Job Outlook 2019

NACE

National Association of Colleges and Employers

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About the
Job Outlook 2019 Survey

The *Job Outlook* survey is a forecast of hiring intentions of employers as they relate to new college graduates. Each year, the National Association of Colleges and Employers (NACE) surveys its employer members about their hiring plans and other employment-related issues in order to project the market for new college graduates for the current class and to assess a variety of conditions that may influence that market.

From August 1, 2018, through October 8, 2018, data were collected for the *Job Outlook 2019* survey. A total of 172 surveys were returned—an 18.5 percent response rate.

Of those responding, 7.6 percent of respondents are from New England, 8.7 percent are from the Plains, 14 percent are from the Mideast, 14.5 percent are from the Southeast, 14.5 percent are from the Rocky Mountain/Far West, 15.1 percent are from the Southwest, and 25.6 percent are from the Great Lakes. For additional information about the respondents, see the Appendix.

Totals throughout the report may not equal 100 percent due to rounding.

NACE expects to provide a formal update of job market information once more during the 2018-19 academic year: The *Job Outlook 2019 Spring Update* survey (data collected in February – March) will give NACE members a final update on hiring for 2018-19 graduates. Results will be available in early April.

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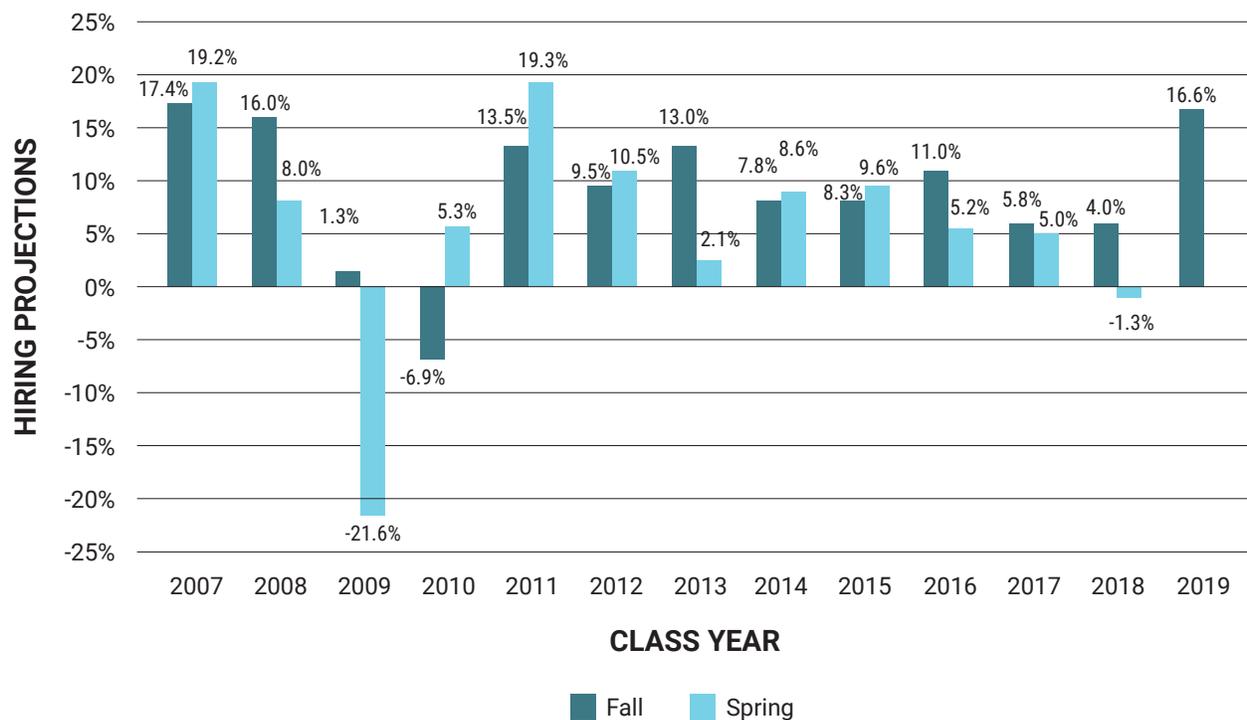
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U.S. College Hiring to Increase by Almost 17 Percent

Employers plan to hire 16.6 percent more new graduates from the Class of 2019 than they did from the Class of 2018 for positions in the United States. (See Figure 1.) This comes as welcome news, especially since employers reported an overall decrease in hiring for Class of 2018 graduates. This year marks the best initial hiring outlook since the Class of 2007.*

FIGURE 1
Job Outlook Hiring Projections, 2007 – 2019

Bar chart: Hiring Projections by Class Year (Fall and Spring)

Class Year	Fall	Spring
2007	17.4%	19.2%
2008	16.0%	8.0%
2009	1.3%	-21.6%
2010	-6.9%	5.3%
2011	13.5%	19.3%
2012	9.5%	10.5%
2013	13.0%	2.1%
2014	7.8%	8.6%
2015	8.3%	9.6%
2016	11.0%	5.2%
2017	5.8%	5.0%
2018	4.0%	-1.3%
2019	16.6%	

*Projections prior to 2014 were for both international and U.S. positions.

Over the past three recruiting years, the largest group of employers indicated plans to maintain their individual hiring numbers. The trend continues this year as 57.4 percent of employers plan to keep their number of college hires the same. (See Figure 2.) While 38.6 percent of responding employers plan to increase their hires, perhaps the most encouraging finding is that just 4 percent of respondents will decrease their hires. This represents less than half of last year's respondents (9.6 percent) that planned to decrease hires, and it is the smallest group with these plans in the past seven years.

FIGURE 2
Employers' Hiring Expectations
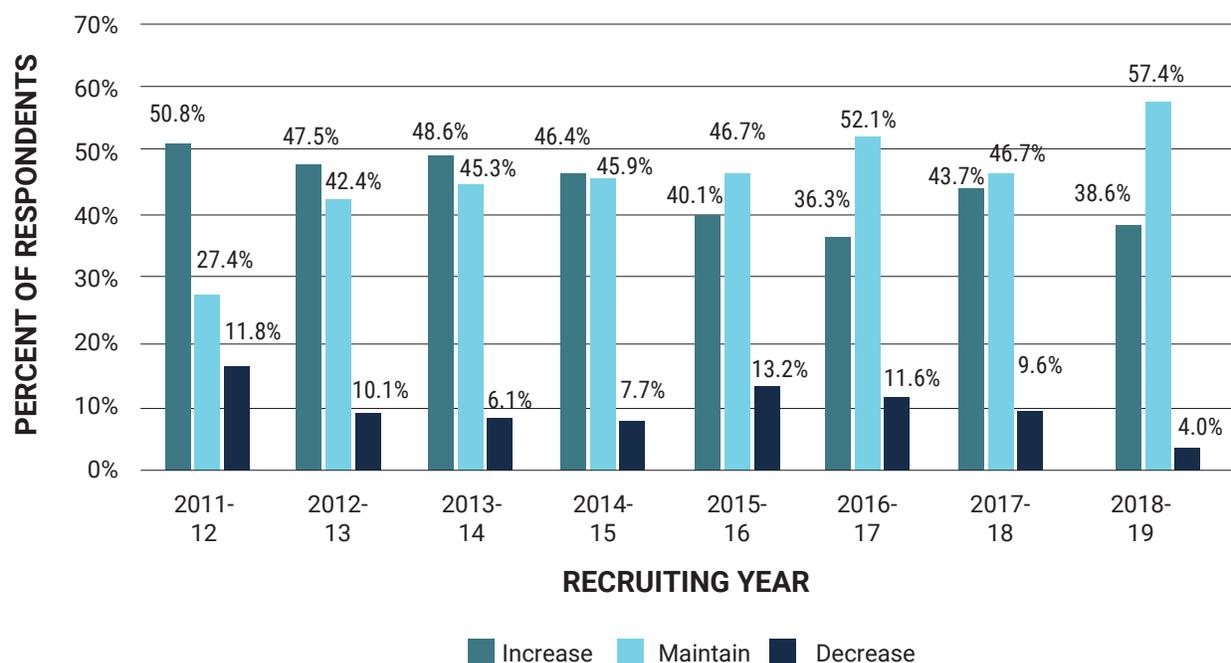
Respondents with plans to increase their new college hiring provided key factors for doing so that yielded common themes. An improved economy, company growth, anticipated retirements, and a focus on early talent/succession planning were reasons cited almost universally among these respondents. In addition, several others in this group reported that they plan to concentrate on converting more interns to full-time hires, thus increasing their overall hiring numbers.

Most of the respondents that are maintaining their new college hiring numbers indicated that the growth in their respective companies is steady, so they have no need to increase or decrease their numbers. Other respondents reported that they hired aggressively in the past few years, so they will maintain college hiring at their current levels.

Among the small number of respondents that are decreasing their hiring numbers, not all cited negative factors. A few mentioned that they, too, had hired more graduates last year than expected, so they will cut back slightly this year. Others noted college recruiting programs that are currently on hold or being revamped, hence a decrease in hires. Meanwhile, just one respondent indicated that it will hire fewer new college graduates because it expects smaller growth in the organization during the coming year.

Ratings indicate strength of job market

The ratings that employers give the 2018-19 job market underscore its strength. With the unemployment rate at a historic low, it is not surprising that nearly half of respondents rate the job market as "very good." This also bucks the trend seen over the last three years when most employers rated the job market as "good." Additionally, the group of employers providing an "excellent" job market rating has jumped from 7.4 percent last year to almost 17 percent this year. Once again, no employers rated the job market as "poor." (See Figure 3.)

FIGURE 3
**Employers Rate the Job Market for 2018-19 Graduates**
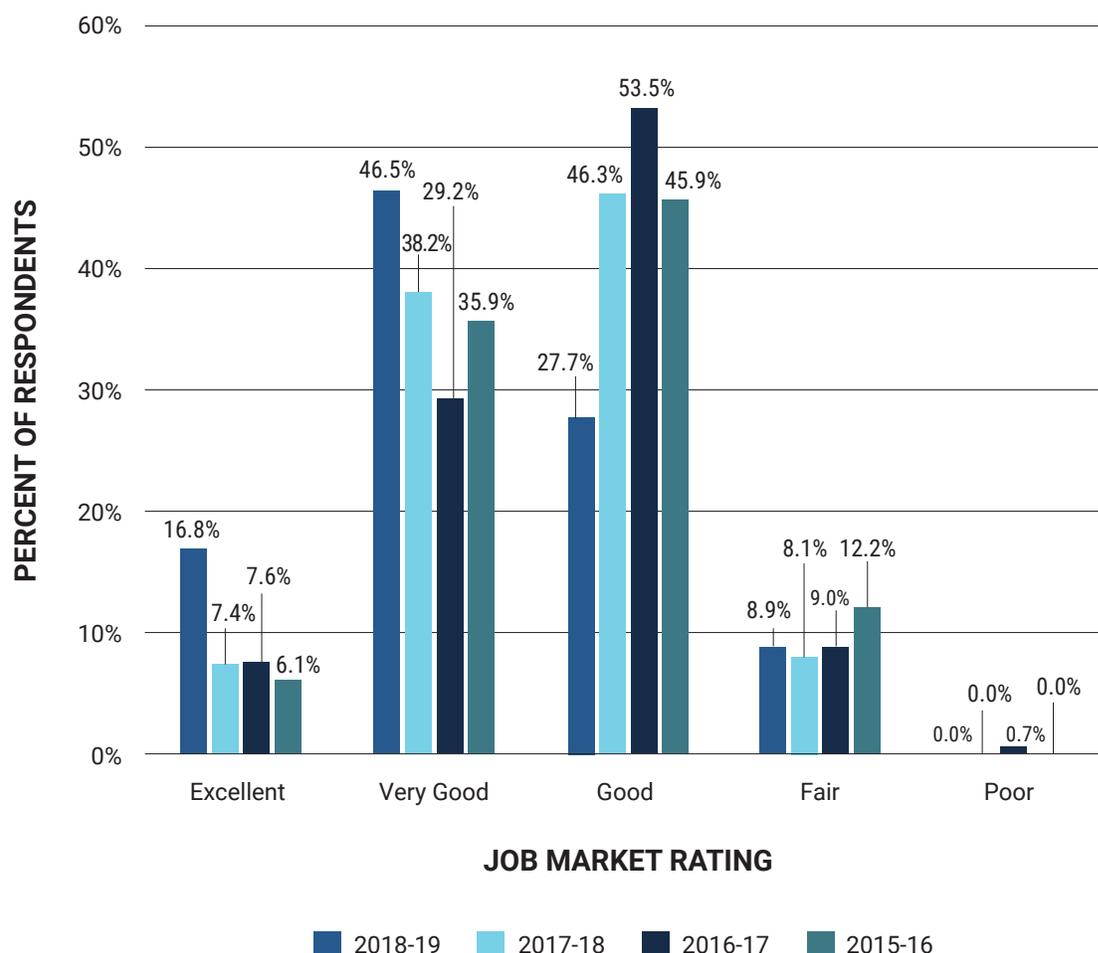
Plans for reassessing hiring show little change

In this "very good" job market, employers appear to have their hiring needs under control and, for the most part, will continue to reassess these needs on a quarterly schedule, which is identical to last year's result. (See Figure 4.) Their counterparts that will reassess hiring needs on either a monthly or an annual basis also remain nearly unchanged. There is, however, a drop in the group reassessing needs on a weekly basis this year. Interestingly, most of the respondents that indicated "other" schedules for reassessing hiring needs either said they will not reassess their college hiring needs at all or they will do so on an "as-needed" basis.

FIGURE 4

Employers' Plans to Reassess Hiring Needs
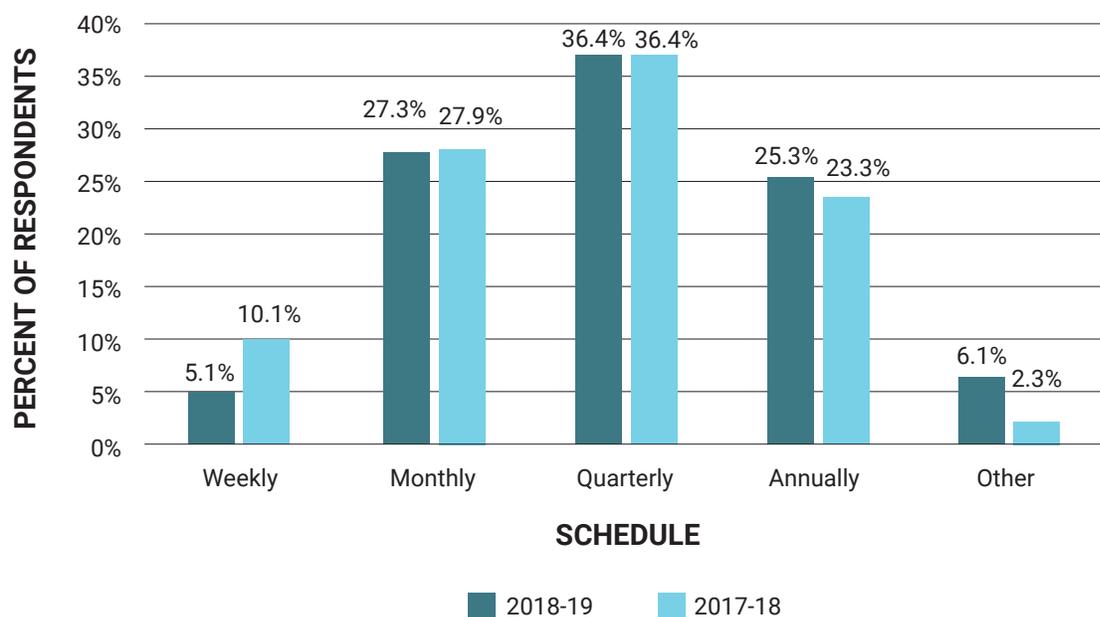
Fall vs. spring recruiting

With hiring cycles continuously being pushed up, it stands to reason that the fall is the more active season for college recruiting. In fact, this is the fourth consecutive year respondents report they will be conducting approximately 70 percent of their college recruiting in the fall, with the remainder to be conducted in the spring. (See Figure 5.)

Another potential trend to watch is that, this year, almost 15 percent of respondents are reporting that they will do 100 percent of their college recruiting in the fall, up from 13 percent last year.

FIGURE 5
Percentage of College Recruiting Conducted In Fall vs. Spring, 2014-2019

Job Outlook Survey Year	Fall	Spring
2019	71%	29%
2018	70%	30%
2017	72%	28%
2016	71%	29%
2015	66%	34%
2014	62%	38%

Among the respondents that plan to recruit in spring 2019, almost 70 percent indicate that they have firm or tentative plans in place. Just 1 percent of respondents that will be on campus in the spring will not be hiring, and 12.1 percent are unsure of their spring 2019 recruiting plans. With almost 20 percent conducting all recruiting in the fall, the group that is unsure of its spring 2019 plans may be made up of those that only recruit in the spring to finish their college recruiting quotas. (See Figure 6.)

FIGURE 6
Spring 2019 Recruiting Plans

Recruiting Plans	Spring 2019	Spring 2018
Firm recruiting plans	37.4%	37.1%
Tentative plans in place	30.3%	32.6%
All recruiting in fall	19.2%	18.2%
Unsure	12.1%	10.6%
Not hiring	1.0%	1.5%

Hiring by industry

Of the 10 industries that provided hiring projections in this report, eight are showing overall increases in college hiring; the remaining two report overall decreases. (See Figure 7.) While just two of 13 industries responding to last year's *Job Outlook 2018* survey reported overall decreases, the numerical percentage increases in hiring this year far outweigh the decreases.

For instance, nearly all of the industries that are increasing overall hires this year show double-digit bumps. This was not the case last year, when just four industries indicated double-digit percentage increases.

The three largest hiring increases this year are seen in the chemical (pharmaceutical) manufacturing, computer and electronics manufacturing, and oil and gas extraction industries. All three industries are reporting that they will hire at least 30 percent more new college graduates this year than they did last year.

FIGURE 7
Total Change in Hiring, by Industry

Industry	# of 2019 Projected Hires	# of 2018 Actual Hires	% Change	# of Respondents
Oil & Gas Extraction	790	600	31.7%	7
Construction	801	840	-4.7%	6
Chemical (Pharmaceutical) Mfg.	687	503	36.6%	9
Computer & Electronics Mfg.	3,465	2,562	35.2%	13
Misc. Mfg.	999	794	25.8%	15
Information	351	337	4.2%	5
Finance, Insurance & Real Estate	13,385	11,238	19.1%	27
Engineering Services	282	280	0.5%	7
Misc. Professional Services	1,569	1,361	15.3%	9
Government	3,084	3,122	-1.2%	5

Chemical (pharmaceutical) manufacturers, which reported an overall hiring increase of 36.6 percent, have 80 percent of respondents with either firm or tentative plans in place for spring 2019 recruiting. They also rated the job market within their industry just above the "very good" rating. (See Figures 8 and 9.)

Also reporting a large increase in hiring, computer and electronics manufacturers have almost 38 percent of their respondents doing all their recruiting this fall. Half of their respondents have firm or tentative plans for spring 2019 recruiting. They rate the job market within their industry somewhere between "good" and "very good."

FIGURE 8
Spring 2019 Recruiting Plans, by Industry

Industry	Firm plans	Tentative plans	All in Fall	Not Hiring	Unsure	# of Respondents
Chemical (Pharmaceutical) Mfg.	40.0%	40.0%	0.0%	20.0%	0.0%	5
Computer & Electronics Mfg.	37.5%	12.5%	37.5%	0.0%	12.5%	8
Misc. Mfg.	22.2%	55.6%	5.6%	0.0%	16.7%	18
Information	16.7%	50.0%	0.0%	0.0%	33.3%	6
Finance, Insurance, & Real Estate	37.5%	31.3%	25.0%	0.0%	6.3%	16
Engineering Services	0.0%	20.0%	40.0%	0.0%	40.0%	5
Misc. Prof. Services	83.3%	16.7%	0.0%	0.0%	0.0%	6
Government	40.0%	20.0%	20.0%	0.0%	20.0%	5

FIGURE 9
Job Market Ratings, by Industry*

Industry	Average Rating	Number of Respondents
Engineering Services	4.40	5
Chemical (Pharmaceutical) Mfg.	4.20	5
Finance, Insurance, & Real Estate	4.00	16
Misc. Prof. Services	3.83	6
Government	3.60	5
Computer & Electronics Mfg.	3.33	9
Misc. Mfg.	3.33	18
Information	3.33	6

5-point scale, where 1=Poor, 2=Fair, 3=Good, 4=Very Good, and 5=Excellent.

Hiring by region

In the *Job Outlook 2018* survey, data were reported for just four geographic regions. This year, NACE included seven regions as defined by the Bureau of Economic Analysis.

Increases in hiring are shown across all regions, with New England boasting the highest projected gain of 31.2 percent. (See Figure 10.) The Southwest, Plains, and Rocky Mountain/Far West regions also have double-digit projected increases, and in all cases, there are no respondents with plans to decrease hiring. (See Figure 11.) While the Mideast also has an overall increase reported in the double-digits, slightly more than 14 percent of respondents in this region have plans to decrease their hiring numbers.

FIGURE 10
Total Change in Hiring, by Region

Region	# of 2019 Projected Hires	# of 2018 Actual Hires	% Change	# of Respondents
New England	3,561	2,714	31.2%	11
Mideast	5,725	4,864	17.7%	21
Great Lakes	1,961	1,938	1.2%	32
Plains	11,459	9,583	19.6%	12
Southeast	5,720	5,278	8.4%	19
Southwest	1,669	1,390	20.0%	22
Rocky Mountain/Far West	1,589	1,395	13.9%	14

FIGURE 11
Hiring Expectations by Region, by Percent of Respondents

Region	Increase	Maintain	Decrease
New England	42.9%	57.1%	0.0%
Mideast	50.0%	35.7%	14.3%
Great Lakes	21.4%	75.0%	3.6%
Plains	54.5%	45.5%	0.0%
Southeast	29.4%	64.7%	5.9%
Southwest	53.3%	46.7%	0.0%
Rocky Mountain/Far West	44.4%	55.6%	0.0%

In some regions, employers' plans for spring 2019 recruiting differ slightly from their overall hiring projections and expectations. (See Figure 12.) In the Mideast region, for example, almost 30 percent of respondents will do all their hiring in the fall with the remaining respondents having either firm or tentative plans for the spring. While there are no respondents here that are not hiring or are unsure of their spring 2019 recruiting plans, 14.3 percent of Mideast respondents are planning to decrease college hiring—the highest percentage of all seven regions.

In contrast, in the Southwest region, almost 7 percent of respondents will not be on campus in spring 2019 because they are not hiring. Yet, this is the same region with a high percentage of employers (53.3 percent) that are increasing their college hires and with an overall hiring increase of 20 percent.

Only in the Plains region is there consistency in all three factors. The overall hiring increase is 19.6 percent. Respondents increasing their hiring account for 54.5 percent of the region, with the remaining 45.5 percent maintaining their hires. In addition, 100 percent of respondents in the Plains region report either firm or tentative plans for spring 2019 recruiting.

FIGURE 12
Spring 2019 Recruiting Plans, by Region

Region	Firm plans	Tentative plans	All in Fall	Not Hiring	Unsure	# of Respondents
New England	42.9%	14.3%	14.3%	0.0%	28.6%	7
Mideast	21.4%	50.0%	28.6%	0.0%	0.0%	14
Great Lakes	29.6%	37.0%	25.9%	0.0%	7.4%	27
Plains	54.5%	45.5%	0.0%	0.0%	0.0%	11
Southeast	64.7%	17.6%	11.8%	0.0%	5.9%	17
Southwest	26.7%	13.3%	26.7%	6.7%	26.7%	15
Rocky Mountain/Far West	25.0%	25.0%	12.5%	0.0%	37.5%	8

Who Is in Demand?

Demand by degree level

Fully 100 percent of this year's survey respondents plan to hire bachelor's degree graduates from the Class of 2019. (See Figure 13.) This was also true for the Class of 2017, and, for the most part, for the Class of 2018.

Not only does the composition of new hires at the bachelor's level remain generally the same, but respondents are also keeping their new hire percentages steady at the associate and advanced-degree levels.

FIGURE 13

Hiring Expectations, by Degree Level

Degree Level	Average % of New College Hires in 2018-19	Number of Respondents Hiring 2018-19	% of Total Respondents Hiring in 2018-19	Average % of New College Hires in 2017-18	Number of Respondents That Hired in 2017-18	% of Total Respondents That Hired in 2017-18
Associate	3.8%	16	19.3%	2.4%	18	15.4%
Bachelor's	83.1%	83	100.0%	83.4%	116	99.1%
Master's	10.6%	58	69.9%	12.1%	83	71.0%
Doctorate	2.0%	18	21.7%	1.7%	26	22.2%
Professional (J.D., M.D., etc.)	0.5%	6	7.2%	0.4%	11	9.4%

Demand by broad category is identical to last year, with business, engineering, and computer science as the top disciplines. This holds true at the associate, bachelor's, and master's degree levels, although not in the same order. Meanwhile, math and sciences are most in demand at the doctorate level. (See Figures 14 and 15.)

FIGURE 14
Top Degrees in Demand, by Broad Category

Broad Category	Number of Respondents That Will Hire	% of Total Respondents (N=101)
Business	84	83.2%
Engineering	83	82.2%
Computer & Information Sciences	63	62.4%
Math & Sciences	35	34.7%
Communications	19	18.8%
Social Sciences	21	20.8%
Humanities	6	5.9%
Agriculture & Natural Resources	6	5.9%
Healthcare	5	5.0%
Education	1	1.0%

FIGURE 15

Top Degrees in Demand, by Degree Level and Broad Category

	Broad Category	Number of Respondents That Will Hire	% of Total Respondents (N=101)
ASSOCIATE	Business	4	4.0%
	Computer & Information Sciences	4	4.0%
	Engineering	4	4.0%
	Communications	2	2.0%
	Agriculture & Natural Resources	1	1.0%
	Healthcare	1	1.0%
	Humanities	1	1.0%
	Math & Sciences	1	1.0%
	Social Sciences	1	1.0%
	Education	0	0.0%
BACHELOR'S	Engineering	82	81.2%
	Business	79	78.2%
	Computer & Information Sciences	61	60.4%
	Math & Sciences	32	31.7%
	Social Sciences	20	19.8%
	Communications	19	18.8%
	Agriculture & Natural Resources	6	5.9%
	Humanities	6	5.9%
	Healthcare	5	5.0%
	Education	1	1.0%
MASTER'S	Business	46	45.5%
	Engineering	30	29.7%
	Computer & Information Sciences	27	26.7%
	Math & Sciences	17	16.8%
	Social Sciences	4	4.0%
	Healthcare	3	3.0%
	Agriculture & Natural Resources	2	2.0%
	Education	1	1.0%
	Humanities	1	1.0%
	Communications	0	0.0%
DOCTORATE	Math & Sciences	10	9.9%
	Engineering	9	8.9%
	Computer & Information Sciences	6	5.9%
	Business	3	3.0%
	Healthcare	2	2.0%
	Social Sciences	1	1.0%
	Education	1	1.0%
	Agriculture & Natural Resources	0	0.0%
	Communications	0	0.0%
	Humanities	0	0.0%

Top majors in demand

At the bachelor's degree level, employer demand by individual major has shifted back to a mix of both business and technical degrees. (See Figure 16.) Last year, finance and accounting were also the top two bachelor's degree majors in demand, but there were no engineering majors among the top 10.

This year, mechanical engineering, electrical engineering, and computer engineering are interspersed throughout the list. In addition, computer science is fourth on the list and information science is seventh (both held the same positions last year).

FIGURE 16
Top Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Total Respondents That Will Hire
Finance	65	64.4%
Accounting	62	61.4%
Mechanical Engineering	57	56.4%
Computer Science	56	55.4%
Business Administration/Mgmt.	55	54.5%
Electrical Engineering	53	52.5%
Information Science	52	51.5%
Logistics/Supply Chain	49	48.5%
Management Information Systems	49	48.5%
Computer Engineering	46	45.5%

Demand for individual majors within each of the seven broad categories is shown in Figures 17 through 23. Results include:

• Nearly 80 percent of respondents hiring graduates with business degrees are seeking finance and accounting majors. These are also the top two overall bachelor's degree majors in demand and will be targeted by at least 60 percent of total respondents.

• The top three engineering fields in demand—mechanical, electrical, and computer engineering—also made the top 10 list of overall majors in demand at the bachelor's degree level. More than half of respondents hiring engineering graduates will hire these majors, and approximately half of total respondents have plans to recruit them.

• More than 60 percent of employers that will hire computer sciences majors will hire all three reported individual majors—computer science, information sciences and systems, and software applications.

- Three-quarters of respondents hiring graduates in math and sciences will specifically hire mathematics majors. Slightly more than one-third of these respondents will also recruit chemistry majors, but less than 20 percent of respondents are interested in the remaining science fields—biology, environmental science, physics, construction science, and geology.

- While graduates earning social sciences degrees will be recruited by 19.8 percent of total respondents, 95 percent of those that plan to recruit them will hire economics majors. Political science/government and psychology majors will also be targeted, but by just 35 percent of those respondents hiring graduates with social science degrees.

- Less than 6 percent of total respondents have plans to hire humanities majors. English and liberal arts/general studies will receive the most interest.

FIGURE 17
Top Business Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Respondents Hiring Business Degrees (N=79)
Finance	65	82.3%
Accounting	62	78.5%
Business Administration/Mgmt.	55	69.6%
Management Information Systems	49	62.0%
Logistics/Supply Chain	49	62.0%
Marketing	43	54.4%
Economics	40	50.6%
Sales	36	45.6%
Human Resources	32	40.5%
International Business	20	25.3%
Actuary	15	19.0%
Hospitality Management	8	10.1%

FIGURE 18

Top Engineering Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Respondents Hiring Engineering Degrees (N=82)
Mechanical Engineering	57	69.5%
Electrical Engineering	53	64.6%
Computer Engineering	46	56.1%
Software Engineering	39	47.6%
Industrial Engineering	33	40.2%
Chemical Engineering	31	37.8%
Systems Engineering	22	26.8%
Materials Engineering	21	25.6%
Engineering Technology	20	24.4%
Civil Engineering	19	23.2%
Environmental Engineering	19	23.2%
Aerospace/Aeronautical Engineering	11	13.4%
Biomedical Engineering	10	12.2%
Petroleum Engineering	4	4.9%
Nuclear Engineering	2	2.4%

FIGURE 19

Top Computer and Information Science Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Respondents Hiring Computer & Information Science Degrees (N=61)
Computer Science	56	91.8%
Information Sciences & Systems	52	85.2%
Software Applications	39	63.9%

FIGURE 20

Top Math and Science Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Respondents Hiring Math & Science Degrees (N=32)
Mathematics	24	75.0%
Chemistry	11	34.4%
Biology	6	18.8%
Environmental Science	6	18.8%
Physics	6	18.8%
Construction Science	5	15.6%
Geology	3	9.4%

FIGURE 21

Top Communications Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Respondents Hiring Communications Degrees (N=19)
Communications	19	100.0%
Public Relations	13	68.4%
Advertising	12	63.2%
Journalism	11	57.9%

FIGURE 22

Top Social Sciences Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Respondents Hiring Social Sciences Degrees (N=20)
Economics	19	95.0%
Political Science/International Relations	7	35.0%
Psychology	7	35.0%
Sociology	5	25.0%
Social Work	3	15.0%

FIGURE 23
Top Humanities Degrees in Demand (Bachelor's Degree Level)

Major	# of Respondents That Will Hire	% of Respondents Hiring Humanities Degrees (N=6)
English	5	83.3%
Liberal Arts/General Studies	5	83.3%
History	3	50.0%
Foreign Language & Literature	3	50.0%
Philosophy	3	50.0%
Visual & Performing Arts	3	50.0%
Area & Gender Studies	3	50.0%

Demand for individual majors at the master's degree level continues to include a mix of STEM and business majors, with computer science and M.B.A.s as the majors most in demand. (See Figure 24.) This was also the case last year. Four engineering majors—computer, software, electrical, and mechanical engineering—are also included on the list, and accounting and finance majors field interest from almost 20 percent of employers hiring graduates with master's degrees.

FIGURE 24

Top Degrees in Demand (Master's Degree Level)

Major	# of Respondents That Will Hire	% of Total Respondents That Will Hire
Computer Science	25	24.8%
Business Administration/Mgmt. (M.B.A.)	24	23.8%
Computer Engineering	23	22.8%
Information Sciences & Systems	23	22.8%
Accounting	19	18.8%
Finance	19	18.8%
Software Engineering	19	18.8%
Electrical Engineering	17	16.8%
Mechanical Engineering	17	16.8%
Management Information Systems	16	15.8%

At the doctorate degree level, demand is totally focused on STEM majors. (See Figure 25.) Computer science majors top the list, with graduates in mathematics, engineering, and other computer-related fields also receiving interest.

FIGURE 25
Top Degrees in Demand (Doctorate Degree Level)

Major	# of Respondents That Will Hire	% of Total Respondents That Will Hire
Computer Science	6	5.9%
Mathematics	6	5.9%
Computer Engineering	4	4.0%
Electrical Engineering	4	4.0%
Information Science & Systems	4	4.0%
Mechanical Engineering	4	4.0%
Software Applications	4	4.0%
Civil Engineering	3	3.0%
Materials Engineering	3	3.0%
Software Engineering	3	3.0%

Demand by region once again confirms that finance is the top bachelor's degree in demand, as it tops the list in three of the seven regions. (See Figures 26 through 32.) Other top majors are a combination of business, computer science, and engineering degrees.

FIGURE 26
Top Five Undergraduate Majors – New England

Major	# of New England Respondents That Will Hire	% of New England Respondents That Will Hire	% of Total Respondents That Will Hire
Finance	6	85.7%	5.9%
Information Science & Systems	6	85.7%	5.9%
Business Administration/Mgmt.	5	71.4%	5.0%
Computer Science	5	71.4%	5.0%
Management Information Systems	5	71.4%	5.0%

FIGURE 27

Top Five Undergraduate Majors – Mideast

Major	# of Mideast Respondents That Will Hire	% of Mideast Respondents That Will Hire	% of Total Respondents That Will Hire
Finance	9	64.3%	8.9%
Accounting	9	64.3%	8.9%
Business Administration/Mgmt.	8	57.1%	7.9%
Computer Science	8	57.1%	7.9%
Information Science & Systems	8	57.1%	7.9%

FIGURE 28

Top Five Undergraduate Majors – Great Lakes

Major	# of Great Lakes Respondents That Will Hire	% of Great Lakes Respondents That Will Hire	% of Total Respondents That Will Hire
Mechanical Engineering	18	64.3%	17.8%
Finance	16	57.1%	15.8%
Accounting	15	53.6%	14.9%
Electrical Engineering	15	53.6%	14.9%
Logistics/Supply Chain	15	53.6%	14.9%

FIGURE 29

Top Five Undergraduate Majors – Plains

Major	# of Plains Respondents That Will Hire	% of Plains Respondents That Will Hire	% of Total Respondents That Will Hire
Finance	10	90.9%	9.9%
Accounting	9	81.8%	8.9%
Business Administration/Mgmt.	9	81.8%	8.9%
Logistics/Supply Chain	9	81.8%	8.9%
Management Information Systems	8	72.7%	7.9%

FIGURE 30

Top Five Undergraduate Majors – Southeast

Major	# of Southeast Respondents That Will Hire	% of Southeast Respondents That Will Hire	% of Total Respondents That Will Hire
Computer Science	11	64.7%	10.9%
Information Science & Systems	11	64.7%	10.9%
Accounting	10	58.8%	9.9%
Electrical Engineering	10	58.8%	9.9%
Finance	9	52.9%	8.9%

FIGURE 31

Top Five Undergraduate Majors – Southwest

Major	# of Southwest Respondents That Will Hire	% of Southwest Respondents That Will Hire	% of Total Respondents That Will Hire
Computer Science	10	66.7%	9.9%
Accounting	8	53.3%	7.9%
Business Administration.Mgmt.	8	53.3%	7.9%
Finance	8	53.3%	7.9%
Mechanical Engineering	8	53.3%	7.9%

FIGURE 32

Top Five Undergraduate Majors – Rocky Mountain/Far West

Major	# of Rocky Mountain/Far West Respondents That Will Hire	% of Rocky Mountain/Far West Respondents That Will Hire	% of Total Respondents That Will Hire
Accounting	7	77.8%	6.9%
Computer Science	7	77.8%	6.9%
Finance	7	77.8%	6.9%
Mechanical Engineering	6	66.7%	5.9%
Software Engineering	6	66.7%	5.9%

By industry, finance, insurance, and real estate employers have the most interest in finance majors, with 100 percent of respondents reporting that they will hire these majors. (See Figure 33.) Respondents also show high interest in the other top business majors in demand, including accounting and business administration/management. A large percentage of government and miscellaneous manufacturers also plan to target top bachelor's majors.

FIGURE 33
Who Is Hiring, by Industry (Bachelor's Degree Level)

Major	Most Interested Industries	% of Industry Respondents
Finance	Finance, Insurance & Real Estate	100.0%
	Government	80.0%
	Retail Trade	80.0%
Accounting	Government	100.0%
	Finance, Insurance & Real Estate	86.7%
	Misc. Mfg.	66.7%
Mechanical Engineering	Misc. Mfg.	94.4%
	Chemical (Pharmaceutical) Mfg.	80.0%
	Computer & Electronics Mfg.	66.7%
Computer Science	Information	100.0%
	Misc. Prof. Services	83.3%
	Retail Trade	80.0%
Business Administration/Mgmt.	Finance, Insurance & Real Estate	86.7%
	Government	80.0%
	Misc. Mfg.	55.6%

When it comes to the majors most in demand at the bachelor's degree level, respondents in the Plains region have the highest percentage of employers that plan to target the three business majors, while those in the Rocky Mountain/Far West region hold the most interest in the technical degrees. (See Figure 34.)

FIGURE 34

Who Is Hiring, by Region (Bachelor's Degree Level)

Major	Most Interested Regions	% of Region's Respondents
Finance	Plains	90.9%
	New England	85.7%
	Rocky Mountain/Far West	77.8%
	Mideast	64.3%
	Great Lakes	57.1%
	Southwest	53.3%
	Southeast	52.9%
Accounting	Plains	81.8%
	Rocky Mountain/Far West	77.8%
	Mideast	64.3%
	Southeast	58.8%
	New England	57.1%
	Great Lakes	53.6%
	Southwest	53.3%
Mechanical Engineering	Rocky Mountain/Far West	66.7%
	Great Lakes	64.3%
	Plains	63.6%
	Southwest	53.3%
	Southeast	52.9%
	Mideast	50.0%
	New England	28.6%
Computer Science	Rocky Mountain/Far West	77.8%
	New England	71.4%
	Southwest	66.7%
	Southeast	64.7%
	Plains	63.6%
	Mideast	57.1%
	Great Lakes	28.6%
Business Administration/ Mgmt.	Plains	81.8%
	New England	71.4%
	Mideast	57.1%
	Rocky Mountain/Far West	55.6%
	Southwest	53.3%
	Great Lakes	46.4%
	Southeast	41.2%

International student hiring recovers

Last year, the percentage of employers that had plans to hire international students dropped to its lowest level in the past five years at just 23.4 percent. This year, however, more than 28 percent of respondents indicate plans to hire international students. (See Figure 35.) Among the small group of respondents (n=14) that provided their specific hiring numbers for international students, the news is also good: These particular employers plan an overall increase in international student hiring of 23.2 percent.

FIGURE 35
International Student Hiring Plans
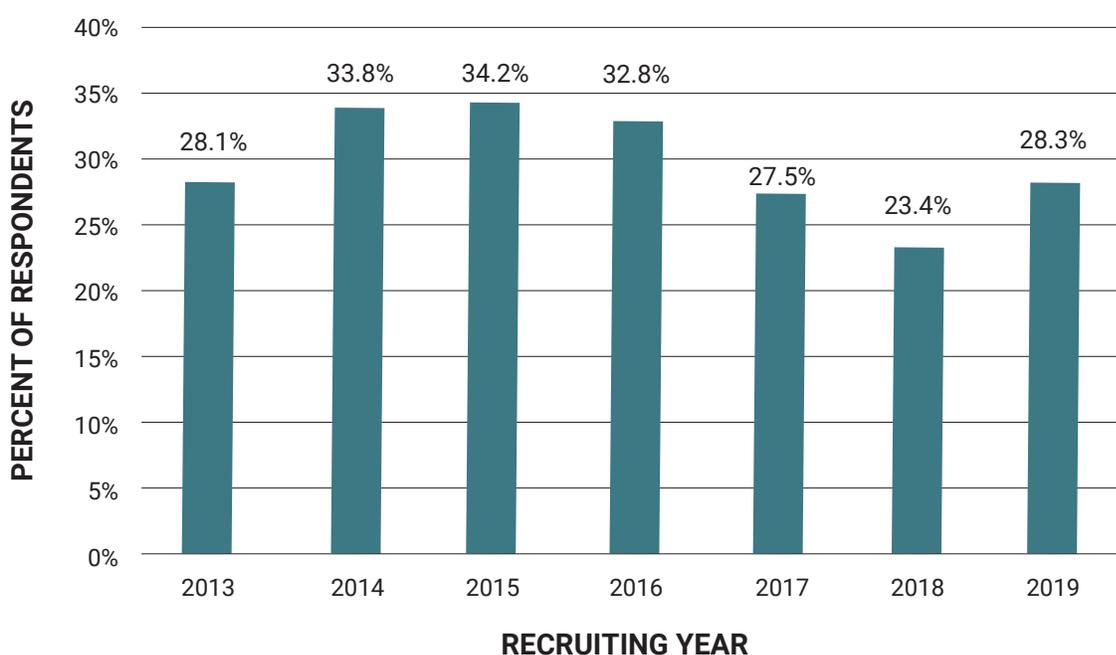
Two-thirds of respondents in the information industry plan to hire international students from the Class of 2019. (See Figure 36.) This is a substantial improvement over last year, when just 36.4 percent of information employers had plans to do so. Retail employers are showing more interest in these graduates this year, with 50 percent having plans to hire international students, which is up from 25 percent last year. Construction firms (40 percent this year; 20 percent last year) and miscellaneous manufacturers (21.1 percent this year; 12 percent last year) are also showing stronger interest this year.

FIGURE 36
International Student Hiring Plans, by Industry

Industry	% of Respondents That Plan to Hire International Students
Information	66.7%
Retail Trade	50.0%
Construction	40.0%
Computer & Electronics Mfg.	33.3%
Finance, Insurance, & Real Estate	33.3%
Misc. Prof. Services	33.3%
Misc. Mfg.	21.1%
Chemical (Pharmaceutical) Mfg.	16.7%
Engineering Services	16.7%

Of the seven geographic regions in this report, more than half of respondents located in the Plains region and one-third of Mideast respondents have plans to hire international students. (See Figure 37.) In comparison, last year's regional outlook for international students was the best in the West region, with 37 percent of respondents planning to hire international students.

FIGURE 37
International Student Hiring Plans, by Region

Region	% of Respondents That Plan to Hire International Students
Plains	54.5%
Mideast	33.3%
Great Lakes	26.7%
New England	25.0%
Southeast	23.8%
Rocky Mountain/Far West	23.5%
Southwest	22.2%

How Employers View Candidates

The percentage of employers that will screen candidates by GPA has reached its highest level since the 2013 recruiting year. (See Figure 38.) Nearly three-quarters of respondents will screen Class of 2019 candidates by GPA; the typical GPA cutoff will be 3.0 this year.

FIGURE 38

Screen Candidates by GPA, by Percentage of Respondents
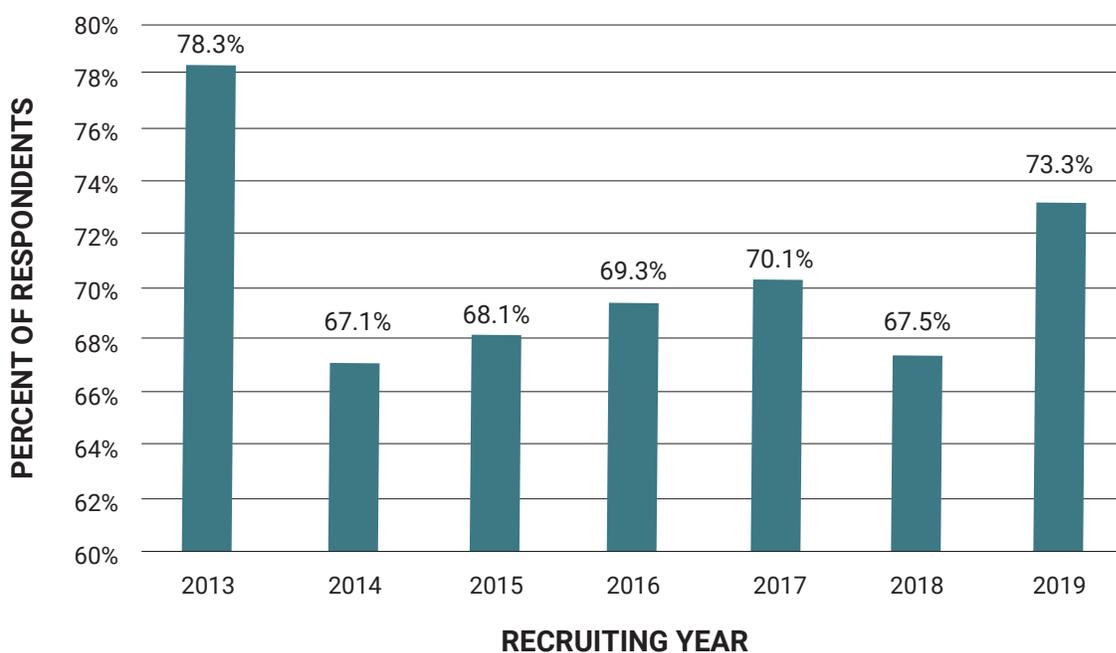
The three industries with the largest hiring increases planned for Class of 2019 graduates—chemical (pharmaceutical) manufacturers, computer and electronics manufacturers, and oil and gas extraction firms—are also three of the top industries most likely to screen candidates by GPA. (See Figure 39.) All respondents in the chemical (pharmaceutical) manufacturing and oil and gas extraction industries plan to screen their job candidates by GPA, and 85.7 percent of computer and electronics manufacturers will do so. Other industries reported having at least 60 percent of respondents that will perform GPA screening.

FIGURE 39

Screen Candidates by GPA, by Industry

Industry	% of Respondents	GPA Cutoff (Reported Median)
Chemical (Pharmaceutical) Mfg.	100.0%	3.0
Oil & Gas Extraction	100.0%	3.0
Finance, Insurance, & Real Estate	92.3%	3.0
Computer & Electronics Mfg.	85.7%	3.0
Engineering Services	80.0%	3.0
Food & Beverage Mfg.	75.0%	3.0
Misc. Mfg.	75.0%	3.0
Information	66.7%	3.1
Misc. Prof. Services	60.0%	3.0

Resume attributes

In addition to working hard to obtain a high GPA, graduates may want to focus on presenting a well-written resume, as more than 80 percent of employers will seek proof of solid written communication skills on a candidate's resume. (See Figure 40.)

Last year's survey also had slightly more than 80 percent of respondents that were paying attention to written communication skills, but more were in search of problem-solving skills and the ability to work in a team. These two attributes fall second and third on this year's "wish list."

Initiative is selected as a top-four attribute this year by almost three-quarters of respondents; last year, just 67.5 percent of respondents reported seeking initiative. Another change this year is in leadership skills, which were top four last year, with 72.6 percent seeking them. However, only 67.4 percent of survey respondents are looking for leadership skills this year.

FIGURE 40

**Attributes Employers Seek
On a Candidate's Resume**

Attribute	% of Respondents
Communication skills (written)	82.0%
Problem-solving skills	80.9%
Ability to work in a team	78.7%
Initiative	74.2%
Analytical/quantitative skills	71.9%
Strong work ethic	70.8%
Communication skills (verbal)	67.4%
Leadership	67.4%
Detail-oriented	59.6%
Technical skills	59.6%
Flexibility/adaptability	58.4%
Computer skills	55.1%
Interpersonal skills (relates well to others)	52.8%
Organizational ability	43.8%
Strategic planning skills	38.2%
Tactfulness	25.8%
Creativity	23.6%
Friendly/outgoing personality	22.5%
Entrepreneurial skills/risk-taker	16.9%
Fluency in a foreign language	11.2%

Candidate A = Candidate B. How do employers choose?

Often, employers will narrow down their hiring decision to two (or more) equally qualified candidates. Knowing what makes them choose one over another is key insight in the job-search process. Internship experience appears to be the answer. (See Figure 41.)

Having completed an internship with the hiring organization has the most influence in selecting one candidate over another, with both this year's and last year's respondents reporting that particular attribute as having extreme influence. In addition, internship experience within the industry is also extremely influential.

Other attributes of influence are a student's major and having held a leadership position, as well as general work experience and involvement in extracurricular activities. In a negative sense, no work experience is also somewhat influential in that it may even negate a GPA of 3.0 or above.

FIGURE 41
Influence of Attributes

Attribute	2019 Average Influence Rating*	2018 Average Influence Rating*	2017 Average Influence Rating*
Has completed an internship with your organization	4.6	4.6	N/A
Has internship experience in your industry	4.5	4.4	N/A
Major	4.0	3.8	4.0
Has held leadership position	3.8	3.7	3.9
Has general work experience	3.7	3.7	N/A
Has been involved in extracurricular activities (clubs, sports, student government, etc.)	3.5	3.3	3.6
Has no work experience	3.4	3.4	N/A
High GPA (3.0 or above)	3.3	3.4	3.6
School attended	2.7	2.8	2.9
Has done volunteer work	2.6	2.7	2.6
Is fluent in a foreign language	2.1	2.2	2.1
Other	2.1	2.2	N/A
Has studied abroad	2.0	2.2	2.0

*5-point scale, where 1=No influence at all, 2=Not much influence, 3=Somewhat of an influence, 4=Very much influence, and 5=Extreme influence.

Career readiness

Little change is seen year to year in the ratings that employers give to the eight NACE career readiness competencies in terms of essential need. Critical thinking/problem solving is once again rated as most essential by this year's respondents. (See Figure 42.)

The top four most essential competencies have also not changed in terms of order with teamwork/collaboration, professionalism/work ethic, and oral/written communications falling second through fourth on the list, as they did last year. In addition, all of the four top-rated competencies are rated above "essential."

However, competencies that are rated between "somewhat essential" and "essential" have changed order. This year, digital technology is the fifth most essential competency, according to respondents, and leadership is sixth. This is interesting since, earlier in this report, we found that leadership skills were also lower on this year's list of attributes that employers look for on a student's resume.

The two lowest-rated competencies—career management and global/multi-cultural fluency—remain in the same order, but their average ratings fell.

FIGURE 42
Employers Rate the Essential Need of the Career Readiness Competencies

Competencies	Weighted Average Rating*
Critical Thinking/Problem Solving	4.66
Teamwork/Collaboration	4.48
Professionalism/Work Ethic	4.41
Oral/Written Communications	4.30
Digital Technology	3.84
Leadership	3.65
Career Management	3.38
Global/Multi-cultural Fluency	2.78

5-point scale, where 1=Not essential, 2=Not very essential, 3=Somewhat essential, 4=Essential, 5=Absolutely essential

In terms of proficiency, employers gave students slightly higher marks in all eight competencies this year, but all ratings still fall in the range between "somewhat proficient" and "very proficient." Employers feel that recent graduates are most proficient in teamwork/collaboration, digital technology, and critical thinking/problem solving.

Through their proficiency ratings, employers kept the top six competencies in the same order as they were last year. However, students are rated more proficient in global/multi-cultural fluency than career management this year. (See Figure 43.)

FIGURE 43

Employers Rate Recent Graduates on the Eight Career Readiness Competencies

Competencies	Weighted Average Rating*
Teamwork/Collaboration	3.83
Digital Technology	3.76
Critical Thinking/Problem Solving	3.64
Oral/Written Communications	3.49
Professionalism/Work Ethic	3.47
Leadership	3.31
Global/Multi-cultural Fluency	3.13
Career Management	3.05

*5-point scale, where 1=Not at all proficient, 2=Not very proficient, 3=Somewhat proficient, 4=Very proficient, 5=Extremely proficient.

In examining the need vs. proficiency ratings of all eight career readiness competencies, the findings show that skill gaps remain in certain areas. (See Figure 44.)

Among the four top-rated competencies in terms of need—critical thinking/problem solving, teamwork, professionalism/work ethic, and oral/written communications—the difference between the need and proficiency ratings are the greatest. They range from 27.7 percent for teamwork to 50.3 percent for professionalism. Also, just 56.8 percent of respondents consider students proficient in critical thinking/problem solving, yet 100 percent of employers rated the competency as very or extremely essential.

There are, however, two competencies for which students are meeting or exceeding employers' expectations. While 68.8 percent of respondents consider digital technology to be essential, an almost equal percentage (66.3 percent) consider students to be proficient. In addition, global/multi-cultural fluency is rated highly in terms of essential need by just 22.6 percent of respondents, but more than 31 percent of employers rated students as proficient.

FIGURE 44

Need vs. Proficiency on Career Readiness Competencies, by Percent of Respondents
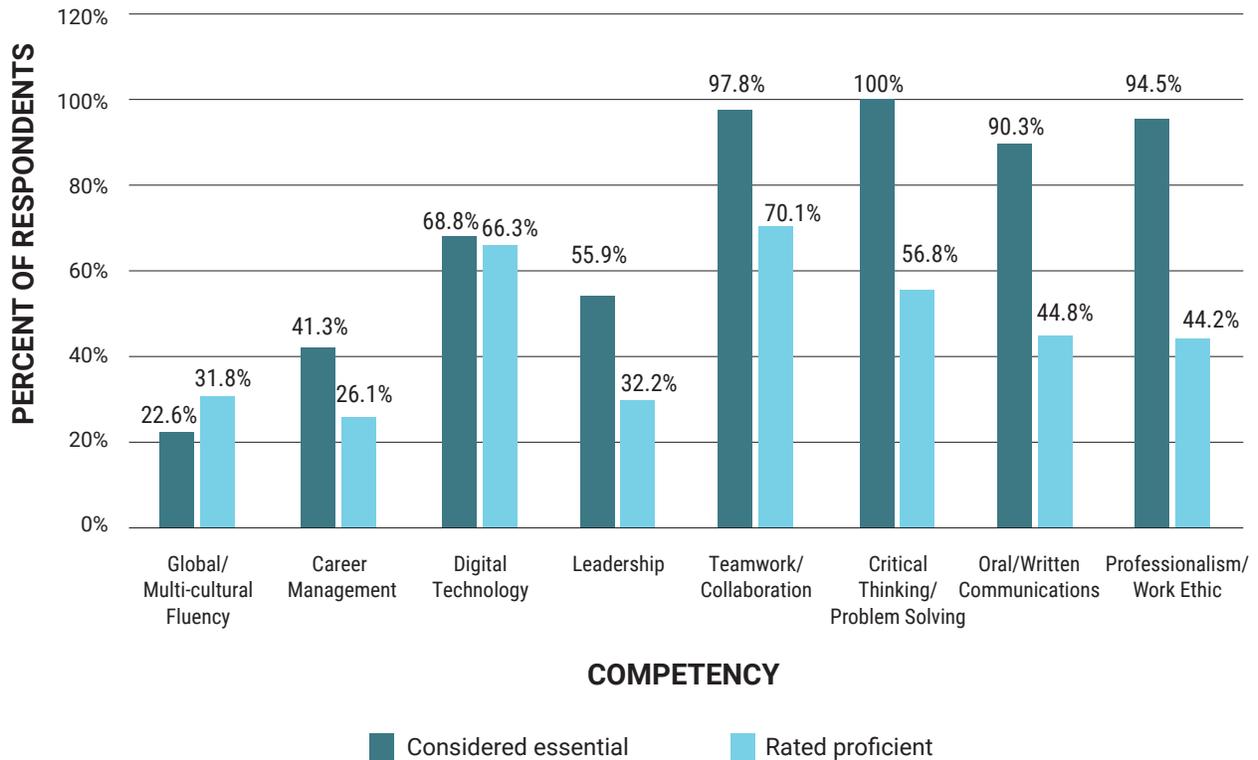
*The percentages corresponding to "considered essential" represent, among all responding employers, the percentage who, on a five-point scale, indicated that the respective competency was either "essential" (4) or "absolutely essential" (5) for college graduates to enter their work force. The percentages corresponding to "rated proficient" represent, among all responding employers, the percentage who, on a five-point scale, rated recent graduates either "very" (4) or "extremely" (5) proficient in the respective competency.

Compensation & Signing Bonuses

Starting salaries

Even though the percentage of respondents that plan to increase bachelor's degree starting salaries has dipped somewhat compared to last year, more than 60 percent still have plans to do so for the Class of 2019. (See Figure 45.)

Among respondents to this survey, the average salary increase for bachelor's degree graduates is expected to be 3.4 percent, with a median increase of 3 percent. Slightly more than one-third of respondents have bachelor's degree increases planned that exceed 3 percent.

Information employers are most likely to raise bachelor's degree starting salaries, with 80 percent of respondents planning increases. (See Figure 46.) At least half of responding finance, insurance, and real estate employers and miscellaneous manufacturers plan to increase salaries for new college hires with bachelor's degree.

FIGURE 45
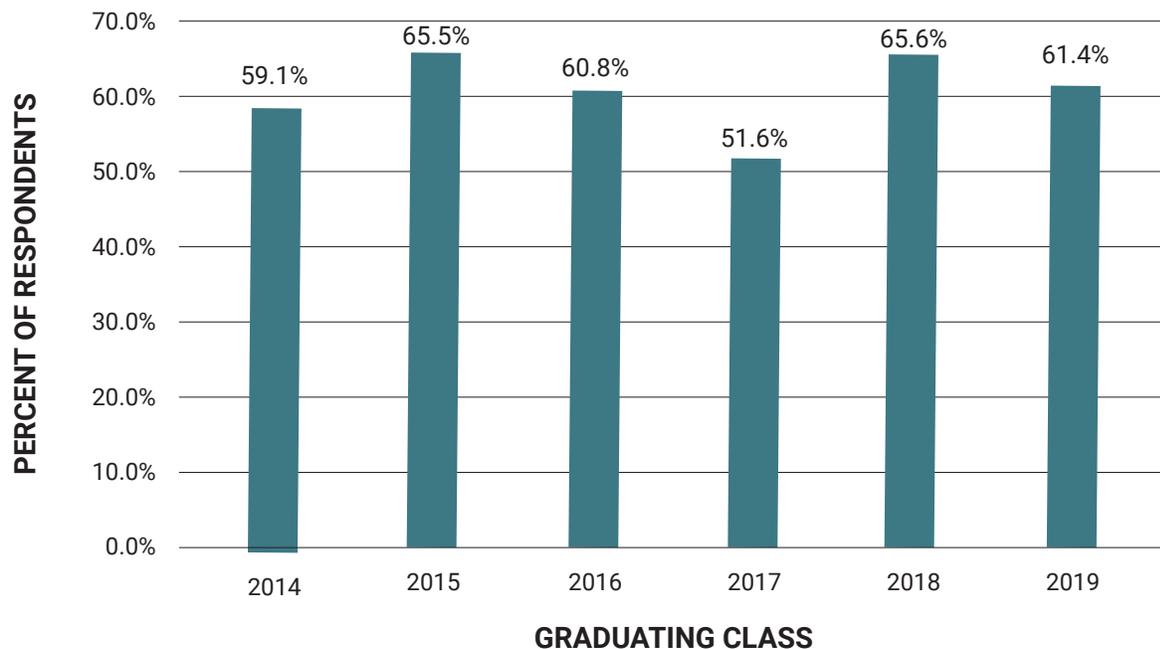**Employers With Plans to Increase Starting Salaries to Bachelor's Degree Graduates**

FIGURE 46
Employers With Plans to Increase Starting Salaries, by Industry

Industry	# of Respondents With Plans to Increase Bachelor's Salaries	# of Respondents by Industry	% of Respondents by Industry
Information	4	5	80.0%
Finance, Insurance & Real Estate	5	9	55.6%
Misc. Mfg.	6	12	50.0%
Computer & Electronics Mfg.	2	5	40.0%
Government	1	5	20.0%

By region, employers in the Great Lakes are most likely to increase bachelor's degree salaries. Nationwide, at least half of respondents by region have plans to do so. (See Figure 47.)

FIGURE 47
Employers With Plans to Increase Starting Salaries, by Region

| Region	# of Respondents With Plans to Increase Bachelor's Salaries	# of Respondents by Region	% of Respondents by Region
Great Lakes	13	18	72.2%
Southeast	9	14	64.3%
Plains	3	5	60.0%
Southwest	7	13	53.8%
Mideast	5	10	50.0%
Rocky Mountain/Far West	3	6	50.0%

Signing bonuses

The group of employers with plans to offer signing bonuses has climbed to almost 60 percent— the highest percentage since the 2012-13 recruiting year. (See Figure 48.) Additionally, last year, almost 57 percent of respondents intended to offer signing bonuses, and nearly 60 percent actually provided them, showing that the upward trend continues.

Although more bonuses will be offered in 2018-19, they will only go to selected graduates. Nearly 60 percent of respondents report that they will only offer signing bonuses to selected majors, consisting primarily of engineering, computer science, and certain business majors.

FIGURE 48
Employers Offering Signing Bonuses
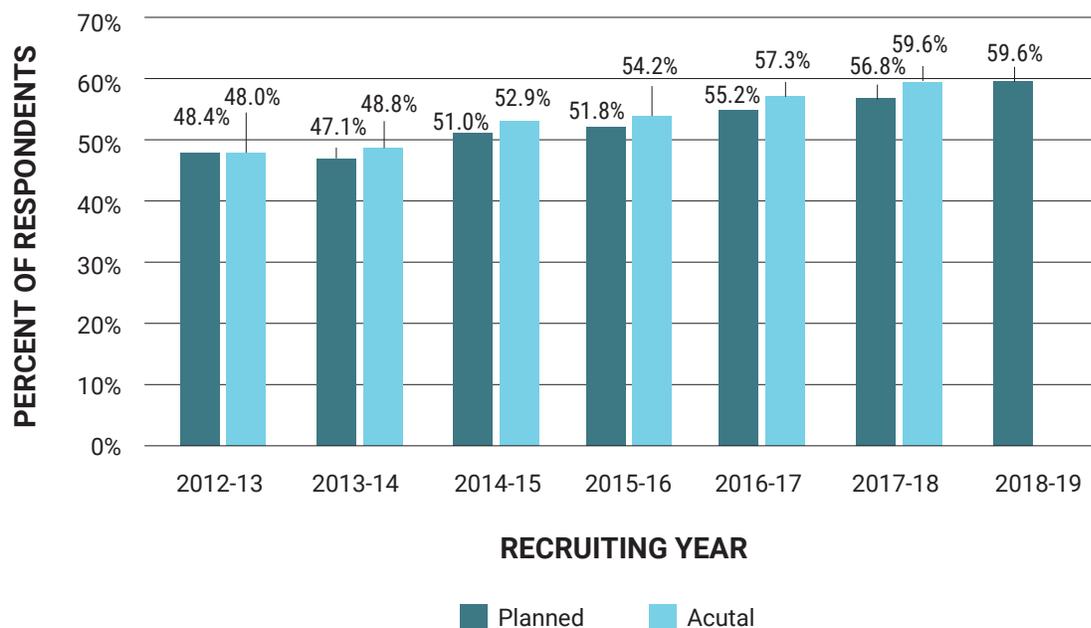
By industry, all responding chemical (pharmaceutical) manufacturers plan to offer signing bonuses. Employers in the miscellaneous manufacturing, information, computer and electronics manufacturing, and engineering services industries also have at least 60 percent of respondents planning to offer signing bonuses. (See Figure 49.)

Employers in the Plains region are also the most likely to offer signing bonuses, while only the Southeast region has less than half of its respondents offering signing bonuses to 2018-19 graduates. (See Figure 50.)

FIGURE 49

Percent of Employers Offering Signing Bonuses to 2018-19 Graduates, by Industry

Industry	% offering Signing Bonuses	# of Respondents
Chemical (Pharmaceutical) Mfg.	100.0%	5
Misc. Mfg.	72.2%	18
Information	66.7%	6
Computer & Electronics Mfg.	62.5%	8
Engineering Services	60.0%	5
Finance, Insurance & Real Estate	53.3%	15
Misc. Prof. Services	50.0%	6

FIGURE 50

Percent of Employers Offering Signing Bonuses to 2018-19 Graduates, by Region

Region	% offering Signing Bonuses	# of Respondents
Plains	80.0%	10
Great Lakes	66.7%	27
Mideast	61.5%	13
New England	57.1%	7
Rocky Mountain/Far West	55.6%	9
Southwest	53.3%	15
Southeast	44.4%	18

Despite more employers offering signing bonuses this year, data on bonus amounts are extremely limited, as just five major categories are reported at the bachelor's level this year. (See Figure 51.) While increases are seen in four of the five categories, the data should be used with caution, as limited numbers are greatly affected by any outliers.

At the master's level, even fewer data are reported, but bonus amounts are provided for M.B.A. and computer science degrees. (See Figure 52.)

FIGURE 51

Average Signing Bonus, by Major (Bachelor's Degrees)*

Major	2018-19 Average Bonus (Projected)	# of Respondents 2018-19	2017-18 Average Bonus (Projected)	# of Respondents 2017-18
Accounting	$5,400	5	$2,375	5
All majors	$3,625	4	$4,900	5
Business	$4,000	4	$3,357	7
Computer Science	$7,500	5	$6,000	9
Engineering (not specified)	$5,600	10	$4,083	6

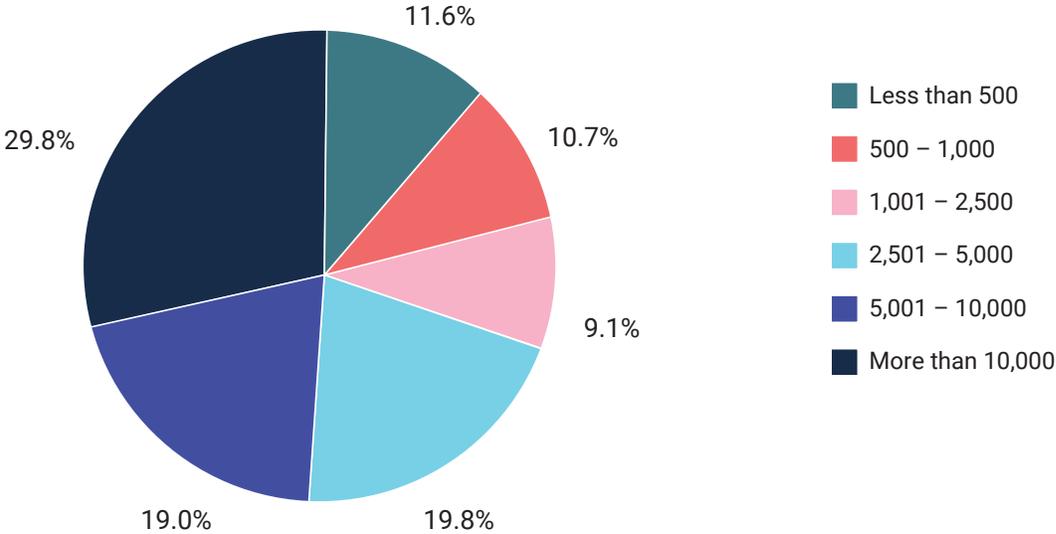*Where 4 or more data points were provided.*

FIGURE 52

Average Signing Bonus, by Major (Master's Degrees)*

Major	2018-19 Average Bonus (Projected)	# of Respondents 2018-19	2017-18 Average Bonus (Projected)	# of Respondents 2017-18
M.B.A.	$22,500	5	$15,500	5
Computer Science	$10,167	4	$10,375	5

Where 4 or more data points were provided.

Appendix

FIGURE 53
Respondents by Size of Department/Business Unit

Legend:
- Less than 500
- 500 – 1,000
- 1,001 – 2,500
- 2,501 – 5,000
- 5,001 – 10,000
- More than 10,000

11.6%
10.7%
9.1%
19.8%
19.0%
29.8%

FIGURE 54
Respondents by Industry

Industry	# of respondents	% of respondents
Oil & Gas Extraction	8	4.7%
Utilities	4	2.3%
Construction	7	4.1%
Food & Beverage Mfg.	4	2.3%
Chemical (Pharmaceutical) Mfg.	10	5.8%
Computer & Electronics Mfg.	17	9.9%
Motor Vehicle Mfg.	6	3.5%
Misc. Mfg.	22	12.8%
Wholesale Trade	5	2.9%
Retail Trade	8	4.7%
Transportation	3	1.7%
Information	9	5.2%
Finance, Insurance & Real Estate	31	18.0%
Accounting Services	3	1.7%
Engineering Services	8	4.7%
Management Consulting	3	1.7%
Misc. Prof. Services	10	5.8%
Social Services	3	1.7%
Recreation & Hospitality	2	1.2%
Misc. Support Services	2	1.2%
Government	7	4.1%

FIGURE 55
States Included in Each Region

Region	States
New England	CT, ME, MA, NH, RI, VT
Mideast	DE, DC, MD, NJ, NY, PA
Great Lakes	IL, IN, MI, OH, WI
Plains	IA, KS, MN, MO, NE, ND, SD
Southeast	AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV
Southwest	AZ, NM, OK, TX
Rocky Mountain/Far West	CO, ID, MT, UT, WY, AK, CA, HI, NV, OR, WA

Participating Organizations

Below is a list of the organizations that responded to the *Job Outlook 2019* survey. *(Please note: Although 172 organizations responded, the list below includes 87, as 85 organizations preferred not to be listed.)*

Activision Blizzard	GE Appliances, a Haier company
Amtrak	General Dynamics Electric Boat
Andersen Corporation	Genworth Financial
ArcelorMittal USA	Georgia Tech Research Institute
Arizona Public Service	GlaxoSmithKline
Austin Commercial	Great Lakes Dredge & Dock Company
Avery Dennison Corporation	Hallmark Cards
BOK Financial Corporation	Harley-Davidson Inc.
California State Auditor	Highmark Health
Capital Group	HNTB Companies
CGI Federal	Hubbell Incorporated
Charter Manufacturing Company, Inc.	INEOS
City and County of Denver Talent Acquisition	Info Tech
ConocoPhillips Company	Ingredion
Continental AG	Intuit Inc.
Daikin Industries/Goodman Manufacturing	ITW
Dick's Sporting Goods	John Hancock Financial
Dot Foods	Kimberly-Clark Corporation
E. & J. Gallo Winery	Kohl's Department Stores
Echo Global Logistics	Liberty Mutual Insurance Company
ellucian	Linde Engineering North America Inc.
Enterprise	Link-Belt Construction Equipment Co.
EOG Resources, Inc.	M&T Bank Corporation
Equinix	Macy's, Inc.

MAVERICK Technologies

McAfee, Inc.

MGM Resorts International

National Instruments

NetApp

Nokia

Occidental Petroleum Corp.

Olin Corporation

Owens Corning

Parsons Corporation

Philips Lighting

Phillips 66

PPL Corporation

Principal Financial Group

Protiviti Inc.

Raytheon Company

Regions Financial Corporation

Selden Fox LTD

Shaw Industries, Inc.

Simpson Gumpertz & Heger Inc.

Sonoco Products Company

Southern Company

Speedway LLC

Stryker Corporation

T-Mobile USA, Inc.

Textron Inc.

The Aerospace Corporation

The Clorox Co.

The Kleingers Group

The MITRE Corporation

The Travelers Companies, Inc.

The Walsh Group

Thermo Fisher Scientific Inc.

TimkenSteel Corporation

Turner Construction Company

U.S. Cellular Corporation

United Launch Alliance

Verso Corp.

W. L. Gore & Associates, Inc.