

Introduction of Engineering Careers in the United States

By

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Employment Opportunities

- Prepare a resume, emphasize your education and positive attitude.
- Summer jobs are important to get to know employers.
- Having passed FE exams (being an EIT) helps a lot.
- At interview, do not mention immigration status (unless asked).
- Getting first job as an engineer is difficult. After that, getting or changing jobs become easy. So try to keep compensation demand low when applying for first job. (for large companies, pay levels are very much standard).
- Unlike in China, engineers here change jobs every 4 years on average. So it is a means of self-promoting.
- Also, starting your own company is easy here in the US. Most governmental engineering projects require 20% - 30% minority participations.

Career Development

- A master's degree is essential. If you do not have one, consider studying part-time. Most universities offer “class-only” master's programs, and evening classes.
- Most companies pay for master's degree studies. If no such company policy, you can talk to your supervisor, and he may likely agree to pay for it.
- Most large companies assign mentors to engineers-in-training. If you do not have an assigned one, you may seek one by yourself, and establish a special relationship (bond).
- You will learn a lot more and faster once you have a senior project manager as your mentor (similar to supervisors for graduate studies). In the future, you will have faster promotion and be assigned more challenging projects.

Professional Activities

- It is essential that you establish relationships with professionals and managers in the community, by joining professional associations (both local and national), such as ASCE, ACI, etc., depending on your profession.
- Try to seek volunteer work for such professional associations.
- Most companies will encourage employees' participations, and pay for membership dues.
- It helps you get name recognitions, and future job changes or establishing your own firm.

Social Activities

- No matter the size of your company, you should participate social activities in your work unit.
- A lot of firms have social committees such as sports, safety and health, pensions, etc. If your firms do not have, you may organize one.
- Social activities provide you a platform to show up your intelligence, management skills, and positive attitudes.
- Try to create activities such as lunch-together on Fridays, annual picnics, sport events etc. Most companies will pay for such events.

Typical Career Path

- EIT for 3 – 4 years.
- Engineer (after PE) for 4 – 8 years.
- Senior Engineer and/or Project Manager for 3 - 10 years
- Associate / Sr. Project Manager for ?????? (maybe life time if unlucky)
- Partner and/or Department Manager at Age 45 if talented and lucky
- Sr. Manager after 50 years old, if lucky
- ***Alternatively***, after 5 years as Sr. Engineer / Project Manager, team up with friends to start you own firm. 2 to 4 partners are ideal.

Business Development

- Start when becoming a project manager (but you are free to start any time).
- Ability to get project is the greatest asset you may possess, and is highly appreciated by any firm. It is a key ingredient of getting promotions.
- Business development is not only a skill, but also a habit, so you should participate as early as possible, by going with your mentor for business meetings, establishing personal relationships with clients (business lunches, etc.), and participating in activities of professional associations. Parents and friends may also help.
- Help your mentor or department manager prepare proposals.

Start Your Own Business

- Worked as project manager.
- Participated a lot of proposals, and won several projects.
- Established personal relations with key clients.
- Have name recognition in your profession (at least locally) from participations in professional associations.
- Have technical confidence that you can lead any project and complete it successfully on schedule.
- Team up with partner(s) who share the common interests and can supplement your skills, and have financial capacities (assume no incomes for 6 months).
- Usually officially start your business once you have secured a project. You may register your company earlier in preparation.