

December 2018 Graduate Future Plans Survey College of Engineering Summary Report

This report presents summary results from the December 2018 Graduate Future Plans Survey for departments and types of degree programs in the College of Engineering, followed by summary information on employment and further education for the college as a whole.

Highlights for the College of Engineering

- 67% of the doctoral and master's students in COE graduating in fall 2018 responded to the survey
- 83% of doctoral respondents and 71% of master's respondents in COE report that they have secured full-time employment for the coming year
- COE graduates with full-time employment report an average salary in the coming year of \$95,130 (median = \$92,500)
- 34% of COE graduates with full-time employment will be working in North Carolina (27% in the Research Triangle Area)
- 9% of master's students in COE report that they plan to return to graduate/professional school in the coming year
- 81% of master's students in COE with definite plans to graduate/professional school will be attending a school in North Carolina

Department Summaries

The following tables provide summary statistics for December 2018 graduates in the College of Engineering. Table 1 includes the number of graduate students in the College of Engineering who graduated in December 2018 and the number of those students who submitted the Graduate Future Plans Survey. It also includes the number of students who indicated at the time of the survey that they would be working full-time, as well as the number of those who indicated they were either pursuing or planning to pursue another graduate or professional degree in the coming year. Finally, it includes summary statistics on the self-reported salaries of those who reported that they would be employed full-time. Table 2 and Table 3 provide the same summary statistics for December 2018 graduates in each department in the College of Engineering, for doctoral graduates and master's graduates, respectively.

Table 1: College Summary

College	Survey Population	Survey Respondents	Response Rate	N Full Time Job	N Grad/Prof School*	25th Percentile Salary	Median Salary	75th Percentile Salary	Average Salary	N Reporting Salary
COE Overall	432	290	67%	211	23	72,500	92,500	117,500	95,130	193

Table 2: Department Summaries, Doctoral Degree Recipients

Department	Survey Population	Survey Respondents	Response Rate	N Full Time Job	N Grad/Prof School*	25th Percentile Salary	Median Salary	75th Percentile Salary	Average Salary	N Reporting Salary
Biomedical Engineering	3	3	100%	3	.	**	**	**	**	3
Chemical Engineering	5	5	100%	3	.	**	**	**	**	3
Civil, Construction, and Environmental Engineering	6	5	83%	4	.	70,000	80,000	82,500	76,250	4
Computer Science	10	7	70%	6	.	92,500	120,000	147,500	111,250	6
Electrical and Computer Engineering	14	7	50%	6	.	92,500	120,000	142,500	118,750	6
Fitts Dept of Industrial and Systems Engineering	4	2	50%	2	.	**	**	**	**	2
Materials Science and Engineering	7	4	57%	3	.	**	**	**	**	3
Mechanical and Aerospace Engineering	9	8	89%	6	.	52,500	60,000	72,500	62,500	6
Nuclear Engineering	6	5	83%	5	.	70,000	80,000	107,500	88,750	4
COE Doctoral Degree Recipients Overall	64	46	72%	38	.	62,500	82,500	117,500	89,527	37

*Includes all students planning on going to graduate/professional school in the coming year for another degree, including those who were currently enrolled as of the time of the survey or who have been accepted to graduate/professional school and know where they will be going, as well as those who have been accepted to at least one school but have not yet finalized their plans, those who have applied but have not yet been accepted, and those who have not yet applied but plan to do so.

**Statistics on salary information for those departments with fewer than 4 respondents reporting their salary have been excluded from the table.

Table 3: Department Summaries, Master's Degree Recipients

Department	Survey Population	Survey Respondents	Response Rate	N Full Time Job	N Grad/Prof School*	25th Percentile Salary	Median Salary	75th Percentile Salary	Average Salary	N Reporting Salary
College of Engineering Dean's Office	9	4	44%	3	.	**	**	**	**	3
Chemical Engineering	23	9	39%	3	4	**	**	**	**	3
Civil, Construction, and Environmental Engineering	50	29	58%	21	.	62,500	65,000	75,000	68,500	20
Computer Science	93	71	76%	60	5	102,500	107,500	122,500	110,816	49
Electrical and Computer Engineering	132	88	67%	69	5	82,500	102,500	117,500	100,885	65
Fitts Dept of Industrial and Systems Engineering	19	14	74%	5	3	60,000	67,500	77,500	68,750	4
Integrated Manufacturing Systems Engineering	3	2	67%	1	.	**	**	**	**	1
Materials Science and Engineering	7	4	57%	3	1	**	**	**	**	3
Mechanical and Aerospace Engineering	22	18	82%	6	3	72,500	72,500	82,500	74,167	6
Nuclear Engineering	8	4	50%	2	2	**	**	**	**	2
Operations Research	2	1	50%	.	.	**	**	**	**	.
COE Master's Degree Recipients Overall	368	244	66%	173	23	77,500	97,500	117,500	96,458	156

*Includes all students planning on going to graduate/professional school in the coming year for another degree, including those who were currently enrolled as of the time of the survey or who have been accepted to graduate/professional school and know where they will be going, as well as those who have been accepted to at least one school but have not yet finalized their plans, those who have applied but have not yet been accepted, and those who have not yet applied but plan to do so.

**Statistics on salary information for those departments with fewer than 4 respondents reporting their salary have been excluded from the table.

Full-Time Employment (college overall)

Table 4: Name of Company/Organization, Doctoral Degree Recipients

	N
ARA	1
AskBio	1
Atkins	1
CNA Corporation	1
Department of Energy NNSA Production Office	1
Department of Nuclear Engineering	1
ERCOT	1
Facebook	2
Google	1
Harkins Builders	1
IBM	1
ITER Organization	1
Idaho National Laboratory	1
Korea Military Academy	1
Lam Research	1
Los Alamos National Laboratory	2
MIT	1
Microsoft	1
NASA MSFC	1
NC State University	3
Naval Research Lab	1
North Carolina School of Science and Math	1
SAS	1
Shirley Ryan Abilitylab	1

Table 4: Name of Company/Organization, Doctoral Degree Recipients, *continued*

	N
TE Connectivity	1
The University of Florida	1
Thornton Tomasetti	1
Titan America	1
Total	1
US Navy	1
University of Costa Rica	1
Valassis Digital	1
Zenomics Inc	1

Table 5: Name of Company/Organization, Master's Degree Recipients

	N
AMD Inc.	1
Airgas	1
Allstate	1
Amazon	4
Amazon Web Services	1
Analog Devices Inc.	2
Anokiwave	1
Apple	9
Arista Networks	2
Audible	1
Black & Veatch	1
Bloomberg L.P.	1
Boeing	1
Briegan Concrete, LLC	1
Burns and McDonnell	1

Table 5: Name of Company/Organization, Master's Degree Recipients, *continued*

	N
CDM Smith	2
Caterpillar, Inc	1
Charles Schwab	1
Cisco Systems	6
Citrix Systems	5
Computer Packages Inc.	1
Dell	2
Dell EMC	1
Deloitte	1
Deutsche Bank	2
Duke Energy	1
FDH Infrastructure Services	1
Facebook	5
Federal Reserve Bank	1
Freyssinet Inc	1
General Electric Power	1
Google	1
Gresham Smith	1
HDR Inc.	1
HNTB	1
HPE	1
Honda Aircraft Company	1
IBM	2
IT People	1
Informatica	1
InspectionXpert	1
Intel	4

Table 5: Name of Company/Organization, Master's Degree Recipients, *continued*

	N
Intuitive Surgical	1
Jacobs Engineering	1
John Hopkins Applied Physics Lab	1
Katerra	1
Kimley-Horn and Associates, Inc.	1
Knowles Intelligent Audio	1
LGS	1
Lenovo	2
LinkedIn	2
Little Rock Water Reclamation Authority	1
Lockheed Martin	1
M.C. Dean	3
MARKEN	1
MD Anderson Hospital	1
March Associates Construction	1
MathWorks	1
Metcon	1
Micron Technology	1
Microsoft	3
Military Sealift Command	1
Morgan Stanley	2
N/A	1
NASCENT	1
NC State University	2
National Institute of Health	1
NavAir	1
Nooter/Eriksen	1

Table 5: Name of Company/Organization, Master's Degree Recipients, *continued*

	N
Novo Nordisk Pharmaceutical Industries	1
Nutanix	3
Nvidia	2
Palo Alto Networks	2
Pfizer	1
Pinpt Inc.	1
Prometheus Group LLC	1
Qualcomm	9
RBC AeroStructures	1
RS&H	1
Rivian Automotive LLC	1
SAP Concur	1
Safran Aerospace	1
Samsung SARC	1
Sandia National Laboratory	1
Schweitzer Engineering Laboratories	2
Sealed Air	1
Securonix	1
Sensus Inc	1
Siemens	4
SignalFx, Inc.	1
Skanska USA	1
Southland Holdings	3
Spreetail	1
Swinerton	1
Synopsys Inc	1
The Diw Company	1

Table 5: Name of Company/Organization, Master's Degree Recipients, *continued*

	N
US Air Force	1
USflacon, Inc.	1
Uber	1
VMware	4
VS Engineering, Inc.	1
magniX	1

Table 6: Location of Company (state), Doctoral Degree Recipients

	N	%
North Carolina	12	34%
California	6	17%
District of Columbia	3	9%
New Mexico	2	6%
Tennessee	1	3%
Texas	1	3%
Maryland	1	3%
New York	1	3%
Idaho	1	3%
Massachusetts	1	3%
Washington	1	3%
Alabama	1	3%
Illinois	1	3%
Pennsylvania	1	3%
Florida	1	3%
Virginia	1	3%

Table 7: Location of Company (state), Master's Degree Recipients

	N	%
North Carolina	57	34%
California	48	29%
Washington	11	7%
New York	5	3%
Texas	5	3%
Virginia	4	2%
Ohio	3	2%
Massachusetts	3	2%
Oregon	3	2%
New Jersey	3	2%
Florida	2	1%
New Hampshire	2	1%
Maryland	2	1%
Colorado	2	1%
South Carolina	2	1%
Alabama	2	1%
Tennessee	1	1%
Georgia	1	1%
Wisconsin	1	1%
Arkansas	1	1%
Pennsylvania	1	1%
Missouri	1	1%
New Mexico	1	1%
Kentucky	1	1%
Nebraska	1	1%
Indiana	1	1%
Not sure	2	1%

Table 8: Region of Company (inside/outside NC Triangle), Doctoral Degree Recipients

	N	%
Triangle	11	29%
Other NC	1	3%
Outside NC	26	68%

Table 9: Region of Company (inside/outside NC Triangle), Master's Degree Recipients

	N	%
Triangle	44	27%
Other NC	11	7%
Outside NC	108	66%

Table 10: Job Title, Doctoral Degree Recipients

	N
Aerospace Engineer	1
Analytical Training Consultant	1
Assistant Professor	1
Aviation Electronics Engineer	1
Chief Scientist	1
Clinical Research Fellow	1
Data Scientist	2
Instructor of Science	1
Invited Professor	1
Lecturer	1
Materials R&D Engineer	1
Nuclear Safety Engineer	1
Operations Engineer	1
Postdoc	2
Postdoctoral Associate	1

Table 10: Job Title, Doctoral Degree Recipients, *continued*

	N
Postdoctoral Fellow	2
Postdoctoral Research Associate	2
Postdoctoral Research Scholar	1
Postdoctoral Researcher	2
Principal R&D Engineer	1
Principle Scientist	1
Product Engineer III	1
Project Engineer	1
Quality Control Engineer	1
Research Analyst	1
Research Associate	1
Research Scientist	3
Senior Engineer	1
Software Engineer III	1
Water Resources Engineer	1

Table 11: Job Title, Master's Degree Recipients

	N
ASIC Verification	1
Algorithms Engineer	1
Analog IP Characterization Engineer	1
Application Developer	1
Applications Engineer	1
Applications Engineer 2	1
Assistant Electrical Engineer	1
Associate Engineer	1
Associate Process Engineer	1

Table 11: Job Title, Master's Degree Recipients, *continued*

	N
Associate Professional Staff	1
Associate Project Engineer	2
Automation Quality Analyst	1
BIM/VDC Engineer	1
Block Verification Engineer	1
Blockchain Consultant	1
Business Technology Analyst	1
Civil Engineer	2
Civil Engineer Officer	1
Cloud Support Associate	1
Computer Vision Engineer	1
Consulting Engineer	1
Cyber Security Risk Specialist II	1
Data Scientist	1
Design Electrical Engineer	1
Design Engineer	4
Design Verification Engineer	2
Electrical Design Engineer	1
Electrical EIT	1
Electrical Engineer	2
Electrical Engineer 1	1
Embedded Software Engineer	2
Engineer	4
Engineer - Performance Architecture	1
Engineer 1	1
Environmental Engineer - Program Manager	1
Estimating Assistant/ Field Assistant	1

Table 11: Job Title, Master's Degree Recipients, *continued*

	N
Field Engineer	3
Firmware QA Engineer	1
Front End Engineer	1
Functional Consultant	1
Graphics Software Engineer	1
IP Design Engineer	1
IT Associate	1
Lead System Engineer	1
Manufacturing Engineer II	1
Mechanical Development Engineer	1
Mechanical Engineer	2
Member of Technical Staff	5
Member of Technical Staff 2	1
Mid-Level Java Engineer	1
Modem Systems Engineer	1
NDE Engineer	1
Network Consultant Engineer	1
Network Engineer	1
Network Software Developer	1
Performance Modeling Engineer	1
Power Electronics Engineer	1
Power Systems Consultant	1
Pre Silicon Validation	1
Process Engineer	2
Product Developer	1
Product Engineer	2
Project Administrator	1

Table 11: Job Title, Master's Degree Recipients, *continued*

	N
Project Controls Associate	1
Project Engineer	4
Project Manager	1
Quality Engineer	3
R & D Engineer	1
R&D S&E, Computer Science	1
RF Communications and DSP Engineer	1
Research Assistant	1
SOC Design Verification Engineer	2
Security Engineer	1
Senior Electrical Engineer	1
Senior Embedded Software	1
Senior RF IC Design Engineer	1
Senior Software Engineer	1
Senior Systems Engineer	1
Silicon Validation Software Engineer	1
Software Developer	5
Software Development Engineer	6
Software Development Engineer II	1
Software Engineer	21
Software Engineer II	4
Software Test Engineer	2
Staff Engineer - QA Automation	1
Staff Researcher	1
Staff Software Engineer	1
Storage Software Engineer	1
Structural Analyst	1

Table 11: Job Title, Master's Degree Recipients, *continued*

	N
Structural EIT	1
Structural Engineer	1
Substation Design Engineer	1
System Development Engineer	1
Systems Engineer	1
Systems Engineer 1	1
Systems Reliability Engineer	1
Technology Analyst	3
Traffic Engineer II	1
Trainee Estimator	1
Transportation Engineer	1
UI Engineer	1
Validation Engineer	1
Welding Process Specialist	1

Table 12: Resources Used to Help Get/Locate Job, by Degree Received*

	COE Overall		Doctoral		Master's	
	N	%	N	%	N	%
Internship/externship	91	52%	9	26%	82	58%
Internet: LinkedIn	89	51%	7	21%	82	58%
Career fair at NC State	45	26%	3	9%	42	30%
Campus or college career center	36	21%	5	15%	31	22%
Personal/professional connection(s) within the company	34	19%	14	41%	20	14%
Family/friends/classmates/co-workers	25	14%	3	9%	22	16%
Optional Practical Training (OPT)	24	14%	5	15%	19	13%
NC State faculty member	23	13%	15	44%	8	6%
Co-op experience	20	11%	1	3%	19	13%
Applied for job via ePACK	18	10%	3	9%	15	11%
On-campus interviewing	18	10%	2	6%	16	11%
Internet (Other)	16	9%	2	6%	14	10%
Professional association (members, conferences, publications, etc.)	15	9%	10	29%	5	4%
Consultation w/ NCSU Career Counselor/Coach	11	6%	1	3%	10	7%
Employer info session on campus	11	6%	3	9%	8	6%
Student teaching experience	9	5%	4	12%	5	4%
Employer found resume on ePACK	6	3%	0	0%	6	4%
Career fair off campus	4	2%	0	0%	4	3%
Volunteer work	2	1%	0	0%	2	1%
Staffing agency	2	1%	0	0%	2	1%
Clinical placement	0	0%	0	0%	0	0%
Other	5	3%	1	3%	4	3%

*Respondents could select more than one resource.

**Question was asked of those who indicated they would be employed full-time in a position they had obtained during their graduate program or at the time of graduation (i.e., excluding those who said they would be employed in a position they had obtained prior to beginning their graduate program).

Further Education (college overall)

Table 13: Status for Further Graduate/Professional School Attendance, Master's Degree Recipients (among those planning to attend)

	N	%
Am already enrolled and pursuing the degree	14	61%
Have been accepted and know where I'm going	3	13%
Have been accepted but undecided	1	4%
Have applied, but not yet been accepted	3	13%
Have not applied but plan to do so within the next year	2	9%

Information provided in the tables below is collected and reported only for respondents who indicated that at the time of the survey they had been accepted to graduate/professional school to pursue another degree and were currently enrolled or knew where they would be going.

Table 14: Name of Graduate/Professional School Students will be Attending, Master's Degree Recipients

	N
NC State University	13
Northeastern University	1
The Chicago School of Professional Psychology	1
University of Michigan Ann Arbor	1

Table 15: Location of Graduate/Professional School Students will be Attending, Master's Degree Recipients

	N	%
North Carolina	13	81%
Massachusetts	1	6%
Illinois	1	6%
Michigan	1	6%

Table 16: Type of Degree Pursuing, Master's Degree Recipients*

	N	%
Master's	1	6%
Doctoral	14	82%
Professional	0	0%
Other	1	6%

*Respondents could select more than one degree.

Table 17: Master's Degree Pursuing, Master's Degree Recipients

	N
MA	1

Table 18: Doctoral Degree Pursuing, Master's Degree Recipients

	N
PhD	14

Table 19: Academic Program, Master's Recipients*

	N
CBE	1
Chemical Engineering	1
Chemical and Biomolecular Engineering	2
Computer Engineering in Ph.D	1
Computer science	1
Engineering	1
ISE	1
Industrial Engineering	1
MSE	1
Master of Psychology - Applied Behavior Analysis	1
Mechanical engineering	1
Nuclear Engineering	1
PhD Electrical Engineering	1
csc	1

*Academic program has not been cleaned. Responses are verbatim.

For more information on the Graduate Future Plans Survey contact:

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