

Education is core to our economy. But, in order to guide our educational systems and maximize future income, we must understand the misalignment between education and our workforce. In my pursuit of higher education, I have earned two bachelor's degrees, two master's degrees, and am working on a Ph.D. In total, this has cost me over one hundred and fifty thousand dollars. I've done all of this, because I believe formal education is important. Part of this belief came from seeing charts presenting a correlation between higher degrees and higher income; showing on average that a person with a college degree earns far more money than the average person without a high school diploma. This perceived higher earnings for having a 4-year degree has fueled a "college for all" philosophy; causing educators and parents to encourage going to the university – any university – to major in anything – in pursuit of future job security, social mobility, and financial prosperity. This philosophy has increased college enrollment, resulting in 66 percent of high school graduates in this country enrolling in higher education right after high school. That's two out of three. Initially, they are deemed the successful ones. But, what you won't see advertised is the reality that most drop out and only a quarter of those that enroll will finish a bachelor's degree. Only after these few graduate do many of them start exploring careers. It is here that they discover that their degree may not have prepared them for the world of work. You may be well educated, but not every degree is direct preparation for employment. This misalignment between degrees and job skills causes half of university graduates to be under-employed in what are called gray-collar jobs. Taking positions that do not require the education they have received, at a cost that is more than they can afford. Conventional wisdom suggests that a university degree guarantees a higher salary. But with rising education costs, a shrinking job market, and the oversaturation of some academic majors in the workforce, this old advice is now a myth for a majority of students. The economy and the world have dramatically changed. Over the last 3 generations we've gone from 13% of the population stepping into a college classroom, to 60% attending some form of higher education. In 1960, when taking into account all jobs in the American economy, 20% required a 4-year degree or higher. 20% were technical jobs requiring skilled training, and 60% were classified as unskilled. But what's the right percentage to meet the labor market demand for tomorrow? In 2018, Harvard University predicts only 33% of all jobs will require a 4-year degree or more, while the overwhelming majority will be middle-skilled jobs requiring technical skills and training at the credential or Associates Degree level.

A 4-year degree may have many benefits, but think about people you may know who, from an economic perspective, inefficiently spent time and money to get a degree that perhaps they didn't really need for the career they are in. The true ratio of jobs in our economy is 1:2:7. For every occupation that requires a master's degree or more, two professional jobs require a university degree, and there are over half a dozen jobs requiring a 1-year certificate or 2-year degree; and each of these technicians are in very high-skilled areas that are in great demand. This ratio is a fundamental to all industries. It was the same in 1950, the same in 1990, and will be the same in 2030. The hope for encouraging university education is that as the number of university-trained workers increases, the demand for their services in the workplace will increase as well. Unfortunately, this is not so. The whole pie may get bigger as the labor force and the economy grows, but the ratio will not change. The reality is there will not be more professional jobs available within the labor market. And some professional jobs have been replaced by technology, or are being outsourced. Well intentioned attempts to send more and more students strait to the university will not change the types of jobs that dominate our economy, nor will a "college-for-

all” mentality mask these labor market realities. The “college for all” rhetoric that has been so much a part of the current education reform movement is often interpreted as “university for all.” This message needs to be significantly broadened to, “a post-high school credential for all.” Students at various educational levels have left school without employable skills; setting up our children for failure, costing them and taxpayers millions. All while the labor market is desperate for highly-trained, skilled technicians. So, how do you position yourself for high-wage, in-demand jobs? Let’s say you were considering a career as either an electrician or a business manager. You would find that the average annual income for electricians is \$51,000, only about half of the \$105,000 average wage for management occupations.

So, at first glance it looks as if getting a bachelor’s degree in business is a no-brainer, but adding skills and ability into the picture adds a whole new dynamic. What if you have the potential to become an excellent electrician, but lack the skills and ability to be an excellent manager? Then you should be looking at projected incomes towards the bottom of the pay scale for managers and towards the top for electricians. You would then discover that electricians near the top of the pay scale make around \$86,000; far higher than the income of a manager near the bottom of the pay scale at \$52,000. Now, this is just one example, but the concept is true throughout all industries. The claim that you will make more money with an increased amount of education is not necessarily inaccurate, it’s just incomplete. That advice is based just on the averages. But no one is perfectly average. Everyone has unique skills, talents, and interests. In fact, the income for the top individuals in a wide variety of skilled jobs that require an industry credential or 2-year degree is far higher than the average income for many occupations that require a 4-year degree. Nationally, Associate Degree earners range between \$27,000-\$68,000 while Bachelor’s recipients earn between \$34,000 - \$97,000. But this data only accounts for the 25th Percentile to the 75th percentile of full-time, adult workers. This means 25% of Associate Degree holders earn more than \$68,000 annually, and 25% of Bachelor’s degree holders earn less than \$34,000!

Our world has changed, and in this new economy, the university degree is no longer the guaranteed path towards financial success as it was for previous generations. And even if you do earn one, that education alone may not be enough. In today’s highly-technical knowledge based economy, having hands-on skills and perfecting what you’re good at can be more valuable than getting a degree in ‘something’ simply to get one. Employers want to know what you can do, and what you can do well; not just what degree hangs on your wall. Since new and emerging occupations in every industry now require a combination of academic knowledge and technical ability, we need to ensure that we’re also guiding students towards careers and not just to the university.

So, before enrolling in classes or deciding what you’re going to do next in your life, step one is self-exploration. In addition to your interests, really analyze your talents and strengths. Step two is career-exploration; understand the jobs available, the income ranges they pay, and evaluate the skills they require. Identifying an area that appeals to your interests, skills, and the labor market may be your first career. And then you can develop a tentative career plan complete with multiple training and education options. The key is to align your interests and abilities with your first career choice and the education & training you’ll need to receive. This alignment will help bring your future into focus, and ensure your position at the top of the pay scale in your chosen career. What all this data shows is that success in the

new economy is as much about acquiring the knowledge, skills and abilities needed for in-demand occupations as it is to be well educated. Both paths may work for you, but education combined with technical training is how you ultimately secure a competitive advantage in the new economy.

Community and Technical colleges are in the ideal position to provide over 70% of tomorrow's workforce with an education combined with applied technical skills, industry driven credentials, and specific preparation for employment. Being a skilled craftsman or technician is highly valued.

Investments in career education programs in high schools and community colleges will help all students obtain an education which includes technical training and preparation for the workplace. Ultimately, this is how all students can be successful. In the new economy, both education and technical skills are the new currency. Will you be ready?

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