Engineering

This group includes the following majors:

- Aerospace Engineering
- Architectural Engineering
- Architecture
- Biological Engineering
- Biomedical Engineering
- Chemical Engineering
- Electrical Engineering
- Electrical Engineering Technology
- Engineering and Industrial Management
- Engineering Mechanics Physics and Science
- Engineering Technologies
- Environmental Engineering
- General Engineering
- Geological and Geophysical Engineering
- Industrial and Manufacturing Engineering
- Industrial Production Technologies
- Materials Engineering and Materials Science
- Mechanical Engineering
- Mechanical Engineering Related Technologies
- Metallurgical Engineering
- Miscellaneous Engineering
- Miscellaneous Engineering Technologies
- Naval Architecture and Marine Engineering
- Nuclear Engineering
- Petroleum Engineering

Engineering makes up 8.2 percent of all majors. Median earnings for those with a Bachelor's degree who majored in Engineering are $75,000.[1] The gender composition is heavily skewed, as 84 percent of engineering majors are men and 16 percent are women. However, women make significantly less than men, earnings $62,000 ($17,000 less than median earnings for men). The racial makeup of these majors, on average, is 71 percent White, 14 percent Asian, 5 percent African-American, 9 percent Hispanic, and 1 percent Other Races.[2] Earnings for Asians ($72,000), African-Americans ($60,000), Hispanics ($56,000), and Other Races ($57,000) are significantly less than the $80,000 median earnings of Whites.

Earnings in Engineering can vary widely, with the 25th percentile earning $53,000 and the 75th percentile earning $102,000 (a difference of $49,000). The major with the highest median earnings is Petroleum Engineering and the major with the lowest median earnings is Biological Engineering.

About 37 percent of people with these majors obtain a graduate degree and, as a result, get an average earnings boost of 32 percent.

Of people who majored in Engineering, 32 percent work in Engineering, 22 percent in Management, 9 percent in Computers, 7 percent in Sales, and 4 percent in Architecture occupations. By industry, 32 percent work in Manufacturing, 22 percent in Professional and Business Services, 9 percent in Construction, and 6 percent in Public Administration.

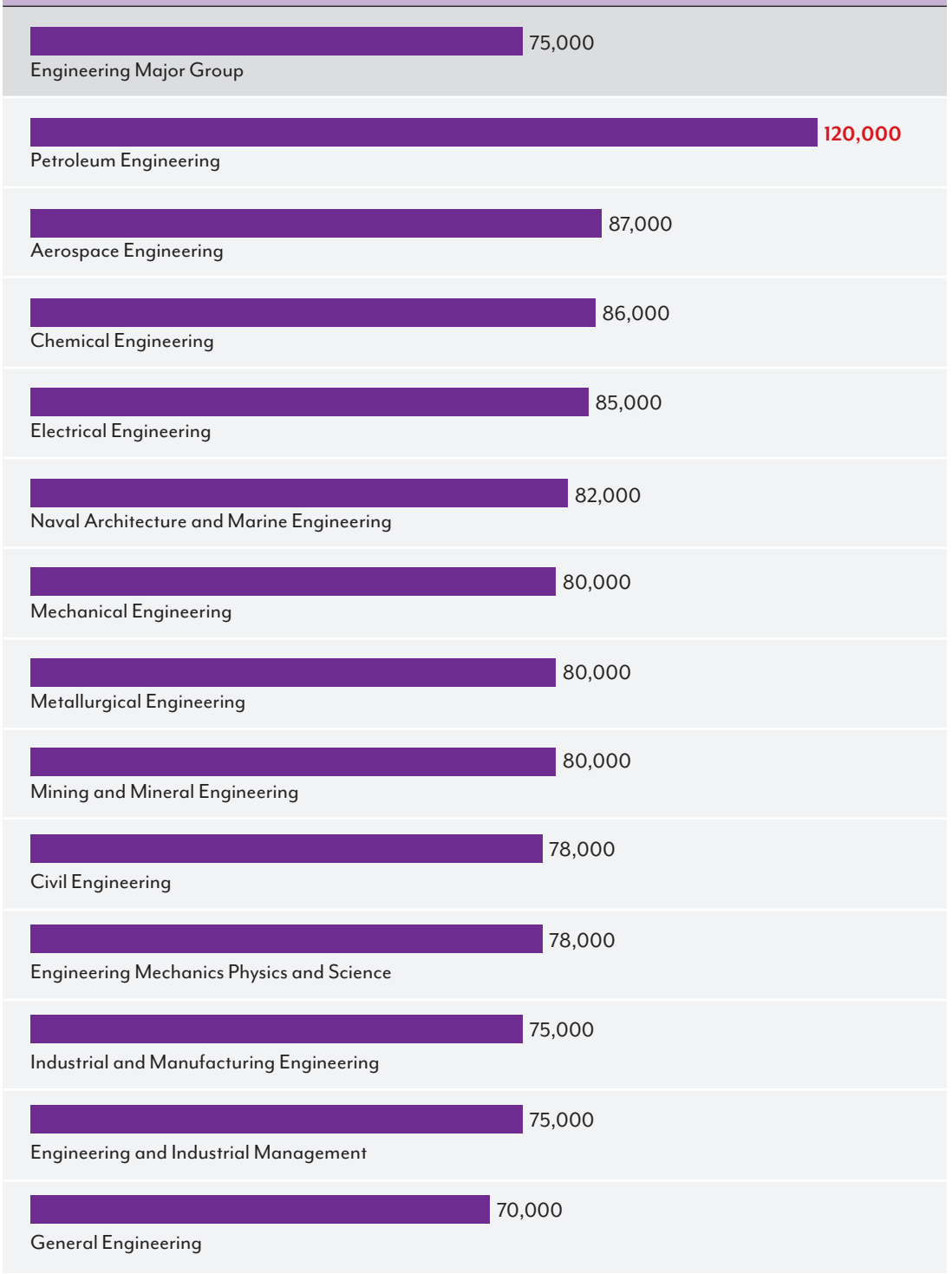
Of Engineering majors who are in the labor force and employed, 93 percent work full-time. About 6 percent are unemployed.

Median earnings for those with a Bachelor's degree who majored in Engineering are $75,000.

[1] All of the earnings data presented here is on full-time, full-year workers with a Bachelor's degree only.

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

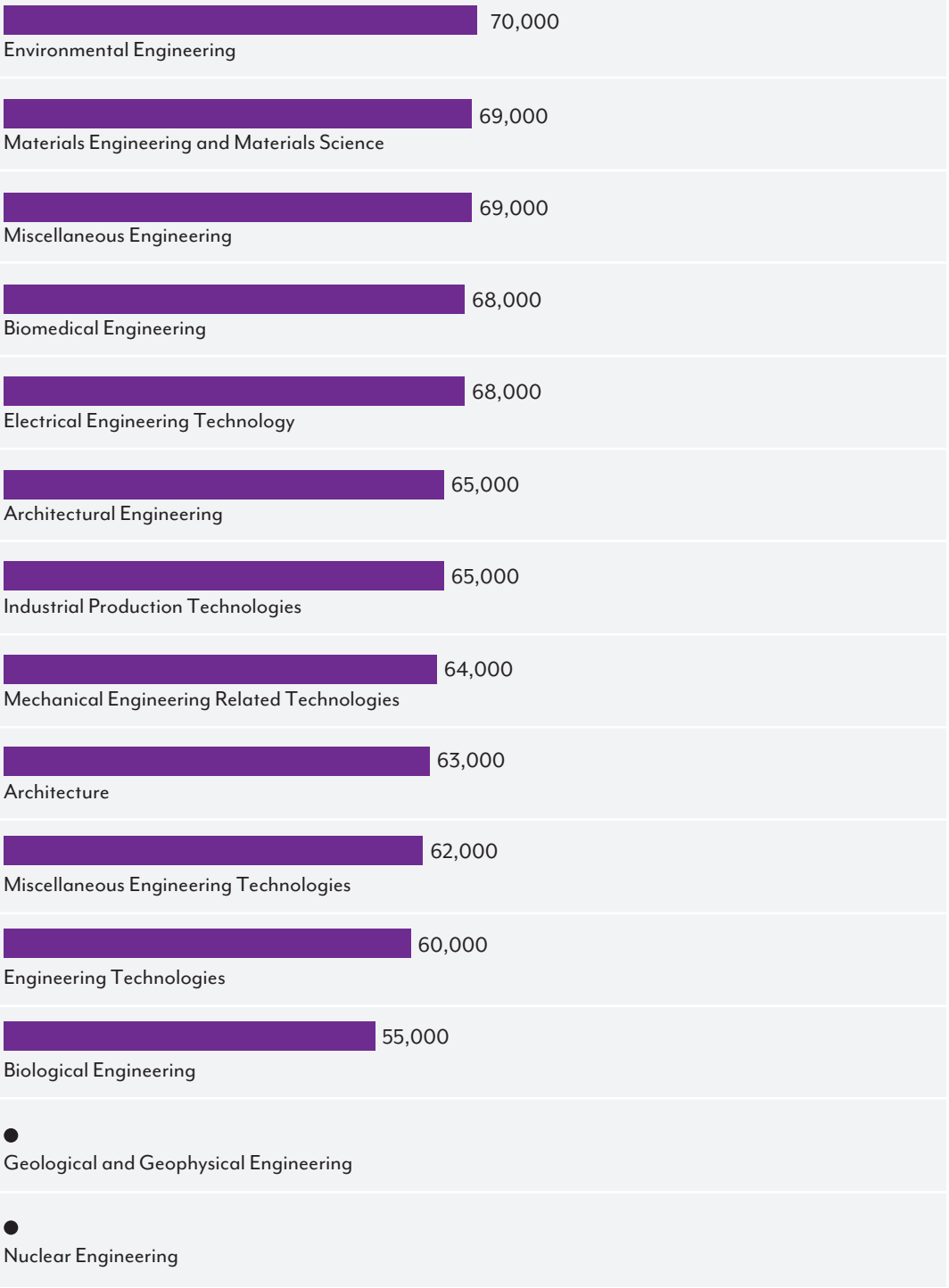
MEDIAN EARNINGS OF ENGINEERING MAJOR GROUP*



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

• Sample size was too small to be statistically valid.

MEDIAN EARNINGS OF ENGINEERING MAJOR GROUP* (Continued)



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

● Sample size was too small to be statistically valid.

ALL	Engineering Major Group	Aerospace Engineering	Architectural Engineering	Architecture	Biological Engineering	Biomedical Engineering	Chemical Engineering	Civil Engineering	Electrical Engineering	Electrical Engineering Technology	Engineering and Industrial Management	Engineering Mechanics Physics and Science
POPULARITY OF MAJORS†												
Total Bachelor's	2,786,488	58,041	14,249	264,402	29,054	15,496	153,537	285,331	578,380	78,067	38,164	15,897
% of Major Group	100	2	1	9	1	1	6	10	21	3	1	1
MEDIAN EARNINGS BY MAJOR*												
Median earnings	75,000	87,000	65,000	63,000	55,000	68,000	86,000	78,000	85,000	68,000	75,000	78,000
EARNINGS AT THE 25TH AND 75TH PERCENTILE*												
Earnings at the 25th percentile	53,000	60,000	50,000	45,000	35,000	50,000	60,000	57,000	60,000	48,000	52,000	42,000
Earnings at the 75th percentile	102,000	115,000	83,000	87,000	84,000	100,000	120,000	103,000	110,000	90,000	120,000	110,000
Difference	49,000	55,000	33,000	42,000	49,000	50,000	60,000	46,000	50,000	42,000	68,000	68,000
PERCENT OBTAINING A GRADUATE DEGREE												
Did not obtain graduate degree (%)	63	59	72	68	62	50	55	65	58	80	72	53
Obtain graduate degree (%)	37	41	28	32	38	50	45	35	42	20	28	47
EARNINGS BOOST FROM OBTAINING A GRADUATE DEGREE												
% Earnings Boost from Graduate Degree	32	28	•	19	24	48	23	25	30	23	17	40
WORK STATUS*												
Full-time (%)	93	90	88	88	87	89	93	93	93	94	89	96
Part-time (%)	7	10	12	12	13	11	7	7	7	6	11	4
PERCENT EMPLOYED**												
Employed (%)	94	95	94	91	96	89	95	95	94	93	91	95

† *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.*

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

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

** *Of people in the labor force.*

	Engineering Technologies	Environmental Engineering	General Engineering	Geological and Geophysical Engineering	Industrial and Manufacturing Engineering	Industrial Production Technologies	Materials Engineering and Materials Science	Mechanical Engineering	Mechanical Engineering Related Technologies	Metallurgical Engineering	Mining and Mineral Engineering	Miscellaneous Engineering	Miscellaneous Engineering Technologies	Naval Architecture and Marine Engineering	Nuclear Engineering	Petroleum Engineering
POPULARITY OF MAJORS†																
	29,471	11,843	362,948	5,556	109,930	73,740	24,444	458,432	25,925	9,041	7,085	47,772	58,629	10,931	5,482	14,641
	1	<0.5	13	<0.5	4	3	1	16	1	<0.5	<0.5	2	2	<0.5	<0.5	1
MEDIAN EARNINGS BY MAJOR*																
	60,000	70,000	70,000	•	75,000	65,000	69,000	80,000	64,000	80,000	80,000	69,000	62,000	82,000	•	**120,000**
EARNINGS AT THE 25TH AND 75TH PERCENTILE*																
	44,000	51,000	50,000	•	55,000	48,000	48,000	59,000	47,000	50,000	52,000	45,000	44,000	44,000	•	**82,000**
	88,000	93,000	100,000	•	101,000	90,000	96,000	105,000	90,000	106,000	125,000	91,000	87,000	120,000	•	**189,000**
	44,000	42,000	50,000	•	46,000	42,000	48,000	46,000	43,000	56,000	73,000	46,000	43,000	76,000	•	**107,000**
PERCENT OBTAINING A GRADUATE DEGREE																
	79	55	68	59	60	81	52	62	80	49	63	67	**84**	61	36	67
	21	45	32	41	40	19	48	38	20	51	37	33	16	39	**64**	33
EARNINGS BOOST FROM OBTAINING A GRADUATE DEGREE																
	35	22	41	•	24	32	39	28	•	33	•	**56**	18	•	•	7
WORK STATUS*																
	94	94	94	97	93	94	89	95	91	94	**99**	94	93	95	96	95
	6	6	6	3	7	6	11	5	9	6	1	6	7	5	4	5
PERCENT EMPLOYED**																
	96	97	95	**100**	95	94	92	95	95	99	97	95	94	97	89	97

† *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.*

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

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

** *Of people in the labor force.*

GENDER

	Engineering Major Group	Aerospace Engineering	Architectural Engineering	Architecture	Biological Engineering	Biomedical Engineering	Chemical Engineering	Civil Engineering	Electrical Engineering	Electrical Engineering Technology	Engineering and Industrial Management	Engineering Mechanics Physics and Science
GENDER COMPOSITION OF MAJORS												
Percent Female	16	12	19	31	26	45	28	16	11	10	17	17
Percent Male	84	88	81	69	74	55	72	84	89	90	83	83
EARNINGS BY GENDER*												
Female Median Earnings	62,000	•	•	55,000	•	•	72,000	62,000	70,000	•	•	•
Male Median Earnings	79,000	90,000	70,000	65,000	58,000	79,000	92,000	80,000	86,000	70,000	82,000	73,000
Difference	17,000	•	•	10,000	•	•	20,000	18,000	16,000	•	•	•

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

• Sample size was too small to be statistically valid.

RACE AND ETHNICITY

	Engineering Major Group	Aerospace Engineering	Architectural Engineering	Architecture	Biological Engineering	Biomedical Engineering	Chemical Engineering	Civil Engineering	Electrical Engineering	Electrical Engineering Technology	Engineering and Industrial Management	Engineering Mechanics Physics and Science
RACIAL AND ETHNIC COMPOSITION OF MAJORS[Δ]												
% White	71	79	77	75	62	68	71	76	64	62	89	79
% African-American	5	3	7	4	3	<0.5	5	3	6	11	5	5
% Hispanic	9	6	7	11	22	5	8	8	7	6	2	8
% Asian	14	12	8	10	12	26	15	12	22	18	4	7
% Other Races and Ethnicities	1	<0.5	<0.5	<0.5	<0.5	1	<0.5	1	1	2	<0.5	<0.5

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

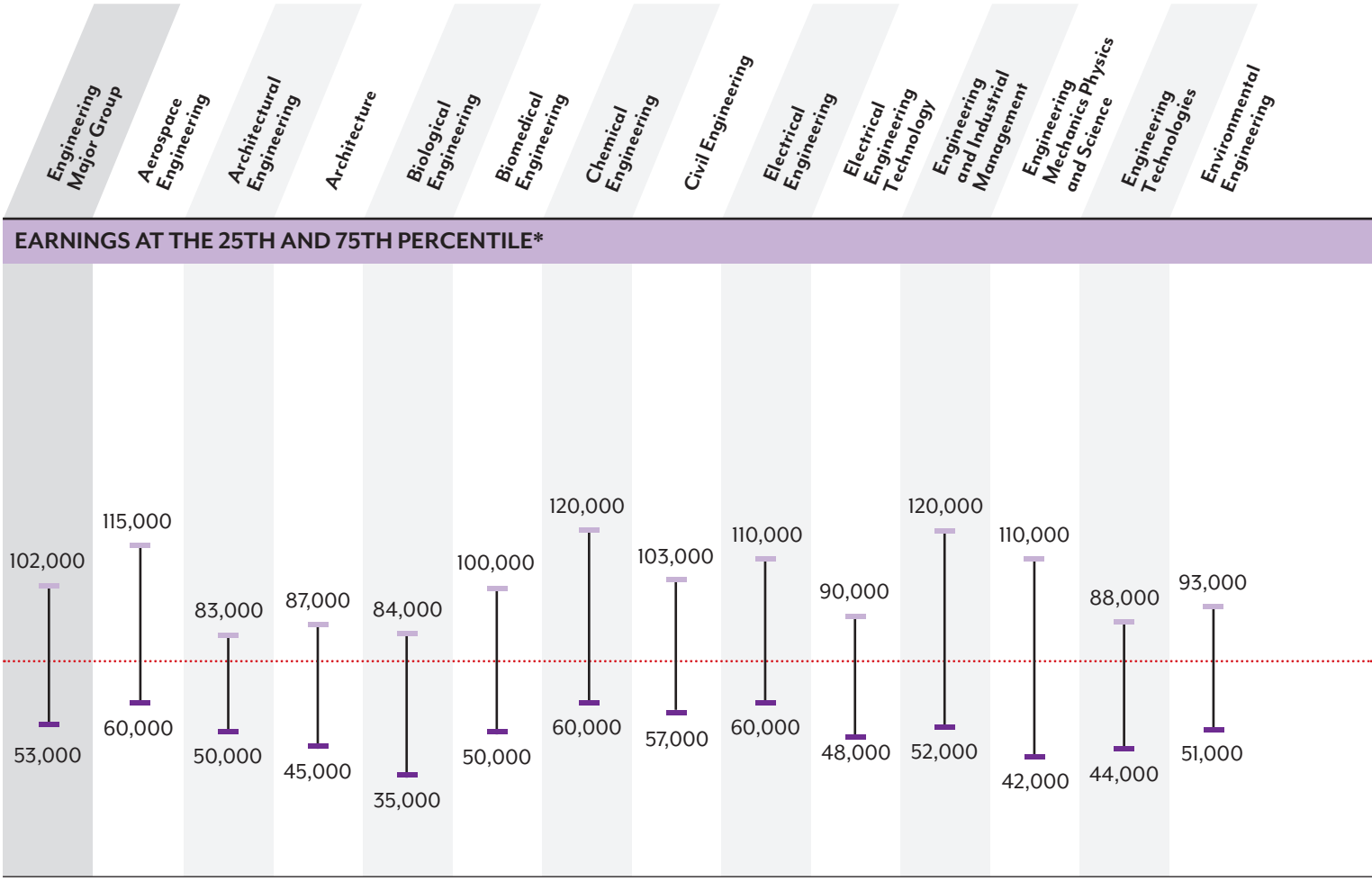
	Engineering Technologies	Environmental Engineering	General Engineering	Geological and Geophysical Engineering	Industrial and Manufacturing Engineering	Industrial Production Technologies	Materials Engineering and Materials Science	Mechanical Engineering	Mechanical Engineering Related Technologies	Metallurgical Engineering	Mining and Mineral Engineering	Miscellaneous Engineering	Miscellaneous Engineering Technologies	Naval Architecture and Marine Engineering	Nuclear Engineering	Petroleum Engineering
GENDER COMPOSITION OF MAJORS																
	13	33	15	27	21	9	29	10	6	17	10	21	20	3	9	13
	87	67	85	73	79	91	71	90	94	83	90	79	80	97	91	87
EARNINGS BY GENDER*																
	•	•	60,000	•	67,000	•	•	70,000	•	•	•	55,000	53,000	•	•	•
	60,000	80,000	72,000	•	80,000	65,000	74,000	80,000	63,000	80,000	78,000	70,000	65,000	82,000	•	120,000
	•	•	12,000	•	13,000	•	•	10,000	•	•	•	15,000	12,000	•	•	•

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

• Sample size was too small to be statistically valid.

	Engineering Technologies	Environmental Engineering	General Engineering	Geological and Geophysical Engineering	Industrial and Manufacturing Engineering	Industrial Production Technologies	Materials Engineering and Materials Science	Mechanical Engineering	Mechanical Engineering Related Technologies	Metallurgical Engineering	Mining and Mineral Engineering	Miscellaneous Engineering	Miscellaneous Engineering Technologies	Naval Architecture and Marine Engineering	Nuclear Engineering	Petroleum Engineering
RACIAL AND ETHNIC COMPOSITION OF MAJORS[Δ]																
	75	85	61	83	70	82	79	76	85	79	88	81	75	81	91	83
	11	5	7	2	5	9	3	3	4	2	2	4	12	<0.5	4	1
	9	4	13	6	14	5	5	7	6	5	2	7	7	3	4	12
	5	6	18	9	9	4	13	13	5	13	8	7	6	16	1	4
	<0.5	<0.5	1	<0.5	1	1	<0.5	1	<0.5	1	<0.5	<0.5	1	<0.5	<0.5	<0.5

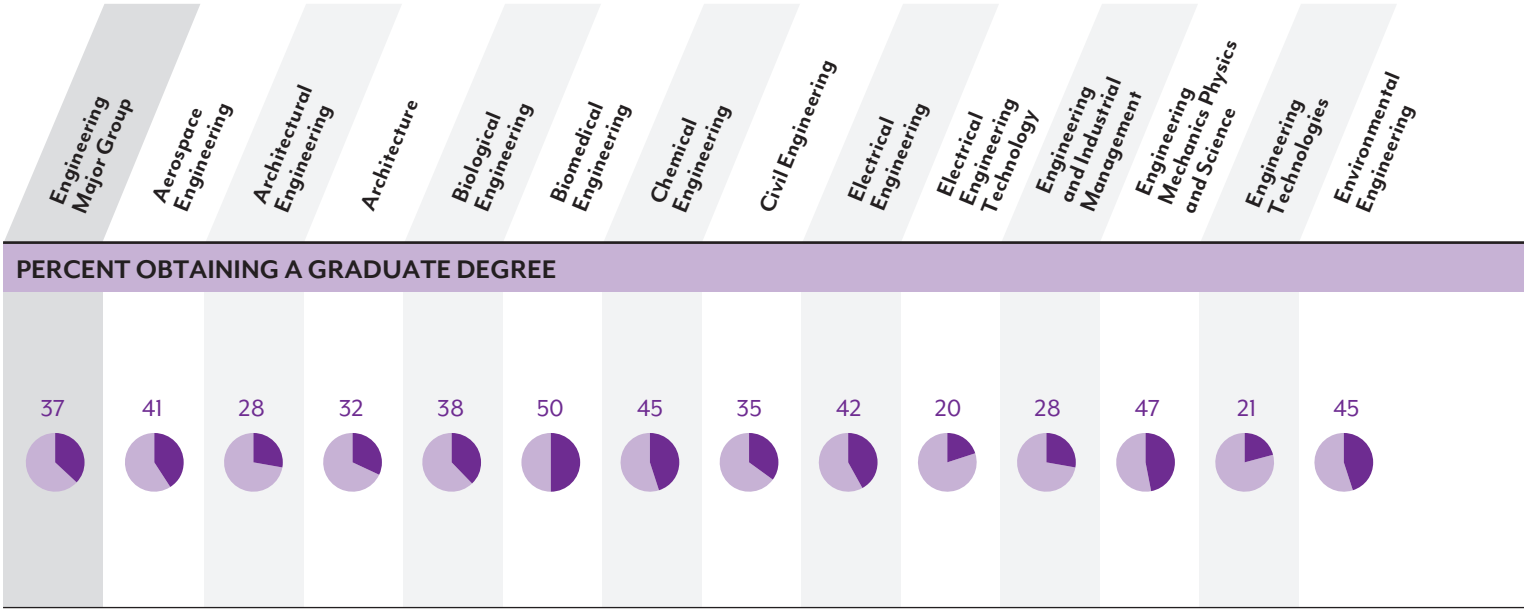
[Δ] Due to rounding, these may not add to 100 percent.



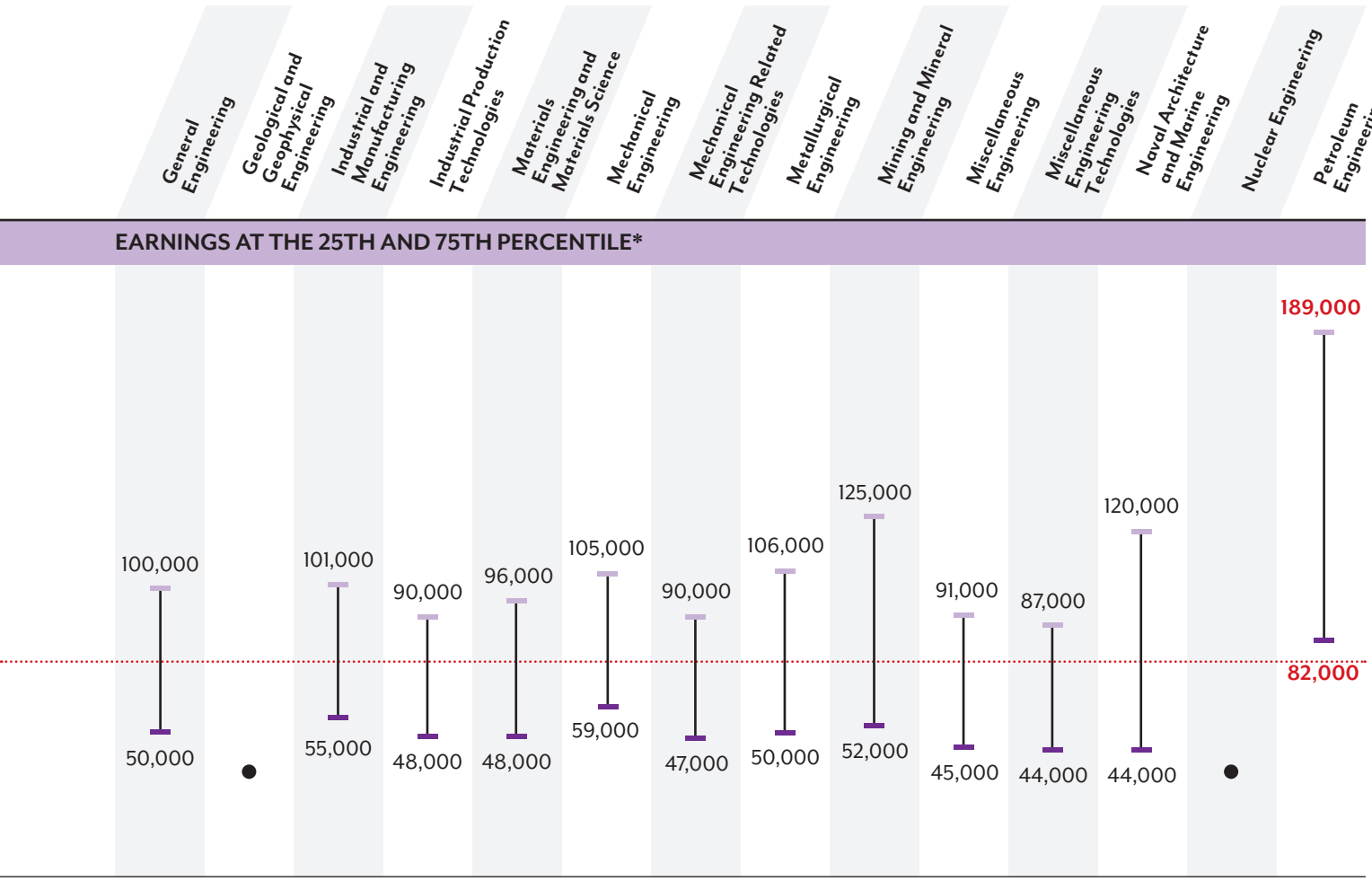
* *Full-time, full-year workers with a terminal Bachelor's.*

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

Earnings at the 25th Percentile
Earnings at the 75th Percentile
Median Earnings for Engineering Major Group as a Whole



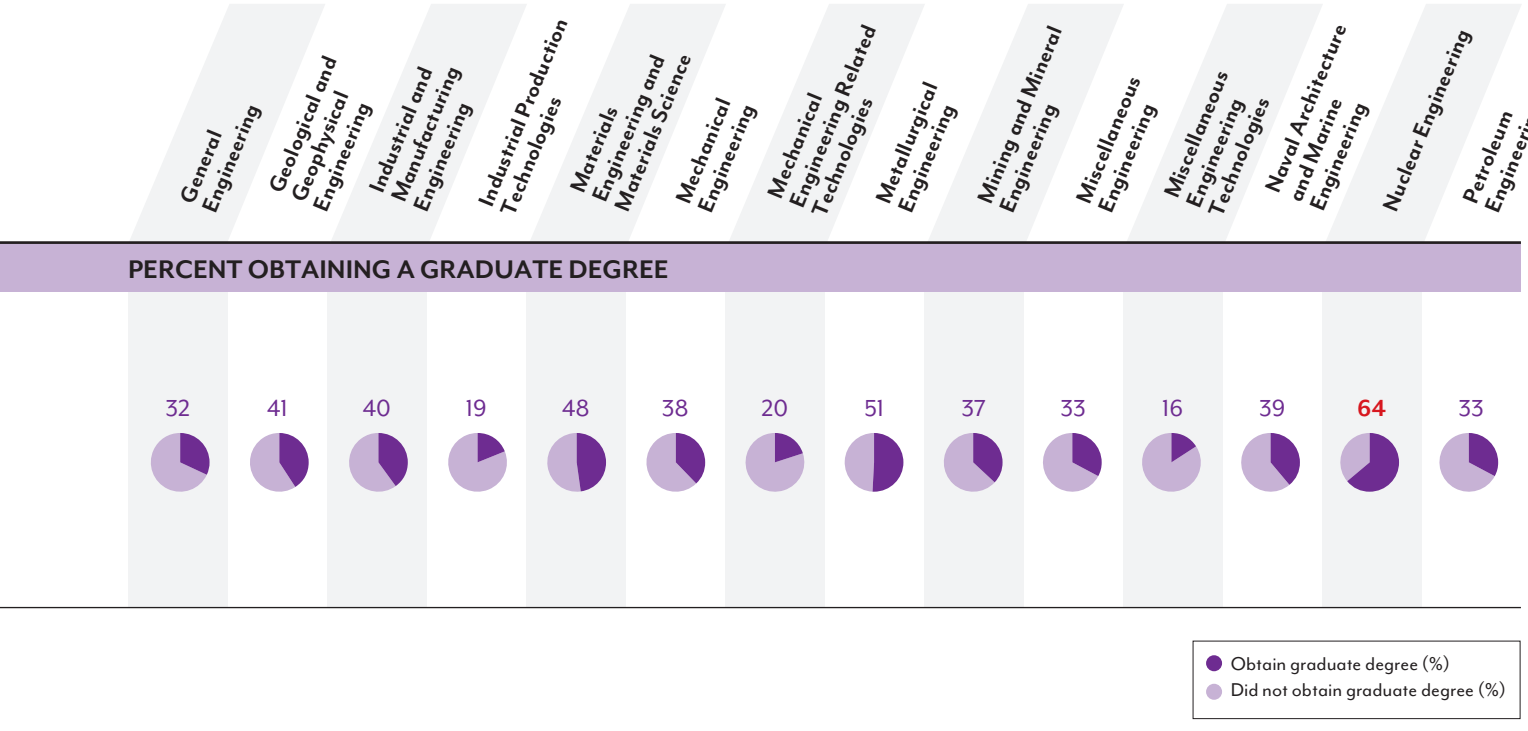
Obtain graduate degree (%)
Did not obtain graduate degree (%)



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

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

Earnings at the 25th Percentile
Earnings at the 75th Percentile
Median Earnings for Engineering Major Group as a Whole



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

WHERE ENGINEERING MAJORS END UP BY OCCUPATION*

	1st Occupation (%)	2nd Occupation (%)	3rd Occupation (%)	4th Occupation (%)	5th Occupation (%)
Engineering Major Group	ENGR (32)	MGMT (22)	COMP (9)	SALES (7)	ARCH (4)
Aerospace Engineering	ENGR (34)	MGMT (16)	TRAN (15)	COMP (10)	SALES (5)
Architectural Engineering	ENGR (39)	MGMT (18)	CON (8)	ARTS (8)	BUS (6)
Architecture	ARCH (36)	MGMT (22)	ARTS (7)	SALES (7)	OFF (4)
Biological Engineering	ENGR (21)	MGMT (19)	OFF (7)	SALES (7)	BLDG (6)
Biomedical Engineering	ENGR (23)	MGMT (20)	SALES (12)	BUS (7)	COMP (7)
Chemical Engineering	ENGR (35)	MGMT (26)	SALES (7)	COMP (6)	PROD (4)
Civil Engineering	ENGR (45)	MGMT (26)	CON (5)	OFF (4)	SALES (4)
Electrical Engineering	ENGR (37)	COMP (18)	MGMT (17)	SALES (6)	INST (3)
Electrical Engineering Technology	ENGR (24)	MGMT (16)	COMP(16)	INST (9)	SALES (8)
Engineering and Industrial Management	MGMT (36)	SALES (17)	ENGR (9)	BUS (7)	COMP (6)
Engineering Mechanics Physics and Science	MGMT (19)	ENGR (19)	COMP (15)	INST (9)	TRAN (8)
Engineering Technologies	MGMT (24)	COMP (17)	ENGR (17)	OFF (5)	PROD (5)
Environmental Engineering	ENGR (48)	MGMT (17)	PROD (9)	SALES (7)	BUS (3)
General Engineering	ENGR (31)	MGMT (18)	COMP (10)	SALES (8)	PROD (5)
Geological and Geophysical Engineering	ENGR (28)	LS (19)	MGMT (18)	COMP (6)	BLDG (4)

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

Occupation Abbreviations:
Architecture = ARCH
Arts = ARTS
Blue Collar = BC
Building = BLDG
Business = BUS
Community Service = COMM
Computer Services = COMP
Construction = CON
Education = EDU
Engineering = ENGR
Finance = FIN
Food Service = FOOD
Health Professionals = HLTH PROF
Health Support = HLTH SUP
Installation = INST
Legal = LGL
Life Science = LS
Management = MGMT
Office = OFF
Personal Service = PERS
Production = PROD
Protective Services = PROT
Sales = SALES
Social Science = SS
Transportation = TRAN

WHERE ENGINEERING MAJORS END UP BY OCCUPATION* (Continued)

	1st Occupation (%)	2nd Occupation (%)	3rd Occupation (%)	4th Occupation (%)	5th Occupation (%)
Industrial and Manufacturing Engineering	MGMT (31)	ENGR (28)	SALES (8)	COMP (6)	BUS (5)
Industrial Production Technologies	MGMT (24)	ENGR (16)	SALES (10)	OFF (8)	PROD (8)
Materials Engineering and Materials Science	MGMT (29)	ENGR (28)	SALES (17)	COMP (6)	PROD (4)
Mechanical Engineering	ENGR (44)	MGMT (24)	SALES (7)	COMP (6)	PROD (4)
Mechanical Engineering Related Technologies	ENGR (29)	MGMT (21)	SALES (11)	INST (8)	PROD (7)
Metallurgical Engineering	ENGR (32)	MGMT (29)	SALES (11)	COMP (8)	OFF (5)
Mining and Mineral Engineering	MGMT (31)	ENGR (28)	HLTH PROF (7)	OFF (7)	SALES (6)
Miscellaneous Engineering	MGMT (28)	ENGR (23)	CON (8)	OFF (7)	SALES (6)
Miscellaneous Engineering Technologies	MGMT (27)	COMP (14)	ENGR (11)	SALES (8)	OFF (6)
Naval Architecture and Marine Engineering	ENGR (31)	MGMT (22)	INST (12)	OFF (9)	SALES (7)
Nuclear Engineering	ENGR (42)	MGMT (22)	BUS (8)	COMP (7)	HLTH PROF (7)
Petroleum Engineering	ENGR (45)	MGMT (32)	SALES (6)	OFF (5)	CON (4)

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

Occupation Abbreviations:
Architecture = ARCH
Arts = ARTS
Blue Collar = BC
Building = BLDG
Business = BUS
Community Service = COMM
Computer Services = COMP
Construction = CON
Education = EDU
Engineering = ENGR
Finance = FIN
Food Service = FOOD
Health Professionals = HLTH PROF
Health Support = HLTH SUP
Installation = INST
Legal = LGL
Life Science = LS
Management = MGMT
Office = OFF
Personal Service = PERS
Production = PROD
Protective Services = PROT
Sales = SALES
Social Science = SS
Transportation = TRAN

WHERE ENGINEERING MAJORS END UP BY INDUSTRY*

	1st Industry (%)	2nd Industry (%)	3rd Industry (%)	4th Industry (%)	5th Industry (%)
Engineering Major Group	MAN-d (25)	PROF (22)	CON (9)	MAN-nd (7)	PUB (6)
Aerospace Engineering	MAN-d (33)	TRAN (18)	PROF (17)	PUB (9)	RETL (4)
Architectural Engineering	PROF (38)	CON (23)	MAN-d (10)	FS (5)	PUB (5)
Architecture	PROF (47)	CON (11)	PUB (7)	MAN-d (4)	RETL (4)
Biological Engineering	MAN-d (16)	CON (11)	PROF (10)	MAN-nd (9)	PUB (9)
Biomedical Engineering	PROF (28)	MAN-d (19)	HS (16)	EDU (8)	INFO (7)
Chemical Engineering	MAN-nd (34)	PROF (15)	MAN-d (14)	PUB (6)	FIN (4)
Civil Engineering	PROF (34)	CON (27)	PUB (11)	MAN-d (6)	UTIL (4)
Electrical Engineering	MAN-d (33)	PROF (21)	INFO (6)	UTIL (5)	PUB (5)
Electrical Engineering Technology	MAN-d (30)	PROF (13)	TRAN (7)	RETL (6)	INFO (6)
Engineering and Industrial Management	MAN-d (27)	RETL (10)	PROF (9)	MAN-nd (7)	CON (6)
Engineering Mechanics Physics and Science	MAN-d (21)	PROF (13)	PUB (8)	FIN (7)	ADMN (7)
Engineering Technologies	MAN-d (18)	PROF (15)	PUB (13)	CON (11)	MAN-nd (7)
Environmental Engineering	PROF (45)	MAN-d (14)	MAN-nd (10)	PUB (9)	UTIL (5)
General Engineering	MAN-d (24)	PROF (21)	CON (9)	MAN-nd (5)	RETL (5)
Geological and Geophysical Engineering	PROF (24%)	Mining (22)	FIN (11)	PUB (10)	EDU (9)

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

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

WHERE ENGINEERING MAJORS END UP BY INDUSTRY*

	1st Industry (%)	2nd Industry (%)	3rd Industry (%)	4th Industry (%)	5th Industry (%)
Industrial and Manufacturing Engineering	MAN-d (36)	PROF (11)	MAN-nd (10)	FIN (6)	CON (5)
Industrial Production Technologies	MAN-d (32)	MAN-nd (10)	PROF (9)	RETL (6)	CON (5)
Materials Engineering and Materials Science	MAN-d (41)	MAN-nd (16)	PROF (8)	RETL (7)	FIN (5)
Mechanical Engineering	MAN-d (40)	PROF (18)	MAN-nd (7)	UTIL (5)	CON (5)
Mechanical Engineering Related Technologies	MAN-d (33)	PROF (13)	TRAN (10)	RETL (8)	CON (6)
Metallurgical Engineering	MAN-d (46)	PROF (13)	WHLS-nd (11)	MAN-nd (4)	RE (4)
MNG and Mineral Engineering	MNG (27)	PROF (22)	PUB (12)	MAN-nd (7)	HS (7)
Miscellaneous Engineering	CON (30)	MAN-d (14)	MAN-nd (11)	PROF (9)	PUB (5)
Miscellaneous Engineering Technologies	PROF (16)	MAN-d (14)	CON (13)	MAN-nd (8)	FIN (8)
Naval Architecture and Marine Engineering	PROF (23)	MAN-d (14)	TRAN (13)	UTIL (10)	CON (5)
Nuclear Engineering	UTIL (46)	PROF (16)	MAN-d (15)	PUB (9)	HS (6)
Petroleum Engineering	MNG (44)	MAN-nd (12)	PROF (10)	WHLS-d (8)	RE (5)

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

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