

# Senior Exit Survey 2021: Experiential Education and Future Plans

## *An Analysis of the Relationship between Internship/Co-op Experiences during College and Employment after Graduation*

This report contains selected information from the 2021 Senior Exit Survey regarding students' participation in experiential education opportunities during college (with a focus on internships/co-ops), future plans after graduation (with a focus on employment), and an analysis of the relationship between internship/co-op experiences and securing employment after graduation.

For more information about the Senior Exit Survey, including the full survey results, please visit <https://www.colorado.edu/oda/surveys/oda-sponsored-surveys/undergraduate-surveys/senior-exit-survey>.

University of Colorado Boulder undergraduates that were intending to graduate in spring or summer 2021 were asked to complete the Senior Exit Survey. The survey asked students to reflect on their experiences at CU Boulder, including within their academic program. If a student was enrolled in multiple programs, they were asked to provide feedback on one of their programs which was specified at the beginning of the survey.

Column headings indicate the school/college to which the students' academic program is housed: CU (All respondents), A&S (Arts & Sciences), BUSN (Leeds School of Business), ENGR (College of Engineering and Applied Science), and Other (School of Education, School of Music, Program in Environmental Design, and College of Media, Communication, and Information).

N values in each table (i.e., "(n = ...)" shown in the column heading) represent the maximum number of respondents who answered each question set from each sample.

Please contact the ODA Survey Team at [ODA-surveys@colorado.edu](mailto:ODA-surveys@colorado.edu) with any questions.

### **Response Rates**

	CU	A&S	BUSN	ENGR	Other
<i># of Survey Invites</i>	5,517	2,797	876	996	848
<i># of Survey Responses</i>	2,283	1,000	357	633	293
<i>Response Rate (%)</i>	41%	36%	41%	64%	35%

Please note, the College of Engineering carried out additional outreach to students, resulting in a higher response rate. As engineering is overrepresented, results are presented by school/college throughout this report.

## **Experiential Education**

Students were given a list of 17 possible educational experiences for which they may have participated while a student at CU Boulder. The table below shows the percent of students who participated in various different educational experiences. Note that, aside from a culminating senior experience (53%), the next most frequent experience reported by students was participating in an internship or co-op (43%).

<b>% that participated or are currently participating in...</b>	<b>CU</b> (n = 2,123)	<b>A&amp;S</b> (n = 922)	<b>BUSN</b> (n = 317)	<b>ENGR</b> (n = 619)	<b>Other</b> (n = 265)
<i>Culminating Senior Experience</i>	53%	32%	60%	77%	61%
<i>Internship or Co-op</i>	43%	30%	57%	52%	46%
<i>Academic student groups on campus</i>	30%	30%	33%	32%	25%
<i>On-campus work positions</i>	28%	28%	25%	29%	27%
<i>Formal leadership role in a student organization or group</i>	25%	23%	30%	27%	20%
<i>Volunteering / Service learning programs</i>	20%	23%	20%	17%	13%
<i>Undergraduate research experiences</i>	19%	23%	3%	26%	8%
<i>Study Abroad</i>	19%	16%	35%	13%	28%
<i>Social student groups on campus</i>	17%	16%	17%	21%	14%
<i>Course or lab assistant position</i>	16%	14%	4%	29%	5%
<i>Work with a faculty member on a research project</i>	13%	15%	3%	16%	10%
<i>Student teaching</i>	10%	10%	8%	12%	10%
<i>Leadership programs</i>	8%	8%	10%	6%	7%
<i>Fieldwork or practicums</i>	7%	10%	3%	4%	8%
<i>Innovation and/or entrepreneurship programs</i>	6%	3%	9%	10%	3%
<i>Student government</i>	3%	3%	4%	1%	4%
<i>Clinical placements</i>	1%	2%	1%	0%	0%
<i>None of these educational experiences</i>	13%	19%	7%	6%	11%

Respondents who participated in each experience were asked how helpful the experience was. The table below shows the % who said “Helpful” or “Extremely Helpful”. Note that, aside from “working with a faculty member on a research project,” for which 92% reported being helpful/very helpful, participation in an internship or co-op received high ratings with 91-94% of students reporting their internship or co-op was helpful/very helpful:

<b>% that found [...] helpful / very helpful</b>	<b>CU</b> (n = 1,113)	<b>A&amp;S</b> (n = 295)	<b>BUSN</b> (n = 186)	<b>ENGR</b> (n = 472)	<b>Other</b> (n = 160)
<i>Academic student groups on campus</i>	60%	60%	59%	62%	55%
<i>Clinical placement</i>	77%	85%	100%	33%	0%
<i>Co-op experience</i>	94%	0%	0%	94%	0%
<i>Complete a culminating senior experience</i>	79%	82%	67%	80%	82%
<i>Course or lab assistant (non-research) position</i>	77%	81%	71%	74%	83%
<i>Fieldwork or practicum connected to my academic program or interests</i>	83%	88%	70%	78%	77%
<i>Formal leadership role in a student organization or group</i>	85%	84%	95%	82%	85%
<i>Innovation and/or entrepreneurship program</i>	73%	73%	70%	74%	71%
<i>Internship</i>	91%	90%	89%	96%	84%
<i>Leadership program</i>	81%	81%	76%	82%	94%
<i>On-campus work position</i>	68%	70%	68%	63%	71%
<i>Social student groups on campus</i>	62%	63%	66%	57%	65%
<i>Student government</i>	69%	81%	64%	62%	50%
<i>Student teaching</i>	85%	86%	71%	86%	88%
<i>Study abroad</i>	86%	90%	84%	80%	89%
<i>Undergraduate research experience</i>	88%	90%	60%	89%	75%
<i>Volunteering / Service learning program</i>	72%	73%	68%	72%	66%
<i>Work with a faculty member on a research project</i>	92%	96%	78%	91%	77%

[4-point Scale: Not helpful, A little helpful, Helpful, Extremely helpful]

## Information about Internships & Co-ops

### Number of Internships

Respondents who indicated they participated in an internship or co-op were asked how many they completed. A little under half (45%) participated in more than one internship or co-op.

How many internships/ co-ops did you have?	CU (n = 898)	A&S (n = 272)	BUSN (n = 182)	ENGR (n = 322)	Other (n = 122)
One	55%	68%	45%	51%	54%
Two	30%	21%	34%	35%	31%
Three	12%	8%	19%	11%	12%
Four or more	3%	3%	3%	3%	2%

### Compensation

Seniors were asked if they were compensated for their internship or co-op and in what format. Many were compensated, but it varies based on the school or college. (*Check all that apply question so percentages will not add to 100%.*)

Were you compensated for your internship/co-op?	CU (n = 891)	A&S (n = 268)	BUSN (n = 180)	ENGR (n = 322)	Other (n = 121)
Yes, I was paid	72%	46%	84%	95%	50%
Yes, I received academic credit	16%	31%	7%	2%	35%
No	17%	30%	14%	4%	27%

### Receive Job offer

Seniors were asked if they received a job offer from their internship or co-op and if they accepted it. Overall, 43% of seniors received an offer from their internship or co-op.

Did your internship/co-op result in a job offer?	CU (n = 890)	A&S (n = 268)	BUSN (n = 180)	ENGR (n = 321)	Other (n = 121)
Yes, and I accepted the offer	26%	13%	31%	36%	19%
Yes, but I declined the offer	17%	15%	22%	18%	12%
No	57%	71%	47%	47%	69%

### Where Find Position

Seniors were asked where they found their internship or co-op. (*Check all that apply question so percentages will not add to 100%.*)

How did you hear about your internship(s) or co-op?	CU (n = 883)	A&S (n = 265)	BUSN (n = 178)	ENGR (n = 319)	Other (n = 121)
CU Boulder Career Fair	14%	6%	10%	24%	10%
Job listing on Handshake	16%	10%	25%	15%	19%
Job listing elsewhere (paper, web, internet)	23%	22%	16%	29%	19%
Friend, family member and/or professional contact	41%	31%	52%	41%	46%
Faculty referral	11%	17%	7%	7%	17%
Academic advisor referral	6%	10%	2%	5%	6%
**Other. Please specify	18%	24%	17%	16%	15%

\*\*\*"Other" write-ins often fell into one of the listed categories, e.g., "LinkedIn" written in rather than selecting "Job listing elsewhere (paper, web, internet).

## **Future Plans**

### **Impact of COVID**

About half of the students (51%) indicated that the COVID-19 pandemic impacted their post-graduation plans either completely or to a large degree:

<b>How much has the pandemic impacted your post-graduation plans?</b>	<b>CU</b> (n = 2,140)	<b>A&amp;S</b> (n = 933)	<b>BUSN</b> (n = 318)	<b>ENGR</b> (n = 622)	<b>Other</b> (n = 267)
<i>Completely</i>	20%	24%	20%	11%	30%
<i>To a large degree</i>	31%	32%	29%	28%	32%
<i>Somewhat</i>	36%	34%	35%	44%	29%
<i>Not at all</i>	13%	10%	16%	17%	9%

### **Impact of COVID on Employment Search**

Among those who said 'Completely,' 'To a large degree,' or 'Somewhat' to the previous question, about two-thirds (68%) said that the COVID-19 pandemic made it more difficult to find employment:

<b>Has the pandemic made it more difficult for you to find employment?</b>	<b>CU</b> (n = 1,866)	<b>A&amp;S</b> (n = 841)	<b>BUSN</b> (n = 267)	<b>ENGR</b> (n = 516)	<b>Other</b> (n = 242)
<i>Yes</i>	68%	66%	67%	67%	79%
<i>No</i>	16%	14%	22%	20%	9%
<i>I have not sought employment during the pandemic</i>	15%	19%	10%	13%	12%

### **Anticipated Primary Activity after Graduation**

In the months after graduation, graduates plan to do a variety of activities, with employment (including military service) or seeking employment being the most common (76%):

<b>What is most likely to be your PRIMARY activity after graduation?</b>	<b>CU</b> (n = 2,137)	<b>A&amp;S</b> (n = 930)	<b>BUSN</b> (n = 320)	<b>ENGR</b> (n = 622)	<b>Other</b> (n = 265)
<i>% Employment (incl. Military Service)</i>	49%	43%	54%	52%	55%
<i>% Continuing Education</i>	20%	23%	19%	19%	11%
<i>% Volunteer/service work</i>	1%	2%	1%	0%	0%
<i>% Seeking employment</i>	27%	28%	24%	25%	32%
<i>% Other</i>	3%	4%	2%	4%	1%

### **Employment Status**

Among those who said "Employment (including Military Service)" or "Volunteer/service work" as being their primary activity after graduation, about 60% have either accepted a position or are considering one or more offers:

<b>Which of the following best describes the current state of your employment?</b>	<b>CU</b> (n = 1,066)	<b>A&amp;S</b> (n = 419)	<b>BUSN</b> (n = 176)	<b>ENGR</b> (n = 325)	<b>Other</b> (n = 146)
<i>Have accepted a position</i>	50%	40%	66%	64%	31%
<i>Considering one or more specific offers</i>	10%	11%	9%	8%	10%
<i>Currently searching for a position</i>	33%	36%	23%	25%	51%
<i>Have not yet begun my job search</i>	7%	12%	2%	3%	8%

### Employment Directly Related to Academic Major(s)

For those who plan to be employed after graduation and have already accepted a position, many (57%) have accepted positions that are considerably related to their major(s) at CU Boulder:

How much [does] your position directly relate to your academic major(s)?	CU (n = 507)	A&S (n = 156)	BUSN (n = 109)	ENGR (n = 200)	Other (n = 42)
% Considerable relation to my major(s)	57%	36%	52%	76%	55%
% Some relation to my major(s)	28%	33%	39%	17%	26%
% Not related to major(s)	16%	31%	8%	7%	19%

### Salary

Those who plan to be employed after graduation and have already accepted a position were asked what their approximate salary is.

Respondents were asked to select from predetermined ranges (e.g., \$50,000-\$55,000). In order to average, mid-points were used (e.g., \$25,000-\$30,000 coded as \$27,500). Those who said more than \$125,000 were coded as \$125,000.

What will be your annual salary?	CU (n = 507)	A&S (n = 156)	BUSN (n = 109)	ENGR (n = 200)	Other (n = 42)
Average Salary	\$52,049	\$35,934	\$54,112	\$67,081	\$36,905

## Analysis of the Role of Internships & Co-ops

In this section, three main questions about the role of internships and co-ops on obtaining employment that could be answered using Senior Survey responses:

- 1) Among students that were planning on being employed after graduation:
  - a) *Did students that participated in an internship/co-op have a higher likelihood of securing employment?*
  - b) *Does the relationship between internship/co-op experience and securing employment change based on a student's school/college?*
- 2) Among students that participated in an internship or co-op: *Is there a higher likelihood of securing employment if a student did*
  - a) *a compensated internship?*
  - b) *multiple internships/co-ops?*
- 3) Among students that have already secured employment after graduation:
  - a) *Does participating in an internship/co-op suggest a higher starting salary?*
  - b) *Does the relationship between internship/co-op experience and starting salary change based on a student's school/college?*

For the first three questions, the dependent variable is securing employment at the time of taking the survey. This variable was derived from the primary activity and employment status questions (page 5 above). Those who said “*Have accepted a position*” or “*Considering one or more specific offers*” to the employment status question are considered employed. Those who said “*Seeking Employment*” on the primary activity question or answered “*Currently searching for a position*” or “*Have not yet begun my job search*” on the employment status question are not.

Seniors who did not plan to be seeking employment or employed after graduation (i.e., student who answered “continuing education” or “other”) were not included in this analysis.

Please note that this analysis only takes into account the variables used in this section (e.g., internship/co-op variables, employment variables, school/college). There may be other “confounding variables” (e.g., student motivation) that correlate with both the independent and dependent variables and, if controlled, could explain the observed relationships described below between internship/co-op experience and employment after graduation.

**Question 1a:** Among students that were planning on being employed after graduation: *Did students that participated in an internship/co-op have a higher likelihood of securing employment?*

Those who complete an internship or co-op are significantly more likely to have a job lined up before leaving CU Boulder ( $n = 1,647, t = 10.8, p < .001$ ). **53%** of those who participated in an internship/co-op and plan to be employed have already secured a position and **28%** of those who did not participate in an internship have secured a position.

**Question 1b:** *Does the relationship between internship/co-op experience and securing employment change based on a student's school/college?*

This trend holds among all schools and colleges, although some schools and colleges have a larger difference in securing employment between those who participated in an internship/co-op and those who did not:



School/College	% Secured Employment		
	Internship/co-op	No Internship/co-op	
All	53%	28%	n = 1,647, p < .001
A&S	40%	27%	n = 681, p < .001
Engineering	66%	29%	n = 482, p < .001
Business	63%	37%	n = 252, p < .001
Other	34%	19%	n = 232, p = .010

**Question 2a:** Among students that participated in an internship or co-op: *Is there a higher likelihood of securing employment if a student did a compensated internship?*

Those who completed compensated internships or co-ops are more likely to have secured a position prior to graduating ( $n = 710, t = 5.4, p < .001$ ). **32%** of those who did uncompensated internships or co-ops and **58%** of those who did compensated internships or co-ops have secured a position.

*Compensation via credit and money have been collapsed into a single category for this analysis.*

**Question 2b:** Among students that participated in an internship or co-op: *Is there a higher likelihood of securing employment if a student did multiple internships/co-ops?*

Those who completed more internships or co-ops are more likely to have secured a position prior to graduating ( $n = 707, t = 64.8, p = .003$ ).

- 49% of those who completed 1 internship or co-op secured a position.
- 41% of those who completed 2 internships or co-ops secured a position.
- 55% of those who completed 3 internships or co-ops secured a position.
- 73% of those who completed 4 or more secured a position.

**Question 3a:** Among students that have already secured employment after graduation: *Does participating in an internship/co-op suggest a higher starting salary?*

Students who participate in internships or co-ops are more likely to earn more than those who did not ( $n = 504, t = 5.00, p < .001$ ). On average, those who completed an internship or co-op earn **\$57,186** while those who did not complete an internship or co-op earn **\$43,189**.

**Question 3b:** Does the relationship between internship/co-op experience and starting salary change based on a student’s school/college?

Yes, the relationship between internship/co-op participation and starting salary changes based on a student’s primary school/college. For the three largest schools and colleges, the difference in starting salary is only significant for Engineering. Students in Engineering also are more likely to participate in internships and earn higher salaries than the campus as a whole, which likely skews the overall comparison above. (Please note, these are fairly low numbers)

School/College	Internship	No Internship	Significance
All	\$57,186 (n = 319)	\$43,189 (n = 185)	p < .001
A&S	\$37,799 (n = 67)	\$34,560 (n = 91)	N.S.
Engineering	\$71,105 (n = 147)	\$55,250 (n = 50)	p < .001
Business	\$56,500 (n = 75)	\$48,515 (n = 32)	N.S.
Other	\$34,000 (n = 30)	\$44,167 (n = 12)	N.S.