

# Helpful Information for Students

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We recently distributed a questionnaire to our readers to provide students of high schools and colleges with more information on the surveying and engineering professions. We hope that some of this information will help current students and students-to-be make informed decisions about their courses and profession.

Of all respondents (100 total) 75 percent indicated surveying as their main source of business, 21 percent indicated engineering, and 4 percent indicated education and consulting. When the first two categories are broken down further, 70 percent of respondents' main source of business is surveying *only*, 16 percent is engineering *only*, and 5 percent is both surveying and engineering.

In the "surveying only" group, most respondents have been in the business for an average of 21-30 years. The next two smaller groups are 11-20 years, followed by 30+ years.

## Most Valuable Subject

For all respondents, the all-time winner for most valuable subject in high school (note: *valuable* does not necessarily mean popular!) was math, followed by trigonometry, algebra, geometry, drafting, science and physics.

An overwhelming 68 percent of all respondents have a college degree, of which 41 percent obtained their degree before ever going to work. There appears to be much variation among college graduates regarding the most valuable subject. The most common answer was surveying, followed by math, English, trigonometry, calculus, geometry, drafting, boundary control/evaluation, law, algebra, mechanics of materials, science, physics, structures, statistics, photogrammetry and geodesy. Eighty-six percent of respondents have used continuing education programs to update their skills while working, although only 50 percent of the states where they work require it.

What do these professions pay? Overall, the *starting* salary in the business was less than \$20,000 per year. One person

even indicated that his or her starting salary was \$2,860 a year! (The same person indicated that he or she had been in the business for 30+ years.) Currently the largest group averages an annual salary between \$31,000 and 40,000 (19 percent). The next income groups are in the following order: \$41,000-50,000 (13 percent), \$51,000-60,000 (13 percent), \$61,000-70,000 (10 percent), and only very few earn \$70,000+ and even up to \$100,000 (10 percent of respondents earn \$70,000+).

Sixty-four percent of respondents work at least 40 hours a week. Another 16 percent indicated that they have an average work week of 20-30 hours (most of this 16 percent are part-time workers, retirees and teachers).

A lot of students seem attracted to the surveying profession because of the outside work involved. However, 38 percent of respondents work outdoors less than 10 hours per week. Twenty-two percent work outdoors 11-20 hours, and 15 percent work outdoors 30+ hours.

## GPS Use

Who uses GPS? Forty-nine percent of respondents answered "yes" to using GPS, 47 percent answered "no," and 4 percent left the question unanswered. These last percentages might have some correlation with the number of years most respondents have been in the business. The largest group of respondents have been practicing for 21-30 years, and they are the same group that has shied away from GPS for multiple reasons (Cost, training, down time, new technology, and so forth). We have published several articles to indicate the value added to a business by using GPS, the increase in revenue and market share. However, practitioners must be willing to take the risk to invest time and money to reach these goals.

I would like to thank all respondents for sharing their experiences. ▼

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## Survey Questions

- The main focus of your job:  
 Surveying     Engineering
- Your title:  
 Owner/President/Partner  
 Vice President/Manager  
 Surveyor  
 Engineer  
 Party or Section Chief  
 Crew Member  
 Designer/Drafter  
 Technician/Repair Person  
 Other
- Do you have a degree:  
 Yes, \_\_\_\_\_  No
- Was your degree obtained prior to or during working on your profession:  
 Prior to     During
- Most valuable subject in High School:  
 \_\_\_\_\_
- Most valuable subject in College:  
 \_\_\_\_\_
- Have you used continuing education programs to update your skills:  
 Yes     No
- Does your State require continuing education programs:  Yes     No
- Number of years you have worked in this profession:  
 Entry level     1-5     6-10  
 11-20     21-30     30+
- At what level did your yearly salary start when you entered into this profession:  
 Less than 20K     20-30K  
 30-40K     40K+
- At what level is your current yearly salary:  
 Less than 20K     20K-30K  
 31K-40K     41K-50K  
 51K-60K     61K-70K  
 71K-80K     81K-90K  
 91K-100K     100K+
- Average weekly hours:  
 Less than 20     20-30     31-40  
 40+
- Average weekly hours spent on outdoor projects:  
 None     0-10     11-20  
 21-30     30+
- Do you use GPS technology:  
 Yes     No