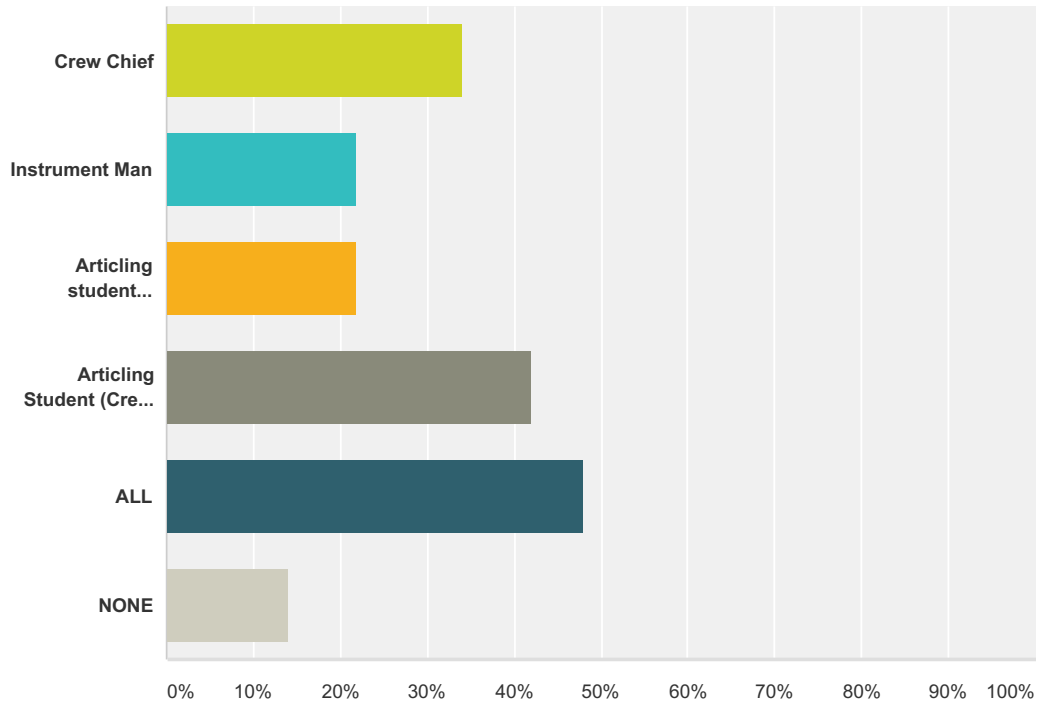


Q1 Would your firm hire graduates of a University Geomatics/Surveying Program for the following positions? Select any number of responses.

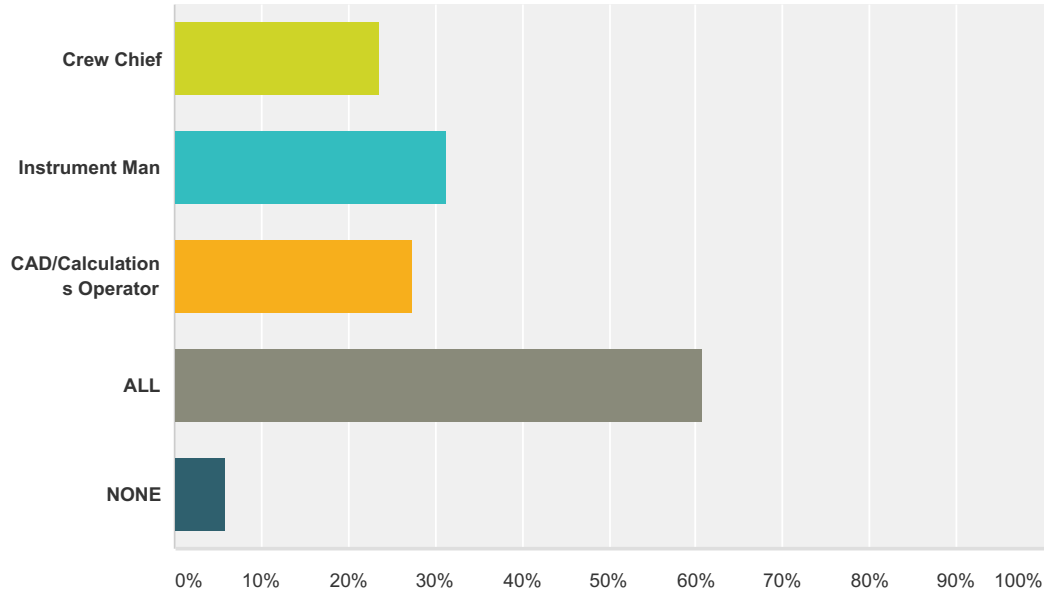
Answered: 50 Skipped: 1



Answer Choices	Responses
Crew Chief	34.00% 17
Instrument Man	22.00% 11
Articling student (Instrument man level)	22.00% 11
Articling Student (Crew Chief level)	42.00% 21
ALL	48.00% 24
NONE	14.00% 7
Total Respondents: 50	

Q2 Would your firm hire graduates of a College/Technical Program for the following positions? Select any number of responses.

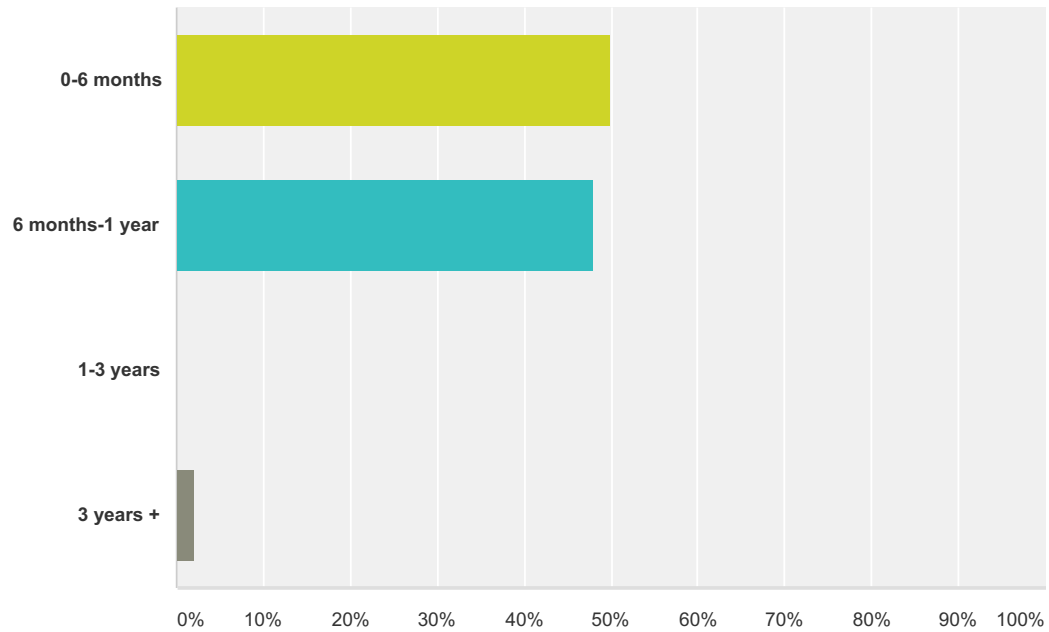
Answered: 51 Skipped: 0



Answer Choices	Responses	
Crew Chief	23.53%	12
Instrument Man	31.37%	16
CAD/Calculations Operator	27.45%	14
ALL	60.78%	31
NONE	5.88%	3
Total Respondents: 51		

Q3 What level of field experience are you expecting a graduate to have at an Instrument Man level?

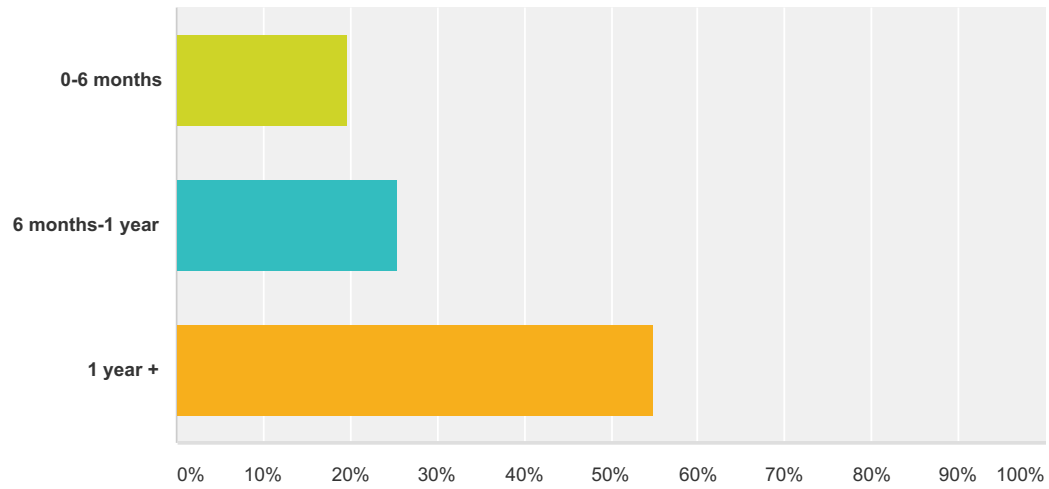
Answered: 50 Skipped: 1



Answer Choices	Responses	Count
0-6 months	50.00%	25
6 months-1 year	48.00%	24
1-3 years	0.00%	0
3 years +	2.00%	1
Total		50

Q4 What level of field experience are you expecting a graduate to have at a Crew Chief level?

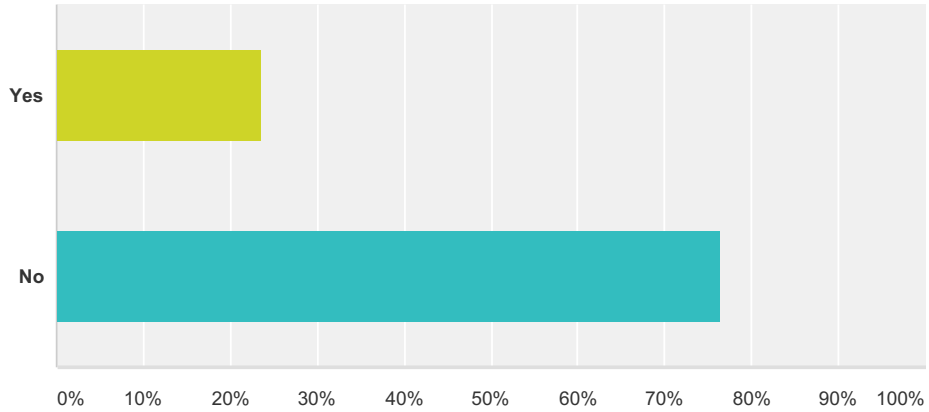
Answered: 51 Skipped: 0



Answer Choices	Responses
0-6 months	19.61% 10
6 months-1 year	25.49% 13
1 year +	54.90% 28
Total	51

Q5 Do you believe that the completion of a College/Technical Program is a prerequisite for hiring as an instrument man?

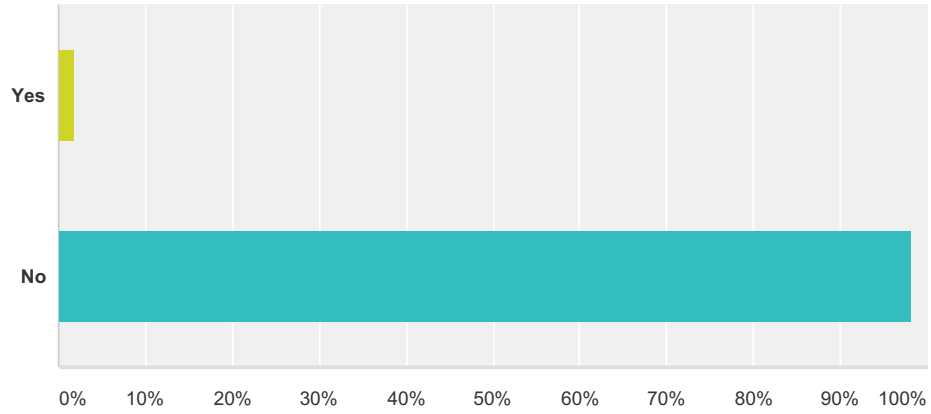
Answered: 51 Skipped: 0



Answer Choices	Responses	
Yes	23.53%	12
No	76.47%	39
Total		51

Q6 Do you believe that the completion of a University Program is a prerequisite for hiring as an instrument man?

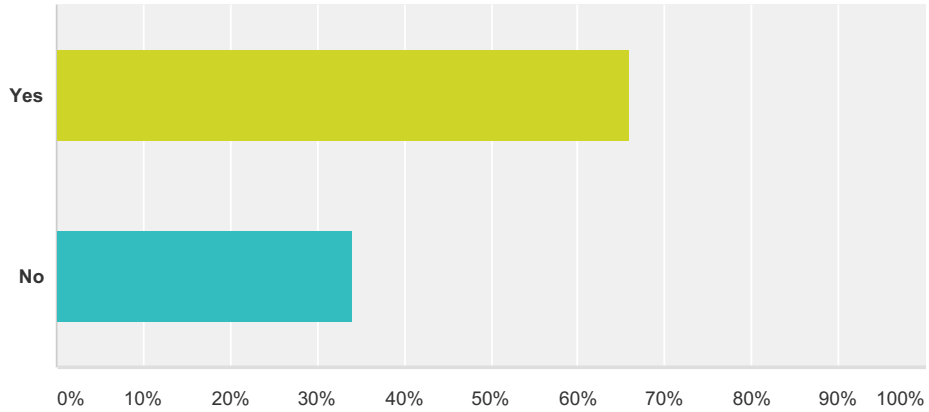
Answered: 51 Skipped: 0



Answer Choices	Responses
Yes	1.96% 1
No	98.04% 50
Total	51

Q7 Do you believe that the completion of a College/Technical Program is a prerequisite for hiring as Crew Chief?

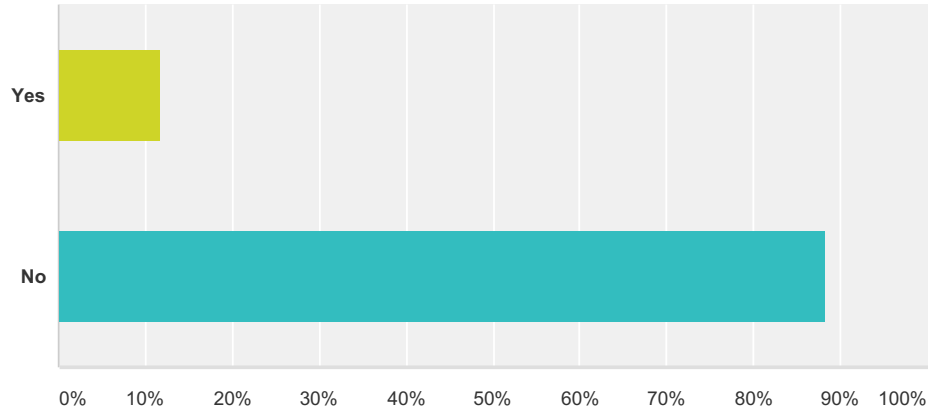
Answered: 50 Skipped: 1



Answer Choices	Responses	
Yes	66.00%	33
No	34.00%	17
Total		50

Q8 Do you believe that the completion of a University Program is a prerequisite for hiring as Crew Chief?

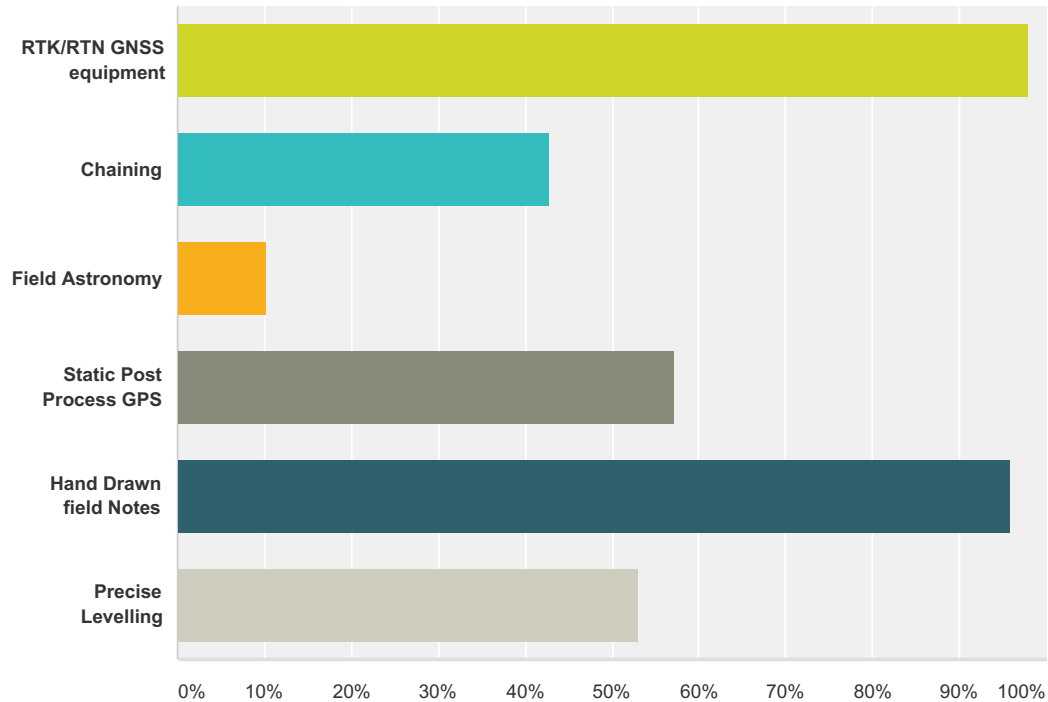
Answered: 51 Skipped: 0



Answer Choices	Responses	
Yes	11.76%	6
No	88.24%	45
Total		51

Q9 Do you expect a college/university graduate to have hands-on experience with the following equipment and techniques? Select any number of responses.

Answered: 49 Skipped: 2



Answer Choices	Responses
RTK/RTN GNSS equipment	97.96% 48
Chaining	42.86% 21
Field Astronomy	10.20% 5
Static Post Process GPS	57.14% 28
Hand Drawn field Notes	95.92% 47
Precise Levelling	53.06% 26
Total Respondents: 49	

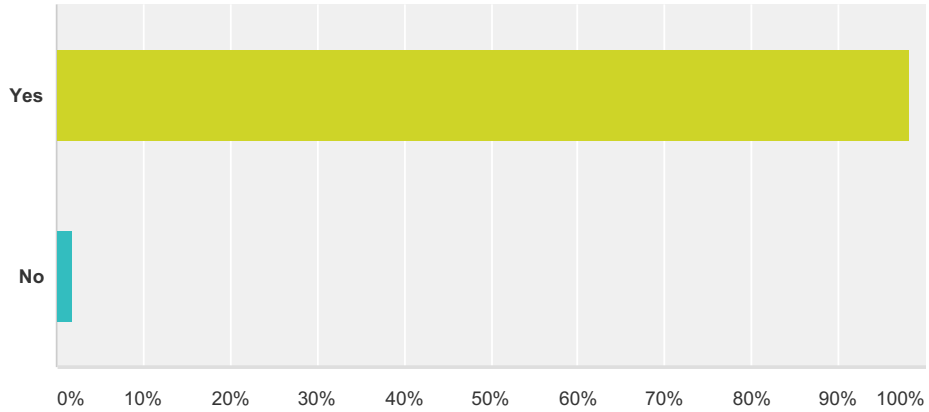
#	Comments?	Date
1	Also experience and knowledge with a total station and data collector	8/13/2015 5:21 PM
2	I think a graduate should be able to use total stations, levels and GPS equipment. If it is a brand that he/she is not familiar with, they should be able to read the manual and within a few hours, be able to use any of the 3 instruments competently. They MUST be familiar with the principles of how these work.	8/13/2015 5:19 PM
3	Ever firm is in desperate need of qualified staff	8/13/2015 5:05 PM
4	Basic skills are most important. Question 9 does not mention use of a total station and data collector, coding of data, or the basics of registry office searching.	8/13/2015 4:51 PM

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5	I hope that there are labs at school for practical experience, and I also hope that the student works at a surveying/engineering company in the summers between school years, both to earn money and to gain experience.	8/6/2015 11:28 AM
6	I don't expect a college/university graduate to have hands on experience of any of these items ! We intend to train them in all of these processes.	8/6/2015 9:47 AM
7	We expect only a basic level of knowledge for new hires. We have an extensive in-house training program for staff	8/6/2015 8:19 AM
8	They should know how to use a total station	7/27/2015 5:42 PM
9	Robotic total stations and various data collectors and related software. Exposure and some use but there is such variety that company specific training will take care of the rest very quickly.	7/27/2015 4:39 PM
10	understand, not necessarily proficient in all	7/27/2015 4:27 PM
11	also need Total Station experience.	7/27/2015 4:05 PM

Q10 Do you think the equipment/techniques described in Question 9 would make a college/university graduate more valuable to your firm than those who do not have such skills?

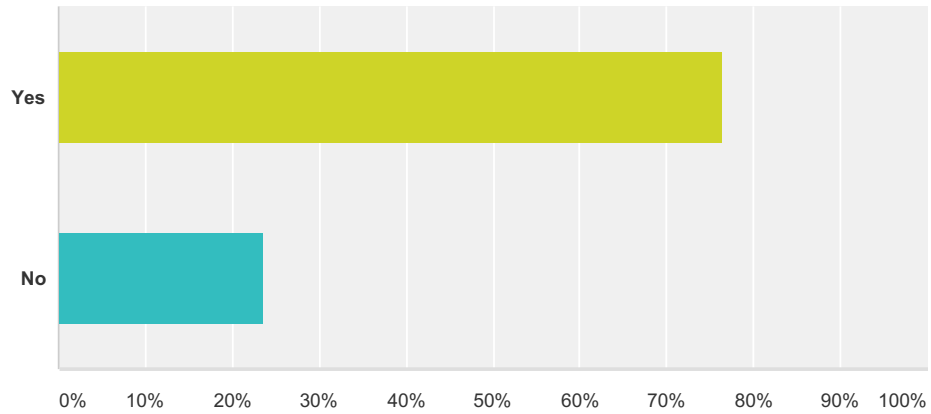
Answered: 51 Skipped: 0



Answer Choices	Responses	
Yes	98.04%	50
No	1.96%	1
Total		51

Q11 Do you expect a college/university graduate to have a full understanding of current instrumentation for operation of modern data collection software and techniques?

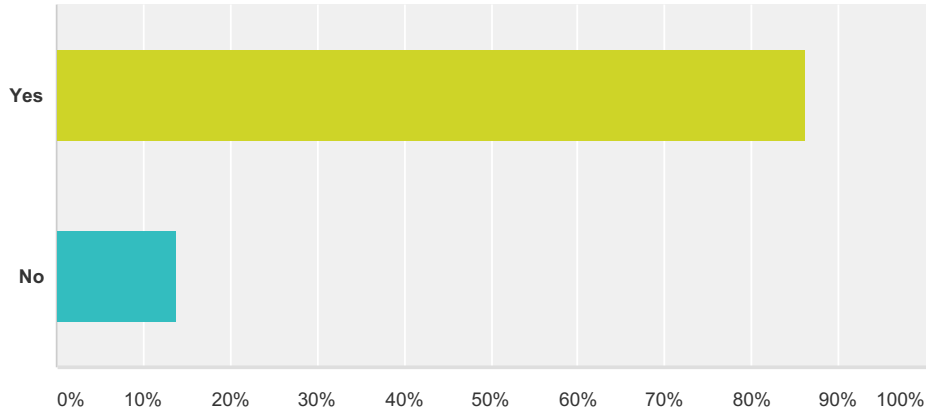
Answered: 51 Skipped: 0



Answer Choices	Responses	
Yes	76.47%	39
No	23.53%	12
Total		51

Q12 Do you expect a graduate to have an understanding of current CAD/Calculation/GIS software?

Answered: 51 Skipped: 0

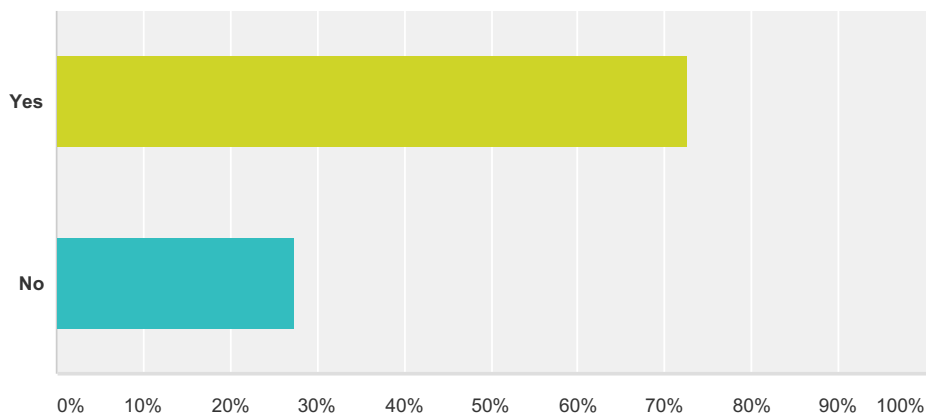


Answer Choices	Responses
Yes	86.27% 44
No	13.73% 7
Total	51

#	Comments	Date
1	An understanding of the PRINCIPLES is required. It is obvious that being able to competently use complex software come with (LOTS of) practice, and this is simply not available in an educational institution.	8/13/2015 5:19 PM
2	We need qualified people right now!	8/13/2015 5:05 PM
3	Question 11 - a full understanding is not likely possible at either the college or U level, but, a basic understanding would be good. Many firms approach data coding differently.	8/13/2015 4:51 PM
4	I hope that they are teaching these things at school.	8/6/2015 11:28 AM
5	Understanding not necessary fully trained	8/6/2015 10:21 AM
6	A basic understanding of CAD and GIS software is very helpful but not mandatory.	8/6/2015 8:19 AM
7	"an understanding" is the operative word.	7/27/2015 4:39 PM
8	not necessarily proficient in use of all software	7/27/2015 4:27 PM

Q13 From a theoretical perspective, are college technician graduates required to have strong knowledge of all or any of the following subjects: map projections; geodetic coordinates; least squares adjustment; control survey requirements; GPS data processing; control network design; community planning; terrain modelling; earthworks calculations; astronomy?

Answered: 51 Skipped: 0



Answer Choices	Responses
Yes	72.55% 37
No	27.45% 14
Total	51

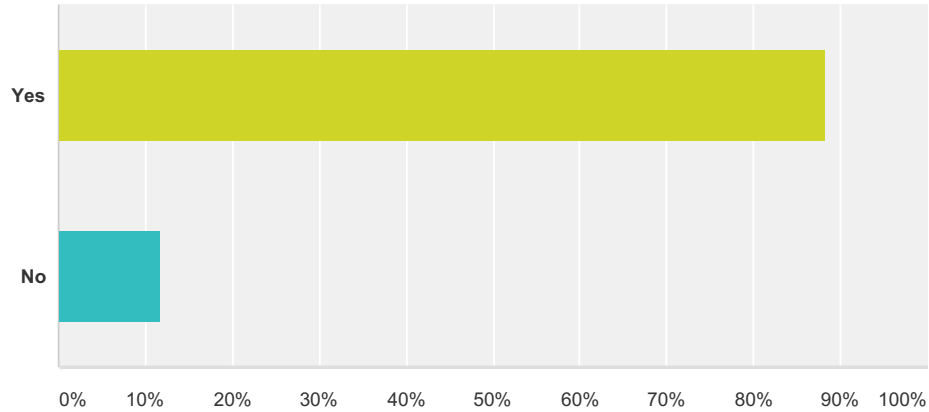
#	Comments	Date
1	Not community planning. Minimal on the map projections	8/13/2015 5:21 PM
2	They should understand the concepts of UTM; how moving across one zone to another impacts recording. They should understand Datums, especially with the use of GPS. They should have the concept of what is a strong network, and what is a weak one.	8/13/2015 5:19 PM
3	It would be good if students were given a basic understanding of these topics, particularly geodetic (grid) coordinates vs. ground coordinates. I don't think a strong knowledge of any of the above noted topics is within the scope of any college courses. Perhaps U courses would be in sufficient detail to provide a strong knowledge.	8/13/2015 4:51 PM
4	maybe not all of them, but they should have a better than average understanding of what surveying is all about, not just be "button pushers".	8/6/2015 11:28 AM
5	Maybe not so much least squares or community planning.	8/6/2015 8:29 AM
6	A basic understanding of as many of the items listed makes the person a stronger candidate and they will generally progress more quickly with the increased knowledge.	8/6/2015 8:19 AM
7	NOT ALL BUT SOME AT LEAST	8/4/2015 11:02 AM
8	"strong" knowledge in coordinates, GPS processing, Earthworks calcs. reasonable understanding in rest of categories	7/31/2015 11:45 AM

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9	Not a strong knowledge. They should have an understanding of most of those areas of study with regard to how those concepts will be used in their job environment. Most of the theoretical knowledge in these subjects has been buried in equipment and computer software and is beyond the reach of the operators of the equipment and computer programs. It is more important to teach the students how to use these tools effectively and with field and office procedures that minimize systematic and random errors.	7/28/2015 2:46 PM
10	I've taught the survey course to the civil side for the past 3 years. Its very basic. They get as far as closing and balancing a traverse.	7/27/2015 4:39 PM

Q14 Would your firm hire summer students to give them the experience they need to develop as field surveyors?

Answered: 51 Skipped: 0

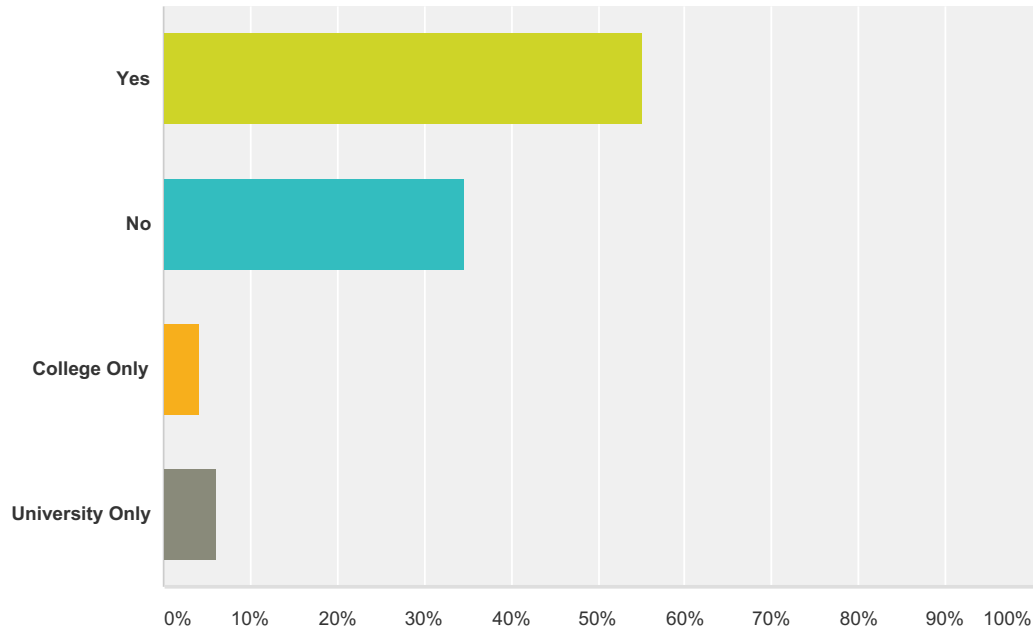


Answer Choices	Responses
Yes	88.24% 45
No	11.76% 6
Total	51

#	Comments?	Date
1	We do now	8/13/2015 5:21 PM
2	we hired a summer student who is working inside and out this year	8/13/2015 5:19 PM
3	Being a small firm, we generally have the same staff year round, however, this year is an exception, we have taken on a former college student for the summer and fall.	8/13/2015 4:51 PM
4	No, because I'm not currently hiring and I use a technical firm. If I were hiring, I would choose the student first.	8/6/2015 11:28 AM
5	We have in the past and we hope we were investing in the student and the company but the following summer they worked elsewhere	8/6/2015 10:21 AM
6	I am the only employee of my firm and do not require any additional staff	8/6/2015 8:15 AM
7	IF NEEDED	8/4/2015 11:02 AM
8	Economy dependant	7/31/2015 11:45 AM
9	Summer hires are always dependant on the economic health of an area.	7/28/2015 2:46 PM
10	We hire both college and university level students. Both can be excellent workers but a big difference in their level of real life abilities, ie; phoning the office regularly with questions and issues vs. staying after work, reading the manual working it through and going forward understanding!	7/27/2015 4:39 PM

Q15 Would your firm be interested in attending employment fairs at certain Colleges and Universities offering geomatics/surveying programs throughout the year?

Answered: 49 Skipped: 2

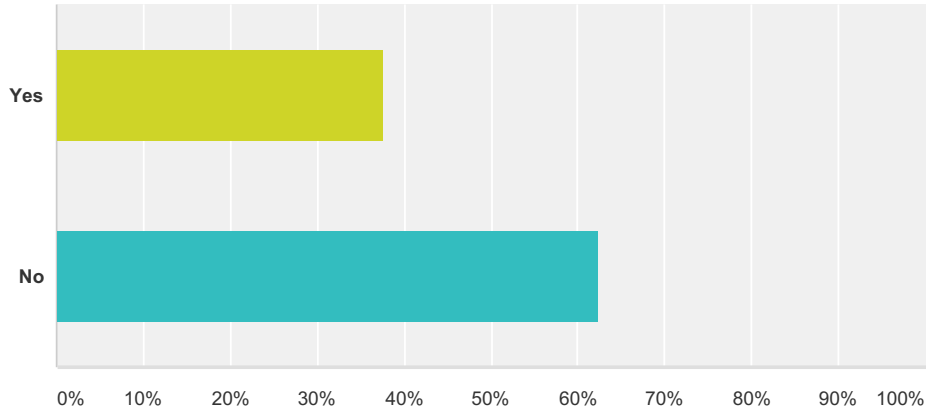


Answer Choices	Responses	
Yes	55.10%	27
No	34.69%	17
College Only	4.08%	2
University Only	6.12%	3
Total		49

#	Comments?	Date
1	We have recently hired a student that will article and also a UNB summer student that I hope will progress over time to an articling position.	8/13/2015 10:02 PM
2	no.i'm old school .Its time for these students to get off their butts and seek out their own job.What ever happened to initiative?	8/13/2015 5:23 PM
3	Maybe - we get applications in now so we don't need to attend the events	8/13/2015 5:21 PM
4	Depends on location, workload and workload forecast	7/31/2015 11:45 AM
5	Not at this time.	7/28/2015 2:46 PM
6	I want someone who is proactive and is out there looking for an opportunity.I have never taken part In a job fair and never will.	7/27/2015 4:13 PM

Q16 Do you believe that a University Graduate is better prepared than a College Graduate to be an employee in the survey industry in Ontario?

Answered: 48 Skipped: 3



Answer Choices	Responses
Yes	37.50% 18
No	62.50% 30
Total	48

#	Please explain:	Date
1	Yes and No It depends on the University and College. Universities and College that partner in the education process are probably the best	8/14/2015 1:52 PM
2	My expectation is that a University bound student will be academically superior to a College student, will have more summers to obtain experience during their post secondary years and will graduate at a much higher level than a College student.	8/13/2015 10:02 PM
3	College students are more hands on.they are also more adaptable to the new technology.University students have the thoery and problem solving abilities but they now have to learn how to apply.I am a UofT graduate but worked in the real world for ten years before going back to get my degree.	8/13/2015 5:23 PM
4	I assume a university grad will have a more in depth education on legal principles. Technically they are probably similar except a university grad should have an extra year of summer employment experience.	8/13/2015 5:21 PM
5	Depends on meaning of "employee". We work in a rural area, and travel long distances to sites. Our field workers need to make decisions in field, rather than the OLS in the office. We need them to have capacity to THINK. That is difficult to teach in either college or university environment	8/13/2015 5:19 PM
6	College grads are far more hands on than the University grads, but both would be an asset	8/13/2015 5:05 PM
7	It would depend upon what level of employee you are talking about. For a small firm, it is likey best to take a college student on as an instrument person, and work with them over time to become a crew chief. I have found that is the best way to end up with an employee who you work well with, and who works well with you, and who understands your approach to field work, and the survey as a whole.	8/13/2015 4:51 PM
8	Not when it comes to the technical part of land surveying but yes when it is for business and law.	8/12/2015 4:22 PM
9	I would rather answer "maybe". If the student does not plan to become licensed, then I expect them to graduate ready to contribute to my field/drafting staff, but I would also expect that they might need some additional training. If they are planning to become a CLS/OLS then the university grad is better prepared.	8/6/2015 11:28 AM

Expectations of Graduating Students 2015

10	When hiring a graduate we would rather they have more technical exposure compared to a sense that they are ready to move into a VP position with no experience.	8/6/2015 10:21 AM
11	We're looking for people with a good work ethic who are project oriented. Having a related degree or diploma in the survey field just means to me that the prospective employee knows what they are getting into and are more likely to stay in the industry.	8/6/2015 8:41 AM
12	if he or she intends to become an OLS otherwise no.	8/6/2015 8:40 AM
13	Too broad a question. Better prepared to be a CAD or field technician?- no. Better prepared to be a future manager-yes.	8/6/2015 8:29 AM
14	At the technician level we've found college grads to be stronger hires in the short term. At the professional level, University graduates generally have a broader picture view	8/6/2015 8:19 AM
15	In my experience a University graduate obtains additional tools which provide for a larger scope of capabilities.	8/6/2015 8:15 AM
16	REALLY DEPENDS ON THE INDIVIDUAL	8/4/2015 11:02 AM
17	Surveying firms struggle to find quality employees in a technical role. One OLS can supervise several people if they have strong technical staff. The college students seem to want to stay in the technical roles where University Grads tend to want to move to the OLS role. University Grads tend to have higher compensation expectations due to education despite lack of practical experience and lack of motivation/enthusiasm.....You needed to have a general comments box at the end of the survey. The survey should also be gender neutral as there are both genders in all roles including the instrument "person" role.	7/31/2015 11:45 AM
18	depends on the position	7/30/2015 7:18 AM
19	No: based on the framing of the question it appears that the graduate would be employed in a technical capacity and not a professional or quasi-professional position.	7/28/2015 2:46 PM
20	Both are good employees at different levels. We can give a 500 lot subdivision to a college grad pc and he will do a great job but a waste of talent for a University grad who is generally better at understanding and accessing evidence, making correct decisions, managing time and people etc.	7/27/2015 4:39 PM
21	The answer is yes and no depending on the position. We would consider a college student as an instrument man but expecting an university student as an articling Surveyor or promote to be a crew chief shortly after.	7/27/2015 4:10 PM
22	Depend how and what they are taught.	7/27/2015 4:05 PM