



## Linking Admission Strategies to Student Retention

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**Abstract – Many campuses either bracket off admission from their retention efforts, focusing on “playing the hand you are dealt,” or they focus simplistically on becoming more selective in admission via higher test scores. An enrollment management perspective embraces the admission process as a lever in improving retention and completion outcomes while also improving diversity and access. Three approaches will be presented: (1) The use of non-cognitive variables in college admission challenges prevailing assumptions and recognizes student strengths that predict retention better than traditional admission criteria. (2) A rigorous high school curriculum is the best preparation for success in college; for example, Chicago’s experiment with the International Baccalaureate Programme in non-selective urban schools has improved college access and attainment. (3) Test-optional policies minimize the importance of standardized tests while elevating the importance of prior academic success in the admission review. Each of these three approaches can influence retention and degree completion without relying on traditional measures of admission selectivity.**

### Introduction

A retention strategy that considers incoming student profile proactively embraces the admission process as a powerful lever in improving retention and completion rates. Some campuses bracket off admission from their retention review, essentially focusing on improving the outcomes of the current student profile, or “play the hand you’re dealt.” Other campuses struggle with battling a typical faculty refrain of “if we had better students, we’d have better graduation rates.” But a profile-oriented retention strategy recognizes that the overall student profile can be shaped by changes in admission policies or priorities—within the current market position of the institution. In higher education, the goals of improved student access and quality may be in tension with each other; improvements in quality often mean increased selectivity and reduced access. However, the student profile can be oriented toward success, defined by retention and graduation, through approaches that do not incent the institution to trade access for selectivity.

“Much of the difference between institutions in their degree completion rates is attributable to differences in the characteristics and profiles of the enrolled students” (DeAngelo, Franke, Hurtado, Pryor & Tran, 2011, p.30). High retention and graduation rates found at many private and more selective institutions are a reflection of the strength and preparedness of the students enrolled, not necessarily a reflection of what the institution does with these talented students. In addition, researchers at the Higher Education Research Institute (HERI) at UCLA find that in the last decade, the largest gains in graduation rates have been among students with SAT scores of 1300 or more; however, colleges are not doing nearly as well with students who begin college with lower academic preparation (DeAngelo et al., 2011).

This leaves institutions in an apparent strategic bind: improving graduation rates would appear to require that the average academic profile of the enrolled undergraduates—as measured by test scores, for example—must also improve. Many university stakeholders push for increased selectivity measures to improve the “academic standing” or prestige of the institution. This pursuit of selectivity is fueled by a rankings industry that circuitously equates test scores with institutional quality. So great is the perceived



value of moving up in the rankings that institutions change their behavior, their values and even their data to play the selectivity and rankings game.

To counter these trends, three approaches will be discussed that reduce the conflict between selectivity and access, and go beyond current assumptions that dominate selective college admission.

1. The use of non-cognitive variables in college admission challenges prevailing assumptions and recognizes student strengths that predict retention better than traditional admission criteria.
2. A rigorous high school curriculum is the best predictor of college success. Chicago's experiment with International Baccalaureate (IB) programs in non-selective urban schools has improved college access and attainment.
3. Test-optional policies minimize the importance of standardized tests while elevating the importance of prior academic success in the admission review.

### Non-Cognitive Variables

Admission, the process by which students sort into a range of postsecondary institutions based on mutual decisions about needs, scarcity and reward, is often described as a combination of art and science. The science portion has perhaps been overly portrayed by the growing emphasis on and frenzy around college entrance tests (i.e., ACT and SAT)—a perspective that is fueled by a testing industry grossing over \$4 billion annually (Soares, 2012). However, beneath a veneer of presumed precision, seasoned admission professionals readily acknowledge that predicting which students will be retained and graduate is less precise, less rational and more fraught with difficulty than commonly imagined. However, various innovations in the field can contribute to robust strategies that integrate what we do know about characteristics of entering students that help predict retention and degree completion.

Moving away from the “science” of admission, common sense and observations of students in many educational contexts reveals that so-called “non-cognitive” student attributes are demonstrably important in accounting for student success. Students stand out who work harder, are intrinsically motivated or curious, or persevere through challenges within the individual family setting, or within the context of larger structural settings of poorly-resourced schools, high-crime neighborhoods, or ethnic communities kept to the margin by language or economic barriers. A non-cognitive approach to admission recognizes the strong and longitudinal impact of these socio-demographic factors, and seeks to understand how students manage and rise above these contexts. A profile-oriented approach to retention seeks out students with particular non-cognitive strengths.

Dr. William Sedlacek, professor emeritus at the University of Maryland, has conducted decades of research on non-cognitive variables relating to adjustment, motivation and perceptions that point to student success in college; these variables are separate from cognitive verbal and quantitative skills measured by standardized tests. Sedlecek's research includes eight non-cognitive dimensions that predict student success in college: positive self-concept; realistic self-appraisal; successfully working within a system; preference for long-term goals; availability of a strong support person; leadership experience; community involvement; and knowledge acquired in a field (Sedlecek, 2004).

Sedlacek's research and experiences from colleges that have integrated his model of non-cognitive assessment into admission decision-making points to a likely increase of both diversity and retention. Since employing non-cognitive variables, collected through essays in the admission process, Oregon State University has reported higher retention rates and has developed new courses and services for students based on non-cognitive information collected.

The university has found that for every one point increase on an applicant's Insight Resume score, the odds of that student's staying in college increases by 10 percent. The enrollment of disadvantaged students has increased under the new admissions system, as has academic performance of the entire campus—the result of a more motivated, more directed study body than what Oregon State got under the old paradigm.<sup>1</sup>

<sup>1</sup> <http://oregonstate.edu/admissions/blog/2008/10/05/the-times-they-are-a-changin/>



These non-cognitive criteria are also used by The Bill and Melinda Gates Foundation in selecting recipients of the prestigious Gates Millennium Scholarships that fully fund college for talented students. Gates programs for high school students, like the Washington State Achievers Program, have reported positive outcomes with students selected through non-cognitive variables: higher academic and community engagement, and greater aspirations for and persistence toward a four-year degree (Sedlecek, 2006). A Gates annual report in 2011 reveals that Millennium Scholars posted a 96 percent retention rate, 79 percent five-year graduation rate and 90 percent six-year graduation rate—double the national rate for students in similar population groups (Gates Millennium Scholars Program, 2011).

Sedlacek maintains that non-cognitive assessments, such as carefully crafted essays, are useful for all students, but in particular these tools are critical for students from disadvantaged backgrounds because traditional academic measures may not provide a full picture of a student's potential. Research at a large Midwest public university revealed that HSGPA is the strongest cognitive predictor of first-semester grades for students with lower incoming academic preparation, and that two non-cognitive traits are the next strongest predictors (Adebayo, 2008). The conclusion from this study was that “admission counselors cannot rely exclusively on cognitive variables for predicting academic success for at-risk students” (Adebayo, 2008, p. 21).

In another example, Tufts University, a highly selective institution, has included the “Kaleidoscope” system of evaluating applicants that involves essays and other performances and products that allow the “student voice” to come through. Tufts essay questions are based on a broader theory of intelligence that indicates abilities to succeed in life, espoused by Dr. Robert Sternberg, another prominent researcher of non-cognitive indicators. (Sternberg was the dean of arts and sciences at Tufts and is now the provost of Oklahoma State University.) The optional questions in Kaleidoscope are designed to measure creative, analytical, practical and wisdom-based skills and attitudes. Sternberg's book, *College Admissions for the 21<sup>st</sup> Century* (2010) reviews the five-year experiment at Tufts and provides evidence that traditional college admission tools, such as standardized tests, are incomplete. The Kaleidoscope options allowed students to showcase their unique strengths in creative ways; stronger and more diverse students applied and many communicated to Tufts that they appreciated the chance to show a side of themselves that would not usually be revealed in an application. Students who were rated for Kaleidoscope performed better in their freshman year grades, holding HSGPA and SAT scores constant, and also had greater leadership and co-curricular engagement. The essays provided additional predictive information to admissions officers.

Additional research from across the country is pointing to other non-cognitive indicators of student success. Factors apparent in the intentionality of the student's college search process have an impact on degree completion—whether a student visits campus or applies for early action/decision are positive indicators of graduation (DeAngelo et al., 2011). In addition, students' self-estimates of frequency of research conducted in high school, hours spent studying in senior year, and self-reported emotional health and drive to achieve are among additional predictors of degree attainment (DeAngelo et al., 2011). Emerging research shows the strength of family support as predictive of attainment. Frequent conversations between parents and children about education/goals reduce the odds that a young person will fall short of his or her parents' college education—a phenomenon of “downward mobility” seen in one-quarter of current youths. The presence of two parents in the home also has a major effect on students' college attendance. (Dayton, 2012)

So, if it increasingly clear that students have a range of traits that will help them persevere and be successful in college, how might the admission process systematically look for students with specific non-cognitive strengths, such as working within a system, long-term goal setting and leadership? DePaul University has piloted the use of essays designed to reveal evidence of the eight non-cognitive traits researched by Sedlecek (referenced above). The overarching goal is to improve retention and degree completion outcomes by admitting students who demonstrate qualities and characteristics known to be predictive of student success in college, especially among historically underrepresented groups.



For the fall 2009 class, DePaul's admission application included four new essay questions (referred to internally as DIAMOND essays) that required short answers. Appropriate responses to these questions could be as short as 100 words, but students often wrote more.

Two sample DIAMOND essay questions are:

1. Describe a goal you have set for yourself and how you plan to accomplish it. How would you compare your educational interests and goals with other students in your high school?
2. Describe a personal challenge you have faced, or a situation in which you or others were treated unfairly. How did you react to the situation and what conclusions did you draw from the experience? Were you able to turn to others for support?

Essay responses are assessed by readers who rate the extent to which the applicant's responses provided evidence of each of the eight non-cognitive variables. Readers may access essay responses through a secure online portal, without viewing any identifying information about the student. Each set of essays is read by at least two readers and when their assessments differ, a third reader is called for review. A significant component of DIAMOND implementation was enlisting the help of 80 volunteer essay readers from across the DePaul community who are trained to assess the essays.

Several preliminary rounds of data analyses have been completed on these non-cognitive essays. First, we find that ratings of the essays bring additional information into the admission review that is not statistically related to applicants' socioeconomic and racial/ethnic background. This was an important first-condition for continuing the program. DePaul was seeking an admission innovation that doesn't give further advantage to the advantaged, and does indeed provide a means of assessing likelihood of success in ways that "level the playing field."

The second phase of the research focused on the relationship of the individual DIAMOND ratings and students' early success at DePaul. At DePaul, first-year success is defined as earning a 2.5 GPA or higher and earning 48 credits during the first year (on a quarter system). These benchmarks are highly predictive of retention and graduation at DePaul, regardless of enrolled students' incoming preparation; these criteria represent a higher academic threshold than predicting first-year grades alone. At DePaul, first- to second-year retention is quite high for most groups of students, consistently over 80 percent. The simple measure of whether a student returns in year two does not tell us much about progress toward degree and eventual graduation. Therefore, we concentrate on the more robust measure of "first-year success" that incorporates grades and credits earned. Following on the criteria for first-year success, DePaul institutional researchers created criteria for "second-year success," defined as earning at least a 2.5 cumulative GPA and 96 credits (on a quarter system). We believe that modeling on criteria that include satisfactory grades and credits earned is much more instructive than simply looking at whether students return from year to year.

It should be noted that in all prior models on various success criteria, high school grade point average (HSGPA) is the most significant predictor—for first-year grades, credits earned, retention and for second-year outcomes. ACT scores add very little incremental information in addition to HSGPA.

Since DePaul has implemented a test-optional pilot program, recent DIAMOND analyses have been conducted without including ACT/SAT scores in the model. The analyses have looked at the predictive information gained from the eight individual DIAMOND scores, as well as from the total DIAMOND score. For students who may choose not to submit an ACT/SAT test score, analyses show that HSGPA and the individual DIAMOND "leadership experience" score are significant predictors for first-year GPA, first-year credits earned, first-year success, first- to second-year retention, second- to third-year retention and second-year academic success. Total DIAMOND scores are predictive for first-year GPA, first-year retention, second-year retention and second-year academic success, although the strength of prediction for total DIAMOND scores is lower than that of the individual "leadership experience" score and HSGPA.

Another individual DIAMOND variable, "knowledge acquired in a field," contributes to the prediction of first-year success and second-year success; although HSGPA remains the strongest predictor for these outcomes.



For students likely to be test-optional, those applicants with HSGPA > 3.0 and ACT ≤19 (a small group), the DIAMOND variable of “successfully working within a system” is suggestive for first-year success and “knowledge acquired in a field” is suggestive for second-year success. To summarize:

- Preliminary results show that DIAMOND variables are predictive of first-year success at DePaul—in GPA, credit hours earned, academic progress and retention.
- Preliminary results show that DIAMOND variables are predictive of second-year retention and second-year success.
- For students who perform well in high school, but receive low ACT scores, DIAMOND variables are suggestive of first-year success and second-year success. These might be students who would choose a test-optional route to admission at DePaul.

We will need more time and research on current cohorts of students to evaluate how these non-cognitive variables collectively relate to four-year and six-year graduation outcomes. However, DePaul’s and other colleges’ use of essays show that non-cognitive traits can be systematically assessed and considered in a profile-oriented retention strategy that simultaneously improves diversity and retention.

### **International Baccalaureate Programme**

Encouraging the development of and students’ participation in academically challenging high school curricula is another admissions-oriented retention strategy. The International Baccalaureate (IB) curriculum was developed in Switzerland in 1968 as a college preparatory program for the children of diplomats. The curriculum, which includes philosophy, foreign language and four years of math and science, is taught in more than 2,300 IB high schools worldwide. The program’s international focus is meant to promote “intercultural understanding and respect,” according to the International Baccalaureate Organization. The workload in IB programs is significant and teachers have high expectations for student projects, especially written work. IB student assignments and exams are sent to other countries to be graded, reflecting international quality standards.

Following the success of the IB program at one public high school in a wealthy district, the Chicago Public School system (CPS) established IB programs in 13 neighborhood high schools in 1997. The widely-held assumption in the 1990s was that the IB program was a ticket to elite universities but was too challenging for students in low-performing schools or poor neighborhoods. In Chicago public high schools there are large gaps in college access and attainment between students from a handful of “selective” high schools and those from the large number of open-enrollment “neighborhood” high schools. The Chicago IB strategy in neighborhood schools was therefore a bold one. It also provided a counter example to the dominant narrative of school reform by focusing attention on the classroom, the curriculum and the relationship between teachers and students (Spittle, 2012). DePaul University was one of the first colleges to grasp the importance of establishing IB programs in CPS neighborhood schools. As a private, selective university with a mission-based commitment to student access, the IB initiative fit very well with DePaul’s enrollment priorities in Chicago, particularly in the neighborhood schools.

Over the past decade, DePaul’s Center for Access and Attainment within the Division of Enrollment Management and Marketing has developed a close partnership with the CPS IB programs and enrolls a significant number of IB students from CPS schools. About one-third of all CPS IB seniors apply to DePaul and their ‘admit rate’ is high. Most (over 80 percent) are from low-income and first-generation college families; a majority are Hispanic. CPS IB applicants tend to reflect the diversity of students in the schools and communities from which they are drawn.

Enrolled IB students at DePaul have higher high school GPAs than students from CPS selective high schools but lower standardized test scores. About one in ten of all CPS IB graduates enroll at DePaul and 90 percent of CPS IB students at DePaul come from the non-selective neighborhood schools. In recent years DePaul has expanded CPS IB enrollment from 10 students in 2001, to 30 CPS IB students in 2009, and 50 CPS IB students are expected to enroll in fall 2012.



The Chicago Consortium for School Research (CCSR) at the University of Chicago conducts research on public school students in Chicago. Their influential reports are closely monitored by the education community and political decision-makers. Previous CCSR research found that CPS students tend to not effectively participate in the college application process, and even among the most highly qualified students in CPS only 38 percent enroll in a college that matches their credentials (Roderick, Nagaoka, Coca, & Moeller, 2008). A second report found that IB students seem to be making dramatic gains in high school, but these gains were not translating into matched college enrollment. IB students are more likely to come from poorer families and communities and still face distinctive challenges in navigating the road to college (Roderick, Nagaoka, Coca, & Moeller, 2009). Messaging to CPS IB students has since been focused on the importance of attendance at selective four-year colleges. Groundbreaking new research demonstrates tangible positive effects of IB programs; the CCSR finds that CPS IB students are 40 percent more likely to attend a four-year college and 50 percent more likely to attend a selective college. IB students are significantly more likely to persist for two years in college. IB students report feeling prepared to succeed and indeed do excel in their college coursework. Although, some of these students have limited access to the social capital necessary to successfully navigate college course selection and establish relationships with faculty (Coca et al., 2012). CCSR finds that IB students are academically well-prepared, particularly in analytical skills and writing, though less so in mathematics. IB students exhibit strong “non-cognitive” skills such as organization, help-seeking and motivation.

At DePaul University, IB students perform well in first-year courses, particularly those requiring extensive writing. They perform less well in initial mathematics and lab sciences coursework, but this does not seem to adversely affect their long-term academic success. IB students report that they were accustomed to high levels of academic challenge and support in high school and that their strong study habits are a key reason for their success at DePaul. While IB freshmen at DePaul appear not to be as “engaged” on campus as other students during their first year, this seems to be because of their high levels of individual confidence and already existing peer support networks with other CPS IB students at DePaul. IB students appear adept at navigating institutional resources and report high levels of satisfaction with advising and faculty (Spittle, 2012).

Strong performance at DePaul demonstrates that these students are well prepared for college. IB students at DePaul have higher retention and graduation rates than other CPS graduates and DePaul freshmen as a whole. IB students are retained at a rate of over 90 percent for the last several cohorts, and graduate in six years at a rate over 70 percent. There is also a mounting body of evidence, both quantitative and observational, that they are using their IB education well and taking full advantage of other academic opportunities at the university.

Carnevale & Strohl (2010) and others have drawn attention to a segment of the student population—“strivers”—who are highly motivated and perform well, but whose test scores understate their potential. Such students tend to be under-represented in selective high schools and colleges given the disproportionate reliance on test scores in high school and college admission. The CPS IB program may be serving as an effective college pathway for the “striver” population in Chicago neighborhood schools.

Many CPS IB students at DePaul do not have the full IB Diploma, though they typically missed it by only a point or two. Most have, however, completed the Diploma *program* (i.e., Certificate students). While there is a relationship between the points students earn in their IB exams and academic performance at DePaul, Diploma students have only a slightly better GPA than Certificate students at the end of their first year at the university (3.0 to 2.8). Certificate students seem to graduate at about the same rate as Diploma students. “The importance of the Diploma in explaining academic performance and other outcomes at DePaul needs to be explored further but initial data (quantitative and qualitative) seems to indicate that *in the CPS context, at least, it is the program rather than the credential that is driving student success*” (Spittle, 2012). The strategic importance of IB in Chicago is that it stands at the very intersection of access and quality.



## Test-optional Policies

Standardized tests are a barrier to many students' college aspirations and access. Standardized tests are also part and parcel of a growing and influential industry in the education landscape, fueled by intense market competition, rankings and calls for accountability—and make no mistake, tests are big business. Despite the push of the powerful marketing juggernaut that supports ACT and SAT testing, and the strength of pervasive public perceptions of college entrance tests, colleges and universities increasingly are recognizing that one of the presumed measures of students' academic readiness for college – their scores on standardized college admission exams—fail to account for much variance in students' likelihood of graduating (Geiser & Santelices, 2007; Carnevale & Strohl, 2010). On a student-by-student basis, ACT and SAT scores add very little to the prediction of student success after accounting for prior academic success in high school (Geiser & Santelices, 2007; Carnevale & Strohl, 2010).

Numerous research studies have concluded that while ACT or SAT test scores are good predictors of first-year college grades, standardized test scores alone are less predictive than the HSGPA (Zwick, 2007; Kobrin, Patterson, Shaw, Mattern, & Barbuti, 2008; Camera & Echternacht, 2000). In *Crossing the Finish Line*, the authors reveal that HSGPA is the best predictor of graduation, regardless of the quality of the high school (Bowen, Chingos & McPherson, 2009). Scholarly researchers have also known for quite some time that standardized test results have differential validity for various groups of students; the college entrance exams (SAT and ACT) overpredict college success (defined as first-year grades by the testing companies) for some groups of students and underpredict college success for other groups of students (Zwick, 2007; Kobrin et al., 2008; Bowen & Bok, 1998). For example, ACT/SAT scores underpredict first-year grades for females and overpredict first-year grades for males (Zwick, 2007; Camera & Echternacht, 2000).

The highly anticipated *Report of the Commission on the Use of Standardized Tests in Undergraduate Admission*, released in 2008 from the National Association for College Admission Counseling (NACAC), acknowledged previous findings of differential validity and this conclusion has not been refuted by testing agencies. The NACAC Commission strongly recommended that colleges reconsider the use of standardized testing in their admission practices in the context of their own institutional missions and goals, primarily because at many institutions, test scores add little to understanding the likelihood of student success, especially beyond the student's first year.

Several prominent institutions have since reported on their initial validity tests. When Johns Hopkins University looked at their data they found that HSGPA was the best predictor of first-year college GPA and of fourth-year college GPA. SAT scores only increased explained variance by 2 points, from 18 percent to 20 percent for first year grades, and from 19 percent to 21 percent for fourth year grades (Soares, 2012). (Johns Hopkins found slightly higher predictive value for students coming into a particular major; thus, the institution will still require ACT/SAT but these scores will be viewed in a different light as a result of the validity studies.) The University of South Florida also found that HSGPA is the best predictor of first-year GPA and hours earned, and of a combination of the two—academic progress that leads to retention and degree completion. In addition, other curricular factors were also more predictive than ACT/SAT; for example, taking an AP course or receiving AP credits; total STEM units in high school; total language units; and dual enrollment credits. All of these were stronger predictor variables than ACT/SAT at South Florida, and when used in admission selection resulted in improved diversity and overall retention (Spatig, 2011).

The NACAC report (2008) also highlighted how colleges' overemphasis on test scores adversely affects secondary school education. "Due to lack of alignment with K-12 subject matter, preparation for standardized admission tests in the high school classroom detracts from the most important element of a student's college preparation—understanding core subject matter" (p. 27). This conclusion was echoed in a 2008 Consortium for Chicago School Research report on ACT preparation in Chicago Public Schools, which found that students were not making gains in test scores and too much valuable time was taken away from disciplinary learning in the junior year (Allensworth, Correa, & Ponisiak, 2008).



Last-minute test preparation in schools cannot make up for years of below-average core learning in poorly-resourced K-12 settings or for disadvantages inherent in low-income households and neighborhoods. Rather than functioning as an objective reflection of core learning, standardized tests may actually be capturing the stock of capital acquired by students throughout their lives.

The NACAC Commission is concerned that test scores appear to calcify difference based on class, race/ethnicity and parental educational attainment. To come to some resolution, the Commission agrees that without confusing correlation with causation, admission offices must remain aware that test score differences persist among already underserved populations. Part of the public mission of colleges and universities is to ensure that differences that are not attributable to a student's ability to succeed academically at an institution are mitigated in the admission process (NACAC, 2008, p. 42).

Carnevale & Strohl (2010) also assert that standardized tests are used well beyond their predictive validity:

... It seems clear that ability to benefit from high-quality postsecondary programs as measured by the SAT and ACT is highly correlated with racial, ethnic, and socioeconomic disparities. As such, these traditional metrics are—at least in part—mechanisms for legitimizing illegitimate differences in opportunities to learn that begin long before the nation's youth take college entrance exams (p. 95).

Robert Sternberg, provost of Oklahoma State University, writes often about the perceived and actual value of standardized tests, which has changed from the days when students from a small socioeconomic band were the only ones taking these exams. He cautions, “as the testing population broadened, test scores more and more reflected differences in opportunity — socialization in the home, school quality, and willingness and ability of parents to invest in the education of their children” (Sternberg, 2011).

Bates College (a more-selective small college in Maine) created a ripple effect on the higher education landscape when they released their twenty-year longitudinal data in 2004. Bates College, test-optional since 1984, found that there was no difference in academic performance and graduation rates for students who had submitted test scores compared to students who had not, even though SAT test scores of non-submitters were on average 160 points lower.<sup>2</sup> The Bates data supported the subsequent movement by many selective liberal arts colleges to adopt test-optional policies. Today, 36 of the top 100 liberal arts colleges are test-optional. Since 2005, institutions of various types and sizes have altered their admission policies to provide test-optional routes for admission, many choosing a distinctive admission process that reflects their internal values and research.

Adopters of test-optional admission report that their applicants become more diverse in racial, ethnic and socioeconomic composition and in the range of expressed interests of study. In addition, recent adopters of test-optional policies have enrolled classes with significant increases in ethnic minority, Pell-eligible and first-generation students (Epstein, 2009; Shanley, 2007). Hispanic students, in particular, have responded to test-optional admission in large numbers. Early results from Worcester Polytechnic Institute, Mount Holyoke, Pitzer College and Wake Forest University show that students who did not submit test scores perform as well or better in terms of grades, retention and degree attainment. Contrary to popular misconceptions, these colleges have gained ground in terms of student quality.

Recent data presented by Providence College and Dickinson College reveal that a test-optional policy has been a win-win scenario for these institutions. Both colleges report a significant increase in students of color and evidence of applications from a wider pool of students. Providence College enrolled more first-generation and Pell-eligible students; students who did not submit test scores had slightly lower first-year retention than students who submitted scores (90.1 percent compared with 91.3 percent for classes of 2011-2014) but non-submitters had slightly higher four-year graduation rates than students who submitted scores (83.7 percent compared with 82 percent) (Lydon, 2012). These outcomes are noteworthy since non-submitters represent 35-40 percent of enrolled students at Providence. At Dickinson, data from 2008-

<sup>2</sup> Bates data: <http://www.bates.edu/ip-optional-testing-20years.xml>

2010 show that there is a difference in first-year college GPA between submitters and non-submitters (.3 higher for submitters); however, first-year retention is slightly higher for non-submitters (89 percent compared with 87 percent). Again, these outcomes are important since the average composite ACT scores of non-submitters are 5 to 6 points lower for the last several years (29 average for submitters versus 24 for non-submitters in 2011); significant differences in scores are not translating into significant differences in academic success and retention (Balmer, 2012). Both colleges report that they are stronger institutions as a result of test-optional admission.

DePaul University, prior to becoming the largest private university to implement a test-optional program, conducted validity studies with an eye to retention and degree completion, rather than just first-year grades. DePaul found that ACT and SAT scores are even less valuable at predicting the critical combination of grades *and academic progress*, the critical drivers of degree completion, with test scores uniquely contributing between 1 and 2 percent of explained variance of first-year success (see green triangle in figure 1). HSGPA is the best predictor by far of first-year success, although the model below demonstrates how little variance is explained (20 percent) by traditional admission measures of HSGPA, test scores and high school quality index<sup>3</sup>. DePaul will welcome the first group of test-optional students in fall 2012 (around 120 students); so far, it can be reported that enrolling non-submitters have higher HSGPAs than submitters and higher yield, indicating early affinity for the university that may translate into better retention outcomes.

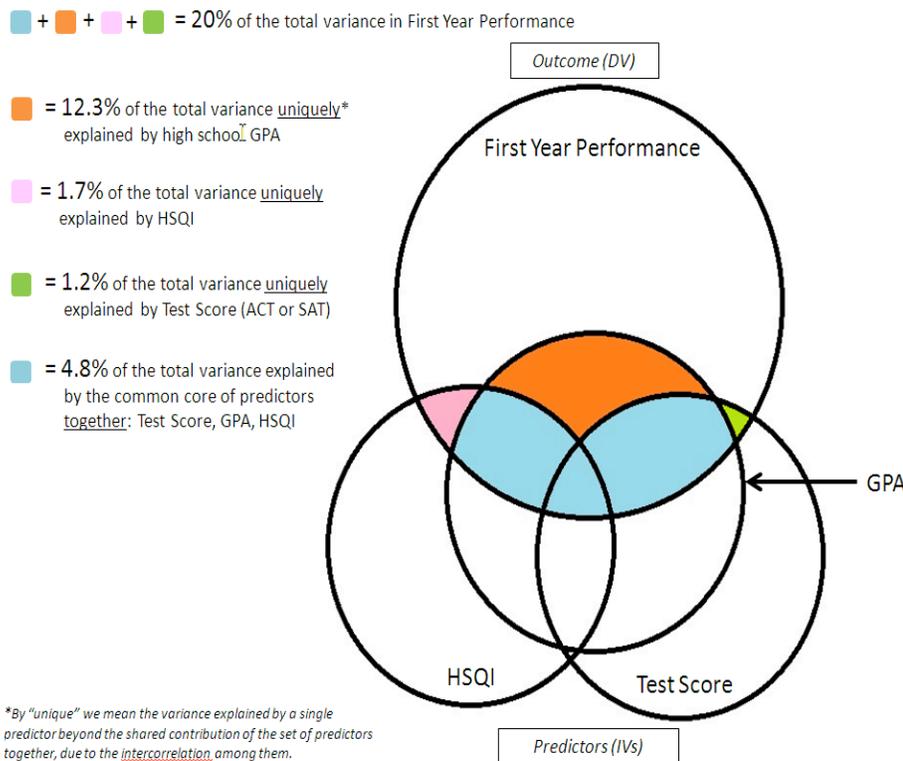


Figure 1. Predicting first-year performance with HSGPA, test score and high school quality index

It should be noted that standardized testing for college admission was originally introduced to address inequities in the quality of high schools. However, test creators did not predict that scores would correlate so highly with socioeconomic characteristics, such as family income and parental educational attainment. Recent research by William Bowen et al. (2009) concludes that “putting heavy emphasis on [tests] has the

<sup>3</sup> High School Quality Index (HSQI) includes weighted composite of average per-pupil expenditure, percent of students enrolled in college, percent of students taking AP tests, and average test scores from PLAN, ACT and SAT.



(no doubt unintended) effect of giving an admissions boost to children from high-socioeconomic status families with little commensurate gain in expected educational attainment” (p. 127). The high system-wide costs of ACT/SAT may not be worth the small benefit most colleges gain from the scores.

A 2011 survey conducted by Inside Higher Ed revealed that 40 percent of admission directors at four-year institutions are expanding the use of nontraditional factors in making admission decisions and 28 percent of admission directors reported a reduction in the weight of standardized tests among factors for admission (Jasick, 2011). The system of admission is responding to changing demographics that incent institutions to look for broader indications of student success.

## Conclusion

Retention and graduation rates in American colleges and universities are somewhat static; inertia is created by existing rates that are tied to institutional selectivity and market position. Rankings and prestige-based perceptions contribute to the fact that highly selective colleges tend to attract well-prepared students who graduate at high rates—and the cycle repeats. However, colleges can counter this tendency toward replication by introducing admission strategies that reorient their student profile toward retention and degree completion. This can be accomplished in ways other than simplistically seeking to increase selectivity, thereby losing talented students who may be disadvantaged by traditional admission criteria such as standardized test scores. Use of non-cognitive variables, support of rigorous high school academic programs, and test-optional admission are three strategies grounded in theory and data that bring innovation to the admission process.

Human capabilities are so much more broad and flexible than what traditional admission criteria often recognize. Institutions would be well-served to consider and study what student attributes lead to success in their particular local context. Identified student strengths that matter—whether it be demonstrated leadership, ability to negotiate systems, knowledge in a field or family support—can be sought in students and cultivated to a greater extent on college campuses. In addition, acknowledging that robustness of curriculum and effort over four years in high school matters much more than performance on a four-hour exam leads to the selection of students who are more likely to be retained and complete their degrees. Changing the profile of enrolled students is possible by altering the criteria for admission and changing the way various factors are weighted—this can lead to a more optimal sorting of students among institutions where the potential for success is high.



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