Camille A. Farrington and Margaret H. Small co-authored a paper titled “Removing Structural Barriers to Academic Achievement in High Schools” for the American Educational Research Assn. A revised version of the paper was published online as A New Model of Student Assessment for the 21st Century by the American Youth Policy Forum. Following are excerpts from that paper.

**Executive Summary: A New Model of Student Assessment**

The chronic academic underperformance and student failure of most American urban high schools are actually created by the antiquated way that schools evaluate student academic performance and award (or deny) course credits. When school leaders in a small urban high school in Chicago began to question the “received wisdom” of high school student assessment and common practices of grading, remarkable improvements in student performance followed, not just once, but year after year. By changing the system by which high school students pass courses and earn course credits, the school was able to simultaneously raise graduation requirements and increase graduation rates. These school leaders also created a student assessment database that serves as a model for a new generation of school and district student data systems, using classroom assessment data to inform instruction and to direct support services and remediation.

How does a school take urban kids with low test scores and myriad other life challenges and, within a few years, remediate a history of underachievement, significantly improve their chance of graduating, and successfully propel them on to college?

**Problems with the Traditional System**

The traditional system for evaluating student achievement has implications for urban high school students at every achievement level:

1. *For all students*, there are only time-limited incentives to learn course material and no opportunity or incentive to improve performance or learn more after grades are issued; no mechanism for recording student progress relative to learning goals; and a lack of connection between classroom grades, state learning standards, and standardized accountability measures.

2. *Students earning low but passing grades* accumulate credits even in the absence of substantive learning. They earn a high school diploma without achieving a requisite level of skills and knowledge, and a low grade point average threatens their eligibility for colleges and financial scholarships.

3. *For students who fail classes*, the resultant credit deficiency increases the likelihood that they will leave school without a diploma; a low GPA threatens their eligibility for colleges and financial scholarships even if they persevere to graduation; and their official school transcripts permanently record their failure and undermine their future life choices.
Under this traditional model, a small proportion of students in urban schools do well, but significant numbers fail to graduate, and the majority of those who do graduate are inadequately prepared for college or the workplace. Other factors, too, affect student achievement in urban schools, such as the quality of teaching and instructional leadership, characteristics of school culture and organization, and the availability of adequate resources. But even in a well-resourced classroom with a highly qualified teacher in a caring and challenging school environment, a heterogeneous group of students will be stratified in their achievement when learning time is held constant.

Those who demonstrate achievement above the bare minimum will be awarded course credit at the rate of one Carnegie unit per 120 hours of seat time, whether or not they have mastered requisite skills and content knowledge. Final letter grades will be communicated on report cards, permanently recorded on student transcripts, and calculated into grade point averages. External tests will be used to provide an evaluation of learning that mechanisms internal to the school seem unable to supply. This is how student achievement is currently structured in most American high schools.

Essential to this traditional structure of student achievement is the function of sorting students for entry into higher education and the labor market. Indeed, the system was designed for these purposes a hundred years ago; form follows function. Structural mechanisms record student success and failure in order to make clear distinctions between students at different levels of achievement; students at the lower end are effectively barred from further educational opportunity and severely limited in their capacity to participate in American society. Given the economic realities of the 21st century and the civic demands of our democracy, we cannot afford to write off the huge numbers of young people who struggle to succeed in high school. High dropout rates and low levels of academic achievement in urban high schools have dire consequences for individual students with ripple effects on families, communities, and the nation at large. Hundred-year-old structural mechanisms designed to draw academic distinctions among students have become powerful structural barriers to academic achievement for a significant number of students in today’s urban high schools.

**Hope: An Innovative Model in Chicago**

Like many urban districts, almost half the students in Chicago drop out of school without a high school diploma. The district-wide five-year cohort graduation rate in the Chicago Public Schools (CPS) in 2005 was 52%. That same year, the Young Women’s Leadership Charter School (YWLCS) graduated 78.6% of its students – mostly low-income, mostly African American and Latina – achieving the highest graduation rate of any non-selective public school in the city. YWLCS also sent the highest percentage of those graduates (87%) on to college. Any girl in the city is eligible to attend this public school, regardless of past grades or test scores.

What YWLCS does is to educate and evaluate “regular” public school students in a radically *irregular* structure. In the process, the school greatly increases the chances that its students will finish high school and be prepared for college. In calculating the “value added” by attending YWLCS, the University of Chicago's Consortium on Chicago School Research found that students with similar demographics and achievement levels would be *1.7 times more likely to graduate* if they attended YWLCS than if they had attended the average Chicago public high school. By directly addressing two
major barriers to high school graduation and post-secondary success – (a) student deficiencies in course credit and (b) gaps in necessary knowledge and skills – YWLCS offers a possible model for schools, districts, and states looking to improve the educational outcomes of their high school students.

**Structural Barriers to Success**
The authors of this paper argue that chronic academic underperformance is largely the result of the way student academic achievement is traditionally structured. Achievement is historically defined as the successful exposure to a given academic content within a fixed period of time, generally reported using semester grades. By standardizing the amount of instructional time available for learning, regardless of students’ needs, academic skills, or background knowledge, this traditional structure of achievement virtually assures some percentage of student failure and limits the potential performance of marginal students who might be reasonably expected to learn more if given more time and more exposure to instruction and feedback.

A related school structure – the mechanism for awarding course credit, typically associated with the Carnegie unit – also impedes the academic performance of students. First, it encourages low student performance by rewarding marginal students for passing classes with low grades, and, second, it makes it very difficult for failing students to recover from early course failure when they try. Taken together, these two structural mechanisms – semester grades and Carnegie units – make it likely for many students to under-perform and unlikely for failing students to get back on track to graduate.

**Stratification and inequity**
Ironically, these structural mechanisms were instituted a hundred years ago by college and university administrators who wanted to ensure a worthy applicant pool for higher education. The traditional use of semester grades and Carnegie units has served two intended and related purposes for the last century: (a) stratifying students for higher education and the labor market on the basis of school performance, and (b) providing quality control in the transition from high school to college while facilitating this transition for the upper strata. As America’s public goals have shifted over time from promoting “the best and the brightest” to the aspiration of “no child left behind,” we contend that these structures, intentionally designed to stratify achievement, have become impediments to achieving universal high school graduation. In this paper, we explore the relationship between chronic high school failure/dropout and the structural apparatus that organizes the traditional high school experience into time limited learning opportunities. While federal and state pressures to raise academic standards are intended to address the problems of chronic underachievement, by raising the bar we may also be lowering the boom on under-prepared high school students, given the traditional structure of academic achievement in America’s high schools.

Our basic premise is that the traditional structure of academic achievement is a stratifying model designed to spread achievement across a range from success to failure. When referring to the “structure” of academic achievement in the traditional high school model, we include these historical components: classroom grading practices, semester marking periods, permanent letter grades and grade point averages, Carnegie units/course credits, and high school transcripts. Much of this
structure is the legacy of the standardization of college admissions guidelines in the late 19th and early 20th centuries. In 1899, the National Education Association’s Committee on College Entrance Requirements recommended that a standard unit be developed to assess high school curricula so that colleges could reasonably determine the adequacy of a student’s preparation for higher education, even though only a small fraction of the students who attended public schools would actually attend college.

The Carnegie unit set the national standard. One unit of credit represents 120 hours of instructional time. Secondary school calendars were divided into semesters, and courses were configured into 60-hour instructional blocks per semester. At the end of each semester, students were given examinations to evaluate their learning, and grades were assigned to designate their achievement. All students received the same instruction, and instructional time was controlled, so the dependent variable was achievement. Students generally distributed themselves along a normal bell-shaped curve from success to failure. Each student’s level of achievement was then permanently recorded on his or her official transcript, designated initially by percentile scores which were eventually replaced by letter grades A to F. If the student earned a passing grade at the end of the semester, he or she was awarded “credit” for the course in the form of half a Carnegie unit. If the student failed to achieve a passing grade, the student would need to retake the course in order to earn the credit.

The Inevitability of Failure
From the viewpoint of the creators of this structure of achievement, the American educational system was intended as a pyramid, with elementary schools forming the broad base and colleges and universities at the narrow peak. That the size of the K-12 school population shrank in each subsequent grade level did not particularly worry the proponents of this system. Indeed, that was largely the purpose of the upper elementary and secondary schools, to winnow out the “laggards” and the “dull-minded” and to let the cream rise to the top. Rather than being elitist, advocates of this position saw it as inherently democratic. Most believed that American children should be given equal access to a common elementary education, and that students would persist according to their interests and abilities. The view of these educators was wholly meritocratic: If students of all backgrounds and abilities were sent through the school system, the system would sort out the wheat from the chaff.

When a 1903 study of California high schools found that almost a third of students statewide left school because of failing grades, with the number exceeding 50% in some schools, the study’s author regarded this as a natural process, concluding that “undoubtedly many failures were due to want of ability; for the incompetent and unfortunate will always be with us.” This sorting function of education is likewise evident in a teacher training textbook from the 1920s, which advised that “nothing that education can do will enable a non-selected group of individuals to approach equality either in ability or in achievement. Indeed, it may be confidently asserted that the net result of education is to magnify differences rather than eliminate them.” Within this system, educators sought to facilitate the transition from high school to college for those elite few who had proven themselves worthy of higher education, while providing a tool for college admissions personnel to identify students who were bona fide “college material.” Semesters, letter grades, grade point averages, Carnegie units, and transcripts were the essential components in a structure that fostered this selection and winnowing process.
Together these components structured the developing concept of “academic achievement” in the new American secondary schools of the early 20th century. In the decades that followed, this conceptual structure became the cornerstone of the modern American high school. The percentage of Americans who attend postsecondary institutions has never been more than about 65% of the eligible population of high school graduates, and hovers around 35% of the total population ages 20-24. Meanwhile, most American youth attend some high school, but the outcomes of those who do not graduate are relatively dire. Yet, achievement in high school is still structured to facilitate the selection of the few from the many.

**A New Model of Student Assessment**

Prior to opening YWLCS in Chicago in 2000, the faculty and administrators sat down to devise a new system of student assessment. As a charter school, we had autonomy to design our own curriculum, set our own school schedule, and create our own means of assessing students. As a college-preparatory school, we needed to hold high standards for student performance. We recognized, however, that if high standards were enforced with the mechanisms of the traditional letter-grade system, students who were academically ill-prepared to meet those standards would likely fail courses. This leaves educators with a serious dilemma: whether to lower standards in order to give “a break” to some hard-working (but low-achieving) students, or to maintain high standards and fail those students. Neither of these two options had much appeal at YWLCS.

We wanted to design a system of student assessment that would use a variety of measures of student learning, provide meaningful feedback to students and their families on their academic progress, motivate students to achieve and persevere, track student progress over time, raise expectations as students built skills, and allow students to accumulate knowledge at varying rates of speed without penalty. We also wanted to center conversations with students and parents on learning rather than on marks or grades. We wanted an assessment system that made learning objectives and evaluation visible, explicit, and social, altogether something very different from the traditional approach to student assessment.

We also recognized that the African American and Latino families we intended to serve were looking for a good school for their children; they were not necessarily looking to participate in a grand experiment. As one small school in a large public system, we also needed to comply with certain standardized practices at points where our school interacted with other institutions. Specifically, to achieve our mission of preparing and sending students to college, we needed to produce transcripts that would provide usable information for college admissions decisions (and that other high schools could interpret if students transferred out of YWLCS prior to graduation). These external expectations required us to utilize some common structural mechanisms, such as maintaining distinctions between students along traditional grade levels (freshmen, sophomores, etc.), dividing our school day into multiple class periods focused on traditional disciplines, awarding standard credits for successfully completed courses, and issuing high school transcripts. Our challenge was to transform these structural mechanisms to avoid the traditional pitfalls we describe here.

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Executive Summary of *A New Model of Student Assessment for the 21st Century* (Farrington & Small, 2008. Washington DC: American Youth Policy Forum)
Structural Barriers
While the YWLCS model shares many similarities with the traditional letter grade system, the underlying philosophy of student assessment is fundamentally different. The two key structural differences are these: (a) Student achievement is based on demonstrated proficiency in course outcomes, regardless of time; and (b) Student records always reflect the student’s best work to date, rather than preserving snapshots of past failure or inadequacy. We created a system whereby students are evaluated, awarded course credit, and promoted to the next grade based on demonstrated proficiency on specified learning outcomes for each course they take. We intentionally reframe inadequate performance as being “Not Yet Proficient” on course outcomes, a predicament that implies the need for further work toward a learning goal, rather than a summary judgment of failure with its accompanying consequences.

The YWLCS Model and College Admissions
While the YWLCS assessment system structures student achievement in a fundamentally different way than the traditional high school system, it is crucial that the model interface effectively with external systems such as college admissions offices. To this end, YWLCS students earn course credits, have transcripts, and can report grade point equivalencies (GPEs). In addition, the school works extensively to educate college and university admissions officers about its assessment system and to make sure they understand how to read YWLCS transcripts. College admissions personnel give the school high praise for its system and are able to use the data it provides to make well-informed admissions decisions. With the first graduating class, state colleges and universities requested that YWLCS translate its outcome ratings into a GPE, which now appears as a standard feature on the official transcript.

To date, over 95% of YWLCS graduates have been admitted to college by over 40 postsecondary institutions, both public and private, within the State of Illinois and across the country. By multiplying the high school graduation rate and college attendance rate of YWLCS and comparing that figure to the equivalent rates from CPS, we see that almost 7 in 10 (68%) of students entering YWLCS as freshman in 2000 graduated high school and went on to college. In contrast, only 3 in 10 (31%) of students entering other CPS high schools in the same year graduated high school and attended college. While we recognize the life-changing differences these numbers represent, we believe the true test of success will be found in the college persistence and college graduation rates of YWLCS graduates. As of May 2008, 67% of our first graduating class of 2004 was still enrolled in college after four years, with 23% of college attendees earning bachelors degrees in spring 2008 and a significant number of remaining students anticipating an undergraduate degree within the next two years. As more of our graduates finish college, we hope to demonstrate that schools do not have to be configured around a hundred-year-old model of seat time and Carnegie units in order to prepare students for admission to and success in postsecondary institutions.

Online Assessment Database
Educators at YWLCS believe that one of the primary benefits of our student assessment system is that it provides accessible, real-time, classroom-based student learning data that can serve as the basis for academic decision-making. The key tool enabling the YWLCS system to function is the database that

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supports it. In 2002, Database Designs in Chicago worked with YWLCS to create EASE™ (Equity and Achievement in a Standards-based Environment), a web interface enabling the school to create secure individual accounts for all students, parents, and teachers so they may check on student progress from any computer terminal with Internet access. Students and parents are able to view and print: a listing of course outcomes for current classes, a real-time unofficial transcript, and an individualized listing by department of all outcomes from current and past courses on which the student received a NY [Not Yet Proficient] rating. Students refer to this as their Not Yet list. Because students can easily access their own Not Yet list in school or at home, they can be proactive in addressing their unmet outcomes. This involves the student making a plan for working on unmet outcomes, contacting her teacher(s) to find out the kinds of evidence of proficiency she needs to supply, following through on completing work and turning it in, and monitoring her progress as teachers update outcome ratings based on the additional evidence the student supplies.

The assessment database allows each teacher to (a) check on the academic progress of his or her advisory students (with screens similar to those accessible to individual students and parents); (b) rate current students on the teacher's current course outcomes; (c) see the Not Yet list for each current student from past classes in the teacher's content area (e.g., the sophomore math teacher can look at his students' freshman math Not Yets); and (d) change past or current students' outcome ratings from the teacher's own or other teachers' courses. When a teacher enters student achievement data into the system, the updated information appears online and on the student's transcript.

The YWLCS system of student assessment provides an alternative model for addressing and overcoming major structural barriers to academic achievement inherent in the traditional system. Rather than presenting a series of opaque point-in-time snapshots of student performance, often preserving evidence of student failure, the YWLCS model captures a student's best efforts to date, while also recording instructionally useful data on student learning. While students can and do get “off track” in this system – falling behind in accumulated credits and requisite knowledge and skills – the system is inherently forgiving, not only allowing but structuring the opportunity for students to catch up with their peers en route to graduation.