

CHAPTER IV

Table 7 Graduation Rates by Ethnicity and Gender Using Manhattan Institute Methodology¹⁰⁴

	U.S.			Illinois		
	All	Male	Female	All	Male	Female
White	78	74	79	85	83	86
Asian	72	70	73	85	85	85
ALL STUDENTS	70	65	72	73	70	76
Black	55	48	59	49	42	55
Hispanic	53	49	58	54	49	60

According to the Education Trust, reported graduation rates for Illinois using other methodologies ranged from around 86% to 75%.¹⁰⁵ Regardless of the method, the conclusions are the same: too few students are completing high school, and black and Hispanic students are not completing high school at the same rates as their peers.

Table 8 Comparison of Graduation Rates for Illinois¹⁰⁶

	Illinois Reported 2002-2003 (Senior to Graduation)	Manhattan Project Based on Students Entering 9th Grade 2000-2001
Black	73%	48%
Hispanic	78%	58%
All	86%	75%

Illinois faces a daunting challenge. The predicted demographic changes in Illinois will result in increasing numbers of students from the populations most likely to drop out of school.¹⁰⁷ At the same time, the state will be facing a potential shortage of skilled workers, as discussed in Chapter I. **Keeping Illinois competitive requires solving the dropout problem.** Perhaps the first step is to determine why students, especially the black and Hispanic male students, do not complete high school. According to a Gates Foundation report, 88% of the high school dropouts have passing grades and many leave because they are bored.¹⁰⁸ Part of the solution appears to be connected to the high school curriculum and delivery of instruction.

Readiness for College

Students who enter college unprepared are less likely to succeed, and, if they are not ready for college, they often are not ready for gainful employment either. What makes a student ready for college? Current national discussions are debating what “college readiness” means. Some studies include a broad definition and include academic indicators as well as other characteristics. One contingent of researchers is looking at courses taken in high school, especially the completion of a college core or participation in Advanced Placement (AP) courses.

READINESS FOR COLLEGE AND WORK

This section of the study looks at readiness for college through the following research:

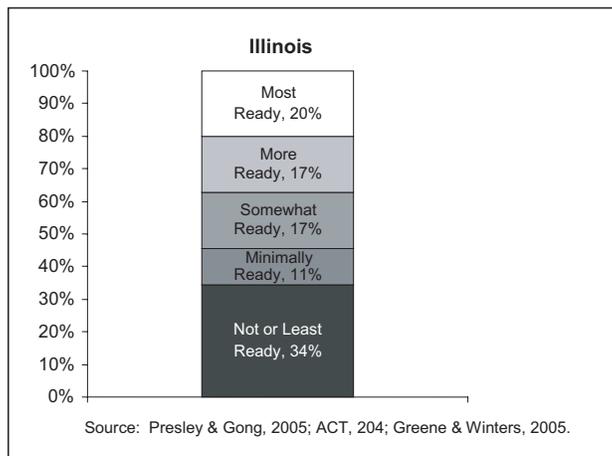
- College readiness of the Illinois class of 2002
- Courses taken in high school
- Performance on Advanced Placement exams
- College remediation rates

Each of these threads of research provided very similar conclusions: students complete high school with a wide variation in college readiness, and just completing a given curriculum does not ensure the student will be successful in college. Similar to the findings on the other student achievement indicators, there is a wide disparity in the college readiness of students based on income and ethnicity; low-income students, Hispanic, and black students are the least prepared for college across all definitions of college readiness.

College Readiness of the Illinois Class of 2002

Presley and Gong of the Illinois Education Research Council studied the college readiness of the class of 2002 of Illinois public high schools.¹⁰⁹ The college readiness index included the ACT scores and high school grade point averages of the high school graduates. As shown below, the Illinois data is consistent with national data; slightly more than one-third of the students are “college ready,” and approximately one-third are far from being ready.¹¹⁰

Figure 29 Readiness of High School Graduates for College¹¹¹



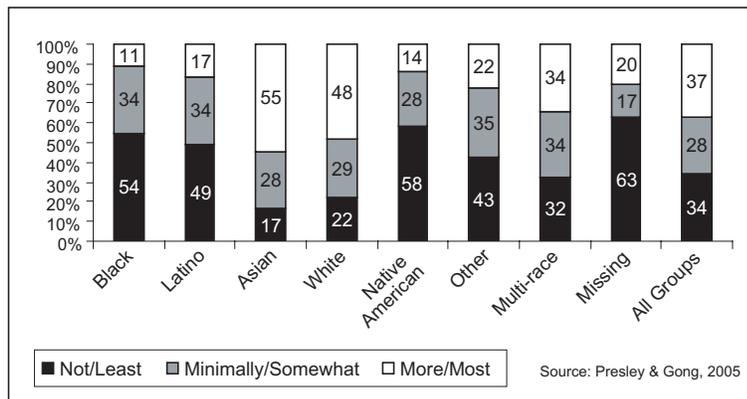
In general, Illinois females are more likely to be more/most ready (39%) than males (35%). Presley and Gong also found significant differences in preparedness by level of income and ethnicity, two factors that are co-related. Of the graduates from families in the lowest income quartile, 42% are not ready for college, compared to 13% of the graduates from high-income families. At the other end of the scale, 65% of the graduates from the highest income quarter were deemed “most or more prepared” compared to only 20% of those from the lowest family income quartile. In other words, “graduates from high-income families are

CHAPTER IV

about three times as likely to be college ready as those from low-income families. Within each income quartile, females are more likely than males to be more/most ready.”¹¹²

Around half of the Asian graduates (55%) and white students (48%) were found “more/most ready” for college, compared to significantly fewer black (11%) and Hispanic graduates (17%).

Figure 30 Readiness of Illinois High School Graduates by Ethnicity¹¹³



Courses Taken in High School

Several research studies investigated the relationship between the courses taken in high school and college success, including assessing the impact on students’ perceptions of preparedness on their academic performance. In a national study, respondents who had taken a rigorous high school curriculum were more likely to feel prepared for college (80%) than were students who had taken moderately difficult courses in high school (58%) or had low expectations in high school (37%).¹¹⁴

In Illinois, the ACT is part of the Prairie State Achievement Exam (PSAE), which is used to assess student academic performance in the 11th grade as mentioned in Chapter III. ACT has identified a core curriculum that it considered appropriate to prepare students for college. **From 2001 to 2005, fewer than half of all Illinois students completed the ACT core curriculum.**¹¹⁵

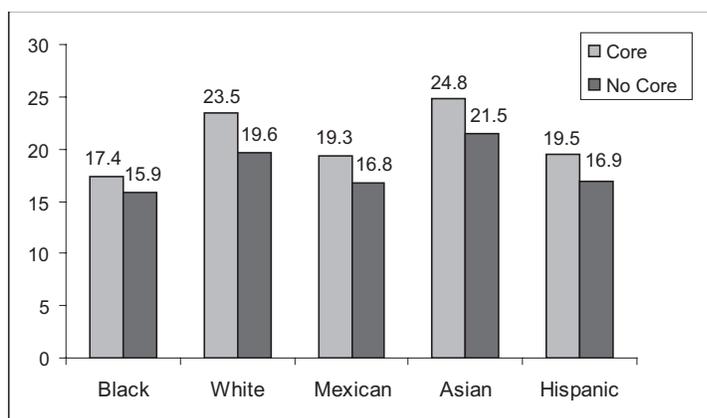
From 2001 through 2005, the scores of Illinois students who completed the ACT Core Curriculum averaged 10% higher on the ACT mathematics and science exams than students not completing the core.¹¹⁶

Fewer black students (37.5%), Mexican-American students (39.0%), and Hispanic students (38.5%) completed the ACT core curriculum than did white students (51.5%) or Asian students (61.1%). For each race/ethnicity group, the average ACT score for the students completing the ACT core curriculum was higher than the average ACT score for those not completing the core. The effect of completing the core, however, was not the same across

READINESS FOR COLLEGE AND WORK

the different groups; e.g., black students completing the core still scored lower than some other groups not completing the core. This could be an indication of the variations from school to school between the level of expectations and the quality of instruction.¹¹⁷ Research is underway in Chicago and elsewhere to help explain this gap.

Figure 31 Average 2005 ACT Score by Ethnicity and Core Courses¹¹⁸



In a joint effort between ACT and The Education Trust, four factors emerged as critical in preparing minority and low-income students to succeed in first-year college courses: rigorous high school courses at the college-preparatory level, well-qualified teachers, flexible pedagogical styles, and tutorial support.¹¹⁹ These issues, along with the new ACT core, are discussed further in Chapter VI.

Performance on Advanced Placement Exams

Advanced Placement (AP) courses offer college-level coursework and the option to take end-of-course exams. Students who score high enough on the AP exams earn college credit. These courses both accelerate academic progress and save money for students by shortening the path to college graduation. Access to AP courses varies substantially among high schools.

The *Science and Engineering Indicators 2006* used high school students' participation in Advanced Placement (AP) exams as a gauge for the access to AP courses and the students' willingness to engage in more rigorous curricula.¹²⁰ Over one-fifth (20.9%) of the U.S. Class of 2004 took at least one AP exam, which is an increase from the 15.9% who did so in 2000. In Illinois, 13.4% of the public high school students took at least one AP exam in 2000, and 18.6% did so in 2004.¹²¹ Even though more Illinois students are sitting for AP exams than in the past, a smaller proportion of Illinois students are taking the exams when compared to the U.S.

CHAPTER IV

AP exams are scored on a scale from 1 to 5, with 3 representing average (midlevel B to midlevel C) college performance. At all but the most selective colleges, an AP score of 3 will be granted college credit for the course and/or placement into a more advanced level. The share of students receiving at least one rating of 3 is considered by the *Science and Engineering Indicators 2006* as a measure of the extent to which the class of 2004 was offered access to a rigorous curriculum and mastered the requirements.

For the class of 2004 in Illinois, 71.5% of those taking at least one AP exam received a score of 3 or better on at least one exam, compared to the national average of 63.2%.

Table 9 **Percent of Public High School Students Taking an AP Exam Compared to Percent Scoring 3 or Higher on at Least One AP Exam**¹²²

State	2000		2004	
	Took Exam	Scored 3 on At Least One	Took Exam	Scored 3 on At Least One
New York	27.3	17.9	32.4	21.2
Florida	22.7	13.5	33.5	19.2
California	22.2	15.0	28.5	18.7
Wisconsin	15.2	10.5	20.0	13.7
Illinois	13.4	9.9	18.6	13.3
USA	15.9	10.2	20.9	13.2
Texas	16.6	9.9	23.2	13.1
Michigan	13.9	8.8	16.8	10.9
Minnesota	13.4	8.1	16.4	10.6
Pennsylvania	12.4	8.3	14.9	10.1
Ohio	11.3	7.1	15.2	9.4
Indiana	11.9	6.0	15.5	7.7
Kentucky	10.6	5.5	15.5	7.7
Iowa	6.9	4.9	10.0	6.6

Variations in AP access are considerable, which has impelled both national and Illinois state administrators to devise incentives for increasing the number of AP offerings and the number of students choosing AP courses. The Illinois students who sat for an AP exam in 2004 were disproportionately white (87%) or Asian (16%). Black students who comprise 21% of the Illinois public school population comprised only 2% of those taking an AP exam; likewise, the Hispanic population was under represented (17% of total population versus 4% of AP test takers).¹²³

READINESS FOR COLLEGE AND WORK

College Remediation Rates

Colleges and universities assess entering students' academic preparation through a variety of assessments, including transcript analyses and placement tests. Colleges using transcript analysis look at courses taken and the grades received. There is growing evidence that grades are one of the strongest predictors of college success.¹²⁴

Research on remediation rates is confounded because readiness standards differ greatly both within a college and between colleges. Nationally, "between 28% and 40% of first-time freshmen in four-year public institutions, and between 42% and 63% of first-time freshmen in two-year public institutions, enroll in at least one remedial course."¹²⁵

According to college faculty across the nation, 20% of the entering freshmen are "not well-prepared" and 32% are "somewhat well-prepared" in science. For mathematics, nearly one-third of the students were rated by college faculty as "not very well-prepared" and another third were described as "somewhat well-prepared".¹²⁶

The bottom line is that large numbers of students are entering college in need of remediation. In fact, in 2005, a total of 83,585 Illinois public community college students enrolled in remedial courses in mathematics.¹²⁷ The need for remediation decreases the chances the student will graduate. A national study found that 75% of students not needing remediation will graduate; however, only 46% of students needing one or two remedial mathematics courses will graduate.¹²⁸ If this holds true, over 45,000 Illinois community college students enrolled in remedial mathematics courses will not persist to graduation. In addition, the true number of students needing remediation is not known. Some students decide not to enroll in college after taking the placement tests, and others downgrade their ambitions to certificates not requiring college-level preparation.

In summary, there is great variation in the college readiness of graduating seniors in Illinois, and the students least prepared are mostly from low-income populations. Even though a rigorous high school curriculum helps prepare students for college, completing a college-prep core of courses does not guarantee the student is college ready. The differential effect of the college-prep core appears to indicate variation in the level of expectations and quality of instruction within and among schools. There are many costs to under preparedness—students need remediation at the college level or they may decide not to pursue further education.