

2015 Final Year Engineering Student Survey – Québec Report

Conducted by Ipsos Reid on behalf of Engineers Canada



August 2015

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Research Objectives

- The primary objective of this research is to understand the reasons why graduates of CEAB accredited engineering programs at Quebec higher education institutions do or do not intend to apply for their license.
- In order to achieve this objective, the research seeks to understand the following:
 - The future career and/or education plans of final year engineering students;
 - Motivations for pursuing their undergraduate degree in engineering;
 - The percentage of final year engineering students who intend to pursue a career in Engineering and the percentage who intend to apply for their P.Eng. licence.

Methodology

- The online survey was conducted between February 24 to April 3, 2015 with final year engineering students.
- All university Faculties of Engineering with CEAB accredited programs were invited to participate in the study and were asked to send the online survey to all final year engineering students registered in their engineering program.
- The link to the online survey was sent to the higher education institutions and each school was requested to send the survey link to all qualified students.
- The survey was offered in both English and French.
- Nationally, total of 35 higher education institutions participated in the research and 2,010 students completed the survey. Within Quebec, 6 schools participated and a total of n=226 students completed the survey.
- The margin of error for Quebec respondents (n=226) is $\pm 6.5\%$, 19 times out of 20.
- Statistically significant differences year or year are identified with arrows ▲▼, while statistically significant differences between subgroups are identified with letters (the letter(s) identify the subgroup the % is different from)

Key Highlights

While the vast majority of students intend on pursuing a career in engineering (83%) and intend to apply for licensure (66%), we continue to observe declines on these measure specifically among those definitely likely to do either.

- While the vast majority of students continue to report they are likely (definitely/ probably) to pursue a career in engineering (83% vs. 93% in 2014, 97% in 2013) the proportion of students who definitely will has declined for the second consecutive year (43% vs. 56% in 2014, 68% in 2013).
- Similarly, while two thirds of all students indicate they are likely (definitely/ probably) to apply for licensure (66% vs. 80% in 2014, 84% in 2013), the proportion who definitely will pursue their P.Eng. licence has declined for the second year in a row (39%, vs. 53% in 2014, 59% in 2013), while a greater proportion probably won't versus last year (15% vs. 8% in 2014, vs. 7% in 2013).
- Seven in ten (71%) final year engineering students intend to go into the workforce after graduating with their bachelor's degree in engineering, consistent with 2014 (66%), while fewer than two in ten (15%) intend to pursue more education after their undergraduate degree is complete, statistically lower than last year (24%).
- Overall, four in ten students have already been offered a job in the engineering field (42%).

Key Highlights (cont'd)

Encouragingly, we observe some positive shifts in students' knowledge about certain aspects of the engineering profession:

- Seven in ten students are aware that a license is not required to practice engineering work under the supervision of a P.Eng. (70% vs. 60% in 2014, 56% in 2013), statistically higher than in 2014.
- In terms of organizational responsibility, students are more likely to know that CEAB (Engineers Canada) is the organization that accredits higher education institutions' engineering programs compared to previous years (89% vs. 77% in 2014, 67% in 2013), the second consecutive year awareness has increased on this measure.

Executive Summary

Undergraduate Program Motivations and Experience

- The most common reason students provided for choosing to study engineering was that it was related to their interests (65%), followed closely by the application of science and math (64%). Other common mentions include the practical, applied nature of the discipline (56%), followed by job security (42%) the challenge (40%) and financial security (39%).
- Half of students (52%) indicate having decided to study engineering while in high school, while fewer than one in ten did so during first year (6%), when they were a small child (4%), after second year (3%) or while working (3%). Three in ten (31%) indicate it was at another time.
- Students' feel that by far the most important support for students during their engineering studies were family and friends (85%), followed by one third who mentioned individuals from a co-op/ internship (32%) and slightly fewer who said faculty (28%). Two in ten mention athletics (20%), followed by engineer societies/ clubs (16%), off campus work (12%), university clubs (11%) or on campus work (7%).
- In terms of extracurricular participation, around half of students (47%) indicate having worked off campus during their degree program, followed by one quarter (26%) who worked on campus and two in ten (20%) who participated in a discipline specific engineering organizations or other off campus organizations (17%).
- Students are most likely to feel that the single greatest barrier to completing their engineering degree is the workload of courses (32%), followed closely by school life balance (29%). Closer to one in ten indicate paying tuition (9%), followed by working and attending school simultaneously (8%), completing first year (7%) or in-discipline courses (6%).

Executive Summary (continued)

Future Intentions: Continuing Education Versus Entering Workforce

- Seven in ten (71%) final year engineering students say they intend to go into the workforce after graduating with their bachelors degree in Engineering, consistent with last year, while fewer than two in ten (15%) intend to pursue more education, lower than in 2014.
- Of those who plan to pursue more education, nearly half (47%) intend to get their masters degree in Engineering, while around two in ten plan to pursue a master's degree in another area (18%) or a PhD in engineering (15%) and closer to one in ten another professional degree (9%) or an MBA (6%).
- Among those students who intend to pursue a career in engineering, four in ten intend to in the province they are attending school (39%), followed by closer to two in ten who indicate elsewhere in Canada (17%) and around one in ten who plan to work in the US (6%) or elsewhere in the world (12%)
- Four in ten students have already been offered a job in the engineering field (42%), of which nearly half indicate they have been offered one job (46%), while closer to four in ten have been offered two jobs (37%) and one in ten have been offered three (10%).

Future Intentions: Engineering Career

- Over eight in ten (83%) students say they are likely to pursue a career in engineering, lower than in 2014 (93%), of which around four in ten *definitely* will (43%) or *probably* will (40%). One in ten students *probably* (7%) –or- *definitely* (2%) *will not* pursue a career in engineering or don't know (8%). Compared to 2014, the proportion who definitely will pursue a career in engineering has declined (43% vs. 56% in 2014, 68% in 2013) and the proportion who don't know has increased (this option wasn't provided in previous years).
- The top reason for not pursuing a career in engineering continues to be that engineering is not what they thought it would be. Other common mentions include that there are better employment opportunities elsewhere, having trouble finding work in the engineering field and the desire to pursue an alternate career/ education.

Executive Summary (continued)

Future Intentions: Pursue Licensure

- Four in ten of all students (39%) indicate that they *definitely* intend to apply for licensure, while nearly three in ten (27%) *probably* will. One quarter *probably/ definitely won't* apply (25%) while one in ten don't know (9%). Compared to 2014, there has been a statistically significant decline in those who definitely intend on pursuing their licensure (39% vs. 53% in 2014, 59% in 2013), while a higher proportion indicate they probably will not (15% vs. 8% in 2014, 7% in 2013).
- Among those who do not intend on applying for licensure, the most commonly cited reasons are that they are planning to work in another province, followed by a lack of interest, that it is unnecessary for their career plans/ goals and that they plan to work outside the country.
- Once told that a licence is required to legally refer to yourself as an engineer and practice as an engineer, four in ten students (39%) who originally did not plan or were unsure of their intentions now indicate they are definitely (16%) or probably likely (23%) to apply for licensure. Nearly six in ten (57%) however still indicate that they do not intend to apply, while 4% are unsure.
- Of those who intend to pursue their licence, three quarters plan to do so within one year (73%), of which nearly six in ten will do so within six months (56%), while nearly two in ten plan to apply within a year of graduating (20%). Two in ten don't know (21%), while 3% plan to apply more than a year after graduating, lower than in 2014 (8%).
- Once told that the fee for the first year of the Engineering-in-Training [EIT] program can be waived if they apply within six months of graduation, nearly eight in ten (78%) students who originally intended on waiting more than six months to apply are *very* (45%) or *somewhat likely* (33%) to do so within that timeframe.

Executive Summary (continued)

Knowledge of Engineering Profession

- At nine in ten, the vast majority of students know that a license is required to use the title 'Engineer' (91%) or to perform engineering work independently (89%) while seven in ten that a license is not required to practice engineering work under the supervision of a P.Eng. (70%), statistically higher than in 2014 (60%)
- Nine in ten students are able to correctly identify that OIQ is the organization responsible for licensing engineers (90%), while over eight in ten know that it also regulates the practice of professional engineers (83%). Nine in ten know that Engineers Canada is the organization that accredits university engineering programs (89%), higher than in 2014 and the second consecutive year of increases on this measure (77% in 2014, 67% in 2013).
- Students are less certain about which organization licenses companies offering engineering services, six in ten believe it is OIQ (59%), three in ten think it is Engineers Canada (31%) and nearly two in ten don't know (17%).

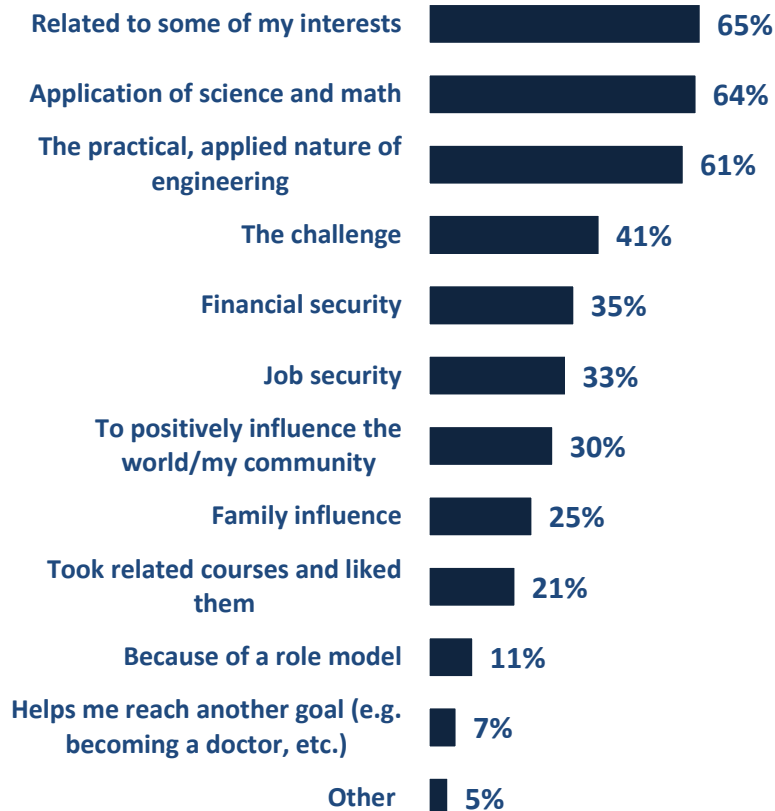
Undergraduate Motivations and Experience



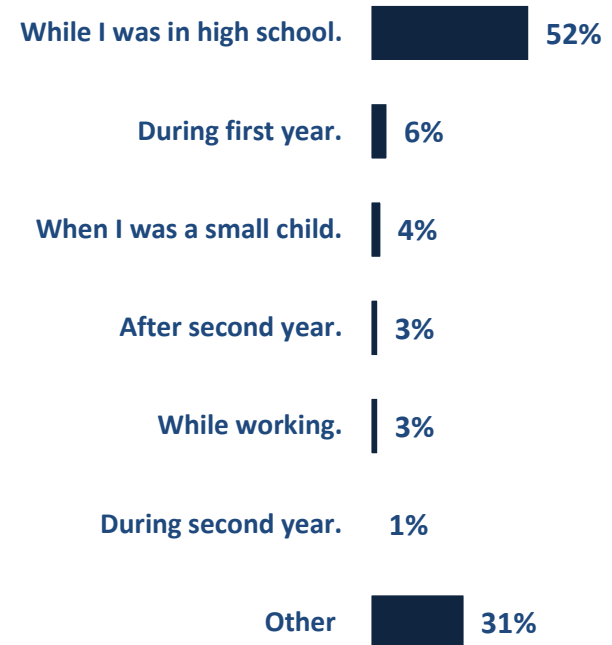
Main Reason(s) and Timing of Decision to Study Engineering

- At two-thirds, the most common reason students provided for choosing to study engineering is that it was related to their interests and the application of science and math followed closely by the practical, applied nature of the discipline. Other common mentions include the challenge, financial security and job security.
- Half of students indicate having decided to study engineering while in high school, while fewer than one in ten did so during first year, when they were a small child, after second year or while working. Three in ten indicate it was at another time.

Main Reason(s) for studying engineering



When did you make your decision?



Q4a. Thinking back to when you decided to pursue engineering, what was the main reason you choose to study this discipline? Please select all that apply

Q4b. When did you make your decision to pursue the discipline of engineering? Please select the one option which applies most to your situation.

Base: All respondents, 2015 (n=226)

Main Reason(s) and Timing of Decision to Study Engineering - Continued

- Younger students are statistically more likely to have taken engineering because of the practical, applied nature of engineering while older students are more influenced by the job security.
- There are no statistically significant differences by gender

Main Reason(s) for studying engineering

	Total	Age			Gender	
		Under 23	24-26	27+	Male	Female
		G	H	I	J	K
Base: All respondents	(n=226)	(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)
Related to some of my interests	65%	66%	66%	58%	65%	65%
Application of science and math	64%	73%	60%	42%	63%	66%
The practical, applied nature of engineering	61%	71% _H	52%	54%	65%	52%
The challenge	41%	45%	34%	50%	39%	47%
Financial security	35%	33%	33%	46%	34%	37%
Job security	33%	25%	41% _G	39%	33%	34%
To positively influence the world/my community	30%	31%	28%	31%	29%	31%
Family influence	25%	22%	28%	23%	23%	29%
Took related courses and liked them	21%	22%	18%	27%	20%	23%
Because of a role model	11%	13%	10%	8%	12%	10%
Helps me reach another goal (e.g. becoming a doctor, etc.)	7%	5%	10%	8%	7%	8%
Other	5%	7%	4%	-	5%	5%

*small base size **very small base size

Q4a. Thinking back to when you decided to pursue engineering, what was the main reason you choose to study this discipline? Please select all that apply

Q4b. When did you make your decision to pursue the discipline of engineering? Please select the one option which applies most to your situation.

Base: All respondents, 2015 (n=226)

Main Reason(s) and Timing of Decision to Study Engineering - Continued

- Older students are more likely to have made their decision while working or during first year.
- There are no statistically significant differences by gender

When did you make your decision?

	Total	Age			Gender	
		Under 23	24-26	27+	Male	Female
		G	H	I	J	K
Base: All respondents	(n=226)	(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)
While I was in high school.	52%	61%	47%	35%	52%	53%
During first year.	6%	1%	12% _G	8%	5%	10%
When I was a small child.	4%	5%	2%	8%	3%	7%
While working.	3%	-	2%	15%	4%	-
After second year.	3%	1%	3%	12%	2%	5%
During second year.	1%	1%	1%	4%	2%	-
Other	31%	32%	32%	19%	32%	26%

*small base size **very small base size

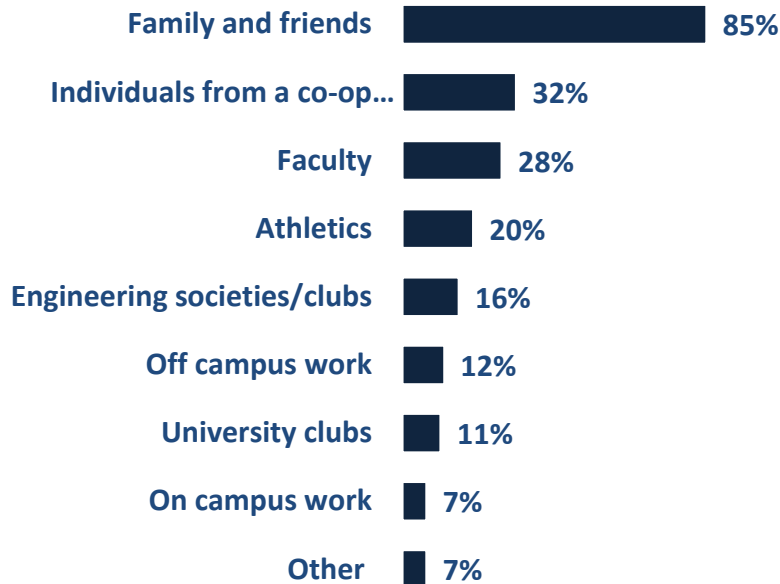
Q4a. Thinking back to when you decided to pursue engineering, what was the main reason you choose to study this discipline? Please select all that apply

Q4b. When did you make your decision to pursue the discipline of engineering? Please select the one option which applies most to your situation.

Base: All respondents, 2015 (n=226)

Most Important Support During Engineering Studies

- At more than eight in ten, by far the most important support for students during their engineering studies were family and friends, followed by one third who mentioned individuals from a co-op/ internship and slightly fewer who said faculty. Two in ten mention athletics, followed by engineer societies/ clubs, off campus work, university clubs or on campus work.
- Female students place more importance on engineering societies/ clubs.

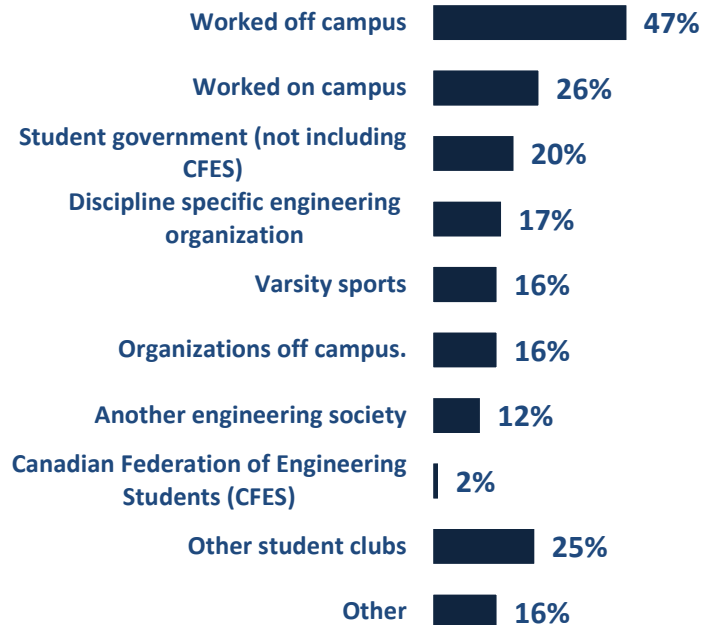


Age			Gender	
Under 23	24-26	27+	Male	Female
G	H	I	J	K
(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)
89%	84%	69%	82%	90%
32%	34%	23%	31%	34%
28%	26%	35%	28%	27%
15%	26%	23%	21%	18%
18%	15%	8%	12%	24% J
9%	14%	15%	14%	7%
14%	9%	4%	10%	11%
8%	5%	4%	6%	8%
8%	4%	8%	8%	3%

*small base size **very small base size

Extracurricular Participation During Degree Program

- At around half, students are most likely to indicate having participated in off campus work during their degree program, followed by one quarter who worked on campus and two in ten who participated in a discipline specific engineering organizations or other off campus organizations.
- Students aged 24-26 are more likely to have participated in varsity sports while female students are more likely to have been involved in an engineering society other than CFES.



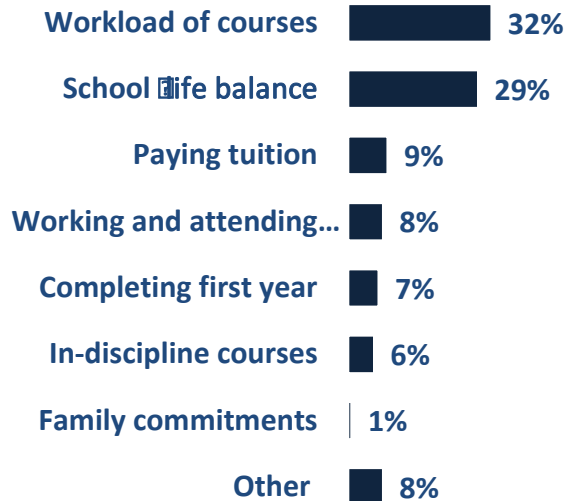
Age			Gender	
Under 23	24-26	27+	Male	Female
G	H	I	J	K
(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)
43%	53%	39%	49%	39%
29%	27%	12%	23%	34%
24%	16%	12%	18%	23%
22%	12%	15%	16%	21%
11%	25% I	4%	18%	10%
20%	9%	23%	13%	21%
14%	11%	8%	7%	26% J
2%	2%	4%	2%	2%
27%	26%	15%	24%	29%
15%	15%	19%	16%	15%

*small base size **very small base size

Q4d. Did you participate in any of the following extracurricular activities during your degree program? Please select all that apply
Base: All respondents, 2015 (n=226)

Single Greatest Barrier to Completing Engineering Degree

- At one third, students are most likely to feel that the workload of courses is the single greatest barrier to completing their engineering degree, followed closely by the work life balance. Closer to one in ten indicate paying tuition, working and attending school simultaneously, completing first year or in-discipline courses.
- There are no statistically significant differences by age or gender.



Age			Gender	
Under 23	24-26	27+	Male	Female
G	H	I	J	K
(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62)
36%	30%	23%	32%	32%
31%	31%	15%	27%	34%
9%	10%	4%	7%	13%
4%	7%	31%	10%	3%
5%	10%	4%	7%	5%
5%	9%	4%	6%	7%
1%	-	8%	1%	2%
9%	4%	12%	9%	5%

*small base size **very small base size

Future Plans

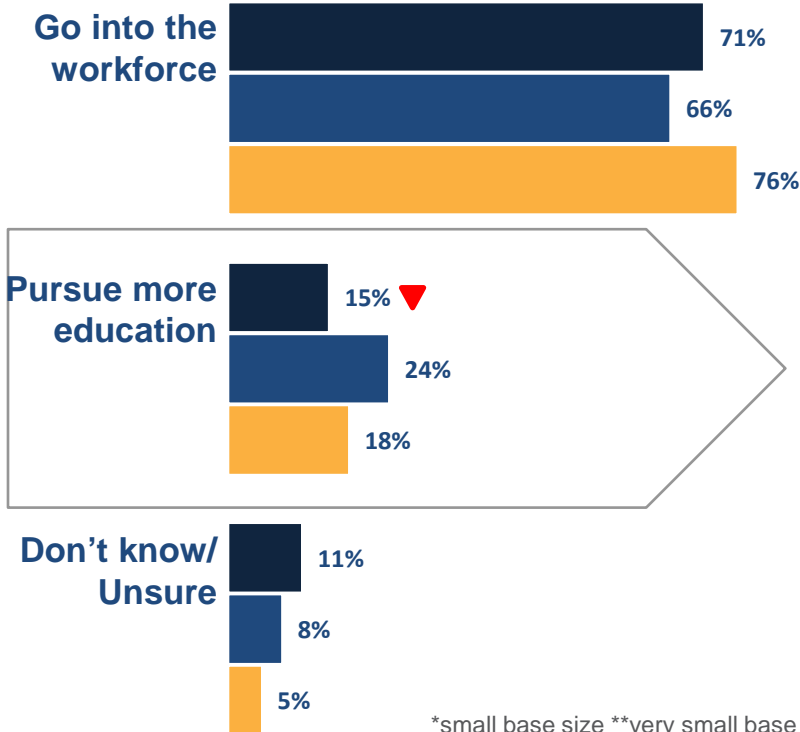


Plans After Graduation

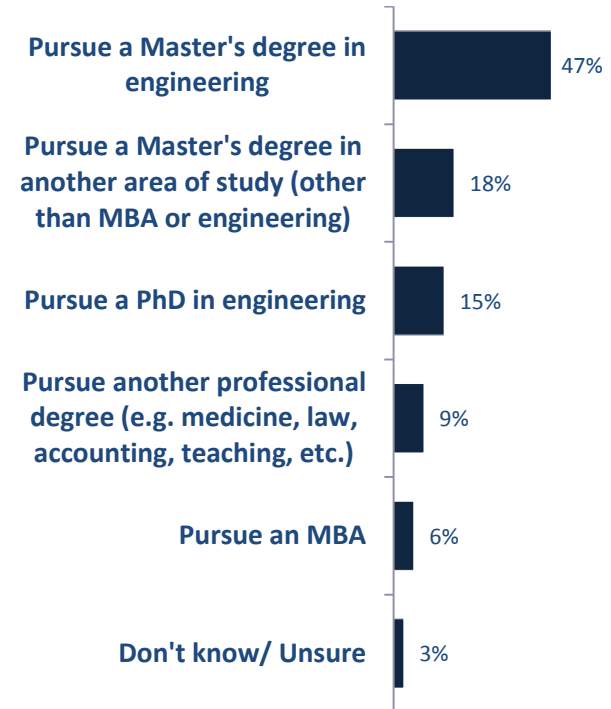
- Seven in ten students intend on going into the workforce after graduation, while fewer than two in ten plan to pursue more education, statistically lower than in 2014.
- Among those who plan to further their education, nearly half plan to pursue a master's degree in engineering, while around two in ten plan to pursue a master's degree in another area or a PhD in engineering and closer to one in ten another professional degree or an MBA.

Current Plans After Graduation

■ 2015 ■ 2014 ■ 2013



Educational Intentions



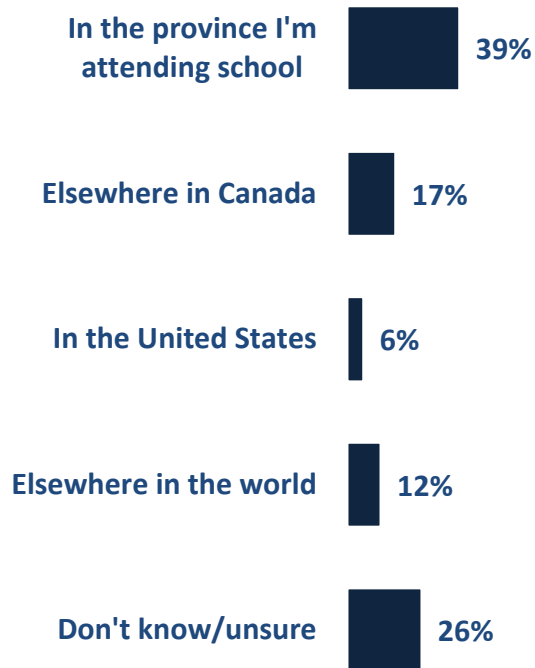
Q12. Which of the following best describes your current plans after you graduate? Base: All respondents 2013 (n=743); 2014 (n=328); 2015 (n=226)

Q13. Which of the following best describes the education you plan to pursue? Base: respondents who said "more education" in Q12, 2013 (n=130); 2014 (n=77*); 2015 (n=34**)

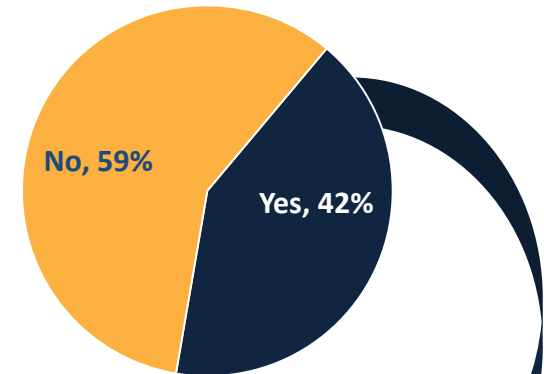
Plans for Work After Graduation

- At four in ten, students are most likely to intend on working in the province they are attending school, followed by closer to two in ten who indicate elsewhere in Canada.
- Four in ten students have already been offered a job in the engineering field, of which nearly half indicate they have been offered one job, while closer to four in ten have been offered two jobs and one in ten have been offered three.

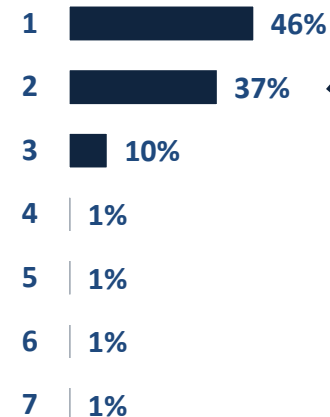
Where do you plan to work?



Have you already been offered a job(s) in the engineering?



How many jobs?



Q17d. Where do you plan to work?

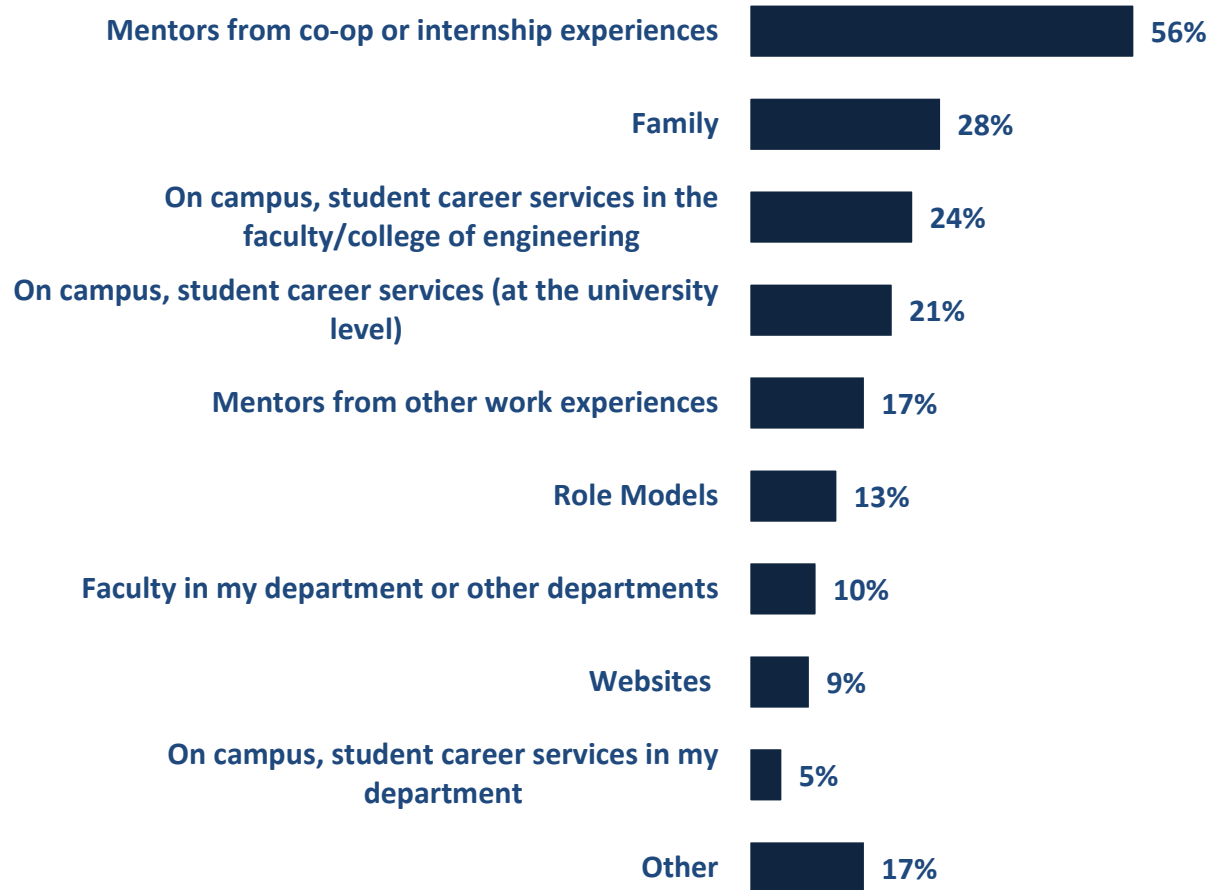
Q17e. Have you already been offered a job(s) in the field of engineering?

Q17f. How many jobs have you been offered in the field of engineering?

Base: All respondents, 2015 (n=188)

Useful Resources in Finding Engineering Work

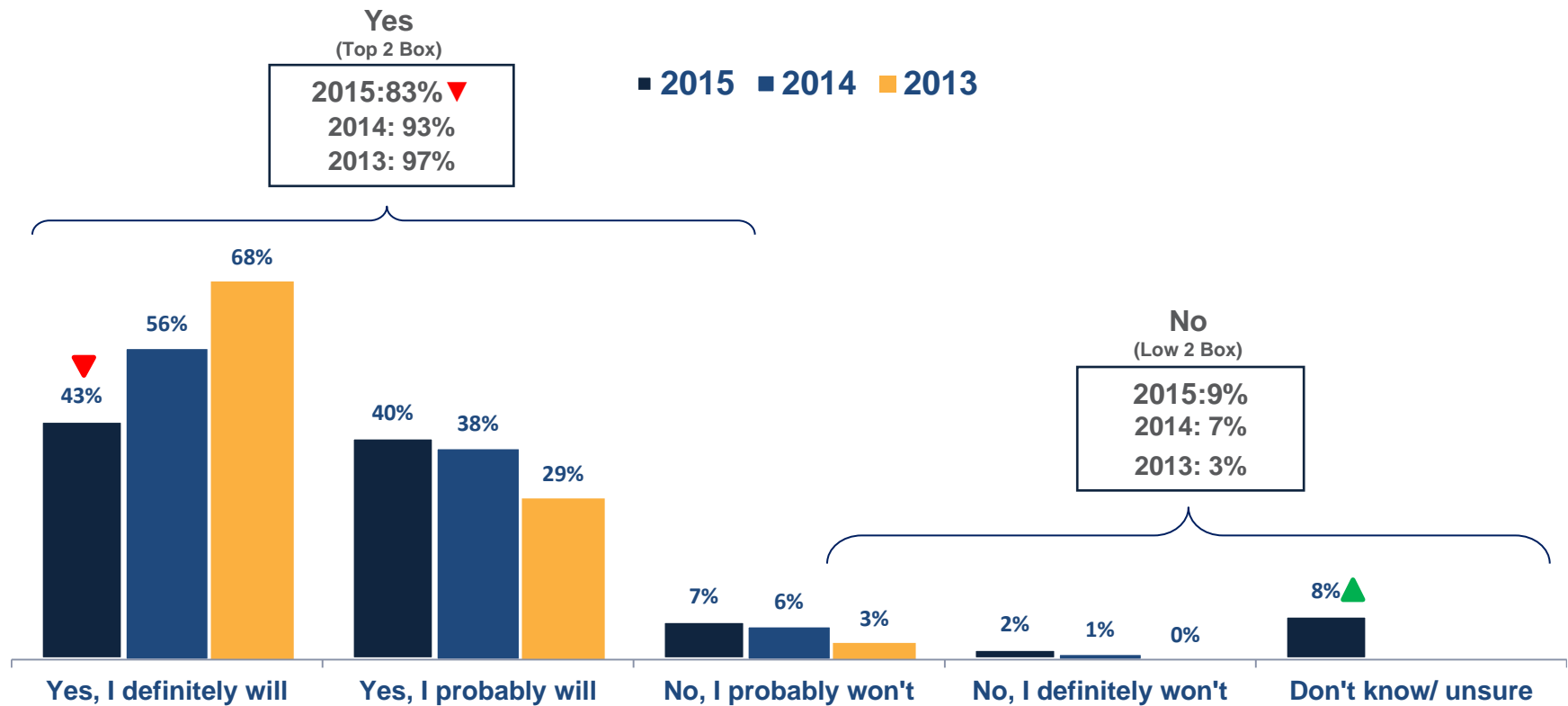
- Those who have been offered a job in the engineering field are by far most likely to feel that mentors from co-op/ internship experiences were most useful to finding work. Other common mentions include family, on campus student career services (in engineering faculty or at the university level) and mentors from other work experiences.



Intention to Pursue Engineering Career

- Over eight in ten students intend on pursuing a career in the engineering field after completing their education, lower than in 2014. One in ten (9%) probably or definitely won't or don't know (8%)
- Compared to 2014, the proportion who definitely will pursue a career in engineering has declined (for the second consecutive year) and the proportion who don't know has increased (this option wasn't provided in previous years).

Do You Plan to Pursue a Career in the Engineering Field?



Intention to Pursue Engineering Career

- Older students and permanent residents are directionally more likely to definitely intend on pursuing a career in engineering.

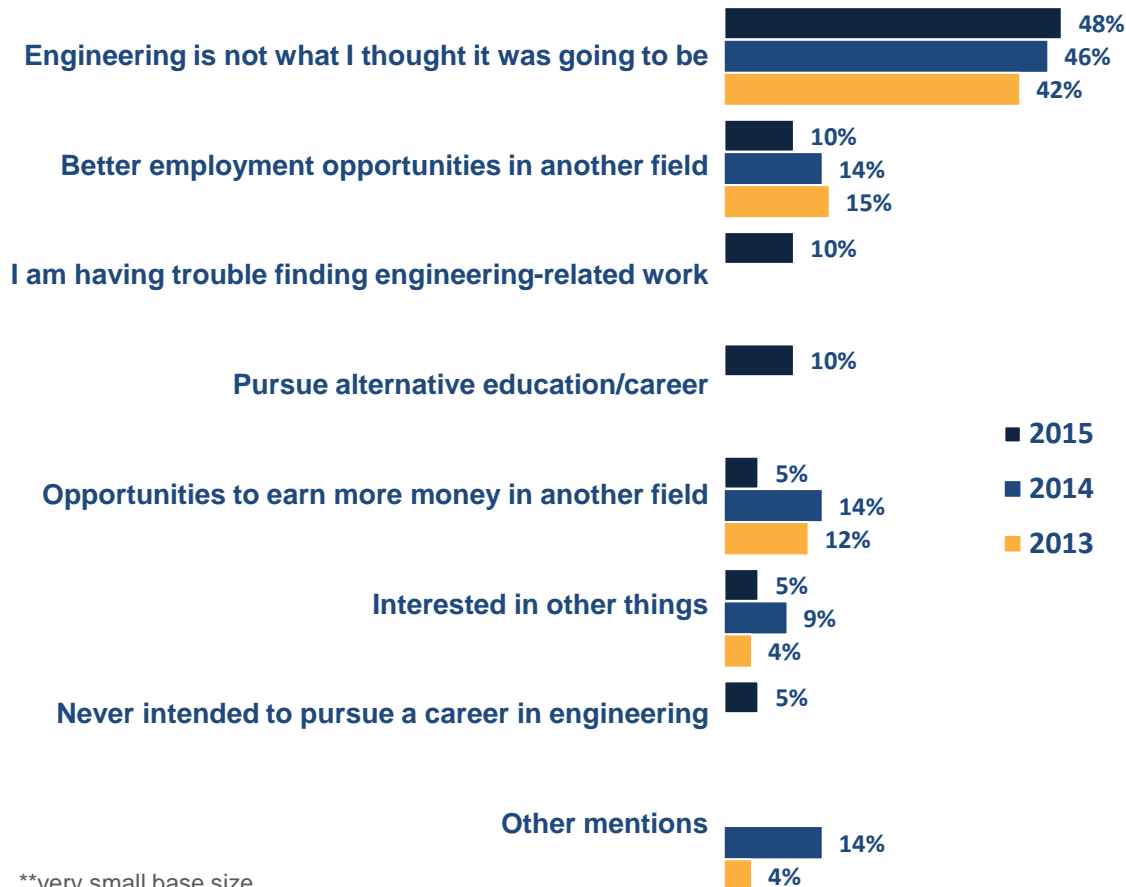
	Total	Age			Gender		Resident Status		
		21-23	24-26	27+	Male	Female	Permanent resident	Permanent resident of another province	International student
		G	H	I	J	K	N	O	P
Base: All respondents	(n=226)	(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)	(n=166)	(n=32*)	(n=28**)
Yes, I definitely will	43%	36%	50%	50%	43%	44%	47%	34%	32%
Yes, I probably will	40%	40%	39%	42%	39%	42%	37%	44%	50%
No, I probably won't	7%	10%	5%	-	8%	5%	5%	13%	11%
No, I definitely won't	2%	3%	2%	-	2%	2%	2%	3%	-

*small base size **very small base size

Reasons for Not Pursuing Engineering

- The top reason for not pursuing a career in engineering continues to be that engineering is not what they thought it would be. Other common mentions include that there are better employment opportunities elsewhere, having trouble finding work in the engineering field and the desire to pursue an alternate career/ education.

Reasons for Not Pursuing Engineering (very small base size*)



**very small base size

Intended Career Outside of Engineering

- Among those who do not intend to pursue a career in Engineering, education, management/planning and industry represent the top career options.

Intended Career Outside of Engineering (Does Not Plan to Pursue Engineering Career, very small base size*)



Mentions may add to more than 100% as respondents were able to provide more than one response

***very small base size*

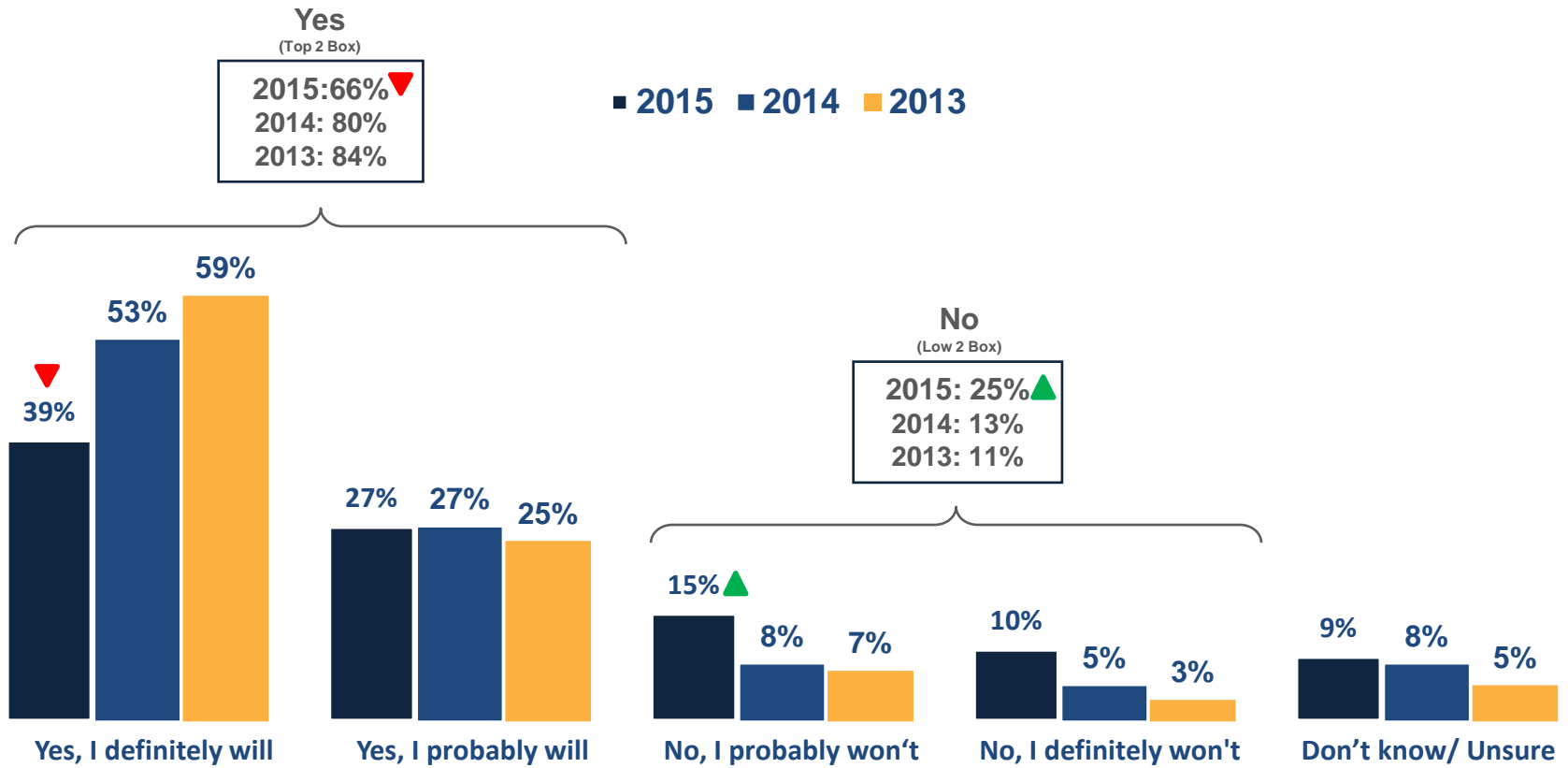
Application Intentions for Professional Engineering Licensure



Intention to Apply for Licensure

- Two thirds of students intend on applying for licensure, of which four in ten definitely will, while three in ten probably will. One quarter do not intend on applying for their P.Eng. and one in ten don't know.
- Compared to 2014, there has been a statistically significant decline in those who definitely intend on pursuing their licensure, while a higher proportion indicate they probably will not.

Do You Intend To Apply for Licensure?



Intention to Apply for Licensure

- There are no statistically significant differences by age or gender

	Total	Age			Gender		Resident Status		
		21-23	24-26	27+	Male	Female	Permanent resident	Permanent resident of another province	International student
		G	H	I	J	K	N	O	P
Base: All respondents	(n=226)	(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)	(n=166)	(n=32*)	(n=28**)
Yes, I definitely will	39%	36%	40%	50%	40%	37%	49%	6%	18%
Yes, I probably will	27%	26%	27%	31%	27%	26%	30%	6%	36%
No, I probably won't	15%	14%	18%	8%	13%	19%	8%	41%	25%
No, I definitely won't	10%	15%	7%	-	10%	10%	4%	34%	14%
Don't know/ Unsure	9%	8%	9%	12%	9%	8%	8%	13%	7%

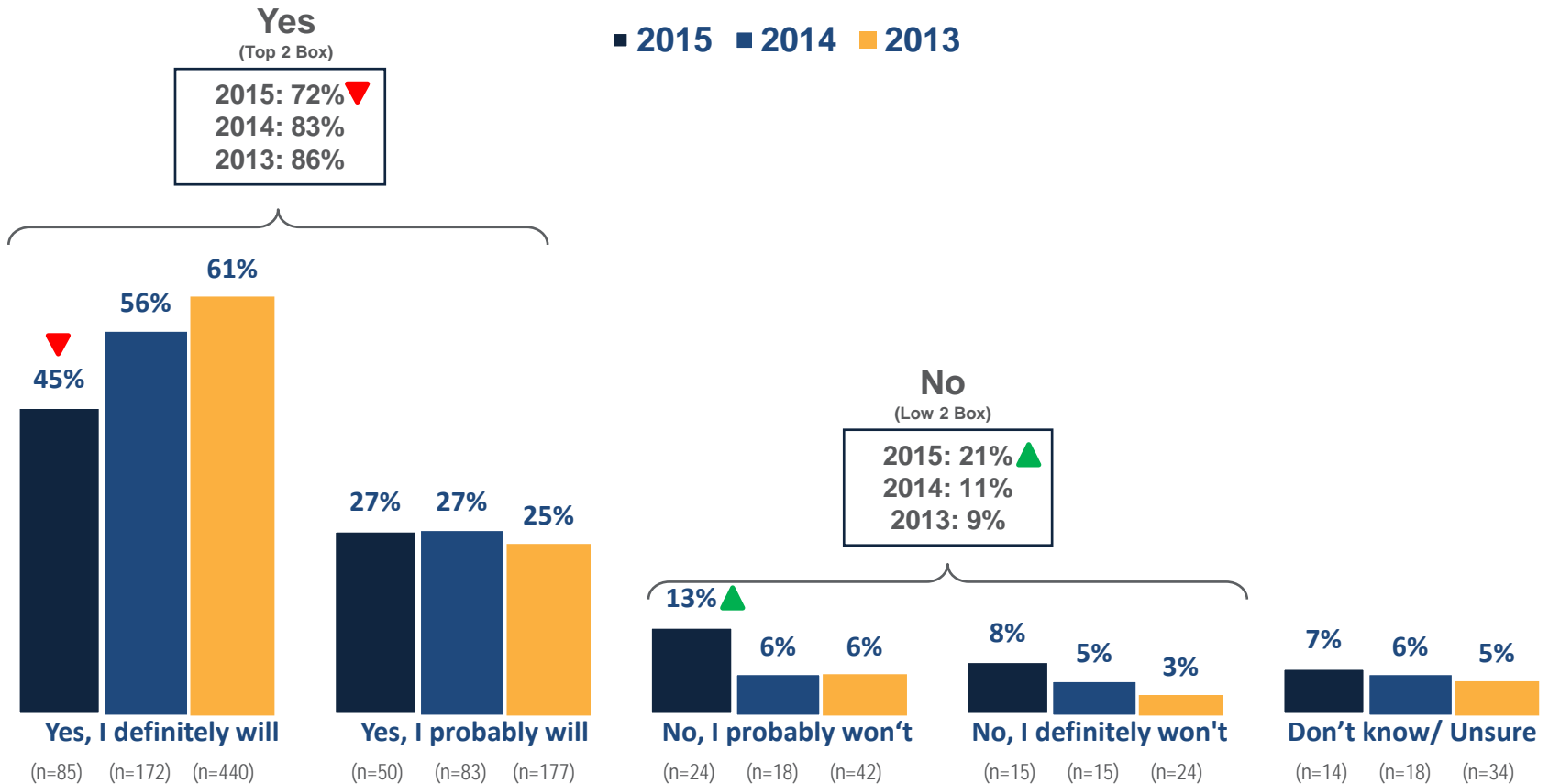
*small base size **very small base size

Intention to Apply for Licensure - Pursuing Engineering Career

- Among those students who intend to pursue a career in engineering, around half definitely intend to apply for licensure, while nearly three in ten probably will. Two in ten probably/ definitely won't apply while fewer than one in ten don't know.
- Compared to 2014, there has been a statistically significant decline in those who definitely intend on pursuing their licensure, while a higher proportion indicate they probably will not.

Do You Intend To Apply for Licensure?

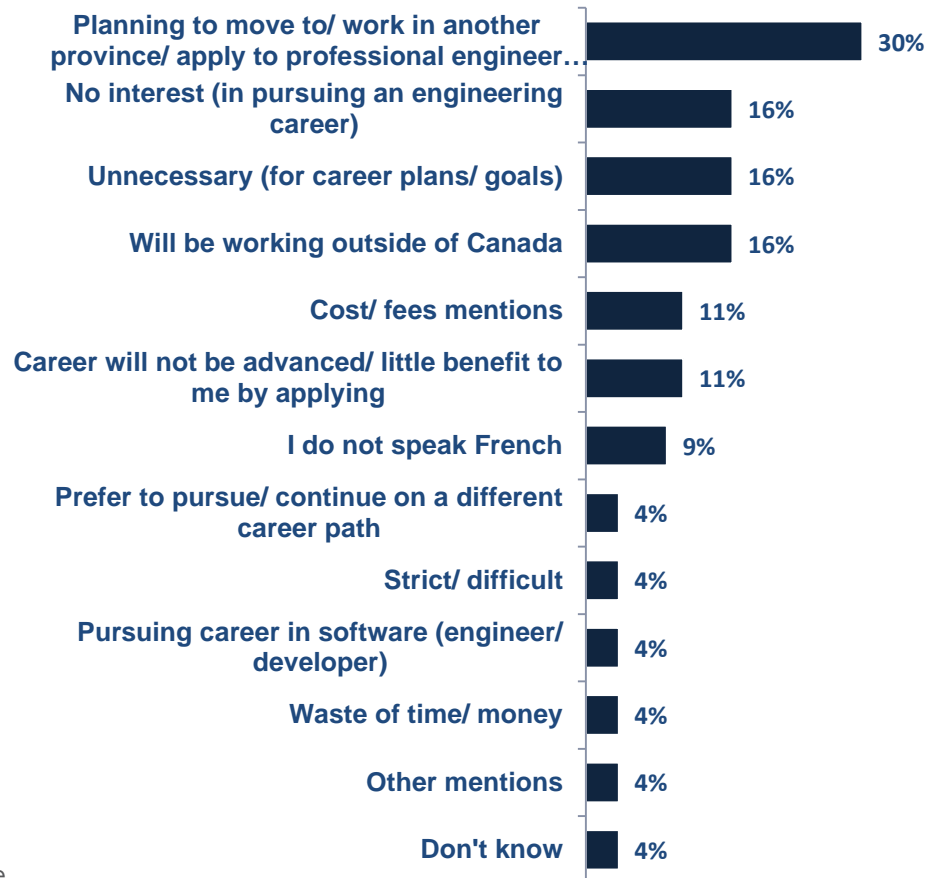
■ 2015 ■ 2014 ■ 2013



Reasons for Not Applying for Licensure

- Among those who do not intend on applying for licensure, the most commonly cited reasons are that they are planning to work in another province, followed by a lack of interest, that it is unnecessary for their career plans/ goals and that they plan to work outside the country.

Why do you not intend to pursue the P.Eng. License?



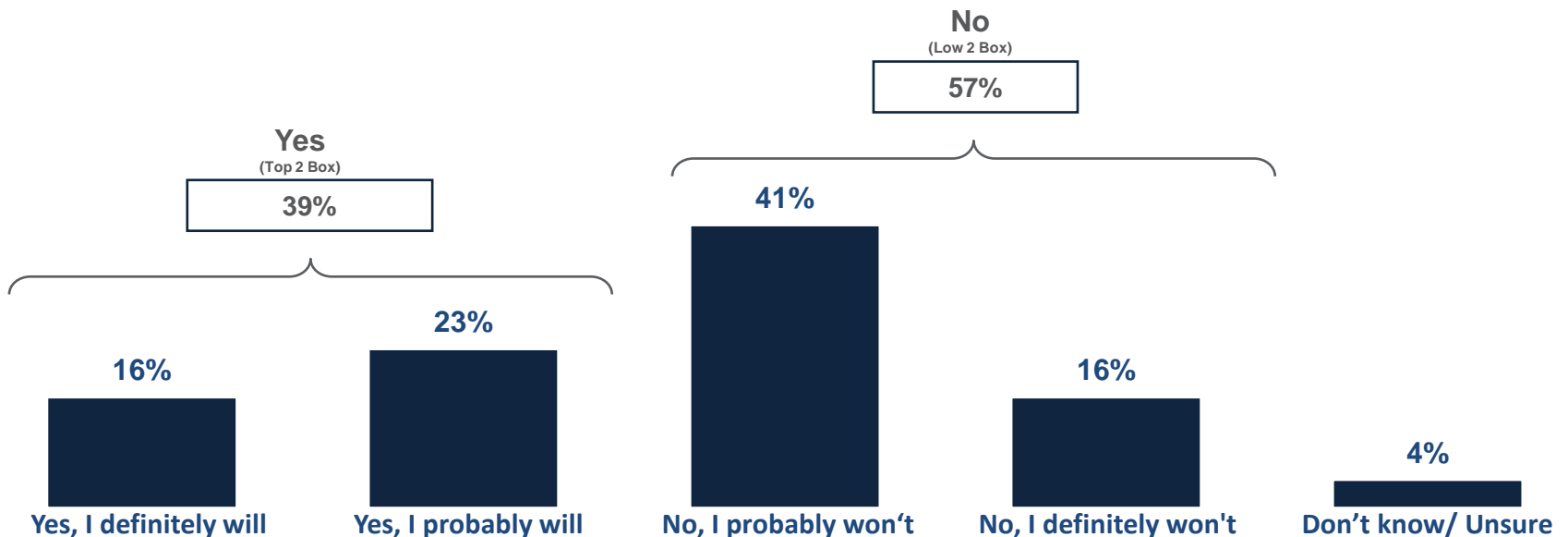
*small base size

Mentions <4% are not shown

Interest Once Told P.Eng. License is Required to Practice

- Once informed that a P.Eng. is required to practice engineering, four in ten indicate that they definitely or probably will apply, while nearly six in ten definitely or probably will not and 4% don't know.

Given that a License is Required to Practice Engineering, Do You Intend to Apply?



*small base size

Interest Once Told P.Eng. Licence is Required to Practice

- Interpret with caution, very small base sizes

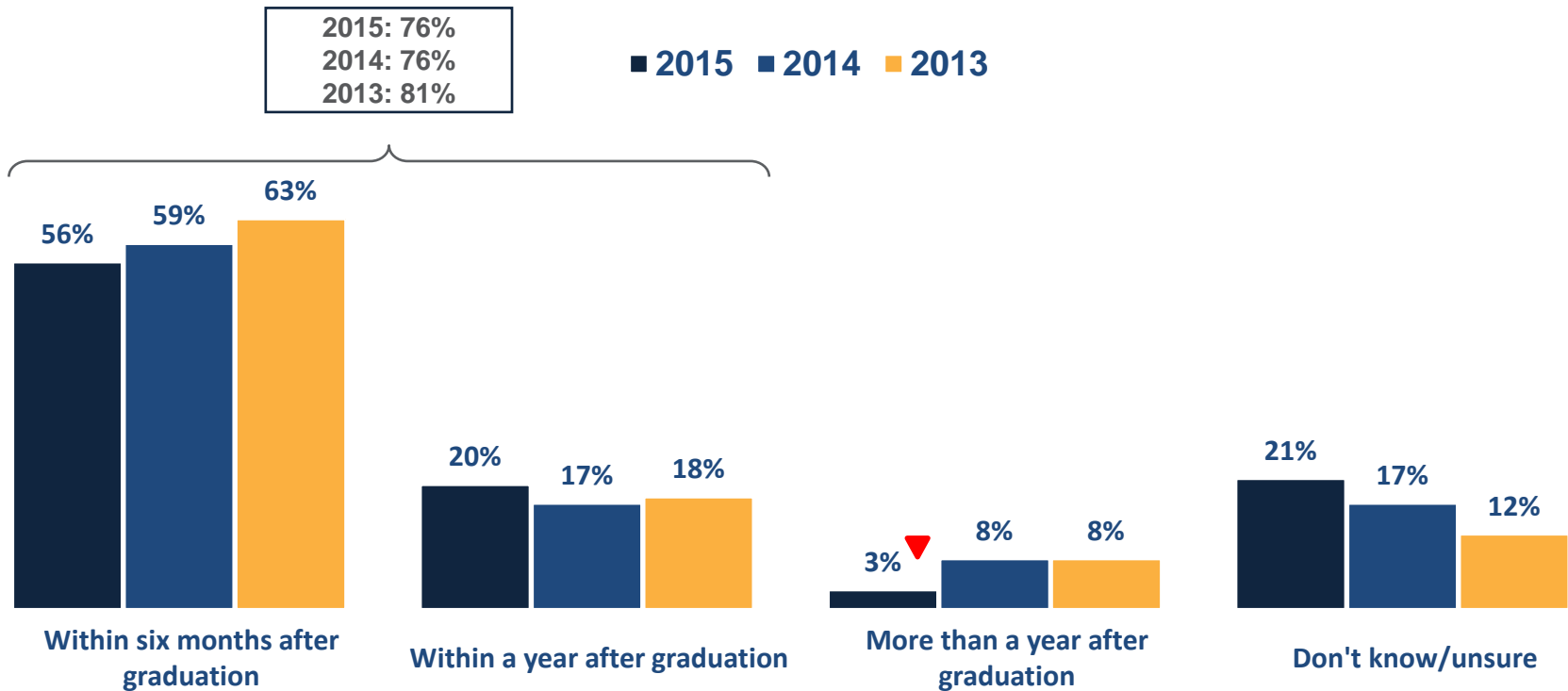
	Total	Age			Gender		Resident Status		
		21-23	24-26	27+	Male	Female	Permanent resident	Permanent resident of another province	International student
Base: All respondents	(n=56*)	(n=31*)	(n=23**)	(n=2**)	(n=38*)	(n=18**)	(n=21**)	(n=24**)	(n=11*)
Yes, I definitely will	16%	13%	22%	-	18%	11%	5%	33%	-
Yes, I probably will	23%	16%	35%	-	18%	33%	14%	29%	27%
No, I probably won't	43%	45%	35%	50%	45%	33%	52%	25%	55%
No, I definitely won't	17%	23%	4%	50%	16%	17%	24%	13%	9%

*small base size **very small base size

Application Timeframe

- More than half of those who plan to apply for licensure intend to do within six months of graduation, while nearly two in ten plan to apply within a year of graduating. Two in ten don't know, while 3% plan to apply more than a year after graduating.
- Compared to 2014, fewer students intend on applying for their licensure more than a year after graduation.

When Do You Plan to Apply for Licensure?



Application Timeframe

- Female students are more likely to intend on applying for licensure more than a year after graduation.

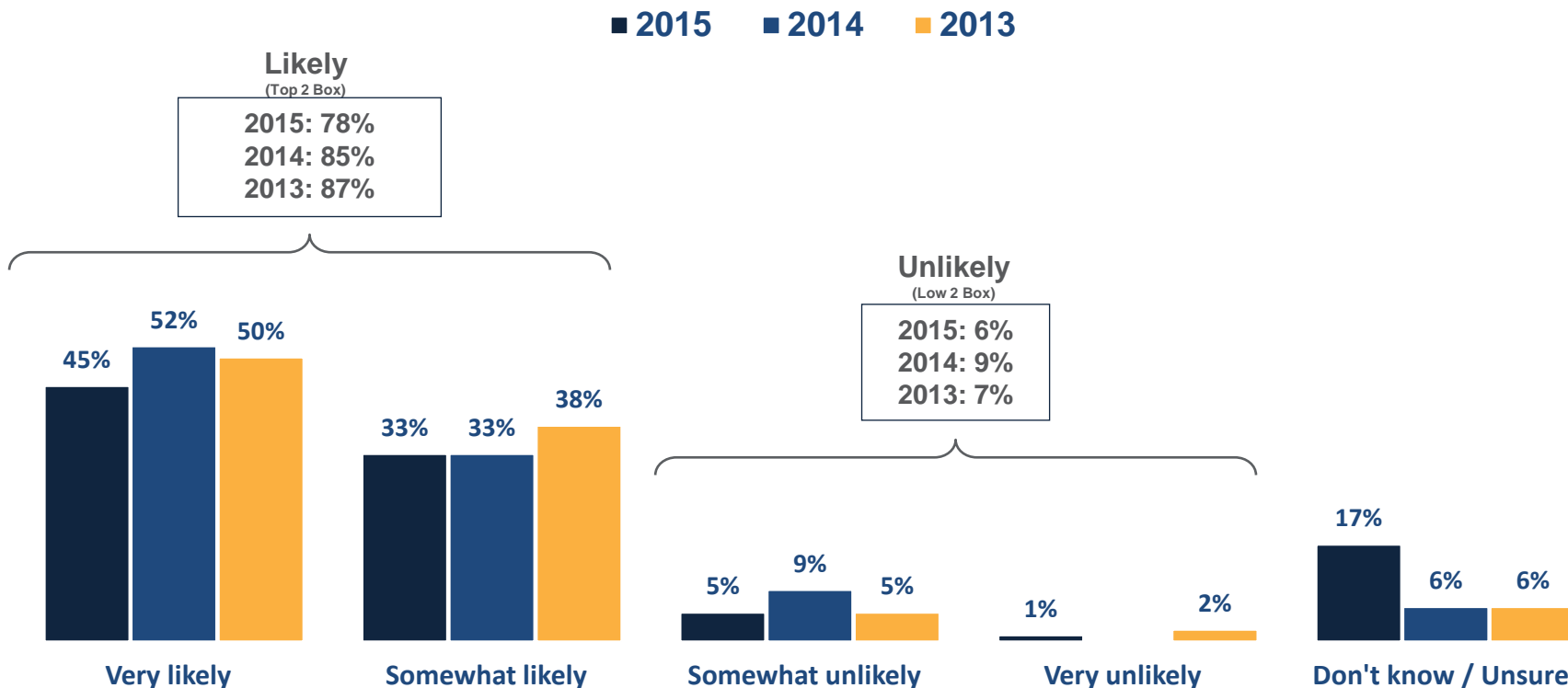
	Total	Age			Gender		Resident Status		
		21-23	24-26	27+	Male	Female	Permanent resident	Permanent resident of another province	International student
		G	H	I	J	K			
Base: All respondents	(n=192)	(n=85)	(n=83)	(n=24**)	(n=140)	(n=52*)	(n=149)	(n=23**)	(n=20**)
Within six months after graduation	56%	55%	57%	54%	59%	46%	60%	35%	45%
Within a year after graduation	20%	18%	22%	21%	21%	17%	19%	26%	20%
More than a year after graduation	3%	2%	4%	4%	1%	8% J	2%	13%	-
Don't know/unsure	21%	25%	18%	21%	19%	29%	19%	26%	35%

*small base size **very small base size

Impact of Waiving EIT Fees on Likelihood to Apply within Six Months

- Once told that EIT fees are waived for those applying within six months of graduation, nearly eight in ten students who originally intended on waiting more than six months to apply are now very or somewhat likely to do so within that timeframe.

Would you Apply Within 6 Month if Eligible to Have 1st Year EIT Fees Waived?



*small base size

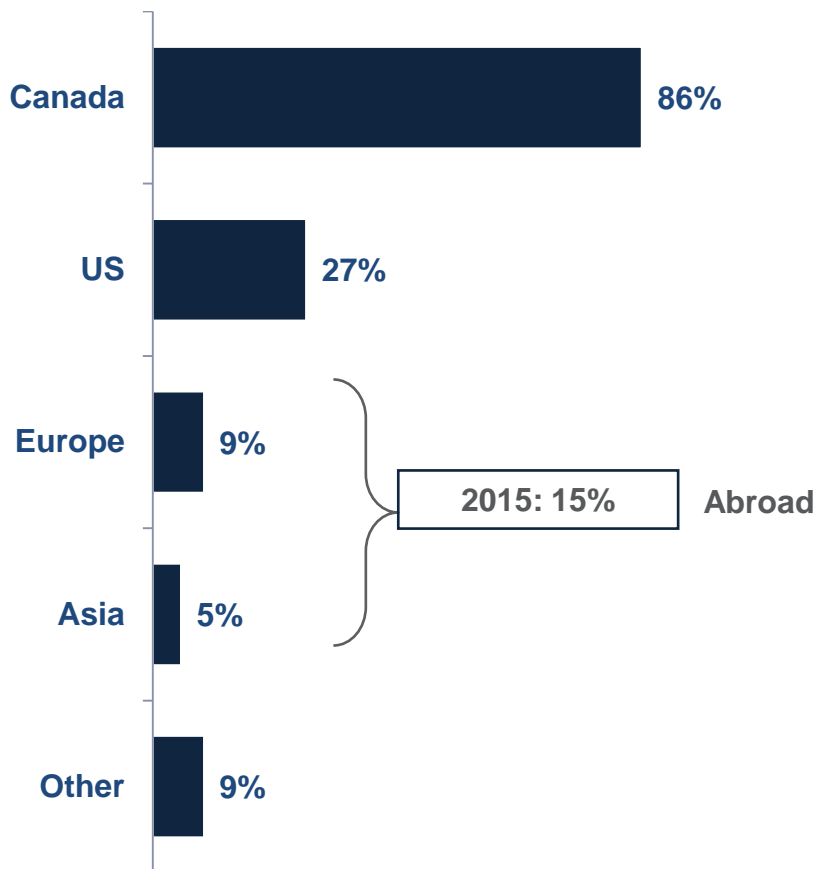
Q29. If you knew that by applying for licensure within 6 months of graduation you are eligible to have the application and first year EIT program fees waived, how likely would you be to apply for licensure within that time frame? Base: Respondents who do not know or intend to apply for licensure >6mths after graduation, 2013 (n=254); 2014 (n=125); 2015 (n=85*)

Intended Country of Application

- Among those who intend on applying because it is required to practice

- Among those students who intend on applying for licensure after being told it is required to practice, the vast majority intend on doing so in Canada, while nearly three in ten plan to apply in the US, while around one in ten will do so abroad.

Where Do You Intend to Apply for Licensure?



Mentions may add to more than 100% as respondents were able to select more than one response

**very small base size

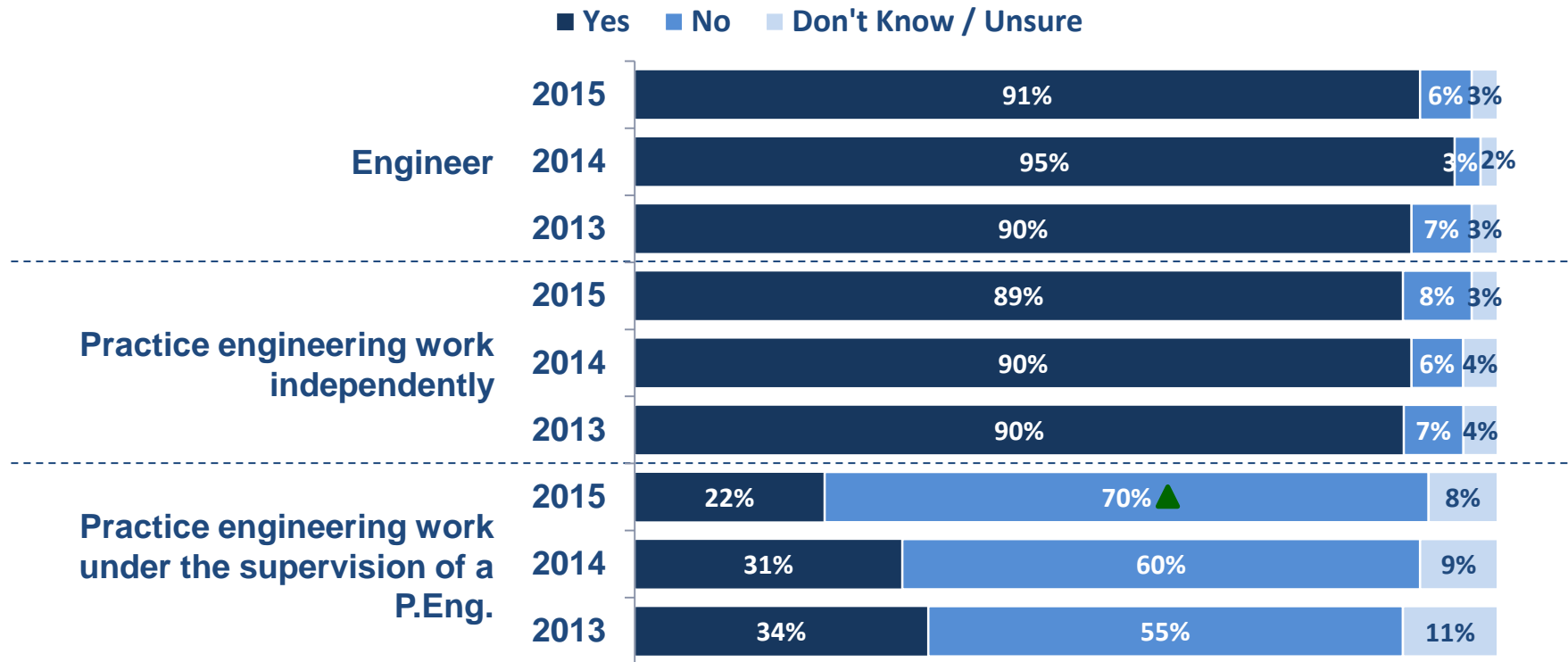
Licensing Knowledge



Licensing for Roles within Engineering

- At nine in ten, the vast majority of students know that a license is required to use the title 'Engineer' (91%) or to perform engineering work independently (89%) while seven in ten that a license is not required to practice engineering work under the supervision of a P.Eng. (70%).
- Compared to 2014, students are more likely to know that a license is not required to practice engineering work under the supervision of a P.Eng.

Is a License Required Before Being Able to Do the Following?



Licensing for Roles within Engineering

- Younger students (specifically those under 23) and males are more likely to know that a licence is required to use the title 'Engineer'. Males are also more likely to know that a licence is required to practice engineering work independently.

	Total	Age			Gender		Resident Status		
		21-23	24-26	27+	Male	Female	Permanent resident	Permanent resident of another province	International student
		G	H	I	J	K	N	O	P
Base: All respondents	(n=226)	(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)	(n=166)	(n=32*)	(n=28**)
Use the title "Engineer"	91%	97% H	86%	85%	95% K	82%	92%	91%	89%
Practice engineering work independently	89%	93%	86%	89%	93% K	79%	91%	88%	82%
Practice engineering work under the supervision of a P.Eng.	22%	25%	18%	23%	22%	23%	21%	16%	36%

*small base size **very small base size

Knowledge of Licensing and Roles

- More than nine in ten final year engineering students have at least a moderate level of knowledge of when a licence is required to legally perform actions/ duties within the engineering profession and nearly six in ten were correct in all three fronts. Fewer than one in ten have little knowledge on the subject.

Knowledge Level of Engineering Practices Requiring a License

■ 2015 ■ 2014 ■ 2013

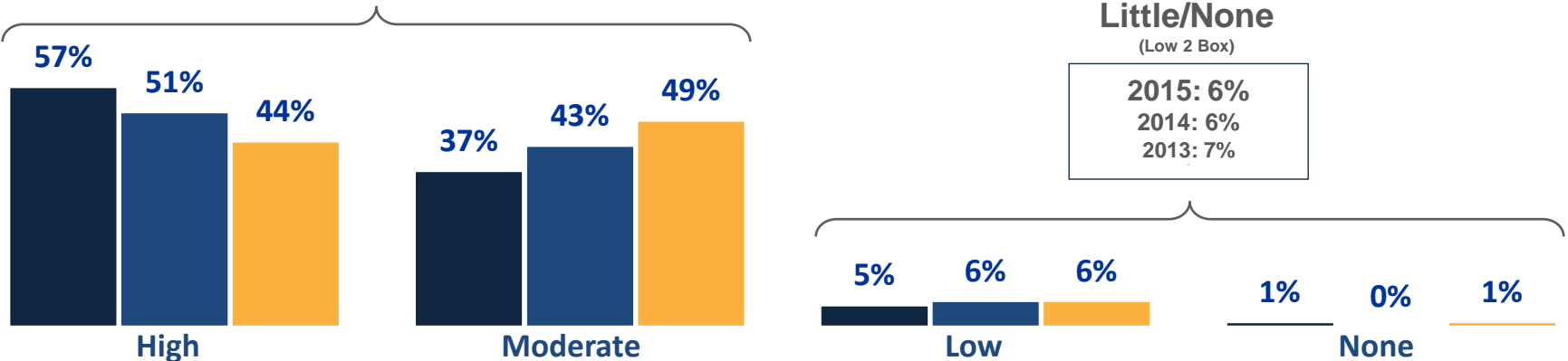
***Knowledge Levels Defined**
High: All Correct (3) in Q8
Moderate: 2 Correct in Q8
Low: 1 Correct in Q8
None: Zero (0) Correct in Q8

High/Moderate (Top 2 Box)

2015: 94%
 2014: 94%
 2013: 93%

Little/None (Low 2 Box)

2015: 6%
 2014: 6%
 2013: 7%

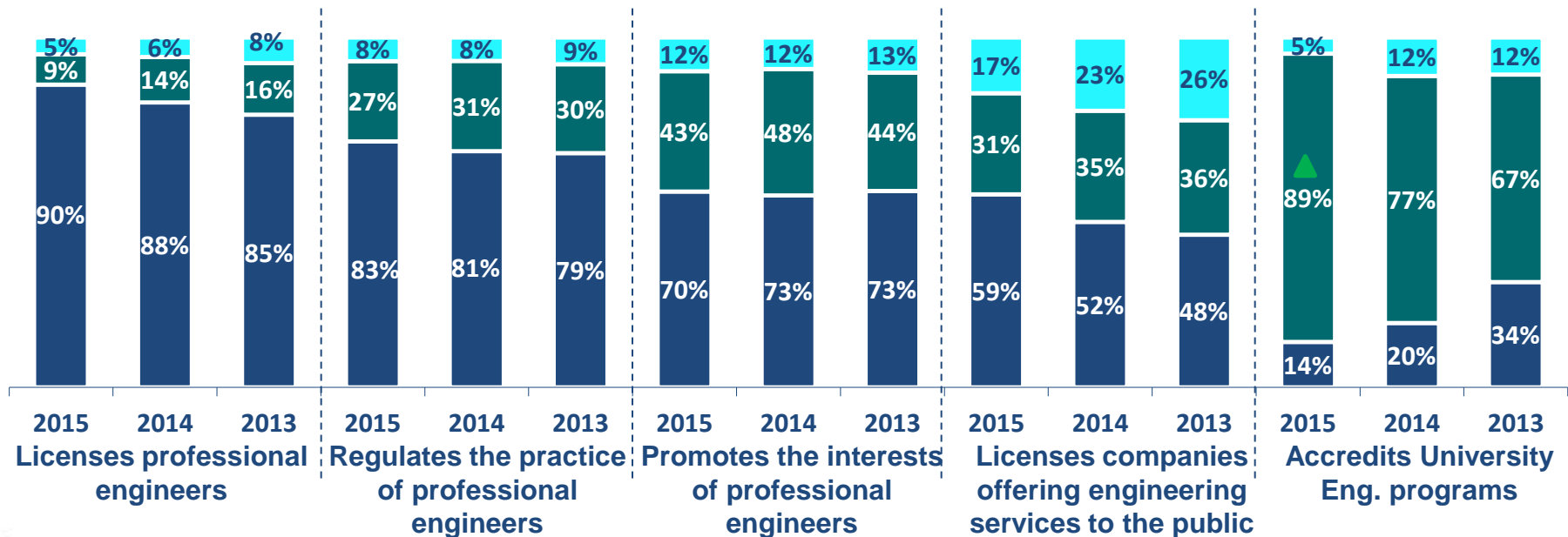


Organizational Responsibilities

- At nine in ten, the vast majority of students are able to correctly identify that OIQ is the organization responsible for licensing engineers, while over eight in ten know that it also regulates the practice of professional engineers. Nine in ten know that CEAB is the organization that accredits university engineering programs, higher than in 2014 and the second consecutive year of increases on this measure. While students are less certain about which organization licenses companies offering engineering services, six in ten believe it is OIQ, three in ten think it is CEAB and nearly two in ten don't know.

Which Organization is Responsible for Each of the Follow Activities?

■ Don't know/ Unsure ■ Engineers Canada (CEAB) ■ OIQ



Knowledge of Organizational Responsibility

- More than nine in ten students have at least a moderate level of knowledge concerning organizational responsibilities of activities/ procedures relating to the engineering profession, of which half had perfect knowledge, higher than in 2014 and the second consecutive year of increases on this measure. Fewer than one in ten have either low level or no knowledge on the subject.

Knowledge Level of Organizational Responsibility within the Engineering Profession

■ 2015 ■ 2014 ■ 2013

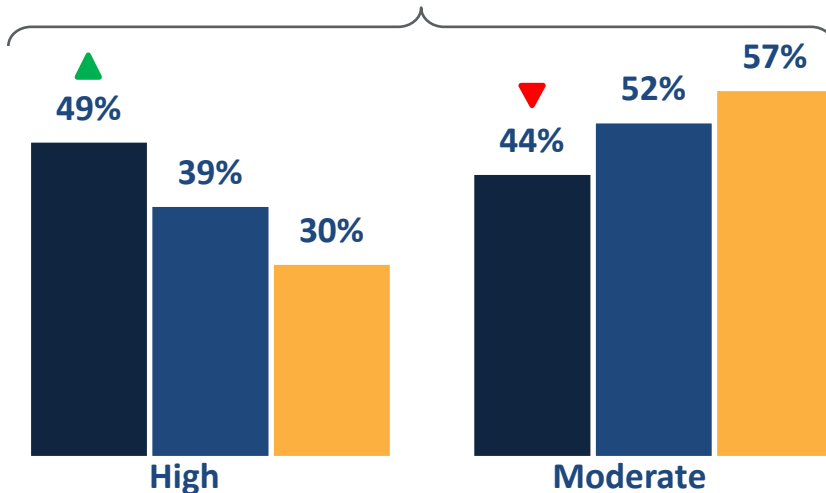
Knowledge Levels Defined

High: All Correct in Q9 (4)
Moderate: 2 or 3 Correct in Q9
Low: 1 Correct in Q9
None: All Incorrect (0) in Q9

High/ Moderate

(Top 2 Box)

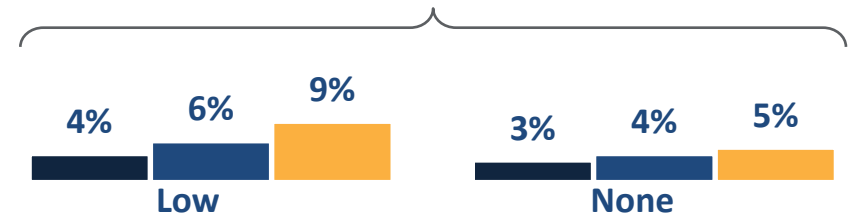
2015: 93%
 2014: 91%
 2013: 87%



Little/ None

(Low 2 Box)

2015: 7%
 2014: 10%
 2013: 14%



Impact of Knowledge of Licensing and Roles



Knowledge of Licensing and Roles & Intention to Pursue Engineering Career

- Knowledge in terms of roles and licensing requirements does not influence intent to pursue a career in the engineering field.
- Compared to 2014, those with a high level of knowledge are less likely to be definitely likely to pursue a career in engineering.

***Knowledge Levels Defined**
High: All Correct (3) in Q8
Moderate: 2 Correct in Q8
Low: 1 Correct in Q8
None: Zero (0) Correct in Q8

	HIGH KNOWLEDGE			MODERATE KNOWLEDGE			LOW KNOWLEDGE			NO KNOWLEDGE		
	A			B			C			D		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
	328	166	129	361	142	83*	43*	19**	12**	11**	1**	2**
Yes, Definitely	67% D	59%	42% ▼	71% D	51%	45%	58%	58%	58%	36%	100%	-
	219	98	54	257	73	37	25	11	7	4	1	0
Yes, Probably	29%	35%	40%	25%	41%	43%	40%	37%	17%	64% AB	-	50%
	96	58	51	92	58	36	17	7	2	7	0	1
No, Probably	4%	6%	8%	2%	6%	6%	2%	5%	-	-	-	50%
	13	10	10	9	9	5	1	1	0	0	0	1
No, Definitely	-	-	3%	1%	1%	-	-	-	8%	-	-	-
	0	0	4	3	2	0	0	0	1	0	0	0
Top 2 Box Yes	96%	94%	81% ▼	97%	92%	88%	98%	95%	75%	100%	100%	50%
	315	156	105	349	131	73	42	18	9	11	1	1
Low 2 Box No	4%	6%	11%	3%	8%	6%	2%	5%	8%	-	-	50%
	13	10	21	12	11	5	1	1	1	0	0	1

Intentions to Pursue Career within the Engineering Field

*small base size **very small base size

Knowledge of Licensing and Roles & Intention to Apply for Licensure

- Students knowledge of roles and licensing requirements has no statistically significant impact on their intention to apply for licensure.
- Compared to 2014, those with a moderate or high level of knowledge are less likely to intend to apply for licensure.

***Knowledge Levels Defined**

High: All Correct (3) in Q8

Moderate: 2 Correct in Q8

Low: 1 Correct in Q8

None: Zero (0) Correct in Q8

Q8

	HIGH KNOWLEDGE			MODERATE KNOWLEDGE			LOW KNOWLEDGE			NO KNOWLEDGE		
	A			B			C			D		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
	328	166	129	361	142	83*	43*	19**	12**	11**	1**	2**
Yes, Definitely	60% D	50%	40%	62% CD	61% A	42% ▼	44%	21%	25%	18%	100%	-
	196	83	51	225	87	35	19	4	3	2	1	0
Yes, Probably	26%	27%	26%	22%	25%	25%	33%	37%	42%	55% AB	-	100%
	84	45	33	80	35	21	14	7	5	6	0	2
No, Probably	6%	7%	14%	8%	8%	17%	12%	16%	17%	-	-	-
	20	11	18	29	11	14	5	3	2	0	0	0
No, Definitely	4%	7%	12%	3%	2%	7%	2%	11%	8%	-	-	-
	13	11	15	12	3	6	1	2	1	0	0	0
Top 2 Box Yes	85%	77%	65% ▼	84%	86%	68% ▼	77%	58%	67%	73%	100%	100%
	280	128	84	305	122	56	33	11	8	8	1	2
Low 2 Box No	10%	13%	26%	11%	10%	24%	14%	26%	25%	-	-	-
	33	22	33	41	14	20	6	5	3	0	0	0

Intention to Apply for the Professional Engineers Licensure

*small base size **very small base size

Impact of Knowledge of Organizational Responsibility



Knowledge of Organizational Responsibility & Intention to Pursue Engineering Career

- Knowledge of organizational responsibility has no significant impact on intention to pursue an engineering career.
- Compared to 2014, students with a moderate level of knowledge are less likely to be definitely likely to pursue a career in engineering.

Knowledge Levels Defined

High: All Correct in Q9 (4)

Moderate: 2 or 3 Correct in Q9

Low: 1 Correct in Q9

None: All Incorrect (0) in Q9

	HIGH KNOWLEDGE			MODERATE KNOWLEDGE			LOW KNOWLEDGE			NO KNOWLEDGE		
	A			B			C			D		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
	226	128	110	418	170	100	65*	18**	10**	34*	12**	6**
Yes, Definitely	69% D	56%	48%	69% D	57%	35% ▼	66%	56%	50%	50%	42%	83%
	156	72	53	289	96	35	43	10	5	17	5	5
Yes, Probably	28%	34%	39%	27%	40%	42%	32%	44%	40%	38%	33%	17%
	64	43	43	114	68	42	21	8	4	13	4	1
No, Probably	2%	10% B	7%	3%	2%	8%	2%	-	-	9% A	25%	-
	5	13	8	14	4	8	1	0	0	3	3	0
No, Definitely	0%	-	1%	0%	1%	3%	-	-	10%	3%	-	-
	1	0	1	1	2	3	0	0	1	1	0	0
Top 2 Box Yes	97%	90%	87%	97%	97% A	77% ▼	98%	100%	90%	88%	75%	100%
	220	115	96	403	164	77	164	18	9	30	9	6
Low 2 Box No	3%	10% B	8%	3%	4%	11%	2%	-	10%	12%	25%	-
	6	13	9	15	6	11	1	0	1	4	3	0

Intentions to Pursue Career within the Engineering Field

*small base size **very small base size

Knowledge of Organizational Responsibility & Intention to Apply for Licensure

- Knowledge of organizational responsibility has no significant impact on intention to apply for licensure.
- Compared to 2014, those with a moderate or high level of knowledge are less likely to intend to apply for licensure.

Knowledge Levels Defined

High: All Correct in Q9 (4)

Moderate: 2 or 3 Correct in Q9

Low: 1 Correct in Q9

None: All Incorrect (0) in Q9

	HIGH KNOWLEDGE			MODERATE KNOWLEDGE			LOW KNOWLEDGE			NO KNOWLEDGE		
	A			B			C			D		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
	226	128	110	418	170	100	65*	18**	10**	34*	12**	6**
Yes, Definitely	61% D	58%	46%	60% D	52%	33% ▼	69% D	50%	30%	21%	33%	33%
	138	74	51	252	88	33	45	9	3	7	4	2
Yes, Probably	23%	24%	22%	24%	27%	31%	28%	39%	40%	41% AB	25%	33%
	53	31	24	99	46	31	18	7	4	14	3	2
No, Probably	8%	7%	16%	7%	9%	16%	-	-	-	15%	8%	-
	19	9	18	30	15	16	0	0	0	5	1	0
No, Definitely	3%	4%	7%	4%	7%	12%	-	-	20%	6%	-	-
	7	5	8	17	11	12	0	0	2	2	0	0
Top 2 Box Yes	85% D	82%	68% ▼	84% D	79%	64% ▼	97% ABD	90%	70%	62%	58%	67%
	191	105	75	351	134	64	63	16	7	21	7	4
Low 2 Box No	12%	11%	24%	11%	15%	28%	-	-	20%	21%	8%	-
	26	14	26	47	26	28	0	0	2	7	1	0

Intention to Apply for the Professional Engineers Licensure

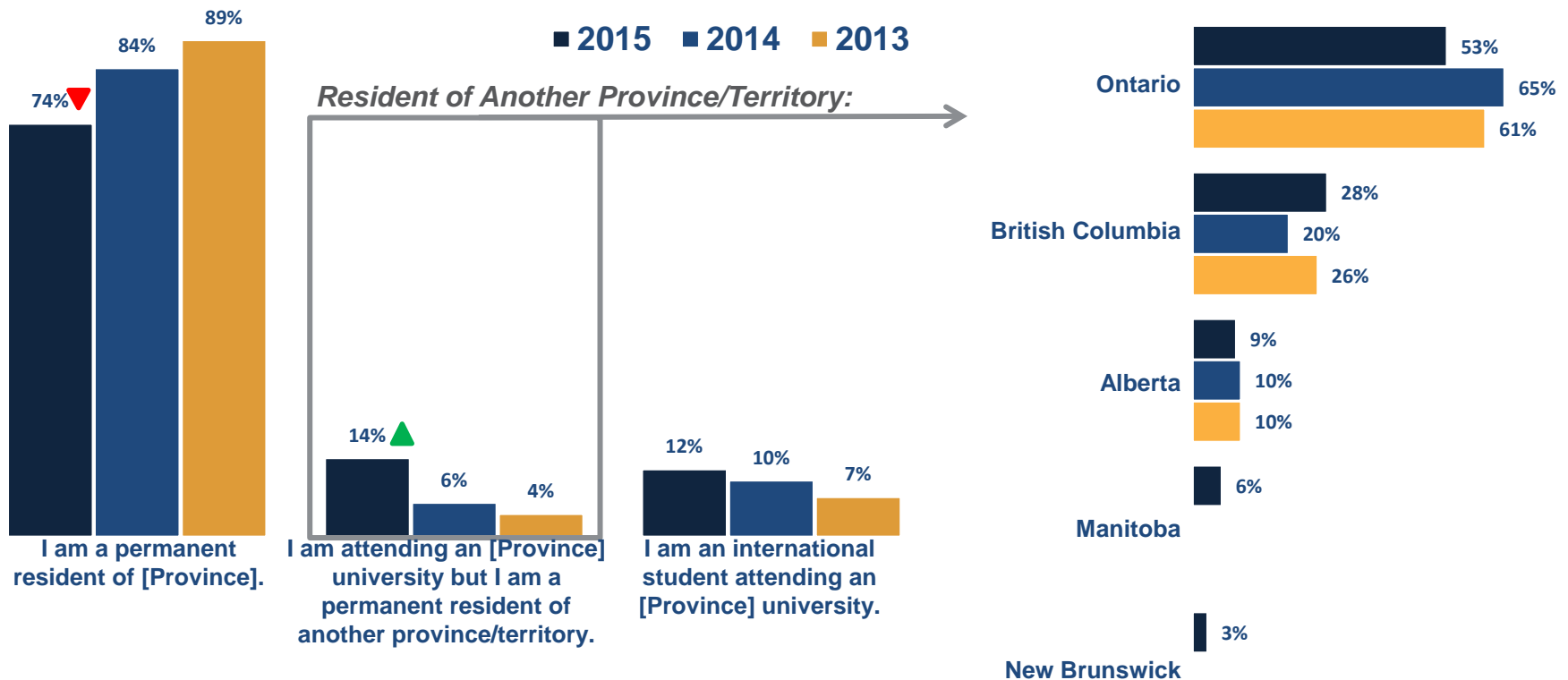
*small base size **very small base size

Demographics



Permanent Residency

- Three quarters of students are permanent residents of the province they are studying in, lower than in 2014, while just over one in ten are an international student or a resident of another province/ territory.
- Of those who are a permanent resident of another province, the majority are from Ontario, followed by British Columbia and Alberta.



*small base size **very small base size

Q34. For statistical purposes, we would like to know the location of your permanent residence. Please select the statement that most appropriately describes your current residency status: ?

Base: All respondents, 2013 n=796; 2014 (n=328); 2015 (n=226)

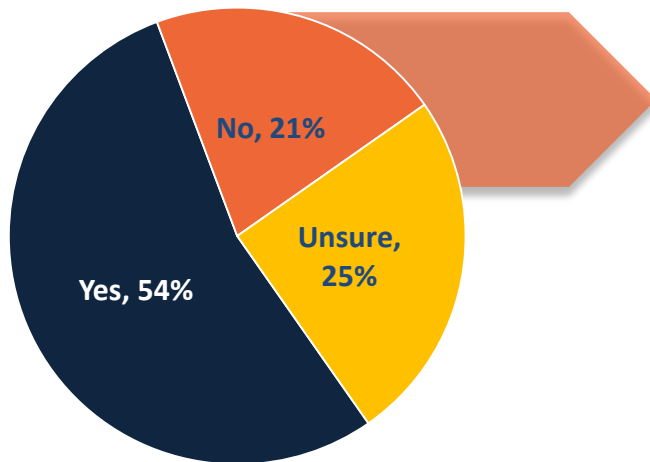
Q35. You indicated that you are attending university in but are a permanent resident of another province/territory. Please select the province or territory in which you are a permanent resident.

Base: Respondents who are not permanent residents of , 2013 (n=31*); 2014 (n=20**); 2015 (n=32*)

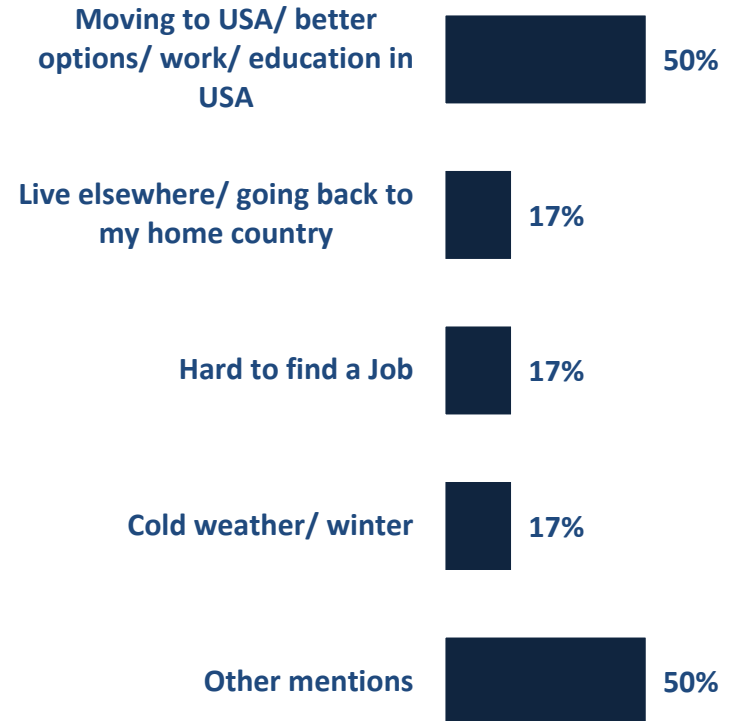
International Students' Plans After Graduation

- Around half of international studies plan on staying in Canada after graduation, while one quarter are unsure and two in ten do not plan on staying.
- Among those who do not plan on staying in Canada, the most common reason is that they plan on moving to the US, followed by the desire to go back to their home country, the feel that it is hard to find a job here or because of the cold winters.

Do you plan on staying in Canada after your bachelor's degree is complete? (**very small base size)



Why do you not intend on staying in Canada? (**very small base size)



Q36a. Do you plan on staying in Canada after your bachelor's degree is complete?

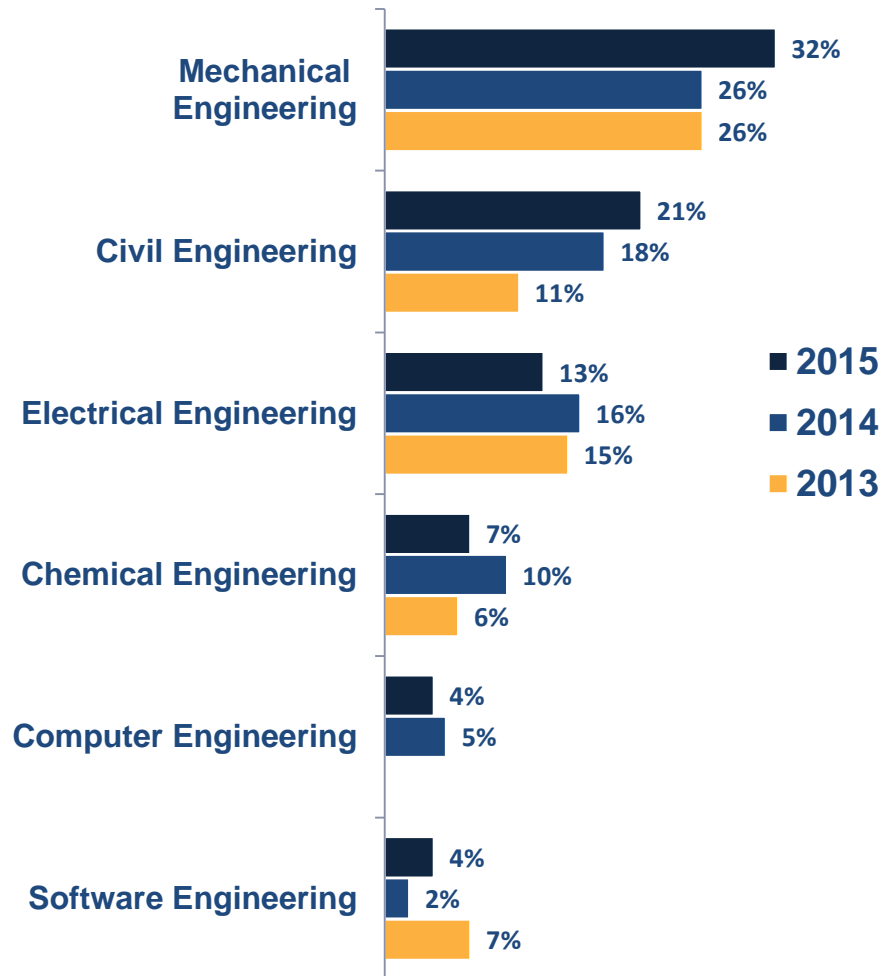
Base: International students 2015 (n=28**)

Q36b. Why do you not intend on staying in Canada?

Base: International students who don't intend on staying in Canada 2015 (n=6**)

Engineering Disciplines

- The most popular disciplines continue to be mechanical engineering, civil engineering, electrical engineering and chemical engineering.



Mentions <4% are not shown

Engineering Disciplines

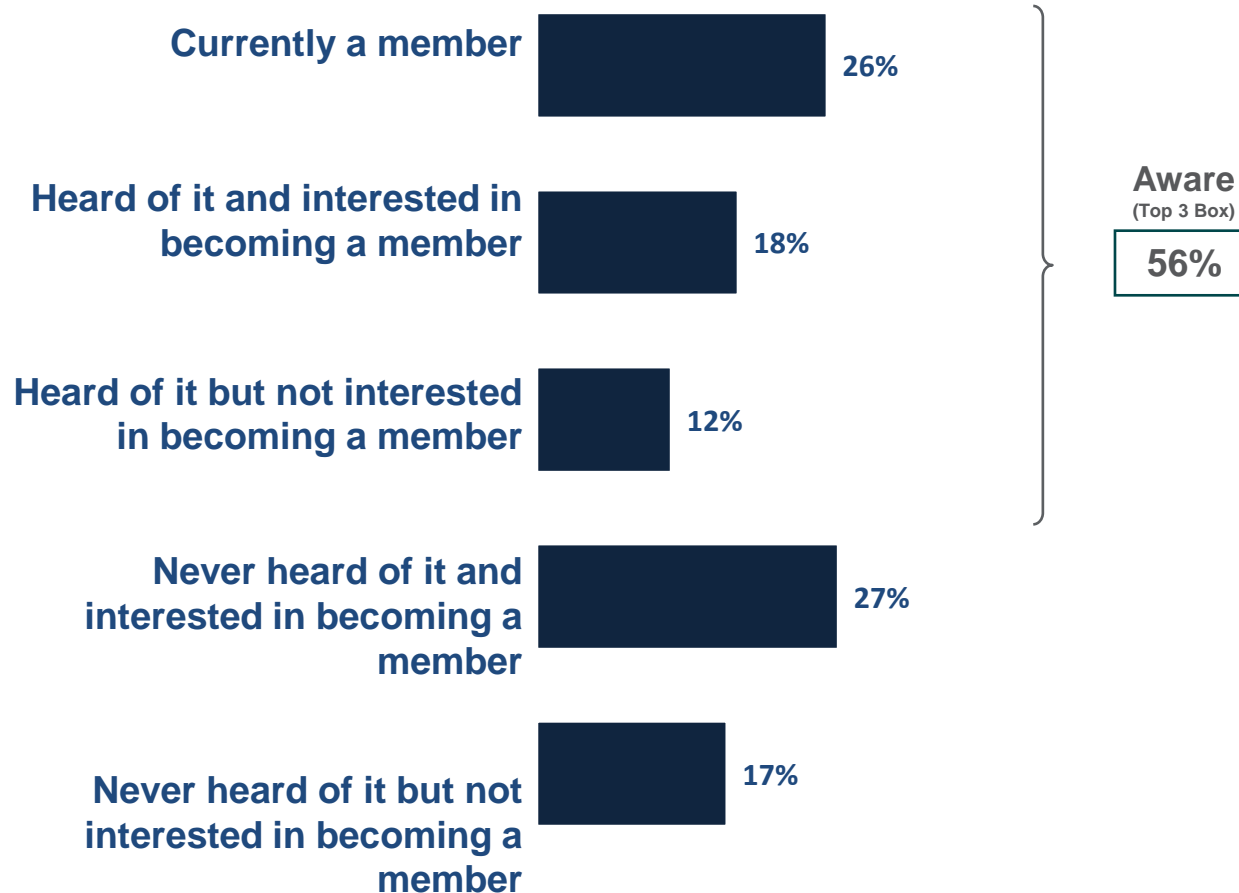
- Students between the age of 24-26 are more likely to indicate studying software engineering, while female students are likely to mention chemical engineering and permanent residents civil engineering.

	Total	Age			Gender		Resident Status		
		21-23	24-26	27+	Male	Female	Permanent resident	Permanent resident of another province	International student
		G	H	I	J	K	N	O	P
Base: All respondents	(n=226)	(n=107)	(n=93*)	(n=26**)	(n=164)	(n=62*)	(n=166)	(n=32*)	(n=28**)
Mechanical Engineering	32%	36%	31%	15%	35%	23%	38%	22%	7%
Civil Engineering	21%	20%	28%	4%	23%	18%	24% O	6%	21%
Electrical Engineering	13%	16%	10%	12%	15%	7%	11%	16%	18%
Chemical Engineering	7%	9%	5%	4%	4%	16% J	6%	13%	7%
Computer Engineering	4%	3%	2%	19%	4%	5%	5%	3%	4%
Software Engineering	4%	1%	7% G	4%	4%	3%	4%	-	7%

*small base size **very small base size

Association with OIQ's SMP

- The majority of students are aware of OIQ's Student Membership Programs (SMP), of which one quarter are currently a member, two in ten have heard of it and are interested in becoming a member, while one in ten have heard of it but are not interested. Nearly three in ten have never heard of it and are interested, while fewer than two in ten have never heard of it and are not interested in becoming a member.



Demographics- Gender, Age, Ethnicity

Gender	2015
Male	73%
Female	27%

Ethnicity	
Western European	28%
British	13%
Southern or Eastern European	10%
East Asian	10%
West Asian or Middle Eastern	5%
African or African American	5%
South Asian	4%
Central/South American	4%
Southeast Asian	3%
Aboriginal/First Nations/Métis	2%
Other	25%
Prefer not to say	8%

Age	2015
21-23	47%
24-26	41%
27+	12%

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