

Civil engineering 8516

[Engineering](#)



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Why do I want to be a civil engineer? Until recently, I did not know the answer

to this question myself. I was lost when choosing a career. Then, I read about civil engineering, an occupation involving the construction of buildings, roads,

and bridges. As I looked farther into civil engineering, I liked many of the

other aspects involved with the career. Although the education will be

difficult, I have determined that civil engineering is the career that I want to

pursue. What is civil engineering? This career can not be defined using just a

few words. The many obstacles that civil engineers must overcome cover a vast

area of responsibilities. " Civil engineers conceive, plan, construct, and

operate facilities that meet basic human needs and reach out toward the

realization of society's most noble goals" (Auburn 106). Civil engineers

solve real world problems with the combination of applying mathematics and

natural sciences (Hagerty and Heer 2-3). Upon deciding to pursue a career in

civil engineering, I must have many attributes that help me decide for myself

if

I am right for this career. Probable civil engineers can be found occupying

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their childhood time with mechanical toys and structural sets instead of traditional toys. These people will get enjoyment from planning, designing, and constructing works or facilities. They also have the ability to see how intelligent use of nature has made our civilization today possible and have the desire to want to improve it (Golze 41). As a child building blocks filled my toy chest, and erector sets filled my playroom. I loved the challenge of building things and making things work. A young passion for the work of a civil engineer leads me to believe I could succeed in this field. The education of a civil engineer deals mainly with math and natural sciences. The first four semesters of curriculum required, which I will take at Northeast Alabama Community College, are the basics such as Calculus I - IV, differential equations, statistics, English, history, literature, speech, chemistry, and physics (Northeast 40). After completion of the requirements at Northeast Alabama Community College, I plan to attend Auburn University. " Auburn University's institutional mission is to prepare students for the ethical

practice of civil engineering” (Auburn 106). When beginning my studies at Auburn University, I will be required to take classes that go even deeper into civil engineering. Classes such as hydraulics, statics, and water treatment, are required to give an engineer a base to help solve problems in real world situations (Auburn 106). By taking classes such as these, I will be more prepared to face any problems encountered on the job. At many schools, students are able to study and gain work experience at the same time through cooperative programs. These programs allow students to get a first-hand look at experiences related to the job while still pursuing their education in that career. The close relationship between the school and the industry is important because both continue to educate the student (Hagerty and Heer 47-50). After completing my requirements at Northeast Alabama Community College, I plan to attend Auburn

University and enter its cooperative program and engineering school. I hope that

the knowledge I will gain from both institutions will lead me into a successful career as an engineer. Civil engineers use their knowledge of material science,

engineering theory, and economics to devise, construct, and maintain our physical surroundings. The work duties depend on many different areas of specialization in engineering. A structural engineer, who is concerned with loads to which the structure is exposed, must calculate the maximum load that

the structure can hold. On the other hand, a public works engineer must anticipate and be responsive to social needs. A company will start a young, inexperienced engineer out with few responsibilities. As the engineer gains experience, he or she will also gain additional responsibilities (Hagerty and

Heer 89). The practice of civil engineering pays the lowest salary of all engineering fields. However, over the past few years, civil engineering graduates have seen a 2.7% increase in their starting salaries. The average annual starting salary, according to an article in the Memphis Business Journal,

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is \$30, 618 dollars (Scott 4). Those who pursue a career in civil engineering do

not make their decision based on salary. Instead, they derive satisfaction from

the good done by helping meet the social and economic needs of the people (Hagerty

and Heer 88). Aiding the public's most common needs is what interests me the

most. The task of creating a more efficient and safer way of producing and transporting water to an ever-increasing population is just one of the problems

I hope to solve as a civil engineer. One of hardest decisions I made in my choosing civil engineering as a career was the acceptance of earning a lower salary. However, I could not place a numerical value on the satisfaction I believe this career will bring me. There are many different specialties involved

with civil engineering that need to be considered when choosing this career.

Some of these specialties are transportation engineering, structural building, and water resource management. A closer look into all of the fields lead me to

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the conclusion of specializing in water resource management. This occupation is

concerned with the safe and adequate transportation of water to the public.

Currently, I am employed by the Waterworks Board of Section and Dutton as a

general laborer. On the other hand, I would love to delve farther into all

aspects of water resource management. In his 1966 essay on civil engineering,

Eliassen predicted " the field of water resource management will be great"

(92). Eliassen's statement has been proven factual and the many problems that

will arise in the future offers great job security. One of the task may involve

getting a sufficient amount of clean, healthy water to an ever-growing

population. Solving these problems will take people who have specialized in

economics, statistics, political science, system analysis, and management.

What

predictions could be made about the future of engineering students? In his 1969

book, Beakley predicted that employment would be no problem and that more

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engineers would be needed than colleges could supply (25). However, Scott's

1996 article in the Memphis Business Journal states that employment outlook is

not as promising as it was 15 to 25 years ago. Still, engineers will not be hungry for work. Many feel that they will be able to find jobs. Enrollments in schools of engineering across the country have dropped, but as jobs and salaries

increase, so will students enrolling with hopes to make better lives for themselves (Scott 1-4). Advancement is almost certain as a young engineer develops his or her skills and as the employer gains confidence in his or her ability. Some civil engineers might stay with a company their entire professional lives. In contrast, others could choose to move around looking for

advancements. Upon the retirement, replacement, and advancement of more

experienced engineers, the younger engineers will have the chance to slowly move

their way up the corporate ladder. In any circumstance, an ambitious, young, and

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qualified engineer should seek advancements both personally and professionally (Hagerty

and Heer 129). Why would I want to be a civil engineer? The desire of new challenges, the longing to help the overall public, and the need to do something

positive with my life are three main reasons that I want to be a civil engineer.

After extensive research, I have concluded that civil engineering is an ideal field for me. I believe that I have the personal attributes and intelligence required to be a civil engineer. I also believe that I possess the work habits and drive to be a successful engineer. This is why I have chosen to pursue this as a career.

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