

Applied Education Foundation

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Education Counseling

Introduction

The purpose of this essay is to provide insight into education counseling as it currently stands in the United States and to provide information and links that will serve counselors in their advising capacities, plus, it should serve students, along with their parents, equally well. It is also my intention to broaden the scope of counselors' responsibilities to steer advising primarily toward career education at the secondary level – which requires either dedicated technical high schools or community college dual enrollment efforts – and less so at the postsecondary levels. The reason for this is due to the ineffectiveness and inefficiencies of the current system owing to our almost fanatical romance with the college experience and the status it is alleged to confer in the minds of some people.

I wish to distinguish college counseling and career counseling from education counseling since college and career counseling are distinct interests, under the current paradigm; whereas education counseling incorporates both. After all, many academics argue against college being used as a vehicle to pursue a career. Rather, they promote postsecondary education as the pursuit to become “well-rounded,” which is an extremely elusive and highly subjective term.

In addition, the title *high school counseling* can be confused with psychological counseling so I avoid this title as well.

It is clear that the preponderance of literature is dedicated to college prep with lip service being given, in large part, to technical/occupational career education. However, in the last few years, articles and research papers have been published on the subject of career technical education (CTE) due to a growing variety of negative social dynamics postsecondary education is causing.

The bias in favor of college prep is so bad that Colorado had to enact a law that requires education counselors to inform students of career education options that have typically been ignored or marginalized. In Whaley's (2017) announcement of this law, he quotes the sponsor of the bill:

“A four-year college degree may be a good fit from some,” said Phil Covarrubias, the Brighton Republican and owner of an excavation company who sponsored House Bill 1041. “But I want students to know that there's great opportunity in trade schools and through military service that doesn't require the enormous cost of tuition at universities.”

The bill requires that each student's Individual Career and Academic Plan include information about the various career pathways available to them, and the types of certificates and jobs to which each pathway leads.

The law will help reintroduce skilled trades to high school students, who can earn early apprenticeships and exposure to good-paying jobs right after graduation, Covarrubias said.

Such a law is long past due given what Gallup and Strada Education Network research revealed in that 51% of those “who pursued a postsecondary education would change their degree type, institution, or major.”¹ This dispels the argument that secondary students are “too young” to make any meaningful career decisions. It appears there is no particular age when people are “ready” to make a career decision given the fact the education establishment offers little to lead students toward their talents. In addition, the fact that there is a college dropout rate of over 50% demonstrates the need for a serious overhaul of the system.

To add insult to injury, there are many with bachelor's degrees who had to pursue a certificate or associate's degree in order to become marketable in the economy. Koeppel (2012) states, “The National Post Secondary Student Aid Study (NPSAS) estimates that during the 2007-2008 academic year, 8% of entering community college students had already completed their bachelor's degrees.” Therefore, those considering college as an option really need to make choices with both eyes **wide open**. A good source for occupational choices to consider is The Bureau of Labor Statistics' *Occupational Outlook Handbook* that allows the researcher to select an occupation and then analyze its median pay, projected number of new jobs, entry level educational requirements, and projected growth of the occupation. Go to <https://www.bls.gov/ooh/>.

Then there is the very revealing statement by White (2016):

“Look to your left and look to your right. The odds are one of you is not going to graduate.” Many of us who attended college in years past will recall receiving some such an admonition from a professor or adviser. The message was simple: our job is to give you an opportunity; your job is to take advantage of it. If you don't, oh well.

It was a fairly straightforward arrangement that for decades buffered higher education from a harsh reality that only recently has come under public scrutiny: more than one-third of students who begin their degree never finish.² Those in higher education didn't think too much about it because we did not consider ourselves responsible. You're either college ready or you're not,³ we reasoned. And if you're not, don't blame us.

¹ See *Do You Regret Your College Choices?*, by Brandon Busted, June 1, 2017: <http://www.gallup.com/opinion/gallup/211070/regret-college-choices.aspx>

² Actually, it is over 50%.

³ Actually, most academics see it as either you're intelligent or you're not, which is incorrect.

While it is true that students must do the work required of them, such an attitude by academics makes many of them extremely lazy. Since they don't see themselves as responsible, they don't need to try to make the required schoolwork coherent. Only students need to work hard. Professors are above this as it relates to teaching and guidance (though there certainly are exceptions, they are not the rule); hence the reason so many teachers' assistants are used to do lectures and run labs, and they typically do a very poor job but at a high monetary cost to students – poor quality with high prices is not a sustainable business model.

In addition, many professors seem to have **no** understanding of cognitive psychology nor do many of them show any evidence of caring about it. They are subject specialists who may know their subject, but this does not mean they know how to teach it or how people learn. The high dropout rate of more than half of college students plus the 6 years it takes 59% of students to complete college reveals just how bad most college professors are at teaching. After all, they are not required to learn how to teach. Given this incompetence by many, it is no wonder professors feel they need tenure to protect their jobs.

Only monopolistic forces allow people to take the attitude that White (2016) explains above. To his credit he follows up with:

... Today, colleges and universities are not getting off the hook so easily. The public is demanding that we do a better job of not only admitting students, but ensuring that they complete. Gains are being made but they have been glacial.

... [W]e must abandon once and for all the college-ready paradigm that has allowed higher education to deflect accountability. It is time that we fully embrace the burden of being student-ready institutions. After all, not only is the notion of college ready an excuse, but new practices in student success have exposed it as something of a farce. It turns out the problem was not as much about the students as we thought. It was largely us, uninformed about what it takes to help them succeed or unwilling to allocate the resources necessary to put it into practice.

... As Cleveland State University President Ronald M. Berkman has said, "We have a responsibility to educate students as they are, not as we wish they would be."

Berkman's words reflect the reality everyone else must face in the real world. All of us would love to dictate how things should play out for us to make life easy, but this is not the way it works. Each of us must adapt to reality. The inverse is a fantasy only monopolies get away with for a period of time.

Next is the war against men, white men that is.⁴ White men entering and graduating college has been on the decline. Many white males feel academia is a hostile climate to them, which begins in elementary and secondary schools where “cleansing of boy behavior” begins⁵ and only gets worse in college. In addition, men tend to need a more independent learning style which alienates many from the academic environment.

Parents need to be aware of these very real forces – which many academics will deny since it does not fit their narrative – when they are attempting to advise and steer their boys down an educational path.

As in all my previous essays, it is my hope to shed as much light as I can on the dysfunctional character of our education establishment since in its current form, it does far more harm to a majority of citizens than good. That is, a small percentage of the population reap tremendous rewards but at the expense of all others. The growing economic divide, as exemplified by a shrinking middle class, proves the point.

In this essay, I have, in large part, avoided discussion on the subject of applied education, since I have covered it so thoroughly in my other essays, but have instead focused on the current state of affairs. The dynamics of counseling applied in the current education culture offers a very nice platform that reveals the widespread dysfunction.

You will notice that some statistical information from various sources doesn’t always mirror one another. This is due to the complexity of educational data and the inconsistencies in its collection and reporting. The perfect example is high school graduation rates, which is now dubiously reported to be somewhere around 80%, but is actually somewhere between 70 to 75%. However, overall, I have not seen general data that is so far off from one another as to raise concerns. For purposes of this essay’s analysis, they are close enough.

Frightening Facts About College

Before addressing the frightening facts about college, let’s consider the frightening facts about the complexity of our economy and education. Carnevale et al. (2017a) offer the following:

The Growing Complexity of today’s economy is making it difficult for higher education to deliver efficiency and consistent quality.

⁴ Just look at educational literature where white males are largely passed over. There is an obvious prejudice against white men in academia and I would advise white men to stop supporting academia until this blatant bigotry is stopped cold in its tracks.

⁵ See Whaley, *Men Saying “No Thanks” to College*, The Denver Post, June 5, 2017. Also see *The War Against Boys*, by Christina Sommers, The Atlantic, May 2000. There is a great deal of literature on this subject on the internet.

Today's economy is more intricate than those of decades past. We have more occupations, programs of study, colleges and universities, and students than ever before:

- Occupations grew from 270 in 1950 to 840 in 2010;
- Postsecondary programs of study more than quintupled between 1985 and 2010 – from 410 to 2260;
- The number of colleges and universities more than doubled from 1850 to 4720 between 1950 and 2014; and
- The number of college students swelled almost tenfold in the period between 1949 and 2014 – from 2.4 million to 20.2 million.

The variety of postsecondary credentials available has multiplied rapidly in recent years, including degrees, certificates, certifications, licenses, and badges and other micro-credentials. New providers as well as delivery modes and models, such as online and competency-based education, have added further to the growing complexity and confusion. This has translated into an explosion of choices and decisions that make it hard for people to navigate in and out of college and careers. We need better information connecting higher education to the economy.

While Carnevale is certainly correct about the complexity of our economy, we need to keep in mind there is a common thread that runs through all things. Since all things are connected by this thread, it reveals that it's the responsibility of those seeking to establish an effective education program to discover it, to assemble it, and to organize it into a coherent whole that lays a strong foundation, providing individuals the tools to develop skills in any economic sector in a seamless manner. This is something utterly absent from our contemporary public system; hence the vote of no confidence in it.

D'Alessio (2016) offers nine frightening facts about the state of higher education in America. Before high school students submit applications to colleges hoping to be admitted to the school of choice, he states, "it is wise for prospective students to take a step back and look at the state of higher education, especially as it relates to job readiness and financial debt." Below are his nine frightening facts along with analysis that I offer.

1. "70% of high school graduates move on to some form of postsecondary education, but fewer than half of those who enroll finish a degree or certificate within six years." This equates to approximately 52.5% of the school age cohort pursuing postsecondary education (70% x 75% graduation rate = 52.5%, with 26.25%, being approximately half, that finish with a degree or certificate within 6 years.)
2. "Among recent graduates, the average undergraduate debt in the U.S. is nearly \$35,000." For the many individuals who did not benefit by a postsecondary experience, such debt retards financial decision-making and opportunities that help individuals and society.
3. "Students who enrolled in public colleges three years ago now face tuition as much as 50% to 80% higher in some states." Such unjustified price increases forces society to take

a serious look, not only at the value of postsecondary education, but also the economic forces that allow for such unwarranted price hikes by the academic community. It calls into question their ethics.

4. “45% of bachelor’s degree holders are underemployed.” $45\% \times 30\%$ of those with a bachelor’s = 13.5% of the population. That is a very large number of people who were deceived or ill advised.
5. “Only 28% of recent college graduates strongly agree that their university prepared them well for life outside of college.” $28\% \times 40\%$ college graduates (associates through doctorate) = 11.2% of population has confidence in postsecondary education. By any standard of measure, this is beyond failure; it’s a catastrophe.
6. “Only 37% of recent graduates strongly agree that their education was worth the cost.” $37\% \times 40\%$ college graduates = 14.8% of population has confidence in their postsecondary investment.
7. “Only 24% of recent graduates say they had a good job waiting for them after they graduated.” $24\% \times 40\%$ college graduates = 9.6% of the recent graduate population benefited economically by a postsecondary experience.
8. “Only 11% of business leaders say college grads are prepared for the modern workforce while 96% of chief academic officers at higher education institutions say their institution is effective at preparing students for the world of work.” This disparity is a glaring example of just how out of touch academia is with the real world and why they cannot be trusted to determine what an education program needs to encompass.
9. “By 2020, 65% of jobs will require a postsecondary education beyond high school. At current pace, the U.S. will fall at least 5 million degrees short.” This is not an entirely accurate statement: It is not a postsecondary education that is and will be required, but an education in preparation for what the real world will demand of individuals. This is what is required of an education program and this can, in large part, be accomplished during the secondary years, before life’s forces and distractions make it exceedingly difficult to accomplish this. Credentials are socially constructed references that are meant to signify a level of competence in a given field. However, the concept of an applied education is to prepare individuals for life so they may easily acquire skills and knowledge necessary for success.

D’Alessio then offers the following:

Now *that’s* some scary stuff ! As families and students consider making such a huge investment, how will they know if they’ll be gainfully employed after graduation? How do they know if the program or school they’re applying to truly sets them up for success in the workforce? In short, how do they know if they’re getting the most “bang for their buck?” Fortunately, the U.S. Chamber of Commerce Foundation (USCCF) is working on it.

In a partnership with the American Institutes for Research, Gallup, Inc., and USA Funds, USCCF has launched two state-specific websites (Colorado and Tennessee with Texas launch on Nov. 2) that provides prospective students with information about the return on investment in a certificate or degree from postsecondary institutions.

Called *Launch My Career*, the website measures college value to help students, families, policymakers, and postsecondary institutions make more informed decisions about the training and skills that provide the greatest value to students and to their communities.

The tool provides users access to data that identifies hot jobs across the state and regions as well as the degree and school(s) that will prepare students for these roles. It also compares earnings potential by schools and programs, the time it will take to pay off the loan for a particular program, and even calculates the number of years it will take for the salary from a particular occupation to meet a user's lifestyle goals.

In short, the tool can help eliminate some of the uncertainties related to the value of a degree. It can help reduce your risk in the marketplace and provide some reassurance that your choice institution and program is the best investment for you. Students have a right to know how to find their best course – let's take the fear out of the equation.

Another frightening fact about college is the transfer of credits problem. Since many colleges do not accept credits from other colleges, it is evident that degrees are fairly arbitrary. Each college has its own program of study for each degree and each class is designed, in large part, by a professor. Then there are general education classes that add to the arbitrariness of each institution. Put it all together and what is the average person to conclude? The educational system has no understanding of what individuals and society need.

Palmer (2015) sums it up:

Nearly **one third of students** transfer institutions at some point in their college career, losing credits along the way. A **recent study** found that 15 percent of community college transfer students lost nearly all of their credits during the transfer process. Another third lost a significant amount—anywhere from 10 to 89 percent—of their credits. By losing credits or not having their credits count towards a degree, students waste precious time and money. ... There needs to be stronger alignment of state policy and institutional partnerships to create clearer pathways for students.

This is an unacceptable situation. If postsecondary institutions don't recognize one another's credits, why should anyone else recognize them? They discredit the value of their own product/service with such policies.

Affordability and Debt Considerations

Cochrane and Cheng (Oct. 2016) report on student loan debt of recent graduates for the year 2015 from 4-year colleges.

Nationally, about 7 in 10 (68%) college seniors who graduated from public and private nonprofit colleges in 2015 had student loan debt, a similar share as in 2014. These borrowers owed an average of \$30,100, up 4% from the 2014 average of \$28,950 [which was up 2% from the 2013 average⁶]. At the college level, average debt at graduation ranged from \$3000 to \$53,000.

Lambert (2015) compares student loans to earnings:

Student-loan payments are the bane of many new graduates. A [recent analysis](#) by the Brookings Institution explains why: The typical new graduate is likely to devote 14 percent of his or her paycheck to student loans. That's about half of what the average American spends on housing each month.

It's even worse for students who graduate with fine-arts or therapy degrees. They can expect to put more than 20 percent of their pretax income toward paying off student loans. Good news for nursing and engineering majors, though. They'll need to dedicate less than 10 percent of their initial income to student loans.

Of course, over the typical 10-year repayment plan, those percentages should drop for most graduates. According to the Brookings analysis, the share of a typical graduate's income devoted to student-loan payment drops to 6.5 percent a decade after graduating. That's because the median graduate's earnings climb 65 percent in the five years following graduation....

For comparison, the most recent U.S. Bureau of Labor Statistics' [Consumer Expenditure Survey](#) reports that the average person in 2013 spent 7.1 percent of his or her income on health care, 17.6 percent on transportation, and 33.6 percent on housing-related expenses.

Seltzer (2017) reports:

The percentage of student loan borrowers leaving college owing \$20,000 or more doubled over about a decade, according to a report released ... by the Consumer Financial Protection Bureau (CFPB). Over 40% of student loan borrowers owe \$20,000 or more when they leave college. That's up from 20% in 2002.

⁶ Source: The Institute for College Access & Success 2014 10th Annual Report p. 2.

More borrowers owe higher amounts as well. The portion of borrowers owing \$50,000 or more spiked from 5% to 16% during the same period. The statistics represent additional data points in the ongoing discussion about growth in student loans and how much debt is too much debt. About 44 million Americans owe a collective \$1.4 trillion in federal and private student loan debt.

... CFPB analyzed ... credit reports for groups of borrowers who started repaying loans from 2002 to 2014, examining their repayments through 2016. It also found the following:

- The percentage of borrowers beginning repayment after age 34 roughly doubled since 2003, from 25% to almost 50%.
- The portion of borrowers starting repayment when they were younger than 25 years old dropped from 30% to 15%.
- The percentage of borrowers not paying down loan balances almost doubled between 2008 and 2016, from 16% to 30%.
- ... Borrowers who fully repaid their loans five years into repayment declined over the last 10 years, from 50% to 41%.
- Of those borrowers not paying down their balances five years into repayment, 60% are delinquent on their loans.

Student loans approach a mortgage on a home that can take decades to repay for many people. This is completely unacceptable when so much of what needs to be accomplished for the vast majority of our population can be accomplished in secondary school and with no debt accrued as seen in countries like Switzerland. This provides for healthy discretionary spending by individuals which fuels an economy.

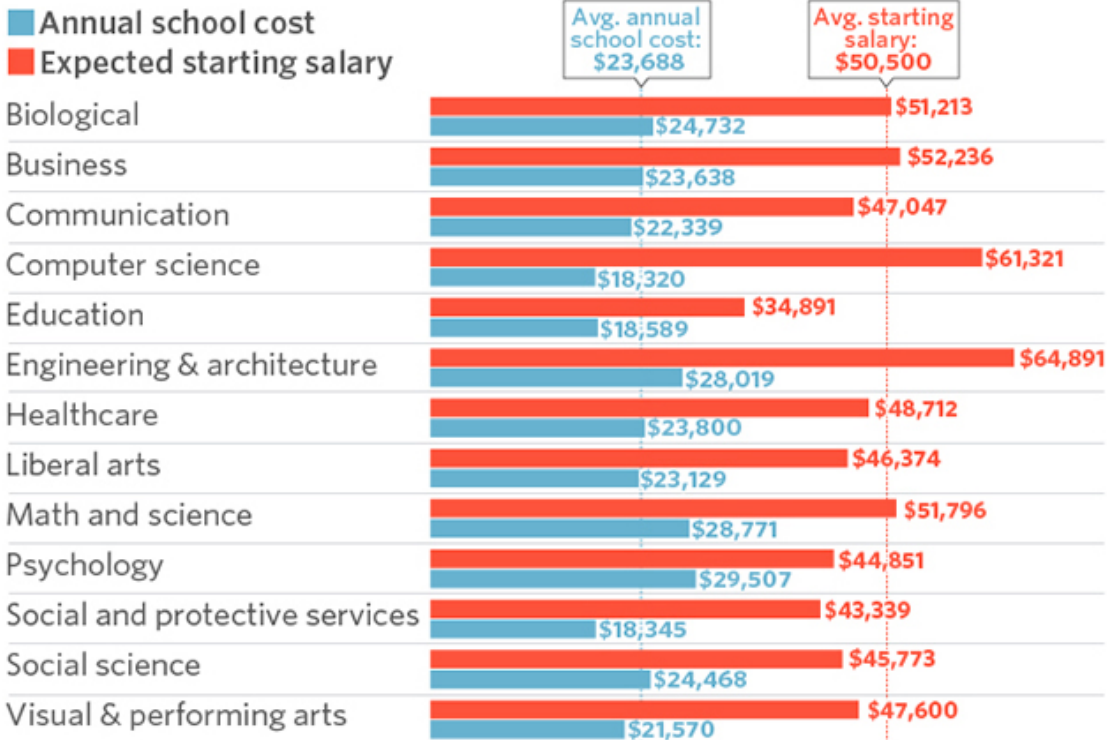
Berman (2016) offers the following advice regarding taking on debt for education:

[C]ollege finance experts often advise students to consider the reality of how their expected earnings compare to their debt. A frequently cited rule of thumb is that students should borrow no more in total than they anticipate making their first year out of school. That means students in more lucrative majors may be able to more comfortably take on higher levels of debt.

“It’s a good idea for people to consider if they’re reaching for a more expensive education and they need to borrow to get there, what their longer term prospects are,” said Marie O’Malley, the senior director of consumer research at Sallie Mae and one of the authors of the report, which focuses on how families pay for college.

What a college degree really costs

The return on investment is different for different majors



Source: Sallie Mae

Fuscaldo (2016) voices the concern our country is struggling with regarding the value of a college degree and the risks that attend the investment.

There's ... a large number of students who don't graduate, yet still face high student loan bills. According to a [Harvard University study](#), 56 percent of students graduate within six years, while 20 percent earn an associate degree within three years. Meanwhile, the default rate for student loans is around 11 percent. Many students err in the school they choose to go to and the degree they pursue. In some instances, the cost of the degree far exceeds the salary the student can hope to earn, while in other cases, the subject matter is too hard or not engaging enough to keep the student attending classes.

Tretina (2017) cites a study done by the Institute for Higher Education Policy (IHEP), *Limited Means, Limited Options: College Remains Unaffordable for Many Americans*, March 2017. The study found that 70% of colleges are unaffordable for lower- and middle-income students. Tretina summarizes the problem:

The concept of working through school has changed. In past decades, people could pay for their education by working part-time while studying. However, that's no longer possible. You can no longer afford to go to an average college by

only working part time. This report lays that fact bare. That's because the price of attending a university has increased dramatically, affecting college affordability.

And increasing college costs can force students and families to rely on student loans to fill the gap, adding another financial burden. They have to take on more debt than in the past, which can be intimidating and create further stratification.

... Families should not only consider the cost of college, but also the outcomes. For instance, the idea that not all debt is "bad" if the college provides a quality education ... based on the school's return on investment.... High school seniors should consider the graduation rates and employment outcomes for colleges they are considering before making a final decision. You want to make sure that the institution has a good track record of success and a plan to help you succeed.

Jesse (2016) sums up the student loan default problem:

Twenty percent of all federal loan borrowers have defaulted on their loans, according to new data released by the federal government last week. That translates into \$121 billion of loans in default. That same data show 40% of all borrowers are not making any payments, and are in some sort of forbearance, delinquency or default.

... As of December 2015, nearly 4.6 million borrowers were enrolled in income-based repayment plans, a 48% increase from December 2014 and a 140% increase from December 2013, the department said in its release.

... [However] that increase can be deceptive. Basically, many more people realized their income wasn't high enough to support their loans.

Fernandez (2017) raises an important question in the title of his article *Could the \$1.3 T of College Debt Spark the Next Financial Crisis?* He states, "According to the New York Federal Reserve, U.S. student loan debt has soared to \$1.3 trillion becoming the second highest consumer debt category, more than both credit cards and auto loans. ... With so many student borrowers, even after they graduate, being burdened with debt, they are not spending money on other things. ... [S]tudent loan debt is thwarting the creation of small businesses and affecting job growth as college graduates opt for safe corporate jobs to pay back the loans." Student loan debt also results in delays in buying homes, starting families and saving for retirement.

Such data that Tretina and Fernandez provide must be taken into consideration when looking at a bachelor's degree if a loan will be required to afford it. This is more true than ever given the fact that approximately 30% of the 25 to 64 year old population possesses a bachelor's degree yet only 21% of jobs require one according to the U.S. Bureau of Labor Statistics. One must therefore know with certainty that the degree being considered provides a high enough income and there is a high enough demand for it; and that the academic demands and time element such a degree will require will be no problem. This

is critical since it now takes approximately 6 years to attain a bachelor's degree for 59% of college students.

In addition, the opportunities bachelor's degrees afford are quickly diminishing unless one is highly selective. For degrees that are less in demand, up-credentialing forces have been taking shape where graduate degrees are quickly replacing the demand for saturated bachelor's degrees. However, even here, the demand is low for graduate degrees, generally speaking. The Bureau of Labor Statistics shows that only 4.4% of jobs require a graduate degree. Therefore, in order to land a job that formerly required only a bachelor's degree, but now requires a master's simply for the competitive advantage it offers, means that such individuals will be overqualified and therefore underemployed. If analyzed from an investment perspective, this is a poor return on investment.

In their study, Kelchen et al. report:

The growing costs of college attendance are a central policy concern affecting educational opportunity in the United States. Living cost allowances for room, board and other miscellaneous expenses often account for more than half of the total cost of attending college, and the institutional cost of attendance caps student eligibility for federal financial aid.

Regarding costs of college tuition: Since prices fluctuate wildly, I will simply provide a couple of sources for the reader's convenience to research what is appropriate for an individual's circumstances. The National Center for Education Statistics has a site called College Navigator: <https://nces.ed.gov/collegenavigator/>. It provides a system that allows individuals to determine the costs of attending particular schools, which includes tuition and fees, books and supplies, as well as living arrangements. Also, the U.S. Dept. of Education has a site called College Affordability and Transparency Center that provides college costs: <https://collegecost.ed.gov/catc/>.

The cost of attending college has been rising much faster than average cost of living increases.⁷ Skibell (2016) states, "the cost of a higher education has more than doubled, when adjusted for inflation, since 1986 – faster than the cost of health care, and well ahead of the median family income." There is no justification in this. Universities are spending more than they should in large part because government support allows them to get away with it.

Skibell (2016) offers a frightening fact: "The amount of student loans issued annually, most of them federally subsidized, rose from \$53 billion in 2001 to \$120 billion in 2012, a study by the Federal Reserve Bank of New York pointed out, and average advertised tuition grew 46% during that time in constant dollars." And yet we have an overabundance of those with bachelor's degrees.

⁷ See Trends in Higher Education, College Board: <https://trends.collegeboard.org/college-pricing/figures-tables/tuition-fees-room-board-over-time-unweighted>. Also see Center for College Affordability and Productivity to keep abreast of real analysis of what is going on with the costs and benefits higher ed is supposed to offer: <http://centerforcollegeaffordability.org/about/mission-statement/>.

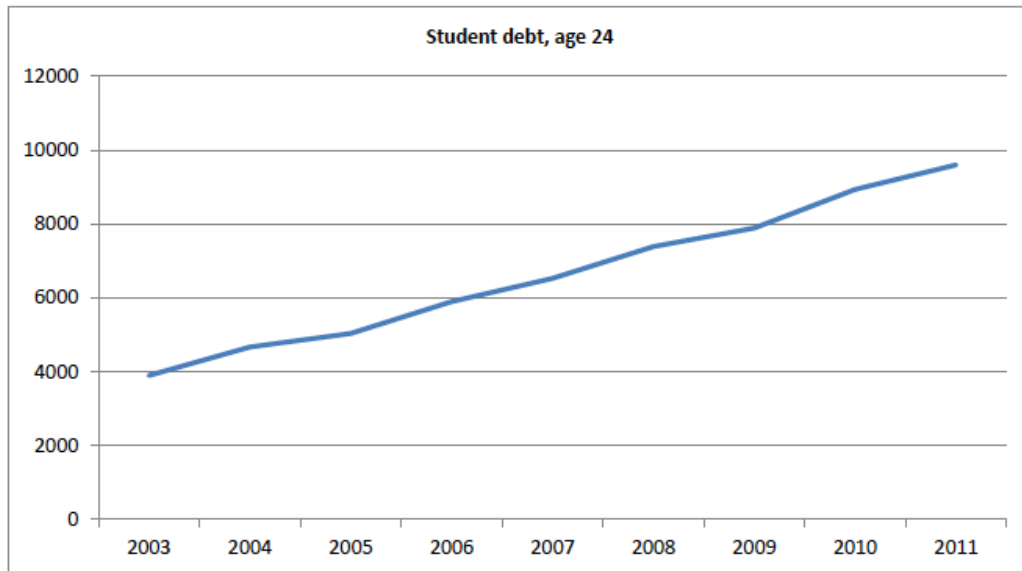
Skibell continues:

The Fed report concluded that, for every dollar of subsidized loans issued, tuition rises 70 cents and that, for every dollar of federal Pell Grants, it goes up 55 cents. This supports what has come to be called the Bennett Hypothesis, after then-Secretary of Education William Bennett, who first proposed the idea that student loans drive up college costs in a 1987 op-ed column in the *New York Times* called “Our Greedy Colleges.”

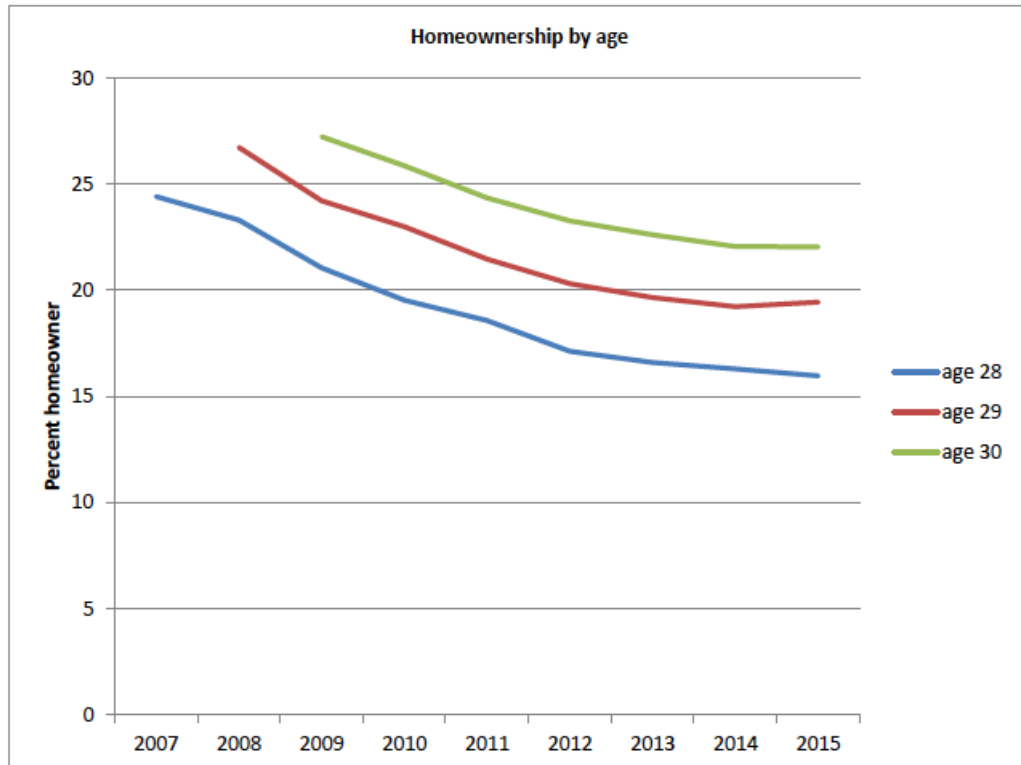
Government involvement frequently causes such market distortions.

Berman (July 16, 2017b) reports on research published by the Federal Reserve regarding the increases in the cost of a bachelor’s and the debt incurred which inhibits home ownership by young people.

Between 2003 and 2009 the average per-person annual in-state tuition at public colleges rose by \$3,843 or 81%, [according to research published](#) Thursday by the Federal Reserve Bank of New York. That jump in college costs explains about \$1,628 or 30% of the rise in the average student loan balances of 24-year-olds during that period. That increase in college costs and subsequent rise in student debt account for somewhere between 11% and 35% of the drop in homeownership rates for 28- to 30-year-olds between 2007 and 2015, the study found.



Source: *New York Fed Consumer Credit Panel / Equifax*



Source: New York Fed Consumer Credit Panel / Equifax

We have arrived at a point where many people are finding the return on investment for most bachelor’s degrees not worth it. Perhaps we can finally come to the conclusion that a degree that has little to no economic value is for those with the personal financial wherewithal; whereas the rest must pursue degrees that have real economic value for both income needs and market demand. Economic supply and demand dynamics are finally influencing decisions rather than considerations of the false gods of status and prestige. The concerns expressed in Jaschik’s article (2014) regarding the shortfall of college recruitment, might be a result of this awakening.

Financial Aid is Deceptively Used to Recruit Students

An article written by Pratt (2015) points to how universities use financial aid to recruit students, but after one to two years, the funding is cut off and individuals are left to their own devices.

The bottom line ... is that institutions offer more to first-year students and their parents as a kind of “leveraging; they’re using financial aid as a recruiting tool.” And once the student has been recruited, the financial aid declines.

The problem is that, coupled with rising tuition rates, front-loading leaves many upperclassmen facing the difficult choice of going deep into debt to stay in school, transferring or dropping out. To make matters worse, many private scholarships are also restricted to freshmen, and end after the first year.

... Kantrowitz estimates that about half of all colleges and universities do this. [Federal data](#) bear out that the practice is widespread.

The Current Role Education Counselors Play in Advising

The title of Murphy's article (2016) expresses a problem the U.S. has with the view toward education counselors: *The Undervaluing of Guidance Counselors*. He writes:

The significance of counseling is under-recognized by the public. A recent national survey⁸ asked what, if taxes were raised to improve local public schools, the money should be spent on first. Just over a third of the respondents said teachers; supplies came next, followed by classes and extracurriculars, infrastructure, and new schools. Counselors came last, with just 6 percent of the sample.

Perhaps this is due to the focus of counselors' duties being centered on college. If counselors' duties were to be broadened to address the needs of the non-college bound students, we might see a great deal more public enthusiasm and support for more counselors.

Adams (2014) states, "Recent [research from the College Board Advocacy & Policy Center](#) finds that adding one counselor to a high school causes a 10 percentage point increase in four-year college-going rates." This might be a good thing for high schools whose academically talented students attend college in low numbers, but we already have an over-abundance of college graduates. However, if counselors were used more effectively for society by directing them to advise students who are not college bound, then an increase in counselors would be very welcome and heartening news.

Radford's paper, *A National Look at the High School Counseling Office*, reveals the bias for college education over any other choice. The comprehensive high school system⁹ perpetuates this bias as Figure 1 reveals where high school principles' priorities are focused on college prep, whereas society only needs 28% college degree holders. The comprehensive high school protects the interest of the academic oriented culture at the expense of the career culture. This dynamic has not changed since the manual arts

⁸ <http://pdkintl.org/noindex/Poll16/poll48-2016-EMB.pdf>

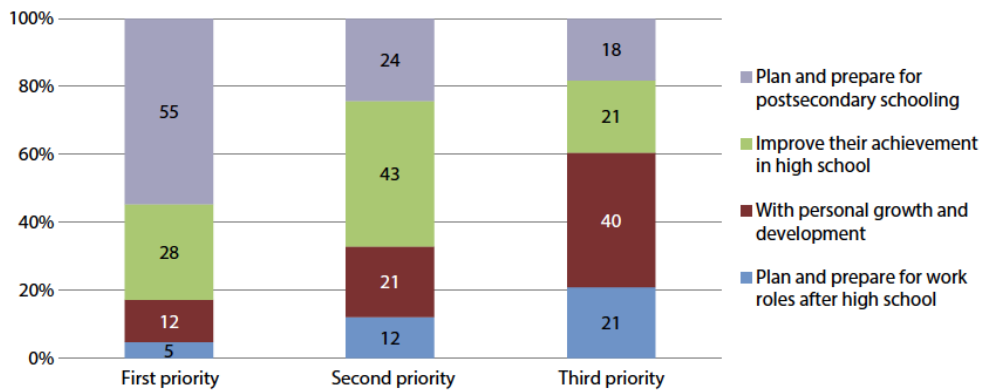
⁹ Comprehensive high schools are the most popular form of public high schools in the United States, as compared to the common practice in other nations in which students are sorted into different high schools for different populations such as college prep or career technical/occupational education so that the focus is not compromised by diluting the school's purpose. The comprehensive high school tries to be all things to all people and therefore is inadequate in preparing anyone very well.

movement began in the 1860s when MIT was founded in this country to establish a polytechnic institute.

When Radford’s paper was published (date not provided), it reported that in 2013 there were approximately 3 million Americans between the ages of 16 and 24 who graduated from high school. Of these, 2/3rds had enrolled in college thereafter.

Radford provides, “*Principles’ priorities for counselors*: When asked to choose from four options, just over half of principals (55%) selected the option, ‘Helping students prepare for postsecondary schooling,’ as their top priority for their schools’ counseling office.” See figure 1. This is unfortunate given the real needs of society in contrast to bragging rights by local school boards to maximize college enrollment immediately after high school.

Figure 1
Percentage of Principals Reporting the Following Priorities for Their School’s Counseling Program: Helping Students...



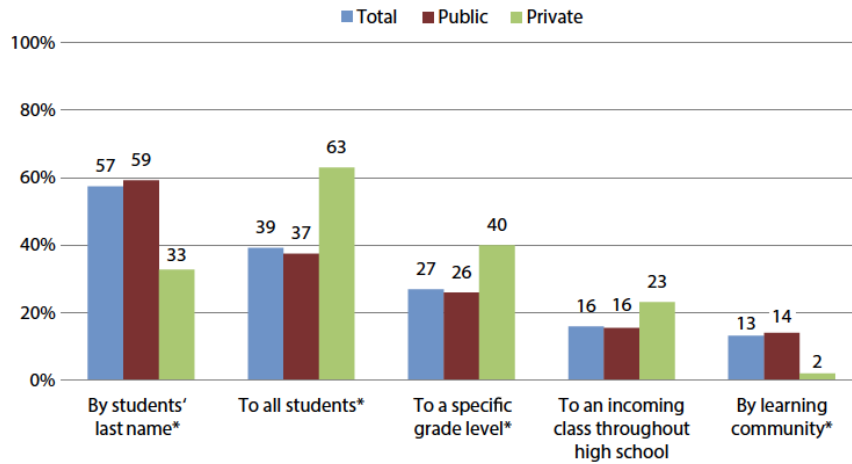
NOTES: Estimates are weighted by W2STUDENT. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009, First Follow-Up Restricted Use File.

Radford continues, “*Assignment of counselors and college-focused counselors*: About 57% of counselors reported that their schools assigned counselors to students by students’ last name.” See figure 2. It would be far wiser to assign counselors to students by paths open to students based on talents. This process should begin in middle school, as it does in the more advanced European nations, and continue through high school. In this way, counselors can become more knowledgeable in the various educational opportunities such as CTE or college prep.

Figure 2

Percentage of Counselors Reporting That Counselors at Their School Were Assigned in Various Ways, by School Type



*Differences by school type that are statistically significant at the .05 level or below.

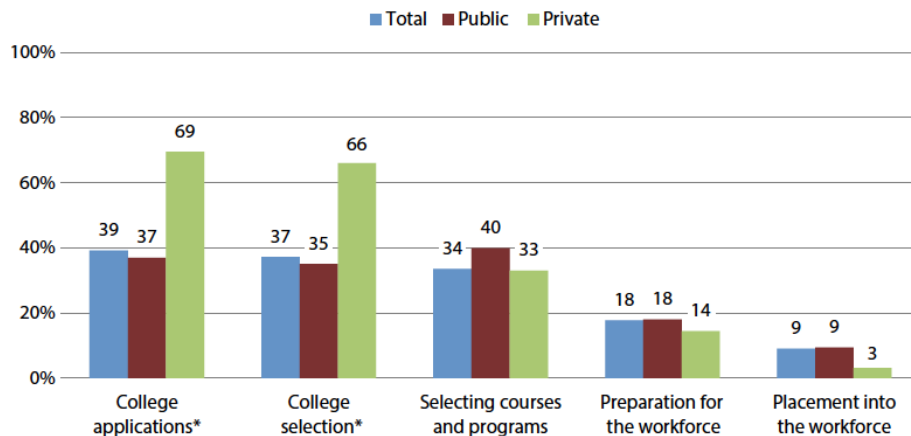
NOTES: Counselor respondents were able to select more than one assignment method. Estimates are weighted by W2STUDENT.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009, First Follow-Up Restricted Use File.

Figures 3 and 4 show that little effort is expended by counselors on the needs of non-college bound students. Those who need the greatest amount of attention, get the least of it. This is probably due to the fact that most comprehensive high schools have poor CTE programs. Therefore, counselors are given little to go on by the academic community other than a college path for students.

Figure 3

Percentage of Counselors Reporting That Their School Had One or More Counselors Whose Primary Responsibility Was Assisting Students with the Following, by School Type



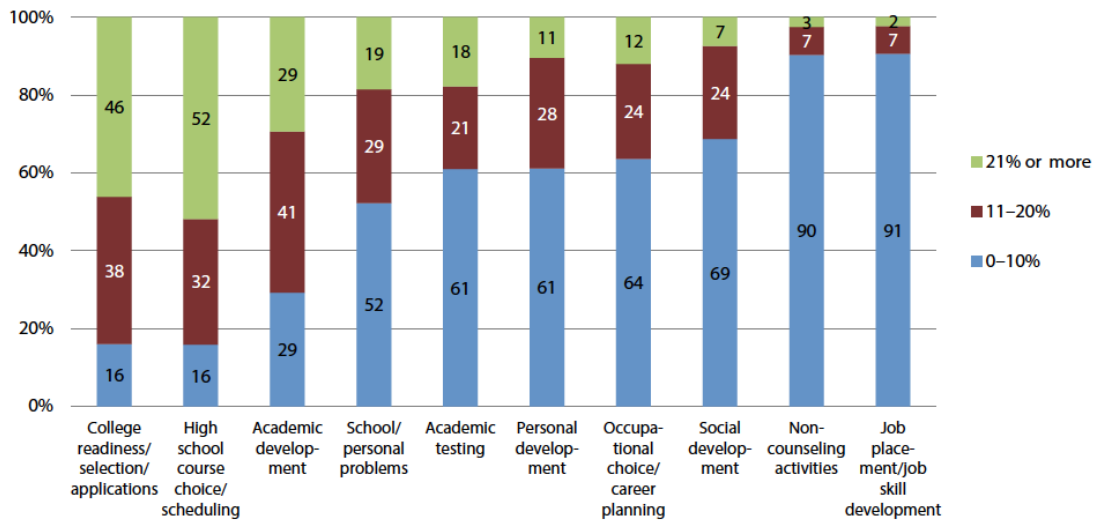
*Differences by school type that are statistically significant at the .05 level or below.

NOTES: Estimates are weighted by W2STUDENT.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009, First Follow-Up Restricted Use File.

Figure 4

Percentage of Time Counselors Reported That Their Counseling Department Spent on Various Activities



NOTES: Estimates are weighted by W2STUDENT. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009, First Follow-Up Restricted Use File.

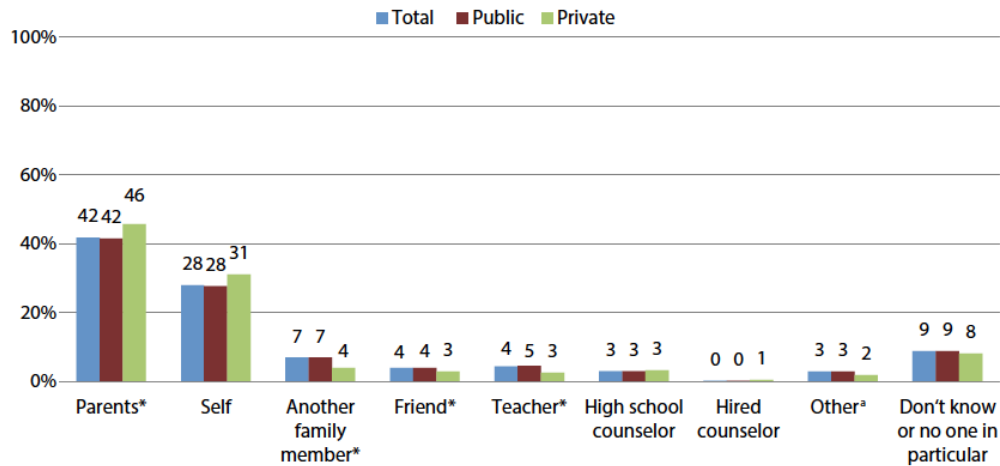
Radford provides, “*Students’ and parents’ interactions with counselors*: By the spring of students’ junior year, almost 2/3rds of students (63%) and just over half of parents (51%) had talked with a school counselor about (the student’s) options for life after high school.” These are abysmal numbers. Every student starting in middle school, should get sufficient advise from a counselor; but with the current college prep design being the only choice in many cases, it is no wonder many forgo the opportunity to speak with a counselor.

Radford continues, “Students’ participating in a program that provides college preparation, counting more than half of their close friends as planning to attend a four-year college, and having parents who expected them to enroll in college after finishing high school were all positively associated with an array of key outcomes that could foster eventual college enrollment.” Figure 21 lists relationships that influence student choices with the attendant level of influence each has on such choices.

This shows where the greatest amount of effort must be exerted to influence appropriate choices for individuals’ future well-being. Informing parents and students of real opportunities – in contrast to pursuing the elusive *status* and *prestige* gods – will provide for a much more harmonious society and far healthier individuals which is sorely lacking in a large portion of U.S. citizens.

Figure 21

Percentage Distribution of Students' Selection of the Individual That Was Most Influential in Their Thinking about Education after High School, by School Type



*Differences by school type that are statistically significant at the .05 level or below.

^aOther includes the options: Coach or scout, Military recruiter, and Employer.

NOTES: Estimates are weighted by W2STUDENT. Detail may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009, First Follow-Up Restricted Use File.

An excellent essay on the subject of counselors was put together by the Education Commission of the States (2014), *College Counseling In High School: Advising State Policy* (<http://www.ecs.org/clearinghouse/01/16/69/11669.pdf>). I think a key take away from this paper is the statement: “[M]any state approaches to college counseling appear to assume students will ‘figure it out’ and need little, if any individualized guidance.” This can also be said for career counseling, whether during the secondary or postsecondary years, and it is a huge mistake. Counseling is of the utmost importance in such a complex society as ours, and to withhold it does great harm to many.

Some good sources for postsecondary data are:

1. The National Student Clearinghouse – <http://www.studentclearinghouse.org/about/>;
2. Georgetown University’s Center on Education and the Workforce – <https://cew.georgetown.edu/about-the-center/>;
3. Jobs for the Future – <http://www.jff.org/services/workforce-development-services/current-work>;
4. Kobes (*Using Labor Market Information*, Nov. 3, 2014) provides a nice explanation of what Jobs for the Future offers – <http://www.jff.org/blog/2014/11/03/using-labor-market-information>;
5. Money magazine provides some very good benchmarks to consider when choosing a college – <http://time.com/money/4846024/best-colleges-for-your-money-2017/>. Selingo (2017) points out that Money magazine uses “data on the employment outcomes of graduates, and its rankings remain among the best for students and parents to consider....”;

6. College Measures is another website that offers analysis of credentials with high return on investment – <http://www.air.org/center/college-measures>;
7. Big Future <https://bigfuture.collegeboard.org>;
8. Cappex <https://www.cappex.com>;
9. Naviance <https://www.naviance.com>.

The Unsung Story of Community Colleges

Kramer (2016) offers outstanding advice that should be given **serious** consideration by all. It's the unsung story of community colleges and the superior benefits they offer over most "4 year" colleges (this is now a misnomer since it takes 6 years for most students).

Rising student debt. Rigid graduation requirements. Lack of preparation for the workforce. Higher education is under fire, and students are demanding answers. As fingers point at the institutions and government, bemoaning the state of higher education and searching for a scapegoat, one existing solution sits right in front of our noses: community colleges.

... Pioneers of inclusivity

Community colleges offer a chance to those who need time, whether to get their grades up, or because they can't afford a four-year college just yet (which on average cost **63% more for in-state tuition**). Twenty-five percent of students who enroll in community college transfer to four-year institutions within five years. There is a significant portion of students who need this bridge. Community colleges encourage second chances and inclusivity, unlike some of their four-year counterparts that take pride in exclusivity.

... That brings us to an obvious question: If community colleges offer so much, why is most of America ignoring them? [Senator Marco] Rubio got it right when he said we have wrongfully stigmatized vocational education. The United States' preoccupation with four-year institutions is emotional. When America thinks of college, it romanticizes the packed football stadiums, large lecture halls, and well-manicured quads of major four-year institutions. We romanticize the notion of the idealistic college experience – and the national conversation doesn't focus on the **1,123 community colleges** that are solving many of higher education's problems by preparing students for successful careers.

The solutions to many of higher education's problems are percolating in two-year institutions....

Jacobs (2015) reports on the book *The New Forgotten Half and Research Directions to Support Them*. She references the author's position on the needs of a portion of the postsecondary school age population:

Students with low odds of earning a bachelor's degree can go to community college to earn a certificate. ... Only one-third of low-scoring students who enroll

in a four-year college or university complete a bachelor's degree in eight years, according to [James Rosenbaum's] new study.

... College doesn't pay for dropouts, said Rosenbaum. Workers with "some college" but no certificate or degree earn no more than high school graduates and they're no more likely to be employed.¹⁰ Nationwide, 29 percent of dropouts have college debt. Rosenbaum's report, released in January, says the average debt is \$15,664 for non-completers who've borrowed.

... Many 12th-graders are "very, very confused," he added. They think a four-year degree is the only path to a decent job. "That's not true." One-year certificates in fields such as computer networking, bookkeeping and surgical assisting lead to jobs that pay well, his research has found. They require "solid eighth-grade skills, especially in math," but not college-level skills.

"Students with low odds of earning a bachelor's degree can go to community college to earn a certificate, get a quick payoff, then pursue an academic degree when they're ready," said Rosenbaum. Or they could try for a bachelor's, but have a back-up plan. "Optimism is fine. Alternatives are crucial."

Gallup-USA Funds' study (2016) "illustrate how many graduates with associate degrees have great jobs and live great lives...." This study cites the National Center for Education Statistics which shows that the number of associate degrees awarded increased by 59% from 2002-03 to 2012-13 while bachelor's degrees increased by 36%. The study attributes this in large part to the substantial increases in the cost of education at universities. Additionally, the time element to completion is also a contributing factor to the growth in the number of associate degrees. Just as appealing is the fact that some jobs requiring only an associate's degree, pay more than many bachelor's degrees.

Klor de Alva and Schneider (2013) analyze the return on investment for associate degree holders in the U.S. Their study was "based on data drawn from 579 community colleges, representing nearly 60% of all U.S. community colleges...."

In 2011, the median starting salary for graduates of the community colleges in our sample was about \$35,000. ... However, there is a wide range in net gain, which students graduating from some community colleges realizing gains of less than \$100,000 on their college investment during their work-life, while graduates from other schools experience gains of more than \$400,000.

Table 2 presents the distribution of key outcome earnings measures among graduates who earned an associate's degree as their highest credential in the sample of schools in our study. Specifically, Table 2 identifies the median gains

¹⁰ This informs us that what passes for education is not useful in the real world. It's the sheepskin that has come to have any significance but with no real substance. It is simply an indicator in the marketplace of greater literacy and numeracy; something which has become necessary due to the failure of our public education systems.

to graduates and, to give some sense of range, those numbers from schools performing at the 20th percentile (lowest quintile) and at the 80th percentile (the highest quintile). We used these earnings data, combined with the costs of earning those degrees, to produce estimates of the gain in earnings across a 40-year work-life. We then calculated an annualized ROI for the graduate.

Table 2: Variance in Earnings and ROI

Wage Outcomes	School Performance		
	20th Percentile	Median	80th Percentile
Student Returns			
Starting salary	\$31,600	\$35,000	\$38,500
Mid-career salary	\$43,800	\$50,900	\$57,100
Average work-life earnings gain	\$86,299	\$259,200	\$437,000
Student ROI	1.7%	4.4%	5.9%

Even after factoring in the costs that graduates incur when earning the degree, the associate’s degree is a good investment: with a median net gain during a 40-year work-life of more than \$259,000 compared with that of a high school graduate....

A community college that works closely with local industries and promotes technical training (for instance, in health care, petrochemicals, high-end manufacturing, and engineering support) can significantly increase the likelihood that its graduates will enjoy substantial income gains relative to high school graduates.

... Public two-year colleges, which enroll nearly one-third of the nation’s postsecondary students, are widely recognized as vital to preparing the nation’s workforce....

But students enroll in community colleges to pursue a variety of goals, not all of which culminate in earning a credential or transferring to a four-year institution in pursuit of a bachelor’s degree.

[W]e recognize that students matriculating at a two-year school may have one or more goals: earning an associate’s degree, learning a specific skill, obtaining an industry-recognized certificate, taking noncredit courses to improve professional credentials or remedial courses to prepare for further postsecondary education, taking credit-bearing courses to prepare for transfer to a four-year college or university, or taking courses to improve the quality of their life. ... 28% of all bachelor’s degree holders began college at a two-year institution....

Further, data from [some States] show that graduates with technical-or occupation-based associate’s degrees can earn more in their first year after graduation than many graduates with bachelor’s degrees, a finding that is congruent with the research of others.

The authors conclude with the findings that “associates degrees focused on occupational and technical skills have more market value than most other types of associate’s degrees.” They also conclude that there is a direct correlation between technical/occupational associate’s degrees and high wages.

Pollard (2016) argues that even if an individual intends on pursuing a bachelor’s degree, starting at a community college is a smarter move; though it is important to ensure that the community college’s credits will transfer to the desired university. He maintains:

Affordability is the biggest concern I hear about college these days from high school seniors and their parents and even working professionals. With college costs rising faster than just about any other product on the market, cost has become the barrier to higher education....

As president of Montgomery College, I have seen community colleges grow into bridges to opportunity for countless Americans who aspire to education but can’t afford the price of a traditional four-year college.

... Community colleges offer students faculty with expertise in their fields, and many of those faculty members hold doctoral degrees. In fact, because community colleges don’t have graduate students to draft into teaching positions, as many four-year institutions do, community college students are more likely to be taught by a professor than by a graduate student.¹¹

Opportunity is at the essence of community colleges, which even the playing fields....

Pollard then provides an example of a student who spent the first two years at a community college in pursuit of his engineering degree before transferring to the Georgia Institute of Technology for his last two years. He saved \$12,000 in doing so.

Another very important contribution community colleges make to our education challenges is their participation in dual enrollment programs that exist between high schools and community colleges. This is where courses taken through a community college provide both high school and college credit simultaneously. Students can accumulate college credit for further postsecondary education or they can take courses that provide a certificate in a high demand field that will land them a well-paid job when they graduate. Many students are even graduating high school and a community college simultaneously, which should be the goal of most high schoolers.

When I was attending New Trier High School in Illinois, I had two friends that stopped attending school after sophomore year, passed their GED exam during the summer months, and started at Oakton Community College as I entered my junior year. When I

¹¹ See *Community Colleges Might Not Be for You*, by Rob Jenkins, *Chronicle Vitae*, Nov. 2, 2015: <https://chroniclevitae.com/news/1183-community-colleges-might-not-be-for-you>. This article is written for would-be professors at community colleges.

was graduating from New Trier, they were graduating from Oakton with an associate's degree. To this day, I lament the fact that I did not follow their lead since I found high school completely out of touch with reality given its sole purpose is to prepare students for some university that is frequently and equally out of touch with reality. This can be demonstrated by the fact there is little to no confidence in a bachelor's degree today.¹²

See Appendix II for an example of middle skill jobs in Colorado that require credentials less than a bachelor's but more than the college prep high school degree. Community colleges fill this demand very well whether it is a dual enrollment program or a postsecondary investment. Of course there are high schools that offer excellent CTE programs that are every bit as good as what community colleges offer, but they are rare.

Every state should incentivize students to pursue a dual enrollment path by offering free college tuition while students are still in high school. We simply need to divert revenues from high schools to community colleges to keep it revenue neutral. This may ruffle some feathers but our children are **far** more important than those in the educational community.

I think an excellent example of how high school can be such a dead end for many is expressed in the interview "*When 16-Year-Olds Go to College*" (2016). It is an interview with Ian Bickford, provost of Bard College at Simon's Rock. He speaks of how they take capable students after 10th or 11th grade; students who do not find high school interesting. I'll leave it to the reader to look into it at <http://www.chronicle.com/article/Video-When-16-Year-Olds-Go-to/236071>.

Citizens should give their full support to community colleges in any and every way they can and relegate the university to a marginal place in our education system for a small minority of those careers that really require an undergraduate or graduate credential (which equates to 25.6% of all occupations according to the Bureau of Labor Statistics¹³). Of course universities also provide a wonderful experience to those with the appropriate temperament, the appropriate talents, sufficient wealth and leisure to pursue degrees that may have no economic value, but instead, offer gratification to individuals who have a passion for some course of study – but then, this is a personal choice that should remain in the private sphere.

Perhaps most importantly, community colleges are far more responsive to individual and community needs; whereas universities see themselves as aloof and responsive primarily to only that which they believe needs attention. It's the difference between an individual's autonomy and independence contrasted with that which is autocratic and authoritarian.

¹² See <http://www.gallup.com/opinion/gallup/182867/america-no-confidence-vote-college-grads-work-readiness.aspx>

¹³ https://www.bls.gov/emp/ep_table_education_summary.htm

Certificates Could Offer The Greatest Return on Investment

Something to think about for many contemplating career decisions is entrepreneurial/business studies, coupled with technical/occupational education of some sort. This can lead individuals to highly lucrative self-employment or in many supervisory or managerial positions.

Knowledge and experience are more important than credentials, so students who may need to take postsecondary courses should use community college to the extent that suits their needs. If general education classes – most of which they would have taken in high school – serve no purpose, then foregoing a degree is just fine.¹⁴ After all, many, if not most, great businessmen have no degree since academia tends to teach people to think within a box – the antithesis of creativity and ingenuity that entrepreneurship is so dependent upon. It also deprives individuals of skill development and experience during the formative years.¹⁵ This is why apprenticeships of old began in the early teenage years. Individuals in their late teens were deemed too old and rigid to be malleable enough to shape into master craftsmen. This helps explain why there is such a skills gap currently in the U.S.

Ideally, combining certificates with business/entrepreneurial studies during the secondary years makes the most sense for any who have no need of postsecondary education – which is a large majority of any society. Whether this is accomplished through dedicated technical/occupational high schools as we see in Switzerland – as opposed to comprehensive high school CTE programs, which is burdened with far too much watered down college prep courses – or through dual enrollment programs at community colleges, it is irrelevant. The quality of education is what matters, not quantity, which is all but forgotten.

What successful entrepreneurs have in common is refined knowledge in a particular market segment acquired through experience, skill, patience, a drive to succeed, and no fear of failure. After all, wise men make their lives rich by keeping their needs small. They shun status and prestige but relish challenges that test their abilities. All of these entrepreneurial attributes are typically not found in academia.

Klor de Alva and Schneider (2013) in their research paper on the benefits community colleges offer, report that

[M]any students enroll to learn only specific skills. For instance, in automotive technology many students stop their studies once they know how to fix some features on an engine or master some auto body repair techniques. These students

¹⁴ Consider the argument against general education requirements made by Downey (2017) <http://getschooled.blog.myajc.com/2017/07/20/is-college-about-producing-well-rounded-citizens-or-graduates-with-job-skills/> and the analysis of general education requirements discussed by Jaschik (2016) <https://www.insidehighered.com/news/2016/01/19/survey-colleges-finds-distribution-requirements-remain-popular-new-features>.

¹⁵ See Andrew Carnegie, *The Empire of Business*, Doubleday, Page & Co., 1902, pp. 109-14: <https://archive.org/details/cu31924030179695>

do not complete the full degree because they are able to be employed, and even this partial education is likely to generate significant net economic gain for them.... Likewise, students who master a particular welding technique that is in high demand may be employed on the spot, foregoing the completion of the degree, and a network engineer may go to a community college to become certified in cyber security and leave after gaining the needed certification.

... [I]n 2012, more than 600,000 certificates were awarded, and 11% of those in the labor force reported certificates as their highest postsecondary credential. Clearly, offering certificates is now integral to the community college mission.

Xu and Trimble (2014) provide some wonderful insight into what certificates offer. They point out:

The annual number of certificates (non-degree awards that typically require less time to complete than degrees) awarded by community colleges has increased dramatically since 2000, but relatively little research has been conducted on the economic benefits of certificates in the labor market. ... While prior research in this area has explored how returns to certificates vary across broad fields of study, there may still exist substantial variation across programs within broad fields of study. ... Our results indicate that certificates have positive impacts on earnings ... and ... increased probability of employment. In addition, we find substantial variation in the returns across fields of study and, more importantly, across specific programs within a particular field. These results suggest that important evidence is lost when information about the benefits of certificate programs are simply averaged together.

Certificates are something of a well-kept secret in higher education. Until recent years, there had been relatively little discussion of certificates either in the academic literature or in education news outlets.

Concomitant with the growing emphasis on credential attainment is the increasing nationwide support for certificates ... even though there has been relatively little evidence on their likely impacts. According to data from the Integrated Postsecondary Education System (IPEDS), the number of certificates awarded by community colleges has increased steadily over the past decade. In 2010, 41% of credentials awarded by community colleges in the United States were non-degree certificates.

Their data show that certificate programs through community colleges provide an economic path for those “who have been under-represented in higher education.” For those certificates that provide little ROI, two fundamentals need to be considered: 1) Does the labor market typically pay poorly in the field chosen, or 2) Is the curriculum designed poorly for the market segment the certificate is meant to serve.

Something to keep in mind: The medical industry has long used certification programs to ensure competency in medical fields. It's a very effective and efficient system of delivering instruction where it's needed. It is interesting how the medical industry uses tried and true technical education to teach health care providers (such as apprenticeships – which they call internships or residencies) but for most fields, career training is seen as the boogeyman by many academics.

Xu and Trimble point out that most research done on postsecondary education as it relates to earnings has centered on the bachelor's degree and with some studies on the associate's degree, but with few done on certificates. With this in mind, there is an obvious bias in attempting to “prove” that bachelor's degrees are superior to certificates and associate's degrees, which we know is not the case. Xu and Trimble then point out how inconsistent and flawed administrative data is on certificate holder outcomes.

In their conclusion, Xu and Trimble inform us that generalizations of labor market returns on certificates, like all broad-stroke statistical data, deceive the public. This is also true of any and all credentials from secondary school through graduate degrees. Some credentials produce greater returns than others and in a number of cases, drastic differences. These significant differences mask important information which mislead the public.

[W]e have identified several consistent patterns in the labor market returns to certificates.... First, we find significant, positive impacts of attaining a short-term certificate and of attaining a long-term certificate on earnings overall. This is in contrast to some results from prior research ... that found a lack of benefits for short-term certificates. ... Such positive evidence for certificates on individual labor market outcomes supports nationwide efforts to increase the visibility and availability of certificate programs, especially for adult learners.

In addition to the positive returns to certificates overall, we find substantial variations across fields of study. In line with existing studies, we find consistently higher returns to allied health and nursing.... Yet, even within the same field of study, such as allied health, we find considerable variation in returns to specific programs, suggesting that important information is lost when programs are grouped together for general analysis.

We also find suggestive evidence that the returns to certificates are closely related to their labor market alignment. Specifically, certificate programs with clear indicators of the type of skills that graduates must possess and with explicit ties to particular jobs in the local labor market – such as the dental assisting programs in the field of allied health – resulted in particularly strong earnings increases. In contrast, programs that offer only a general approach to entering the labor force with obscure indicators of potential skills that graduates may possess – such as the health sciences program in the same field of study, allied health – generally led to lower returns. These findings suggest that colleges and college systems should

encourage certificate programs to build direct links to local employers and career pathway opportunities.

Hull (2015) states,

In general we found that: At age 26, college goers, on average, are more likely than non-college goers to have a good job and engage in society. But a more rigorous high school preparation that includes high-level math and vocational courses in an occupational concentration improves those chances considerably for non-college goers. Add professional certification to the mix, and non-college goers are more likely to be employed and earn good wages than the average college goer....

This proves that the secondary school time frame is an incredibly untapped period that wastes huge amounts of public resources while tying the hands of students during the formative years when they **really, really** need to be developing competencies. It is a tragedy of the first order.

The development of certificates needs to be refined and broadened substantially into various fields in conjunction with providing access to credentialed training during the secondary school years. In addition they can even be combined to offer unique credentials. An example might be a metallurgical credential that combines welding, forging, casting, sheet metal, and machining along side metallurgical science and business to achieve a master craftsman credential. The construction trades can be combined as well where plumbing, carpentry, electrical, masonry, etc., along with materials science studies and business studies could lead to a master craftsman credential. A master craftsman credential in machines could be another avenue where the design, production, and maintenance of machinery (which would also incorporate automotive studies along with other machine applications) combined with related sciences and business classes to establish such a program. The list goes on.

The Inefficiencies and Dangers of Educational Bureaucracies

Strauss (2014) summarizes the advice from Dennis Eller, college counselor at the private Canterbury School. Regarding the college admissions process, Eller states, “We could not create a more complicated, convoluted, cumbersome, and inefficient method of determining which students go where for college if we tried.” This is typical of all bureaucracies and it demonstrates one of many reasons why the educational system must be distanced from bureaucratic forces. Bureaucracies are not only inefficient and ineffective, but also harmful to the majority of people who do not fit their draconian boundaries. It’s simply the nature of the beast, which was so eloquently expressed in Alexis de Tocqueville’s 1835-40 work *Democracy in America*.

Strauss then provides Eller’s plan to simplify the admissions process, which I leave to the reader to review. However, the conclusion of this article also reveals an inherent flaw in

bureaucratic systems that minimize and come close to eradicating competition and innovation:

So what's keeping us from moving to such a system? Nothing, really, but there are entities that wouldn't much like it. *The Common Application* would not like it, of course, because it puts them out of business. *Naviance* would hate it because they're gone, too. College Board and ACT, the two 800-pound gorillas in the room would detest it because they, as non-profit organizations, would be back to ... well, not making a profit.

In short, all of the third party groups that have taken over the college application process would be quick to point out all of the potential dangers and problems with such a system. And therein lies the answer to why this hasn't already happened.

But as the saying goes, "If not now, when? If not us, who?" It's time to stop the insanity of the "college application process." Let's drag it into the 21st Century.

Stakeholder groups in general typically fight any change that does not serve their agenda since change that challenges the status quo is seen as a threat to the contemporaneous paradigm. The typical tactic to resist change is to claim any and all changes are dangerous, unless the change originates from them of course.

Eller's position on the college admissions process being "complicated, convoluted, cumbersome, and inefficient" is true of the undergraduate and graduate education system in general since it is so closely tied to the monopolistic bureaucratic education complex.

For those who may remember the breakup of the Bell system in 1982¹⁶ due to antitrust issues, one may argue there are similar forces at play with the university system. The "Baby Bells" that emerged from AT&T's divestiture, provided superior service at lower prices. We need a similar breakup of the monopolistic forces that prevail within the university system. Only then will we see the system begin offering excellent service at reasonable prices.

Citizens must demand politicians provide the needed change so that students may benefit by a superior system that is market driven rather than driven by an autocracy. Let local forces prevail and regulate as they see fit and remove all monopolistic Federal authority over education. In addition, vote with your pocketbook and attend schools that are more autonomous such as Hillsdale College as well as community colleges.

The Demand for Ivy League Schools is Misplaced – Unless Status & Prestige is Your Thing

For an excellent analysis of the madness that attends applying to an Ivy League school, please read *Confessions of a Prep School College Counselor*, by Caitlin Flanagan, Atlantic Monthly, Sept. 2001.

¹⁶ See https://en.wikipedia.org/wiki/Breakup_of_the_Bell_System

Toohy (2015) reviews the book *Where You Go Is Not Who You'll Be: An Antidote to the College Admissions Mania* by Frank Bruni, pointing out that Ivies are not what people think they are.

Bruni argues that elite colleges are overvalued, and consequently state universities and lesser-known colleges go underappreciated. He supports this claim with anecdotes and statistics on what graduates of these other colleges have achieved. ... Ivy League degrees don't give their holders any discernible advantage in earning potential or "workplace engagement," according to one study Bruni quotes.

Of course, there are those who will argue that the top colleges and universities have higher graduation rates. While statistics may prove this to be true, statistics are frequently deceiving. Are graduation rate differences due to the colleges' "superior" abilities to see students to the finish line or to the differences between the affluent families, where Ivy League status and prestige are more important than anything, and lower and middle class families who view practicality and utility as more important than anything?

Affluent security allows individuals to perceive choices from very different perspectives than those with less secure backgrounds. This is neither good nor bad as long as no institutional forces are used to perpetuate and protect these differences. They are simply the natural forces that exist in any society and unnatural efforts that seek to make "clones" of everyone, such as statist or socialist agendas are infamous for, will simply divert resources in extremely counterproductive ways, thereby doing more harm to the very individuals they seek to help. History certainly bears this out.

Roth (2015) contributes to the position Toohy takes when he states,

I realized that [Bruni's] book ... speaks to the culture of manufactured meritocracy – a culture of rankings and branding, of recruiting and rejection. When you begin pulling on the string of Bruni's concerns, you find yourself tugging against the weight of current attitudes that are eating away at the soul of higher education in this country.

The title sums up its core message nicely: *Where You Go Is Not Who You'll Be*. Many talented high school students in this country receive exactly the opposite message. They are told to pack their resumes with activities that will impress admissions counselors; they are tutored and tutored and tutored so as to have every competitive advantage on high-stakes tests that are "standardized" in name only. It's a dismal learning trajectory: The point of high school is to get into the college that rejects the highest percentage of its applicants; the point of college is to gain access to employers or graduate programs that turn away the greatest number of qualified candidates; the point of life is to have more of the stuff that

other people are unable to acquire. What a sorry, soul-killing lesson this is: to value things only to the extent that other people are deprived of them.¹⁷

Bruni tackles the roots of this lesson with example after example of successful, accomplished and happy people whose college experiences were far from the elite halls of Stanford or Harvard.

... Bruni is not writing here about struggling community colleges, or about burdensome student debt, or about the dramatic defunding of great public university systems. Instead, he is addressing young people who find themselves gauging their worth by their success in a manic admissions race that makes little sense. Bruni doesn't want strong students to simply hone their skills for getting into a vaunted institution. He wants them to develop "robust and lasting energy for hard work," to cultivate "an openness to serendipity," and to find meaning and happiness in their families and communities.

Isn't it a rather arrogant view to believe that everyone would want to be part of the Ivy League culture with its status and prestige trappings that serve only to swell the heads of individuals rather than offer any real substantive benefits compared to other utilitarian opportunities? But then, Ivy League academic types typically despise utilitarian considerations since they are the antithesis of status and prestige. For example: Think of how aristocrats of old would never soil their hands with work. Of course, this can still be observed amongst academics of the "pure" arts and sciences who despise useful or utilitarian art and science and will not soil their hands with such efforts.

This then begs the question: Do we, as a society, really want to promote the educational pursuit of an Ivy League social class orientation or should we promote choices that fit the needs of individuals and society and shun social class pursuits? This requires a shift in our culture's perspective on education and careers where all walks of life should be equally respected. Until then, social classes, with their snobbishness and abusive tendencies that marginalize the majority, will endure, along with educational institutions that perpetuate such a culture.

Therefore, it is recommended that those with wisdom and common sense treat an Ivy League school as being no different than any other school. If one of them has a particular program that provides advantages over all other schools, then it is worthy of one's time. Otherwise it should not be considered as worthy and simply be passed by. If enough people were to follow this advice, the Ivy League aura would eventually fade into oblivion where it belongs.

¹⁷ This is the natural state of affairs when there are monopolistic forces in play. Power and resources are diverted to a limited number of sectors in society which robs other sectors of these opportunities, thereby marginalizing all other sectors to the point that the divide between the few and the many become ever wider, which generates animosity between the two. Historically, two outcomes from such dynamics are common: Either the many rebel or society collapses. It behooves us to take action now by broadening educational opportunities like Switzerland offers, for example, so we can prevent either of these two possibilities from occurring.

A school one attends is less important than what one learns and then what one does with that knowledge once acquired is of greater importance. Motivation trumps “intelligence” that is purportedly “determined” by assessment tests and GPAs. Knowledge – such as data acquired in school – turns into understanding if applied to the real world and if that understanding turns into a marketable skill and that skill is backed by enthusiastic motivation that is also backed by dedication, doors are then opened wide. It then comes down to one’s moral character. If one is honest and trustworthy, the sky is the limit! I know this is true from personal experience, not by what some professor told me.

Selingo (2017) cites what’s referred to as the “Chetty data” which

refers to Raj Chetty, a Stanford professor, who has led a team of economists that has received access to millions of anonymous tax records that span generations. The group has published several headline-grabbing studies recently based on the data. In findings published in January¹⁸, the group tracked students from nearly every college in the country and measured their earnings more than a decade after they left campus, whether they graduated or not.

The results were grim for a higher education system that claims to be a ladder to upward mobility. The data showed, for example, that the City University of New York propelled almost six times as many low-income students into the middle class and beyond as all eight Ivy League campuses, plus Duke, M.I.T., Stanford and Chicago, combined. The California State University system advanced three times as many.

To conclude this section, I would like to suggest the reader review the article *Why the Admissions Office May Be Part of the Problem of College Access*, by Jon Boeckenstedt: <http://www.chronicle.com/article/Why-the-Admissions-Office-May/150883>. This article does an excellent job of summarizing the artificial barriers erected by the Ivy League culture. These barriers marginalize those who do not fit within the established culture. The question then begging an answer by the prospective applicant is: Do you want to support this shameful elitist cultural attitude or should you make a statement and stand against it by avoiding it like the plague? Personally, being a classical liberal in the Jeffersonian tradition of the Founding generation, I prefer the latter.

What Does a College Education Really Accomplish? No One Seems to Know

The introduction to Carnevale et al. (2017a) work points out the disconnect between the real economic world and academia:

The information age has given us digital maps on phones with directions to restaurants.... We can get electronic reminders of meetings accompanied by

¹⁸ http://www.equality-of-opportunity.org/papers/coll_mrc_paper.pdf

information about weather and traffic conditions. Yet when it comes to navigating education and career pathways, learners and workers mostly have been left on their own, operating with outmoded methods and incomplete information from different sources that are difficult to reconcile and apply toward a particular purpose. This is not the way to equip more Americans with the skills they need in the 21st-century economy, nor offer employers the skilled workforce they demand. We need a better way: one that will remove the guesswork and allow the postsecondary education and training system to catch up to the modern world.

What Carnevale is politely saying is that the private sector is innovative, effective, efficient and capable while the public sector, because of its labyrinth of bureaucracies, is an utter failure.

Carnevale goes on:

No one really knows what a postsecondary credential represents

Today's ecosystem of postsecondary credentials is complex, fragmented, and multilayered, and presents significant challenges to learners, employers, and policymakers. We don't know enough about the learning and competencies required to receive specific credentials. We also don't know how various credentials across diverse fields are valued, or how they interact with one another. Employers traditionally have used specific credentials as signals of workers' competencies. But today they are unable to assess the value of different credentials and want to know how their underlying competencies match job requirements. Without clear, comprehensive, and actionable information, mediocrity prevails, and reputation rather than quality (captured by earnings returns) is rewarded.

The phrase "reputation rather than quality is rewarded" means that bureaucratic institutions and their credentials are proxies for applicable knowledge and abilities. It comes down to this: It is the lesser of evils; that is, people with a postsecondary credential are better than people without one only because they have better numeracy and literacy abilities. This is hardly a high quality career education system.

One of the biggest problems that can be identified from Carnevale's findings is that discussion of determining what counts for competencies is believed to come from companies. While there is truth in this, it is only a half-truth. It must come from companies indirectly; that is, it needs to come through trade/industry associations who get their information from companies and then establish a base of competencies that everyone agrees is necessary for their economic sector or occupations within their grouping.

I think Irvine's (2014) analysis of the lack of scientific rigor in analyzing actual student learning and the transfer of this learning to the real world will shock citizens who have great faith in the educational establishment. The lack of transparency is glaring.

Today, leaders of colleges and universities across the board, regardless of size or focus, are struggling to meaningfully demonstrate the true value of their institution for students, educators and the greater community because they can't really prove that students are learning.

Most are utilizing some type of evaluation or assessment mechanism to keep “the powers that be” happy through earnest narratives about goals and findings, interspersed with high-level data tables and colorful bar charts. However, this is not scientific, campus-wide assessment of student learning outcomes aimed at the valid measure of competency.

Campus-wide assessment efforts rarely involve the rigorous, scientific inquiry about actual student learning that is aligned from program to program and across general education. Instead, year after year, the accreditation march has trudged grimly on, its participants working hard to produce a plausible picture of high “satisfaction” for the whole, very expensive endeavor.

For the past 20-plus years, the primary source of evidence for a positive impact of instruction has come from tools like course evaluation surveys. Institutional research personnel have diligently combined, crunched and correlated this data with other mostly indirect measures such as retention, enrollment and grade point averages.

Attempts are made to produce triangulation with samplings of alumni and employer opinions about the success of first-time hires. All of this is called “institutional assessment,” but this doesn't produce statistical evidence from direct measurement that empirically demonstrates that the university is directly responsible for the students' skill sets based on instruction at the institution.

... The public is not satisfied with inferentially derived evidence. Given the cost, they yearn to know if their sons and daughters are getting better at things that matter to their long-term success. Employers routinely stoke this fire by expressing doubt about the out-of-the-box skills of graduates.

The author points out that neither accreditors nor government have been able to influence direct measurement of students' abilities, demonstrating the ineffectiveness of bureaucracies and the semi-private institutions that work in a symbiotic relationship with them.

On campus, “culture dictates that such measures belong to program leaders and faculty. The traditions and rules of ‘academic freedom’ somehow demand this. The problem is that faculty and program leaders are indeed content experts, but they are no more versed in effective assessment of student outcomes than anyone else on campus.”

In her reviews of a couple of books addressing the problem with college, Toohey (2015) offers the following: “Recent studies have shown that many graduates lack fundamental skills, scoring at only a “basic” literacy level. Soaring tuition cripples students with debt. Faculty are rewarded for publishing rather than teaching. These are real problems that need addressing.”

Toohey then references how tuition inflation and country club-like building projects are extremely problematic. She points out how one of the books she is reviewing “criticizes college admissions as bound up in class” and how the other book “exposes how money and status drive the current system. The two writers agree – as does this reader – that it’s a system desperately in need of fixing.”

The bottom line is this: Academics have no idea what society requires from an educational system. Individual academics may know the content of their subject, but they are frequently disconnected from its use in the real world and are therefore at a loss on how to assess whether the content of their instruction is transferable by students to real world applications.

This is where trade and industry associations offer guidance. Since they represent an industry, an economic sector, or an occupational group within society, they are in the best position to provide assessment parameters on behalf of those they represent.¹⁹ Each association can provide foundational requirements, which can then be correlated with every other sector’s requirements that can be formulated into primary or common requirements/competencies that every individual needs to know to function in the economy. Then economic sector-specific requirements can be formulated for individuals who wish to pursue a general education in preparation for a sector or occupational grouping, such as manufacturing, agriculture, mining, service, construction or trades, as examples. Finally, requirements can be established and fine-tuned for particular careers/occupations once the appropriate base of competency has been established. The amount of education for an occupation is dependent upon the needs of the industry/market segment it serves. Having said this, those in high school CTE programs should be given as much consideration in the design of curricula as the medical industry gives to its constituents.

Having covered the subject of the lack of measurement of actual learning and transferability to the real world, let’s take a look at a study the authors, Rothwell & Kulkarni (2015), refer to as “value-added” which does provide a measuring yardstick when comparing institutions based on incomes of their graduates. The authors state,

The choice of whether and where to attend college is among the most important investment decisions individuals and families make, yet people know little about

¹⁹ See *Are Apprenticeships the Answer?*, by Laura Putre, Industry Week, July 10, 2017: <http://www.industryweek.com/education-training/are-apprenticeships-answer>. An interviewee - Montez King, interim executive director of the National Institute for Metalworking Skills (NIMS) - “feels that the best people to develop manufacturing apprenticeship programs are manufacturing leaders themselves - through associations or regional collaborations.”

how institutions of higher learning compare along important dimensions of quality.

... Drawing on a variety of government and private data sources, this report presents a provisional analysis of college value-added with respect to the economic success of the college's graduates, measured by the incomes graduates earn, the occupations in which they work, and their loan repayment rates. This is not an attempt to measure how much alumni earnings increase compared to forgoing a postsecondary education. Rather, as defined here, a college's value-added measures the difference between actual alumni outcomes (like salaries) and predicted outcomes for institutions with similar characteristics and students.

I'll leave it to the reader to dig into the results they provide. You can go to <https://www.brookings.edu/research/beyond-college-rankings-a-value-added-approach-to-assessing-two-and-four-year-schools/> to mine for the data you need. In addition, another good source for learning more about starting salaries based on majors is <http://www.ceri.msu.edu/wp-content/uploads/2016/10/Recruiting-Trends-2016-17-Brief-3-Starting-Salaries-10-2-16.pdf>.

While this may sound strange to some, we must keep in mind that though some schools have alumni that make higher salaries compared to others, this does not, in and of itself, demonstrate high skill levels, competency, or deep transferable understanding of a given field of study. It may simply mean that compared to some schools, graduates' skills, competency, and transferability are better than other schools. In other words, it is a relative issue, and so long as what one school offers is superior to another, students will have a competitive advantage.

To illustrate this point let's consider cuisine in a hypothetical situation. Britain has long had a reputation for bland food, while my hometown of Chicago is known for its splendid cuisine. If you live in Britain and know no other food, you will have favorite restaurants that you believe to be unrivaled. But if you then spend time in Chicago and experience the variety of top-notch ethnic restaurants, you will lament the blandness of Britain's restaurants (again, this is all hypothetical). Educational institutions have similar characteristics. Lack of familiarity with high quality educational institutions will lead one to believe the medium to low quality institutions may be as good as it gets.

For example: In the mid-nineteenth century, graduates of Central High School of Philadelphia rivaled college graduates in academic ability. In 1879, Calvin M. Woodward opened the high school Manual Training School in St. Louis which was distinguished for its highly skilled graduates in the manual arts.²⁰ These are two examples of what were once very high quality educational institutions that are largely unrivaled in the U.S. to this day due to the take-over of municipal education systems by State centralizing bureaucracies between the late 1880s up to WWI. They tried to be all things to all people which make institutions not very good at anything.

²⁰ See *History Of Manual and Industrial Education: 1870 to 1917*, by Charles A. Bennett, The Manual Arts Press, 1937.

Going back to the beginning of this section where the question is asked “What Does a College Education Really Accomplish?” and addressing what competencies are required for success and how to measure them, Switzerland provides the model for everyone’s consideration. Hoffman (2017) provides:

Strong sector-based associations are key to the success of the Swiss apprenticeship system. ... In Switzerland, the labor market is organized by occupational sector with each broad sector having its own association. These associations work in partnership with the cantons (regions) and the federal government to design and implement occupation-based apprenticeships. The federal government provides support and quality control for all approved occupations, including 230 at the upper-secondary level. This is a key function that prevents an imbalance between employers and educators. If employers dominate and skills become too narrowly tailored to specific employer needs, both the occupation and the student are disadvantaged. If educators dominate, then alignment with labor market needs ... suffer.

A caveat is required to what is provided above. Federal oversight might work in Switzerland, perhaps due to it being a much smaller country, but it is an extremely ineffective mechanism in the U.S., which is far too large for a central authority to be in control of something as important as education given the indoctrination opportunity it offers social engineers. Federal involvement must be limited to the accumulation, organization, and dissemination of educational information for the consumption of all those in need of a central repository. However, in no way should Federal authority be used to control States, even when there are monetary provisions provided. If Federal representatives take the position that without Federal oversight and controls, there should be no Federal revenues provided to State educational efforts, it is so much the better for citizens and States. Citizens should then demand Federal taxation be reduced commensurate with current Federal educational monetary provisions. States could then increase their taxes to make up the difference so that school districts continue to receive the funding they need.

Does It Pay to Go to College? That Depends!

First and foremost, what matters most is an individual’s motivation and dedication. These attributes can overcome all kinds of barriers. Second, the college major one chooses for a career is the second most important issue. A chemical engineer is paid a good salary right out of the gate and throughout such a career, whereas a social worker is typically never paid well. Individuals may complain about the difference but complaining won’t change anything. If one chooses a career that does not pay well, it needs to be seen as a life choice regardless of one’s subjective views on what a community deems valuable. In other words, deal with it!

Jacobs (2015) reviews a new tool that should prove useful to those contemplating a college degree. It asks tough questions about one’s interests and abilities. It requires

individuals to be honest with themselves in making such an important decision and to consider alternatives if college is not the answer.

Does it pay to go to college? That largely depends on the student....

... California Competes has proposed a “College Considerator” to help students think through these kinds of questions. ... It asks students about the rigor of their high school courses, their grades and their ACT or SAT scores, plus their approach to schoolwork, enjoyment of school and excitement about college.

... Other questions deal with how many hours students intend to work at a paid job, whether they’ll enroll full time or part time and whether they’ll live on campus or off campus with nonstudents. All these factors affect the likelihood that they will complete a degree. They will also be asked about their reasons for going to college. For example, if you knew you wouldn’t get a better job after graduation, would college still be worth it?

If the Considerator becomes a reality, Shireman hopes that it will encourage students to make choices that will lead to college success. Of course, there is also the possibility that the Considerator could discourage weak students from going at all. A C student with below-average test scores and a so-so “academic appetite” would see he’s unlikely to complete a degree.

“It’s a tough issue,” Shireman said. “But it’s better to tell someone that, given their high school record, they’ll have to change the way they approach school” or find “a path that fits their skills and needs.”

Ion intuition (<https://www.iontuition.com/ionMatch>) is another organization that offers good information to base decisions on as it relates to college. Their website states the following:

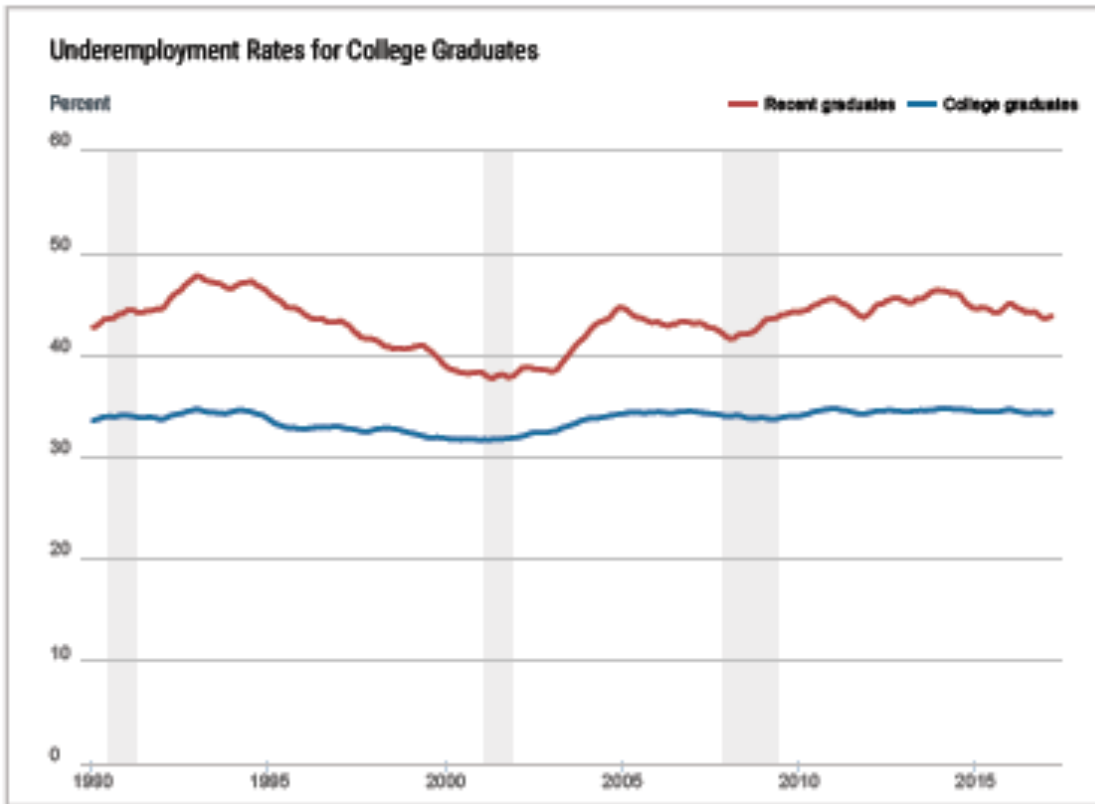
IonMatch compiles data from multiple sources to bring you a powerful tool for selecting the right university to continue your studies. We simplify the process of selecting a college by incorporating admission data to let you know which schools best match your profile. You can then compare these schools across a variety of criteria, including graduation rate and average cost per student.

Comparing potential salaries for different majors across your selected colleges helps guide you to the best potential return on your education investment. Our data allows you to get the clearest picture of your future and make the most informed decision possible.

The Federal Reserve Bank of New York (July 2017) provides a graph showing underemployment rates for college students:

https://www.newyorkfed.org/research/college-labor-market/college-labor-market_underemployment_rates.html.

Underemployment



Source: U.S. Census Bureau and U.S. Bureau of Labor Statistics, Current Population Survey (IPUMS); U.S. Department of Labor, O*NET.

Notes: The underemployment rate is defined as the share of graduates working in jobs that typically do not require a college degree. A job is classified as a college job if 50 percent or more of the people working in that job indicate that at least a bachelor's degree is necessary; otherwise, the job is classified as a non-college job. Rates are calculated as a twelve-month moving average. College graduates are those aged 22 to 65 with a bachelor's degree or higher; recent college graduates are those aged 22 to 27 with a bachelor's degree or higher. All figures exclude those currently enrolled in school. Shaded areas indicate periods designated recessions by the National Bureau of Economic Research.

The Labor Market for Recent College Graduates

Last Updated: July 5, 2017

This graph shows approximately one-third of college graduates hold jobs that do not require a college degree. For greater details on individual occupations, go to Labor Market Outcomes of College Graduates by Major:

https://www.newyorkfed.org/research/college-labor-market/college-labor-market_compare-majors.html.

Career and educational considerations require detailed information that allows for well-informed decisions to be made. The Federal Reserve's data provide valuable information to this end.

If college is not the right path, perhaps some form of technical/occupational training is the proper approach. Schulzke's (2015) article *What The Stigma of Blue-Collar Jobs is Doing to Our Students* compares the benefits that technical/occupational training

provides in relation to bachelor's degrees. There is frequently a "mismatch between career hopes and educational pathways. Many have long argued that the emphasis on four-year college degrees has obscured high-value career paths that are more technical and hands on — but usually do not come with the prestige of a bachelor's degree." Schulzke quotes Anthony Carnevale, director of the Georgetown University Center on Education and the Workforce, who said:

"There are a whole series of certifications that take a year or less that earn more than the average bachelor's degree."

Carnevale says that 20 percent of technical certificate holders make more than the average B.A., while 30 percent of associate's degrees earn more than the average four-year graduate. And that, he says, holds true not just after graduation, but 20 years after as well.

The most vulnerable to this educational paradox, Carnevale says, are four-year degrees in fields like humanities, history, education and psychology. Students weighing a four-year degree vs. a certificate or associate's degree need to factor earnings data.

The problem runs in two directions, said Josh Wyner, executive director of the Aspen Institute's College Excellence Program in Washington, D.C. He worries that students from poorer families are incorrectly steered toward tech careers, while wealthier kids get the same push toward four-year degrees.

Some kids from wealthier communities who could have very fulfilling careers aligned to their interests won't pursue those options because their parents fear the stigma of blue-collar jobs, Wyner says. "They view those jobs as dirty jobs, not worthy of a career for *their* kids."

The stigma attached to technical careers remains. There is a built-in bias against applied careers, Wyner says, in part because most of those doing the analysis and talking are themselves white collar and see a four-year degree as the only real educational choice.

And so, many reformers argue, a circle of ignorance continues to drive students into suboptimal educational and career paths. But possible solutions are on the table, Carnevale notes, and there could be dramatic changes in the offing.

One possible answer is transparency.

... Carnevale notes that a college degree, on average, nets its owner \$1 million more over a career than someone with just a high school degree. But the more dramatic gap is between college degrees. The top earning four-year majors, he says, earn \$4 million more over a career than the lowest earning majors.

This exemplifies the way in which statistics create illusions. The top earning majors skew statistics to make it appear that bachelor degrees are always superior since, “on average,” degree holders net approximately \$1 million more than someone with just a high school degree. If one does not delve deeper into such statistics, one will make decisions based on deceptions since there are many “mere” high school graduates who make much more than many with a bachelor’s degree.

Now, to present the opinions academics cite to assert their position that college is really the only choice one should consider, McCarthy (2015) presents the argument that life is far more difficult for those without a college degree than it is for those with one. This is true in the U.S. in some cases but not in all.

The following are McCarthy’s points that are typically used by academics in the U.S. along with counter-arguments that help provide clarity to such claims:

1. “Degree holders weather economic storms far better than their counterparts.” This is due in large part to the college oriented credentialism craze our country embraces, which was especially true during the “Great Recession” when employers could hire better educated individuals but pay the same price as those without it.
2. “They are less likely to lose their jobs and quicker to find new ones.” This depends on the college degree that is held. This is not true across the board.
3. “Throughout the recession, the unemployment rate for individuals with only a high school diploma was twice that of bachelor degree holders.” This is due to the worthlessness of most high school degrees. However, high quality high school degrees with technical/occupational training incorporated in the program provide superior results over many bachelor’s degrees.
4. “New [research](#) on rising mortality rates among middle age, non-college educated whites only adds to the avalanche of data on the positive correlations between educational level and personal wellbeing.” This has a lot to do with how our society marginalizes those without a college degree. Those who are marginalized by a community typically have higher incidents of dysfunctional behavior.
5. “A college degree is far from the ticket to the middle-class it once was, but lack of one is rapidly becoming a guarantee of personal and economic hardship.” This is due to our lack of career education at the secondary school level. If we look at Switzerland as an example and incorporate those provisions that would work in the U.S., rest assured, the middle-class would return as we experienced it in the middle of the 20th century.

McCarthy goes on to explain:

The increasingly divergent experience of those with and without college degrees has lent a new urgency to long-standing efforts to grow the number of Americans with bachelor’s degrees. But despite rising enrollments in higher education over the last three decades, and enormous investments in improving college access and completion, our bachelor degree attainment rate has only increased by a few

percentage points. In 2013, just over 33 percent of all Americans had a bachelor's degree, compared to 29 percent in 2000. Most students who start college today fail to complete a degree.

Few have considered the fact that given the boundaries that have been erected around academia in the U.S., the system has been optimized for itself and until the system is changed dramatically, exponential increases in resource investments will provide only marginal returns. In economic terms, it is called the law of diminishing returns.²¹ Public education reached this point in the early 1970s for high school and has recently reached it for bachelor's degrees. Until our society realizes the stagnant forces at play, we will continue to invest more of our GDP toward education but with little to show for it. As we invest more of GDP toward education, we must cut costs in other sectors in order to divert the resources to a failing system. This may be seen as a socially suicidal tendency, but if *suicidal* is too strong a word, *dysfunctional* certainly fits the situation.

McCarthy makes an astute observation where she states:

It is one of the many ironies of our higher education system that career training is considered deeply problematic when it takes place below the bachelor's degree level, but completely appropriate at the postgraduate level – in master or doctoral degree programs or in the professional schools. In fact, in the United States high quality training is increasingly an activity reserved for those who have the time and resources to complete a four-year degree first.

This two-tier system, in which career training is widely available but disarticulated and of dubious quality at the lower end of our education spectrum, but highly organized and articulated at the higher end, is not an accident. It stems from outdated conceptions of what a four-year degree must include, the manner (and sequence) in which students must learn those things, and a host of unintended consequences from policy changes made to the Higher Education Act almost forty years ago. But none of these barriers are inevitable or irreversible.

Let's look to Switzerland, Germany, Austria, Denmark, and Finland as examples to learn from in order to catch up with these leaders in education. The U.S. system is terribly antiquated and in serious need of massive rehabilitation. If we hope to offer programs that fit the needs of youth and spread economic and social wealth through natural forces, rather than from a command oriented system that dictates the distribution of resources, a paradigm shift is in order.

High Thrivers Versus the Odds

In her article *1:5 Students Are "High Thrivers" In U.S. Colleges*, Ascione (2015)

²¹ The law of diminishing returns states that in all productive processes, adding more of one factor of production, while holding all others constant, will at some point yield lower incremental per-unit returns. ... The law of diminishing returns is a fundamental principle of economics.
https://en.wikipedia.org/wiki/Diminishing_returns

addresses an important point to consider in determining whether college is the right track for an individual. She references an index that takes into account three individual measurements: personal, academic and social dimensions.

College Optimizer Index measures “thriving” across academic, social and individual dimensions. A new indicator designed to measure consumer confidence across the nation’s 4-year colleges reveals that two in 10 college students are “high thrivers.” The College Optimizer Index (COI) comes from *vibeffect*, a college-decision framework that helps students identify campuses where they’re most likely to thrive. COI defines thriving as “When a student experiences the maximum benefits from a specific college ecosystem, and demonstrates this by heightened academic and social integration, and a deeper sense of happiness.”

Data from the COI offers an opportunity for the consumer to consider the qualitative aspects of more than 100 features found in colleges across the U.S. While most college research focuses on quantitative aspects of the college experience, industry thought leaders are increasingly searching for qualitative data that provides insight into the quality of the education received, as well as student outcomes.

In the COI, the qualitative aspects of specific college and university ecosystems are taken into consideration for the first time in order to help students identify where they’re most likely to thrive.

“When it comes to investing in college, most students focus on admissions and whether or not they’ll be accepted,” said Elena M. Cox, CEO of *vibeffect*. “We challenge young people to put equal or more emphasis on understanding where they will grow, thrive, and complete their degree. We created the Index as a benchmark of student thriving that would give us the objective information needed to guide families towards a more thoughtful college decision.”

Results ... show that there are fewer differences in a student’s likelihood to thrive when considering demographic and socio-economic factors.

For example:

Men and women are high-thrivers at nearly equivalent rates (two out of ten).

Low-income students are equally likely to be in high-thriving and low-thriving categories.

Low-income, first-generation and community college transfer students are more likely than the general population to be high thrivers.

Socioeconomic differences between students does not negatively impact the probability of a low-income student thriving in college.

The ratio 1:5 “high thrivers” demonstrates that even for those who do participate in a college education, the experience for a mere 20% is optimized.

Now, when we consider that approximately 60% of high school graduates continue on to college, which is 45% of the school age cohort (i.e. 75% graduation rate x 60% matriculation rate = 45% enter college) with less than half of them graduating, the 1:5 ratio reveals a very small population that has an optimized experience – perhaps somewhere between 9% and 4% from freshman to senior years respectively. That is: 45% enter college x 20% high thrivers = 9% of the school age cohort for freshman year and 22% graduate with a degree x 20% high thrivers = 4.4% for seniors.

Granted, Ascione’s article points to the maximum benefits individuals might experience, but there are those who do not receive the maximum benefits but still benefit by a college experience. However, these numbers are not reassuring for those who are trying to decide whether the odds of **real** success during the college experience, as well as the benefits that are hoped to be accrued after a degree is in hand, warrants the extended time and monetary investment required. Gambling at a casino provides better odds than this, especially when one considers the high potential for dropping out with college loan debts to contend with thereafter but with no job that pays well enough to help pay down the debt.

A far better investment on average would be the stock market. That is, if the average person were to make equal investment sacrifices in the stock market, as one is required to sacrifice for college, on average, individuals might fair better through the stock market. Crunching such numbers requires the inclusion of all the failures, successes, and everything in-between (e.g. most students taking 6 years to achieve a bachelor’s degree), in the pursuit of a college degree. Such figures would not be a pretty sight.

Given such odds, there must be other motivators that appeal to one’s emotions, and gratifying emotions is certainly a legitimate position, but it requires a socioeconomic station that allows for it, which is a luxury most people do not have. And a “college experience” is not something society should be asked to pay for or asked to loan money for given the ROI for many degrees and the default rates on such loans. Though such an experience **might** be a beneficial experience to some, it is not something that can be quantified or qualified for public interests and therefore must remain in the realm of private interests.

The COI measurement reveals very disturbing numbers that should give pause to all who are considering college for themselves or for their children. Politicians should also take a close look at these numbers, amongst many other considerations, when they are asked to vote for legislation that provides tax dollars for postsecondary education. It’s time to rethink where these tax dollars are to be appropriated. It is my opinion that the lion’s share should be dedicated to secondary education – similar to the Swiss model – before the demands of young adulthood erect barriers to full preparation for participation in a civil life. This requires significant disruption to the current public education paradigm. The dual enrollment program growing across the country is a great beginning to this

purpose.

Conclusion

Berman (2017a) sums up the challenges: “The value of a college degree varies greatly based on where and what you study, but the U.S. higher education system features so many options that neither employers nor students have enough information to fully evaluate the worthiness of a given degree or certificate.” This raises many questions about what individuals and/or their parents are to think and do.

One problem with our cultural mindset regarding careers is the belief a person can do whatever one desires. How many times have we all heard this declaration? While it certainly has elements of truth in regard to freedom of choice (especially when you compare our freedom of choice to other countries), it is not true as it relates to economic opportunity.²² For example: I love art and have always been an avid follower of creative works. However, no matter how hard I tried, I could never have been successful in an artistic career given the absence of such talent. This is not to say I couldn’t have tried, but my chances were nonexistent.

Of course, I could have pursued art as a pastime or interest – a way to withdraw from the world and recharge my batteries, in a manner of speaking. But since I lack any talent in art, I chose to appreciate and admire the work of others, which gives me great pleasure. Do I feel cheated or jealous that others have artistic talent but I don’t? Should I have demanded society pay my way through college so I had the opportunity to try? Certainly not!

The forces at play that define realistic choices are: talents/abilities; opportunities, which may be out of one’s control (e.g. economic forces or unreasonable regulatory barriers); and internal motivation that manifests in outward actions. These help define our potential for success, whatever success may mean to an individual.

Our personal attributes need to be inventoried and then compared with the current opportunities the world presents to us. We may not find the perfect fit – few do – but that’s ok because in time all careers lose their magical appeal that first attracted us to them. As years progress, typically, a job becomes merely a job, except perhaps for a fortunate few that had *lady luck* on their side. But most people need to think realistically about this fact. Therefore, it is good to pursue a career that fits one’s talents and brings satisfaction, but let other interests develop into hobbies that may retain the magic we feel for those things we really love to do. It’s like *absence makes the heart grow fonder* – that is, the less an individual is able to pursue a passionate endeavor, the more that individual will want to do it which helps preserve its specialness to the individual.

The martial arts and the sport of falconry provided me with tremendous pleasure throughout my life but with no monetary rewards realized. As a matter of fact, monetarily

²² See Mike Rowe’s explanation of this truth: <https://www.youtube.com/watch?v=CVEuPmVAb8o>

they were a drain, but wholesome entertaining outlets are essential for a healthy physical and mental life as Herbert Spencer (1861) spoke of in his outstanding book on education.²³

A similar thing can be said about where one lives. I know many young people coming out of school feeling they have to move to the most beautiful place in the world. But something needs to be kept in mind. If one lives in the most beautiful place, that place in time becomes less special. Where, then, is one to go to get away and feel exhilarated and rejuvenated? It's nice to keep special things, well, special, rather than making them into something commonplace. But we humans are susceptible to comparing things, believing the grass is always greener on the other side of the hill. That's because we are, more often than not, uncontrollably attracted to external gratification at the expense of internal development of character. Some covet power; others, status and prestige; while others, wealth accumulation along with beautiful surroundings it may provide; and still others, the biggest muscles; and the list goes on. We chase the rainbow for the pot of gold, thinking only of the pot, but not the chase. We think of the ends, not the means; but when ends have been reached, what then? The ends are never what we expected. So a new and better pot of gold must be sought after. But the results are pretty much the same – they're not what was expected.

This should cause all of us to pause and reflect on what brings us happiness. I would contend that happiness comes from our active pursuits in experiencing life. Whether it's improving our physical prowess in some activity (think of a ballerina mastering a choreographed dance or a sportsman mastering a game), watching our children discover and mature over time, coming to a better understanding of our place in the world; it's the means, the chase, the process, the activity of reaching out for something, this is where gratification can be found and it is what defines our character. If the ends justify the means – in the sense that immoral actions are justified to remedy an immoral situation – then it can reasonably be assumed that one's character is flawed. But if the means are what define the ends – that is, ethical principles are used to achieve an end – then there is proper perspective that allows for self-reflection which can lead to a better character.

To put this in perspective, the ends are the externalities while the means reflect the internalities. Things outside ourselves can never give us true and deep happiness, in particular because they are temporary or fleeting. However, that which leads to a highly developed moral character can lead to the greatest happiness. This is why the wisest philosophers of antiquity were so focused on virtue, which had been expressed in Western as well as Eastern cultures. It was an unquestioned truth that happiness is impossible if one is not dedicated to the constant pursuit of developing virtue. It is something we can never fully arrive at given the nature of this world, but the less virtue we have, the more miserable our life will be.

²³ I highly recommend people read this book. It has not lost its potency in all these years. It offers deep philosophical guidance in what education should entail. See "References" at the end of this essay for citation.

So when considering an education that will lead to a career, there is much to reflect on. In particular, what kind of person does one want to be?

If we look at a career as just one part of our life's experience and then look to other endeavors that expand our experiences and refine our character, life can be well balanced and quite gratifying. A career, hobbies, and family – if given their due measures with the proper perspective – can make for a very active and rewarding life that one can eventually look back on and have no regrets.

A summary of Spencer's (1861) prioritization of what an educational program for citizens should encompass puts things in perspective. When choosing an educational path as it relates to a career choice, such considerations help individuals see the larger picture of one's life.

Our first step must obviously be to classify, in the order of their importance, the leading kinds of activity which constitute human life. They may be naturally arranged into: 1. Those activities which directly minister to self-preservation; 2. Those activities which, by securing the necessaries of life, indirectly minister to self-preservation; 3. Those activities which have for their end the rearing and discipline of offspring; 4. Those activities which are involved in the maintenance of proper, social and political relations; 5. Those miscellaneous activities which make up the leisure part of life, devoted to the gratification of the tastes and feelings.

Spencer explains that direct self-preservation encompasses personal safety which must come first since one's very existence is dependent upon it. Second in importance, indirect self-preservation, is in reference to acquiring the means of living through participation in economic life. Third in importance is the knowledge necessary to the duties of a family. Spencer explains:

[S]ince the goodness of a society ultimately depends on the nature of its citizens; and since the nature of its citizens is more modifiable by early training than by anything else; we must conclude that the welfare of the family underlies the welfare of society. And hence knowledge directly conducing to the first, must take precedence of knowledge directly conducing to the last.

Fourth in importance is civics education so that harmony and prosperity may prevail rather than contention and anarchy. Fifth in importance is the cultivation of taste for leisure activities whose "very subject-matter consists in great part of social sentiments and sympathies. Not only does society supply the conditions of their growth; but also the ideas and sentiments they express." Leisure time spent on base and gross pursuits, which dominates our popular culture, leads to decadence and social decay as we are currently experiencing. The more leisure time there is, made possible by a higher standard of living due to capitalism, the more important leisure activities become since they steer people toward or away from a healthy life which then influences the health of society.

Spencer recaps with:

Such then, we repeat, is something like the rational order of subordination: That education which prepares for direct self-preservation; that which prepares for indirect self-preservation; that which prepares for parenthood; that which prepares for citizenship; that which prepares for the miscellaneous refinements of life. We do not mean to say that these divisions are definitely separable.

Finally, some suggested reading for counselors: An interesting historical analysis of vocational education counseling can be found in *The Vocational Guidance of Youth*, by Meyer Bloomfield, Houghton Mifflin Co., 1911: <https://archive.org/details/vocationalguidan00bloo>. A contemporary work should be made available to counselors so they take this responsibility of advising secondary school students in alternative and diverse choices more seriously.

Appendix I

Choosing a Career



www.bls.gov

Introduction: This activity is designed to encourage students to begin thinking about their futures. Students will research careers from among the 580 occupations listed in the [Occupational Outlook Handbook \(OOH\)](#). The [Teachers Guide](#) lists resources to help teachers develop a career curriculum for their classrooms.

Activity: Students select one or more occupations and prepare a report and/or presentation addressing the following questions:

- How does the occupation fit your skills and interests?
- What will you be doing in the occupation?
- What is the necessary education and/or training?
- How many jobs are there in the occupation currently?
- Is the occupation projected to grow, decline, or remain unchanged? Why?
- How much does this occupation pay? What do the top 10 percent earn? The bottom 10 percent?
- Find someone with a job in the occupation you are interested in, and interview him or her. The interviewer should find out
 - What kind of work the person does.
 - What the person likes and dislikes about the job.
 - What advice the person would give to someone interested in a career in this field.



Additional Resources: Students can use the National Centers for Education Statistics' [College Navigator](#) to find out almost anything they want to know about the nation's colleges—all in one place. Students can search for institutions by using broad criteria such as school name, geographic location, and programs and majors.

The Department of Labor's [Career One Stop](#) webpage is an excellent source of career information and includes career assessment tools to help jobseekers identify jobs that match their skills and interests.

The [Occupation Outlook Quarterly \(OOQ\)](#) is a quarterly magazine that provides detailed information on careers.

The [Education Pays](#) chart helps students to understand the value of an education.

For more classroom materials, visit [The Gateway to 21st Century Skills](#) and [Council for Economics Education](#).

Appendix II

This provides a good example of the demand for middle skill level jobs.

MIDDLE-SKILL JOBS STATE BY STATE | COLORADO

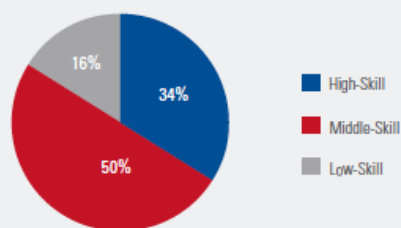
Colorado's Forgotten Middle

Middle-skill jobs, which require education beyond high school but not a four-year degree, make up the largest part of America's and Colorado's labor market. Key industries in Colorado are unable to find enough sufficiently trained workers to fill these jobs.

Jobs by Skill Level, Colorado, 2012

Demand for Middle-Skill Jobs is Strong

Fifty percent of all jobs in 2012 were middle-skill.

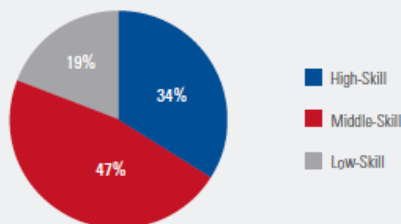


Source: NSC analysis of Bureau of Labor Statistics Occupational Employment Statistics by State, May 2012.

Job Openings by Skill Level, Colorado, 2012-22

Demand for Middle-Skill Jobs Will Remain Strong

Between 2012-2022, 47 percent of job openings will be middle-skill.

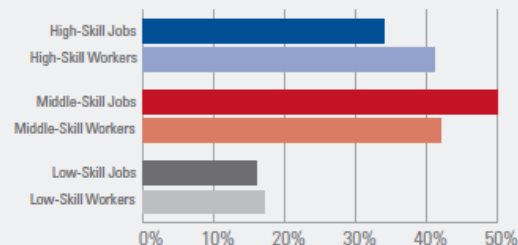


Source: NSC analysis of long-term occupational projections from state labor/employment agency.

Jobs and Workers by Skill Level, Colorado, 2012

A Middle-Skill Gap

Middle-skill jobs account for 50 percent of Colorado's labor market, but only 42 percent of the state's workers are trained to the middle-skill level.



Source: NSC analysis of Bureau of Labor Statistics Occupational Employment Statistics by State, May 2012 and American Community Survey data, 2012.

Appendix III

Useful Links

- Bureau of Labor Statistics, occupations that need college degrees at entry levels are and will remain around 28% through 2024. Postsecondary non-degree awards (certificates) are expected to remain around 6%.
http://www.bls.gov/emp/ep_table_education_summary.htm
- U.S. Chamber of Commerce <https://www.uschamberfoundation.org/center-education-and-workforce>
- U.S. Census Bureau, Education
<http://www.census.gov/topics/education/about.html>
- Bureau of Labor Statistics, Occupational Employment Statistics
http://www.bls.gov/oes/current/oes_nat.htm#17-0000
- Bureau of Labor Statistics, Occupational Outlook Handbook
<http://www.bls.gov/ooh/>
- College Measures <http://www.collegemeasures.org/page/About-us.aspx>
- The Nation's Report Card <http://www.nationsreportcard.gov>
- National Center for Education Statistics, Digest of Education Statistics
<http://nces.ed.gov/programs/digest/>
- The Hamilton Project Career Earnings by College Major
http://www.hamiltonproject.org/charts/career_earnings_by_college_major/
- Todd Rose <http://chronicle.com/blogs/wiredcampus/why-students-should-own-their-educational-data/54329?cid=megamenu>
- Center on Education and the Workforce
<https://cew.georgetown.edu/publications/reports/>
- Salary.com <http://salary.com/category/salary/> Provide this link on website with suggestion to it to determine the value of certificates and degrees.
- Payscale <http://www.payscale.com/college-roi/major>
- James Wilson Institute, on Natural Rights and the American Founding
<http://jameswilsoninstitute.org/about/a-natural-law-manifesto>
- The Enlightenment, Early Childhood Education
<http://www.faqs.org/childhood/Co-Fa/Enlightenment-The.html>
- Epictetus, Stoic, moralist <http://plato.stanford.edu/entries/epictetus/>
- Mises Institute, Austrian Economics, Freedom, and Peace <https://mises.org/about-mises>
- The Heritage Foundation, education charts
<http://www.familyfacts.org/charts/education>

References

Adams, Caralee, *Grants to Expand School Counseling Announced as New Study Shows Value*, Education Week, Aug. 28, 2014 .

Ascione, Laura, *1:5 students are “high thrivers” in U.S. colleges*, eCampus News, July 22nd, 2015.

Berman, Jillian, *This Chart Shows the True Cost of a College Degree Really Depends on Your Major*, Market Watch, June 30, 2016.

Berman, Jillian, *Here’s Why It’s So Hard to Figure Out the Value of a College Degree*, Market Watch, July 11, 2017a.

Berman, Jillian, *Another Consequence of Rising College Costs: Declining Homeownership*, Market Watch, July 16, 2017b.

Bleemer, Brown, Lee, Strair, and Klaauw, *Echoes of Rising Tuition in Students’ Borrowing, Educational Attainment, and Homeownership in Post-Recession America*, Federal Reserve Bank of New York, Staff Report No. 820, July 2017.

Carnevale, A., Garcia, T., and Gulish, A., *Career Pathways: Five Ways to Connect College and Careers*, Georgetown Univ., Center on Education and the Workforce, 2017a.

Carnevale, A., Strohl, J., Cheah, B., and Ridley, N., *Good Jobs that Pay Without a BA*, Georgetown Univ., Center on Education and the Workforce, 2017b.

Cochrane, Debbie, and Cheng, Diane, *Student Debt and the Class of 2015*, The Institute for College Access & Success, 11th Annual Report, Oct. 2016.

Cooper, Preston, *Major Matters in the Job Market For College Graduates*, Forbes, July 14, 2017.

D’Alessio, Mark, *Trick or Treat? 9 Frightening Facts about Higher Education in America*, U.S. Chamber of Commerce Foundation, [Center for Education and Workforce](#), October 19, 2016.

Downey, Maureen, *Is College About Producing Well-Rounded Citizens or Graduates With Job Skills*, The Atlanta Journal-Constitution, Get Schooled, July 20, 2017.

Fernandez, Henry, *Could the \$1.3 T of College Debt Spark the Next Financial Crisis?*, Fox Business, Feb. 28, 2017.

Fuscaldo, D., *Education News*, Good Call, June 10, 2016.

Gallup-USA Funds, *Associate Degree Graduates Report*, 2016.

Hoffman, Nancy, *The Secret Glue in the Swiss Apprenticeship System*, Jobs for the Future, Aug. 30, 2017.

Hull, Jim, *The Path Least Taken II: Preparing Non-College Goers for Success*, Center for Public Education, July 23, 2015.

Irvine, Geoff, *Assessment (of the Right Kind) is Key to Institutional Revival*, Inside Higher Ed, December 19, 2014.

Jacobs, Joanne, *How much Should You Pay for a Degree?*, The Hechinger Report, March 26, 2015.

Jaschik, Scott, *More Pressure Than Ever: The 2014 Survey of College and University Admissions Directors*, Inside Higher Ed, Sept. 18, 2014.

Jesse, David, *\$121B in Student Loans Are in Default Across U.S.*, Detroit Free Press, Mar. 20, 2016.

Kelchen, Robert, Hosch, Braden, and Rab, Sara, *The Costs of College: Trends, Variation, and Accuracy in Institutional Living Cost Allowances*, Wisconsin Hope Lab, Oct. 2014.

Klor de Alva, Jorge and Schneider, Mark, *What's the Value of an Associate's Degree?*, American Institutes for Research and Nexus Research & Policy Center, Oct. 2013.

Koepfel, David, *Why College Grads Are Heading Back ... To Community College*, Fortune, Nov. 20, 2012.

Kramer, Jack, *Colleges can save America—community colleges, that is*, Ellucian, February 06, 2016.

Lambert, Lance, *Student Loans Are Poorly Aligned With Graduate Earnings*, The Chronicle of Higher Education, Jan. 7, 2015.

McCarthy, Mary Alice, *Flipping the Paradigm: Training-based Pathways to Bachelor's Degrees and Beyond*, EdCentral, Nov. 11, 2015.

Murphy, James, *The Undervaluing of Guidance Counselors*, The Atlantic, Sept. 16, 2016.

Palmer, Iris, *The Student Transfer Problem & How States Can Help Solve It*, New America, April 28, 2015.

Pollard, DeRionne, *Why Starting at a Community College Can Be a Smarter Option*, The Washington Post, April 8, 2016.

Pratt, Timothy, *College "Bait and Switch: Financial aid often declines after freshman*

year. *Little-known practice threatens graduation rates, raises debt, say experts.*, The Hechinger Report, April 20, 2015.

Radford, A. W., Ifill, N. and Lew, T., *A National Look at the High School Counseling Office*, National Association for College Admission Counseling.

Radwin, David and Wei, Christina, *What Is the Price of College?: Total, Net, and Out-of-Pocket Prices by Type of Institution in 2011-12*. Stats in Brief: U.S. Dept. of Education, National Center for Education Statistics, Mar. 2015.

Roth, Michael, *You didn't get into Harvard, so what?*, The Washington Post, April 10, 2015.

Rothwell, J. and Kulkarni, S., *Beyond College Rankings: A Value-Added Approach to Assessing Two- and Four-Year Schools*, Brookings, Metropolitan Policy Program, April 2015.

Schulzke, Eric, *What the stigma of blue-collar jobs is doing to our students*, Deseret News, Nov. 19 2015.

Selingo, Jeffrey, *New Rankings Tackle Old Problem: Measuring the Outcome of College*, The Washington Post, July 10, 2017.

Seltzer, Rick, *Percentage of Borrowers Owing \$20,000 or More Doubled Since 2002*, Inside Higher Ed, Aug. 17, 2017.

Skibell, Arianna, *Rising Costs Brings New Focus on How Exactly Colleges Set Their Prices*, The Hechinger Report, Feb. 1, 2016.

Spencer, Herbert, *Education: Intellectual, Moral and Physical*, A. L. Burt Co., 1861.

Strauss, Valerie, *An intriguing way to remake the college admissions process*, The Washington Post, October 27, 2014.

Toohy, Elizabeth, *Two books about how money, status drive college decisions What is a degree from an American college worth?*, The Christian Science Monitor, Mar. 17, 2015.

Tretina, Kat, *New Study Shows 70% of Colleges Are Too Expensive for Most Americans*, Student Loan Hero, Mar. 27, 2017.

Whaley, Monte, *New Law Says Students Must Be Told About Skilled Labor, Military Careers*, The Denver Post, Aug. 7, 2017.

White, Byron, *Instead of focusing on college-ready students, institutions should become more student ready*, Inside Higher Ed, March 21, 2016.

Wyatt, Ian and Hecker, Daniel, *Occupational Changes During the 20th Century*, Monthly Labor Review, March 2006.

Xu, Di and Trimble, Madeline, *What About Certificates? Evidence on the Labor Market Returns to Non-Degree Community College Awards in Two States*, Community College Research Center, Teachers College, Columbia, Univ., Nov. 2014.