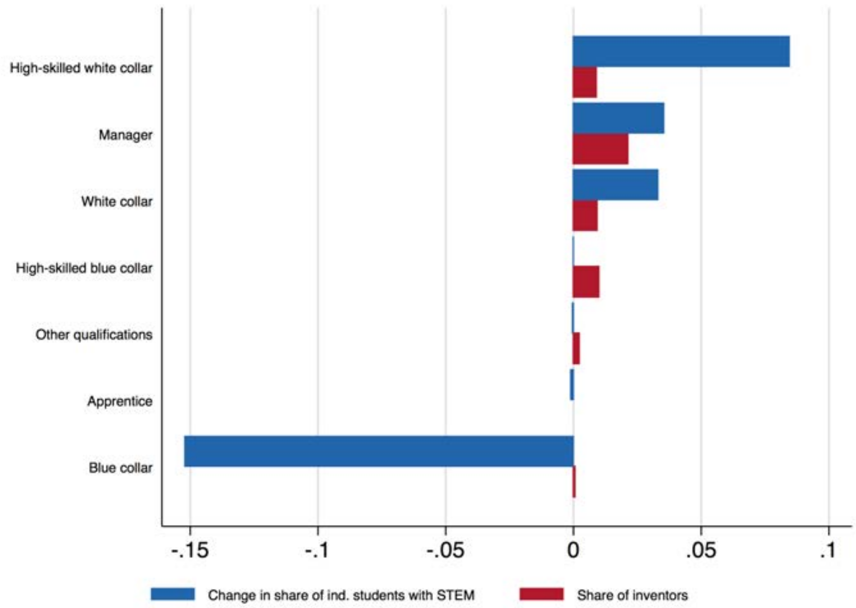
A. Change for Industrial Students with a STEM Degree



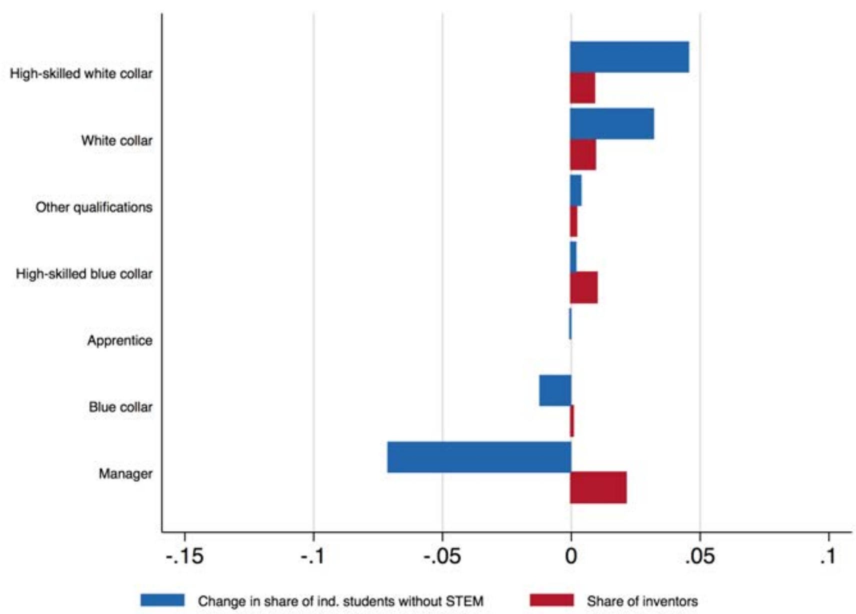
B. Change for Industrial Students without a STEM Degree

Notes: These graphs show how the distribution of industrial students across different industries in the private sector changed among cohorts who completed high school after 1961. Panel A shows how the distribution of industrial students who received a STEM degree after 1961 changed, relative to the pre-reform distribution. Panel B shows how the distribution of industrial students who did not receive a STEM degree after 1961 changed, relative to the pre-reform distribution. Share of inventors measures the percentage of inventors in each industry, pooling all available years of patent data (1968-2010).

Figure A8: Distribution of Inventors across Positions within the Private Sector



A. Change for Industrial Students with a STEM Degree



B. Change for Industrial Students without a STEM Degree

Notes: These graphs show how the distribution of industrial students across different positions within the private sector changed among cohorts who completed high school after 1961. Panel A shows how the distribution of industrial students who received a STEM degree after 1961 changed, relative to the pre-reform distribution. Panel B shows how the distribution of industrial students who did not receive a STEM degree after 1961 changed, relative to the pre-reform distribution. Share of inventors measures the percentage of inventors in each qualification, pooling all available years of patent data (1968-2010).

Table A1: Types of Occupation

Occupation	Description	Pension fund	Share of observations	Average earnings	Share inventors
Other private	Employees in the private sector (not included in any other category)	INPS	64.44	€ 48,507	0.0161
Entrepreneurs	Entrepreneurs (imprenditori commerciali)	INPS	5.88	€ 23,052	0.0069
Artisans	Artisans (imprenditori artigiani)	INPS	2.26	€ 18,202	0.0120
Fixed-term contractors	External contractors with fixed-term contracts	INPS	6.51	€ 34,566	0.0110
Farmers	Farmers	INPS	0.43	€ 21,656	0.0065
Other professionals	Other self-employed professionals not included in other categories	INPS	1.69	€ 33,634	0.0064
PA: Local gov.	Public employees of local governments	INPDAP	0.91		0.0009
PA: Central gov.	Public employees of central government	INPDAP	1.94		0.0000
PA: Higher ed.	Employees of universities	INPDAP	1.17		0.0314
PA: Lower ed.	Employees of primary and secondary schools	INPDAP	0.09		0.0054
PA: Health	Employees of hospitals (not doctors)	INPDAP	1.62		0.0020
PA: Defense	Employees in the military or police forces	INPDAP	0.02		0.0000
PA: Research	Employees of CNR (National Research Council)	INPDAP	0.06		0.0244
PA: Other public	Public employees not included in other categories	INPDAP	0.09		0.0132
Doctors	Medical doctors and dentists	ENPAM	6.44	€ 69,531	0.0043
Pharmacists	Pharmacists	ENPAF	0.47		0.0316
Entertainment	Workers in the entertainment industry	ENPALS	0.67	€ 18,731	0.0021
TLC	Employees of TLC companies	Fondo telefonici	0.58	€ 37,509	0.0039
Railway Ind.	Employees of railway companies	Fondo ferrovieri	0.12	€ 43,182	0.0200
Journalists	Journalists	INPGI	0.14	€ 21,273	0.0000
Postal service	Employees of the national postal service	Fondo postali	0.10	€ 24,464	0.0000
Transport Ind.	Employees of local transportation companies	Fondo autoferrotramvieri	0.25	€ 51,714	0.0000
Psychologists	Psychologists	ENPAP	0.20	€ 30,487	0.0000
Veterinarians	Veterinarians	ENPAV	0.22	€ 14,368	0.0115
Chem., agron., geol.	Chemists, agronomists, and geologists	EPAP	0.04	€ 45,593	0.1026
Lawyers	Lawyers	Cassa forense	0.40	€ 146,264	0.0000
Accountants	Self-employed accountants with a commercial diploma	Cassa ragionieri	0.16	€ 89,233	0.0074
Tax collectors	Tax collectors	Fondo esattoriali	0.01	€ 37,462	0.0000
Priests	Priests	Fondo clero	0.10	€ 1,045	0.0000
Engineers	Self-employed engineers and architects	INARCASSA	0.60	€ 49,365	0.0057
Oil/Gas	Gas fitters	Fondo gasisti	0.02	€ 43,202	0.0000
Notaries	Notaries	Cassa del notariato	0.07		0.0000
Nurses	Nurses (not employed in the public sector)	ENPAPI	0.01	€ 4,711	0.0000
Biologists	Biologists	ENPAB	0.03	€ 23,529	0.0769
Lab. consultants	Labor consultants	ENPACL	0.17		0.0000
Chart. account.	Chartered accountants with a university degree in business economics	CNPADC	0.13	€ 191,431	0.0000
Airline Ind.	Employees of airline companies	Fondo volo	0.07	€ 85,734	0.0000
Ind. Technicians	High-skilled industrial technicians with an industrial diploma	EPPI	0.18	€ 52,674	0.0191
Surveyors	Surveyors	Cassa geometri	0.26	€ 24,725	0.0000
Energy	Employees of energy/electrical companies	Fondo elettrici	0.64	€ 37,286	0.0071

Notes: List of occupations with a description of included workers, type of pension fund, and share of employed workers. The data provided by INPS (the Italian Social Security) drives the categorization of occupations. Most private employees are lumped in the main category (Other private). Information on the specific pension fund to which each worker contributes allows us to identify the other thirty-nine categories. Average earnings are computed in 2016 euros. The share of inventors measures the share of individuals who patented at least once out of all individuals holding that occupation.

Table A2: University STEM Graduation Rates of Industrial Students

	STEM (1)	STEM (2)	STEM (3)
Panel A: Industrial vs. academic students			
Industrial x Post 1961	0.0404**	0.0467**	0.0503**
	(0.0175)	(0.0220)	(0.0210)
Industrial x Post 1965	0.1720***	0.1783***	0.1819***
	(0.0188)	(0.0231)	(0.0221)
Industrial x Post 1969	0.1665***	0.1728***	0.1764***
	(0.0147)	(0.0198)	(0.0186)
Industrial x 1959		-0.0006	
		(0.0268)	
Industrial x 1960		0.0193	
		(0.0281)	
Industrial x Pre-reform trend			0.0097
			(0.0140)
Panel B: Industrial vs. commercial students			
Industrial x Post 1961	0.0368***	0.0433***	0.0445***
	(0.0104)	(0.0138)	(0.0133)
Industrial x Post 1965	0.1314***	0.1379***	0.1391***
	(0.0139)	(0.0165)	(0.0162)
Industrial x Post 1969	0.0811***	0.0875***	0.0888***
	(0.0102)	(0.0137)	(0.0132)
Industrial x 1959		0.0039	
		(0.0181)	
Industrial x 1960		0.0139	
		(0.0162)	
Industrial x Pre-reform trend			0.0071
			(0.0081)

	STEM	STEM	STEM
	(1)	(2)	(3)
Panel C: Top vs. other industrial students			
Top x Post 1961	0.0815***	0.0997***	0.0917***
	(0.0255)	(0.0229)	(0.0246)
Top x Post 1965	0.1185***	0.1367***	0.1287***
	(0.0217)	(0.0191)	(0.0207)
Top x Post 1969	0.0959***	0.1141***	0.1061***
	(0.0181)	(0.0146)	(0.0165)
Top x 1959		0.0307	
		(0.0199)	
Top x 1960		0.0206	
		(0.0353)	
Top x Pre-reform trend			0.0098
			(0.0175)
Panel D: Matched industrial vs. academic students			
Industrial x Post 1961	0.9680***	0.9815***	0.9620***
	(0.0150)	(0.0129)	(0.0189)
Industrial x Post 1965	0.9674***	0.9809***	0.9614***
	(0.0148)	(0.0131)	(0.0187)
Industrial x Post 1969	0.9682***	0.9815***	0.9622***
	(0.0144)	(0.0446)	(0.0185)
Industrial x 1959		0.0502	
		(0.0320)	
Industrial x 1960		-0.0156	
		(0.0130)	
Industrial x Pre-reform trend			-0.0063
			(0.0110)
University STEM graduation, 1958-1960	0.0189	0.0189	0.0189
Observations (panel A)	35,479	35,479	35,479
Observations (panel B)	27,497	27,497	27,497
Observations (panel C)	16,550	16,550	16,550
Observations (panel D)	4,718	4,718	4,718

Notes: The dependent variable is equal to 1 for the students who received a university STEM degree. Top is 1 for students who ranked in the top quartile of their school's grade distribution. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. The regressions include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19. Standard errors clustered by school and cohort in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A3: Characteristics of Matched Students

	Top students			Other students		
	1958-1960	1961-1973	Diff.	1958-1960	1961-1973	Diff.
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A: Industrial students			
HS score	1.6829	1.7466	-0.0637	-0.1704	-0.2234	0.0530
			(0.0933)			(0.0894)
HS peers' mean score	0.1858	0.1340	0.0518	-0.0389	0.0139	-0.0528
			(0.0447)			(0.0371)
Home-schooled	0.0000	0.0034	-0.0034	0.0704	0.0279	0.0425
			(0.0024)			(0.0727)
HS grad at 19	0.9882	0.9949	-0.0067	0.9718	0.9834	-0.0116
			(0.0121)			(0.0118)
			Panel B: Academic students			
HS score	1.6643	1.6469	0.0174	-0.3063	-0.2948	-0.0115
			(0.0504)			(0.0282)
HS peers' mean score	0.0561	0.0676	-0.0115	0.0093	-0.0111	0.0204
			(0.0282)			(0.0198)
Home-schooled	0.0182	0.0166	0.0016	0.0228	0.0191	0.0037
			(0.0123)			(0.0090)
HS grad at 19	0.9909	0.9923	-0.0014	0.9577	0.9631	-0.0054
			(0.0071)			(0.0180)

Notes: This table shows the outcome of the process that matched post-reform students with a STEM degree to pre-reform students. For industrial students, we use the matching process to predict who in the pre-reform period would have received a STEM degree in the absence of any restriction to university enrollment. We match post-reform students with a STEM degree to pre-reform students, separately for each quartile of pre-collegiate ability and by pre-reform cohort. The matching is based on a 1-to-1 nearest neighbor algorithm, in which the calipers for each ability quartile are selected to equate the average STEM graduation rate observed in the post-period. Propensity scores are computed using the observable characteristics listed in the table: gender, high school score, the average score of high school peers, and a dummy for students who completed high school at 19 (the standard age of graduation). There is a concern that some academic students might have decided to enroll in other fields to avoid crowding into STEM majors after the reform, as documented by Bianchi (2019). Starting from the sample of academic students with a STEM degree, we then use a similar matching process to select academic students with a STEM degree in the pre-period who would have received a STEM degree also in the post-period. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A4: Regressions, Distribution of Inventors across Technological Fields

	Human necessities	Medicine	Industrial operations	Chemistry	Textiles	Constructions	Mech. engineering	Physics	Electricity	IT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Panel A: Academic Students with STEM Degree vs. Industrial Students Before 1961									
Academic	-0.1078*	-0.0368	-0.0576	0.1850**	0.0478	0.0956*	0.0233	-0.0245	-0.0368	0.0392
	(0.0627)	(0.0659)	(0.0921)	(0.0916)	(0.0382)	(0.0524)	(0.0787)	(0.0725)	(0.0659)	(0.0474)
Observations	116	116	116	116	116	116	116	116	116	116
	Panel B: After–reform Change for Industrial Students with a STEM Degree									
Post 1961	-0.0919*	0.1436**	-0.0835	0.1257*	0.0006	-0.0065	-0.0685	-0.0614	0.0062	0.0551
	(0.0546)	(0.0604)	(0.0728)	(0.0704)	(0.0182)	(0.0244)	(0.0578)	(0.0563)	(0.0556)	(0.0363)
Observations	199	199	199	199	199	199	199	199	199	199
	Panel C: After–reform Change for Industrial Students without a STEM Degree									
Post 1961	-0.0382	-0.0091	-0.0889	-0.0021	0.0287	0.0224	-0.0544	-0.0777	-0.0270	0.0220
	(0.0497)	(0.0504)	(0.0715)	(0.0592)	(0.0211)	(0.0279)	(0.0584)	(0.0580)	(0.0525)	(0.0334)
Observations	400	400	400	400	400	400	400	400	400	400

Notes. This table replicates the results shown in Figure 2 in the form of regressions. The unit of observation is an inventor and a technological class. The dependent variable is a dummy equal to 1 if an inventor patented in a given class at some point over his or her career. Panel A limits the sample to academic students with STEM degree and industrial students who completed high school before the reform. It regresses the dependent variable (Patenting in class x) on a dummy equal to 1 for academic students (Academic). Panel B limits the sample to industrial students who completed high school before the reform and industrial students who completed high school after the reform AND received a university degree in a STEM major. Panel C limits the sample to industrial students who completed high school before the reform and industrial students who completed high school after the reform AND did not receive a university degree in a STEM major. Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A5: Type of Innovation, Share of STEM Patents

	Share STEM (1)	Share STEM (2)	Share STEM (3)	Share STEM (4)	Share STEM (5)	Share STEM (6)
	Panel A: Industrial vs. academic students					
Industrial x Post 1961	0.0795	0.0958	0.2417	0.2284	-0.0530	-0.0272
	(0.0892)	(0.0852)	(0.1744)	(0.1837)	(0.1091)	(0.1021)
Industrial x Post 1965	0.2873***	0.2568***	0.2524	0.0981	0.2572***	0.2909***
	(0.0792)	(0.0843)	(0.1899)	(0.2143)	(0.0932)	(0.0982)
Industrial x Post 1969	0.2326***	0.2677***	0.3649*	0.2910	0.1426	0.2124**
	(0.0817)	(0.0826)	(0.2004)	(0.2030)	(0.0932)	(0.0976)
Tot patents	0.0089***	0.0071***	0.0098*	0.0066	0.0099***	0.0093***
	(0.0023)	(0.0024)	(0.0054)	(0.0058)	(0.0028)	(0.0030)
	Panel B: Matched, Industrial vs. academic students					
Industrial x Post 1961	-0.0522	-0.0563	0.1916	0.0904	-0.4904	-0.3706
	(0.1515)	(0.1420)	(0.3043)	(0.2967)	(0.3479)	(0.3285)
Industrial x Post 1965	0.4988***	0.4652***	0.4274	0.1640	0.4944*	0.4895**
	(0.1495)	(0.1486)	(0.3549)	(0.3204)	(0.2536)	(0.2401)
Industrial x Post 1969	0.2827*	0.3042**	0.5693**	0.4904*	0.0758	0.1085
	(0.1542)	(0.1525)	(0.2806)	(0.2657)	(0.2479)	(0.2386)
Tot patents	0.0108***	0.0105***	0.0063	0.0041	0.0114***	0.0123***
	(0.0030)	(0.0033)	(0.0096)	(0.0095)	(0.0039)	(0.0042)
Sample	All	All	Top	Top	Other	Other
STEM fields	Three	Five	Three	Five	Three	Five
Pre-reform dep. var. (panel A)	0.2695	0.3005	0.1941	0.2386	0.3133	0.3366
Pre-reform dep. var. (panel B)	0.2147	0.2226	0.2049	0.2160	0.2391	0.2391
Observations (panel A)	818	818	241	241	577	577
Observations (panel B)	310	310	118	118	192	192

Notes. This table shows changes in the type of innovation. Columns 1 to 3 show estimates using the whole sample, columns 4 to 6 use only students in the top quartile of the ability distribution, and columns 7 to 9 use only the students in the bottom three quartiles of the ability distribution. The dependent variable is the share of patents produced by each inventor in a STEM field. In columns 1, 3, and 5, the STEM fields are medicine, chemistry, and IT. In columns 2, 4, and 6, the STEM fields are medicine, chemistry, textiles, constructions, and IT. Standard errors clustered by high school and cohort in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A6: Type of Innovation, Results on Inventor-Class Dataset

	Patenting (1)	Patenting (2)	Patenting (3)	Patenting (4)	Patenting (5)	Patenting (6)
	Panel A: Industrial vs. academic students					
Industrial x Post 1961	0.0512	0.0467	0.2121*	0.1636*	-0.0289	-0.0144
	(0.0661)	(0.0555)	(0.1214)	(0.0973)	(0.0785)	(0.0671)
Industrial x Post 1965	0.1026	0.0954*	0.2090*	0.0991	0.0455	0.0936
	(0.0634)	(0.0547)	(0.1143)	(0.0975)	(0.0766)	(0.0660)
Industrial x Post 1969	0.0433	0.0750	0.2927**	0.2641**	-0.0600	-0.0035
	(0.0649)	(0.0549)	(0.1242)	(0.1035)	(0.0758)	(0.0640)
	Panel B: Matched, Industrial vs. academic students					
Industrial x Post 1961	0.2199*	0.1198	0.3924**	0.2413	0.0278	-0.0333
	(0.1306)	(0.1051)	(0.1842)	(0.1492)	(0.1532)	(0.1046)
Industrial x Post 1965	0.2675**	0.2003**	0.2808	0.1113	0.2519**	0.2322**
	(0.1109)	(0.0950)	(0.1742)	(0.1467)	(0.1192)	(0.0952)
Industrial x Post 1969	0.1401	0.1444	0.3769**	0.2962**	0.0108	0.0462
	(0.1182)	(0.0986)	(0.1694)	(0.1447)	(0.1312)	(0.1006)
Sample	All	All	Top	Top	Other	Other
STEM fields	Three	Five	Three	Five	Three	Five
Pre-reform dep. var. (panel A)	0.1696	0.1696	0.1722	0.1722	0.1686	0.1686
Pre-reform dep. var. (panel B)	0.1919	0.1919	0.1923	0.1923	0.1917	0.1917
Observations (panel A)	8180	8180	2410	2410	5770	5770
Observations (panel B)	3100	3100	1180	1180	1920	1920

Notes. This table shows changes in the type of innovation. Columns 1 to 3 show estimates using the whole sample, columns 4 to 6 use only students in the top quartile of the ability distribution, and columns 7 to 9 use only the students in the bottom three quartiles of the ability distribution. The unit of observation is an inventor i in a given class c (out of 10 classes). The dependent variable is a dummy equal to 1 if inventor i patented at least once in a given class. The main regressors are triple interactions between $\text{Inventor}_i \times \text{Post}_t \times \text{STEM field}_c$. The regressions also include the three variables not interacted, all possible double interactions, and other standard demographic controls (cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19). In columns 1, 3, and 5, the STEM fields are medicine, chemistry, and IT. In columns 2, 4, and 6, the STEM fields are medicine, chemistry, textiles, constructions, and IT. Standard errors clustered at the inventor level in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A7: Probability of Becoming an Inventor, Men

	Inventor (1)	Inventor (2)	Inventor (3)	Inventor (4)	Inventor (5)	Inventor (6)
Industrial x Post 1961	0.0009	-0.0020	-0.0046	-0.0069	0.0012	-0.0025
	(0.0070)	(0.0097)	(0.0195)	(0.0241)	(0.0067)	(0.0120)
Industrial x Post 1965	0.0066	0.0036	-0.0301*	-0.0325	0.0152**	0.0116
	(0.0066)	(0.0095)	(0.0170)	(0.0223)	(0.0068)	(0.0122)
Industrial x Post 1969	-0.0042	-0.0071	-0.0359**	-0.0382*	0.0039	0.0002
	(0.0058)	(0.0089)	(0.0144)	(0.0205)	(0.0060)	(0.0117)
Industrial x Pre-reform trend		-0.0029		-0.0022		-0.0036
		(0.0063)		(0.0146)		(0.0075)
Sample	All	All	Top	Top	Other	Other
Pre-reform inventor share	0.0428	0.0428	0.0746	0.0746	0.0346	0.0346
Observations	27,839	27,839	6,040	6,040	21,799	21,799

Notes. This table shows the effect of the promotion of STEM education on the probability of becoming an inventor by comparing industrial to academic students. It restricts the sample to men. The dependent variable, Inventor, is a dummy that equals 1 for students who patented at least once from 1968 to 2010. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Pre-reform trend is a linear trend for pre-reform cohorts. Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. The regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A8: Probability of Becoming an Inventor and STEM degrees

	Inventor OLS (1)	Inventor IV (2)	Inventor OLS (3)	Inventor IV (4)	Inventor OLS (5)	Inventor IV (6)
	Panel A: Industrial vs. academic students					
STEM degree	0.0393***	-0.0330	0.0346***	-0.1391***	0.0409***	0.0374
	(0.0033)	(0.0270)	(0.0054)	(0.0358)	(0.0036)	(0.0298)
F statistic		58.63		58.39		33.92
	Panel B: Matched, Industrial vs. academic students					
STEM degree	0.0365		-0.0260		0.0828***	
	(0.0243)		(0.0330)		(0.0304)	
Sample	All	All	Top	Top	Other	Other
Pre-reform inventor share (Panel A)	0.0427	0.0427	0.0740	0.0740	0.0346	0.0346
Pre-reform inventor share (Panel B)	0.0897	0.0897	0.1176	0.1176	0.0563	0.0563
Observations (Panel A)	35,479	35,479	7,662	7,662	27,817	27,817
Observations (Panel B)	4,718	4,718	1,807	1,807	2,911	2,911

Notes. This table shows OLS and instrumental variable estimates of the effect of STEM education on the probability of becoming an inventor. The instrumental variables for receiving a STEM degree (STEM degree$_i$) are Industrial$_i \times$ Post 1961$_t$, Industrial$_i \times$ Post 1965$_t$, and Industrial$_i \times$ Post 1969$_t$. The dependent variable, Inventor, is a dummy that equals one for students who patented at least once from 1968 to 2010. The regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A9: Probability of Becoming an Inventor in a STEM field

	Inventor STEM (1)	Inventor STEM (2)	Inventor STEM (3)	Inventor STEM (4)	Inventor STEM (5)	Inventor STEM (6)
	Panel A: Industrial vs. academic students					
Industrial x Post 1961	0.0059	0.0067	0.0152	0.0168	0.0029	0.0034
	(0.0050)	(0.0050)	(0.0134)	(0.0142)	(0.0046)	(0.0046)
Industrial x Post 1965	0.0079*	0.0094**	-0.0035	-0.0081	0.0102**	0.0135***
	(0.0043)	(0.0044)	(0.0120)	(0.0127)	(0.0045)	(0.0046)
Industrial x Post 1969	0.0017	0.0029	0.0002	-0.0032	0.0021	0.0045
	(0.0041)	(0.0040)	(0.0113)	(0.0113)	(0.0041)	(0.0041)
	Panel B: Matched, Industrial vs. academic students					
Industrial x Post 1961	0.0574**	0.0517**	0.0624*	0.0415	0.0419*	0.0404
	(0.0233)	(0.0244)	(0.0338)	(0.0355)	(0.0252)	(0.0267)
Industrial x Post 1965	0.0513***	0.0528***	0.0032	-0.0129	0.0786***	0.0883***
	(0.0155)	(0.0169)	(0.0261)	(0.0276)	(0.0190)	(0.0198)
Industrial x Post 1969	0.0272*	0.0349**	0.0115	0.0074	0.0432**	0.0578***
	(0.0148)	(0.0154)	(0.0232)	(0.0232)	(0.0195)	(0.0199)
Sample	All	All	Top	Top	Other	Other
STEM fields	Three	Five	Three	Five	Three	Five
Pre-reform inventor share (panel A)	0.0152	0.0164	0.0207	0.0237	0.0138	0.0146
Pre-reform inventor share (panel B)	0.0256	0.0256	0.0353	0.0353	0.0141	0.0141
Observations (panel A)	35,479	35,479	7,662	7,662	27,817	27,817
Observations (panel B)	4,718	4,718	1,807	1,807	2,911	2,911

Notes. This table shows the effect of the promotion of STEM education on the probability of becoming an inventor by comparing industrial to academic students (panel A), and matched industrial to academic students (panel B). The matching selects students in the pre-period who share the same observable characteristics of individuals with a STEM degree in the post-period. The dependent variable, Inventor STEM, is a dummy that equals 1 for students who patented at least once from 1968 to 2010 in a STEM field. In columns 1, 3, and 5, the STEM fields are medicine, chemistry, and IT. In columns 2, 4, and 6, the STEM fields are medicine, chemistry, textiles, constructions, and IT. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. The regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A10: Probability of Becoming an Inventor, Panel Dataset

	Inventor (1)	Inventor (2)	Inventor (3)	Inventor (4)	Inventor (5)	Inventor (6)
	Panel A: Industrial vs. academic students					
Industrial x Post 1961	0.0001	0.0000	-0.0040	-0.0039	0.0010	0.0009
	(0.0012)	(0.0012)	(0.0036)	(0.0036)	(0.0013)	(0.0013)
Industrial x Post 1965	-0.0002	-0.0004	-0.0060*	-0.0059	0.0013	0.0011
	(0.0012)	(0.0012)	(0.0036)	(0.0036)	(0.0012)	(0.0012)
Industrial x Post 1969	-0.0012	-0.0015	-0.0062*	-0.0060*	0.0001	-0.0003
	(0.0011)	(0.0012)	(0.0034)	(0.0035)	(0.0012)	(0.0012)
Industrial x Pre-reform trend		0.0000*		-0.0000		0.0000***
		(0.0000)		(0.0000)		(0.0000)
	Panel B: Matched, Industrial vs. academic students					
Industrial x Post 1961	0.0151*	0.0150*	0.0059	0.0061	0.0262*	0.0259*
	(0.0078)	(0.0077)	(0.0092)	(0.0092)	(0.0141)	(0.0140)
Industrial x Post 1965	0.0037	0.0035	-0.0068	-0.0064	0.0123**	0.0117**
	(0.0043)	(0.0043)	(0.0076)	(0.0075)	(0.0054)	(0.0054)
Industrial x Post 1969	0.0010	0.0007	-0.0075	-0.0070	0.0094*	0.0085
	(0.0040)	(0.0041)	(0.0062)	(0.0063)	(0.0056)	(0.0056)
Industrial x Pre-reform trend		0.0000		-0.0000		0.0001
		(0.0001)		(0.0001)		(0.0001)
Sample	All	All	Top	Top	Other	Other
Pre-reform inventor share (panel A)	0.0022	0.0022	0.0029	0.0029	0.0020	0.0020
Pre-reform inventor share (panel B)	0.0067	0.0067	0.0064	0.0064	0.0068	0.0068
Observations (panel A)	892,641	892,641	198,790	198,790	693,851	693,851
Observations (panel B)	134,400	134,400	51,693	51,693	82,707	82,707

Notes. This table shows the effect of the promotion of STEM education on the probability of becoming an inventor by comparing industrial to academic students (panel A), and matched industrial to academic students (panel B). The matching selects students in the pre-period who share the same observable characteristics of individuals with a STEM degree in the post-period. The dependent variable, Inventor_{ity}, is a dummy that equals 1 for students i who graduated high school in year t and patented at least once in year y. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A11: Probability of Becoming an Inventor, US Patents

	Inventor (1)	C–W patents (2)	Inventor (3)	C–W patents (4)	Inventor (5)	C–W patents (6)
			Panel A: Industrial vs. academic students			
Industrial x Post 1961	-0.0026	0.0077	-0.0076	-0.1030	-0.0017	0.0270
	(0.0046)	(0.1282)	(0.0117)	(0.3021)	(0.0040)	(0.1426)
Industrial x Post 1965	-0.0014	-0.1087	-0.0039	-0.1367	-0.0014	-0.1138
	(0.0037)	(0.1010)	(0.0091)	(0.2828)	(0.0038)	(0.1233)
Industrial x Post 1969	-0.0074**	-0.1562	-0.0137*	-0.1914	-0.0056	-0.1435
	(0.0034)	(0.1001)	(0.0075)	(0.2754)	(0.0036)	(0.1254)
			Panel B: Matched, Industrial vs. academic students			
Industrial x Post 1961	0.0605**	2.1984***	0.0620	1.9570**	0.0477*	2.4805**
	(0.0289)	(0.6720)	(0.0426)	(0.8613)	(0.0280)	(1.2032)
Industrial x Post 1965	0.0354**	0.7425**	0.0026	0.6777	0.0528**	0.8385
	(0.0177)	(0.3519)	(0.0299)	(0.5321)	(0.0212)	(0.5349)
Industrial x Post 1969	0.0138	0.5277	-0.0168	0.3220	0.0368*	0.7505
	(0.0147)	(0.3584)	(0.0249)	(0.4300)	(0.0197)	(0.5880)
Sample	All	All	Top	Top	Other	Other
Pre-reform dep. var. (panel A)	0.0183	0.3409	0.0237	0.4379	0.0169	0.3157
Pre-reform dep. var. (panel B)	0.0321	0.3333	0.0353	0.2823	0.0282	0.3944
Observations (panel A)	35,479	35,479	7,662	7,662	27,817	27,817
Observations (panel B)	4,718	4,718	1,807	1,807	2,911	2,911

Notes. This table shows the effect of the promotion of STEM education on the probability of developing at least one patent issued by the US Patent Office. The source of US patent data is the NBER US Patent Citation Data File (Hall, Jaffe and Trajtenberg, 2001). Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. The regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A12: Probability of Becoming an Inventor, High-Value Patents

	All	STEM	All	STEM	All	STEM
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Industrial vs. academic students						
Industrial x Post 1961	-0.0001	0.0005*	-0.0013	-0.0001	0.0002	0.0006**
	(0.0004)	(0.0002)	(0.0010)	(0.0007)	(0.0004)	(0.0003)
Industrial x Post 1965	0.0003	0.0007***	-0.0011	-0.0005	0.0007*	0.0009***
	(0.0004)	(0.0002)	(0.0010)	(0.0007)	(0.0004)	(0.0002)
Industrial x Post 1969	0.0000	0.0004*	-0.0010	-0.0000	0.0003	0.0005**
	(0.0004)	(0.0002)	(0.0009)	(0.0006)	(0.0004)	(0.0002)
Panel B: Matched, Industrial vs. academic students						
Industrial x Post 1961	0.0056**	0.0054**	0.0024	0.0041*	0.0099*	0.0074*
	(0.0027)	(0.0022)	(0.0025)	(0.0022)	(0.0054)	(0.0042)
Industrial x Post 1965	0.0033***	0.0022***	0.0000	0.0001	0.0061***	0.0041***
	(0.0012)	(0.0008)	(0.0022)	(0.0016)	(0.0016)	(0.0012)
Industrial x Post 1969	0.0026**	0.0019**	0.0003	0.0012	0.0051***	0.0031*
	(0.0012)	(0.0009)	(0.0014)	(0.0010)	(0.0019)	(0.0016)
Sample	All	All	Top	Top	Other	Other
Pre-reform inventor share (panel A)	0.0006	0.0003	0.0007	0.0004	0.0006	0.0003
Pre-reform inventor share (panel B)	0.0022	0.0013	0.0018	0.0010	0.0025	0.0015
Observations (panel A)	962,008	962,008	218,207	218,207	743,801	743,801
Observations (panel B)	141,512	141,512	54,747	54,747	86,765	86,765

Notes. This table shows the effect of the promotion of STEM education on the probability of becoming an inventor by comparing industrial to academic students (panel A), and matched industrial to academic students (panel B). The dependent variable, Inventor_{ity}, is a dummy that equals 1 for students i who graduated high school in year t and patented at least once in year y (columns 1, 3, 5) or patented in a STEM field (medicine, chemistry, textiles, constructions, and IT) at least once in year y (columns 2, 4, 6). Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A13: Probability of Becoming an Inventor of Non-Industrial Students

	Inventor	Inventor	Patent count	Patent count	Number fields	Number fields
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A: Academic students			
Top x Post 1961	0.0014	0.0019	0.0583	0.0306	-0.0015	-0.0117
	(0.0100)	(0.0145)	(0.0515)	(0.0514)	(0.0155)	(0.0209)
Top x Post 1965	0.0043	0.0049	0.0874*	0.0598	0.0101	-0.0001
	(0.0089)	(0.0137)	(0.0508)	(0.0496)	(0.0139)	(0.0197)
Top x Post 1969	-0.0023	-0.0017	-0.0017	-0.0293	-0.0020	-0.0122
	(0.0088)	(0.0138)	(0.0367)	(0.0348)	(0.0128)	(0.0190)
Top x Pre-reform trend		0.0006		-0.0268		-0.0099
		(0.0090)		(0.0472)		(0.0142)
			Panel B: Commercial students			
Top x Post 1961	-0.0025	-0.0077	0.0134	0.0011	-0.0019	-0.0077
	(0.0040)	(0.0068)	(0.0121)	(0.0133)	(0.0046)	(0.0070)
Top x Post 1965	0.0019	-0.0033	0.1272	0.1149	0.0149	0.0091
	(0.0053)	(0.0075)	(0.1211)	(0.1181)	(0.0167)	(0.0171)
Top x Post 1969	0.0008	-0.0044	0.0155	0.0032	0.0013	-0.0045
	(0.0039)	(0.0067)	(0.0123)	(0.0137)	(0.0043)	(0.0069)
Top x Pre-reform trend		-0.0047		-0.0111		-0.0052
		(0.0037)		(0.0068)		(0.0037)

Notes: Panel A uses data of academic students (18,929 observations), while panel B uses data of commercial students (10,497 observations). The dependent variable Inventor is 1 if the student developed at least one patent, Patent count is the number of patents developed, and Number fields is the number of different technological fields (classes of invention) per inventor. Top is 1 for the students who ranked in the top quartile of their school's grade distribution. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Pre-reform trend is a linear pre-reform trend. The regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A14: Effects on Innovation, Robustness Checks

	Inventor (1)	Inventor (2)	Inventor (3)	Inventor (4)	Inventor (5)	Inventor (6)	Inventor (7)	Inventor (8)	Inventor (9)	Inventor (10)
Panel A: Industrial vs. academic students										
Industrial x Post 1961	0.0171	-0.0215*	-0.0085	-0.0058		0.0049	-0.0001	-0.0036	-0.0019	
	(0.0321)	(0.0115)	(0.0152)	(0.0180)		(0.0161)	(0.0047)	(0.0048)	(0.0056)	
Industrial x Post 1965	-0.0254	-0.0342***	-0.0476*	-0.0385***		0.0281*	0.0138***	0.0132**	0.0127**	
	(0.0269)	(0.0103)	(0.0248)	(0.0142)		(0.0149)	(0.0049)	(0.0066)	(0.0063)	
Industrial x Post 1969	-0.0301	-0.0428***		-0.0432***		0.0110	-0.0005		-0.0010	
	(0.0256)	(0.0088)		(0.0113)		(0.0142)	(0.0041)		(0.0051)	
Panel B: Matched, Industrial vs. academic students										
Industrial x Post 1961	0.0469	-0.0438	-0.0452		-0.0972	0.0966*	0.0354	0.0814*		0.0410
	(0.0674)	(0.0406)	(0.0492)		(0.0900)	(0.0577)	(0.0316)	(0.0430)		(0.0383)
Industrial x Post 1965	-0.0513	-0.0776***	-0.0471		-0.1451*	0.1263***	0.0597**	0.1471***		0.0737**
	(0.0441)	(0.0262)	(0.0748)		(0.0859)	(0.0412)	(0.0272)	(0.0465)		(0.0303)
Industrial x Post 1969	-0.0515	-0.0777***			-0.1663**	0.0731*	0.0125			0.0342
	(0.0449)	(0.0241)			(0.0833)	(0.0438)	(0.0250)			(0.0297)
Specification	Probit	29-56	Pre-1966	Weights	61-65 Matching	Probit	29-56	Pre-1966	Weights	61-65 Matching
Sample	Top	Top	Top	Top	Top	Other	Other	Other	Other	Other

Notes. This table shows additional evidence on the effect of the promotion of STEM education on the probability of becoming an inventor. Columns 1 and 6 show marginal effects from a probit regression. Columns 2 and 7 consider only the inventors who developed at least one patent between the ages of 29 and 56. Columns 3 and 8 restrict the sample to cohorts who completed high school before 1966. Columns 4 and 9 use sampling weights to keep the average student characteristics constant at the pre-reform levels. Columns 5 and 10 use an alternative matching process that uses only STEM graduates belonging to the cohorts between 1961 and 1965. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A15: Changes in Parental Characteristics

Dependent variable	Change	Obs.	Dependent variable	Change	Obs.
		Individual characteristics			
Female	0.0079	1,464	Number of siblings	0.2136	1,005
	(0.0287)			(0.1925)	
Paternal characteristic			Maternal characteristic		
High school or higher	-0.0467	1,362	High school or higher	-0.0091	1,368
	(0.0316)			(0.0229)	
Manager	0.0064	1,066	Manager	0.0000	1,072
	(0.0261)			(0.0000)	
Entrepreneur	-0.0075	1,066	Entrepreneur	-0.0056	1,072
	(0.0218)			(0.0093)	
Blue-collar worker	-0.0119	1,066	Blue-collar worker	-0.0382	1,072
	(0.0336)			(0.0281)	
Teacher	0.0006	1,066	Teacher	-0.0051	1,072
	(0.0129)			(0.0223)	
Public employee	0.0186	966	Public employee	0.1366	277
	(0.0474)			(0.0949)	
Industrial sector	-0.0494	966	Industrial sector	-0.1065	277
	(0.0386)			(0.0864)	
Born abroad	0.0099	308	Born abroad	-0.0131	306
	(0.0102)			(0.0092)	

Notes. This table shows difference-in-differences coefficients β_1 from the equations Parental char.$_{iat} = \beta_0 + \beta_1[\text{Technical}_i \times \text{Post}_t] + \beta_2\text{Technical}_i + \gamma_t + \zeta_a + \kappa_i + u_{iat}$. Technical$_i$ is equal to 1 for technical students. Post$_t$ is equal to 1 for students who enrolled in high school after 1961. γ_t are birth cohort fixed effects. ζ_a are survey year fixed effects. κ_i are fixed effects for the geographical region of birth.
Source: 2008, 2010, 2012, and 2014 waves of the Survey of Household Income and Wealth. Sample selection: born between 1939 and 1954, academic or technical high school diploma. *** p<0.01, ** p<0.05, * p<0.1.

Table A16: Correlations Between Innovation and Occupations

	Patenting (1)	Patenting (2)	Tot patents (3)	Tot patents (4)	STEM (5)	STEM (6)
	Panel A: Industrial vs. academic students					
Self-employed professionals	-0.0008**	-0.0011**	-0.0015**	-0.0018***	-0.0005*	-0.0006**
	(0.0004)	(0.0004)	(0.0006)	(0.0006)	(0.0003)	(0.0003)
Public employees	-0.0009***	-0.0012***	-0.0017***	-0.0022***	-0.0005***	-0.0007***
	(0.0002)	(0.0002)	(0.0004)	(0.0004)	(0.0002)	(0.0002)
Entrepreneurs	-0.0013***	-0.0009***	-0.0022***	-0.0016***	-0.0010***	-0.0007***
	(0.0002)	(0.0002)	(0.0004)	(0.0003)	(0.0001)	(0.0001)
Natural scientists	0.0046	0.0039	0.0047	0.0035	0.0032	0.0027
	(0.0031)	(0.0031)	(0.0036)	(0.0035)	(0.0022)	(0.0021)
Law professionals	-0.0014***	-0.0017***	-0.0021***	-0.0025***	-0.0009***	-0.0010***
	(0.0002)	(0.0002)	(0.0004)	(0.0004)	(0.0002)	(0.0002)
Media professionals	-0.0016***	-0.0010***	-0.0024***	-0.0015***	-0.0009***	-0.0006***
	(0.0002)	(0.0002)	(0.0003)	(0.0003)	(0.0001)	(0.0001)
University degree		0.0024***		0.0038***		0.0016***
		(0.0003)		(0.0006)		(0.0002)
	Panel B: Matched, Industrial vs. academic students					
Self-employed professionals	-0.0038***	-0.0038***	-0.0065***	-0.0065***	-0.0028***	-0.0028***
	(0.0011)	(0.0011)	(0.0017)	(0.0017)	(0.0007)	(0.0007)
Public employees	-0.0062***	-0.0062***	-0.0106***	-0.0107***	-0.0040***	-0.0040***
	(0.0011)	(0.0011)	(0.0021)	(0.0021)	(0.0009)	(0.0009)
Entrepreneurs	-0.0059***	-0.0055***	-0.0091***	-0.0085***	-0.0043***	-0.0040***
	(0.0009)	(0.0009)	(0.0014)	(0.0014)	(0.0006)	(0.0006)
Natural scientists	0.0026	0.0026	0.0001	0.0001	0.0017	0.0017
	(0.0051)	(0.0051)	(0.0061)	(0.0061)	(0.0036)	(0.0035)
Law professionals						
Media professionals	-0.0070***	-0.0071***	-0.0096***	-0.0098***	-0.0038***	-0.0039***
	(0.0017)	(0.0017)	(0.0025)	(0.0025)	(0.0013)	(0.0013)
University degree		0.0056		0.0098		0.0047
		(0.0040)		(0.0067)		(0.0031)
Sample	All	All	Top	Top	Other	Other
Mean dep. variable (panel A)	0.0022	0.0022	0.0032	0.0032	0.0011	0.0011
Mean dep. variable (panel B)	0.0066	0.0066	0.0101	0.0101	0.0040	0.0040
Observations (panel A)	1,017,854	1,017,854	1,017,854	1,017,854	1,017,854	1,017,854
Observations (panel B)	151,963	151,963	151,963	151,963	151,963	151,963

Notes. This table shows the correlation between innovation outcomes and occupations. The unit of observation is an individual i who graduated high school in year t and is observed in the labor market in the calendar year y. The dependent variables are: a dummy equal to 1 for patenting at least once in year y (columns 1 and 2); the number of patent applications issued in year y (columns 3 and 4); and a dummy equal to 1 for patenting at least once in a STEM field (medicine, chemistry, textiles, constructions, and IT; columns 5 and 6). Self-employed professional include several professional figures, such as self-employed engineers and architects. Natural scientists are professional biologists, chemists, agronomists, and geologists. Law professionals are lawyers, tax accountants, labor consultants, and notaries. The coefficient for law professionals cannot be estimated in panel B because there are no law professionals with a university-level STEM degree. Media professionals are journalists and workers in the entertainment industry. The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A17: Probability of Becoming an Inventor, By Occupation

	Inventor (1)	Inventor (2)	Inventor (3)	Inventor (4)	Inventor (5)	Inventor (6)	Inventor (7)	Inventor (8)	Inventor (9)
	Panel A: Industrial vs. academic students								
Industrial x Post 1961	0.0000	-0.0038	0.0008	0.0000	-0.0038	0.0008	0.0002	-0.0037	0.0009
	(0.0013)	(0.0036)	(0.0013)	(0.0013)	(0.0036)	(0.0013)	(0.0013)	(0.0036)	(0.0013)
Industrial x Post 1965	-0.0002	-0.0053	0.0011	-0.0002	-0.0053	0.0012	-0.0001	-0.0051	0.0013
	(0.0012)	(0.0035)	(0.0012)	(0.0012)	(0.0035)	(0.0012)	(0.0012)	(0.0035)	(0.0012)
Industrial x Post 1969	-0.0011	-0.0054	-0.0001	-0.0010	-0.0052	0.0000	-0.0011	-0.0053	0.0000
	(0.0012)	(0.0034)	(0.0012)	(0.0012)	(0.0034)	(0.0012)	(0.0012)	(0.0034)	(0.0012)
Industrial x Occupation x Post 1961	-0.0025***	-0.0023	-0.0020*	-0.0034***	-0.0049***	-0.0026***	-0.0015	-0.0015	-0.0013
	(0.0007)	(0.0015)	(0.0011)	(0.0008)	(0.0016)	(0.0009)	(0.0010)	(0.0029)	(0.0011)
Industrial x Occupation x Post 1965	-0.0021***	-0.0022	-0.0022***	-0.0010	0.0001	-0.0018	-0.0011**	-0.0024***	-0.0011*
	(0.0006)	(0.0016)	(0.0007)	(0.0017)	(0.0029)	(0.0018)	(0.0006)	(0.0009)	(0.0006)
Industrial x Occupation x Post 1969	-0.0008**	-0.0003	-0.0007*	-0.0026***	-0.0027***	-0.0026***	-0.0009**	-0.0017***	-0.0008
	(0.0004)	(0.0009)	(0.0004)	(0.0005)	(0.0010)	(0.0005)	(0.0004)	(0.0006)	(0.0005)
	Panel B: Matched, Industrial vs. academic students								
Industrial x Post 1961	0.0146*	0.0037	0.0270*	0.0154*	0.0042	0.0285*	0.0146*	0.0037	0.0270*
	(0.0078)	(0.0092)	(0.0144)	(0.0080)	(0.0092)	(0.0151)	(0.0079)	(0.0093)	(0.0145)
Industrial x Post 1965	0.0034	-0.0073	0.0120**	0.0036	-0.0073	0.0122**	0.0035	-0.0072	0.0122**
	(0.0044)	(0.0078)	(0.0052)	(0.0044)	(0.0078)	(0.0052)	(0.0044)	(0.0077)	(0.0052)
Industrial x Post 1969	0.0012	-0.0062	0.0087	0.0018	-0.0056	0.0095*	0.0012	-0.0062	0.0088
	(0.0043)	(0.0068)	(0.0055)	(0.0043)	(0.0069)	(0.0055)	(0.0043)	(0.0068)	(0.0055)
Industrial x Occupation x Post 1961	-0.0156**	-0.0105*	-0.0243*	-0.0232***	-0.0213***	-0.0283*	-0.0226***	-0.0231*	-0.0207*
	(0.0062)	(0.0063)	(0.0132)	(0.0080)	(0.0075)	(0.0158)	(0.0082)	(0.0127)	(0.0126)
Industrial x Occupation x Post 1965	-0.0057**	-0.0045	-0.0072**	-0.0053	-0.0021	-0.0075	-0.0069**	-0.0072**	-0.0070
	(0.0028)	(0.0057)	(0.0032)	(0.0035)	(0.0047)	(0.0047)	(0.0034)	(0.0035)	(0.0047)
Industrial x Occupation x Post 1969	-0.0026	-0.0044	-0.0007	-0.0084***	-0.0078**	-0.0085***	-0.0036	-0.0041*	-0.0031
	(0.0018)	(0.0034)	(0.0022)	(0.0020)	(0.0032)	(0.0027)	(0.0022)	(0.0024)	(0.0032)
Sample	All	Top	Other	All	Top	Other	All	Top	Other
Occupation: Self-employed engineers	Yes	Yes	Yes	No	No	No	No	No	No
Occupation: Public employees	No	No	No	Yes	Yes	Yes	No	No	No
Occupation: Entrepreneurs	No	No	No	No	No	No	Yes	Yes	Yes
Pre-reform inventor share (panel A)	0.0022	0.0028	0.0020	0.0022	0.0028	0.0020	0.0022	0.0028	0.0020
Pre-reform inventor share (panel B)	0.0066	0.0065	0.0067	0.0066	0.0065	0.0067	0.0066	0.0065	0.0067
Observations (panel A)	1,017,854	231,344	786,510	1,017,854	231,344	786,510	1,017,854	231,344	786,510
Observations (panel B)	151,963	58,969	92,994	151,963	58,969	92,994	151,963	58,969	92,994

Notes. This table shows the effect of the promotion of STEM education on the probability of becoming an inventor for individuals choosing different occupations. The dependent variable, Inventor_{ity}, is a dummy that equals 1 for students i who graduated high school in year t and patented at least once in year y. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A18: Changes in Occupation, Multinomial Logit

	Baseline (1)	Public (2)	Entrepreneurs (3)	S-e prof. (4)	Baseline (5)	Public (6)	Entrepreneurs (7)	S-e prof. (8)
Panel A: Industrial vs. academic students								
Industrial x Post 1961	0.0465**	-0.0545***	-0.0017	0.0098	0.0390***	-0.0173***	-0.0116	-0.0100***
	(0.0211)	(0.0116)	(0.0164)	(0.0076)	(0.0132)	(0.0039)	(0.0125)	(0.0034)
Industrial x Post 1965	0.0572***	-0.0905***	0.0189*	0.0144	0.0501***	-0.0501***	0.0063	-0.0063**
	(0.0213)	(0.0128)	(0.0164)	(0.0076)	(0.0125)	(0.0049)	(0.0115)	(0.0032)
Industrial x Post 1969	0.1224***	-0.1634***	0.0252**	0.0157	0.1012***	-0.1262***	0.0282***	-0.0032
	(0.0194)	(0.0114)	(0.0153)	(0.0072)	(0.0119)	(0.0055)	(0.0107)	(0.0030)
Panel B: Matched, Industrial vs. academic students								
Industrial x Post 1961	0.0443	-0.0151	-0.0688***	0.0395**	0.0920*	0.0595*	-0.1646***	0.0131
	(0.0397)	(0.0251)	(0.0262)	(0.0193)	(0.0555)	(0.0316)	(0.0386)	(0.0199)
Industrial x Post 1965	0.0462	0.0017	-0.0726***	0.0247*	0.1589***	0.0064	-0.1727***	0.0074
	(0.0374)	(0.0239)	(0.0266)	(0.0129)	(0.0426)	(0.0196)	(0.0377)	(0.0105)
Industrial x Post 1969	0.0666*	0.0107	-0.0881***	0.0108	0.1068**	0.0472	-0.1515***	-0.0025
	(0.0358)	(0.0212)	(0.0273)	(0.0146)	(0.0517)	(0.0379)	(0.0373)	(0.0123)
Sample	Top	Top	Top	Top	Other	Other	Other	Other
Pre-reform dep. var. (panel A)	0.92	0.01	0.05	0.02	0.89	0.01	0.09	0.01
Pre-reform dep. var. (panel B)	0.93	0.01	0.04	0.02	0.92	0.01	0.05	0.02
Observations (panel A)	235,082	235,082	235,082	235,082	803,597	803,597	803,597	803,597
Observations (panel B)	59,122	59,122	59,122	59,122	93,312	93,312	93,312	93,312

Notes. This table shows the effect of the promotion of STEM education on the occupation choice. The coefficients are marginal effects calculated from the estimation of a multinomial logit model. The dependent variable is a categorical variable that identifies four groups of occupations. Group 1 (columns 1 and 5) is the baseline and gathers all occupations not included in other groups. Group 2 (columns 2 and 6) groups all occupations in the public sector: all occupations that pay pension contributions to INPDAP in Table A1. Group 3 (columns 3 and 7) identifies entrepreneurs: Entrepreneurs and Artisans in Table A1. Group 4 (columns 4 and 8) identifies self-employed professionals: variable S-e prof. in Table 5; "Engineers" + "Other professionals" in Table A1. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 1 to 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 to 8 restrict the sample to students who ranked in the bottom three quartiles of their school's grade distribution. Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A19: Changes in Occupation, Instrumental Variables

	S-e prof. OLS (1)	S-e prof. IV (2)	S-e prof. OLS (3)	S-e prof. IV (4)
Panel A: Industrial vs. academic students				
STEM degree	0.0228***	0.0350**	0.0163***	0.0192
	(0.0035)	(0.0138)	(0.0024)	(0.0138)
F statistic		87.28		96.90
Panel B: Matched, Industrial vs. academic students				
STEM degree	0.0333***		-0.0144	
	(0.0119)		(0.0105)	
Sample	Top	Top	Other	Other
Pre-reform inventor share (Panel A)	0.0049	0.009	0.008	0.008
Pre-reform inventor share (Panel B)	0.004	0.004	0.007	0.007
Observations (Panel A)	234,961	234,961	802,657	802,657
Observations (Panel B)	59,122	59,122	93,272	93,272

Notes. This table shows OLS and instrumental variable estimates of the effect of STEM education on the probability of becoming a self-employed professional. The instrumental variables for receiving a STEM degree (STEM degree$_i$) are Industrial$_i$ × Post 1961$_t$, Industrial$_i$ × Post 1965$_t$, and Industrial$_i$ × Post 1969$_t$. The dependent variable, Inventor, is a dummy that equals one for students who patented at least once from 1968 to 2010. The regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A20: Effects on Earnings by Occupation

	Ln earnings (1)	Ln earnings (2)	Ln earnings (3)	Distance from average (4)	Distance from average (5)	Distance from average (6)
	Panel A: Industrial vs. academic students					
Industrial x Post 1961	0.0967***	0.0437	0.1073***	0.1086***	0.0654	0.1151***
	(0.0351)	(0.0824)	(0.0383)	(0.0264)	(0.0600)	(0.0293)
Industrial x Post 1965	0.1611***	0.1249	0.1697***	0.1688***	0.1428**	0.1736***
	(0.0338)	(0.0797)	(0.0369)	(0.0258)	(0.0582)	(0.0288)
Industrial x Post 1969	0.0859***	0.0573	0.0931***	0.1360***	0.1154**	0.1404***
	(0.0323)	(0.0768)	(0.0352)	(0.0244)	(0.0544)	(0.0273)
	Panel B: Matched, Industrial vs. academic students					
Industrial x Post 1961	0.2625***	0.0087	0.5202***	0.1080	-0.0502	0.3017***
	(0.0846)	(0.1249)	(0.1216)	(0.0716)	(0.1021)	(0.1048)
Industrial x Post 1965	0.3276***	0.0720	0.5443***	0.1808***	0.0260	0.3203***
	(0.0696)	(0.1168)	(0.0855)	(0.0526)	(0.0838)	(0.0644)
Industrial x Post 1969	0.2810***	0.1131	0.4743***	0.1272**	-0.0024	0.2694***
	(0.0670)	(0.1068)	(0.0839)	(0.0512)	(0.0790)	(0.0632)
Sample	All	Top	Other	All	Top	Other
Pre-reform inventor share (panel A)	10.25	10.37	10.22	-0.385	-0.299	-0.409
Pre-reform inventor share (panel B)	10.59	10.64	10.56	-0.0951	-0.0392	-0.129
Observations (panel A)	740,673	158,930	581,743	740,673	158,930	581,743
Observations (panel B)	124,823	46,870	77,953	124,823	46,870	77,953

Notes. This table shows the effect of the promotion of STEM education on log earnings (columns 1 to 3) and distance between individual earnings and the average earnings in each occupation (columns 4 to 6). The unit of observation is an individual i who completed high school in year t and is observed in calendar year y. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A21: Correlations Between Innovation and Industries Within the Private Sector

	Patenting	Patenting	Tot patents	Tot patents	STEM	STEM
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Industrial vs. academic students						
Extractive	0.0080*	0.0078*	0.0135*	0.0132*	0.0069**	0.0067**
	(0.0043)	(0.0043)	(0.0079)	(0.0080)	(0.0033)	(0.0033)
Energy	-0.0043***	-0.0045***	-0.0062***	-0.0066***	-0.0017***	-0.0019***
	(0.0006)	(0.0006)	(0.0009)	(0.0009)	(0.0004)	(0.0004)
Constructions	-0.0029***	-0.0027***	-0.0046***	-0.0043***	-0.0014***	-0.0013***
	(0.0005)	(0.0005)	(0.0008)	(0.0008)	(0.0003)	(0.0003)
Wholesale/Retail	-0.0031***	-0.0028***	-0.0049***	-0.0043***	-0.0016***	-0.0013***
	(0.0005)	(0.0005)	(0.0008)	(0.0008)	(0.0004)	(0.0003)
Finance/Banking	-0.0038***	-0.0035***	-0.0057***	-0.0052***	-0.0020***	-0.0018***
	(0.0004)	(0.0004)	(0.0007)	(0.0007)	(0.0003)	(0.0003)
IT	-0.0037***	-0.0037***	-0.0059***	-0.0059***	-0.0020***	-0.0020***
	(0.0007)	(0.0007)	(0.0009)	(0.0010)	(0.0004)	(0.0004)
University degree		0.0042***		0.0067***		0.0029***
		(0.0007)		(0.0012)		(0.0005)
Panel B: Matched, Industrial vs. academic students						
Extractive	0.0048	0.0046	0.0112	0.0108	0.0036	0.0033
	(0.0075)	(0.0075)	(0.0173)	(0.0172)	(0.0059)	(0.0058)
Energy	-0.0080***	-0.0080***	-0.0116***	-0.0116***	-0.0045***	-0.0045***
	(0.0017)	(0.0017)	(0.0028)	(0.0028)	(0.0012)	(0.0012)
Constructions	-0.0091***	-0.0091***	-0.0146***	-0.0147***	-0.0052***	-0.0052***
	(0.0022)	(0.0022)	(0.0036)	(0.0036)	(0.0019)	(0.0019)
Wholesale/Retail	-0.0068***	-0.0067***	-0.0108***	-0.0106***	-0.0053***	-0.0052***
	(0.0023)	(0.0023)	(0.0035)	(0.0035)	(0.0012)	(0.0012)
Finance/Banking	-0.0101***	-0.0103***	-0.0154***	-0.0156***	-0.0058***	-0.0059***
	(0.0015)	(0.0015)	(0.0025)	(0.0025)	(0.0012)	(0.0012)
IT	-0.0072***	-0.0072***	-0.0119***	-0.0118***	-0.0051***	-0.0051***
	(0.0021)	(0.0021)	(0.0028)	(0.0028)	(0.0012)	(0.0012)
University degree		0.0129		0.0212*		0.0130***
		(0.0092)		(0.0123)		(0.0049)
Sample	All	All	Top	Top	Other	Other
Mean dep. variable (panel A)	0.0035	0.0035	0.0051	0.0051	0.0018	0.0018
Mean dep. variable (panel B)	0.0092	0.0092	0.0138	0.0138	0.0057	0.0057
Observations (panel A)	337,413	337,413	337,413	337,413	337,413	337,413
Observations (panel B)	67,788	67,788	67,788	67,788	67,788	67,788

Notes. This table shows the correlation between innovation outcomes and industries within the private sector. The unit of observation is an individual i who graduated high school in year t and is observed in the labor market in the calendar year y. The dependent variables are: a dummy equal to 1 for patenting at least once in year y (columns 1 and 2); the number of patent applications issued in year y (columns 3 and 4); and a dummy equal to 1 for patenting at least once in a STEM field (medicine, chemistry, textiles, constructions, and IT; columns 5 and 6). Dummy variables for the following industries were included in the regression, but not reported in the table: agriculture, food/hospitality, transportation/communication, real estate, research, other entrepreneurial activities, defense, education, health, other public services, international organizations. The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A22: Industries within the Private Sector

	Manufacturing (1)	R&D (2)	Top pay (3)	Manufacturing (4)	R&D (5)	Top pay (6)
	Panel A: Industrial vs. academic students					
Industrial x Post 1961	-0.1396**	-0.0067	0.0367	-0.0174	0.0116	0.0248
	(0.0555)	(0.0100)	(0.0381)	(0.0306)	(0.0073)	(0.0233)
Industrial x Post 1965	0.0048	0.0014	0.0121	0.0241	0.0181**	-0.0100
	(0.0534)	(0.0057)	(0.0372)	(0.0290)	(0.0077)	(0.0223)
Industrial x Post 1969	-0.0184	0.0037	0.0170	0.0497*	0.0167**	-0.0028
	(0.0498)	(0.0048)	(0.0351)	(0.0272)	(0.0068)	(0.0215)
	Panel B: Matched, Industrial vs. academic students					
Industrial x Post 1961	-0.3373***	-0.0010	0.0617	-0.0391	0.0769*	0.0229
	(0.0943)	(0.0193)	(0.0555)	(0.1028)	(0.0421)	(0.0560)
Industrial x Post 1965	-0.1433*	0.0126	0.0828*	0.0010	0.0527**	0.0276
	(0.0770)	(0.0164)	(0.0487)	(0.0745)	(0.0205)	(0.0405)
Industrial x Post 1969	-0.1563**	0.0070	0.0859*	0.0295	0.0384**	0.0214
	(0.0695)	(0.0115)	(0.0442)	(0.0718)	(0.0176)	(0.0404)
Sample	Top	Top	Top	Other	Other	Other
Pre-reform dep. var. (panel A)	0.6224	0.0000	0.1198	0.6286	0.0025	0.1195
Pre-reform dep. var. (panel B)	0.7622	0.0000	0.0458	0.7551	0.0000	0.0307
Observations (panel A)	76,315	76,315	76,315	261,189	261,189	261,189
Observations (panel B)	25,528	25,528	25,528	42,274	42,274	42,274

Notes. This table shows the effect of the promotion of STEM education on the industry choice. Dependent variables: R&D is a dummy for research–intensive industries, Manufacturing is a dummy for all manufacturing industries, Top pay is a dummy for the five industries with the highest average salaries for workers with STEM degrees (energy, food/hospitality, transportation/communications, finance/banking, and international organizations). Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 4 to 6 restrict the sample to students who ranked in the top quartile of their school's grade distribution. The regressions include cohort and calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the HS score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19. Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A23: Effects on Earnings on Private-Sector Employees

	Ln earnings (1)	Ln earnings (2)	Ln earnings (3)	Distance from average (4)	Distance from average (5)	Distance from average (6)
	Panel A: Industrial vs. academic students					
Industrial x Post 1961	0.1217***	0.0993	0.1223***	0.0521	0.0411	0.0574
	(0.0327)	(0.0699)	(0.0370)	(0.0352)	(0.0766)	(0.0395)
Industrial x Post 1965	0.1947***	0.1728**	0.1956***	0.1071***	0.0924	0.1115***
	(0.0316)	(0.0682)	(0.0357)	(0.0336)	(0.0728)	(0.0380)
Industrial x Post 1969	0.1726***	0.1598**	0.1741***	0.0187	-0.0374	0.0384
	(0.0304)	(0.0651)	(0.0343)	(0.0313)	(0.0682)	(0.0352)
	Panel B: Matched, Industrial vs. academic students					
Industrial x Post 1961	0.2556***	0.0650	0.4794***	0.1133	-0.0957	0.3171**
	(0.0854)	(0.1192)	(0.1289)	(0.0957)	(0.1422)	(0.1278)
Industrial x Post 1965	0.3392***	0.1242	0.5320***	0.2323***	0.0241	0.3905***
	(0.0677)	(0.1056)	(0.0869)	(0.0724)	(0.1113)	(0.0972)
Industrial x Post 1969	0.2889***	0.1386	0.4635***	0.1523**	-0.0295	0.3220***
	(0.0665)	(0.1016)	(0.0854)	(0.0705)	(0.1042)	(0.0954)
Sample	All	Top	Other	All	Top	Other
Pre-reform inventor share (panel A)	10.24	10.36	10.21	-0.324	-0.215	-0.356
Pre-reform inventor share (panel B)	10.61	10.67	10.57	-0.0412	0.0163	-0.0760
Observations (panel A)	685,475	144,430	541,045	337,163	76,272	260,891
Observations (panel B)	113,934	42,641	71,293	67,752	25,517	42,235

Notes. This table shows the effect of the promotion of STEM education on log earnings for employees in the private sector (columns 1 to 3) and distance between individual earnings and the average earnings in each industry (columns 4 to 6). The unit of observation is an individual i who completed high school in year t and is observed in calendar year y. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A24: Correlations Between Innovation and Positions Within the Private Sector

	Patenting (1)	Patenting (2)	Tot patents (3)	Tot patents (4)	STEM (5)	STEM (6)
Panel A: Industrial vs. academic students						
Managers	0.0033***	0.0029***	0.0056***	0.0049***	0.0015***	0.0012***
	(0.0005)	(0.0005)	(0.0010)	(0.0010)	(0.0004)	(0.0004)
University degree		0.0027***		0.0041***		0.0018***
		(0.0004)		(0.0007)		(0.0003)
Panel B: Matched, Industrial vs. academic students						
Managers	0.0038***	0.0036***	0.0075***	0.0072***	0.0018*	0.0017
	(0.0013)	(0.0013)	(0.0026)	(0.0026)	(0.0010)	(0.0011)
University degree		0.0083**		0.0150**		0.0071**
		(0.0040)		(0.0064)		(0.0028)
Sample	All	All	Top	Top	Other	Other
Mean dep. variable (panel A)	0.0024	0.0024	0.0035	0.0035	0.0012	0.0012
Mean dep. variable (panel B)	0.0071	0.0071	0.011	0.011	0.0043	0.0043
Observations (panel A)	761,568	761,568	761,568	761,568	761,568	761,568
Observations (panel B)	120,273	120,273	120,273	120,273	120,273	120,273

Notes. This table shows the correlation between innovation outcomes and managerial positions within the private sector. The unit of observation is an individual i who graduated high school in year t and is observed in the labor market in the calendar year y. The dependent variables are: a dummy equal to 1 for patenting at least once in year y (columns 1 and 2); the number of patent applications issued in year y (columns 3 and 4); and a dummy equal to 1 for patenting at least once in a STEM field (medicine, chemistry, textiles, constructions, and IT; columns 5 and 6). The regressions also include cohort fixed effects, calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A25: Positions within the Private Sector

	Top pos. (1)	Manager (2)	Top pos. (3)	Manager (4)	Top pos. (5)	Manager (6)	Top pos. (7)	Manager (8)
	Panel A: Industrial vs. academic students							
Industrial x Post 1961	-0.0409	-0.0530	-0.0435	-0.0681	0.0140	0.0080	0.0062	0.0104
	(0.0316)	(0.0330)	(0.0480)	(0.0509)	(0.0144)	(0.0149)	(0.0245)	(0.0262)
Industrial x Post 1965	0.0588*	0.0548*	0.0156	0.0223	0.0650***	0.0466***	0.0665***	0.0466*
	(0.0307)	(0.0320)	(0.0461)	(0.0492)	(0.0138)	(0.0142)	(0.0231)	(0.0247)
Industrial x Post 1969	0.0539*	0.0325	0.0075	-0.0174	0.0385***	0.0286**	0.0175	0.0170
	(0.0287)	(0.0295)	(0.0427)	(0.0449)	(0.0129)	(0.0131)	(0.0216)	(0.0229)
	Panel B: Matched, Industrial vs. academic students							
Industrial x Post 1961	0.0702	0.0354	0.0995	0.0519	0.2661***	0.2808***	0.3063***	0.3718***
	(0.0642)	(0.0698)	(0.0934)	(0.1091)	(0.0548)	(0.0602)	(0.0819)	(0.0982)
Industrial x Post 1965	0.1742***	0.1640***	0.1593**	0.1669*	0.3183***	0.2842***	0.3012***	0.2766***
	(0.0552)	(0.0591)	(0.0796)	(0.0906)	(0.0406)	(0.0435)	(0.0684)	(0.0788)
Industrial x Post 1969	0.1866***	0.1257**	0.1481*	0.0960	0.2732***	0.2496***	0.2524***	0.2557***
	(0.0524)	(0.0560)	(0.0769)	(0.0865)	(0.0389)	(0.0415)	(0.0656)	(0.0752)
Sample	Top	Top	Top	Top	Other	Other	Other	Other
Industry f.e.	No	No	Yes	Yes	No	No	Yes	Yes
Pre- reform dep. var. (panel A)	0.2321	0.2182	0.2321	0.2182	0.1486	0.1375	0.1486	0.1375
Pre- reform dep. var. (panel B)	0.2271	0.2075	0.2271	0.2075	0.1462	0.1295	0.1462	0.1295
Observations (Panel A)	161,759	161,759	75,901	75,901	616,783	616,783	259,411	259,411
Observations (Panel B)	45,258	45,258	25,433	25,433	75,347	75,347	42,054	42,054

Notes. This table shows the effect of the promotion of STEM education on the position held within a firm. Dependent variables: Top pos. is a dummy for the two highest positions of manager and higher-level white collar (*quadro* in Italian), and Manager is a dummy for workers in a managerial position. Columns 3, 4, 7, and 8 control for industry fixed effects to capture position changes within the same industries in the private sector. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Columns 5 to 8 restrict the sample to students who ranked in the top quartile of their school's grade distribution. The regressions include cohort and calendar year fixed effects, gender, province of birth fixed effects, high school fixed effects, the HS score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19. Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

B Other Intent-to-Treat Specifications

All Industrial and Commercial Students. In this specification, we compare industrial students to graduates of commercial-track technical schools. Before 1961, commercial students could enroll in the same set of university majors that were available to industrial students. In 1961, however, they did not become eligible for STEM programs.[35] Relative to commercial students, the STEM graduation rate of industrial students increased by 3.7 percentage points between 1961 and 1964, by 13.1 percentage points between 1965 and 1968, and by 8.1 percentage points between 1969 and 1973 (Table A2, panel B, column 1). In the empirical analysis, we then re-estimate regression (1) on a sample that includes solely industrial and commercial students. The innovative activities of these two groups of students followed a common trend before the reform (Table B1, panel A).

Higher- and Lower-Achieving Industrial Students. We can also explore how university STEM education changed the innovative outcomes of industrial students with different pre-collegiate skills. Within each post-reform cohort, in fact, STEM graduation rates increased more among industrial students with higher pre-collegiate achievement (Figure 1, panel C). Relative to industrial students with lower pre-collegiate achievement, STEM graduation rates of industrial students who scored in the top quartile of the high school exit exam increased by 8.2 percentage points between 1961 and 1964, by 11.9 percentage points between 1965 and 1968, and by 9.6 percentage points between 1969 and 1973 (Table A2, panel C, column 1). The inclusion of controls for pre-reform trends indicate that these increases do not precede the implementation of the first reform (Table A2, panel C, columns 2 and 3).

We estimate the regression

$$\text{Invention}_{it} = \alpha + \beta \text{Top}_i + \gamma_t + \sum_t \delta_t [\text{Top}_i \times \text{Post}_t] + \zeta X_{it} + u_{it}, \tag{4}$$

[35] Commercial students could enroll in STEM majors only from 1969, when university admissions stopped depending on the type of high school diploma. Even after 1969, however, very few commercial students chose a STEM major.

where Top_i is a dummy variable equal to 1 for industrial students in the top quartile of their high school grade distribution. This sample includes only students with an industrial diploma. We investigate the existence of different pre-reform trends in the innovative outcomes of industrial students with varying pre-collegiate skills. The number of inventors among top and other industrial students were on the same path before 1961: the coefficient of the interaction between the variables Pre-reform trend and Top is close to zero and not statistically significant (Table B1, panel B, column 1). These findings are robust to alternative specifications of both the pre-reform trend and the measure of innovative activity (Table B1, panel B, columns 2 to 4).

Triple Differences. Equation 1 attributes any post-reform change in the innovative activity of industrial students to the increase in STEM education. Omitted factors, however, might have affected the innovation propensity of industrial students who completed high school after 1961. Technological change, for example, might have differentially affected the propensity of younger industrial and academic students to innovate. We therefore compare the cross-cohort differential change in innovative activity of top and other industrial students to the differential change of top and other students with other high school diplomas. We estimate the regression:

$$\begin{aligned} \text{Invention}_{it} = & \ \alpha + \beta \text{Top}_i + \gamma_t + \sum_t \delta_t [\text{Top}_i \times \text{Post}_t] \\ & + \sum_t \eta_t [\text{Industrial}_i \times \text{Post}_t] + \theta [\text{Industrial}_i \times \text{Top}_i] \\ & + \sum_t \lambda_t [\text{Industrial}_i \times \text{Top}_i \times \text{Post}_t] + \zeta X_{it} + u_{it}, \end{aligned} \tag{5}$$

on two different samples, one with academic students and the other with commercial students as controls. This difference-in-difference-in-differences specification allows us to control for time-varying omitted factors that differentially affected students with different diplomas, as well as students with varying pre-collegiate ability.

Table B1: Pre-Reform Trends in Innovative Activity, Other Specifications

	Inventor count	Inventor count	Patent num.	Patent num.
	(1)	(2)	(3)	(4)
	Panel A: Industrial vs. commercial students			
Industrial x Pre-reform trend	0.0018		-0.0371	
	(0.0420)		(0.0874)	
Industrial x 1959		-0.0041		-0.0425
		(0.0704)		(0.1898)
Industrial x 1960		0.0050		-0.0752
		(0.0843)		(0.1751)
	Panel B: Top vs. other industrial students			
Top x Pre-reform trend	0.0357		0.0715	
	(0.1043)		(0.1754)	
Top x 1959		0.0048		0.1195
		(0.1849)		(0.3924)
Top x 1960		0.0715		0.1429
		(0.2092)		(0.3521)

Notes: The dependent variables are the average number of inventors (columns 1 and 2) and the average number of patents by unit of observation (columns 3 and 4). Industrial is a dummy that equals 1 for students who attended an industrial high school. Top is a dummy that equals 1 for the students who ranked in the top quartile of their school's grade distribution. For the double differences, the single interactions of the variables are not reported. The unit of observation is a pre-reform cohort of high school graduation (between 1958 and 1960)–high school class (small groups of 20-30 students)–quartile of pre-collegiate achievement combination. The number of observations is equal to 582 in panel A and 275 in panel B. Standard errors clustered by high school class and quartile of ability in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

C Comparative statics

Comparative static 1:

$$P(i=1,\, d=1) - P(i=1,\, d=0)$$
$$= \frac{e^{w_d+g(a,\,1)}\cdot(e^{w_{hs}+g(a,\,0)}+e^{w_{hs}}) - e^{w_{hs}+g(a,\,0)}\cdot(e^{w_d+g(a,\,1)}+e^{w_d}+e^{w_n-c(a)})}{(e^{w_d+g(a,\,1)}+e^{w_d}+e^{w_n-c(a)})\cdot(e^{w_{hs}+g(a,\,0)}+e^{w_{hs}})}$$

Focusing on the numerator:

$$e^{w_d+g(a,\,1)}\cdot\left(e^{w_{hs}+g(a,\,0)}+e^{w_{hs}}\right) - e^{w_{hs}+g(a,\,0)}\cdot\left(e^{w_d+g(a,\,1)}+e^{w_d}+e^{w_n-c(a)}\right)$$

If the non-STEM sector is not an option, $P(i=1,\ d=1) > P(i=1,\ d=0)$ if $g(a,\ 1) > g(a,\ 0)$. If the non-STEM sector is an option, $P(i=1,\ d=1) > P(i=1,\ d=0)$ if $e^{w_d} \cdot (e^{g(a,\ 1)-g(a,\ 0)} - 1) > e^{w_n - c(a)}$.

Comparative static 2:

$$P(\text{Non-STEM},\ d=1) - P(\text{Non-STEM},\ d=0) \quad = \quad \frac{e^{w_n - c(a)}}{\left(e^{w_d + g(a,\ 1)} + e^{w_d} + e^{w_n - c(a)}\right)}$$

The derivative with respect to natural ability is:

$$\frac{\partial P(\text{Non-STEM},\ d=1)}{\partial a} = \frac{e^{w_n - c(a)} \cdot \left(-\frac{\partial c(a)}{\partial a} \cdot \left(e^{w_d + g(a,\ 1)} + e^{w_d}\right) - \frac{\partial g(a,\ 1)}{\partial a} \cdot e^{w_d + g(a,\ 1)}\right)}{\left(e^{w_d + g(a,\ 1)} + e^{w_d} + e^{w_n - c(a)}\right)^2}$$

The derivative is positive if $-\frac{\partial c(a)}{\partial a} > \frac{\partial g(a,\ 1)}{\partial a} \cdot \frac{e^{g(a,\ 1)}}{(e^{g(a,\ 1)}+1)}$.

D Additional Specifications and Results

D.1 Number of Patents and Technological Fields

We estimate equation 1 with two alternative measures of innovative output: the number of developed patents and the number of different fields of invention. In the matched sample, industrial students who received a STEM degree after 1961 and scored in the top quartile of pre-collegiate achievement did not develop fewer patents after 1961 (the coefficients are negative after 1965, but not statistically significant), but were active inventors in fewer technological areas (Table D1, panel C).[36] Top industrial students produced patents in 0.16 fewer fields between 1965 and 1968, and in 0.15 fewer fields between 1969 and 1973 (Table D1, panel C, column 2). The magnitude of these coefficients indicates a 60 to 64 percent decrease in the number of active research fields.[37]

[36] The intent-to-treat analysis in panel A (vs. academic students) and B (vs. commercial students) of Table D1 leads to similar findings. The triple–difference specifications are in the Appendix Table D2.

[37] Negative binomial estimates suggest that top industrial students produced patents in 0.11 fewer fields between 1965 and 1968, and in 0.12 fewer fields between 1969 and 1973, although the coefficients are not statistically different from zero (Table D1, panel C, column 4).

Industrial students scoring in the bottom three quartiles of pre-collegiate achievement developed more patents after 1961 and became active inventors in more technological areas. Lower-achieving industrial students with a STEM degree produced 1.3 more patents between 1961 and 1964, 0.6 more patents between 1965 and 1968, and 0.4 more patents between 1969 and 1973 (Table D1, panel C, column 5). Similarly, they became active inventors in 0.19 more fields between 1961 and 1964, in 0.20 more fields between 1965 and 1968, and in 0.15 more fields between 1969 and 1973 (Table D1, panel C, column 6). These findings are robust to the estimation of negative binomial regressions (Table D1, panel C, columns 7 and 8).

We measure variations in the productivity of inventors by estimating the same regressions on the smaller sample of students who developed at least one patent (Table D3). Although most estimates are not precise, the number of active research fields increased significantly after 1961 among lower-achieving industrial inventors with a STEM degree (Table D3, panel C, columns 6 and 8).

D.2 Other Intent-to-Treat Specifications

Industrial vs. Commercial Students. The results are robust if we compare industrial and commercial students. Among students scoring in the top quartile of the grade distribution, the probability of becoming an inventor decreased by 4.2 percentage points between 1965 and 1968, and by 5.6 percentage points between 1969 and 1973 (Table D5, column 3). Among lower-achieving students, the coefficients are close to zero, indicating small changes in innovation propensity (Table D5, column 5).

Top Industrial vs. Other Industrial Students. We then estimate equation 4 by comparing industrial students in the top quartile of the grade distribution to industrial students with lower pre-collegiate achievement. The propensity of top industrial students to innovate decreased by 3.5 percentage points between 1965 and 1968, and by 3.6 percentage points between 1969 and 1973 (Table D6, panel A, column 1). The estimates are robust to the inclusion of a linear pre-reform trend for top students, one for each ability quartile, one for each high school, and one for each combination of high school and ability quartile (Table D6, panel A, columns 2-5).

Triple Differences. We finally compare changes in innovative output between industrial and academic students, between levels of pre-collegiate achievement, and across cohorts of high school graduation (triple differences). The likelihood of becoming an inventor among top industrial students decreased by 3.9 percentage points between 1965 and 1968, and by 3.3 percentage points between 1969 and 1973 (Table D6, panel B, column 1). The findings of these triple differences are robust to the inclusion of different pre-reform trends (Table D6, panel B, columns 2-5), as well as the use of commercial students as a control group (Table D6, panel C).[38]

[38] In Tables A14 and D7, we estimate a probit regression, instead of a linear probability model. We also re-estimate the main regression identifying as inventors only individuals who developed at least one patent between 29 and 56 years old (the age range that we observe for all cohorts in the sample). These robustness checks confirm the main findings.

Table D1: Patent Count and Number of Technological Fields

	OLS		Negative binomial		OLS		Negative binomial	
	Patent count	Number fields	Patent count	Number fields	Patent count	Number fields	Patent count	Number fields
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Industrial vs. academic students								
Industrial x Post 1961	-0.1316	-0.0186	-0.0045	0.0102	0.0292	0.0042	0.0441	0.0063
	(0.1681)	(0.0325)	(0.1021)	(0.0299)	(0.0619)	(0.0132)	(0.0525)	(0.0130)
Industrial x Post 1965	-0.2665	-0.0752**	-0.1158	-0.0307	0.0342	0.0196	0.0511	0.0168
	(0.1657)	(0.0310)	(0.0872)	(0.0265)	(0.0559)	(0.0125)	(0.0437)	(0.0115)
Industrial x Post 1969	-0.2636*	-0.0876***	-0.0846	-0.0354	-0.0363	-0.0040	0.0237	0.0067
	(0.1530)	(0.0275)	(0.0821)	(0.0256)	(0.0560)	(0.0115)	(0.0449)	(0.0112)
Panel B: Industrial vs. commercial students								
Industrial x Post 1961	-0.1389	-0.0305	0.0039	0.0017	-0.0120	-0.0070	-0.0015	-0.0038
	(0.1632)	(0.0294)	(0.0327)	(0.0128)	(0.0537)	(0.0109)	(0.0577)	(0.0129)
Industrial x Post 1965	-0.3957**	-0.1011***	-0.0956	-0.0291*	-0.0501	-0.0048	-0.0376	-0.0023
	(0.1967)	(0.0319)	(0.0619)	(0.0152)	(0.0467)	(0.0104)	(0.0507)	(0.0117)
Industrial x Post 1969	-0.3328**	-0.1112***	-0.0423	-0.0259**	-0.0906**	-0.0248***	-0.0459	-0.0111
	(0.1552)	(0.0253)	(0.0266)	(0.0111)	(0.0452)	(0.0094)	(0.0516)	(0.0114)
Panel C: Matched, Industrial vs. academic students								
Industrial x Post 1961	0.1205	-0.0020	0.3877	0.0745	1.2811**	0.1924***	1.0234**	0.1655**
	(0.3920)	(0.0959)	(0.5039)	(0.1238)	(0.5040)	(0.0690)	(0.4985)	(0.0751)
Industrial x Post 1965	-0.2929	-0.1568**	-0.3251	-0.1132	0.5466**	0.2020***	0.4941	0.1922***
	(0.3570)	(0.0747)	(0.3367)	(0.0821)	(0.2650)	(0.0560)	(0.3081)	(0.0507)
Industrial x Post 1969	-0.3265	-0.1535**	-0.2739	-0.1178	0.3790	0.1473***	0.4032	0.1202**
	(0.2414)	(0.0656)	(0.2787)	(0.0782)	(0.3007)	(0.0524)	(0.3280)	(0.0512)
Sample	Top	Top	Top	Top	Other	Other	Other	Other
Pre-reform mean dep. var. (panel A-B)	0.2116	0.0695	0.2116	0.0695	0.1736	0.0537	0.1736	0.0537
Pre-reform mean dep. var. (panel C)	0.5647	0.2471	0.5647	0.2471	0.3944	0.0704	0.3944	0.0704
Observations (panel A)	7,662	7,662	7,662	7,662	27,817	27,817	27,817	27,817
Observations (panel B)	5,865	5,865	5,865	5,865	21,632	21,632	21,632	21,632
Observations (panel C)	1,807	1,807	1,807	1,807	2,911	2,911	2,911	2,911

Notes. This table shows difference-in-differences and difference-in-difference-in-differences estimates of the effect of the promotion of STEM education on the number of patents and the number of technological fields. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table D2: Patent Count and Technological Fields, Alternative Specifications

	OLS		Negative binomial	
	Patent count	Number fields	Patent count	Number fields
	(1)	(2)	(3)	(4)
Panel A: Top vs. other industrial students (N = 16,550)				
Top x Post 1961	-0.0778	-0.0106	0.0135	0.0011
	(0.1626)	(0.0291)	(0.0377)	(0.0105)
Top x Post 1965	-0.2059	-0.0710**	0.0099	-0.0298***
	(0.1592)	(0.0279)	(0.0659)	(0.0114)
Top x Post 1969	-0.2029	-0.0731***	-0.0213	-0.0243**
	(0.1542)	(0.0252)	(0.0350)	(0.0113)
Panel B: Top vs. other, industrial vs. academic students (N = 35,479)				
Top x Industrial x Post 1961	-0.1320	-0.0094	-0.0421	0.0011
	(0.1679)	(0.0324)	(0.0565)	(0.0138)
Top x Industrial x Post 1965	-0.2895*	-0.0800**	-0.1026*	-0.0364***
	(0.1655)	(0.0311)	(0.0531)	(0.0134)
Top x Industrial x Post 1969	-0.2093	-0.0716**	-0.0542	-0.0258**
	(0.1576)	(0.0281)	(0.0524)	(0.0121)
Panel C: Top vs. other, industrial vs. commercial students (N = 27,497)				
Top x Industrial x Post 1961	-0.1035	-0.0108	0.0075	0.0078
	(0.1647)	(0.0292)	(0.0629)	(0.0127)
Top x Industrial x Post 1965	-0.3198	-0.0822**	-0.1469	-0.0393*
	(0.1961)	(0.0323)	(0.1459)	(0.0207)
Top x Industrial x Post 1969	-0.2324	-0.0769***	-0.0308	-0.0223*
	(0.1583)	(0.0258)	(0.0618)	(0.0122)
Mean dep. var., 1958-1960	0.2116	0.0695	0.2116	0.0695

Notes. This table shows difference-in-differences and difference-in-difference-in-differences estimates of the effect of the promotion of STEM education on the number of patents and the number of technological fields. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table D3: Patent Count and Fields, Only Inventors

	OLS		Negative binomial		OLS		Negative binomial	
	Patent count	Number fields	Patent count	Number fields	Patent count	Number fields	Patent count	Number fields
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Industrial vs. academic students								
Industrial x Post 1961	-3.0275	-0.0340	-1.5848	0.0400	2.0156	0.2848	1.9397	0.2034
	(2.6644)	(0.3904)	(1.8703)	(0.3214)	(1.8993)	(0.2437)	(1.6102)	(0.2383)
Industrial x Post 1965	-3.7182	0.0151	-3.6770	-0.4252	0.6981	0.0956	1.2816	0.0968
	(3.7175)	(0.5308)	(2.3891)	(0.3970)	(1.6560)	(0.2321)	(1.3545)	(0.2249)
Industrial x Post 1969	-2.2442	-0.3469	-1.2659	-0.4446	-1.4271	0.0663	-0.5597	0.0287
	(2.7902)	(0.4248)	(1.7991)	(0.3834)	(2.3235)	(0.2122)	(1.8591)	(0.1984)
Panel B: Industrial vs. commercial students								
Industrial x Post 1961	-0.4808	-0.3036	-3.5624**	-0.2218	0.3138	-0.2004	2.9514	0.0332
	(1.7391)	(0.3655)	(1.6077)	(0.1958)	(1.7841)	(0.3152)	(2.7724)	(0.3584)
Industrial x Post 1965	-21.0997*	-3.5426**	-29.9035***	-3.1978***	0.9432	-0.1352	-1.2455	-0.4262
	(10.9561)	(1.3583)	(6.1958)	(0.4970)	(2.9279)	(0.4842)	(2.9503)	(0.3814)
Industrial x Post 1969	-2.5871	-0.4864	-1.3250	0.1175	1.4479	-0.0239	1.2334	-0.0826
	(1.8948)	(0.3456)	(1.5431)	(0.4153)	(1.8612)	(0.2657)	(2.7957)	(0.3600)
Panel C: Matched, Industrial vs. academic students								
Industrial x Post 1961	1.4758	0.3502	0.5402	0.0858	4.8394	1.2168**	8.8683*	0.9999***
	(4.7831)	(1.0429)	(2.6179)	(0.4839)	(4.9055)	(0.4841)	(4.5164)	(0.3624)
Industrial x Post 1965	-0.6212	0.1187	-2.2927	-0.4378	3.6124	1.3691**	2.0021	0.9463***
	(7.4695)	(1.2667)	(3.6286)	(0.6404)	(4.5608)	(0.5682)	(3.5201)	(0.3062)
Industrial x Post 1969	2.5628	0.4109	-0.6669	-0.3546	1.7421	1.3546**	1.1664	0.8530***
	(3.8929)	(0.9643)	(2.3763)	(0.5857)	(5.2830)	(0.5363)	(3.9970)	(0.3168)
Sample	Top	Top	Top	Top	Other	Other	Other	Other
Pre-reform mean dep. var. (panel A-B)	4.84	1.76	4.84	1.76	5.02	1.56	5.02	1.56
Pre-reform mean dep. var. (panel C)	4.8	2.1	4.8	2.1	7	1.25	7	1.25
Observations (panel A)	247	247	247	247	587	587	587	587
Observations (panel B)	169	169	169	169	422	422	422	422
Observations (panel C)	121	121	121	121	194	194	194	194

Notes. This table shows difference-in-differences and difference-in-difference-in-differences estimates of the effect of the promotion of STEM education on the number of patents and the number of technological fields. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table D4: Patent Count and Fields, Alternative Specifications, Only Inventors

	OLS		Negative binomial	
	Patent count	Number fields	Patent count	Number fields
	(1)	(2)	(3)	(4)
Panel A: Top vs. other industrial students (N = 557)				
Top x Post 1961	-1.3590	-0.1655	-0.5581	-0.2406
	(2.6264)	(0.2486)	(1.4015)	(0.2043)
Top x Post 1965	-0.5698	-0.0606	0.5513	-0.1246
	(2.8921)	(0.2973)	(1.4372)	(0.2407)
Top x Post 1969	-1.5401	-0.2394	0.0589	-0.1889
	(2.8637)	(0.2438)	(1.4329)	(0.1970)
Panel B: Top vs. other, industrial vs. academic students (N = 834)				
Top x Industrial x Post 1961	-3.3545	-0.0700	-3.3149	-0.1522
	(2.8509)	(0.3996)	(2.1289)	(0.3501)
Top x Industrial x Post 1965	-3.4335	-0.1238	-3.9375*	-0.4321
	(3.6413)	(0.5094)	(2.3632)	(0.4301)
Top x Industrial x Post 1969	-1.9403	-0.4962	-0.2696	-0.4008
	(3.2091)	(0.4307)	(2.4381)	(0.4034)
Panel C: Top vs. other, industrial vs. commercial students (N = 591)				
Top x Industrial x Post 1961	-0.9332	-0.1956	-5.2817*	-0.1814
	(6.2144)	(0.9415)	(3.1709)	(0.3919)
Top x Industrial x Post 1965	-22.2802***	-2.3927**	-16.6044*	-1.9620*
	(8.4198)	(0.9540)	(9.5941)	(1.0936)
Top x Industrial x Post 1969	-3.2359	-0.2502	-2.4220	0.2259
	(2.0181)	(0.6292)	(3.3014)	(0.5226)
Mean dep. var., 1958-1960	4.84	1.76	4.84	1.76

Notes. This table shows difference-in-differences and difference-in-difference-in-differences estimates of the effect of the promotion of STEM education on the number of patents and the number of technological fields. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table D5: Probability of Becoming an Inventor, Industrial vs. Commercial Students

	Inventor (1)	Inventor (2)	Inventor (3)	Inventor (4)	Inventor (5)	Inventor (6)
Industrial x Post 1961	-0.0044	-0.0058	-0.0039	-0.0057	-0.0060	-0.0082
	(0.0057)	(0.0073)	(0.0147)	(0.0188)	(0.0047)	(0.0083)
Industrial x Post 1965	-0.0081	-0.0095	-0.0420***	-0.0438**	-0.0007	-0.0030
	(0.0050)	(0.0067)	(0.0127)	(0.0176)	(0.0050)	(0.0085)
Industrial x Post 1969	-0.0217***	-0.0231***	-0.0559***	-0.0577***	-0.0133***	-0.0155*
	(0.0042)	(0.0061)	(0.0097)	(0.0158)	(0.0040)	(0.0079)
Industrial x Pre-reform trend		-0.0013		-0.0017		-0.0020
		(0.0047)		(0.0105)		(0.0052)
Sample	All	All	Top	Top	Other	Other
Pre-reform inventor share	0.0427	0.0427	0.0740	0.0740	0.0346	0.0346
Observations	27,497	27,497	5,865	5,865	21,632	21,632

Notes. This table shows the effect of the promotion of STEM education on the probability of becoming an inventor by comparing industrial to commercial students. The dependent variable, Inventor, is a dummy that equals 1 for students who patented at least once from 1968 to 2010. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Pre-reform trend is a linear trend for pre-reform cohorts. Columns 3 and 4 restrict the sample to students who ranked in the top quartile of their school's grade distribution. Columns 5 and 6 restrict the sample to students who are not in the top ability quartile. Regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table D6: Probability of Becoming an Inventor, Triple Differences

	Inventor (1)	Inventor (2)	Inventor (3)	Inventor (4)	Inventor (5)
Panel A: Top vs. other industrial students					
Top x Post 1961	0.0067	0.0032	0.0031	0.0065	0.0025
	(0.0158)	(0.0227)	(0.0226)	(0.0159)	(0.0220)
Top x Post 1965	-0.0346**	-0.0382*	-0.0382*	-0.0348**	-0.0388*
	(0.0137)	(0.0214)	(0.0214)	(0.0137)	(0.0207)
Top x Post 1969	-0.0359***	-0.0394**	-0.0394**	-0.0361***	-0.0400**
	(0.0109)	(0.0198)	(0.0197)	(0.0110)	(0.0189)
Top x Pre-reform trend		-0.0034			
		(0.0130)			
Panel B: Top vs. other, industrial vs. academic students					
Top x Industrial x Post 1961	0.0057	0.0057	0.0056	0.0051	0.0032
	(0.0186)	(0.0186)	(0.0186)	(0.0187)	(0.0269)
Top x Industrial x Post 1965	-0.0389**	-0.0389**	-0.0390**	-0.0396**	-0.0415
	(0.0164)	(0.0164)	(0.0164)	(0.0164)	(0.0255)
Top x Industrial x Post 1969	-0.0332**	-0.0332**	-0.0333**	-0.0339**	-0.0358
	(0.0140)	(0.0140)	(0.0140)	(0.0141)	(0.0240)
Top x Industrial x Pre-reform trend		-0.0032			
		(0.0061)			
Panel C: Top vs. other, industrial vs. commercial students					
Top x Industrial x Post 1961	0.0085	0.0085	0.0085	0.0083	0.0111
	(0.0157)	(0.0157)	(0.0157)	(0.0158)	(0.0227)
Top x Industrial x Post 1965	-0.0349**	-0.0349**	-0.0350**	-0.0352**	-0.0324
	(0.0145)	(0.0145)	(0.0145)	(0.0146)	(0.0219)
Top x Industrial x Post 1969	-0.0373***	-0.0373***	-0.0374***	-0.0376***	-0.0348*
	(0.0109)	(0.0109)	(0.0109)	(0.0109)	(0.0197)
Top x Industrial x Pre-reform trend		-0.0014			
		(0.0048)			
Inventor share, top students, 1958-1960	0.0740	0.0740	0.0740	0.0740	0.0740
Pre-trend by quartile of ability	No	No	Yes	No	No
Pre-trend by high school	No	No	No	Yes	No
Pre-trend by school and ability quartile	No	No	No	No	Yes

Notes. This table shows the effect of the promotion of STEM education on the probability of becoming an inventor of industrial students. Panel A shows difference-in-differences estimates that compare top and other industrial students (16,550 observations). Panel B shows difference-in-difference-in-differences estimates comparing industrial and academic students with different high school grades (35,479 observations). Panel C shows difference-in-difference-in-differences estimates comparing industrial and commercial students with different high school grades (27,497 observations). The dependent variable, Inventor, is a dummy that equals 1 for students who patented at least once from 1968 to 2010. Top is 1 for the students who ranked in the top quartile of their school's grade distribution. Post 1961 is 1 for cohorts who graduated between 1961 and 1964, Post 1965 is 1 for cohorts who graduated between 1965 and 1968, and Post 1969 is 1 for cohorts who graduated between 1969 and 1973. Pre-reform trend is a linear trend for pre-reform cohorts. Regressions also include cohort fixed effects, gender, province of birth fixed effects, high school fixed effects, the high school standardized score, the average standardized score of the closest peers in high school, a dummy for home-schooled students, and a dummy for students who graduated high school at 19 (and likely never repeated a grade). Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table D7: Effects on Innovation, Robustness Checks for Alternative Specifications

	Inventor (1)	Inventor (2)	Inventor (3)	Inventor (4)
Panel A: Top vs. other industrial students				
Top x Post 1961	0.0073	0.0031	0.0086	-0.0093
	(0.0151)	(0.0157)	(0.0171)	(0.0112)
Top x Post 1965	-0.0465***	-0.0449**	-0.0360**	-0.0359***
	(0.0153)	(0.0194)	(0.0149)	(0.0101)
Top x Post 1969	-0.0391***		-0.0354***	-0.0355***
	(0.0117)		(0.0117)	(0.0085)
Panel B: Top vs. other, industrial vs. academic students				
Top x Industrial x Post 1961	0.0081	0.0017	0.0035	-0.0171
	(0.0217)	(0.0187)	(0.0197)	(0.0132)
Top x Industrial x Post 1965	-0.0524***	-0.0526**	-0.0423**	-0.0448***
	(0.0197)	(0.0224)	(0.0176)	(0.0119)
Top x Industrial x Post 1969	-0.0364***		-0.0348**	-0.0394***
	(0.0173)		(0.0149)	(0.0102)
Panel C: Top vs. other, industrial vs. commercial students				
Top x Industrial x Post 1961	0.0202	0.0055	0.0108	-0.0059
	(0.0194)	(0.0156)	(0.0163)	(0.0115)
Top x Industrial x Post 1965	-0.0418**	-0.0471**	-0.0324**	-0.0370***
	(0.0198)	(0.0206)	(0.0153)	(0.0117)
Top x Industrial x Post 1969	-0.0347**		-0.0375***	-0.0372***
	(0.0147)		(0.0116)	(0.0093)
Specification	Probit	Pre-1966	Weights	29-56

Notes. This table shows additional evidence on the effect of the promotion of STEM education on the probability of becoming an inventor. Column 1 shows marginal effects from a probit regression. Column 2 restricts the sample to cohorts who completed high school before 1966. Column 3 uses sampling weights to keep the average student characteristics constant at the pre-reform levels. Column 4 considers only the inventors who developed at least one patent between the age of 29 and 56. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

E Curriculum change in STEM majors

Pursuing a university STEM education affected how students sorted into different occupations. In addition, the human capital acquired in STEM majors changed the technological areas in which the industrial students patented. All these effects are large and significant only among the cohorts who completed high school after 1965, although university STEM graduation rates increased from 1961. In this subsection, we explore a potential explanation for a delay in the effect of STEM education.

Industrial high schools heavily focused on applied STEM disciplines at the expense of theoretical STEM education. As a result, industrial students who enrolled in STEM majors had good practical skills, but lacked a solid theoretical foundation in most STEM areas. To analyze the performance of industrial students during their university studies, we divided all courses in university STEM majors in two categories: industrial, which were directly related to the disciplines taught by industrial high schools, and academic, which required more theoretical or advanced skills.[39] We then estimated the following specification:

$$g_{icp} = \alpha + \beta_c + \gamma_p + \delta\,(\text{Industrial student}_i \times \text{Industrial course}_c) + \eta X_{ip} + u_{icp}, \qquad (6)$$

where g_{icp} is the standardized grade of student i in the STEM course c in academic year p. Industrial student$_i$ is equal to 1 if student i received an industrial high school diploma. Industrial course$_c$ is equal to 1 if the course is related to a discipline taught in industrial high schools. X_{ip} denotes student characteristics, such as year of high school graduation fixed effects, gender, and pre-collegiate achievement. β_c are course fixed effects and γ_p are academic year fixed effects. The sample includes academic and industrial students who completed high school between 1958 and 1973 and were enrolled in a STEM major between

[39] Based on the disciplines taught in industrial high schools, we used the following keywords to identify industrial courses: aerodinamica, aeromobili, aeronautica, aerotecnica, antenne, architettura, caldaie, cantieri, centrali, chimica, chimiche, comunicazione, controlli automatici, controlli dei processi, costruttivi, costruzione, costruzioni, disegno, elettriche, elettro, elettronica, elettronici, elettronico, elettrotecnica, elicotteri, estimo, fondazioni, forni, idraulica, idrologia, impianti, infrastrutture, macchinari, macchine, materiali, meccanica, meccaniche, metalli, metallo, motori, plastiche, progetti, progetto, programmazione, propulsione, propulsori, radiochimica, radiotecnica, reattori, regolazione, rilevatori, siderurgia, sintesi, speciali, sismica, sistemi operativi, statica, struttura, strutture, strutturistica, tecnologia, tecnologie, tensioni, topografia. In the engineering major, for example, technical drawing is an industrial course and introductory math is an academic course.

1961 and 1977.

The estimated coefficient of Industrial student$_i$ $\times$ Industrial course$_c$ indicates that industrial students scored 0.12 standard deviations above academic students in industrial courses, after controlling for other course and student characteristics (table E1, panel A, column 1). This result is due to the fact that industrial students scored 0.11 standard deviations above the mean in industrial courses (Table E1, panel A, column 3), while academic students scored only 0.04 standard deviations below the mean (Table E1, panel A, column 4). This finding suggests that industrial students might have experienced a lower accumulation of human capital in STEM majors, because they lacked the necessary preparation to thrive in academic courses.[40]

Beginning in 1969, students were freer to choose courses that were more in line with their precollegiate skills, rather than having to comply with a rigid curriculum. To test the effect of the 1969 reform on the course choice, we estimated the following specification:

$$\text{Share industrial courses}_{ip} = \alpha + \gamma_p + \sum_p \delta_p \left(\text{Industrial student}_i \times \gamma_p\right) + \eta X_{ip} + u_{ip}, \quad (7)$$

where Share industrial courses$_{ip}$ is the share of industrial courses attended by student i in the academic year p, γ_p are academic year fixed effects, and X_{ip} are student characteristics.

The difference-in-differences coefficients of Industrial student$_i$ $\times$ γ_p indicate that the share of industrial courses in the curriculum of industrial students increased by 7.53 percentage points between 1969 and 1977 (Table E1, panel B, column 1). This effect is the result of two diverging trends. After 1969 industrial students increased the share of industrial courses by 8.05 percentage points (Table E1, panel B, column 3), while academic students reduced it by 1.07 percentage points (Table E1, panel B, column 4). Although this finding indicates that both academic and industrial students switched to more favorable courses after 1969, the change was much larger among industrial students, whose human capital accumulation was plausibly more penalized by the rigid curricula.

A greater flexibility in choosing courses benefited students who entered into STEM majors after 1969, as well as those who were enrolled at the time of the implementation. To prove

[40] The share of academic courses was equal to 55 percent in an average academic year.

this point, we estimate equation 7 including only the students who completed high school before 1969. In this case, the industrial students increased the share of industrial courses in their curricula by 3.53 percentage points between 1969 and 1977 (Table E1, panel B, column 2).

This course–level analysis suggested that industrial students might have accumulated more human capital after 1969, when they could select a higher number of industrial courses. The same post-1965 cohorts who benefited from a flexible curriculum experienced a change in their innovative output and in their occupational sorting.

Table E1: Industrial Courses and Curriculum Change

	Industrial vs. academic	Pre-1969 cohorts	Industrial students	Academic students	Top vs. other industrial	Top vs. other academic
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Grades in different STEM courses						
Industrial student x Industrial course	0.1216***	0.1616***				
	(0.0144)	(0.0194)				
Industrial course			0.1136***	-0.0409***		
			(0.0108)	(0.0072)		
Top x Industrial course					-0.0407	0.0550*
					(0.0430)	(0.0305)
Panel B: Share of industrial courses in the curriculum						
Industrial student x 1965–1968	0.0245	0.0145				
	(0.0163)	(0.0163)				
Industrial student x 1969-1977	0.0753***	0.0353**				
	(0.0154)	(0.0161)				
1965–1968			0.0231	-0.0067		
			(0.0157)	(0.0050)		
1969-1977			0.0805***	-0.0107**		
			(0.0152)	(0.0043)		
Top x 1965–1968					-0.0040	0.0029
					(0.0536)	(0.0177)
Top x 1969-1977					-0.0035	0.0161
					(0.0524)	(0.0144)
Observations (panel A)	136,275	93,363	38,297	97,978	38,297	97,978
Observations (panel B)	27,786	18,970	8,294	19,492	8,294	19,492

Notes: Panel A shows how industrial students performed in the industrial courses (close to the curriculum of industrial high schools) of STEM majors. The unit of analysis is a student i in the STEM course c and the academic year p (academic years from 1961 to 1977). Panel B shows how the share of industrial courses increased after 1969 among industrial students. The unit of analysis is a student i in the academic year a (1960–1977). The dependent variable is the standardized course grade in panel A and the share of industrial courses in each academic year in panel B. Standard errors clustered by student in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

F Controlling for Unverified Student–Inventor Matches

In the previous analysis, we dropped all the student-inventor matches that we could not verify through the tax code, social security data, or online searches (4,266 unverified patents, 9.9 percent of all matches). In this section, we explore whether the main findings change when we include the unverified inventors in the sample. We first exploit the verified student-inventor matches to assess how the observable characteristics of patents and inventors correlate to the probability of a correct match. We then use these estimates to predict the probability that the unverified student-inventor combinations are a correct match. In Table F1, we document that the baseline findings are robust to the inclusion of unverified inventors. When we include unverified inventors with a probability of being a correct match above 50 percent, for example, the total number of inventors increases to 901 individuals. The estimates still indicate that the inventor share of top industrial students decreased by 2.7 percentage points between 1965 and 1968, and by 3.9 percentage points between 1969 and 1973 (Table F1, panel A, column 5). These coefficients are significant at the 10 and 1 percent levels, respectively. Even when we include all unverified inventors (2,399) in the sample, the intent-to-treat estimates indicate a significant decrease in the innovation propensity of top industrial students who completed high school after 1969 (Table F1, panel A, column 8). These findings are robust across all specifications (Table F1, panels B to E).

Table F1: Unverified Inventors

	Inventor Verified (1)	Inventor Pr > 90% (2)	Inventor Pr> 75% (3)	Inventor Pr >60% (4)	Inventor Pr> 50% (5)	Inventor Pr >40% (6)	Inventor Pr >25% (7)	Inventor All (8)
	Panel A: Top industrial vs. top academic students							
Industrial x Post 1961	-0.0002	-0.0002	-0.0002	-0.0002	-0.0008	-0.0007	0.0011	0.0344
	(0.0172)	(0.0172)	(0.0172)	(0.0171)	(0.0171)	(0.0173)	(0.0174)	(0.0221)
Industrial x Post 1965	-0.0317**	-0.0317**	-0.0317**	-0.0307**	-0.0268*	-0.0272*	-0.0175	-0.0124
	(0.0144)	(0.0144)	(0.0144)	(0.0142)	(0.0145)	(0.0147)	(0.0150)	(0.0222)
Industrial x Post 1969	-0.0403***	-0.0403***	-0.0403***	-0.0398***	-0.0394***	-0.0374***	-0.0342***	-0.0534***
	(0.0120)	(0.0120)	(0.0120)	(0.0119)	(0.0120)	(0.0122)	(0.0127)	(0.0194)
	Panel B: Top industrial vs. top commercial students							
Industrial x Post 1961	-0.0039	-0.0039	-0.0039	-0.0038	-0.0031	-0.0030	-0.0015	0.0269
	(0.0147)	(0.0147)	(0.0147)	(0.0146)	(0.0147)	(0.0148)	(0.0152)	(0.0224)
Industrial x Post 1965	-0.0420***	-0.0420***	-0.0420***	-0.0407***	-0.0357***	-0.0330**	-0.0242*	-0.0300
	(0.0127)	(0.0127)	(0.0127)	(0.0124)	(0.0128)	(0.0129)	(0.0133)	(0.0214)
Industrial x Post 1969	-0.0559***	-0.0559***	-0.0559***	-0.0563***	-0.0551***	-0.0523***	-0.0496***	-0.0758***
	(0.0097)	(0.0097)	(0.0097)	(0.0096)	(0.0098)	(0.0102)	(0.0108)	(0.0199)
	Panel C: Top vs. other industrial students							
Top x Post 1961	0.0067	0.0066	0.0066	0.0061	0.0056	0.0053	0.0064	0.0271
	(0.0158)	(0.0159)	(0.0159)	(0.0159)	(0.0159)	(0.0158)	(0.0156)	(0.0216)
Top x Post 1965	-0.0346**	-0.0347**	-0.0347**	-0.0336**	-0.0300**	-0.0284**	-0.0268**	-0.0393*
	(0.0137)	(0.0137)	(0.0137)	(0.0135)	(0.0138)	(0.0139)	(0.0134)	(0.0202)
Top x Post 1969	-0.0359***	-0.0361***	-0.0363***	-0.0359***	-0.0359***	-0.0351***	-0.0350***	-0.0451**
	(0.0109)	(0.0109)	(0.0109)	(0.0110)	(0.0110)	(0.0110)	(0.0106)	(0.0185)
	Panel D: Top vs. other, industrial vs. academic students							
Top x Industrial x Post 1961	0.0057	0.0056	0.0056	0.0051	0.0037	0.0028	0.0066	0.0349
	(0.0186)	(0.0186)	(0.0186)	(0.0187)	(0.0187)	(0.0187)	(0.0185)	(0.0248)
Top x Industrial x Post 1965	-0.0389**	-0.0390**	-0.0390**	-0.0376**	-0.0348**	-0.0361**	-0.0291*	-0.0320
	(0.0164)	(0.0164)	(0.0164)	(0.0162)	(0.0164)	(0.0167)	(0.0160)	(0.0233)
Top x Industrial x Post 1969	-0.0332**	-0.0335**	-0.0331**	-0.0328**	-0.0329**	-0.0334**	-0.0323**	-0.0352
	(0.0140)	(0.0140)	(0.0140)	(0.0140)	(0.0140)	(0.0141)	(0.0137)	(0.0217)
	Panel E: Matched, Top industrial vs. top academic students							
Industrial x Post 1961	-0.0044	-0.0044	-0.0044	-0.0044	-0.0032	-0.0036	0.0019	0.0882
	(0.0501)	(0.0501)	(0.0501)	(0.0501)	(0.0501)	(0.0501)	(0.0511)	(0.0627)
Industrial x Post 1965	-0.0679**	-0.0679**	-0.0679**	-0.0679**	-0.0513	-0.0555	-0.0377	0.0254
	(0.0334)	(0.0334)	(0.0334)	(0.0334)	(0.0353)	(0.0356)	(0.0385)	(0.0426)
Industrial x Post 1969	-0.0629**	-0.0629**	-0.0629**	-0.0629**	-0.0614**	-0.0620**	-0.0687**	-0.0516
	(0.0296)	(0.0296)	(0.0296)	(0.0296)	(0.0295)	(0.0295)	(0.0329)	(0.0401)
Number of Inventors	869	870	874	880	901	934	1,067	2,399

Notes: Different columns include a different amount of unverified inventors (inventors whose patents could not be verified though the fiscal code or an internet search) in the sample. Column 1 includes only the verified inventors, column 2 all the inventors with an estimated probability above 90 percent, column 3 above 75 percent, column 4 above 60 percent, column 5 above 50 percent, column 6 above 40 percent, and column 7 above 25 percent. Column 8 includes all unverified inventors. Standard errors clustered by high school and cohort in parentheses, *** p<0.01, ** p<0.05, * p<0.1.