



[Home](#) : [Career Development](#) : [Graduate Education](#)

Tutorial

Engineers' Views on Graduate Education

Source: Electrical and Computer Engineering Department Heads Association and the International Engineering Consortium

[Kia Holyfield](#) , Test Environment Engineer, Lucent Technologies

I have always had the desire to obtain a graduate-level education. Initially, I believed that it would be a master's degree in electrical engineering. After a couple of years with my current company, I realized that it would be more beneficial in terms of my career goals to pursue a master's in telecommunications systems. I found a program that covered the technical aspects of telephony and voice and data networking, as well as newer technologies, such as Bluetooth. Yet, there were also classes in management and telecommunications law.

It was very beneficial for me that I waited until I was a professional before I entered graduate school. It enabled me to have more time to better understand my career goals and to decide which degree would better address areas where I needed more knowledge. Graduate school also allowed me the opportunity to network with other individuals from other companies and different job functions. Also, my company sponsored a tuition-reimbursement program; therefore my degree was basically free.

[Rolando](#) , Director of Engineering, QUALCOMM

Having worked for seven years in the aerospace/satellite industry as an Electronics Systems Design Engineer after earning my BSEE, I realized that in order for me to further advance my career, I had to earn an MSEE. While in the aerospace industry, I had the opportunity to work side by side with highly talented engineers and former university professors in various research and development projects. Every one of the engineers I admired had pursued a graduate education. At the time, I was presented with complex technical problems, which I would have tackled more efficiently and elegantly had I the benefit of the advanced skills gained during the pursuit of an MSEE. So, I decided to enroll in a master's program, while still maintaining full-time employment.

Today, 12 years after earning my MSEE, I firmly believe that earning an advanced degree has enabled me to lead a successful technical career with QUALCOMM, an outstanding, industry-leading organization. Earning an advanced engineering degree has broadened my horizons and facilitated the achievement of a level of career success that I had not even imagined when I left high school to start college.

[Kevin Weitsman](#) , Engineering Manager, Agilent Technologies

While seemingly a simple topic, graduate education has many variants related to academic focus, type of graduate education, timing, cost and potential reimbursement, and trade-off to available employment alternatives. Additionally, there are personal aspects such as how a person learns/learns best and whether a person can integrate graduate education into their life/lifestyle. Ultimately, the decision in many cases is not easy.

As a starting foundation, graduate education is valuable both to the student and any employer, as the result is generally more depth (i.e., master's or Ph.D.), more breadth, (i.e., 'capstone' master's of engineering), or more business capability (i.e., MBA). This remains true whether the graduate education is pursued full time (directly from undergraduate degree or after working a number of years) or as a part-time endeavor while employed.

From the perspective of choosing the 'right' graduate education, there is a definite advantage to working a number of years prior to graduate education, as this helps to distill the myriad possibilities down to a few that are of specific interest. The counterbalance to this, however, is that going back to school full time or part time after starting employment and settling into a lifestyle can be difficult, to the point of sometimes not being possible. So, waiting a while to go back for graduate education is the best path-but only if you actually go back. It also has the potential for partial or full employer reimbursement, in addition the possibility for maintenance of salary (depending on the program). And while the ability to relate learning to the job is better when one

Member Options:

- [LogOut](#)
- [Update Profile](#)

waits, spending the concentrated time (if part time) or restructuring one's life (if full time) can be difficult. Continuing straight from an undergraduate degree has some definite advantages in ease of transition, fit to lifestyle, and the ability to maintain strong academic focus.

Sometimes there are 'drivers' that make the choice easy. A poor job market with no available jobs of interest, a scholarship for graduate work, or having a personal situation where it is clear that it just won't happen after you start employment makes many of the variants disappear. Going back to a point made earlier, graduate education is valuable; the alternatives and choices we are discussing are defined by 'degrees of valuable'. It would be difficult to see someone to not go for graduate education immediately, but rather choose to be unemployed due to a poor job market, just so they can have a 'more valuable' graduate experience later-or to see someone turn down a \$100K scholarship for that same reason.

For myself, I followed the graduate education path by doing some of both. I continued from my BS to get a master's of engineering, and, after being employed about one year, started a part-time employer-reimbursed MBA program. As I look back, the master's of engineering right after my BS was exactly the right answer. For the MBA, there are times when I think I would have preferred the immersion associated with a two-year, full-time MBA (versus some 5-6 years part time). On the other hand, that option would have left me with the loss of two years' salary on top of the outlay of two years of tuition payments; this quickly reinforces that I made the right decision to follow the path I did.

Decisions on graduate education are very related to and dependent upon your situation. But the bottom line is that graduate education is valuable. If you have or can make the opportunity, give it very serious consideration.