SELECT FINDINGS FROM WHAT'S IT WORTH?

THE ECONOMIC VALUE OF COLLEGE MAJORS

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These Selected Findings are part of a larger report:

What's It Worth?: The Economic Value of College Majors.

In the full report, readers can find detailed information about earnings, broken down by 171 different undergraduate majors and a variety of demographic factors. The study also analyzes the likelihood that students in specific majors going on to graduate school, and which occupations and industries they can expect to work in. The report covers everyone with Bachelor's degrees in the U.S. economy, not just recent graduates.

[For the full report, please go to cew.georgetown.edu/whatsitworth]

Selected Findings from What's It Worth: The Economic Value of College Majors

In the United States today, there is no more certain investment than a college education. On average, college graduates make 84 percent more over a lifetime than their high school-educated counterparts. Until now, though, that overall number has been virtually the only information available on the economic benefits of a college education. If you wanted to know specifics about what, say, an English degree might mean in the labor market, you were largely out of luck. But not anymore. For the first time, the Georgetown University Center on Education and the Workforce has tackled that issue head on, with a detailed analysis of earnings and employment outcomes for different undergraduate majors.

What's It Worth demonstrates just how critical the choice of undergraduate major is to a student's potential earnings. While everyone who attends college can expect a significant return on their investment, different undergraduate majors lead to markedly different careers—and significantly different wages. In one of the most extreme examples, for instance, the report finds that Counseling Psychology majors make median earnings of $29,000 per year, compared to $120,000 for Petroleum Engineering majors.

The full report also looks at a host of other factors, broken down by specific majors, that can affect potential earnings, including gender, race and ethnicity. In some cases, the findings are stark. Gender inequality, as expressed in pay differences, is rampant across virtually every major. For example, even in one of the highest-earning majors for women (Chemical Engineering), women still make $20,000 less per year than men. The report also highlights some glaring racial and ethnic earnings gaps. For instance, African-Americans who graduate with a Finance major earn an average of $47,000 per year, which is less than Hispanics ($56,000) and Asians ($56,000) — and much less than Whites ($70,000).

What's It Worth also details the relationship between undergraduate majors and graduate degree attainment — and analyzes the commensurate boost in earnings an advanced degree can provide. The report shows, for instance, that 25 percent of Liberal Arts majors obtain graduate degrees, compared with 47 percent of Mathematics majors. However, Mathematics majors reap a 33 percent earnings boost from a graduate degree, while Liberal Arts majors gain 42 percent.

The full report also provides in-depth information about where Bachelor's degree holders work by occupation and industry, telling readers whether people who have an Engineering major actually work in Engineering — and what happens to Liberal Arts degree holders when they are in the labor market.

In the Selected Findings, we have aggregated the 171 majors into 15 large groups and provided relevant data on earnings, graduate degree attainment, and demographic characteristics. This data covers not just recent graduates, but all workers with Bachelor's degrees in the U.S. economy.[1] Our findings make it clear that while getting a degree matters, there is significant variation depending on which major you pick.

We have categorized 171 undergraduate majors into the following aggregate groups:

- Agriculture and Natural Resources
- Arts
- Biology and Life Science
- Business
- Communications and Journalism
- Computers and Mathematics
- Education
- Engineering
- Health
- Humanities and Liberal Arts
- Industrial Arts and Consumer Services
- Law and Public Policy
- Physical Sciences
- Psychology and Social Work
- Social Science

[1] All data is the authors' analysis of the 2009 American Community Survey.

The most popular major group is Business, with 25 percent of all students; the least popular are Industrial Arts and Consumer Services and Agriculture and Natural Resources, with 1.6 percent each.

The highest median earnings are found in the Engineering major group ($75,000), while the lowest are the Education and Psychology and Social Work groups ($42,000). Women with an undergraduate major in the Social Science group have the largest earnings differentials, making $18,000 less than men with these majors (followed closely by Engineering and Physical Sciences, where women earn $17,000 less than their male counterparts). There are racial/ethnic differences, too. For example, the median earnings for Whites with an undergraduate major in Engineering ($80,000) are higher than those for Asians ($72,000), African-Americans ($60,000), Other Races ($57,000), and Hispanics ($56,000). However, in Health, Law and Public Policy, Psychology and Social Work, and Biology and Life Science, Asians make more than Whites.

The major groups that have the greatest concentrations of women are Health (85 percent), Education (77 percent), and Psychology and Social work (74 percent), while the major groups with the highest concentrations of men are Engineering (84 percent) and Agriculture and Natural Resources (70 percent). The major group with the highest concentrations of Whites is Agriculture and Natural Resources (90 percent). The highest concentration of Asians can be found in Computers and Mathematics (16 percent), while the highest concentration of African-Americans is in Law and Public Policy (14 percent). Law and Public Policy also has the highest concentration of Hispanics (10 percent).

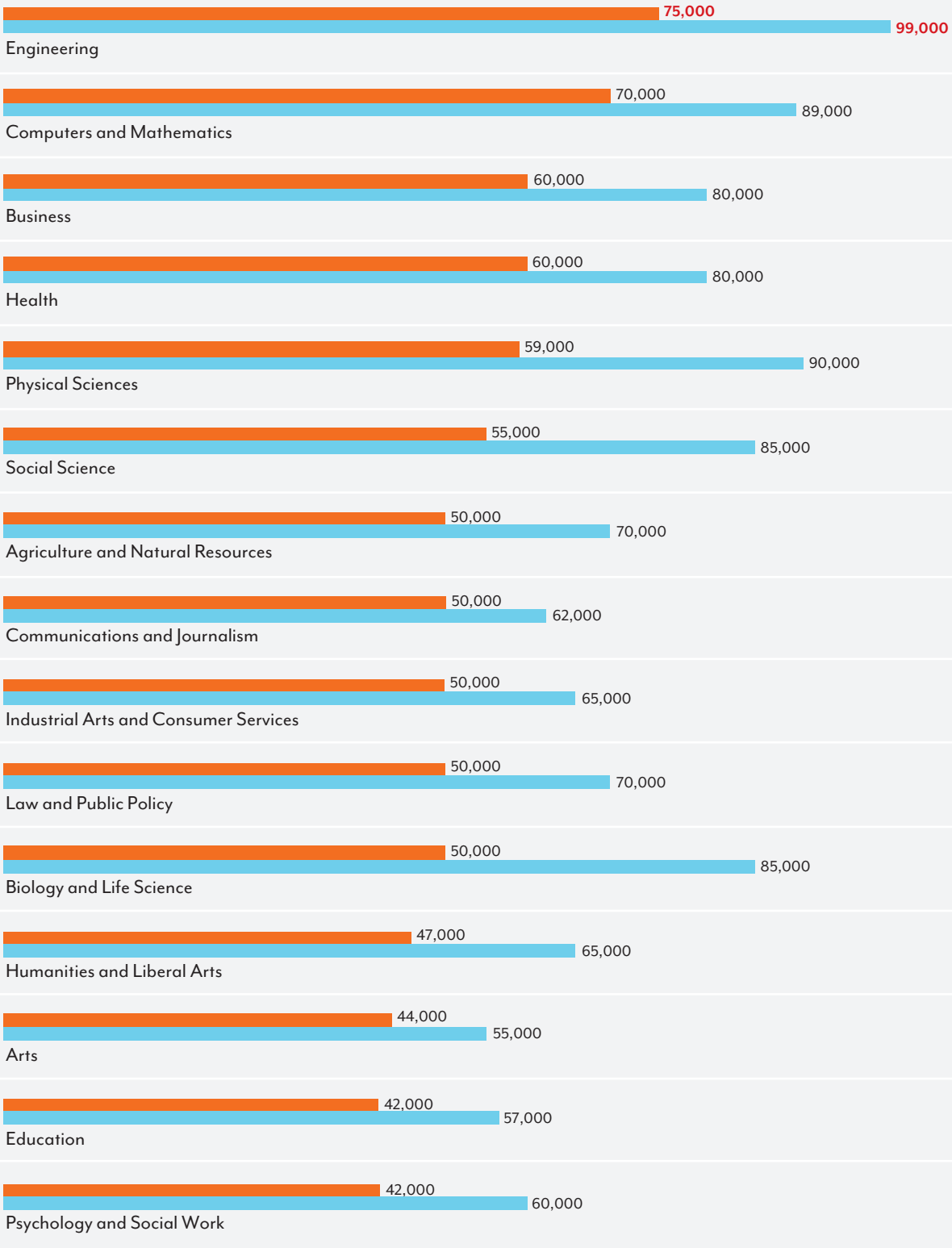
The likelihood of obtaining a graduate degree varies significantly by major group. Students in the Biology and Life Science group are the most likely to obtain an advanced graduate degree (54 percent do so), while those in the Communications and Journalism and Industrial Arts and Consumer Services major groups are the least likely (only 20 percent do so), followed closely by Business (21 percent).

However, returns to these graduate degrees vary. Although we do not know which graduate degree someone with a particular major earned, we do know how much more they make with one. Biology and Life Science majors, for instance, make $35,000 more at the median with a graduate degree, while the difference in median earnings for terminal Bachelor's degree holders and graduate degree holders with an undergraduate major in Arts is only $11,000.

In addition, different majors lead to different industries. For example, while 43 percent of Law and Public Policy majors end up in Public Administration, only 13 percent of Social Science majors do so—and a higher portion of Social Science majors actually end up in Finance (16 percent).

The tables and figures that follow provide detailed information on the popularity of each major, the median earnings for those with a terminal Bachelor's degree, median earnings for those with a graduate degree, the percent of a particular major obtaining a graduate degree, median earnings by race/ethnicity and gender, the racial/ethnic and gender composition of majors, and where majors end up by industry.

MEDIAN EARNINGS BY MAJOR GROUP*



** Full-time, full-year workers with a terminal Bachelor's.*

ALL

	Agriculture and Natural Resources	Arts	Biology and Life Science	Business	Communications and Journalism	Computers and Mathematics	Education
POPULARITY OF MAJORS†							
Total Bachelor's	530,888	1,539,384	1,197,003	**8,446,263**	1,986,030	1,728,959	3,568,392
% of All Majors	1.6	4.6	3.5	**25.0**	5.9	5.1	10.6
PERCENT OBTAINING A GRADUATE DEGREE							
Obtain graduate degree (%)	27	23	**54**	21	20	32	44
MEDIAN EARNINGS WITH AND WITHOUT A GRADUATE DEGREE◆							
Median earnings, Terminal Bachelor's degree	50,000	44,000	50,000	60,000	50,000	70,000	42,000
Median earnings, Graduate degree holder	70,000	55,000	85,000	80,000	62,000	89,000	57,000
Difference	20,000	11,000	**35,000**	20,000	12,000	19,000	15,000

† *The ACS data are best used to discuss distributional characteristics of the underlying population. However, we also include the number of degree holders to provide the reader with an 'order of magnitude' sense of the number of people with this major.*

◆ *We do not know what graduate degree people obtained.*

GENDER

	Agriculture and Natural Resources	Arts	Biology and Life Science	Business	Communications and Journalism	Computers and Mathematics	Education
GENDER COMPOSITION OF MAJORS							
Percent Female	30	61	55	45	64	31	77
Percent Male	70	39	45	55	36	69	23
EARNINGS BY GENDER*							
Female Median Earnings	40,000	40,000	45,000	50,000	44,000	60,000	40,000
Male Median Earnings	55,000	48,000	57,000	66,000	55,000	73,000	48,000
Difference	15,000	8,000	12,000	16,000	11,000	13,000	8,000

* *Full-time, full-year workers with a terminal Bachelor's.*

Engineering	Health	Humanities and Liberal Arts	Industrial Arts and Consumer Services	Law and Public Policy	Physical Sciences	Psychology and Social Work	Social Science
POPULARITY OF MAJORS†							
2,786,488	2,320,732	3,287,782	554,707	768,978	936,633	1,808,669	2,341,689
8.2	6.9	9.7	1.6	2.3	2.8	5.4	6.9
PERCENT OBTAINING A GRADUATE DEGREE							
37	31	41	20	24	48	45	40
MEDIAN EARNINGS WITH AND WITHOUT A GRADUATE DEGREE◆							
75,000	60,000	47,000	50,000	50,000	59,000	42,000	55,000
99,000	80,000	65,000	65,000	70,000	90,000	60,000	85,000
24,000	20,000	18,000	15,000	20,000	31,000	18,000	30,000

† *The ACS data are best used to discuss distributional characteristics of the underlying population. However, we also include the number of degree holders to provide the reader with an 'order of magnitude' sense of the number of people with this major.*

◆ *We do not know what graduate degree people obtained.*

Engineering	Health	Humanities and Liberal Arts	Industrial Arts and Consumer Services	Law and Public Policy	Physical Sciences	Psychology and Social Work	Social Science
GENDER COMPOSITION OF MAJORS							
16	**85**	58	35	41	42	74	47
84	15	42	65	59	58	26	53
EARNINGS BY GENDER*							
62,000	60,000	43,000	40,000	42,000	48,000	40,000	46,000
79,000	70,000	50,000	55,000	58,000	65,000	52,000	64,000
17,000	10,000	7,000	15,000	16,000	17,000	12,000	**18,000**

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RACE AND ETHNICITY

	Agriculture and Natural Resources	Arts	Biology and Life Science	Business	Communications and Journalism	Computers and Mathematics	Education
RACIAL AND ETHNIC COMPOSITION OF MAJORS[Δ]							
% White	90	81	76	76	81	67	82
% African-American	2	5	7	8	8	9	7
% Hispanic	4	7	6	7	6	7	7
% Asian	3	7	11	8	4	16	3
% Other Races and Ethnicities	<0.5	1	1	1	1	1	1
MEDIAN EARNINGS BY RACE*							
White Median Earnings	50,000	45,000	51,000	63,000	50,000	73,000	42,000
African-American Median Earnings	36,000	38,000	45,000	47,000	41,000	59,000	42,000
Hispanic Median Earnings	40,000	40,000	40,000	48,000	43,000	55,000	40,000
Asian Median Earnings	43,000	44,000	53,000	51,000	45,000	71,000	37,000
Other Races and Ethnicities Median Earnings	•	•	•	48,000	•	50,000	36,000

* *Full-time, full-year workers with a terminal Bachelor's.*

• *Sample size was too small to be statistically valid.*

[Δ] *Due to rounding, these may not add to 100 percent.*

Engineering	Health	Humanities and Liberal Arts	Industrial Arts and Consumer Services	Law and Public Policy	Physical Sciences	Psychology and Social Work	Social Science
RACIAL AND ETHNIC COMPOSITION OF MAJORS[Δ]							
71	73	80	83	72	74	76	75
5	9	6	7	**14**	8	11	9
9	5	6	6	**10**	6	8	7
14	13	7	3	3	11	5	8
1	1	1	1	1	1	1	1
MEDIAN EARNINGS BY RACE*							
80,000	60,000	48,000	50,000	52,000	60,000	44,000	60,000
60,000	55,000	44,000	40,000	42,000	47,000	40,000	44,000
56,000	52,000	42,000	42,000	50,000	44,000	40,000	48,000
72,000	70,000	44,000	45,000	55,000	52,000	48,000	50,000
57,000	**60,000**	42,000	•	•	•	42,000	45,000

** Full-time, full-year workers with a terminal Bachelor's.*

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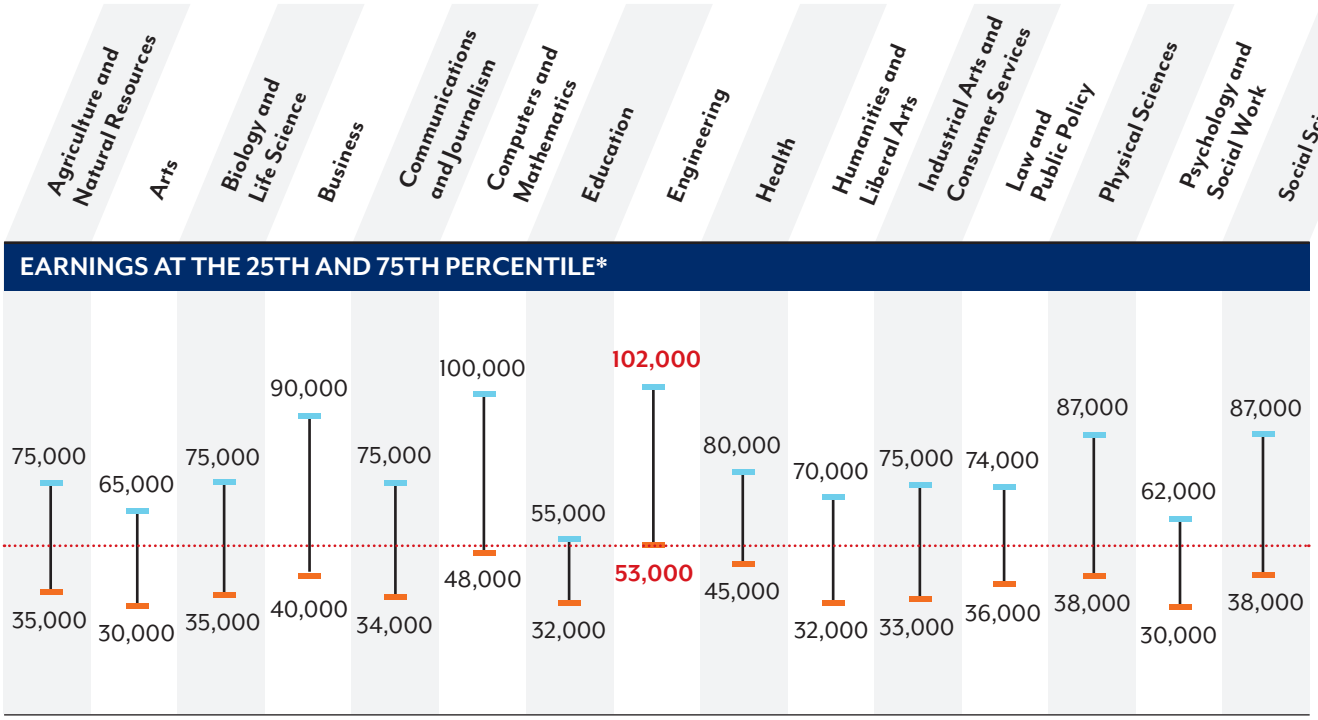
[Δ] Due to rounding, these may not add to 100 percent.

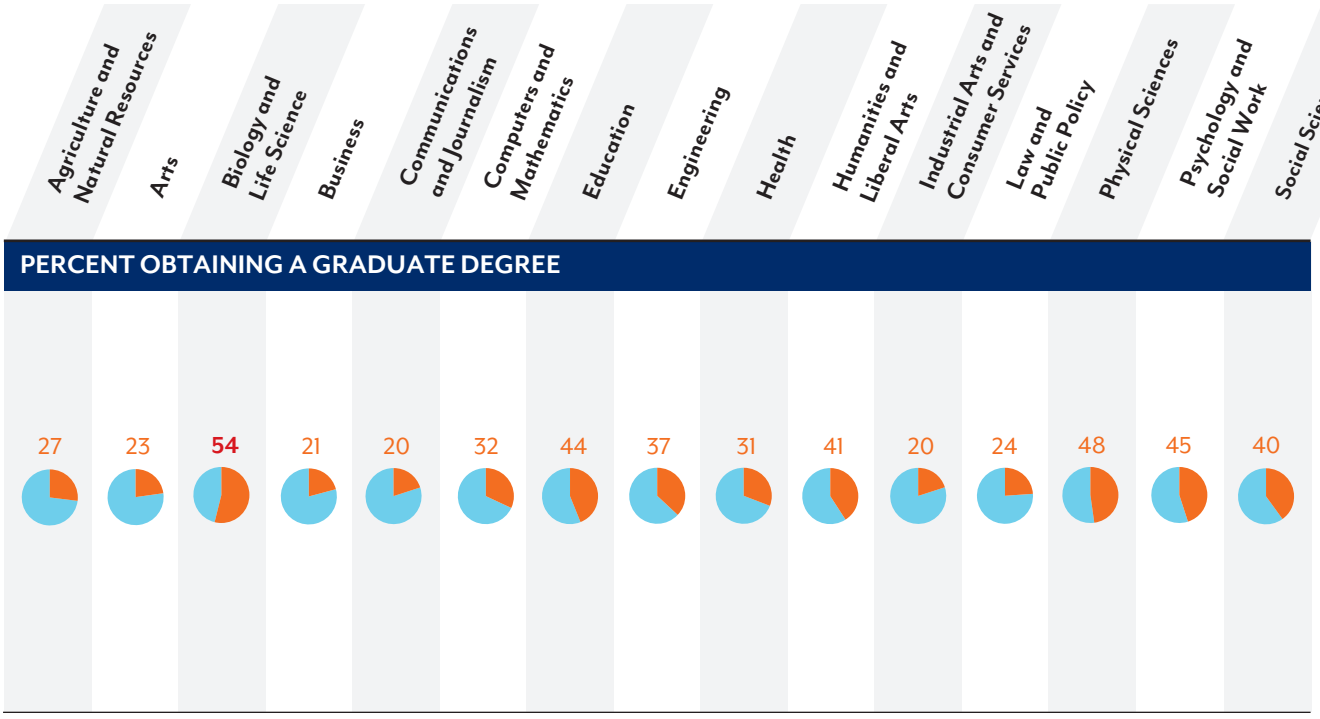
EARNINGS AT THE 25TH AND 75TH PERCENTILE*



** Full-time, full-year workers with a terminal Bachelor's.*

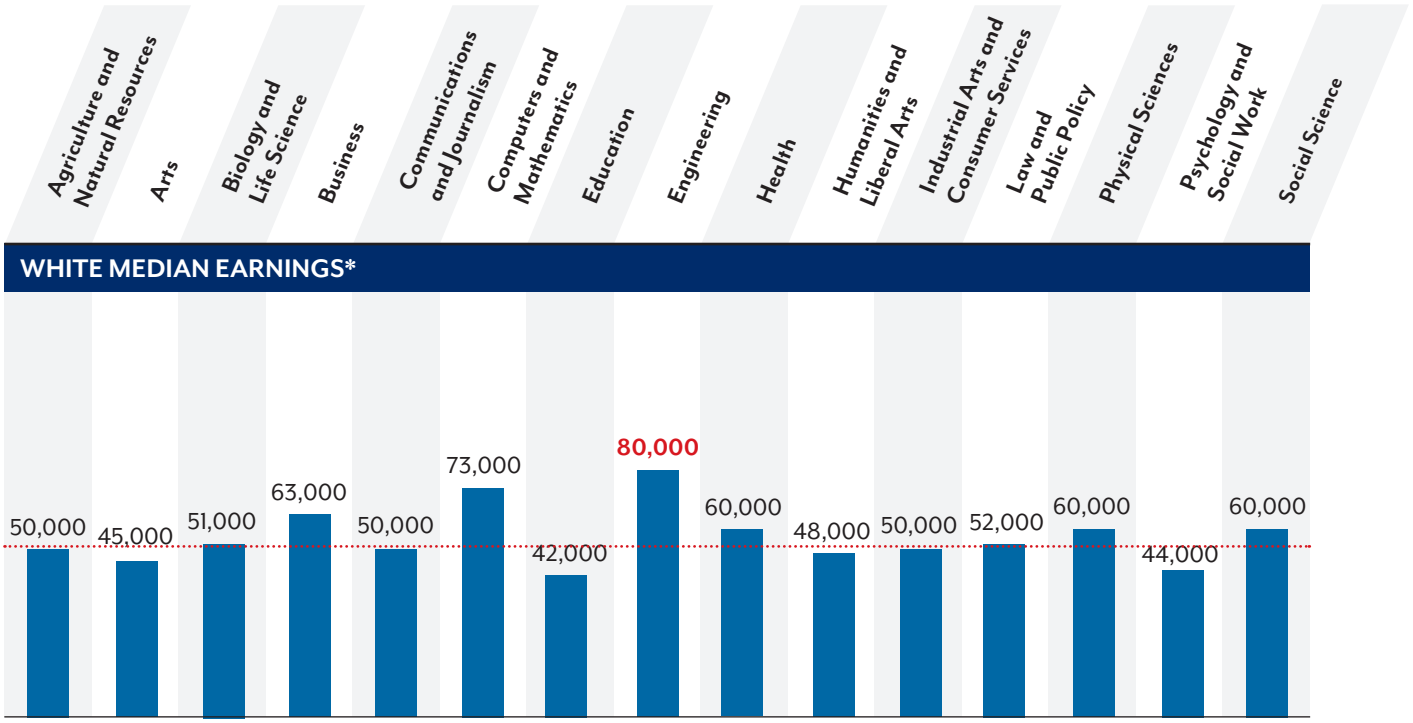
- Earnings at the 25th Percentile
- Earnings at the 75th Percentile
- Median Earnings for All Terminal Bachelor's Degree Holders

PERCENT OBTAINING A GRADUATE DEGREE



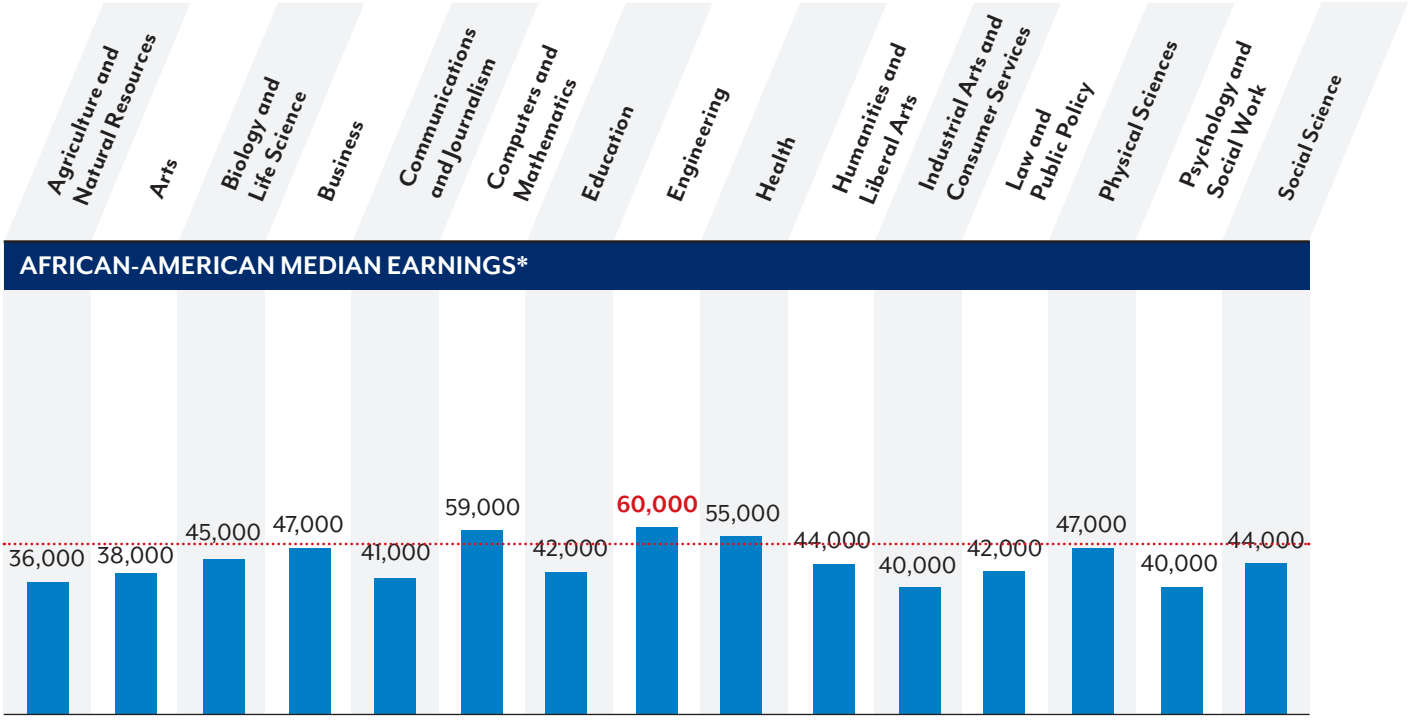
- Obtain graduate degree (%)
- Did not obtain graduate degree (%)

WHITE MEDIAN EARNINGS*



** Full-time, full-year workers with a terminal Bachelor's.*

AFRICAN-AMERICAN MEDIAN EARNINGS*



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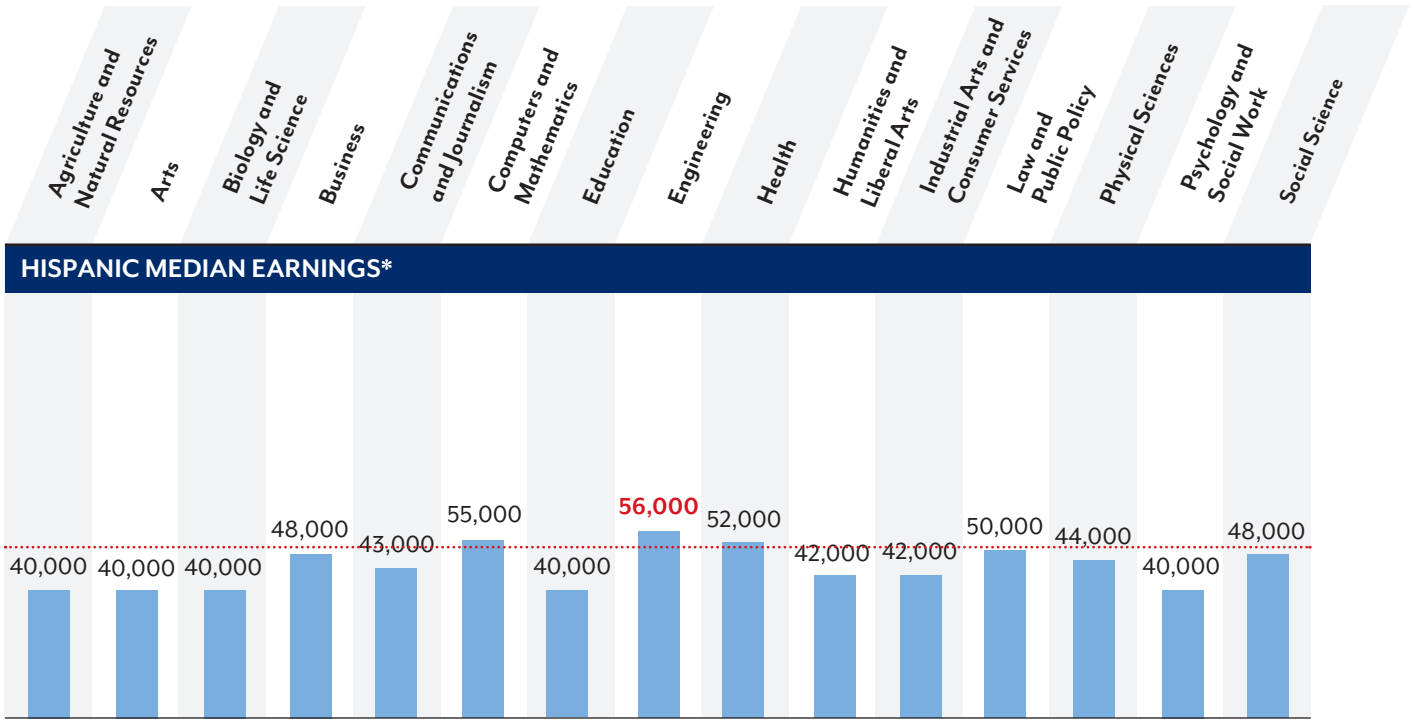
HISPANIC MEDIAN EARNINGS*



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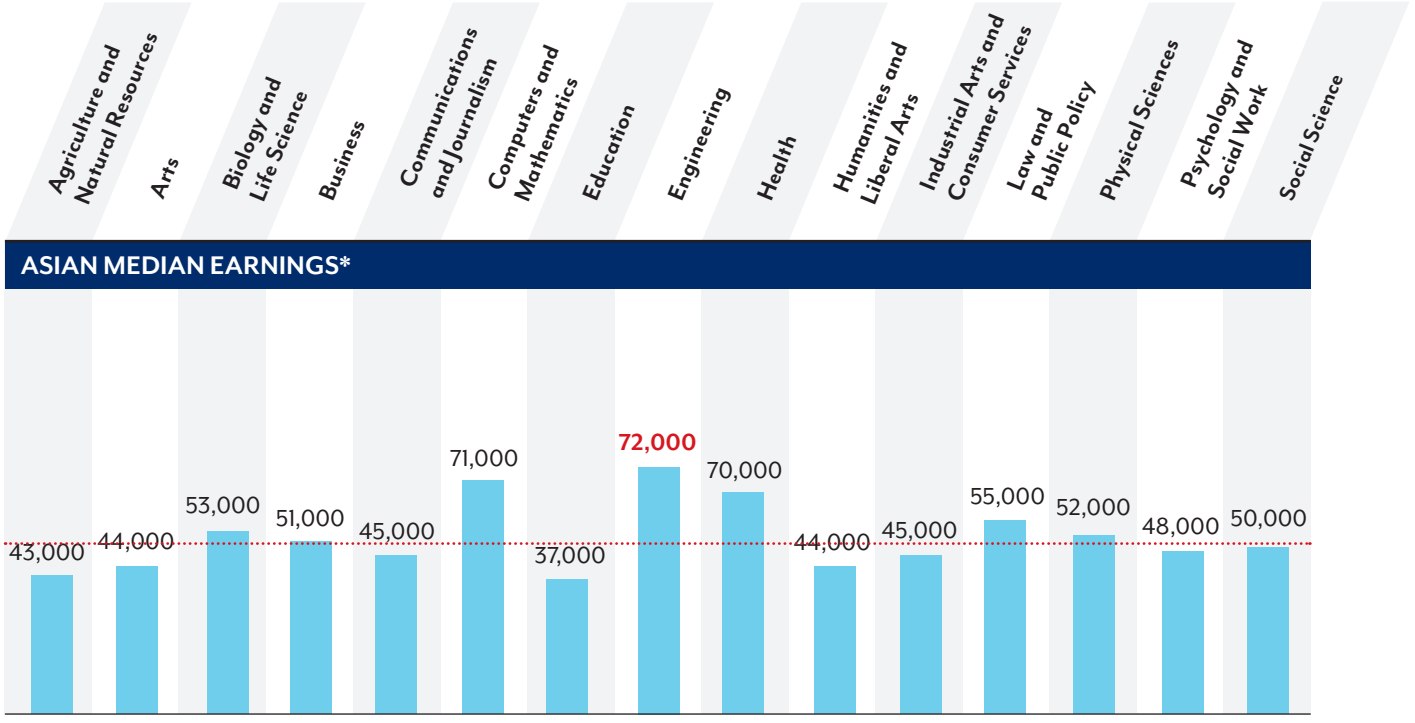
ASIAN MEDIAN EARNINGS*



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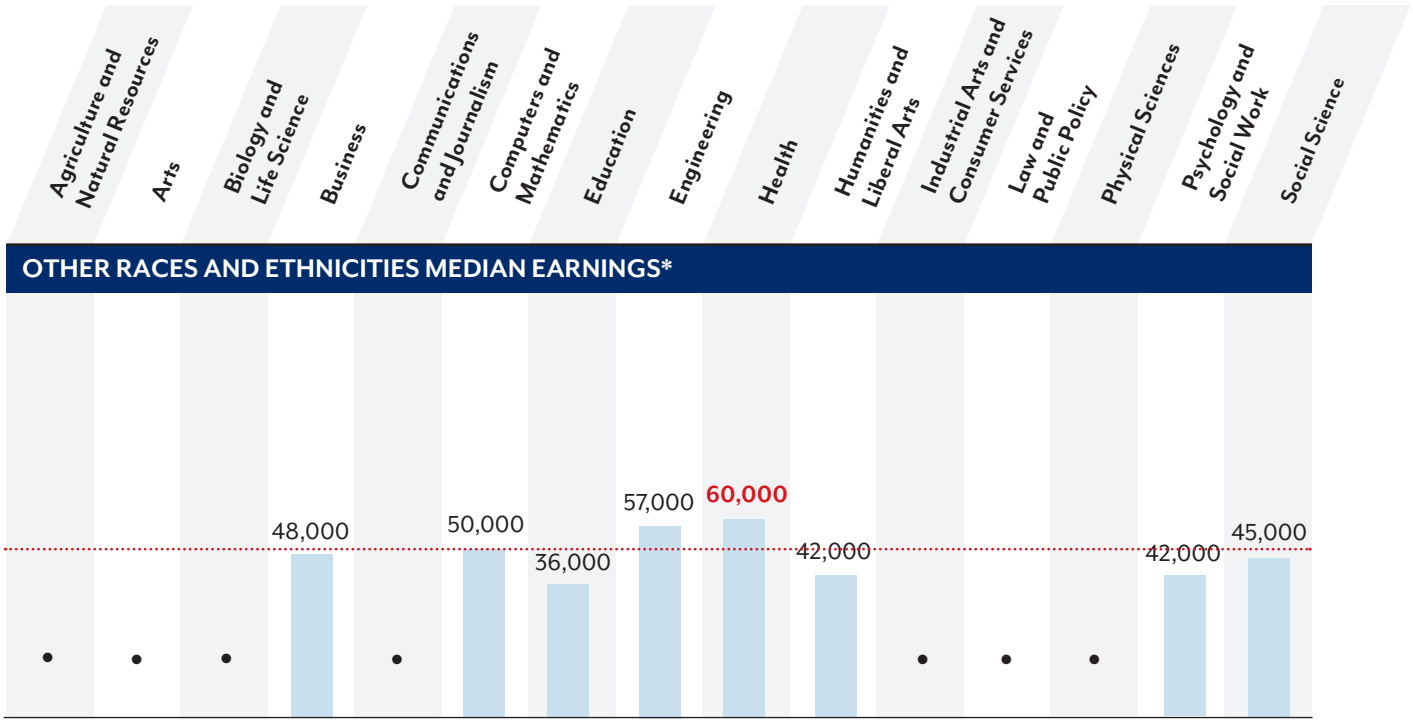
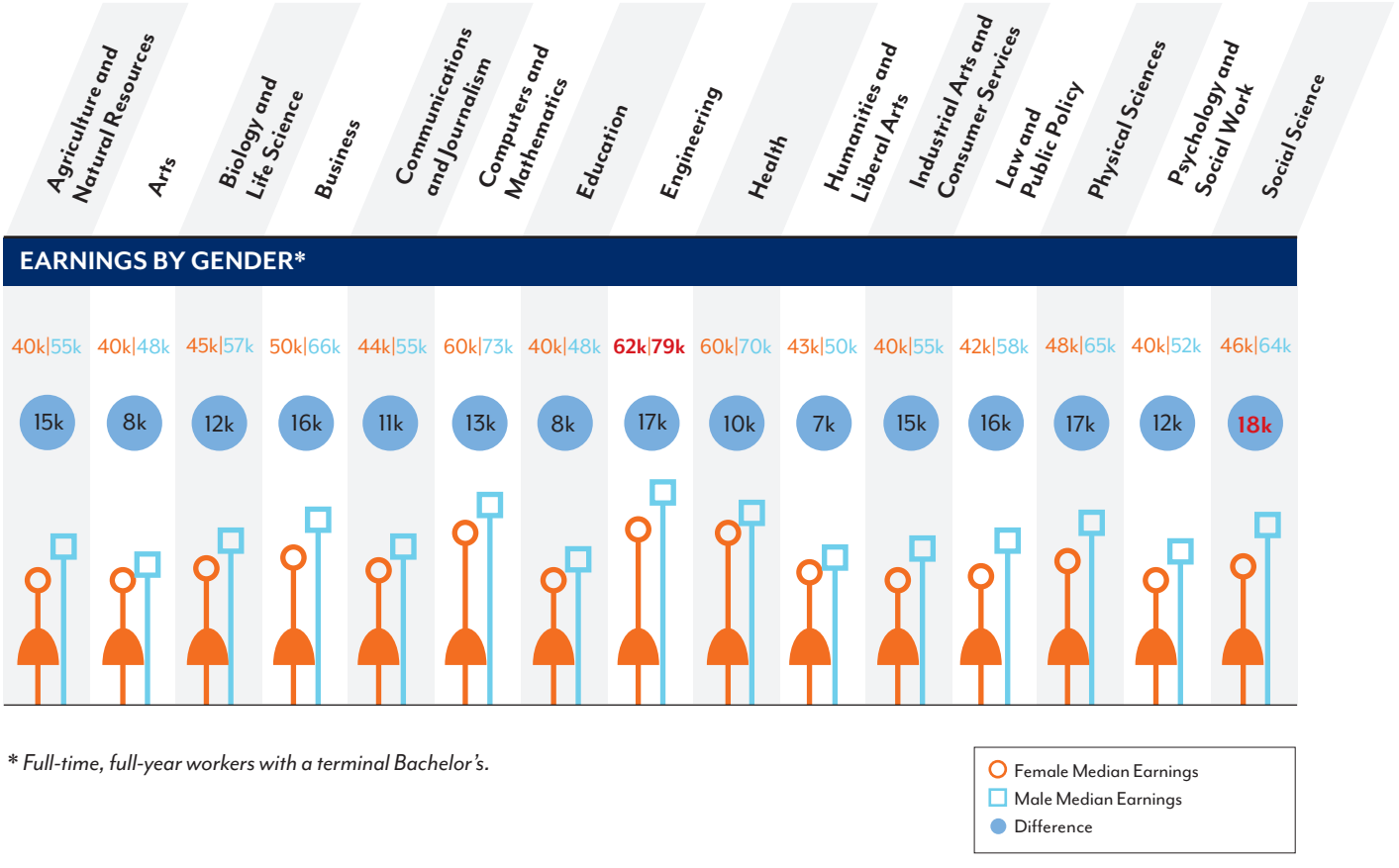
OTHER RACES AND ETHNICITIES MEDIAN EARNINGS*



** Full-time, full-year workers with a terminal Bachelor's.*

• Sample size was too small to be statistically valid.

EARNINGS BY GENDER*



** Full-time, full-year workers with a terminal Bachelor's.*

WHERE MAJORS END UP BY INDUSTRY*

	1st Industry (%)	2nd Industry (%)	3rd Industry (%)	4th Industry (%)	5th Industry (%)
Agriculture and Natural Resources	AG (13)	PUB (11)	RETL (9)	MAN-nd (7)	PROF (7)
Arts	PROF (18)	RETL (12)	EDU (11)	INFO (8)	HS (6)
Biology and Life Science	HS (19)	PROF (14)	EDU (11)	PUB (9)	MAN-nd (8)
Business	FIN (17)	PROF (12)	RETL (10)	MAN-d (8)	PUB (7)
Communications and Journalism	INFO (14)	PROF (13)	EDU (10)	RETL (9)	FIN (9)
Computers and Mathematics	PROF (26)	FIN (12)	MAN-d (11)	INFO (7)	EDU (7)
Education	EDU (55)	HS (9)	RETL (5)	FIN (5)	PUB (4)
Engineering	MAN-d (25)	PROF (22)	CON (9)	MAN-nd (7)	PUB (6)
Health	HS (72)	RETL (6)	EDU (4)	PUB (4)	FIN (3)
Humanities and Liberal Arts	EDU (15)	PROF (11)	FIN (10)	RETL (9)	HS (9)
Industrial Arts and Consumer Services	CON (13)	EDU (12)	TRAN (10)	HS (10)	ARTS (8)
Law and Public Policy	PUB (43)	HS (8)	FIN (7)	PROF (7)	RETL (5)
Physical Sciences	PROF (14)	HS (14)	EDU (10)	MAN-nd (9)	MAN-d (8)
Psychology and Social Work	HS (26)	EDU (12)	PUB (12)	FIN (9)	PROF (7)
Social Science	FIN (16)	PUB (13)	PROF (11)	HS (9)	RETL (8)

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Industry Abbreviations:

Administrative Services = ADMN
Agriculture = AG
Arts = ARTS
Construction = CON
Education Services = EDU
Financial Services = FIN
Food Service = FS
Health Services = HS
Information = INFO
Management Services = MGMT
Manufacturing (durable) = MAN-d
Manufacturing (non-durable) = MAN-nd
Mining = MNG
Other Service = OS
Professional Services = PROF
Public Administration = PUB
Real Estate = RE
Retail Trade = RETL
Sales = SALES
Social Science = SS
Transportation = TRAN
Utilities = UTIL
Wholesale Trade (durable) = WHLS-d
Wholesale Trade (non-durable) = WHLS-nd

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