



THE WOODROW WILSON EARLY COLLEGE NETWORK

STUDENT PERFORMANCE REPORT

EARLY COLLEGE ENGLISH AND MATH COURSES 2004-05 TO 2007-08

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TAKING COLLEGE COURSES IN HIGH SCHOOL

Enrollment¹ in college courses²

- From 2004-05 to 2007-08, 7 schools in the WW Early College Network offered 44 college English courses, with an enrollment of 792 students.
- In the same time period, 7 schools offered 41 college math courses to 584 students.

Overall pass rates³

- 91% of students enrolled in college English courses passed the course.
- 80% of students enrolled in college math courses passed the course.

In the Early College High School Initiative, students who had not been on the academic path to college are given the preparation for and the opportunity to earn one to two years of college credit while in high school. Research has shown that earning less than 20 credits in the first year of college reduces the likelihood that a student will complete a college degree,⁴ so earning credits in high school may give early college students a boost. Now, many early college students may be the first in their families not only to go to college but to graduate.

Taking developmental coursework (also referred to as remedial or basic skills coursework) in reading, writing, or mathematics in college also tends to slow down and reduce a student's chances for completing college.⁵ When early college students take – and pass – college coursework in these core subjects, they may be able to avoid remediation and stay on the path to a college degree.

This report provides one indicator of the potential for secondary students in the Woodrow Wilson Early College Network to bypass some of these challenges: a summary of the passing rates for students enrolled in college English and math courses. Students who passed the courses received college credit and may or may not have received high school credit.

Currently, there are 12 schools in the WW Early College Network – with 5 more scheduled to open by fall 2010 – serving students in high-need school districts in California, Kansas City MO, Washington DC, New York, and Connecticut. The first four schools in the network opened in fall 2003. By 2007-08, 11 WW schools served 3,500 students, primarily low-income students and students of color (see the notes section for more information about the WW Early College Network and the schools in this report).

¹ **Enrollment:** The number of students taking a particular course. This includes those who did not complete the course, such as those with incompletes and those who withdrew from the course. The total enrollment figures presented in this report are “duplicate counts:” when students take more than one course, they are counted more than once in the total enrollment count.

² **College course:** A course provided by an early college's college partner in which the college partner awarded college credit to students who successfully completed the course. The Woodrow Wilson Foundation did not make presumptions about any course in this report. Some courses may not transfer for credit to four-year institutions and some of the courses may be considered developmental. In addition, there is some debate within higher education about which mathematics subjects should be considered college-level. The only courses labeled in this report as developmental were those English courses specifically reported as such by the college (see page 6 for pass rates by type of English course). Detailed course catalog descriptions for all courses in this report are available upon request.

³ **Pass rates:** the percent of students who received a grade of A, B, C, or D out of all students enrolled in a course (including those with incompletes, those who withdrew from the course, or those who did not meet college requirements for successful completion)

⁴ Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through college*. Washington, D.C.: U.S. Department of Education.

⁵ Adelman, 2006.

COLLEGE ENGLISH

For WW Early College Network students in college English courses:

- 88% passed Composition I
- 96% passed Composition II
- 90% passed advanced English courses (such as *Literature and Cultural Diversity* and *Reading of Shakespeare*)
- 87% passed developmental English

Instructor

Thirty-seven (37) of the courses at 5 WW early colleges were taught by a college faculty member and 7 courses, at just 2 WW early colleges, were taught by a high school faculty member, who either had adjunct status at the college or was mentored by a college faculty member.

- 88% of those in college English courses taught by a college instructor passed
- 99.5% passed in courses taught by a high school instructor

Course length

Ten (10) of the 44 courses were “stretch”⁶ courses.

- 96% of those in a stretch course passed
- 88% of those in the 34 semester-based courses passed

Year

The college English course offerings increased each year as the WW Early College Network expanded and schools rolled out grade levels to reach full implementation. In 2004-05, just one school in the WW Early College Network offered two college English courses to 42 students. In 2007-08, six schools offered 24 courses to 470 students. The pass rates dropped between 2005-06 and 2006-07, but remained steady into 2007-08 as enrollments in college English courses increased in that one year from 3 to 6 schools, 10 to 24 courses, and 141 to 470 students.

- 100% passed in 2004-05
- 98% passed in 2005-06
- 89% passed in 2006-07
- 89% passed in 2007-08

COLLEGE MATH

Schools offered a variety of college math courses to early college students. The most popular course was precalculus, with 6 schools offering 15 of these courses over the 4 school years.

- 91% passed Precalculus
- 81% passed Calculus I
- 63% passed advanced calculus courses (such as *Partial Differentiation*)
- 62% passed Statistics courses
- 77% passed Finite Mathematics
- 74% passed College Algebra

⁶ **Stretch course:** a college course that provides half of a traditional semester-based college course’s content and half of the credits, such that the equivalent content taught in a college course is stretched out over a full academic year.

Instructor

Thirty-one (31) of the courses were taught by a college faculty member and 10 courses were taught by a high school faculty member, who either had adjunct status at the college or was mentored by a college faculty member.

- 75% of those in college math courses taught by a college instructor passed
- 95% passed in courses taught by a high school instructor

Course length

Four of the 41 college math courses were “stretch” courses.

- 98% of those in a stretch course passed
- 78% of those in the 37 semester-based courses passed

Year

The college math course offerings also increased each year as the WW Early College Network schools matured. In 2004-05, one school in the WW Early College Network offered two college math courses to 42 students, and the same school offered 4 courses to 63 students in 2005-06. The pass rates dropped between 2005-06 and 2006-07, when course offerings increased to 16 and 167 students in 4 schools enrolled in college math courses. In 2007-08, pass rates increased again when six schools offered 19 courses to 312 students.

- 100% passed in 2004-05
- 100% passed in 2005-06
- 72% passed in 2006-07
- 77% passed in 2007-08

REVIEW OF STUDENT PERFORMANCE

The data presented in this report indicate that pass rates for early college students in the WW Early College Network who took college English and college math courses were high, although pass rates in college English were higher than those in college math. Combined with the higher enrollment numbers in college English over college math, this result suggests that WW Early College Network schools better prepare students for success in college English.

In addition, college English pass rates were higher in more advanced courses, but the pass rates in college math decreased along the calculus sequence progression. The highest pass rate in college math was in precalculus, which also had the highest enrollment. Precalculus and calculus pass rates were higher than pass rates in statistics, finite math, and college algebra suggesting that the college prep curriculum in WW early colleges may focus more on preparation for calculus than other forms of mathematics.

Differences in pass rates by type of instructor and by course length were striking. The pass rates in courses taught by high school instructors and in stretch courses were 95% or higher. On the other hand, in college courses taught by college instructors, the pass rate in English was 88% and the math pass rate was 75%. And in college courses taught in the semester format, the pass rate in English was 88% and the math pass rate was 78%. These results suggest that the instructor and the pacing influence students' grades in college courses. More information is needed to understand why.

The pass rates in the early years of the WW Early College Initiative were at or near 100% but dropped below 100% as more schools began offering courses. At that stage of the initiative, the drop did not represent decreased improvement at any one school; it most likely reflected differences among the

schools – such as differences in school policies for placing students in college courses. The stable pass rate in college English (89%) and the 5% increase in the pass rate in college math (up to 77%) over the last 2 years of the analysis, a time when enrollments grew substantially, suggest that pass rates are improving.

The prior achievement of students enrolled in college English and math are unknown. Differences in pass rates reported in this document, therefore, may only reflect differences in the achievement level of students who enrolled in different courses, rather than differences in course structures. Furthermore, these outcomes only reflect the success of students who actually enrolled in college English and math courses and do not consider what proportion of the student body is left out of the analysis. Given that there were 792 student enrollments in college English courses over the 4 years and only 584 student enrollments in college math courses, it appears that many early college students did not take college math.

Additional caution should be taken when interpreting these results: since there is no coordination or articulation of college course content across the WW Early College Network, similar course titles may not reflect similar course content.

Because of these issues, additional data are needed in order to better understand student performance. However, this report does raise some important considerations:

- For what types of mathematics should WW early colleges prepare students? How might schools better prepare students for more advanced calculus courses, statistics, or other mathematics fields?
- How can schools help students perform better in college courses that are taught by college instructors in a single semester?

NOTES

This student performance report is part of an effort by the Woodrow Wilson National Fellowship Foundation to document and understand what is working in WW Early College Network schools.

About the WW Early College Network

The WW Early College Network, facilitated by the Woodrow Wilson National Fellowship Foundation, is part of a national Early College High School Initiative coordinated by Jobs for the Future with funding from the Bill & Melinda Gates Foundation (<http://www.earlycolleges.org>). The WW Early College model creates a college-going culture in high-need schools, emphasizes excellence in teaching and learning, and adapts to local governance needs.

In 2007-08, the 3,500 student population in the WW Early College Network was 43% Hispanic, 36% Black, 10% White, 8% Pacific Islander/Asian American, 2% multi-racial, and 0.5% American Indian; 62% in free or reduced lunch programs; 16% English language learners; and 4% in special education.

About the Data

Data on early college course-taking and grades were drawn from the 2004-05, 2005-06, 2006-07, and 2007-08 WW annual data request. Every year, each school in the WW Early College Network submitted data directly to WW.

Course descriptions for each college English and college math course included in this report are available upon request.

This report provides information about the WW Network as a whole and does not represent student performance in any one ECHS. Data include courses offered 2004-05 through 2007-08 at 8 schools in the WW Network:

- Benjamin Holt College Preparatory Academy
- California College Preparatory Academy
- East Palo Alto Academy High School
- Friendship Collegiate Academy
- Manhattan Hunter Science High School
- STAR Early College Middle and High School
- University High School of Science and Engineering
- Wallis Annenberg High School

More information about these schools may be found at <http://www.woodrow.org/earlycollege>

Tables

Table 1. College English, by course type

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
Composition I	88%	18	6	292
Composition II	96%	13	6	312
Advanced English	90%	7	2	84
Developmental English	87%	6	2	104
ALL English Courses	91%	44	7	792

Table 2. College English, by instructor type

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
College instructor	88%	37	5	575
High school instructor	99.5%	7	2	217
ALL English Courses	91%	44	7	792

Table 3. College English, by course length

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
Semester	88%	34	5	510
Stretch*	96%	10	3	282
ALL English Courses	91%	44	7	792

*A stretch course provides half of a college course's content and credits

Table 4. College English, by year

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
2007-08	89%	24	6	470
2006-07	89%	10	3	141
2005-06	98%	8	3	139
2004-05	100%	2	1	42
ALL English Courses	91%	44	7	792

Table 5. College math, by course type

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
Precalculus	91%	15	6	208
Calculus	81%	5	4	74
Advanced Calculus	63%	5	3	54
Statistics	62%	6	3	77
Finite Math	77%	4	2	77
College Algebra	74%	4	2	78
ALL Math Courses	80%	41	7	584

Table 6. College math, by instructor type

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
College instructor	75%	31	5	457
High school instructor	95%	10	2	127
ALL Math Courses	80%	41	7	584

Table 7. College math, by course length

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
Semester	78%	37	7	530
Stretch*	98%	4	2	54
ALL Math Courses	80%	41	7	584

*A stretch course provides half of a college course's content and credits

Table 8. College math, by year

	Pass Rate	Courses Offered (#)	WW Schools Represented (#)	Students Enrolled (#)
2007-08	77%	19	6	312
2006-07	72%	16	4	167
2005-06	100%	4	1	63
2004-05	100%	2	1	42
ALL Math Courses	80%	41	7	584

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