

COLLEGE AND CAREER READINESS IN CONTEXT

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October 8th, 2013



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Introduction

Three years ago the Board of Regents launched an educational sea change in New York State.

The goal of the Regents is very straightforward: all students should graduate from high school with the skills and knowledge necessary to succeed in college and careers.

–New York State Education Commissioner John King, in *News and Notes*, March 2013

The shift in education reform to a goal of college and career readiness for all students is indeed, as Commissioner King describes it, a sea change that has been embraced widely across the country. It has been taken up by the White House; U.S. Secretary of Education Arne Duncan proclaimed President Obama’s new mission for schools “to ready students for career and college—and without the need for remediation” (2010 Address to College Board). It has echoed across district offices, including the New York City Department of Education (NYC DoE), which laid out this new vision as early as 2004 and where Chancellor Dennis Walcott has called for a new standard: “no longer a high school diploma, but career and college readiness.” It is even written on the subway walls, in English and Spanish as NYC DoE ads proclaim: “We’re not satisfied just teaching your children basic skills. We want them prepared for college and a career.” It has penetrated public opinion, even before the subway ads; the intent to go to college is now almost universal among entering high school students and their families. This is indeed a sea change, at least in the rhetoric of policy and public opinion. Yet while deciding this new goal may be “very straightforward,” determining how to get there is anything but straightforward.

The challenge of designing new policies and programs that could accomplish the Regents’ goal that “*all students* should graduate from high school with the skills and knowledge necessary to succeed in college and career” is tremendous. The pressing question now is whether and how students, schools, and the New York City public school system can move this ambitious goal from rhetoric to reality. To help understand this sea change, the challenge it presents for schools and students in New York City, and the ways in which philanthropy might

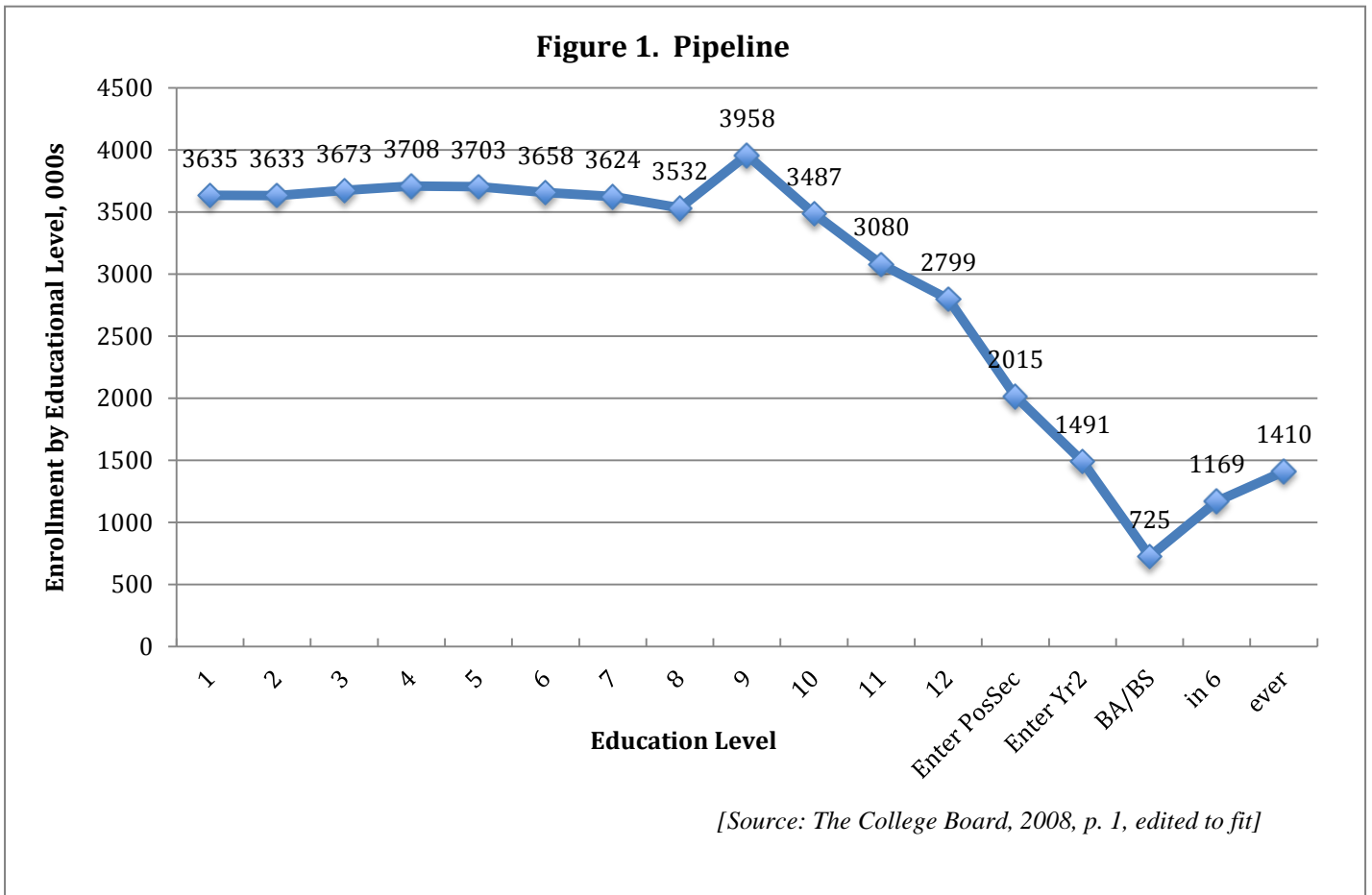
help move New York City's schools closer to the goal, Philanthropy New York has commissioned a set of three papers. One paper will look closely at patterns of progress of students in the New York City public school system under the current system; another will look at system level issues and responses to this new challenge.

Structure of the Paper

This paper, the first in the series, takes a broader look at the context of this reform, beginning with a brief overview of the challenge, both nationally and in New York City. The second section explores the policy context: how we moved from addressing the “rising tide of mediocrity” targeted in “A Nation at Risk,” the 1983 report by the National Commission on Excellence in Education, through efforts to raise achievement levels and reduce dropout rates, to this new goal of readiness without remediation. The third focuses on the history and context of the high school: the deeply embedded structures and expectations that make this change so very difficult. The final section looks at current examples of instruments and initiatives underway to measure where we are now, and how to move forward. This section centers on New York City, where over the last decade philanthropies have invested more than two billion dollars in public education, developing many of the innovations that have helped raise the graduation rate and have begun to advance college and career readiness.

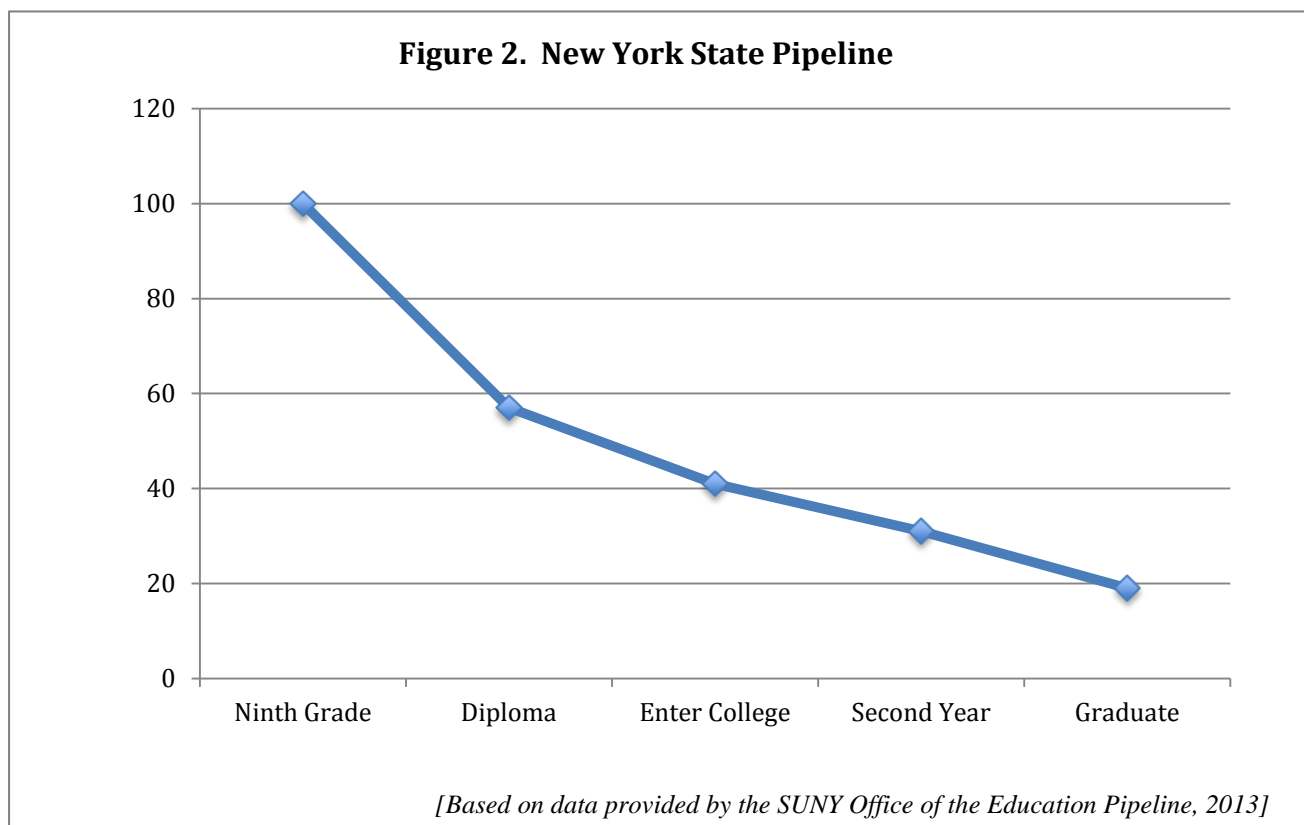
Part 1: The Challenge

One problem is just how far we are from the goal of college and career readiness for all students—both nationally and in New York. Precise figures vary across different studies, but the patterns are consistent, and the distance is considerable. Despite policy makers’ intentions and student’ aspirations, the existing “pipeline” of academic preparation and programs to ready students is not strong enough to take them there. The College Board (2008) provided a vivid graphic snapshot illustrating the national problem: “too many students are lost as they move through the p-16 pipeline.”



While the numbers are fairly steady through the K-8 grades, there is a slight bump in ninth grade enrollment—a common retention year. But they begin to fall in the last few years of high school, and drop precipitously in the postsecondary years.

Data from New York State’s SUNY Office of the Education Pipeline (2013), show a similar drop: of 100 ninth graders 57 will graduate on time with a high school diploma; 41 will enter college; just 19 will leave with a degree (Associate in 3 years or Bachelor’s in 6). Based on research connecting Regents scores with satisfactory completion of course work at City University of New York (CUNY), New York State has defined its “Regents-Based Math and English Aspirational Performance Measure” – a basic college and career readiness ready index – as graduation with a Regents Diploma and scores of at least 75 on the English Language Arts Regents exam and at least 80 on a Math Regents exam.



The same pattern is apparent in New York City as well. Approximately 65% of the class of 2012 graduated on time, reflecting an increase since the early 2000’s. The NYC DoE has also been examining college and career readiness since that time. One of its measures is a College Readiness Index (CRI). In 2012, that index included several benchmarks: graduation with a Regents Diploma; scores of 75 or above on the ELA Regents and 80 or above on a Math Regents; or minimum scores of 480 on both math and verbal SATs; or minimum scores of 20 on both math and English ACTs; and completion of courses the department has “certified” as

rigorous enough to be college preparatory. Overall, only 29% of the students who entered high school four years earlier met this CRI benchmark of readiness in 2012. And of those who went on to enroll in a community college --- a very common postsecondary destination of New York City graduates --- on average, just 20% earn a degree within four years (CUNY, 2013).

Moreover, in a large and complex system like New York City's, the linear nature of the common 'pipeline' image is somewhat misleading: all students do not all start at the same point, and they do not all follow the same path. The city's schools enroll 1.1 million students --- more than many states --- who come from 197 countries, and speak almost as many (185) languages; 42% do not speak English at home. According to a recent report published by the Research Alliance of New York City, over the last decade key "background characteristics of entering high school students remained fairly stable." The report notes small increases in the percentage of Asian and Hispanic students, with corresponding decreases in the percentages of black and white students. It also notes an increase in the percentage of students living in poverty --- those eligible for free and reduced price lunches --- and in those referred for special education services. It does not address any changes in the educational and cultural backgrounds of students' families or in citizenship (Kemple, 2013).

Some students live in multi-million dollar apartments, others live in public housing projects, and 69,545 students spent some part of the 2011-2012 school year homeless (New York State Student Information Repository System). Analyzing college and career readiness benchmarks by neighborhood, a study by the Annenberg Institute shows the stark disparities along poverty and racial lines: in some neighborhoods, fewer than 10% of the class of 2011 met the new benchmark; in others 79% did (Fruchter, Hester, Mokhtar & Shahn, 2012). The diversity of high schools is exceptional as well: the city includes large comprehensive high schools and small schools of choice, specialized exam schools and second chance transfer schools; schools where nearly every student graduates ready for college according to these new measures, and others where fewer than a quarter do. Moreover, under the recent expansion of choice to all New York City high schools, the traditional feeder patterns of elementary to middle to high school are no longer predictable (Hemphill & Nauer, 2009). This gives more options to more students. However, it also means that the problems stemming from the inherent "disconnect" between K-12 systems and college systems are compounded in New York City, where there are disconnects between levels of schools even within the K-12 system.

Moving toward this new goal of college and career readiness will be challenging everywhere, but nowhere are the challenges more apparent than in this large and complex system which has for a decade been undergoing a series of highly ambitious reforms (O’Day, Bitter, & Gomez, 2011). Moreover, the move to college and career readiness for all students is complicated by a policy context in which earlier reforms, with still strong pressure, are pushing schools toward quite different objectives: raising test scores and reducing dropout rates.

Part 2: The Policy Context

The current reform movement can be traced back to 1981, with a national commission to “examine the quality of education in the United States” (NCEE, 1983, p. 1). After 18 months of data analysis and deliberation they published a prominent report, lodging a new and seemingly indelible language of crisis into the public conversation about education. They described a world moving into a new era—an “information age”—requiring a well-educated workforce to compete in a global economy. In sharp contrast, they deplored a school system foundering in a “rising tide of mediocrity.” The gap between the needs of the new economy and the performance of schools was so “threaten[ing],” they declared, that “if an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war” (p.1). With an evocative title and a provocative conclusion, they proclaimed that the United States was “A Nation at Risk.”

While the commission called for radical reform across the entire educational system, kindergarten through college, its primary focus was the high school. There it found overwhelming evidence of mediocrity, particularly in four major areas: 1) weak content 2) low expectations 3) inadequate time ineffectively used, and 4) teaching neither well developed nor wisely distributed. First and foremost in its findings was the problem of content so “diluted and diffused” that it had become “a cafeteria style curriculum in which the appetizers and desserts can easily be mistaken for the main courses” (NCEE, 1983, p. 9). Moreover, too many students were missing the main course altogether, left to “emerge from high school ready neither for college nor for work” (p. 4).

The commission's recommendations called on schools to refocus on "academic excellence as the primary goal of schooling" (NCEE, 1983, p. 5). Like earlier efforts aimed at excellence, it advocated a set of curricular requirements centered on traditional core subjects: four years of English and three each of mathematics, science, and social studies. Moreover, it promoted the idea that states should require these courses for graduation, and develop "rigorous and measurable standards" to ensure that all students were achieving the goal. Despite its declaration of crisis, the commission concluded with remarkable optimism, "confident that America can address this risk if we provide these courses in our schools to all our students." A Nation At Risk was dedicated to the children born that year, who would eventually become the class of 2000, and would, with these changes in place, be prepared for "far more effective lives in a far stronger America" (p. 18).

Responses to the report were remarkably rapid and pervasive, as policy makers and politicians moved to address the "risk." They entered education into a new "era of excellence," enlisted education presidents, and empowered education mayors. There was a rapid proliferation of reports, agendas for excellence, lawsuits for greater fiscal equity, and new waves of reform aimed at improving academic achievement, increasing curricular requirements, and creating new standards of accountability. Some aimed at fostering "deeper learning;" others at ensuring more equitable "opportunities to learn." But the strongest legacy of A Nation At Risk, which persists today, is the high priority now given to quite distinct goals: raising test scores and reducing dropout rates.

The momentum of the "new accountability" aimed at improving achievement shifted from emphasizing which courses students should be required to take to using test scores to measure what students should know and be able to do. Infused with the emphasis on testing, major initiatives from Goals 2000 through No Child Left Behind (NCLB) to Race to the Top have led to the creation of unprecedented state mechanisms for standards, accountability, and testing (Carnoy, Elmore, & Siskin, 2003). Some states, like Texas, set their testing standard toward basic skills, but gradually raised the bar. Others, like New York, set the bar high but gradually phased in the requirements. The New York Regents exams, long used for college bound students, became the requirement for all students. The five subject exams were phased in one at a time, the "local diploma" was phased out slowly, and in the end, the necessary score of a 65 was achieved (remarkably precisely) by a surprising number of students.

Nationally, new mechanisms called for disaggregated data, and called new attention to longstanding ‘achievement gaps’ among subgroups of students. Schools were held accountable not just for their overall averages in the new environment of test-based accountability, but for making “adequate yearly progress” in ten areas: for all students and for particular ‘subgroups’ by ethnic, economic (free/reduced lunch) or educational status (limited English proficient, special education). Not surprisingly, an unintended consequence of this emphasis on testing was that many schools facing penalties narrowed curriculum to focus on tested subjects, and narrowed teaching to focus on test preparation (Carnoy, Elmore, & Siskin, 2003).

Some argue that there were promising achievement gains (at least at the elementary level), and some movement toward closing the achievement gaps (at least in some locales). At the high school level, however, results were unambiguous: test scores remained relentlessly disappointing. For example, the National Assessment of Educational Progress (NAEP) scores --- which many argue are the best indicators of overall academic achievement and the only assessment common across states --- showed long term trend lines for high school that were remarkably flat. In 1986 the average score on the math assessment was 302; by 2008 the average had risen only to 306, where it remained in 2012. Reading, which was at 285 in 1971, showed minor fluctuation but nothing to indicate a trend of improvement: in 2008, the score was 286; in 2012 it was 287.

Test scores were not the only disappointment. Despite reformers’ ambitions, graduation rates also remained flat. But the labor market was changing, with fewer jobs open to applicants without a high school diploma, and even fewer providing a salary above the poverty level, or offering health insurance and benefits. Economists estimated that in 1950, only 40% of American jobs required a high school diploma. By 2001 91% did. (Carnevale & Desrochers, 2003). Whether or not the nation was at risk, students who left high school without a diploma most certainly were.

By 2000, the hopes of the Nation at Risk began to seem hopeless, and critics charged that the pressure to increase test scores was pushing out low scoring students, producing what Walt Haney called the “myth of the Texas miracle.” (Haney, 2000). While other studies did not find a causal connection, they did find, and report, alarming numbers of students dropping out: 1.2 million students a year (Pinkus, 2006). That’s “one-third of a nation” proclaimed the Educational Testing Service website, asserting that across the country one-third of those entering

high school did not graduate (Barton, 2005). The Pew Partnership called on its readers to “imagine a nationwide epidemic so severe that it strikes one in three teenagers and so malignant that few ever recover from it.” What the Gates Foundation called the “silent epidemic” became a banner Time magazine cover, proclaiming America a “Dropout Nation” on April 17, 2006.

While dropouts were a national concern, the epidemic was far from evenly distributed. Most attention was directed at large urban districts, with New York City featured prominently as an “epicenter” of the epidemic. Some high schools were castigated as “dropout factories,” producing more dropouts than diplomas (Balfanz & Legters, 2004). Demographic gaps, too, commanded new attention and new demands for disaggregated data. Among all ninth graders, 3 of 10 would not graduate in 4 years, but it was 4 out of 10 for African-American students and 5 out of 10 for Hispanic students (Gates Foundation, 2006). It was even worse for students in special education, in some states as low as 50%. This led to the creation of a new National Dropout Prevention Center for Students with Disabilities, and new mandates for reporting data.

The governors of all fifty states signed on to a Compact, declaring in the title that, “Graduation Counts.” They pledged to implement a common formula for counting it and to add graduation rates to the new accountability metrics (NGA, 2006). The federal system, too, moved to count four-year graduation rate in its NCLB and Race to the Top calculations—and to attach consequences to performance. In New York City, slowly but steadily, the graduation rate rose—although the variation among schools and subgroups is still substantial, and, despite a significant decline in dropout rates, the New York City system, with its huge number of students, remains an epicenter, according to the 2013 Diploma Counts report from Education Week (Hung & Nhan, 2013).

Ironically, as the policy pressure for increasing graduation rates was rising, the economic benefit to those who did get a diploma was falling. Researchers suggested that more than half of high school graduates were unprepared for careers in the new global economy (Education Trust-West, 2004; Gates, 2007), and unready for college (Achieve, 2005; Roderick, 2006). Economic indicators still showed strong negative consequences for dropping out, but also a widening gap in the values of high school versus college diplomas, leaving high school graduates far behind. Seidman (1996) elegantly illustrated this paradox in his analysis of “some disastrous unintended consequences” of the Goals 2000 target of 90% graduation. His linear projections showed a steady increase in the percentage graduating (though we never did reach that 90%) and a similar

steady rise in the negative consequences for dropouts. But he also projected a third line—the economic gain for those who did attain a diploma. What that showed quite strikingly was a curve: as the percentage of workers with high school diplomas begins to rise, the diploma serves to sort those with the credential into higher paying jobs, so their employment and salaries rise as well. But as a critical mass hold diplomas, the credential no longer serves as a sorting signal—it no longer conveys a competitive advantage, because so many have them. Thus, the benefit of having a high school diploma begins to fall, even as the cost of not having one continues to climb. The unintended consequence is that just as we urged more students to get a diploma to get a job, that credential lost its power to get them one. As economist Jeffrey Sachs reported in *The New York Times* (2013), between 2008 and 2013, 3.1 million new jobs were created that required a college degree, while at the same time 4.3 million jobs open to those with only a high school diploma disappeared.

A new reform agenda began to rise around college readiness, this one driven not just by policy makers and politicians, but also by students and their families. This was “a profound shift from the idea of high school as the ‘people’s college’ to high school as the people’s ticket to college” (Siskin, 2011, p. 184). The Consortium on Chicago School Research reported that if one were to “ask any high school student in Chicago today what he wants to get out of high school...the answer is almost without fail, to graduate and to go to college” (Roderick, 2006). Across the country, students were giving the same answer. According to National Center for Educational Statistics data, the percentage of sophomores aspiring to college jumped from 41% in 1980 to 80% in 2002. The 2004 National Survey of High School Student Engagement found the figure at 90%; an Alger Association survey at 94% (2006). The wave was rising across the country and across all demographic groups, but most steeply among students for whom expectations had long been low: 78% of African Americans in 2004, 84% in 2006. According to the National High School Center, 77% of youth with disabilities reported aiming for postsecondary education. And among immigrant families, aspirations were not only growing, but were more consistently ambitious and more optimistic than among their native born counterparts (Raleigh & Kao, 2010). Though, as Roderick noted, the gap between aspirations and achieving that goal remained wide, it was now normal to expect not only to go to high school, but to go through it and on to college (Roderick, 2006).

Politicians and policy makers have also concluded that students need to attain not just higher skills but higher credentials --- college degrees or technical certificates --- to find work in the new economy. In 2004 the American Diploma Project reset its benchmarks to reflect “readiness for jobs and college,” reporting in their press release an “unprecedented convergence” of expectations between colleges and employers (Achieve, 2004). While the specifics might vary considerably among different campuses and industries, what they have most strikingly in common is their emphasis on a broader set of skills and capacities (i.e. problem solving, teamwork) than those readily measured on the common standardized tests. In 2009 the Council of Chief State School Officers and the National Governors Association began development of the Common Core. 45 states, including New York, signed on before the ink was even dry on the first standards, and well ahead of the development of new tests to assess performance. There is tremendous hope across the country that these new standards, and the assessments that will soon accompany them, will be a mechanism for systemic change—aligning curriculum, teaching, and testing for all students to a common and academically rich set of standards—but as of yet it is too early for solid evidence of whether and how that mechanism might work.

While many schools, and students, were still struggling to meet the demands to raise scores and reduce dropout rates, a new set of policy questions emerged about whether those benchmarks --- while necessary *prerequisites* for college --- represented adequate *preparation* for college. Reports called into question the relationship between college *access* and college *success*, pointing to high remediation rates and low graduation rates of the community colleges that serve as the entry point into post secondary education for so many students (ACT, 2013; Conley, 2007; Everson, 2010; National Center for Education and the Economy, 2013). Researchers challenged the idea that New York’s high schools were “preparing students for success in college” (NYC Coalition for Educational Justice, 2009), and called attention to “the looming crisis,” while newspapers attacked “Bloomberg’s Bridge to Nowhere” (Kamenetz, 2013), over data showing roughly 80% of students entering CUNY community colleges were being placed in remedial programs and were unlikely to reach graduation.

While New York City has featured prominently in this new latest crisis, it is hardly alone. Complete College America (2012) reported that nationally 50% of entering community college students would be placed into remedial courses, and fewer than 10% would make it to the degree [[link: Complete College America](#)]; in Florida 78% of students entering community colleges

required remediation. These reports raised questions about just how ready high school graduates are for college or a career, and about how to assess success. Preparing students for college and career --- without remediation --- became the new reform agenda, creating a new and unprecedented challenge for the American educational system and for the high school in particular. This is not because high schools are failing to do their job, but because the job they were designed to do is something quite different.

Part 3: The High School Context: Forms and Reforms

Preparing students for college—at least some students—has always been a function of the American high school. In the early history of the institution some high schools were designed to prepare students for college and the professions; some were even on college campuses, using tests like that designed by the College Board to identify students with “scholastic aptitude” but without strong local programs. Others would prepare students for careers: high schools of commerce for business, manual schools for industry, normal schools or academies for teaching. College preparation as a primary goal—at least for some students—also appeared early on the agenda of education reform. In 1893 the influential Committee of Ten first presented the policy argument that high schools should prepare all students for college --- at least all of those few students who attended high school at all. As they put it, the high school’s “main function is to prepare for the duties of life that small proportion of all the children in the country --- a proportion small in number, but very important to the welfare of the nation --- who show themselves able to profit by an education prolonged to the eighteenth year, and whose parents are able to support them while they remain so long at school” (Committee on Secondary School Studies, 1893, p. 51). They urged a concentration on the core academic subjects, rather than the “little of many subjects” that too many students were getting. Acknowledging that “many” students would stay in high school for only two years, they called for both kinds of mathematical reasoning (algebra and geometry) and of scientific content (natural philosophy and physics) in that time. And while only an “insignificant percentage” would go on to college, “training the powers of observation, memory, expression, and reasoning” would serve all students well (Committee on Secondary School Studies, 1893, p. 52).

In 1918, as high school students became more numerous and more diverse, another highly influential task force raised the counter argument: academic achievement is not the only goal of high school, and not the most important one. They proposed a set of Cardinal Principles, in which academic learning receded into a list of “indispensible” needs: health, a command of fundamental processes [academics], worthy home-membership, vocation, civic education, worthy use of leisure, and ethical character. High schools, they stressed, needed to adapt to other needs:

Education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits and powers whereby he will find his place and use that place to shape both himself and society to ever nobler ends

(Commission on Reorganization of Secondary Education, 1918, p. 9).

If most students were not college bound, the report argued, and the vast majority was not, then high schools should offer curriculum appropriate to their needs and interests, to help each boy (or girl) prepare for their place. The commission called for broadening programs to focus on “useful knowledge” rather than academic subjects like algebra, which, according to one school administrator and progressive education activist “injured the mind, destroyed the health, and wrecked the lives of thousands of children” (cited in Tyack, 1967 p. 359). Instead reformers pushed for courses like practical math, personal English instead of literature, social studies to replace history, or life skills instead of lab sciences. High school was seen as ‘the people’s college’, divergent in purpose and practice from the college prep program, and the end point of education for most students.

By the middle of the twentieth century, far more than a select few were attending high school, as the numbers effectively doubled. At that time, yet another national report on “the condition of the American high school” sought a solution to the “horde of heterogeneous students that has descended on our secondary schools.” The Conant Report (1959) offered a powerful compromise in the form of the comprehensive high school. It provided a blueprint that could embrace both goals by carefully keeping them apart: a single institution could educate “*all* the youth living in a town, city, or district” by bringing them together “under one roof,” but under multiple, and distinctly different curriculum paths (p. 9, p. 602). Educators, Conant argued, would have to differentiate: an academic track would “maintain high standards” for an estimated 15 to 20% of “high ability;” a vocational track would ready others for employment;

and general studies would serve those who needed “another standard.” The Conant design that would dominate high schools for the next fifty years was both broadly comprehensive and deeply compartmentalized, a structure of distinct components that would prove both resiliently elastic and remarkably expandable. Pressed by reformers pushing for excellence and achievement, schools could add more and higher tracks: not just college prep (or, in New York, Regents classes), but honors, advanced honors, Advanced Placement or International Baccalaureate. Pressed by those pulling for access and attainment, or to reduce dropout rates, they could add courses on the other side— so a teacher could talk proudly about being able to accommodate “three levels of kids in this school below Algebra 1” or, with only slight exaggeration, describe “nine thousand ways one got into mathematics. There was pre-algebra, pre-pre algebra, pre-pre-pre-algebra, and things like that” (Siskin, 1992, p. 170). A widening achievement gap was built into, and out of, those diverging tracks. The comprehensive high school grew not only in size, but also in course offerings, becoming “the shopping mall high school” or the “cafeteria-style curriculum” that the Nation at Risk Report would conclude left too many students prepared for neither college nor career.

Inherent in the design, although not always realized, was the need to identify, early on, which students should be in which track. Counselors were charged with using test scores and transcripts to place students on the appropriate track. But because students were “under one roof”, there could be room to change tracks to accommodate student efforts or correct for testing errors. The comprehensive high school—by design—served in part as a “sorting machine” (Spring, 1988), identifying and placing students on track to suit their perceived interests and talents, to supply appropriate coursework, and to signal to colleges and employers where that track led.

This is the traditional form of high school as we know it, the design that Bill Gates called obsolete—but that has proven so obstinately resilient to reform (Siskin, 2003). This reform effort, however, poses a different kind of challenge for the high school, one that calls not just for improvement but a radical redesign of the fundamental principles of sorting and preparing students for different futures. To move toward preparing all students to reach the same goal, at the same time, is a radical shift, indeed, a sea change that reaches every aspect of the high school design.

Part 4: Attempts at Change: Instruments and Initiatives

High schools might occupy the central ground in this revolutionary effort, but the scale of this sea change, as Chester Finn (2012) observed, “eventually changes everything . . . including textbooks, professional development, teacher preparation, and evaluations of teachers, not only assessments for students.” As researchers at the Consortium on Chicago School Research have argued,

Strategies to change this must begin by explicitly linking together efforts to improve instruction, increase students’ engagement and performance, and develop strong guidance and information structures. This requires building strong instructional programs that develop students content and pre-collegiate academic skills (for example, writing and problem solving) and their non-cognitive skills (performance norms, study skills, and learning strategies)-areas that have seldom been the domain of high school teachers (Roderick, 2006, p. v).

College and career readiness for all students involves change at every level of the system as well, from pre-K and elementary schools to the colleges themselves, and to the ways in which we define college and career, and measure readiness.

Moreover, every change in this new wave needs to fit into, or fight against, the still very present layers of the earlier reforms, and the logic of the comprehensive high school. In many areas, those changes are beginning:

When Achieve launched the ADP Network in February 2005 at the National Education Summit on High Schools, we would not have predicted that 34 states would take up the call to action. Nor did we expect such rapid progress in states raising high school standards and graduation requirements to align with the expectations of employers and higher education. Yet even the states that are farthest along with this work are, at best, only halfway to the goal of a truly aligned system (Cohen & Haycock, 2008, p. 6).

In all areas, they have far to go as states, schools, and students struggle to reach this new goal in a context in which ‘college’ has been overly simplified, ‘career’ often overlooked, and ‘readiness’ underdeveloped.

Indeed, even determining where the goal post is, and how far we are from it is an extraordinarily complex task when there is tremendous variation in the system of post secondary

education, not just between college and career but among colleges, where readiness for college means something very different when the college is Hampshire, or Harvard, or West Point. To move beyond what Secretary Duncan described as the pervasive “myth” that “college and career readiness is itself too elusive to evaluate meaningfully with assessments or to track with longitudinal data systems” (Remarks to College Board, 2010), researchers and policy analysts are moving to define that goal line more clearly, to build measures that let us see how far from it we are, and what would help move us toward it. Operating sometimes at the edges of the schooling system and often with support from philanthropy, they are (1) *extending* measures and metrics, both up and down the system to identify where students are and where they need to be; (2) *expanding* definitions of college readiness to include more than academics; (3) *enlarging* our understanding of what it takes to get there not only in terms of student readiness, but also the role of classrooms and schools; and (4) *engaging* partners to create pathways to readiness for career. The NYC DoE has been at the forefront of working with philanthropy to move forward in these areas.

Extending our understanding of schooling to think of it as a single pathway, a K- or even pre-K to 16 (or even p-20) system has long been a goal of policymakers concerned with student access to and success in higher education (Kirst, 1998). But building the “bridge” along that path has moved slowly, plagued by separate policy, governance, and data systems. The shift toward college and career readiness has stimulated considerable activity in this area. Much of the early effort has taken place in terms of extending upward, into the college system. In some cases, such as New York City’s Middle College High School, which opened in 1974, that extension is physical: the school is located at a partnering community college, so students can experience a campus, see college students who look like themselves, and take college courses—earning credits while still in high school. Others, like the three Bard High School Early Colleges, which have been a focus of philanthropic investment, forge close educational relationships with a partnering college, and offer the opportunity for students to earn both a high school diploma and an Associate’s degree, simultaneously, within four years. According to the NYC DoE, there are currently 12 Early College High Schools in New York City, serving more than 6,000 students. More recently the NYC DoE and CUNY have partnered to create College

Now, which offers dual enrollment courses to students across 390 different high schools. According to a recent Jobs for the Future study, taking even one college course while in high school increases the odds of college completion considerably (Hoffman & Vargas, 2010) [[link: Jobs For the Future](#)].

More common are efforts to discover what actually happens to students after high school, and to determine what factors predict not only access, but success. When we observe high remediation and low graduation rates, when there is a “stark contrast” between 89% of high school faculty who say their students are well or very well prepared for college level work while only 26% of college faculty do (ACT, 2012), the need for stronger evidence is both pressing and immediate. Using existing—but traditionally disconnected—data sets from the K-12 and college systems allows us to move closer. In the new Common Core assessments, the intent is to use a representative sample of colleges to set benchmarks, but many states, and some districts, have been developing their own local measures to provide information about college readiness. The Community College Research Center reports that 25 states have introduced initiatives to use college placement tests, college admissions exams (the SAT or ACT), or redesigned state accountability tests to reflect readiness (California’s Early Assessment Program). In addition, many states and districts are moving toward development of “transition” courses or online modules for those students whose scores indicate they are less than ready (Barnett et al., 2013).

In New York City, the trend has been to connect with one set of colleges, the CUNY system, where the data can be most readily linked, and where the students are most likely to enroll (Wilkes et al., 2012). While in many ways a model for other districts, it also has limitations and risks setting policies and practices, as well as assessments, toward a particular outcome that may not generalize well. Nonetheless, it will likely provide high schools and policy makers far more information than they have had previously. Correlating eighth grade and Regents test scores to grades earned in credit bearing CUNY courses allowed researchers to ‘reset’ the cut scores for which students ---and schools --- should be aiming (Everson, 2010). While a 65 was the passing score for the Regents Diploma, the new target for college-readiness jumped to earning the Regents Diploma and scoring 80 in math and 75 in English. Looking not only at preparation for college as measured by scores, but also *persistence* in college as measured by continued actual enrollment over time, the NYC DoE has constructed, and is refining, its

accountability system to give more information about college and career readiness—and to hold schools accountable to what are no longer just “aspirational” measures.

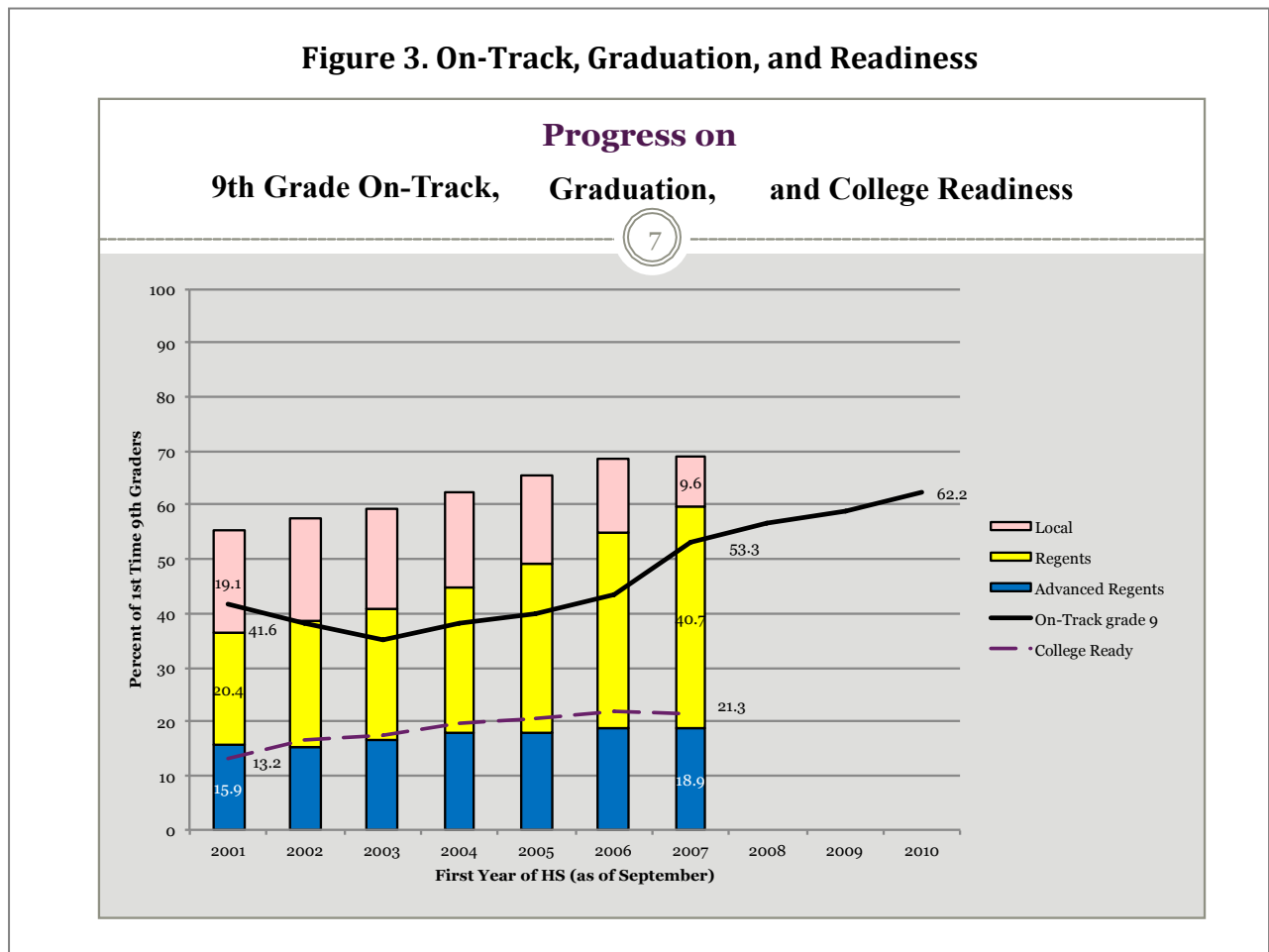
Linking data sets not only with CUNY, but also with the National Student Clearinghouse, the NYC DoE began to generate “Where Are They Now” reports in 2010, providing schools, for the first time, information that moves beyond general trends to let each school see what happened to their own students in the next level: middle schools see how their graduates fared in high schools, high schools how their graduates fared in post secondary institutions (college or vocational) or in public service organizations (such as the military or AmeriCorps).

While it is unclear whether and how schools can analyze those reports and take action, this is a critical step, and New York City is one of few systems to have moved this far. Within the city system, one network—New Visions—has taken this effort one step further. With foundation support, they worked to develop and deploy a new software system to analyze the data, year by year and semester by semester, and to create more user-friendly, and useful graphic display of the “stock and flow” of students remaining or moving up on track toward an Advanced Regents Diploma and college readiness, or those slipping down toward dropping out (Fairchild, Carrino, Gunton, Soderquist, Hsaio, Donohue, & Farrell, 2013). [link:[Student Progress to Graduation in New York City High Schools](#)]. By identifying “tangles” of shifting status, schools can focus attention on students, or even programs, of concern.

Efforts are underway to analyze and employ data down the system, as well, as the NYC DoE does in providing the reports to middle schools. Many districts and states have developed early warning systems to flag students well before their senior year. They help to reveal “potholes” in that path, which allows systems or schools to respond at appropriate levels (Roderick, 2006). Middle schools are called on to change not only content, but also planning for high school and beyond. According to a major report from Educational Testing Service, a predisposition toward college begins in preschool, and is well established by eighth or ninth grade, when student choices about which courses to take (or, in New York City, which high schools to apply to) become highly consequential (Carnevale & Desrochers, 2003). Early information can help those students who want to go to college, and think themselves prepared --- only to discover there were courses they should have taken, or a placement test they have to take. According to the U.S. Advisory Committee on Financial Assistance (2002), 52% of low income

eighth graders reported expecting to go to college. But in what the Committee called a “tragic irony,” only 23% had planned to take the college prep curriculum they needed.

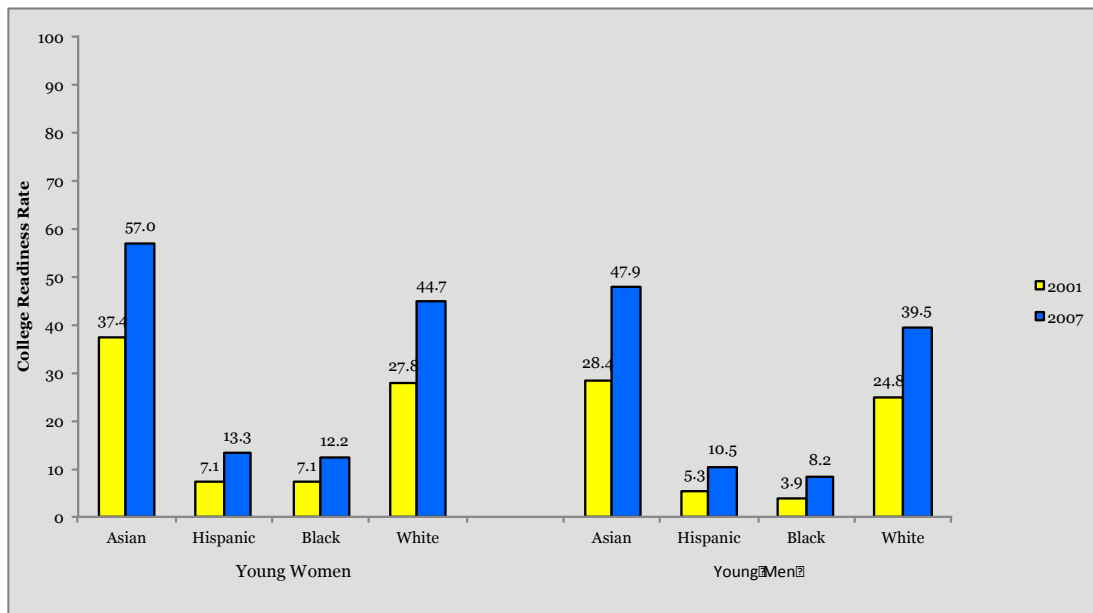
Some districts, like Chicago, are finding success with on-track indicators to identify students in ninth grade, while there is still time to change their trajectory or schedule those courses (Roderick et al., 2008). A similar study, from the Research Alliance for NYC Schools, developed a metric for “on track” ninth grade including additional measures like earning at least 10 credits, and passing one Regents exam with a 65 or above (Kemple, 2013). Those measures are then used to predict both high school diploma and college readiness. While the two are not the same, their trend lines do move in the same direction, and over the time period between 2001 and 2010 they have moved in a positive direction.



The difference between getting a diploma and getting ready for college comes into sharp contrast in this Research Alliance for NYC Schools report. Using the diploma as the outcome, which was

the target students and schools had set for them in the earlier reform effort, the data show evidence of progress toward that goal: “rates of Regents diploma receipt increased from approximately 23 percent (for Hispanic young men) and 21 percent (for black young men) to 48 percent for both groups” (Kemple, 2013, p. 18). But the Alliance also finds “serious” and “stubborn” gaps among subgroups (see also Villavicencio, Bhattacharya & Guidry, 2013).

Figure 4. College Readiness by Race and Gender



According to the college-ready benchmarks used in the report, based on the New York State Aspirational Performance Measures, only 8% of black and 11% of Hispanic young men reach that standard (p. 22). While those numbers are higher than they were just a few years ago, the contrasts to Asian (48%) and white (40%) young men, and the challenge this represents for schools now held accountable for preparing all students for college and careers are nonetheless staggering (Kemple, 2013) [link: [The Condition of NYC High Schools - Research Alliance for NYC Schools - NYU Steinhardt](#)].

Using existing data sets for new purposes has limitations, not only in terms of what kinds of data we have available, but also in terms of the kinds of analysis we can do. Longitudinal data are necessary to give more accurate information on progress toward readiness, but inevitably can only look back in time, to when conditions and targets were quite different. Many of the

available instruments and indicators, like comprehensive high schools, are designed for sorting, and comparative purposes. They identify not *whether* students are ready for college, but rather *which* students are more ready than others. So, for example, both math scores and credits in advanced math courses have long been used to sort higher achieving students and certify them as college bound.

However, a new National Center on Education and the Economy (NCEE) report on the math and English skills and content really required in community colleges concludes that some of the so-called “‘high standards’ in mathematics constitute a requirement to learn material they will never need, either in college or later in their work, a bit like the requirement a century ago to learn Latin in high school” (NCEE, 2013, p. ii). They suggest that high schools too often teach what students do not need, and do not teach enough of what students really do need and will actually use in colleges and careers, like percentages, graphical representations, basic equations, statistics, probability and basic mathematical modeling. Looking at programs including accounting, business, and nursing, they identified “only one program in one college required entering students to have mastered the content of Algebra II” (NCEE, 2013, p. 3).

That creates a paradox for the college and career readiness reform, and for those trying to use the old tools for this new purpose. In some cases that becomes obvious, as in the Bridgespan Group criteria for students to be “minimally qualified” for college, including ranking at or above the 54th percentile in their class, and at or above the 56th percentile on tests (Bedsworth, Colby & Doctor, 2006). Once we move beyond the mathematical impossibility of having all students above average, the question arises of how well instruments designed to identify what decades ago were the few college bound students can accurately assess whether today’s students are ready for college or a career, and what kinds of content actually do prepare them well.

The NYC DoE has recently begun a major new innovation in this area, looking closely at courses offered in high schools and tracking their correlation to later performance to “certify” college preparatory courses, in non-traditional areas like law, film and video, or small business networking that meet demands not only for rigor but also for subsequent college or career achievement. Such efforts extend our understanding, and our metrics, well beyond traditional classroom or even school assessments—but they retain the emphasis on academic preparation. For a fuller assessment of college and career readiness, however, the new bar has to be set not only higher, but wider.

Expanding our understanding of college and career readiness, and moving toward a wider set of measures, along with test scores and achievement markers that give important but incomplete information, has been a highly active area for both researchers and reformers. As David Conley (2007), one of the leading voices in this work argues, “if schools and students understand college readiness in a more expansive and comprehensive way, they can do more to develop the full range of capabilities and skills needed to succeed in college” (p. 25). [link: [Redefining College Readiness](#)] Grade point average remains, in many studies, the best predictor of high school and college completion, particularly grades in college prep courses. But that is in part, researchers argue, because grades from teachers reflect more than simply academic performance: they are a complex composite including things like going to class, turning in homework, putting in effort, and even getting along with an adult. The ACT, long associated with testing of academic content for college entry, found that of those students who scored as “college ready” in 2011, almost 20% did not enroll in college at all, or did not persist to a second year. They concluded that academic readiness is necessary, but not sufficient, and are expanding their measures to more fully reflect “the reality of college readiness,” including access skills, like finding the right college, filling out financial aid forms, or choosing a major (ACT, 2013).

As researchers identify kinds of non-academic factors that matter to college readiness, the list grows longer, including so called “softer” skills and characteristics like conscientiousness or grit (Duckworth, 2007), academic tenacity (Dweck, 2011), paying attention, study skills, teamwork, and problem solving. The list may be long, but across various studies and assessments it most often converges into the clusters of factors described by Conley (2007) as college knowledge:

- (1) Key cognitive strategies (problem formation, analysis)
- (2) Key content knowledge
- (3) Key learning skills (time management, persistence, meta cognition, self awareness)
- (4) Transition knowledge and skills (admissions, financial aid)

This wider understanding of readiness is reaching far into research and entering both policy and school efforts to increase college and career readiness. For example, the Midwestern Higher Education Compact (2012) report defines readiness as “not just cognitive capacity and related

academic skills, but also educational awareness, aspirations, and motivation, as well as financial awareness and literacy” (p.7). In Chicago, they are using five categories:

- academic behaviors (go to class, do homework, organize materials, study & participate)
 - academic perseverance (grit, tenacity, self discipline, self control)
 - academic mindsets (‘I belong in this academic community,’ ‘my ability and confidence grow with my effort,’ ‘I can succeed,’ ‘this work has value for me’)
 - learning strategies (study skills, meta cognitive strategies, self regulated learning, goal setting)
 - social skills (interpersonal skills, empathy, cooperation, assertion, responsibility)
- (Roderick et al., 2008)

The National Research Council has, with funding from the Hewlett, MacArthur, and Nellie Mae Foundations, developed an approach to encourage what they call “deeper learning” for life and work. They point toward the need for students to not only master core academic content, but also “21st century competencies” in the areas of cognitive (i.e. critical thinking and problem solving), intrapersonal (self-direction, metacognition), and interpersonal (communication and collaboration skills). There is still considerable need for developing a common language to describe these skills, as well as further development in how to teach, and how to assess them. There are, however, existing examples of what schools can do in these areas although ironically many of them have been constrained by the emphasis on raising test scores (Carnoy, Elmore & Siskin, 2003). Some schools turn, as Conant suggested, to extracurricular activities, such as sports teams. Others, like the International Baccalaureate program, with its well-established record of college preparation, require students to engage in “creativity, action, and service” projects. Across the country, including New York City, one of the most striking examples is the Expeditionary Learning schools, where project-based learning makes these elements central to the curriculum itself. Expeditionary Schools are another example of partnership with philanthropy, which has helped to support the schools. In addition, NYC DoE has identified these academic and personal behaviors as one of the four “domains” of their college and career readiness benchmarks.

The variety in listed items, and even in the number of areas, is evidence of the limitations of this approach. It is still early, still under development, and the studies that could validate measures across larger samples are still underway. The factors themselves are messy, often overlapping, and difficult to assess using readily available data. Is attendance a strong predictor because it captures student motivation? Or engagement with school? Or health? Is it solely an individual level factor—or do studies of closing schools, reporting steep declines in attendance, provide convincing evidence of a school effect? Most studies focus on these factors as individual predictors, although student performance is difficult to disentangle from school context. But if what we want is not just to predict with greater accuracy who is falling off track, but to prevent that from happening, we need to better understand what roles *schools* do and could play in readying their students for college and career.

Enlarging our understanding of college and career readiness to take into account school context as well as individual characteristics is rapidly emerging as a new area of exploration and intervention. Here people are talking not only about college knowledge, but college-going culture—which some schools have more of than others (McDonough, 1997; Oakes et al., 2006), and which new instruments and templates out of this long line of research can help schools assess (i.e. [College Tools for Schools](#), 2009). Academically ambitious families, especially in places like New York City, have long seen the pathway to college beginning with acceptance to the ‘right’ pre-school; bookstores at many selective colleges sell t-shirts and teddy bears with the school name or logo, to imprint even on infants (or to those around them who can read) the path to the “right” college. Families compete for spaces, and hire prep consultants to ready their students in district talented and gifted programs, or high scoring elementary and selective middle schools, as well as high schools, as an entry into the college pipeline. The “right” schools have a clearly marked, and well-worn path to college, and a culture of expectations that all students will progress along that path. Many public and charter schools, even in elementary grades, are beginning the college conversation early to point students toward that path—like KIPP “college prep elementary schools,” in which philanthropy has made significant investments and which send strong signals through their names, the college banners posted on their classroom walls, structured conversations with teachers, and even—in some sites--encouragement to begin college savings accounts and make those college hopes concrete.

Some schools also have more capacity than others to prepare students for what they will need to be ready for college and career, not only in social and emotional terms but in practical matters like the course options available. For instance, a 2004 study of California found that only 17% of high schools overall and just 9% of those with high concentrations of disadvantaged students had the capacity to offer the full college prep program to all students (EdTrust West, 2004). In New York City, a recent United Federation of Teachers analysis showed that just 10% of the city's high schools produced 50% of the students who met the new college and career readiness standard (Rosenberg, 2013). Such disparities suggest we need to attend not only to individual progress but also to institutional capacity and practice (see also Hemphill et al., 2013; Ready & Hatch, 2013). Instruments to assess institutional capacity are in early stages of development, and not yet widely used.

Nationally, one promising effort is the College Readiness Indicator System (CRIS) developed in a joint effort between the Annenberg Institute for School Reform and the John Gardner Center for Youth and their Communities [link: [College Readiness Indicator System](#)]. CRIS, which currently works with four districts, including New York City's New Visions for Public Schools Network, looks at college readiness indicators in three key dimensions: "signals and supports of students' academic progress, tenacity, and college knowledge." CRIS is different from other efforts to track readiness because it assesses not only individuals but also settings (program or school) and systems (district policies and funding patterns). It also analyzes data readily available at each site, and "attuned" to the challenges each confronts. So, for example, while two sites might both focus on Academic Preparedness, one might gather available data on individual student GPA and credits earned while another uses an on-track indicator. At the setting level, one might look at the availability of AP courses, while another assesses teacher quality or the implementation of the Common Core. They retain the focus on test scores and graduation predictors, with those two objectives clearly maintained as targets --- but broaden the range to include curricular and programmatic indicators beyond the more common on-track measures. With data in hand, schools are expected to engage in "cycles of inquiry," to move from individual prediction to institutional prescription, much like the not unlike the work of Inquiry Teams that were established here in NYC. This work has been supported by philanthropic investment.

At larger scale, the Learning Environment Surveys used by the NYC DoE feed information back for inquiry teams to use, and they have been working to tailor items to correspond to the new expectations that schools will prepare all students for college and career readiness. The surveys gather responses from thousands of teachers, parents, and students about whether a school is providing “the best courses and supports to achieve their postsecondary goals” or “helpful counseling on how to get a good job after high school or how to get into college” or even “how often, during this school year, have your teachers asked you to complete an essay or research project using multiple sources of evidence.” The NYC DoE sees these questions as measurements not only of college readiness but also of implementation of the new Common Core Learning Standards, a key NYC DoE strategy for meeting college readiness benchmarks.

Another effort to expand from individual to institutional change can be seen in schools that have adopted not only the idea of college knowledge but also the assessment tools developed by David Conley [link: [Redefining College Readiness](#)]. Again, these are very new, neither validated nor widely attempted, but again they are being tried out in New York City schools, through Urban Assembly schools and with support from philanthropy. In this effort, rather than using the more convenient tools of multiple choice and short answer tests, high school students actually take on performing a college-like task or project that takes a period of days, and is embedded in the classroom. The intent here is to have formative assessments that are “designed to improve teaching and learning and to make students college ready.” Not only students, but also their teachers and administrators have the chance to see (and to score) task performance and use of key cognitive strategies. Students might graph and interpret data, and research and write a report on income equality in two countries—a task that is not only designed for assessment but for modeling teaching and learning in a college ready classroom. They both overlap with and go beyond the kinds of metrics that designers say will be included in the new Common Core Assessments --- which are supposed to include indicators of students’ ability to develop arguments and use evidence --- in that they have not only items but actual assignments to assess.

Such efforts are too new to even begin to talk about their strengths and limitations, but they give a sense of what it would take for everything to change to support the progress of all students toward readiness for college. But in some essential ways, these new strategies resemble, and build upon, work that has been going on in New York City for more than two decades.

Recognized as “Compact for Learning” schools in 1991, what became the New York Performance Standards Consortium has long argued for, and demonstrated examples of rich curriculum and rigorous assessments that more closely resemble college level work (Cook & Tashlik, 2005). In these schools students demonstrate performance on complex tasks, create projects, conduct research, present arguments and evidence—much like the new calls for deeper learning and college readiness that are now being urged on all schools. Ironically, however, those strategies are the very kinds of teaching and assessment that many in schools say they have been discouraged from doing by the first wave pressure of standardized tests (Carnoy, Elmore, & Siskin, 2003).

Engaging partners to prepare pathways to college and career readiness is an area of activity at the school and system levels, but has received much less attention in terms of assessment or instrument development. Yet in this area, activity connected to readiness for career may be as much a priority as readiness for college. As the Pathways to Prosperity Project at Harvard cautions, college may not be for everyone, and tailoring high school curriculum too closely to college preparation does not serve all students well: “college for all might be the mantra, but the hard reality is that fewer than one in three young people achieve the dream” (Pathways, 2011, p. 9). In fact, it seems the current default goal, as it was in the Committee of Ten era, is to prepare all students for college even with the acknowledgment that many of them will not complete that path. In part, this may be a signal of high expectations: all students should graduate high school ready for college, even if they never enroll. In part it may also be because the potential for linking data sets and developing rigorous predictions in careers nationally is almost impossible to imagine.

When students leave high school, unless they enter a connected college system their data leave with them. Studies of employment can draw on data to calculate the unemployment rate of young adults, but there are no data that link employment back to high school records or the level or quality of their preparation. Instead most policy discussion is based on reports from employers on the skills they look for from job applicants. Schools and systems, however, are in many cases taking a more direct route, and enlisting partners to provide internships, to shape

curriculum, to mentor students about work life and choices --- and, they hope, to hire their graduates.

Career academies (often schools-within-schools) or career and technical educational CTE schools have for many years created links for their students between the school's programs and business. Since the 1960s, these programs have rejected the either/or diverging tracks of comprehensive high schools with a model that fuses the technical training of career readiness with the academic curriculum of college preparation. They stress application of academic skills to practical problems, hands on experience, and real-world connection to the field. In his 2013 national budget proposal, President Obama called for strengthening connections between high school and careers, and at the state level Governor Cuomo announced his intent to open ten more schools like PTech, one of the new small schools in New York City most directly engaged with an industry partner.

Small high schools in New York City sometimes organize around an industry sector or theme—like the old high schools of commerce, we now have a high school of commerce and industry, or law and justice, or public safety. Over the past decade, and with support from philanthropy, the NYC DoE has supported many new career and technical options. Twenty-eight new CTE schools and literally hundreds of programs within middle and high schools attempt to connect students to potential career skills. Ideally, they offer college prep with a career theme and, although there have been real concerns about weak connections in the curriculum (Ancess & Allen, 2006), MDRC has found “promising” evidence among career academies (Kemple, 2008) and the new small schools of choice in New York City, many of which have a career theme (Bloom & Unterman, 2012).

Efforts continue to find ways of making career readiness a central element, and increasing connections to external partners. New schools, like PTech, were designed with the help and ongoing partnership of external funders and external companies --- in this case IBM --- to strengthen that potential. The Eagle Academy for Young Men stresses connections to “solid, working professional men” who mentor students toward college and career goals, help connect them to internships—and have encouraged a graduation rate of 87% in 2013, beating the odds for black and Latino male students across the city in general, and in the Bronx in particular (where the first academy is located). Massachusetts has created a network to provide regional and rigorous Career and Technical Education schools, which have achieved not only higher

graduation rates but also higher passing rates on the Massachusetts Comprehensive Achievement System tests than comparable comprehensives, and Jobs for the Future has formed a network to support states and systems, including New York City.

But there is a tension around determining standards for career readiness and how high standards should be for academics. Both Florida and Texas are considering proposals to reduce requirements—and as in the case of the Cardinal Principles from 1918, the primary target is algebra. While advanced math, particularly Algebra II, has been a benchmark along the pathway of the traditional college prep student, there is growing concern that it has been, and continues to be, a barrier to many. If the purpose is to sort students in high school, that dual function makes sense. But if we want all students to be college ready, then its function as a barrier becomes dysfunctional. Moreover, if the studies referenced above are right that the content is not needed in most college or career pathways, we need new ways to certify the coursework that does lead to greater readiness --- and partners to validate the claim.

New York City schools are partnering in new ways not only with employers, but also with support organizations and the CUNY system. College Now, a dual enrollment and college readiness program, is offered at 17 CUNY campuses and 390 high schools, serving more than 20,000 students. This program began as a pilot in the 1980s, but has now expanded across CUNY campuses. Primarily for eleventh and twelfth graders, it is beginning to reach into tenth grade, and students can not only take college courses (and earn college credit) but also workshops on the pre-college topics like application processes and financial aid.

There are other partners in New York City engaged with city schools and students to strengthen college and career readiness. Now in 19 schools and growing, [iMentor](#) offers a College Ready Program that provides mentors to bring college knowledge to students beginning in ninth grade, to develop social capital and support networks, and to consider actions and decisions that affect college choices, often extending those relationships into the college years where so many students falter [link: [iMentor](#)]. One of the best known programs, the Goddard Riverside Options Center [link: [Goddard Riverside Community Center](#)] has long provided college preparation information and assistance to New York City students. Early on supported by private philanthropy, Options worked closely with schools, and within high school programs, to increase their capacity to ready more students for college and careers. The NYC DoE recently contracted with Options to provide its comprehensive college access training to every one of its

five hundred high schools, at a ratio of one trained staff member for every 35 seniors. There are many such partnerships --- with individual schools, or with groups of selected students, that operate throughout the NYC DoE system and with major investments from private philanthropy. Indeed, recent research from the Center for New York City Affairs (Nauer et al., & Tainsh, 2013) has identified literally hundreds of independent, often non profit, organizations and consultants who have taken up some of the work of college readiness preparation. The webpages of high schools within the NYC DoE system list a variety of such partnerships, most supported by diverse foundations: college guidance, career internship opportunities, mentoring and service options. While it is beyond the scope of this paper to provide a comprehensive look at all of the efforts underway, as the system moves toward college and career readiness for all students as the goal, becoming more systematic about identifying, evaluating, and ensuring equitable opportunities for students among these partners becomes an increasing need—and even these few illustrations suggest that there is much to be gained by such analysis.

Conclusion

As the American Diploma Report cited above noted, there are signs of “rapid progress” in this shift to consider college and career readiness as the goal for all students, “yet even the states that are farthest along with this work are, at best, only halfway to the goal of a truly aligned system” (Achieve, 2008, p. 1). The same thing can be said about the schools, the students, and the system here in New York City. There has been rapid progress, much activity, and there is still a long way to go. The examples included here are not exhaustive, and not even representative of all that is happening here in New York City --- they serve rather as illustration that much is happening. Increased documentation of just what is underway and systematic evaluation of whether and how these diverse efforts are working, or what lessons can be scaled up to tackle the new demands is a need across the country.

This is a sea change indeed, and a complex shift in which --- if it is to really happen --- everything changes, up and down the system, inside and outside of classrooms and schools. The distance to travel is considerable, and the disproportionate distance for some students, and for some schools, is daunting indeed. Earlier reform pressures pushing schools to focus on producing particular test scores or to devise four-year routes to the diploma for students most at

risk of dropping out, create cross-currents. Educators still struggling to meet one goal or the other find their most familiar strategies may actually have carried them further from this new goal, or left them without the capacity to move toward it. A concerted focus on tested subjects may have cost them the curricular breadth to offer the advanced courses, or the electives, that once again seem essential for college and career readiness. The demand to graduate all students in four years—even those who enter high school more than four years behind academically, or not yet fluent in English—has too often pushed schools to recover credits quickly rather than to work with students on what they will need for college and careers whenever they are ready to graduate. If we are to take this new effort seriously, we will need new metrics, and to take care that the benchmarks used to measure the progress of what had traditionally been a small percentage of students bound for college do not become barriers today’s larger and more diverse population.

We also need to go beyond individual performance metrics. We must measure --- and improve --- institutional capacity. Even more challenging, we will need a new mindset about the purpose and practices of high schools, and to shift deeply embedded assumptions that their function is to prepare some—but not all--students for college. This calls for fundamental redesign, where we focus not on ‘beating the odds’ in a few schools or with a few students, but on changing the odds for all students.

Across the system, in many schools, there are promising signs. Often at the margins, often fragile and dependent on philanthropic funding, new and sometimes longstanding efforts are underway to extend, expand, and enlarge our understanding of how the system can work, and to engage partners more actively in rethinking connections to colleges and careers. We need to learn from those efforts, and find ways to share their lessons more widely. The question of whether such changes can go to scale, penetrating through the layers of earlier reforms and disrupting the logic of the comprehensive high school, is an open one. Certainly it will not be fast, and it will not be easy to get to the goal where, as Education Secretary Arne Duncan has suggested, “high schools . . . shift from being last stop destinations for students on their education journey, to being launching pads” for students who will graduate ready for college and career.”

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