datanotes

Keeping Informed about Achieving the Dream Data

What Is a Cohort?

A *cohort* is a group of people studied over time. The individuals in the group have at least one statistical factor — such as when they started college — in common.

The Achieving the Dream 2002 student cohort is the group of credential-seeking students that attended Achieving the Dream institutions for the first time in fall 2002. This cohort will be tracked until 2008.

Tracking a cohort over time makes it possible to compare the progress and outcomes of different groups of students (e.g., groups defined by race, age or other demographic characteristics) and to determine if there are gaps in achievement among groups of interest.
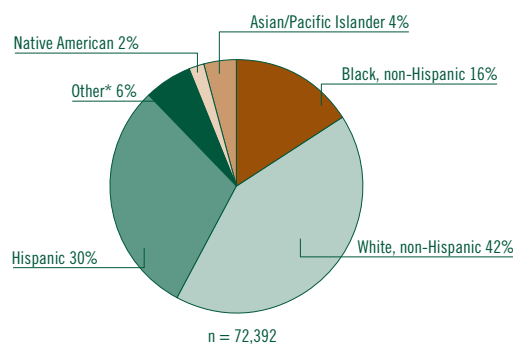
Gatekeeper Achievement

One goal of the Achieving the Dream initiative is to increase the percentage of students enrolling in and successfully completing gatekeeper classes. Gatekeeper classes are college-level classes that students are required to complete successfully before enrolling in more advanced classes in their major field of study. Often, these courses are the first college-level classes students take. A vast majority of community college students need to complete these classes before continuing their coursework — and they often are hurdles that slow or stop student progress.

Data collected from the 35 participating Achieving the Dream colleges allow us to examine gatekeeper class attempts and completions. The following analysis examines student attempts and completions for gatekeeper English and math courses during the 2002 student cohort's first three academic years. During this period, many of the 35 colleges had not yet begun any new practices related to Achieving the Dream.

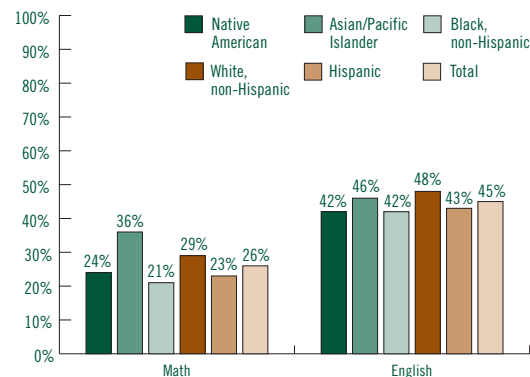## What Does the Cohort Look Like?

Colleges in selected states with large portions of Pell Grant recipients and students of color were asked to apply to participate in the initiative. Figure 1 displays the distribution of the 2002 cohort by race/ethnicity. Colleges in Florida, New Mexico and Texas represent a significant portion of the cohort; the Connecticut, North

Figure 1. Distribution of students in the 2002 Achieving the Dream cohort by race/ethnicity

Native American 2%
Asian/Pacific Islander 4%
Other* 6%
Black, non-Hispanic 16%
Hispanic 30%
White, non-Hispanic 42%

n = 72,392

*"Other" includes nonresident aliens, others and students with missing race/ethnicity codes.

Figure 2. Percentage of students in the 2002 Achieving the Dream cohort attempting at least one gatekeeper math or English class by the end of the third academic year — by race/ethnicity

Legend: Native American, Asian/Pacific Islander, Black, non-Hispanic, White, non-Hispanic, Hispanic, Total

Math: 24%, 36%, 21%, 29%, 23%, 26%
English: 42%, 46%, 42%, 48%, 43%, 45%

Carolina, Ohio and Virginia colleges represent fewer students in the population. This geographic distribution helps explain the fact that Hispanic students are the largest group of students of color (30 percent), while black students constitute 16 percent, and Native American students constitute 2 percent.
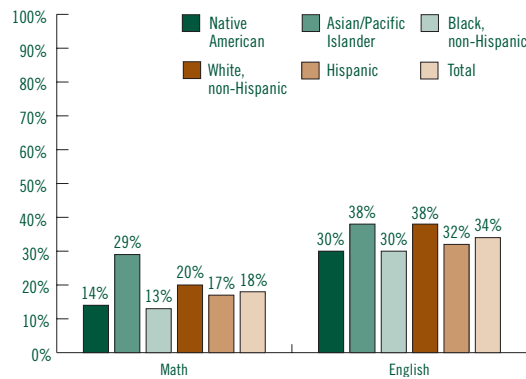
Gatekeeper Attempts

As Figure 2 displays, 26 percent of the 2002 Achieving the Dream cohort attempted at least one gatekeeper math class, while almost twice the percentage — 45 percent — attempted at least one gatekeeper English class. (A student attempted a class if he or she enrolled and stayed in the class beyond the final add/drop date.) The percentage of Native American, Hispanic and black students who attempted gatekeeper math courses was lower than average: 24, 23 and 21 percent of the 2002 Achieving the Dream cohort, respectively. By contrast, 29 percent of white students attempted gatekeeper math classes.

Overall, more students attempted gatekeeper English classes than gatekeeper math classes, but again, there were differences in attempts by race and ethnicity. For English gatekeeper classes, however, these differences were smaller. The range between the smallest and largest groups attempting gatekeeper math classes was 15 percentage points as compared with six percentage points for gatekeeper English classes.

ACHIEVING THE DREAM™
COMMUNITY COLLEGES COUNT

Figure 3. Percentage of students in the 2002 Achieving the Dream cohort successfully completing at least one gatekeeper math or English class* by the end of the third academic year — by race/ethnicity

Earning a C or better.

Forty-two percent of Native American and black students attempted gatekeeper English, as did 43 percent of Hispanic students, compared with 48 percent of white students.

Gatekeeper Completions

The outcomes associated with gatekeeper math and English attempts track well with the attempts. Achieving the Dream considers a student to have successfully completed a gatekeeper class if he or she achieved a C (2.0) or better in the class. Students taking gatekeeper English were nearly twice as likely to complete their classes as were those taking gatekeeper math.

As Figure 3 shows, 18 percent of the students in the cohort successfully completed at least one gatekeeper math class, compared with 34 percent for gatekeeper English. The percentage of students successfully completing gatekeeper courses by race/ethnicity follows the same relative order as was observed in those attempting those courses. Seventeen percent of Hispanic students, 14 percent of Native American students and 13 percent of black students completed at least one gatekeeper math class, all less than the 18 percent average, while 20 percent of white students completed at least one gatekeeper math class. Likewise, 30 percent of Native American and black students, and 32 percent of Hispanic students, completed at least one gatekeeper English class, compared with an average of 34 percent and 38 percent of white students.

Completions Ratio

Increasing the number of students who attempt gatekeeper classes is important in terms of student persistence and credential completion. But the percentage of students who succeed when attempting gatekeeper classes (the completions ratio) also needs attention. Failure to successfully

complete these classes at best slows progress toward graduation or transfer. At worst, it may trigger the decision to drop out. Figure 4 displays the percentage of students who completed the gatekeeper classes they attempted. Overall, 70 percent of the 2002 cohort that attempted gatekeeper math successfully completed the class. The completions ratio in gatekeeper English was higher, with 77 percent of students who attempted the class completing it successfully.

Hispanic students' completions ratio for math was higher than average: 72 percent of Hispanic students that attempted gatekeeper math classes successfully completed them. This compares with 70 percent of white students, 61 percent of black students and 59 percent of Native American students.

Gatekeeper English completions ratios differed by race/ethnicity as well. Native American and black students achieved a completions ratio of 71 percent, compared with 75 percent of Hispanic students and 78 percent of white students.

How Many Attempts Did It Take?

Students understandably are frustrated when they must repeat a class because of an unsatisfactory grade, particularly if they must do so more than once. However, many Achieving the Dream students have persisted with gatekeeper classes, and some students attempted classes up to seven or eight times before successfully completing them. Figure 5 displays the number of times students attempted gatekeeper math and English classes before successfully completing them. This figure depicts only students who successfully completed classes with a C (2.0) or better.

Of interest here is the percentage of Hispanic students who successfully completed their

Figure 4. Completions ratio for gatekeeper math and English for students in the 2002 Achieving the Dream cohort by the end of the third academic year — by race/ethnicity
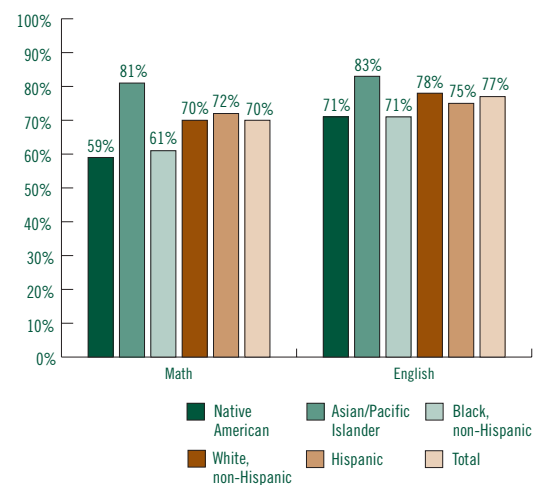
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gatekeeper math and English courses on the first attempt. The percentage of successful first-time completers is above average in both cases: 79 and 85 percent for Hispanic students, compared with 77 and 80 percent of students overall.

While there is little difference by race/ethnicity in the number of students who complete math courses on their first attempts, it is worthwhile to note that Hispanic students are the only group that performed above the average. White students performed one point below the average on this measure. Hispanic students also had greater success than all other racial/ethnic groups completing English courses on their first attempts. White students had the least success of all racial/ethnic groups on this measure.

What Does This Mean?

Approximately a quarter of the 2002 Achieving the Dream cohort attempted gatekeeper classes in math, and slightly less than half attempted English by the end of their third academic year. Success rates by race/ethnicity vary, with Hispanic and white students having higher completions ratios than black or Native American students. Hispanic students who completed gatekeeper classes were more likely than other completers to succeed on their first attempt.

While students' experiences with gatekeeper classes vary by race/ethnicity, we suspect that race is not the only factor influencing gatekeeper attempts and completions. Another factor is likely to be enrollment patterns by field of study and program length. National research indicates that black and Hispanic students are nearly twice as likely to enroll in certificate programs as white students — 16 percent and 17 percent, compared with 9 percent, respectively. At the same time, fewer black and Hispanic students enroll in associate degree programs compared to white students, 44 and 42 percent, compared with 51 percent, respectively.[1] Most associate degree programs require college English and college math (the courses labeled "gatekeeper classes" in the Achieving the Dream database), while most certificate programs do not. Therefore, further analysis of the Achieving the Dream data could be made to determine if Achieving the Dream students from certain racial/ethnic groups attempt gatekeeper courses at lower rates because they are overrepresented in vocational programs that do not require these courses.

In any case, gatekeeper classes can be the roadblock many students encounter on their way to attaining their goals, and both attempts and completions could be improved for all races/ethnicities. Therefore, interventions aimed at encouraging students to enroll in gatekeeper

Figure 5. Percentage distribution of the 2002 Achieving the Dream cohort successfully completing at least one gatekeeper math or English class* by the number of class attempts and race/ethnicity

Number of math attempts before passing

Number of English attempts before passing
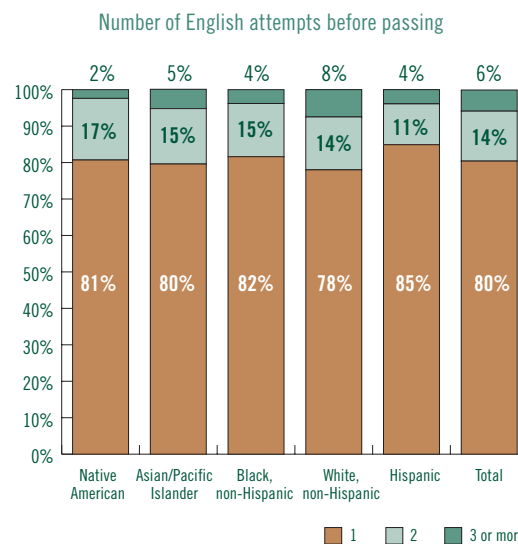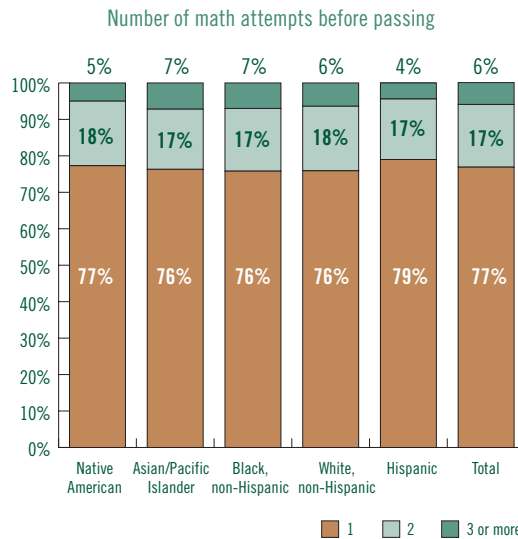
*Earning a C or better.
Note: Numbers may not total 100 due to rounding.

courses and helping them successfully complete these classes are of utmost importance to Achieving the Dream colleges.

Achieving the Dream's Access Database

Achieving the Dream colleges can use the Access database created by JBL Associates to replicate the analysis presented here for their own institutions. This analysis might help colleges identify areas of their curricula or groups of students needing special attention. ∎

[1]Hoachlander, G., Sikora, A., Horn, L. (June 2003). *Community College Students: Goals, Academic Preparation and Outcomes* (NCES 2003-164). Washington, DC: U.S. Department of Education.