

## Leveling the Playing Field From College To Career

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### Preface

In the United State achieving equal opportunity in postsecondary education is typically described in terms of enrolling more underrepresented groups into the selective colleges. The belief is that if this step is accomplished it will have a fundamental impact on the problem of inequality at the national level. However, what if there are not enough places in selective colleges to accomplish this goal? What if the selective colleges do not have enough capacity to make a significant impact in the problem of serving students from underrepresented groups with demonstrated high abilities?

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### Introduction

The postsecondary education sector is beset by a number of severe headwinds. Cost issues now elicit comparisons with the health care sector cost problem. Access deficits continue to rise and retention and graduation rates are unacceptable. Questions about the quality of education are increasing as well. Moreover, the rise of online competency-based undergraduate programs, both for profit and non profit, constitutes a disruptive force threatening the business model of the traditional bricks and mortar postsecondary education sector.

However, it is important to remember that higher education was formed to achieve two principal objectives, 1), to provide education for students, encouraging them to achieve to their highest intellectual potential and 2) be encourage faculty, to teach and produce scholarship and research to their highest level of ability. A principal role, introduced by Thomas Jefferson, is for higher education to be the major source of social mobility for all citizens. This ideal was institutionalized as the Morrill Land Grant ACt of 1862. It is this principle that I focus on here. Today the college students attend largely determines their economic and social life

chances. The question is whether the level of prestige granted to a select group of institutions unduly restricts the ability of all students to benefit equally from the educational attainments they demonstrate. Do all graduating college seniors secure jobs commensurate with their skills? If the answer is no can we identify innovations that assist in leveling the playing field for all citizens?

### Equal Opportunity Not Equal Results

- “...if Smith and Jones have the same native talent and Smith is born of wealthy, educated parents of a socially favored ethnicity and Jones is born of poor, uneducated parents of a socially disfavored ethnicity, then if they develop the same ambition to become scientists or Wall Street lawyers, they will have the same prospects of become scientists or Wall Street lawyers if equal fair opportunity prevails.” J. Rawls, *A Theory of Justice*, 2001, section 13.

This statement captures how the concept equal opportunity is used here.

Since the premise I begin with is that there is not a level playing field for all graduating college seniors, a basic question is why have we not attempted to create and implement innovations to deal with the problem until now? Here is a good answer,

- “Goldman Sachs doesn’t intrinsically care about Harvard. They care about finding the best person for the job. Elite brand degrees have just traditionally been the best proxy metrics for that because precise metrics weren’t heretofore available.” Jose Ferreira, founder of Knewton, September 5, 2013 blog post, “Disruptive Innovation vs. Harvard: Who Will Win?”

We now have precise metrics that can be used to offset the power of the proxy of elite brand institutions. The rest of this paper suggests how we can benefit from using them. I will use the Collegiate Learning Assessment (CLA), in particular the recent next generation of this protocol, CLA+ for my illustrative argument because I am most familiar with this assessment.<sup>1</sup>

### The Context for the Problem

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<sup>1</sup> The other two national assessments are Proficiency Profile, Educational Testing Service and Collegiate Assessment of Academic Progress, ACT.

If absence of equal opportunity is the problem, can higher education, be altered to create a more level playing field for all graduating college seniors? However, what is the premise behind this question? My argument is that, as in most countries, a set of selective colleges can be described as a positional good that determines the life chances of most students. The concept positional good (Hirsch, 1976) describes goods that fall under the category of zero sum goods by which is meant that there are upper limits to their consumption. Only a finite number of people can attend a chamber music concert beyond which it ceases to be one. The same thing is true about many other goods in life, including top positions in the private and public sector. The places at highly selective colleges are limited; again by definition, a selective college would cease to be one if it grew beyond what are seen as acceptable enrollment limits (This itself is a contentious point for some.). Here I will attempt to provide empirical evidence that selective colleges do not enroll the vast or even a majority of high ability students (this term defined below, p.). If this hypothesis is borne out, we have a mal distribution of our human capital at the societal level and an unequal playing field in the college to career space. .

2 Are significant innovations of our major social institutions like higher education possible? The institution of higher education itself is rightly thought to be one of the major social institutions in American society, highly institutionalized and thus not easily transformed from outside disruptive forces. However, it is important to remember that humans create institutions not the other way around (Harsanyi, 1969). Since the education system is the only venue we have to preserve and enhance human capital, it is prudent to audit them from time to time to judge whether they are in need of redesign. This is particularly true for our postsecondary institutions because they have taken on heightened importance in today's Knowledge Economy where national economies that remain able to stay at the fore-front of the new product innovation cycle, where the ideas that generate the highest economic value add are the winners.

3. Does educational technology provide new ways to innovate in postsecondary education? The reason this question is important is because education technology, seemingly overnight, now provides a cornucopia of potential innovations for higher education institutions.

There are now technology-based solutions, including open education resources, flipping classrooms, and adaptive and personalized instruction . Advances in education assessment tools, the reason for the innovation suggested here, has been stimulated by recent investments of over \$360 million by the U.S. Department of

Education in 21<sup>st</sup> century tests in support of the common core movement in K-12 education. As a by product, new ways to use educational technology products construct novel education assessments, such as interactive games, give promise of being widely implemented.

Significant innovation in support of institutional redesign of important segments of higher education institutions is possible. We appear to be at a moment when we can think practically about reengineering key processes to make the higher education sector more efficient and more effective.

### The Case for A Market Failure

Today going to college is the principal means to success in the United States. However, all postsecondary education institutions are not equal. A few are viewed as selective colleges. These colleges, with the IVY Leagues at the apex, are examples of **positional goods**. Only a small percentage of college students enter and graduate from these colleges. Many leading companies recruit only from this group of colleges. The most selective colleges and universities have strong barriers to entry. Students who win enrollment to these colleges tend to have the advantage of significant financial and social support from early childhood through high school.

Parents with the financial means are willing to supply financial support for their children to succeed in gaining the skills needed for admission to Yale because that gives their children entry into the select circle of society's "winners" economically and socially. They have the resources to compete for the top public and private leadership positions in the economy and society which, by definition, are finite, in short supply, and possess a zero sum quality. There typically is only one CEO of a company, one dean or one president of a university and so on. Of course, selective colleges have scholarships and affirmative action policies that permit them to enroll minority students but the resources devoted to these policies is not enough to have a significant impact on creating a truly diverse student body.

The gap between the per student endowment of Yale versus a public university such as the City University of New York is so large that it is difficult not to conclude that education at Yale is a very different student experience which gives graduates huge life long advantages in their individual human capital

assets.<sup>2</sup> No one should want to harm Yale's ability to deliver an education of the highest quality. However, as the support for public higher education wanes across the United States, we must be prepared for even greater economic and social inequality, less social mobility, less diversity, and, in all likelihood, less economic growth. Why? Because the selective colleges may not supply a sufficient critical mass of educated citizens to maintain the U.S. human capital comparative advantage globally. Surely we should examine what might be done about this issue.

The rich diversity of American postsecondary education is correctly cited as a unique strength. However, just as we made significant changes in admissions requirements for college applicants in the aftermath of World War II by creating admissions tests such as the SAT and ACT to complement the high school GPA, we face the need to create a test to complement the graduating college senior's GPA today. We should do so to reset the opportunity structure held in place by the positional good world of postsecondary education. However, we should not attack selective colleges but by design a way to widen the opportunity structure for students in non selective colleges. Why should we do this now?

The positional good system of selective colleges may have made sense in an earlier age of American development. But with a population of over 320 million (to be 400 million in three or four decades), the bulk of whom live well outside the geographic reach of most of the selective colleges, we need to dramatically expand the opportunity system created by postsecondary education. This is especially true for underrepresented high ability students because they appear to attend non selective colleges in overwhelming numbers. What follows is an attempt to justify this problem statement and suggest a way to attack it.

### The Problem to Solve

Hoxby and Avery (2012) demonstrate that as many as 10 to 15 times the number of African American and Hispanic students as previously thought have SAT or ACT scores that meet the admissions requirements of the most prestigious colleges in the United States. However, these students are often advised not to apply to selective schools and are located in high schools not required by college

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<sup>2</sup> The per student endowment at Yale University is \$1,750,000 while the per student endowment at the City University of New York ranges from a few hundred dollars at Hedger Eagers College to \$9,000 at Baruch College. Voluntary Support of Education, VSE Data Miner, cae.org.

recruiters from elite institutions. If we did not have the SAT and ACT in place, admissions officers would only have students' high school GPA to rely upon for admissions decisions. There likely would be even fewer students from underrepresented groups admitted to the most selective colleges because the SAT provides important additional information to students' high school GPAs (Kobrin et al., 2008).

College to work presents a more severe market failure because there are no tests to accompany students' college cumulative GPA that could control for the grade inflation and variability of grades across colleges. Such a test could assist in leveling the playing field for students from non-selective colleges without damaging the prospects from selective colleges.

### Students

Grade inflation has resulted in the national mean college cumulative senior GPA rising to 3.3 (on a four point scale) (Rojstaczer and Healy, 2012). This means most graduating seniors do not have an objective way of distinguishing their skills from other students when they apply for jobs; they are all above average. Students who attend the top 150 selective institutions, are likely to get a pass because many employers will choose students based on institutional prestige. However, what about the others, the 90-plus percent of graduating seniors who attend less selective institutions? Moreover, what about the most disadvantaged students? There are a large number of low income students who graduate from these colleges and universities that have the critical-thinking skills and abilities that employers prize.

### Colleges

Non-selective colleges produce many college graduates that achieve distinction in their careers. However, they face a branding problem. Since these colleges do not have reliable tools that make the case for their stronger graduating seniors, employers never discover their students. Non-selective colleges, in particular, should consider recommending that their graduating seniors take CLA+. This should increase the number of their graduates who are qualified for jobs at the peak of the value added product cycle. If this turns out to be the case, less selective colleges will change employers' preconceived notions about their graduates and the colleges that produce them.

In sum, the market failure between graduating college seniors in non selective colleges seeking employment blocks millions of students from successfully attaining employment appropriate for the high ability skills they have actually attained. Too many students do not get an interview for jobs they have the skills for because employers do not know where they are. This is bad for the students in question, their institutions, and employers. At the macro level it means too much of our human capital is mal distributed. And it also is a major block to opportunity for high ability (see pages 12-16 for specification of this concept) students throughout the United States and, in particular, Pell Grant students from disadvantaged backgrounds who, however, attain skill levels equivalent to their selective college counterparts.

### Employers

Employers spend much time and money interviewing potential applicants for jobs. Some employers give applicants assessments on the skills and abilities they require in their employees. However, in the age of grade inflation, how do hiring managers decide who to interview in the first place? If, in addition to résumés and college transcripts, hiring managers have the results of a valid and reliable critical-thinking test, their pool of potential applicants would be enlarged. The employment process would be more effective and efficient, and employers would be better equipped to tap the social, economic, and ethnic diversity of students reflected in all of our colleges and universities.

Increasingly, employers Until now employers have been forced to ask applicants to send their SAT/ACT scores or GMAT scores along with their resume because,

- a) The high level of grade inflation means the transcript of graduating seniors does not supply sufficient information about the job candidates' skills. Graduating seniors applying for jobs cannot differentiate their skill levels from all other applicants. Thus, employers increasingly request the SAT/ACT or the GMAT as additional information.

This is unacceptable. The GMAT, a solid critical thinking test, is targeted for a small population of students applying for business school programs and is not suitable for assessing the broad cognitive abilities called critical think skills which employers rank as the number one priority they have for entering employees. The SAT is not an acceptable proxy measure for the skill levels college seniors have achieved for two reasons. First, reliance on a test that applicants took before they

entered college means no credit is given to the effect of the college experience. This not only not acceptable, it is not credible. We know from analysis of the CLA data base that the overall mean student learning growth for college students from freshmen to seniors is .73 (a .44 standard deviation). This finding is based on analysis of all students taking the CLA in over 1,200 test administrations over the past eight years. This is a significant effect. College does matter to student learning growth and it matters a lot (See Benjamin, 2014). We should not assume the college does not matter. Moreover, we should **not** ignore the strong probability that many of these same students and their Hispanic and non-Hispanic white counterparts who attend non selective colleges exhibit above average growth in their critical thinking skills as a result of their college experience **even if** they do not attend highly selective colleges.

### The Challenge

If employers had the results of a reliable and valid pre screening assessment of graduating college seniors, that might provide suitable information to enlarge the pool of potential applicants. If less selective colleges produce many college graduates that achieve high levels of the skills employers prize and can overcome the problem that employers do not know how to find these students, these institutions will change the perception of employers about their graduates and the colleges that produce them. The hypothesis, then, is that less selective colleges graduate a large number of high ability students (as defined by appropriate standardized assessments), as many or more students than the selective colleges that serve as the proxy for excellence as noted by Ferreira above.

### Validating the Market Failure Thesis

There is at least one data set that may be useful for this purpose, the data set of the Collegiate Learning Assessment (the CLA). . While there are two other reliable assessments in the graduating senior space, Proficiency Profile (Education Testing Service) and the Collegiate Assessment of Academic Progress (ACT), they appear not to cover a wide enough number of colleges and universities that can be used to make estimates of all four-year institutions in the U.S. What , then, is the CLA+? Is it reliable and valid?

The CLA+ measures critical thinking skills, regarded as the top priority by employers (Hart Associates, 2013) including,



- Analysis and problem solving
- Writing Mechanics
- Writing Effectiveness
- Scientific and quantitative reasoning
- Critical reading and evaluation
- Claque and argument

These cognitive skills are independent from academic disciplines, teachable, enduring by which is meant they are the basic building blocks more specialized skills are connected to. They are thought to be particularly important skills in today's Knowledge Economy where one can Google for facts and hence the questions becomes can the student access, structure and use information not only remember the content and also are highly prized by faculty and college leaders who, like their K-12 counterparts are moving toward "deeper" learning in both K-12 and higher education (Benjamin, 2014).<sup>3</sup>

The reach of the CLA+ is as follows. It has been used in over 700 colleges and universities in the United States, many testing on an annual basis since 2004-05. It has been used in 12 countries around the world in approximately 125 colleges.

Figure 1

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<sup>3</sup> For evidence of reliability and validity see the following sources.. Klein and R. Benjamin The CLA+ at cae.org. See also the 90 studies of reliability and validity listed and analyzed in R. Benjamin et al., (2013), The Case for Critical Thinking Skills and Performance Assessment at cae.org. For important new validity evidence see R. Arum and J. Roksa, forthcoming, 2014 which shows that graduating seniors who do well on CLA+ get better jobs and are much more likely to be employed than those students who do poorly on CLA+.

Figure 1 indicates that 68%  
**Distribution of Senior CLA Scores**

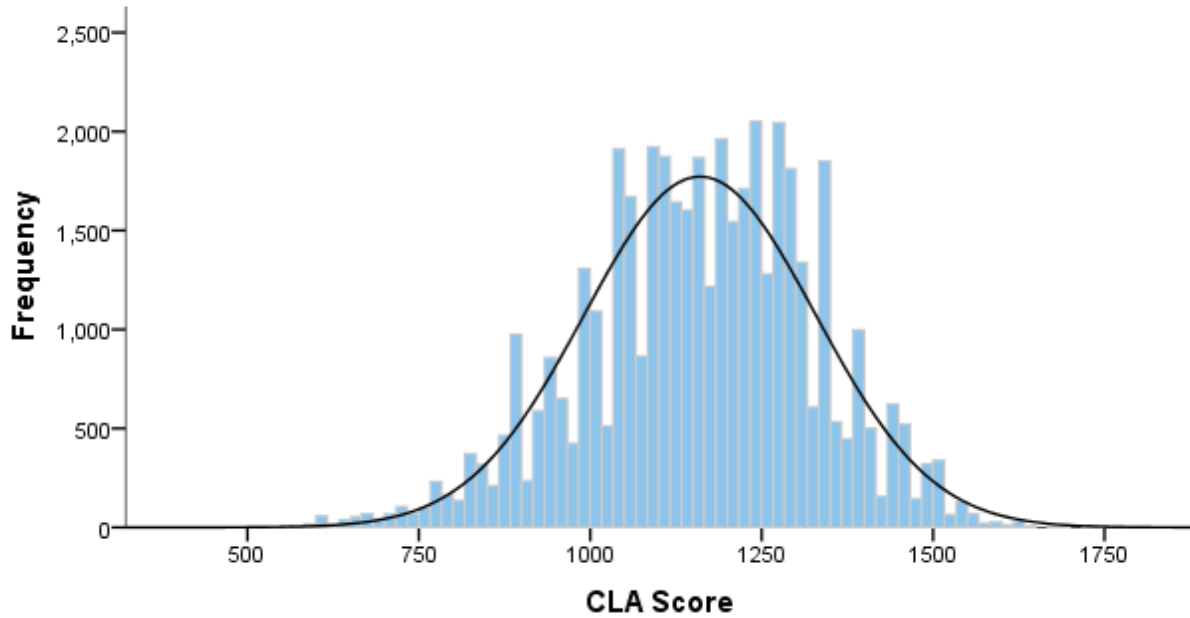


Figure 1 indicates that 68% of the students fall with 1 standard deviation of the mean score 1159. The question is how many of the students scoring in the top 10,25, and 50% are in selective versus non selective colleges (see Appendix C.

Table 1

## Proportion of Selective vs. Non-Selective Institutions

	Colleges & Universities		Student Enrollment	
	1980	2012	1980	2012
Selective	143 (5%)	143 (5%)	762,248 (12%)	940,771 (9%)
Non-Selective	3,014 (95%)	3,014 (95%)	5,584,841 (88%)	9,823,718 (91%)
ALL	3,157 (100%)	3,157 (100%)	6,347,089 (100%)	10,764,489 (100%)

Table 1 was constructed to set the context for our test of whether a market failure exists. Over the past 30 plus years the number of students in the 143 selective colleges has grown by 171,000. Over that same time period the number of students attending non selective colleges has grown by over 4, 200,000. The largest growth in four-year college attendance is in the non selective colleges.

Table 2

## Projected National CLA Performance

<i>Actual</i> CLA Performance	Exiting Seniors at CLA Institutions		
	Selective Institutions	Non-Selective Institutions	All Institutions
Top 10%	537 (33%)	3,961 (9%)	4,498 (10%)
Top 25%	986 (61%)	10,370 (24%)	11,356 (25%)
Top 50%	1,364 (84%)	21,276 (49%)	22,640 (50%)
ALL	1,627 (100%)	43,352 (100%)	44,979 (100%)

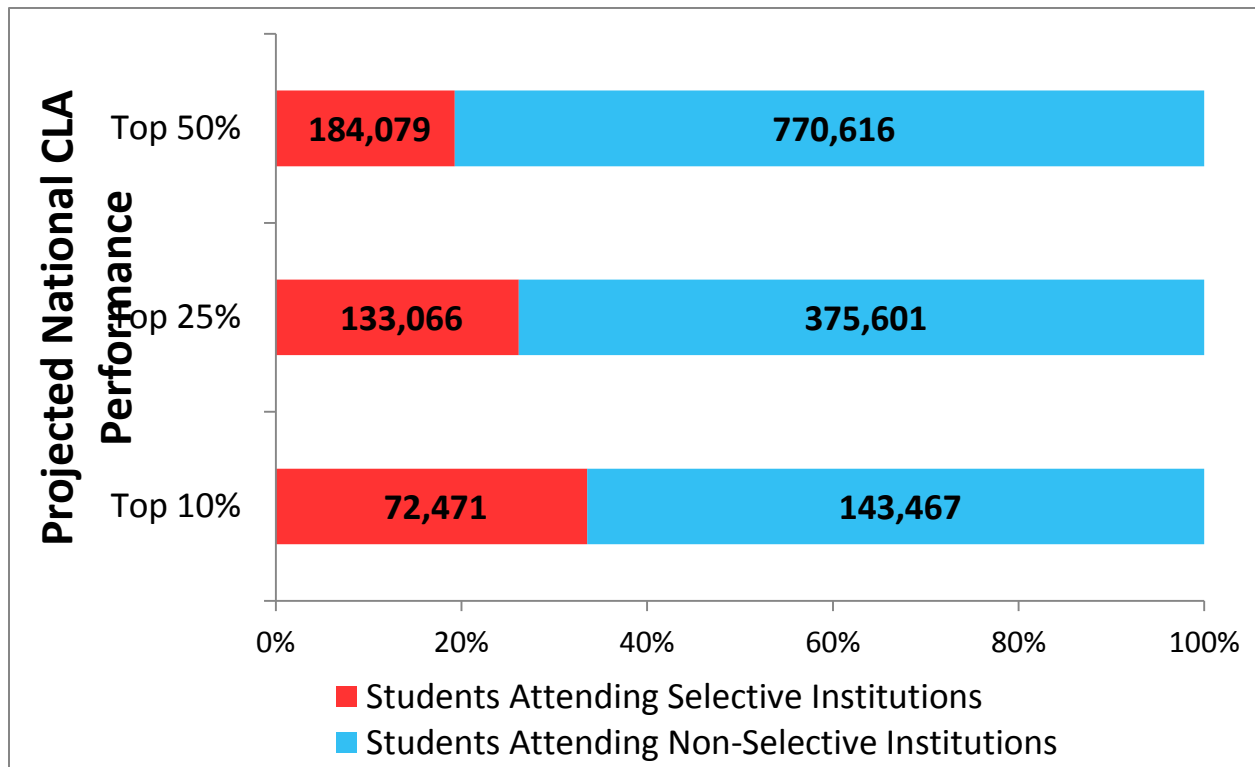
<i>Projected</i> CLA Performance	Projected Distributions of CLA Performance, Based on Number of Bachelor's Degree Recipients Nationally (2011-12)		
	Selective Institutions	Non-Selective Institutions	All Institutions
Top 10%	72,471 (33%)	143,467 (9%)	178,982 (10%)
Top 25%	133,066 (61%)	375,601 (24%)	451,872 (25%)
Top 50%	184,079 (84%)	770,616 (49%)	900,878 (50%)
ALL	219,572 (100%)	1,570,207 (100%)	1,789,779 (100%)

Using the percentages of students in the top 10, 25, and 50% of selective and non selective colleges taking CLA+, Table 2 shows that selective colleges produce a higher percentage (33%) of students in the top 10% than the non selective colleges (9%). However, there are significantly more high ability students graduating from non selective colleges at each cutoff point. These colleges have large percentages of low income (Pell Grant) and moderate income students from diverse backgrounds.

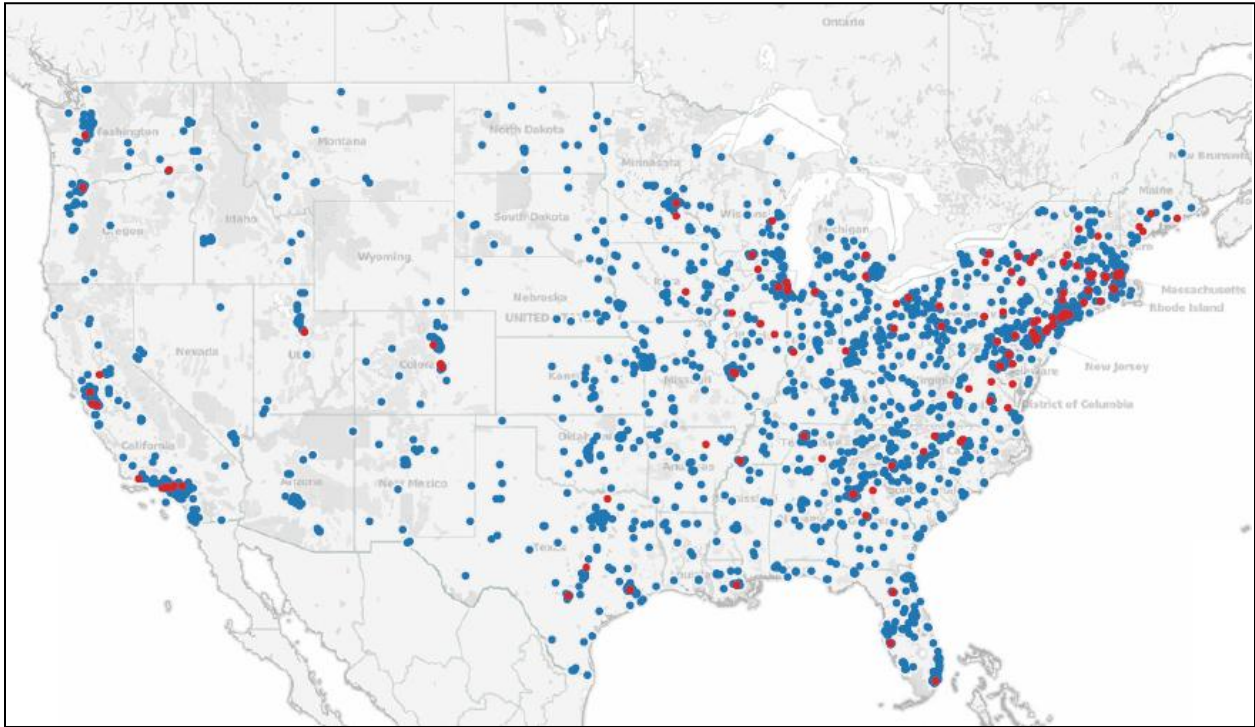
Graph 1 captures this finding. A significant market failure exists in the college to career space.

Graph 1

Projected National CLA Performance



### Geographic Distribution of Selective and Non Selective Colleges



- The Map shows that the selective colleges are isolated from most students in the United States. The 143 selective colleges, largely in the North East, for a positional good gatekeeper system that overly determines the life chances of all students across the country. We know most students attend college within commuting distance. The location of the selective colleges means there is a disconnect with large and growing ethnic/racial and income groups throughout the United States.

Table 3

Distribution of Student Race and Ethnicity, By Institutional Selectivity, 1980 and 2012

	All Institutions		1980		2012	
	1980	2012	Selective Institutions	Non-Selective Institutions	Selective Institutions	Non-Selective Institutions
Non-Hispanic White	81%	56%	86%	81%	58%	56%
Hispanic	5%	13%	3%	5%	9%	13%
Black or African American	9%	13%	5%	10%	5%	13%
Asian or Pacific Islander	2%	6%	4%	2%	13%	5%
Other	3%	13%	3%	3%	15%	12%

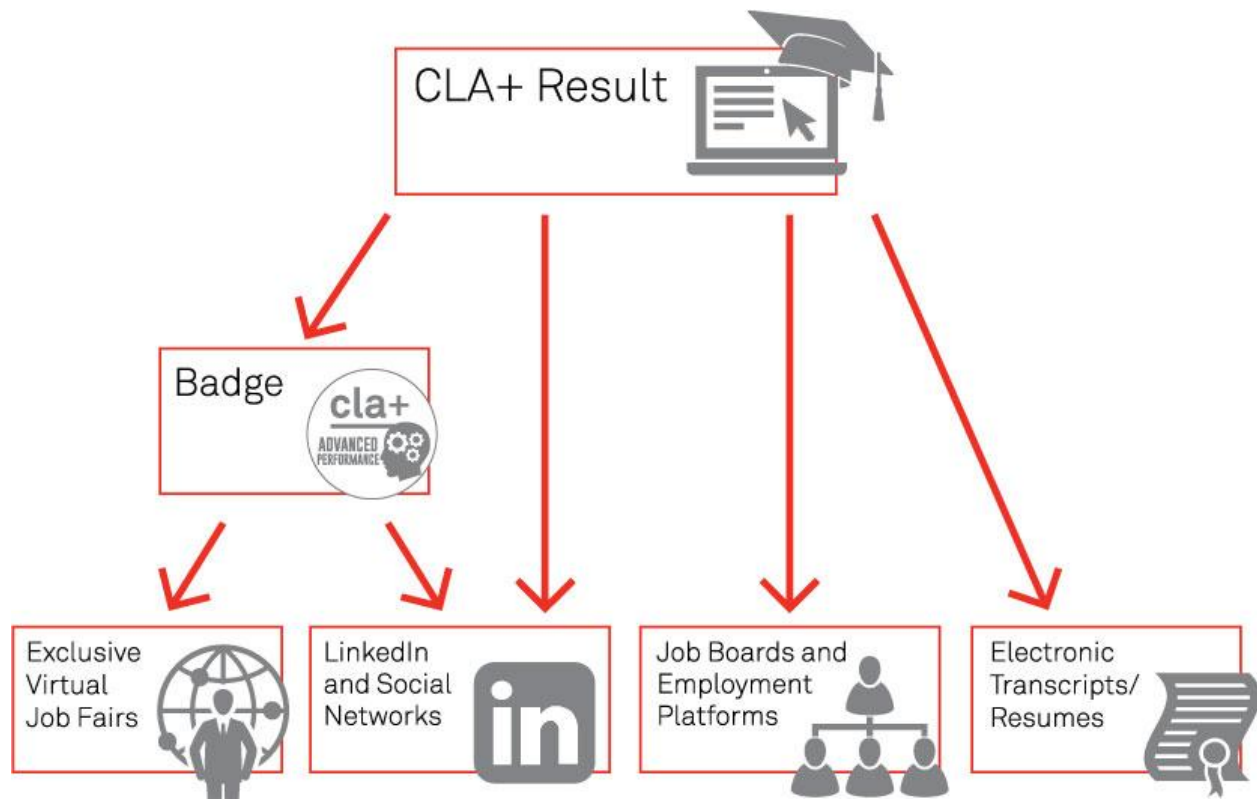
Table 3 is presented to provide further evidence of the market failure challenge. First, there has been a significant change in distribution of race and ethnicity by institutional selectivity from 1980 to 2012. The selective colleges are more diverse. The main point, however, is that the increasingly smaller proportion of total college enrollment made up by selective colleges reinforces the market failure thesis. The major growth of enrollment is in the non selective college group.

### Possible Solution

The goal is to develop and use tools that allow for demonstration of skills that are important for both employers and students. Make that information accessible to students and employers. At CAE we have developed one process that we are piloting to see if it reduces the market failure.

Each student receives a score report that indicates the level of mastery for skills measured by CLA+. Qualifying students (those with proficient or advanced mastery levels) may claim a certified badge through a secure vault hosted by Pro Exam. Students will be able to store their score reports with online transcript service providers and place their CLA+ scores on employment boards. Qualifying students (students with top scores) will be invited to a virtual career fair hosted by Brazen Careerist in May to meet with selected employers, In this first pilot virtual career fair employers who attend the virtual career fair will do so knowing that the students they meet possess the mastery level critical thinking skills they regard as requisites for an interview. Moreover, they will know that they will meet many students who do have the diverse backgrounds they are seeking in order to diversify their workforce. Both employers and students will save time and money through the virtual career fair meeting. Figure 4 illustrates the CLA+ Career Connect system.





All of the steps outlined above, made possible by the ability of graduating seniors to take CLA+, at their choice and, again, at their choice add the additional information from it to their transcript, secure a certified badge, send their results to respected jobs boards accessed by employers, and, if qualified attend a virtual career are practical steps that will extend the reach of CLA+ and, most importantly, improve the odds of high ability students in non selective colleges to obtain a good job and start a promising career.

### Benefits of A More Level Playing Field

When groups do not believe the playing field is level, they become discouraged and drop out---exert little or no effort. If enough students and their colleges and enough employers embrace this innovation, outlined here, , the market failure will be reduced Most economists agree that an open, transparent market brings greater benefits to buyers and sellers. Ways to reduce the “noise” between college and career should thus be encouraged. This would result in a better distribution of human capital.

## Conclusion

Olson's collective action model (1965) suggests why new innovations are needed to help create a more level playing field. We cannot expect stakeholders of the selective colleges to deal with the problem alone. New innovations are needed to reset the rules of the game students, employers, and colleges operate with.

The "tunnel effect" formulated by economists A. Hirschman and M Rothschild, suggests why a more level playing field for careers encourages both members of members of all ethnic/rational groups to compete/work hard. Imagine you are in the left hand line of two lanes of traffic held up in the Lincoln tunnel. Frustration builds. Finally, cars in the right hand lane begin to move. What are your emotions then? Hirschman posits that you are excited and now positive about the possibility that your lane of traffic is next to move. You see light at the end of the tunnel. However, what are your reactions when your lane does not move forward? You realize that while cars in lane 2 moved forward your lane is stuck. You are stuck. That is when great feelings of anger or despair set in.

The United States is only one example of the market failure. Based on countries that I have lived in, many countries exhibit significant disconnects between their higher education systems and employment. Because many countries may face similar market failures between college and career as outlined in this case study of the U. S., research programs should be formed to refute, corroborate the points I have made and create new evidence based findings on the topic across nations.

## Appendix A

See over 80 studies of reliability and validity listed and analyzed in R. Benjamin et al., (2013), *The Case for Critical Thinking Skills and Performance Assessment* at cae.org. Also see R. Arum and J. Roksa, forthcoming 2014 which shows that students who did well on the CLA have better jobs and much less unemployment 5 years after graduation than students who scored low on the CLA.

## Appendix B

### **Data Sources:**

National college data were obtained from the National Center for Education Statistics,

IPEDS website (<http://nces.ed.gov/ipeds/datacenter/>), and represent institutional enrollment, bachelor's degrees awarded, and race/ethnicity data for all four-year degree-granting institutions in the database for the years 1980 and 2012. Note that enrollment data are not available for all institutions; these data were reported for 1,826 institutions in 1980 and 2,806 institutions in 2012.

CLA performance data are from all U.S. four-year institutions that tested seniors in spring 2011, 2012, and 2013.

Selective institutions consist of those identified by Heller (2004). Note that three of the institutions in Heller's list—all part of Rutgers University—are considered a single institution by NCES, so the count of selective universities is smaller here (N=143 vs. N=146).

## Appendix C

### **Selective Colleges and Universities**

Amherst College, MA

Austin College, TX

Babson College, MA

Barnard College, NY

Bates College, ME  
Beloit College, WI  
Boston College, MA  
Boston University, MA  
Bowdoin College, ME  
Brandeis University, MA  
Brigham Young University-Provo, UT  
Brown University, RI  
Bryn Mawr College, PA  
Bucknell University, PA  
California Institute of Technology, CA  
Carleton College, MN  
Carnegie Mellon University, PA  
Case Western Reserve University, OH  
Claremont McKenna College, CA  
Colby College, ME  
Colgate University, NY  
College of the Atlantic, ME  
College of the Holy Cross, MA  
College of William and Mary, VA  
Colorado College, CO  
Colorado School of Mines, CO  
Columbia University in the City of New York, NY  
Connecticut College, CT  
Cooper Union for the Advancement of Science and Art, NY  
Cornell University, NY  
Dartmouth College, NH  
Davidson College, NC  
Drew University, NJ  
Duke University, NC  
Emory University, GA  
Franklin and Marshall College, PA  
Furman University, SC  
George Washington University, DC  
Georgetown University, DC  
Georgia Institute of Technology-Main Campus, GA  
Gettysburg College, PA  
Grinnell College, IA

Grove City College, PA  
Hamilton College, NY  
Hampshire College, MA  
Harvard University, MA  
Harvey Mudd College, CA  
Haverford College, PA  
Illinois Institute of Technology, IL  
Illinois Wesleyan University, IL  
Jewish Theological Seminary of America, NY  
Johns Hopkins University, MD  
Kenyon College, OH  
Kettering University, MI  
Knox College, IL  
Lafayette College, PA  
Lawrence University, WI  
Lehigh University, PA  
Loyola University Maryland, MD  
Lyon College, AR  
Macalester College, MN  
Massachusetts Institute of Technology, MA  
Miami University-Oxford, OH  
Middlebury College, VT  
Mount Holyoke College, MA  
New College of Florida, FL  
New York University, NY  
Northwestern University, IL  
Oberlin College, OH  
Pennsylvania State University-Main Campus, PA  
Pepperdine University, CA  
Pitzer College, CA  
Pomona College, CA  
Princeton University, NJ  
Providence College, RI  
Reed College, OR  
Rhodes College, TN  
Rice University, TX  
Rose-Hulman Institute of Technology, IN  
Rutgers University-New Brunswick, NJ

Saint Louis University-Main Campus, MO  
Santa Clara University, CA  
Sarah Lawrence College , NY  
Scripps College, CA  
Sewanee-The University of the South, TN  
Skidmore College, NY  
Smith College, MA  
Southwestern University, TX  
St Mary's College of Maryland, MD  
St Olaf College, MN  
Stanford University, CA  
Stevens Institute of Technology, NJ  
SUNY at Binghamton, NY  
SUNY College at Geneseo, NY  
SUNY College of Environmental Science and Forestry, NY  
Swarthmore College, PA  
Syracuse University, NY  
The College of New Jersey, NJ  
Trinity College, CT  
Trinity University, TX  
Tufts University, MA  
Tulane University of Louisiana, LA  
Union College, NY  
United States Air Force Academy, CO  
United States Coast Guard Academy, CT  
United States Merchant Marine Academy, NY  
United States Military Academy, NY  
United States Naval Academy, MD  
University of California-Berkeley, CA  
University of California-Davis, CA  
University of California-Los Angeles, CA  
University of California-Santa Barbara, CA  
University of Chicago, IL  
University of Florida, FL  
University of Georgia, GA  
University of Illinois at Urbana-Champaign, IL  
University of Mary Washington, VA  
University of Miami, FL

University of Michigan-Ann Arbor, MI  
University of North Carolina at Chapel Hill, NC  
University of Notre Dame, IN  
University of Pennsylvania, PA  
University of Puget Sound, WA  
University of Richmond, VA  
University of Rochester, NY  
University of Southern California, CA  
University of Virginia-Main Campus, VA  
University of Wisconsin-Madison, WI  
Ursinus College, PA  
Vanderbilt University, TN  
Vassar College, NY  
Villanova University, PA  
Wake Forest University, NC  
Washington and Lee University, VA  
Washington University in St Louis, MO  
Webb Institute, NY  
Wellesley College, MA  
Wesleyan College, GA  
Wheaton College, IL  
Whitman College, WA  
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