ONLINE APPENDIX FOR

The Economics Profession's Socioeconomic Diversity Problem

Anna Stansbury & Robert Schultz

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Figure A1: Share of 2010-21 US PhD recipients born in the US, by field
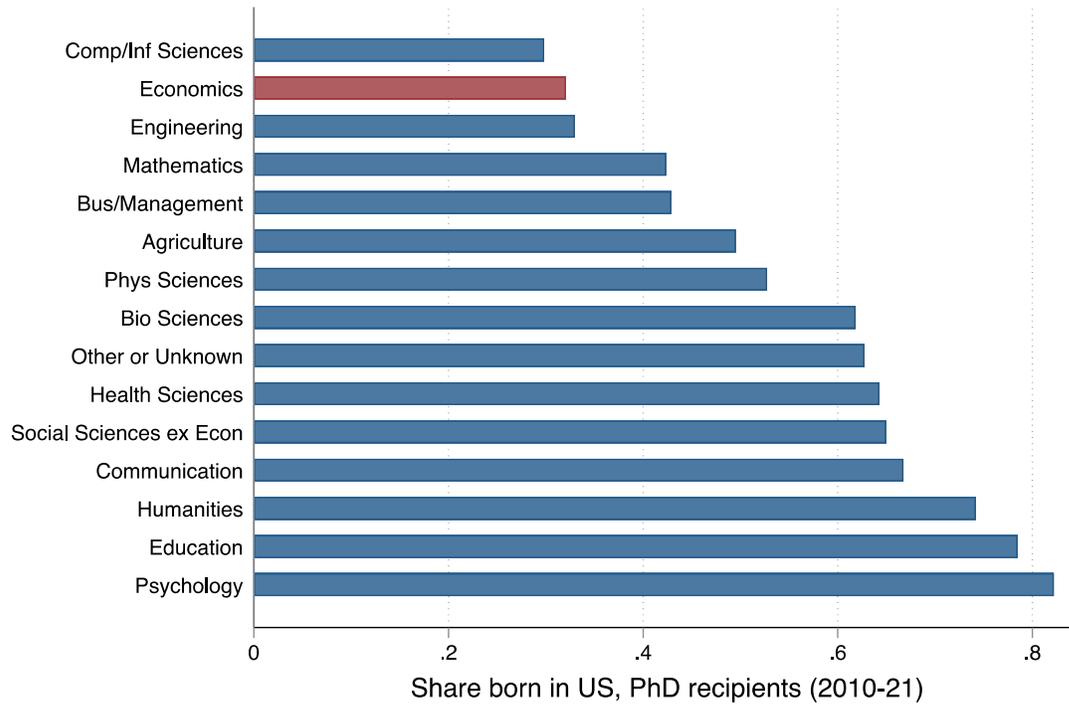
Source: Survey of Earned Doctorates

Figure A2: Share of foreign-born PhDs born in each continent, by field

Birth continents of the non-US born,
PhD recipients 2010-21
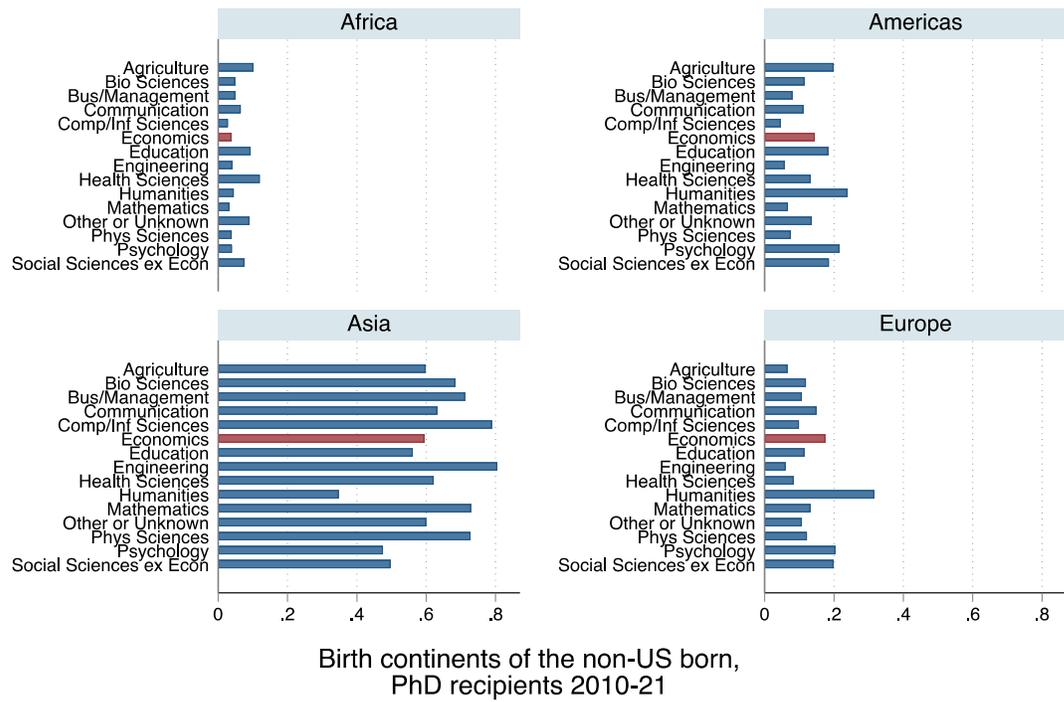
Source: Survey of Earned Doctorates
Note: "Americas" excludes the United States. Oceania is not shown because of small sample sizes for many fields.

Figure A3: Highest level of parental education, US citizen/permanent resident PhDs 2010-21

Highest level of parental education,
US citizen or permanent resident PhD graduates 2010-21
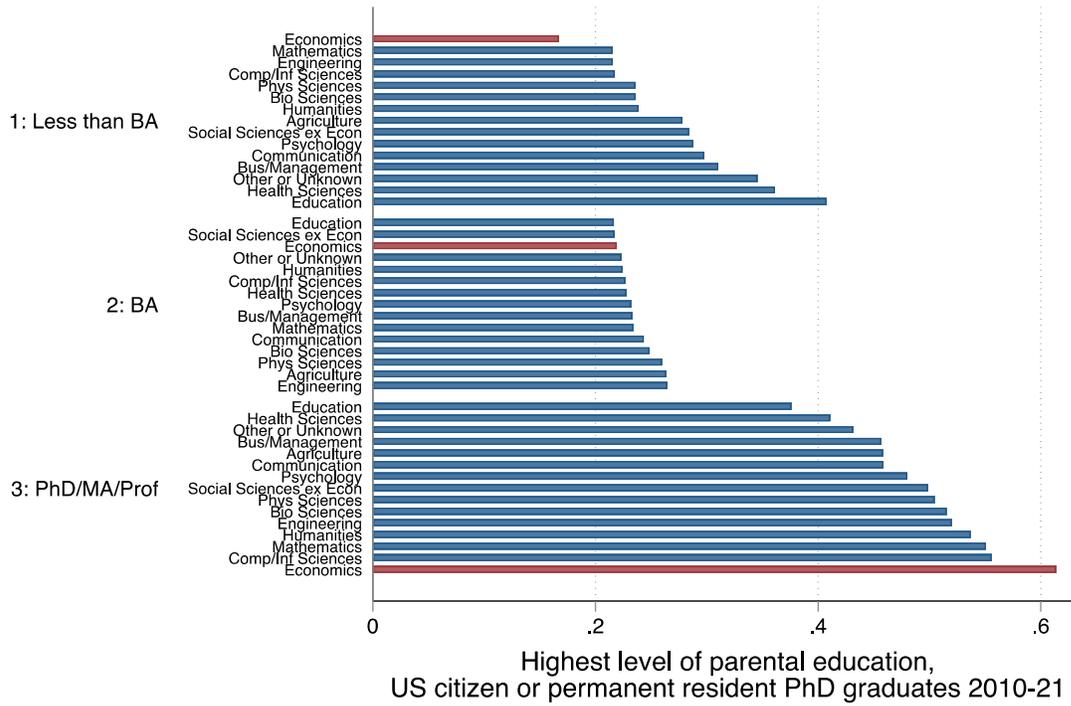
Source: Survey of Earned Doctorates

Figure A4: Share first-generation college graduates (no parent with a college degree) for US economics PhD recipients from top twenty US-economics-PhD-producing countries, compared to share first-gen among all US PhD recipients from these countries

Share with no parent with a college degree,
among US PhD recipients from country, 2010-21

■ All PhD subjects   ■ Economics only
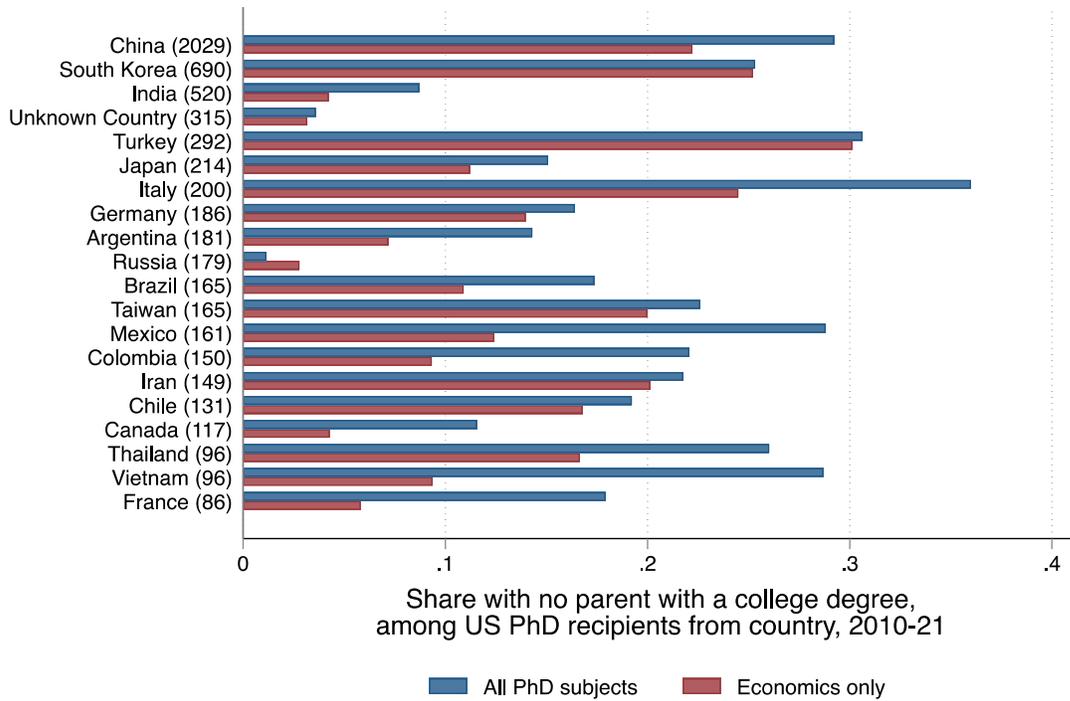
Source: Survey of Earned Doctorates. Note: Figure shows share of all 2010-21 US PhD recipients from each country who had no parents with a college degree, compared to the share of economics PhD recipients from that country who had no parents with a college degree. Number of US economics PhDs 2010-21 born in each country is listed in parentheses.

Figure A5: Share of 2010-21 PhD recipients with at least one parent with a PhD vs. non-PhD graduate degree
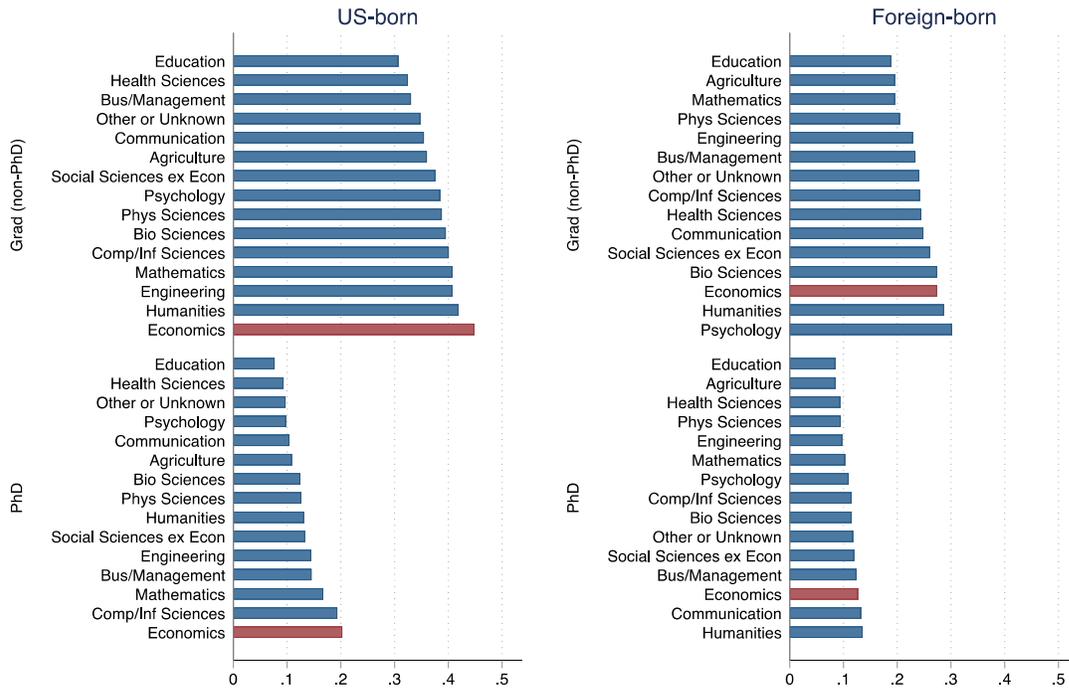
Source: Survey of Earned Doctorates

Figure A6: Share female and share with no parent with a BA, foreign-born US PhDs 2010-21
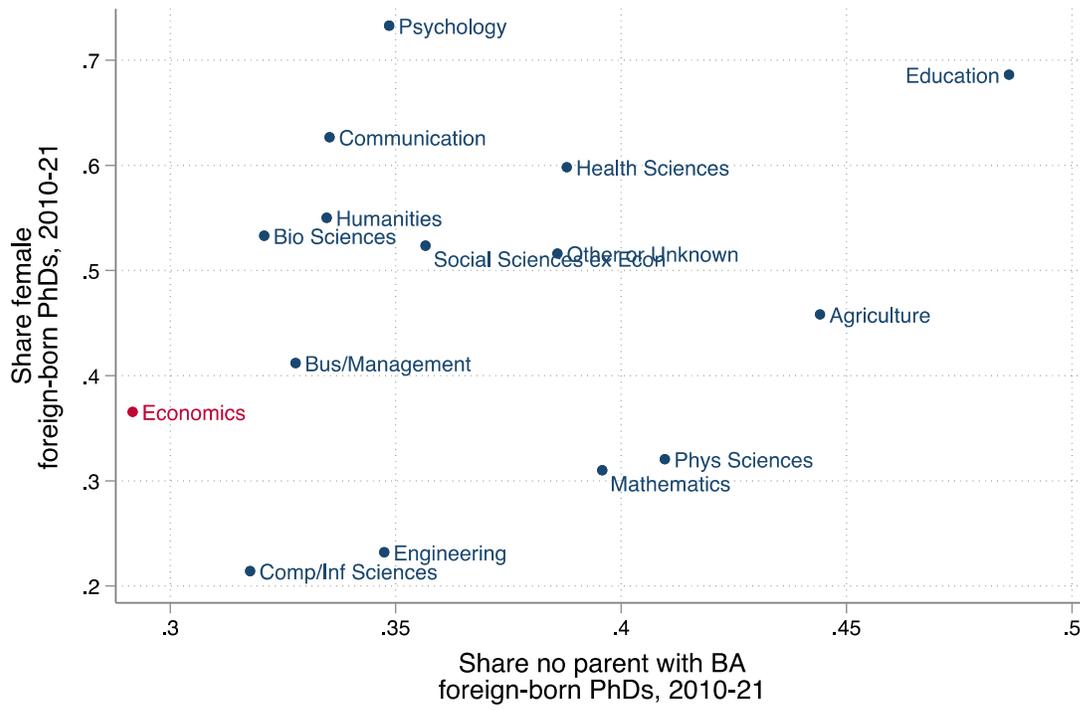
Source: Survey of Earned Doctorates

Figure A7: Female share, 2010-18 US-born PhD recipients, by field

Share female,
US-born PhD recipients (2010-21)
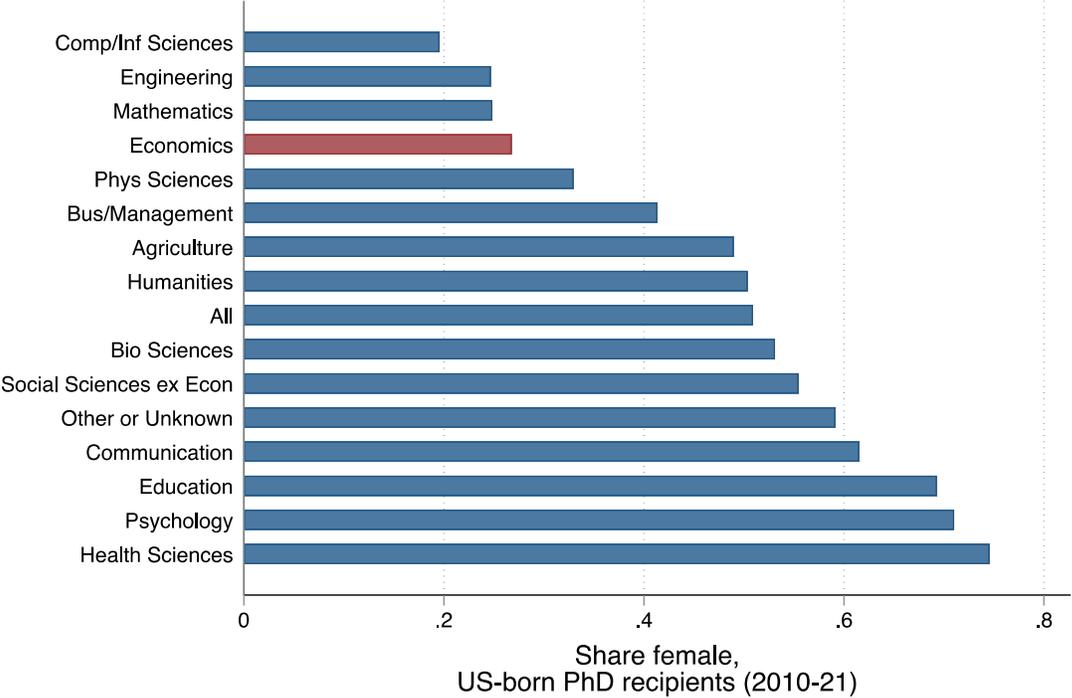
Source: Survey of Earned Doctorates

Figure A8: Female share, US-born PhD recipients, by field 1970-2021 (five-year moving avg)
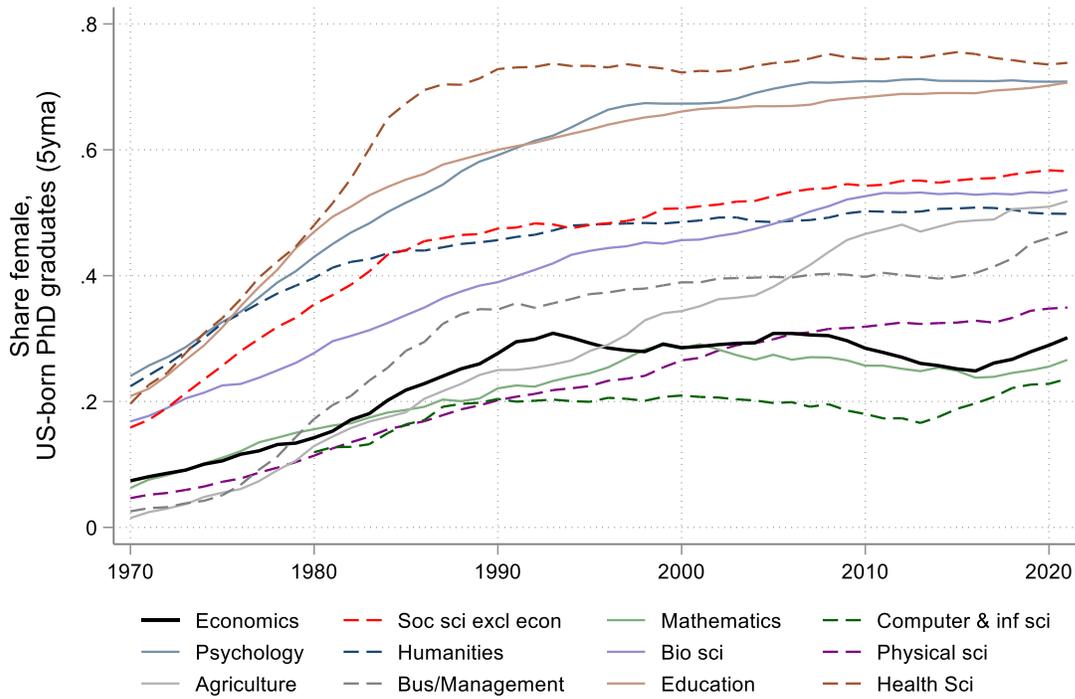
Source: Survey of Earned Doctorates

Note: Computer/information sciences data start in 1980 because of small sample sizes before then.

Figure A9: Share of 2010-21 US-born PhD recipients in each field, by race/ethnicity

Racial/ethnic minority share of US-born PhDs
in each field (2010-2021), by race/ethnicity
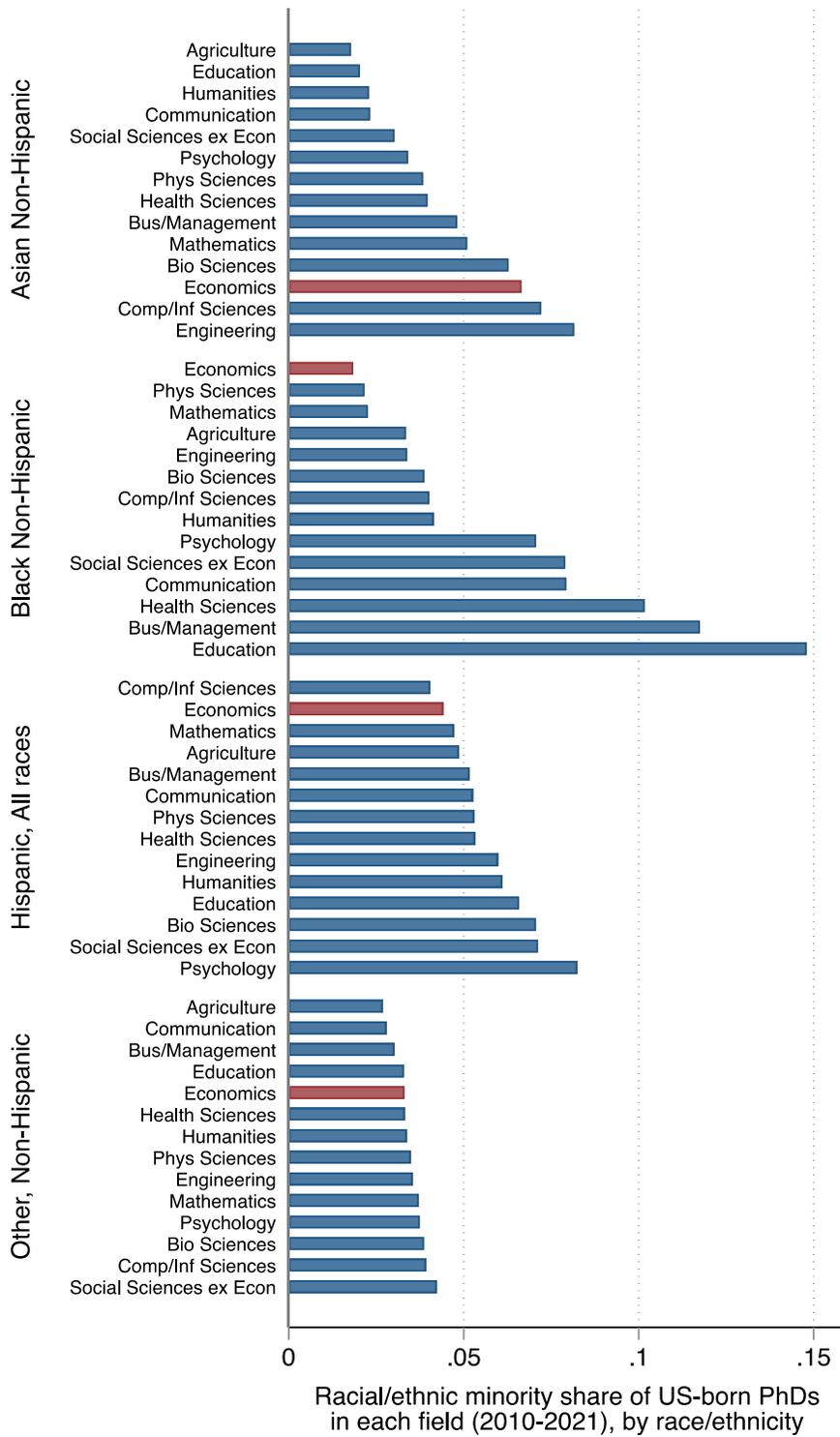
Source: Survey of Earned Doctorates

Figure A10: URM share of US-born PhD recipients, by field, 1975-2021 (five year moving average)
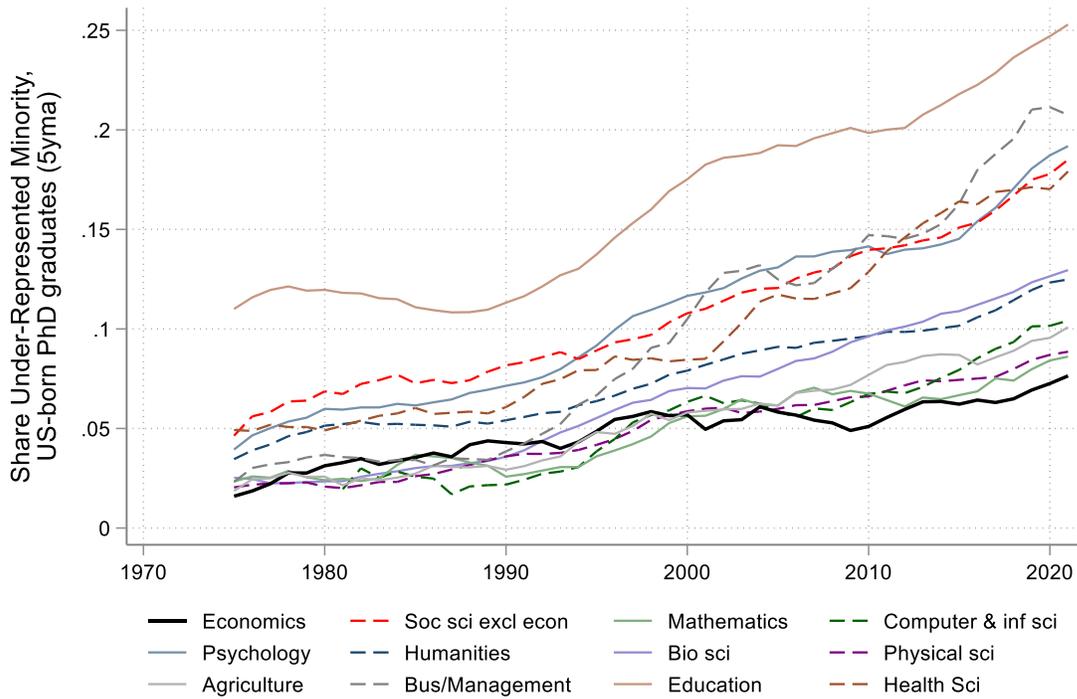
Source: Survey of Earned Doctorates

Note: "Underrepresented minority" comprises US-born PhD recipients who reported their race or ethnicity as American Indian or Alaskan Native, Black or African American, Puerto Rican, Mexican or Chicano, Cuban, or Other Hispanic. This categorization does not correspond exactly to the categorizations used in our analysis of 2010-18 data because the race and ethnicity option changed in the SED in 2001. Data starts in 1975 because race data was only collected in the SED from survey year 1973, meaning we can estimate five-year centered moving averages from 1975 onwards. Computer/information sciences data start in 1980 because of small sample sizes before then.

Figure A11: Parental education level by race/ethnicity, US-born PhD recipients 2010-21, by field

A: No parent with bachelor's degree

Share with no parent with bachelor's degree,
US-born PhD recipients (2010-21)

B: Parent with graduate degree

Share with at least one parent with grad degree,
US-born PhD recipients (2010-21)
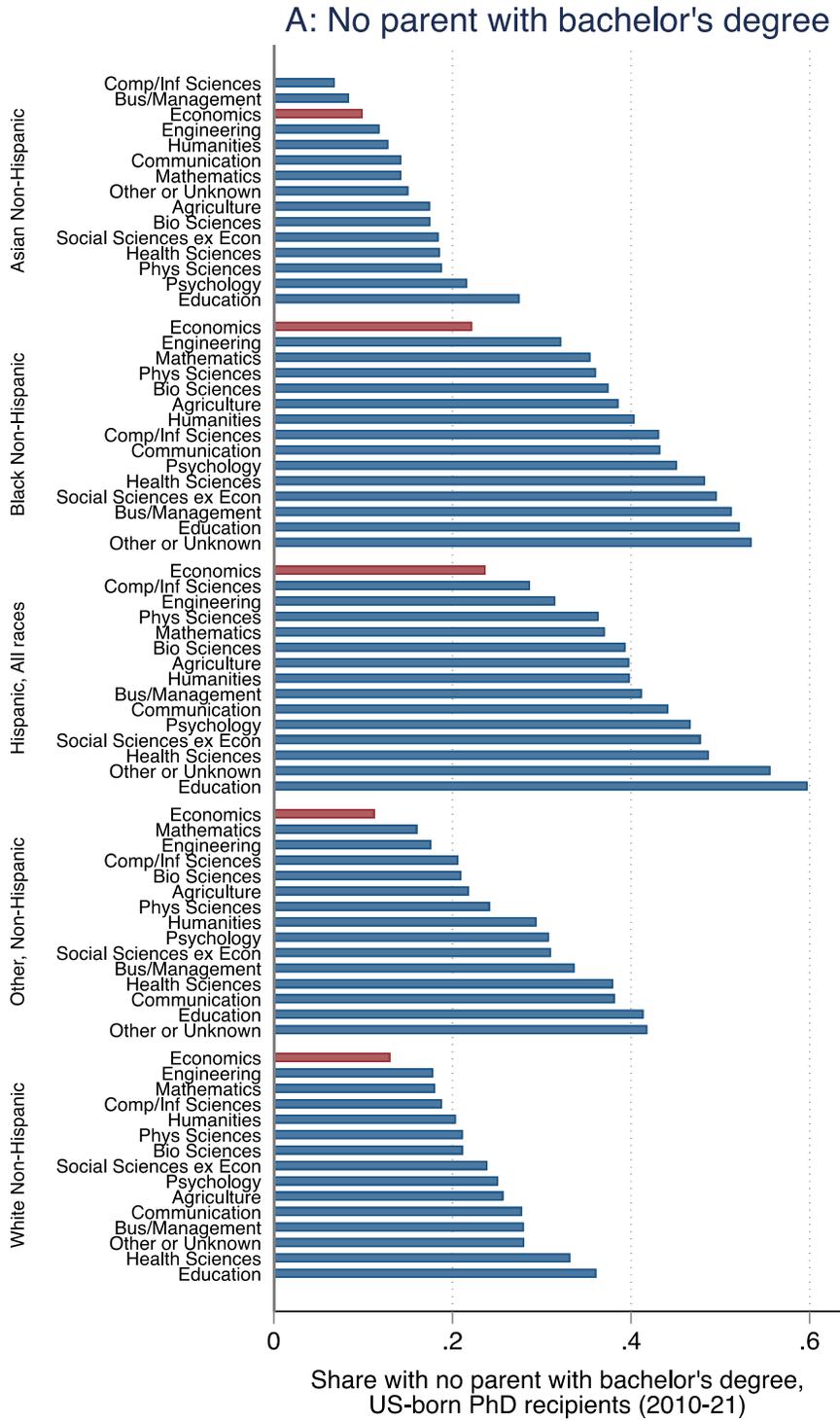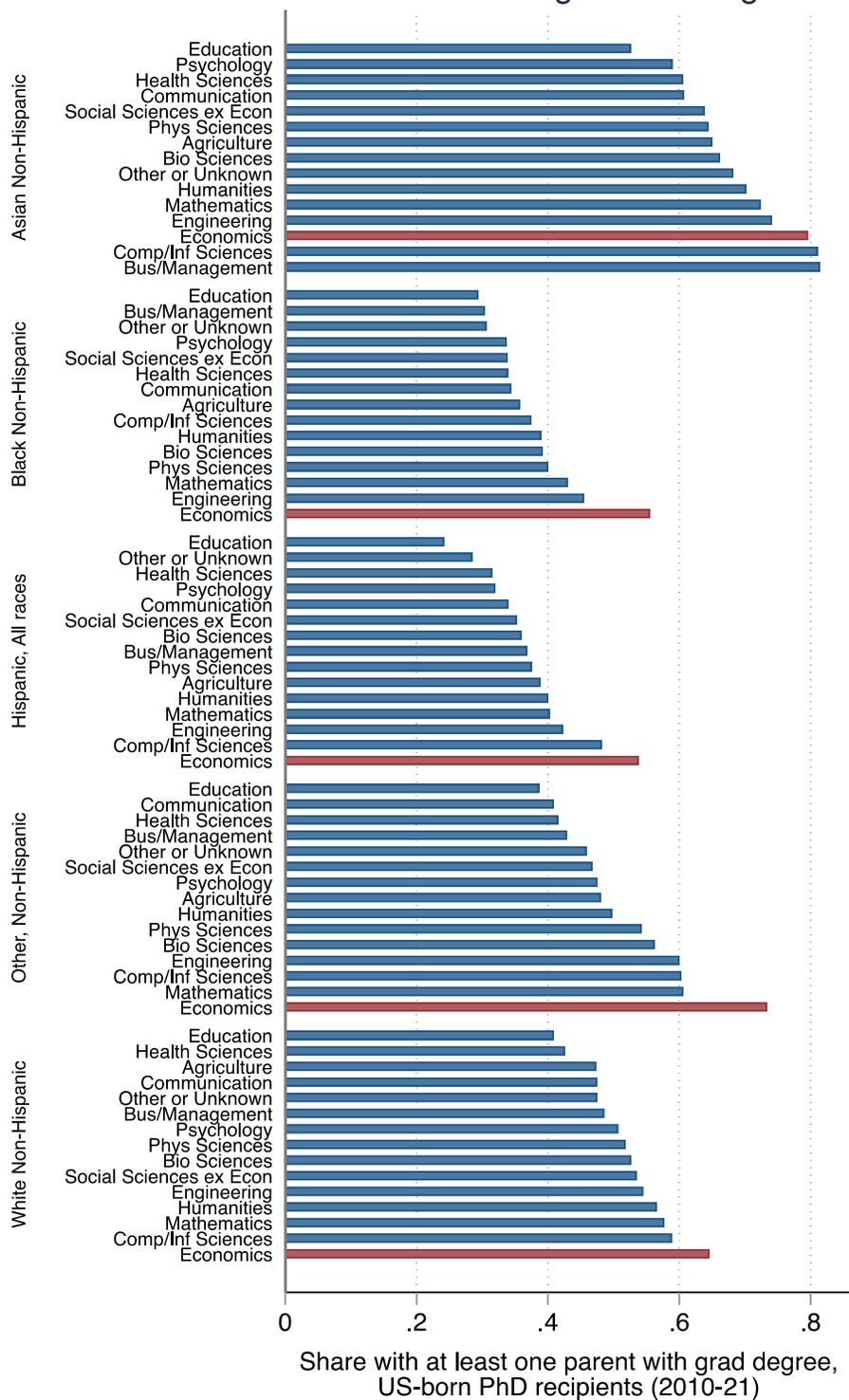
Source: Survey of Earned Doctorates

Figure A12: Gender and socioeconomic composition of US-born economics PhDs 2010-21, compared to similar-aged population
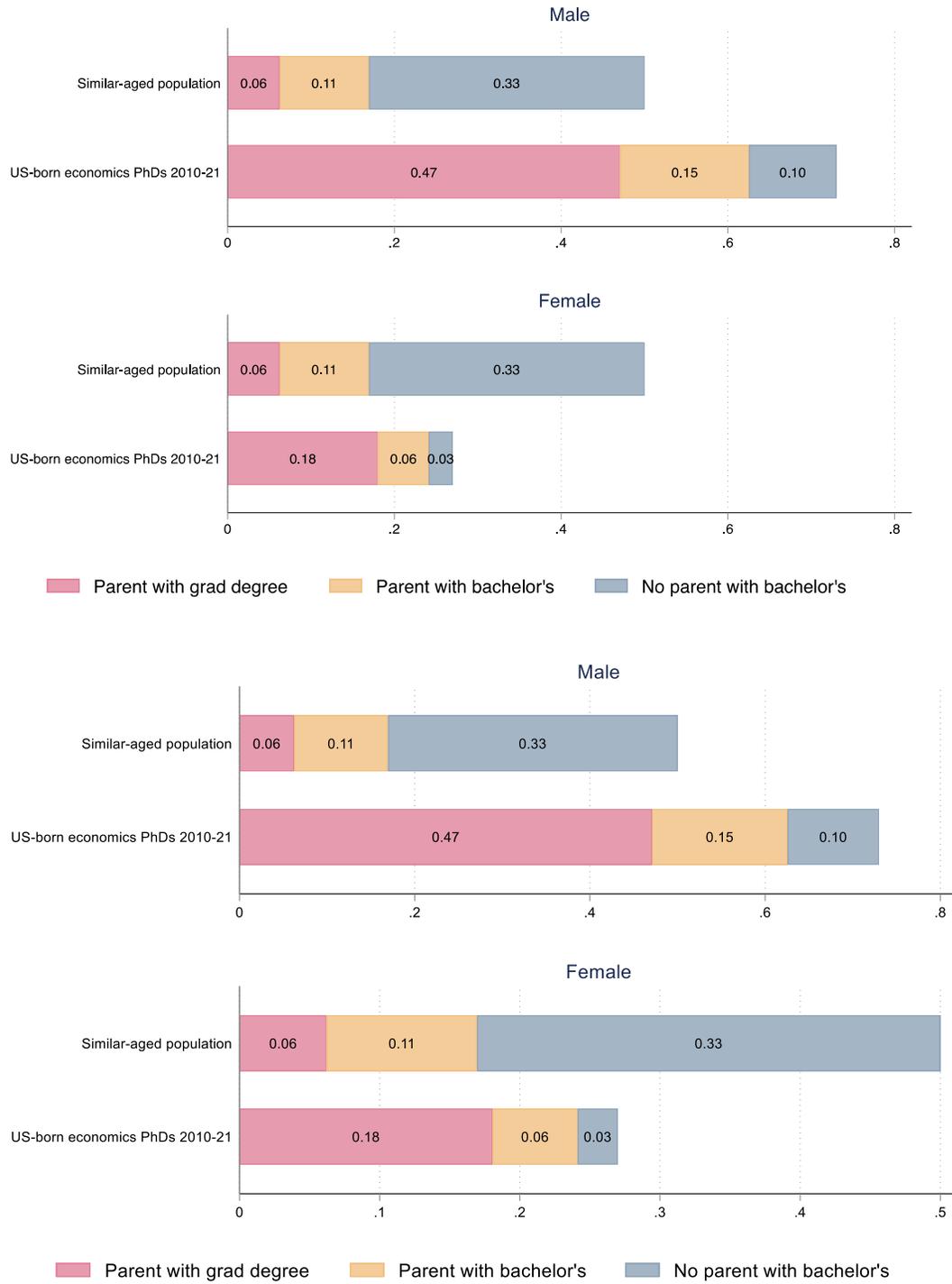
Sources and Note: Figure shows the share of all US-born economics PhD recipients (2010–21) who have a specific gender and parental education level, as compared to the estimated share of the similar-aged US population with that

same gender and parental education level. For example, the red bars under "Male" illustrate that 47 percent of all US-born Economics PhDs over 2010–18 were men who were from a family where at least one parent had a graduate degree, while only 6 percent of the similar-aged US population were men who were from a family where at least one parent had a graduate degree. Data on PhD recipients is drawn from all recipients of PhDs from US institutions who received their PhDs in 2010–2021 inclusive, who completed the Survey of Earned Doctorates. Data on similar-aged population is estimated from US Census Bureau data on the education shares of the US population aged 50–74 in 2021 (roughly the age to be PhD graduates' parents in 2010–21).

Figure A13: Race/ethnicity and socioeconomic composition of US-born economics PhDs 2010-21, compared to similar-aged population

Asian

Similar-aged population	0.01 / 0.02 / 0.03
US-born economics PhDs 2010-21	0.05 / 0.01 / 0.01

Black

Similar-aged population	0.01 / 0.02 / 0.09
US-born economics PhDs 2010-21	0.01 0.00 0.00

Hispanic(AllRaces)

Similar-aged population	0.01 / 0.02 / 0.10
US-born economics PhDs 2010-21	0.02 / 0.01 / 0.01

White(Non-Hispanic)

Similar-aged population	0.09 / 0.16 / 0.43
US-born economics PhDs 2010-21	0.56 / 0.19 / 0.11

Parent with grad degree   Parent with bachelor's   No parent with bachelor's
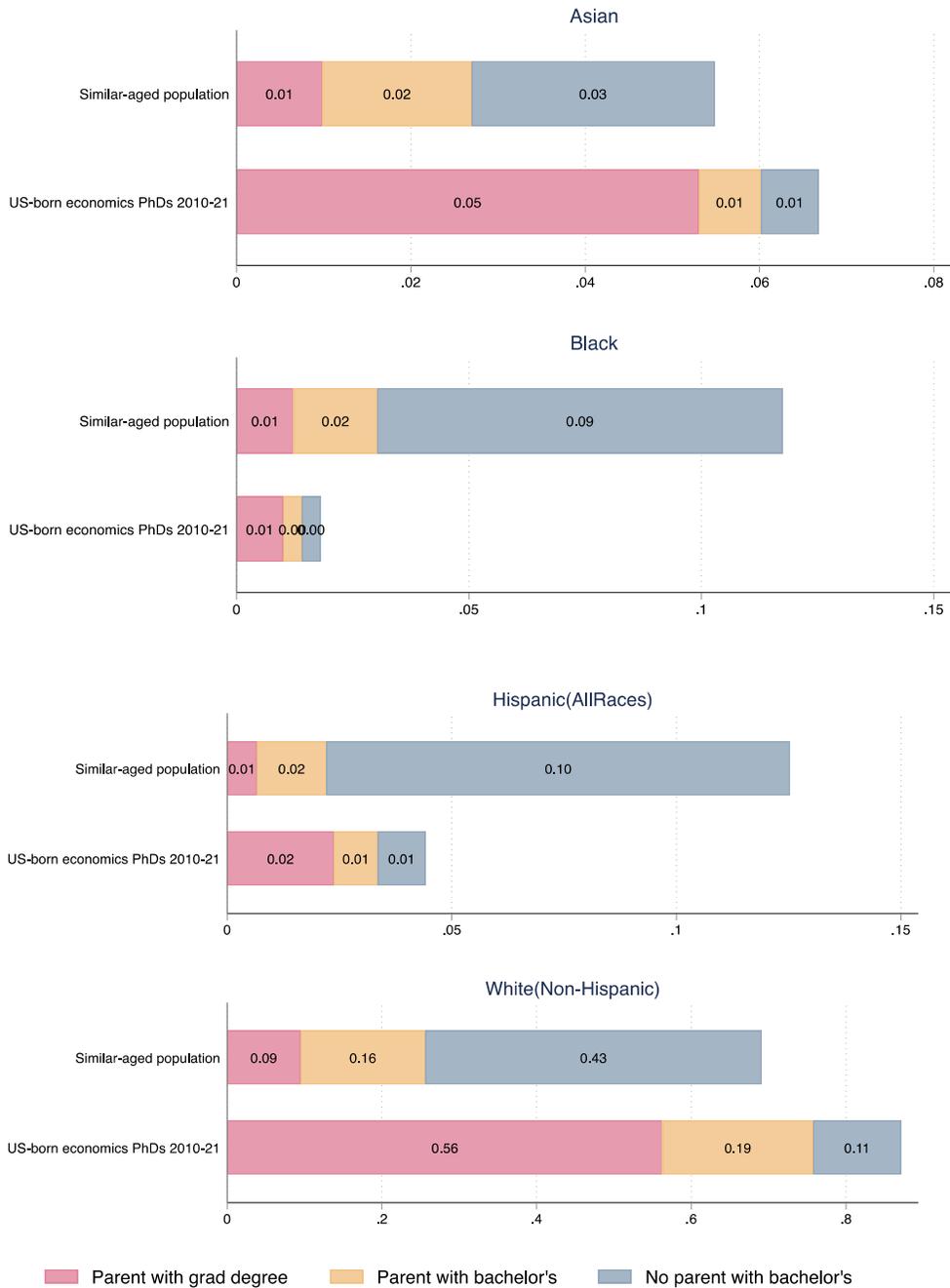
Sources and Note: Figure shows the share of all US-born economics PhD recipients (2010–21) who have a specific race/ethnicity and parental education level, as compared with the estimated share of the similar-aged US population with that same race/ethnicity and parental education level. For example, the grey bars under "White (Non-Hispanic)" in Panel B illustrate that 56 percent of all US-born Economics PhDs over 2010–21 were Non-Hispanic Whites from a family where at least one parent had a graduate degree, while only 9 percent of the similar-aged US population were Non-Hispanic Whites who were from a family where at least one parent had a graduate degree. Data on PhD recipients are from the Survey of Earned Doctorates. Data on similar- aged population are estimated

from the race/ethnicity by education shares of the US population aged 50–74 in 2019. Race and ethnicity categories are from the Census Bureau and are not mutually exclusive.

Figure A14: Undergraduate institution type by PhD program rank, US-born economics PhD recipients 2010-21

Public undergrad

Share with undergrad from public institution,
US-born economics PhD graduates 2010-21

Ivy Plus undergrad

Share with undergrad from Ivy Plus institution,
US-born economics PhD graduates 2010-21
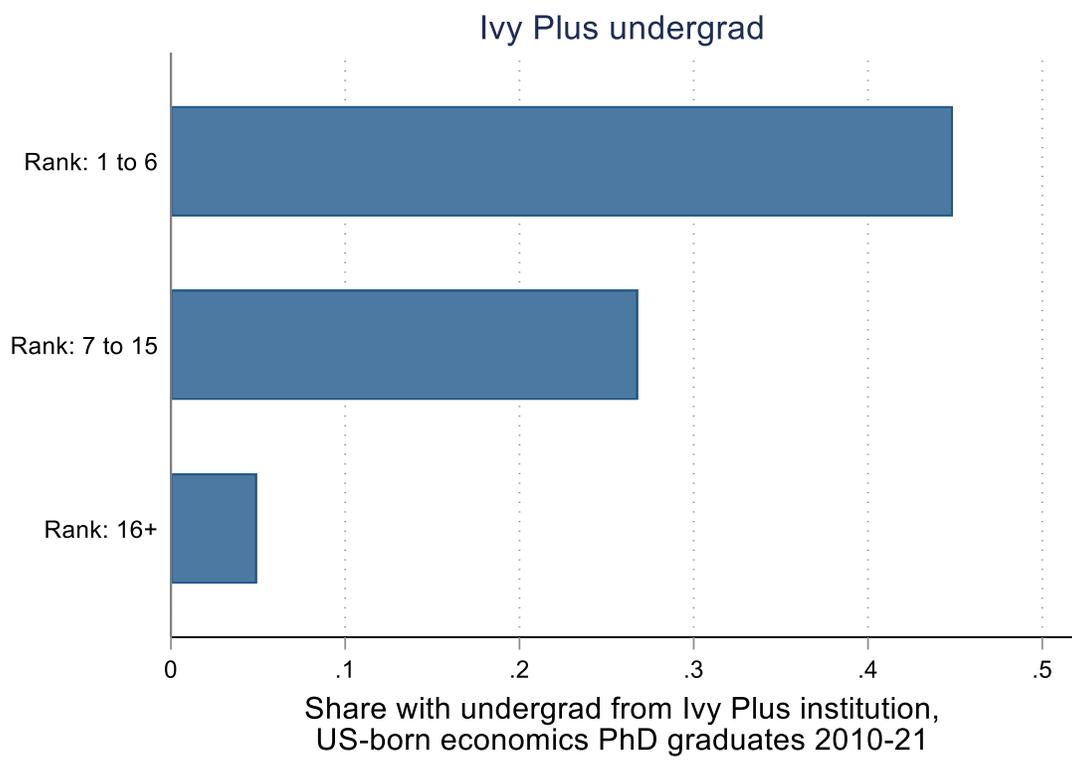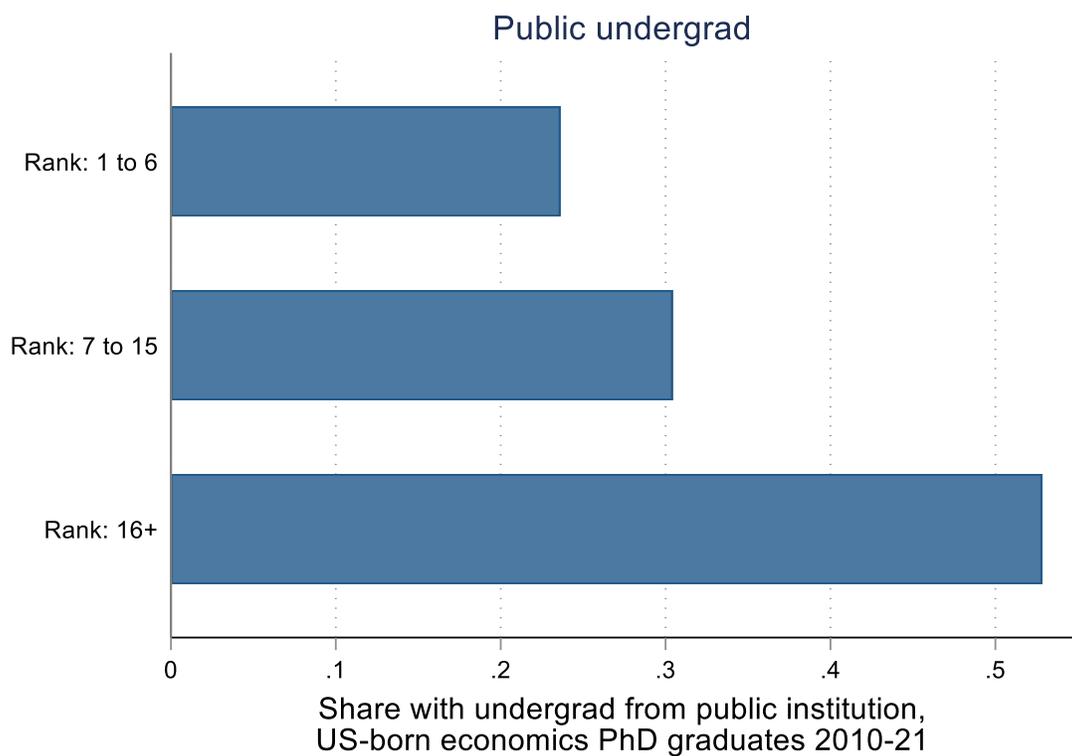
Source: Survey of Earned Doctorates
Note: "Ivy Plus" institutions are the eight Ivy League schools – Brown, Columbia, Cornell, Dartmouth, Harvard, Princeton, the University of Pennsylvania, and Yale – as well as Duke, Chicago, MIT, and Stanford (following Chetty et al 2017). Economics department rankings are taken from US News and World Report, 2017. Data is shown as a share of all US-born PhD recipients who got their bachelor's degree from a US institution.

Figure A15: Share US-born, and share first-generation among US-born, PhD recipients 2010-21
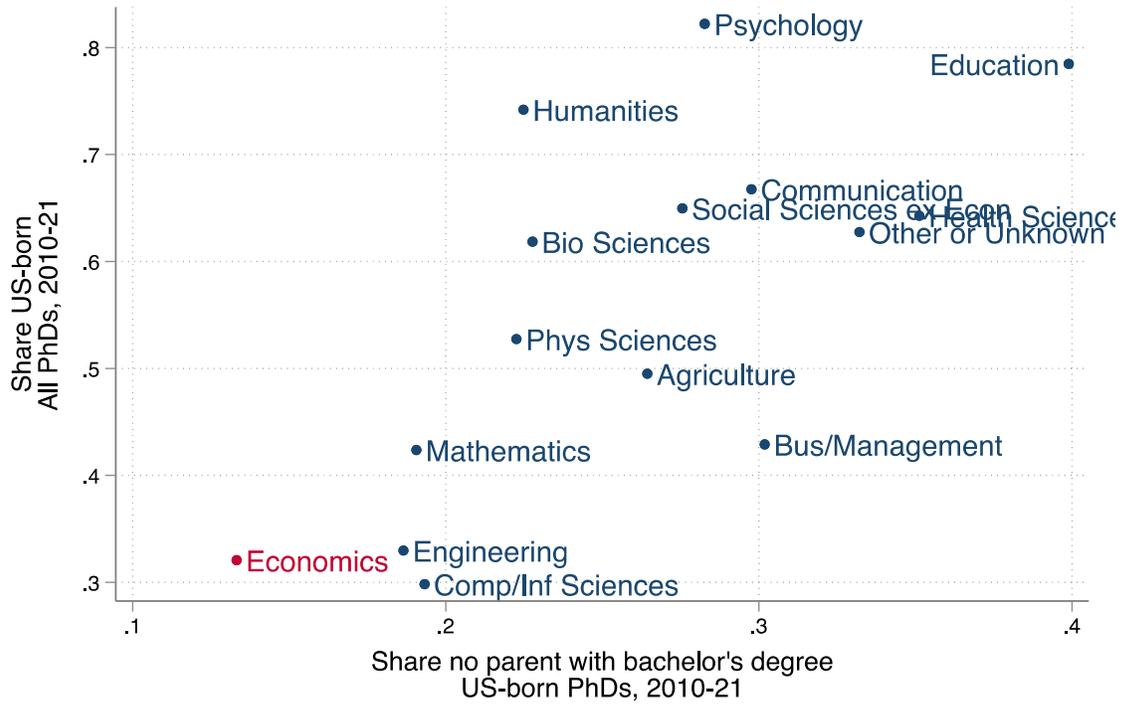
Source: Survey of Earned Doctorates

Table A1: Number of PhD recipients by field and decade, 1970–2021

	1970s	1980s	1990s	2000s	2010-21
Agriculture	10651	12321	12552	11888	15200
Bio sciences	35907	39069	53179	66316	98715
Business/management	7337	8555	12183	12513	17005
Communication	2317	2691	3584	4927	7047
Computer/info sciences	466	3810	8843	12431	24115
Economics	8371	8030	9196	9836	12911
Education	72191	68108	66213	64158	55331
Engineering	30333	33593	57128	65203	107786
Health sciences	5077	7567	12886	18506	27212
Humanities	45847	34006	46747	51542	59440
Mathematics	10793	7432	11026	12275	21313
Other or unknown	5867	8241	8643	8646	11954
Physical sciences	37623	35817	44865	44693	67632
Psychology	26932	31912	34900	33619	42738
Social sciences exc. economics	24747	20932	25201	29007	42892

Source: Data from Survey of Earned Doctorates.

Table A2: Number of US-born PhD recipients by field and decade

	1970s	1980s	1990s	2000s	2010-2021
Agriculture	6511	7079	5642	5435	7172
Biological sciences	28904	30332	32395	38344	58289
Business/management	5547	5225	7084	5556	6695
Communication	2027	2089	2574	3097	4357
Comp/info sciences	324	2012	3713	3902	6755
Economics	5571	4148	3529	2787	3874
Education	64851	56581	54766	49683	40637
Engineering	16766	12637	20342	19062	33613
Health sciences	3895	5562	8622	11481	16339
Humanities	38279	26504	34766	35908	41165
Mathematics	7864	3716	4582	4644	8560
Other or unknown	4348	6125	6020	5143	6750
Physical sciences	27986	23379	23873	21291	33900
Psychology	24202	27363	29153	26058	31629
Social sciences exc. econ	19098	13989	15900	18075	26360

Source: Data from Survey of Earned Doctorates.

Table A3: Summary statistics on all PhD recipients in the United States, 2010–21, by field

PhD field	Number of PhD recipients	Number of PhD-granting institutions	HHI across institutions	Median age at PhD	Median years BA to PhD	Median years grad school entry to PhD	Median years in PhD	Female share	Share missing parental education	Share with no parent with BA or higher	Share with parent with graduate degree	Share with parent with PhD	Share missing country of birth	Share born in US
Agriculture	15,200	232	190	31.8	9	7.5	5.0	47%	12%	35%	38%	10%	5%	50%
Bio sciences	98,715	335	81	30.4	7.9	6.5	5.7	53%	9%	26%	47%	12%	5%	62%
Bus/management	17,005	262	101	34	11	8.8	5.0	41%	18%	32%	41%	13%	8%	43%
Communication	7,047	172	156	33.6	10.5	8.3	5.3	62%	15%	31%	43%	11%	7%	67%
Comp/info sciences	24,115	250	100	31.2	8.6	7.6	5.8	21%	14%	28%	43%	14%	6%	30%
Economics	12,911	168	120	31.1	8.4	7	5.8	33%	14%	24%	48%	15%	6%	32%
Education	55,331	328	77	38.3	15	11.8	5.8	69%	13%	42%	36%	8%	6%	78%
Engineering	107,786	279	116	30	7.4	6.7	5.3	24%	13%	29%	40%	11%	5%	33%
Health sciences	27,212	304	121	34.6	11.6	9	5.3	69%	13%	36%	39%	9%	7%	64%
Humanities	59,440	289	99	34	11	9.2	6.8	51%	12%	25%	52%	13%	7%	74%
Mathematics	21,313	235	92	29.3	7	6.2	5.3	28%	12%	31%	42%	13%	5%	42%
Other or unknown	11,954	281	96	37.2	13.6	11.2	6.0	56%	19%	35%	41%	10%	10%	63%
Physical sciences	67,632	289	87	29.5	7	6.2	5.7	32%	11%	31%	41%	11%	5%	53%
Psychology	42,738	327	76	31.3	8.4	6.9	5.9	71%	18%	29%	47%	10%	10%	82%
Social sciences	42,892	312	90	34.1	11	9	6.3	54%	11%	30%	47%	13%	5%	65%
All	611,291	464	69	31.5	8.9	7.5	5.7	46%	13%	30%	43%	12%	6%	57%

Note: Bachelor's degree is abbreviated to "BA" for brevity. "Number of PhD-granting institutions" is the number of unique institutions that granted at least one PhD in the field in question over 2010–21. "Social sciences" excludes economics. "HHI across institutions" is a measure of the concentration of PhD graduates across institutions, and is calculated as the sum of the squared shares of PhD graduates in each field accounted for by each institution (out of a maximum possible of 10,000); an HHI of 200 is equivalent to approximately 50 equal-sized PhD-granting institutions. Parental education shares or share born in US are calculated as a proportion of those for whom we have information on parental education or birth country respectively. Data from Survey of Earned Doctorates.

Table A4: Summary statistics on US-born PhD recipients, 2010–21, by field

PhD field	Number of PhD recipients	Number of PhD-granting institutions	HHI across institutions	Median age at PhD	Median years BA to PhD	Median years grad school entry to PhD	Median years in PhD	Female share	Share missing race/ethnicity	URM share	Share missing parental education	Share with no parent with BA or higher	Share with parent with graduate degree	Share with parent with PhD	Share with BA from public institution	Share with BA from Ivy Plus institution	Share with BA from known US institution
Agriculture	7,172	210	180	31.2	8.6	7	5.2	49%	1%	9%	6%	26%	47%	11%	75%	4%	98%
Bio sciences	58,289	323	88	30	7.6	6.2	5.7	53%	1%	11%	4%	23%	52%	13%	59%	8%	98%
Bus/management	6,695	241	130	36.3	12.5	9.5	5.0	41%	2%	17%	9%	30%	48%	15%	60%	6%	96%
Communication	4,357	148	150	33.6	10.3	8	5.3	62%	1%	14%	8%	30%	46%	10%	62%	4%	97%
Comp/info sciences	6,755	234	121	31.2	8.6	7.3	6.0	20%	2%	8%	6%	19%	60%	19%	56%	11%	96%
Economics	3,874	152	154	30.4	8	6	5.7	27%	2%	6%	6%	13%	65%	20%	46%	15%	97%
Education	40,637	311	75	38.8	15.3	12.3	5.9	69%	1%	22%	7%	40%	38%	8%	66%	2%	98%
Engineering	33,613	259	132	29.2	6.6	5.9	5.3	25%	2%	10%	6%	19%	55%	14%	66%	7%	97%
Health sciences	16,339	276	118	35.2	12.2	9.7	5.3	75%	1%	16%	6%	35%	42%	9%	62%	4%	96%
Humanities	41,165	281	94	33.7	10.9	9	6.8	50%	2%	11%	6%	22%	55%	13%	47%	9%	98%
Mathematics	8,560	224	99	29	6.6	6	5.7	25%	2%	7%	5%	19%	57%	17%	54%	10%	98%
Other or unknown	6,750	261	108	37.9	14.4	11.8	6.6	59%	1%	20%	8%	33%	45%	10%	57%	4%	96%
Physical sciences	33,900	274	104	29	6.6	5.9	5.7	33%	1%	8%	5%	22%	51%	13%	57%	7%	98%
Psychology	31,629	314	73	31.1	8.3	6.8	5.9	71%	1%	16%	9%	28%	48%	10%	56%	5%	97%
Social sciences	26,360	295	91	33.8	10.8	8.7	6.7	55%	2%	16%	5%	28%	51%	13%	57%	8%	98%

All	326,095	459	68	31.6	9	7.3	5.8	51%	1%	13%	6%	26%	50%	12%	59%	7%	98%

Note: Bachelor's degree is abbreviated to "BA" for brevity. "Number of PhD-granting institutions" is the number of unique institutions that granted at least one PhD to a US-born recipient in 2010–21. "Social sciences" excludes economics. "HHI across institutions" is a measure of the concentration of PhD graduates across institutions, and is calculated as the sum of the squared shares of US-born PhD graduates in each field accounted for by each institution. "URM share" is the share who are underrepresented racial and ethnic minorities, as a proportion of those for whom we have data on race/ethnicity. URM is defined as anyone who reported their ethnicity as Hispanic, or who reported their race as Black or African-American, American Indian or Alaska Native, or Native Hawaiian or other Pacific Islander. Parental education shares are calculated as a proportion of those for whom we have information on parental education. "Ivy Plus" institutions are defined as the eight Ivy League schools plus Stanford, MIT, Chicago, and Duke, following Chetty et al. (2017). Data from Survey of Earned Doctorates.

Table A5: Summary statistics on foreign-born PhD recipients, 2010–21, by field

PhD field	Number of PhD recipients	Number of PhD-granting institutions	HHI across institutions	Median age at PhD	Median years BA to PhD	Median years grad school entry to PhD	Median years in PhD	Female share	Share missing parental education	Share with no parent with BA or higher	Share with parent with graduate degree	Share with parent with PhD
Agriculture	7315	200	223	32.2	9.3	7.9	5	46%	9%	44%	28%	9%
Bio sciences	35947	318	79	31	8.4	7.2	5.7	53%	6%	32%	39%	12%
Bus/management	8911	230	101	33.1	10.2	8.6	5	41%	11%	33%	36%	12%
Communication	2170	132	186	33.6	10.8	8.7	5.4	63%	8%	34%	38%	13%
Comp/info sciences	15888	233	100	31.2	8.6	7.7	5.7	21%	9%	32%	36%	12%
Economics	8204	159	119	31.3	8.8	7.8	5.8	37%	9%	29%	40%	13%
Education	11147	276	107	37.1	13.7	10.7	5.7	69%	10%	49%	27%	8%
Engineering	68314	263	112	30.5	7.9	7	5.2	23%	9%	35%	33%	10%
Health sciences	9082	267	140	33.8	10.8	8.6	5	60%	9%	39%	34%	9%
Humanities	14319	258	135	34.9	11.5	9.9	6.8	55%	8%	33%	42%	14%
Mathematics	11641	220	100	29.6	7.2	6.7	5.1	31%	9%	40%	30%	10%
Other or unknown	4007	235	112	36	12.7	10.3	5.8	52%	12%	39%	36%	12%
Physical sciences	30370	270	81	30.1	7.7	6.8	5.7	32%	8%	41%	30%	9%
Psychology	6842	295	82	32.4	9.2	7.7	5.9	73%	10%	35%	41%	11%
Social sciences	14213	264	98	34.6	11.3	9.7	6.1	52%	7%	36%	38%	12%
All	248370	451	78	31.4	8.8	7.7	5.6	40%	8%	36%	35%	11%

Note: Bachelor's degree is abbreviated to "BA" for brevity. "Number of PhD-granting institutions" is the number of unique institutions that granted at least one PhD to a non-US-born recipient over 2010–21. "Social sciences" excludes economics. "HHI across institutions" is a measure of the concentration of PhD graduates across institutions, and is calculated as the sum of the squared shares of non-US-born PhD graduates in each field accounted for by each institution. Parental education shares are calculated as a proportion of those for whom we have information on parental education; the final column shows what share of all PhD recipients in the data *did not* provide information on parental education. Data from Survey of Earned Doctorates.

Table A6: PhD fields with smallest and largest shares of first-generation college graduates, among US-born PhD recipients, 2010–21

PhD field	Number US-born PhD recipients	Share, no parent with bachelor's degree
Panel A: Twenty-five fields with the lowest shares with no parent with a bachelor's degree		
Economics	3656	13.3%
Bioengineering & Biomedical Engineering	5913	13.6%
Plasma/Fusion Physics	520	13.7%
Astronomy	782	13.7%
Computational Biology	610	14.1%
Musicology/Ethnomusicology	1084	14.3%
Classics	775	14.5%
Biophysics	1003	14.6%
Art History/Criticism/Conservation	1928	14.7%
Biometrics & Biostatistics	654	15.1%
Particle (Elementary) Physics	1290	15.7%
Statistics	1146	16.2%
Music Theory & Composition	745	16.5%
French	611	16.5%
Computer Science	4670	16.5%
Physics, Other	680	16.6%
Chemical Engineering	3876	17.1%
Comparative Literature	978	17.3%
Marine Biology & Biological Oceanography	705	17.4%
Geological & Earth Sciences, General	529	17.6%
Materials Science Engineering	3438	17.7%
European History	1580	17.7%
Biophysics	677	17.9%
Condensed Matter/Low Temperature Physics	1639	17.9%
Environmental/Environmental Health Engineering	987	17.9%
Panel B: Twenty-five fields with the highest shares with no parent with a bachelor's degree		
Nursing Science	4269	49.8%
Criminal Justice & Corrections	777	48.3%
Educational Administration & Supervision	1415	47.9%
Educational Leadership	5390	47.1%
Public Administration	974	43.9%
Counseling Education/Counseling & Guidance	2094	43.8%
Urban Education and Leadership	575	43.3%
Higher Education/Evaluation & Research	3919	41.8%
Education, Other	1157	41.2%
Curriculum & Instruction	3809	40.5%
Educational Psychology	598	40.1%
Educational/Instructional Technology	1079	39.9%

Criminology	800	38.6%
Special Education	2152	38.5%
Social/Philosophical Foundations of Education	653	38.3%
Teach Education & Professional Development, Other	546	37.7%
Information Science & Systems	640	37.5%
Education, General	1113	37.3%
Area/Ethnic/Cultural Studies	920	36.8%
Social Work	2253	36.6%
Health & Medical Psychology	528	36.0%
Health Sciences, Other	568	35.7%
Social Sciences, Other	843	35.3%
Organizational Behavior	1255	35.1%
Literacy & Reading Education	974	35.0%

Panel C: Twenty STEM fields with the highest shares with no parent with a bachelor's degree (STEM: Biological/Biomedical, Physical, and Computer Sciences, Mathematics, and Engineering)

Nursing Science	4269	49.8%
Information Science & Systems	640	37.5%
Health Sciences, Other	568	35.7%
Public Health	2790	32.2%
Rehabilitation/Therapeutic Services	623	31.3%
Animal Science, Other	574	31.0%
Analytical Chemistry	2185	30.7%
Kinesiology/Exercise Physiology	1836	30.0%
Industrial & Manufacturing Engineering	553	29.5%
Atmospheric Sciences/Meteorology, General	506	29.1%
Toxicology	638	28.4%
Polymer Chemistry	640	26.9%
Organic Chemistry	3457	26.7%
Entomology	818	26.5%
Inorganic Chemistry	2290	26.4%
Chemistry, Other	1151	26.4%
Biomedical Sciences	2184	26.1%
Nutrition Sciences	1177	26.0%
Virology	1049	25.9%
Pharmacology, Human & Animal	1448	25.8%
Chemistry, General	1149	25.7%
Physiology, Human & Animal	1317	25.5%
Cell/Cellular Biology & Histology	1617	25.5%
Molecular Biology	3962	25.3%
Microbiology	3386	25.1%

Table A7: PhD fields with largest and smallest shares of people with a parent with a graduate degree, among US-born PhD recipients, 2010–21

Panel A: 25 fields with the highest shares with at least one parent with a graduate degree

PhD field	Number of US-born PhD recipients	Share, at least one parent with graduate degree
Economics	3656	65.2%
Art History/Criticism/Conservation	1928	64.7%
Classics	775	64.4%
Computational Biology	610	64.3%
Biometrics & Biostatistics	654	64.2%
Musicology/Ethnomusicology	1084	62.8%
Computer Science	4670	62.5%
Astronomy	782	62.0%
European History	1580	61.9%
Urban/City, Community, & Regional Planning	584	61.8%
Comparative Literature	978	61.3%
Bioengineering & Biomedical Engineering	5913	60.9%
Statistics	1146	60.9%
Biophysics	677	60.4%
Bioinformatics	838	60.1%
Physics, Other	680	60.0%
Music Theory & Composition	745	60.0%
Particle (Elementary) Physics	1290	59.8%
Biophysics	1003	59.6%
French	611	59.2%
Plasma/Fusion Physics	520	59.2%

Panel B: 25 fields with the lowest shares with at least one parent with a graduate degree

PhD field	Number of US-born PhD recipients	Share, at least one parent with graduate degree
Criminal Justice & Corrections	777	29.2%
Nursing Science	4269	29.5%
Educational Leadership	5390	33.0%
Counseling Education/Counseling & Guidance	2094	33.3%
Educational Administration & Supervision	1415	33.3%
Public Administration	974	35.2%
Higher Education/Evaluation & Research	3919	36.5%
Special Education	2152	36.7%
Criminology	800	37.0%
Animal Science, Other	574	37.1%
Teach Education & Professional Development, Other	546	38.3%
Education, Other	1157	38.5%
Curriculum & Instruction	3809	39.0%
Urban Education and Leadership	575	39.5%
Industrial & Organizational Psychology	1571	39.5%
Educational/Instructional Technology	1079	39.8%
Kinesiology/Exercise Physiology	1836	40.2%
Analytical Chemistry	2185	40.4%
Education, General	1113	40.5%
Health & Medical Psychology	528	40.5%
Human Development & Family Studies	1167	41.0%

Note: Data from Survey of Earned Doctorates. PhD field categories provided by the NSF. Tables list only fields that had at least 500 US-born PhD recipients over 2010–21.

Table A8: Parental education, race/ethnicity, and gender among US-born economics PhDs relative to the US population

	Share of **US-born economics PhDs** 2010-21 who are a certain race/ethnicity and have no parent with a bachelor's degree or higher	Estimated share of **similar-aged US population** who are a certain race/ethnicity and have no parent with a bachelor's degree or higher
Asian	0.7%	2.8%
Black	0.4%	8.7%
Hispanic (all races)	1.1%	10.3%
White non-Hispanic	11.3%	43.5%
	Share of **US-born economics PhDs** 2010-21 who are (female/male) and have no parent with a bachelor's degree or higher	Estimated share of **similar-aged US population** who are (female/male) and have no parent with a bachelor's degree or higher
Female	3%	33%
Male	10%	33%

Source: Survey of Earned Doctorates, US Census Bureau, Authors' calculations

Table A9: Association of economics PhD and parental education level, 2010–21

Specification: Linear probability model

Panel A – All PhDs – likelihood of being a first-generation college graduate
Dependent variable: Indicator, taking value 1 if *no parent has a bachelor's degree*

	(1)	(2)	(3)	(4)	(5)	(6)
Economics	-0.087***	-0.051***	-0.050***	-0.036***	-0.082***	-0.035***
	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)
Observations	*534,288*	*525,576*	*522,390*	*522,390*	*534,281*	*522,384*

Panel B – All PhDs – likelihood of having a parent with a graduate degree
Dependent variable: Indicator, taking value 1 if *at least one parent has a graduate degree*

Economics	0.082***	0.045***	0.041***	0.027***	0.078***	0.026***
	(0.007)	(0.008)	(0.006)	(0.006)	(0.007)	(0.006)
Observations	*534,288*	*525,576*	*522,390*	*522,390*	*534,281*	*522,384*

Panel C – US-born PhDs – likelihood of being a first-generation college graduate
Dependent variable: Indicator, taking value 1 if *no parent has a bachelor's degree*

Economics	-0.130***	-0.080***	-0.060***	-0.051***	-0.110***	-0.045***
	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)
Observations	*306,801*	*304,400*	*303,463*	*303,463*	*306,798*	*303,460*

Panel D – US-born PhDs – likelihood of having a parent with a graduate degree
Dependent variable: Indicator, taking value 1 if *at least one parent has a graduate degree*

Economics	0.152***	0.087***	0.061***	0.050***	0.134***	0.046***
	(0.014)	(0.013)	(0.010)	(0.010)	(0.013)	(0.010)
Observations	*306,801*	*304,400*	*303,463*	*303,463*	*306,798*	*303,460*

Controls						
Year	Y	Y	Y	Y	Y	Y
Birth country	Y	Y	Y	Y	Y	Y
Demographics					Y	Y
Undergraduate field		Y (fine)	Y (coarse)	Y (coarse)		Y (coarse)
Undergraduate institution			Y	Y		Y
PhD institution				Y		Y

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Note: Each cell in Table A9 shows results from a different regression of an indicator of socioeconomic background on an indicator for having an economics PhD. The independent variable in all four panels is an indicator taking the value 1 if the individual has an economics PhD and 0 if the individual has any other PhD field. The dependent variable in Panels A and C is an indicator taking the value 1 if the individual has no parent with a bachelor's degree and 0 otherwise. The dependent variable in Panels B and D is an indicator taking the value 1 if the individual has at least one parent with a graduate degree (including PhDs and masters and professional degrees) and 0 otherwise. The sample for Panels A and B is all US PhD recipients 2010-21, and the sample for Panels C and D is US-born PhD recipients 2010-21 only. Each column has a different set of fixed effects. Fixed effects for undergraduate field may either be "coarse" – the 14 NSF broad fields, and economics – or "fine" – the NSF narrow fields. Fixed effects for demographics are race, gender, and (in the regressions with foreign-born individuals) birth country. Fixed effects for undergraduate institution are present only for those who did their bachelor's degree in the US; others have a single fixed effect for having attended a foreign undergraduate institution.

Appendix Table A10: Popularity of economics major at different types of undergraduate institution, 2018/19

Carnegie Classification	Public/Private	Economics as % of all majors	Number of economics majors
Doctoral universities: Very high research activity (R1)	Private	3.3	7,473
	Public	2.2	18,186
Doctoral universities: High research activity (R2)	Private	1.4	1,648
	Public	0.9	3,087
Doctoral/professional universities (D/PU)	Private	0.3	783
	Public	0.4	366
Master's colleges & universities: Larger programs (M1)	Private	0.2	649
	Public	0.7	3,143
Master's colleges & universities: Medium programs (M2)	Private	0.3	203
	Public	0.4	256
Baccalaureate colleges: Arts & sciences focus	Private	5.8	4,217
	Public	3.4	432

Source: IPEDS. Note: Data on 2018/19 bachelor's degree recipients. Only institution groups with more than 200 Economics bachelor's graduates in 2018/19 are shown here.