

RESEARCH REPORT FEBRUARY 2013

FROM HIGH SCHOOL TO THE FUTURE

The Challenge of Senior Year in Chicago Public Schools



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Executive Summary

Historically, senior year has been a time of finishing up graduation requirements as most students entered the work force after high school. But in this new economy, most students now hope to go to college and those who are not entering college face a rapidly eroding labor market for young adults with only a high school education.

In a 2010 address to the College Board, U.S. Secretary of Education Arne Duncan laid out a vision for high school that advances the Obama administration's goal of the U.S. once again leading the world in educational attainment. In this new economic landscape, Duncan argued:

“High schools must shift from being last stop destinations for students on their education journey to being launching pads for further growth and lifelong learning for all students. The mission of high schools can no longer be to simply get students to graduate. Their expanded mission, as President Obama has said, must also be to ready students for careers and college—and without the need for remediation.”ⁱ

There is no grade in which the magnitude and complexity of this shift becomes clearer than in senior year. Historically, senior year has been a time of finishing up graduation requirements as most students entered the work force after high school. But in this new economy, most students now hope to go to college and those who are not entering college face a rapidly eroding labor market for young adults with only a high school education. This changing educational landscape means that students' coursework and activities in senior year are becoming increasingly important.

If the new purpose of high schools is to be a “launching pad rather than a last stop destination,” what does that mean for senior year? In our previous CCSR report, *Potholes on the Road to College*, we looked at this question from the perspective of whether students were effectively participating in college search and selection. In this report, we turn to students' academic experiences senior year. We analyze the coursetaking patterns of more than 50,000 CPS students in the graduating classes of 2003 to 2009. We look at the impact of senior year coursetaking on college enrollment and persistence. We describe the post-graduation outcomes of CPS graduates with extremely limited access to college.ⁱⁱ Finally, we draw on data from detailed interviews with seniors in three CPS high schools to take an in-depth look at students' experiences during senior year.

The bottom line is that there is much work to do if CPS is to shift the focus of twelfth grade from finishing graduation requirements to preparing for college and employment or training. Too many students who enter twelfth grade qualified to attend a four-year college are not participating in coursework that would signal to colleges that they are taking an academically focused senior year. Too many students enter senior year unqualified for college and without a viable pathway to employment. Too often, senior year in CPS looks like it is serving the needs of students 30 years ago, rather than the needs of students today. Perhaps most

“ [SENIOR YEAR IS EASY] because the way our school is set up. Each year you’re losing classes. You start off freshman year with seven classes...so it’s like of course it’s going to be hard your first year. But as you go along, you lose classes, so that burden becomes lighter...It’s just the amount of work that you’re getting. You’re not getting as much as you’re used to. ”

FRANKLIN, SENIOR YEAR EXPERIENCE

importantly, across nearly all types of coursework, students themselves portray their senior year experience as unchallenging and, for some, wasted time.

A central theme of this report is that there is no single answer to the question, “*What is a good senior year?*” Students are coming into senior year with very different needs. In order to look at differences in needs across students, we group students by their college qualifications at the end of eleventh grade (see box below). Some students enter twelfth grade with high GPA’s and test scores that make them positioned to attend a very selective college, while others are graduating with such low qualifications that their college choices are most likely limited to two-year colleges. These students might need very different supports and academic experiences. Thus, throughout this report, we focus on identifying the set of issues that educators need to grapple with for students on different trajectories.

HOW WE GROUP STUDENTS BY COLLEGE QUALIFICATIONS

1. Very high grades and test scores (access to **very selective colleges**);
2. High grades and test scores (access to **selective colleges**);
3. Strong—but not elite—qualifications for admission to four-year colleges (access to **somewhat selective colleges**);
4. Very low grades and test scores (access to **non-selective college**);
5. Extremely low qualifications for admission to open-enrollment schools only (access to **two-year colleges only**).

KEY FINDINGS

CPS graduation requirements ensure that all students take a common set of courses from ninth to eleventh grade. It is in senior year that the expectations for and experiences of students become differentiated by race/ethnicity, achievement, and especially by high school.

In 1997, CPS led the nation by raising graduation requirements to align with minimum coursework requirements for college entrance (three years of math, social studies, and science; and four years of English). Most of these requirements are finished by the end of eleventh grade, leaving little guidance about what courses students should take senior year. As a result, there is great uniformity in what most students take during the first three years of high school but wide variation in what they take senior year.

- More than 70 percent of white and Asian American high schools graduates in our sample took four or more courses in core academic subjects during their senior year, compared with 54 percent of African American and 58 percent of Latino graduates.
- Only one-quarter of African American and 29 percent of Latino graduates in our sample took at least one AP class in twelfth grade. In comparison, nearly half of white and 68 percent of Asian American graduates had taken at least one AP class. Similar patterns are observed for fourth-year math.

National estimates of coursetaking also demonstrate the same pattern of widening gaps in the proportion of graduates taking advanced coursework. In this report, we attribute the differences in coursetaking patterns by race/ethnicity in Chicago to: (1) differences in coursetaking by achievement and (2) differences in coursetaking across high schools. The combination of

“ I THINK I’M JUST LEARNING HOW TO THINK BETTER. Looking back, before we had to memorize, memorize like dates and all these things. Now, it’s more about thinking and analyzing and taking facts that you don’t have to memorize—you just see them in books—and then coming up with ideas. We spend so much more time talking, discussing things, and writing that I’m learning how to think better. ”

NADIA, IB SENIOR YEAR EXPERIENCE

these two factors means that African American and Latino students in Chicago are much less likely than white and Asian American students to be participating in a senior year that appears to be preparing them to be competitive in college admissions.

There is no clear set of expectations or consensus on what most seniors who are positioned to attend a four-year college should be taking their senior year. The exception is the most highly qualified CPS students, who generally take an advanced course load.

The highest-achieving CPS seniors—those students who enter senior year positioned to attend a very selective college—are generally participating in a senior year that includes a fourth year of math and one or more AP or International Baccalaureate course. This group, approximately 6 percent of graduates, is concentrated in selective enrollment high schools and specialized programs (e.g., International Baccalaureate programs) where students are expected to prepare for and go to college.

In sharp contrast, there seems to be no organizing

framework and common set of expectations for students who might be positioned to attend a selective or somewhat selective college. These students, approximately 50 percent of CPS graduates in the cohorts we studied, enter senior year on track for entrance into the majority of public universities in Illinois and a wide variety of private schools.

- Among students who begin senior year positioned to attend a somewhat selective college, only 60 percent took four or more core classes in their senior year, less than half (43 percent) took a fourth year of math, and just one-third took an AP course.

This lack of advanced coursework may have important implications for college admissions. College admissions officers we interviewed emphasized the importance of senior year coursework in admission, enjoining students to take a senior that is *“as rigorous or substantial as possible.”*

Given this focus on seniors’ strength of schedule, this report looks beyond specific courses to focus on

Senior year coursetaking is unevenly distributed by race/ethnicity

	Percent Taking Four or More Core Courses	Percent Taking Fourth-Year Math	Percent Taking One or More AP Courses	Percent Taking Two or More Vocational Courses
All CPS (N=90,041*)	59%	39%	30%	30%
African American (N=42,162)	54%	34%	25%	37%
Latino (N=30,672)	58%	36%	29%	25%
White (N=11,264)	70%	47%	43%	18%
Asian American (N=5,792)	77%	68%	57%	14%

Note: Numbers in this table come from 2003–09 CPS graduates (N=90,041) who were not enrolled in special education and not in alternative or charter high schools. The sample does not include students who took fewer than four courses in their senior year.

*Some ethnic groups were excluded from this N due to the small numbers of students in those groups.

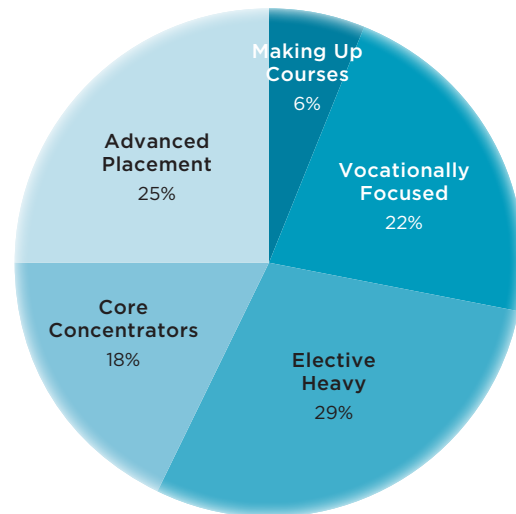
students' overall experience senior year. We characterize the academic focus of seniors' overall schedule—the transcript those admissions officers would receive.

The majority of CPS seniors have schedules that could be characterized as focused on completing graduation requirements rather than preparing for college. Their schedules fall into five distinct coursetaking patterns. Importantly, these patterns are not simply a result of different achievement patterns. In fact, CPS seniors with the same qualifications are often taking different course schedules. The lack of commonality in coursetaking among students positioned to attend a four-year college is most striking for students who enter senior year with access to somewhat selective colleges. Across high schools, seniors in this group were nearly equally as likely to be taking an Elective Heavy senior year, an Advanced Placement senior year, or a Vocationally Focused senior year:

- A small group of students (6 percent) are focused on making it to graduation and need senior year to make up courses and finish requirements. We categorize this group of students as “Making Up Courses.”
- Approximately one in five students with access to a somewhat selective college is finishing vocational program requirements and taking multiple vocational courses in addition to non-core graduation requirements. We call this group of students “Vocationally Focused.”
- The most common pattern, which we term “Elective Heavy,” consists of students who are taking multiple electives in both core (social studies and English) subjects and non-core (music, art, and physical education) subjects.

Students who enter senior year qualified for a somewhat selective college have no dominant pattern of coursetaking in senior year

Access to Somewhat Selective Colleges



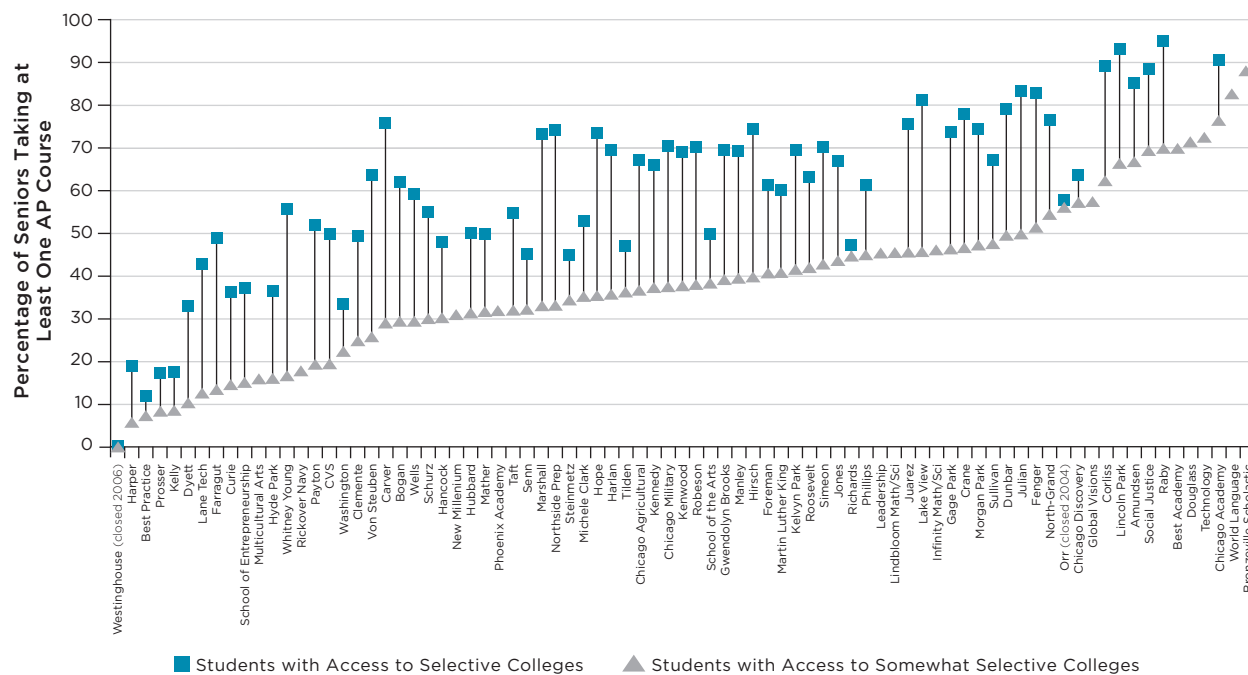
The stereotype of senior year is that students are choosing easy courses and “coasting to graduation” and thus that the differences in coursetaking we observe reflect differences in students’ motivation. What we find instead is that whether students who enter senior year positioned to attend a somewhat selective college fall into an Elective Heavy, an Advanced Placement, or a Vocationally Focused class schedule was largely determined by what high school they attended.

- Among students who are qualified to attend a somewhat selective college, the proportion of students taking AP varies from a low of less than 10 percent in some high schools to a high of nearly 90 percent.

“ [IT’S] JUST BORING. We ask [our teacher], and he just says it’s up to us to know what to do...and I’m just sitting there, like, “Why do they do this to us?”... [we] just sit there sometimes for two whole periods. ”

SHAYLA, CULINARY AND HOSPITALITY COURSE

Participation in AP coursework varies widely across high schools, even among similarly qualified students



Note: Numbers in this table come from 2003–09 CPS graduates who were not enrolled in special education and not in alternative or charter high schools. Data points were only included if school had 15 or more students in a given category.

Taking Advanced Placement courses and a fourth year of mathematics may shape college access but is not associated with improved retention in college once students are enrolled.

If coursetaking in senior year is associated with college enrollment and retention, then these differences across high schools in their expectations for students may have very real implications for their college access and performance. Estimating the impact of coursetaking on college outcomes is complicated by the fact that students who take AP courses or a fourth year of math may be the most motivated students and thus would have done better in college anyway. To address this problem, often called selection bias, we use an innovative methodology of matching students across schools to estimate the effect of senior year coursetaking on the likelihood that students will enroll in a four-year college, a selective or very selective college, and, once in college, whether they are continuously enrolled for two years. Without using these controls for selection, we would overestimate the effects of advanced coursetaking.

After addressing this problem of selection, senior year coursetaking, particularly taking AP courses, is

associated with an increase in the likelihood that students will attend colleges that they are qualified to attend.

- Among students who enter senior year positioned to attend a somewhat selective college, those who took an AP course were substantially more likely to enroll in a four-year college. Those who took a fourth year of math were also more likely to enroll in a four-year college.
- Among students who enter senior year positioned to attend a selective college, taking two or more AP courses is associated with a substantial increase in the odds of enrolling in a selective or very selective college (i.e., making a college match).

However, while coursetaking is strongly associated with college enrollment, there is no association between taking AP courses, fourth-year mathematics, or four core courses and retention in college. Though we find no effects on college retention, our findings may miss other critical effects of taking advanced coursework. Without college grades and coursework placement, for example, we cannot look at whether



I GOT THREE REAL CLASSES AND THE REST OF THEM ARE BLOW BY'S.

First period I have Spanish. Second period I got World Literature, and 3rd period I got Physics. The rest of my day is a blow off...4th period I got PE, 5th period band, and 7th period is just a work study class. My class is supposed to be with carpentry and architecture, and I have a job at a grocery store.”



KYLE, AN HONORS STUDENT

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participation in fourth-year mathematics or AP courses allowed students to do better in terms of course performance (grades) or avoid remediation.

Making a shift from twelfth grade as the endpoint to twelfth grade as a launching pad will require a fundamental rethinking of senior year on the part of educators.

A surprising finding is that regardless of achievement level and regardless of whether students took advanced courses, the overwhelming majority of the seniors in our qualitative study describe senior year as unchallenging. They characterize senior year as easier than previous years. They describe multiple classes in which little work is required, and often said that they learned so little in senior year that they might as well have skipped the grade.

The primary strategy that CPS has pursued in making senior year a college-preparatory experience is expanding access AP courses. This strategy partly works. Students described their AP classes as being more challenging than other senior year classes and more challenging than similar classes taken in previous years of high school. They thought their AP classes were teaching skills and competencies that would be beneficial in the future.

The central problem with the AP strategy is that is insufficient. Many highly qualified students in our study enrolled in at least one AP course, in addition to whatever schedule was common for students at their school to take. However, adding one or two AP courses does not ensure a challenging senior year. This is in contrast to the experiences of students in our sample enrolled in the IB program who reported a challenging senior year filled with rigorous coursework and skill-building for college.

In addition, the AP strategy does not reach all students. For seniors not in AP classes, English IV often became an anchor, presenting clear standards and goals for students’ learning in their final year of high school instruction. Unfortunately, most other classes filling students’ senior year schedules lacked this kind of focus. The coherent narrative that emerged in students’ accounts of senior year coursework was one of minimal workload and low standards and engagement across the board.

Much of the reason that the students we interviewed found senior year to be unchallenging overall was because their days were dominated by unchallenging elective courses in both core (English, social studies) and non-core (fine art, physical education, and vocational) subject areas. Students described these classes as “not real,” “blow-off” classes where “nothing happens.”

Roughly 45 percent of CPS graduates begin senior year off of the trajectory to attend a four-year college with some level of selectivity. These students face rapidly deteriorating employment prospects.

Perhaps the most troubling challenge of this report is the high proportion of CPS graduates who leave high school with such low GPAs and ACT scores that they have only the most limited college options and extremely low odds of succeeding in any college. In a special supplement, “Not in College, Not Working, and Out of Options,” we conduct an analysis using both employment and college enrollment data to track three cohorts of these students in the year after graduation. These are the graduates with the weakest skills who are most vulnerable in the job market and in college admissions. We draw on more recent national data on youth employment to discuss the range of problems facing these

students. Employment prospects for these students are further complicated by the fact that nationally fewer than 10 percent of Latino and African American high school students hold jobs, limiting the job skills they are able to gain while in high school.

- In the fall after graduation, the most common outcome for CPS students who have very low college qualifications was to be neither working nor in school. Those who do enroll in postsecondary education are unlikely to persist, and those who find work are substantially underemployed (analysis of the graduating cohorts of 2003-2005).

The current dramatic recession has exacerbated this problem. Nationally, the employment rate of recent high school graduates not enrolled in college has plummeted, from 76 percent in 2000 to 61 percent in 2011.

Concluding Points

Over the past several years, “college and career readiness for all” has become the mantra of education reform in the United States. At one level, this report would seem to take on only a very small piece of this large goal of college and career readiness. The challenges of senior year described in this report, however, demonstrate the magnitude of the problems educators face in creating an educational experience that truly prepares students for life after graduation. We hope that the analysis in this report will inform a discussion of how best to reform senior year, but also spark a conversation about the important challenges that precede and follow this pivotal period.

At first glance, some of the findings of this report may lend themselves to a rules-based solution. For example, given the wide variation in students’ experiences across CPS high schools, requiring all seniors to take a fourth year of math has a certain appeal. However, the findings of this report suggest that the variation across high schools is evidence of a much deeper problem: the underlying lack of clarity among high school educators about what college and career readiness means and for whom. Coursework requirements may solve the problem of wide variation in students’ opportunities across schools; however, such requirements may also create problems, such as putting lower-achieving students at

risk of not graduating. Most importantly, however, imposing a rule-based solution does not address the overall poor quality and lack of challenge in senior year courses.

What most needs to change is the culture of senior year, and that will take more than changing requirements. For students who hope to attend college, senior year must be reinterpreted as more than the end of high school and should instead function as a bridge into college. Transforming senior year ultimately requires school leaders, counselors, and teachers to initiate a culture shift in the purpose of senior year. Teachers need to engage in a discussion of what skills and academic behaviors students will need in order to do well in college and how those skills and behaviors need to develop over time. As a first step, educators must become engaged in actively deciding not just what courses students should take, but how teaching within and across those courses will prepare students for postsecondary opportunities.

We need an equivalent shift in culture and a set of new institutional arrangements for those students who get to graduation with low grades and ACT scores. Teachers, students and families need to understand that graduating with a D average is no longer enough. The first priority is to intervene earlier and ensure that students do not get to senior year having just passed their courses. Senior year, however, also needs to be as much a launching pad for students who do not go to college as for those who are college bound. Although we are only able to provide a cursory sketch of these students and their post-high school outcomes, their experiences and the prospects they face in the labor market and postsecondary education are a bellwether of the extent to which the transformation in the economy has dramatically altered the landscape for young adults. It has revealed significant gaps in our education and postsecondary employment and training systems that need to be attended to if all students are to successfully transition out of high school. We must consider: What is the comprehensive strategy that would sets students who graduate high school without the likelihood of going to college on a path towards financial stability and viable life choices?

Educators might wonder where to place senior year on their list of priorities. At present, high school leaders

have few incentives to address the issues highlighted in this report. High school educators are under enormous pressure to raise test scores, reduce dropout rates, increase attendance, and ensure safety. Fixing senior year would not necessarily solve any of those problems, and as such, might rate as a fairly low priority.

But that is not the case if we are interested in college readiness and access. "Fixing senior year" requires grappling with a number of questions that are crucial not just for twelfth grade but for grades nine, 10 and 11 as well: What sets of skills do students need to develop

in order to make a successful transition from high school to college? How do those skills differ for different groups of students? What would it mean to create a truly transitional year? All of these questions provide an important opportunity to think critically about how to transform high schools from institutions largely focused on graduating students to institutions that equip all students for college and postsecondary training. We hope that the analysis and findings presented in this report will provide educators and policymakers with more useful tools to begin this important work.

Executive Summary Endnotes

i Arne Duncan "The Three Myths of High School Reform" Remarks of U.S. Secretary of Education Arne Duncan to the College Board AP Conference July 15, 2010, Washington, DC 20010. (Speaker may have deviated from prepared remarks.)

ii By linking this dataset to data from the National Student Clearinghouse, we are able to identify students' college enrollment and persistence, though we are unable to track more detailed information about students' performance in college, such as grades, remediation, or credit accumulation.

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