Can Women MBAs STEM the Tide?

By Kimberly Freeman, UCLA Anderson School of Management

The late poet extraordinaire Dr. Maya Angelou once said, “My mission in life is not merely to survive, but to thrive; and to do so with some passion, some compassion, some humor and some style.”

Just as Angelou so eloquently articulated, that outlook could—and should—apply to many women in society today. As women look toward careers that will help them thrive and lead professionally, earning a STEM degree, along with an MBA, could be the ticket to pursuing a career in technology and allied fields, industries that are experiencing optimal growth and opportunities.

The Playing Field

“STEM” is defined as science, technology, engineering and mathematics. Much has been written and discussed in recent years about the challenges and opportunities of cultivating STEM pathways, especially for women and girls. Is it a pipeline issue, a workplace issue or some combination thereof?

While there are surely many ways to enter the debate, three areas require more examination: first, advocacy/awareness of STEM education for women and girls; second, advancement of women in STEM careers; and third, whether an MBA can be viewed as the bridge-builder between college and career growth and development in tech.

To start, let’s examine some statistics about STEM education. While women make up more than two-thirds of college enrollment, they hold a disproportionately lower share of degrees in the STEM fields. Why?

At the college level, it’s very easy to see how women can get discouraged in pursuit of STEM degrees: scarce role models and mentors (often female professors), lack of female protagonists in course materials and the low numbers of female peers, all of which, when combined, can lead to very isolating experiences for some. To be sure, this is not the case for everyone, but it is important to note, because these same factors are known to permeate the corporate environment.

The Leaking STEM Pipeline

Some people think the problem of women not choosing STEM starts long before college. Years ago, author Peggy Ornstein wrote about how girls in middle
and high school suffer a crisis of self-confidence in math and science performance—which leads to the belief that they cannot pursue math-related (i.e., STEM) careers.

Is this the point along the continuum at which girls “leak out” of the pipeline in preparing for eventual careers in tech?

I can speak from experience on many of these issues. An engineer by degree, my exit was in my early 20s. When I left college, I took a job as an entry-level engineer at an energy company. However, I knew early on that life as an engineer was not for me. Public policy was of greater interest to me, because I was looking to make a greater contribution to society than I thought I could as an engineer.

Therefore, I made my switch within my first five years of employment, obtaining an MPP (Master of Public Policy degree) first and an MBA later. When I look at all my engineering friends who, like me, also switched career paths, it’s no wonder that even though women comprise over 20 percent of engineering school graduates, we are only 11 percent of practicing engineers.

Want more evidence of the pipeline leak? Catalyst, a leading nonprofit organization whose mission is to expand opportunities for women and business, conducted a study of MBA graduates working in the United States, Canada, Europe and Asia. Researchers found that less than half the women who earned undergraduate degrees in STEM fields chose STEM careers once they earned an MBA.

**Still an Uphill Climb**

Professionally, I’m now concerned about women in STEM because I work in higher education at UCLA Anderson, a top-ranked business school, on matters of diversity and inclusion, with a focus on increasing the numbers of women admitted to business school. At Anderson, more than half our women applicants had STEM backgrounds, and nearly half our women applicants expressed an interest in STEM careers, post-UCLA.

Admission to top-tier business schools continues to be highly selective, and women with STEM backgrounds—whether academically or professionally—can certainly make solid candidates for business school.

Improving the numbers of women in tech remains an uphill climb. At present, about 30 percent of employees in technology companies are female. Some women leave STEM careers because of a lack of role models, feeling like an outsider in their work groups and facing vague evaluation criteria. Others leave for personal reasons, including family issues, a spouse or partner’s relocation, or wanting to make a greater social contribution.

However, for those who don’t leave, STEM careers can narrow the gender pay gap and also pave the way to leadership opportunities beyond the executive level.

According to the U.S. Department of Commerce, women hold less than 25 percent of the STEM jobs. Growing this number beyond 25 percent is important, because the gender pay gap is smaller in STEM jobs than it is in non-STEM jobs. When the needs of a family come into play, according to a study published last fall by the American Association of University Women (AAUW), equal pay is not simply a “women’s” issue; it’s a family issue, because families increasingly rely upon women’s wages to make ends meet. Thus, seeking employment in STEM fields can be a game-changer as women seek to eliminate the gender pay gap.

**Looking Ahead**

The future looks brighter when it comes to educating women and girls in STEM fields and hiring them in STEM jobs. Some recent efforts across all sectors include targeting girls as young as 7, providing support services at the college level for women in STEM majors, and launching corporate initiatives for high potentials and vendors.

For example, Black Girls Code is a nonprofit with an eye toward increasing the number of women of color in the digital space by empowering girls of color, aged 7 to 17, to become innovators in STEM fields, leaders in their communities and builders of their own futures through exposure to computer science and technology. This nonprofit and others may help to counteract the confidence challenge that Peggy Orenstein outlined.

In the corporate sector, earlier this year, Intel announced a $300 million diversity-in-technology initiative with women as an integral part of the plan. The basic elements are to have full representation in all levels of Intel’s workforce by 2020; to regularly measure and report on progress toward this goal; to hold company leaders accountable by tying their pay to the progress toward this goal; and a $300 million Diversity Initiative Fund that is designed to encourage the broader representation of woman and minorities in technology and gaming. Smart move, Intel!

In the long run, the United States needs technological expertise to be competitive in the global marketplace. STEM occupations are poised to grow more quickly in the future than the economy as a whole, which is why we need to make STEM more appealing to America’s youth.

Moreover, with the proliferation of technology use in our everyday lives, there’s quite an opportunity for women to make their mark in the technology arena. As noted by a Silicon Valley executive, “it is in the interests of companies and governments to help women advance in the technology industry. Women offer a fresh perspective on product design, ways of working, risk-taking and many other aspects of business.”

Certainly, when women are underrepresented in technology, it is not only bad for individuals, it is bad for companies and our economy, as well.

Once graduated, can women MBAs STEM the tide? What we know for sure is that with women comprising 52 percent of the labor force—yet holding less than 25 percent of the STEM jobs—the system is not operating optimally. Thus, because business school, to some extent, is about reinvention, women who go to business school have a chance to reinvent themselves and redirect their careers in the direction of technology.

**About the Author**

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