

## 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.

## Developmental Education and Student Success

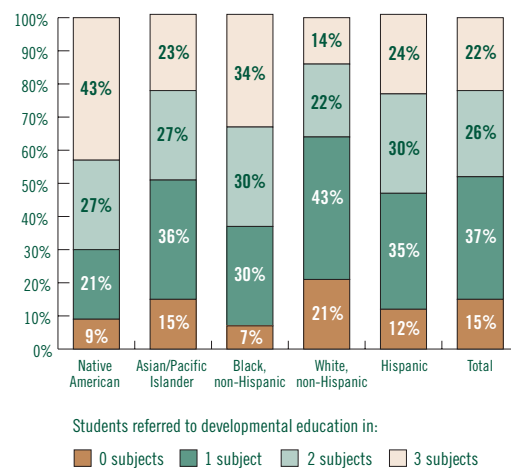
Community colleges' commitment to open access brings with it the challenge of educating a diverse student population. Many community college students, however, have one thing in common: They need developmental education. Many students enter community college without the skills needed to enroll in college-level math, reading or writing; most lack these skills in at least one subject area. Indeed, more than 80 percent of students in the Achieving the Dream 2002 cohort were referred to developmental education in at least one subject. Researcher Clifford Adelman found that the more developmental courses a student is required to take, the less likely he or she is to earn a degree.<sup>1</sup>

The overarching goal of the Achieving the Dream initiative is to increase student success. As part of the initiative, most participating colleges are in the process of modifying or enhancing their developmental education programs to improve student success. Thirty-five of the 58 Achieving the Dream institutions have participated in the initiative long enough to provide cohort data. The following analysis examines the depth of students' developmental needs and how varying needs relate to persistence, attainment and transfers.

## The Scope of Developmental Education Needs

Figure 1 displays the number of subjects to which Achieving the Dream students are referred by race/ethnicity.\* More than eight out of 10 students (85 percent) in the Achieving the Dream cohort were referred to developmental education. Thirty-seven percent of students were referred to one subject. About a quarter (26 percent) of students were referred to two subjects, and 22 percent were referred to three subjects. For the purposes of this analysis,

Figure 1. Developmental education needs for the 2002 Achieving the Dream cohort by race/ethnicity



Due to rounding, totals may not equal 100 percent.

students referred to developmental education in three subjects are considered to have high developmental education needs.

## Race/Ethnicity

Students' developmental education needs vary by race/ethnicity. Twenty-two percent of all students were referred to three developmental education subjects. Forty-three percent of Native American students were referred to three subjects, compared with 24 percent and 34 percent of Hispanic and black students, respectively. Twenty-three percent of Asian/Pacific Islander students were referred to three subjects. The percentage of white students referred to three subjects, 14 percent, was lower than the average.

On the other hand, 15 percent of all students had no need for developmental education. Nine percent of Native American students, 7 percent of black students and 12 percent of Hispanic students were not referred to any developmental education coursework. Fifteen percent of Asian/Pacific Islander students, the same as the

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\*Note: This analysis includes only students for whom there are valid developmental education referral data — about two-thirds (65 percent) of the 2002 Achieving the Dream cohort. Eight colleges that represent approximately 16 percent of the 2002 cohort could not provide developmental education referral data. Further, some colleges that did provide developmental education referral data were not able to report it for all students — this phenomenon represents another 19 percent of students.

<sup>1</sup>Adelman, C. (1998). "The kiss of death? An alternative view of college remediation." *National Crosstalk*, 6(3).

average, were not referred to developmental education. A larger-than-average percentage of white students, 21 percent, had no need for developmental education.

## Persistence, Attainment and Transfers

Figure 2 displays the persistence and attainment rates through the third academic year for students who had no need for developmental education (those not referred to developmental education in any subjects) as compared with persistence and attainment rates for students with high developmental education needs (those referred to developmental education in three subjects).

As expected, students with no need for developmental education were more successful than those with high developmental education needs. Students with no developmental needs were:

- More likely to be successful — to persist, attain or transfer (43 percent compared with 35 percent of those with high developmental needs);
- More than twice as likely to complete credentials (10 percent versus 4 percent of those with high developmental needs); and
- More likely to transfer to another institution to continue their studies (11 percent versus 3 percent of those with high developmental needs).

The persistence data provide noteworthy comparisons for these two student groups. Students

are classified as “persisted through the third year” if they are enrolled during at least one term in the third year. Interestingly, a *smaller* portion of students with no need for developmental education persisted through the third year (22 percent versus 28 percent of those with high developmental education needs enrolled during at least one term in the third year). This difference, however, is due to the dramatic differences in degree completion and transfer rates between the two student groups: Fewer students with no developmental education needs were enrolled in the third year because they already had attained their degrees or had transferred.

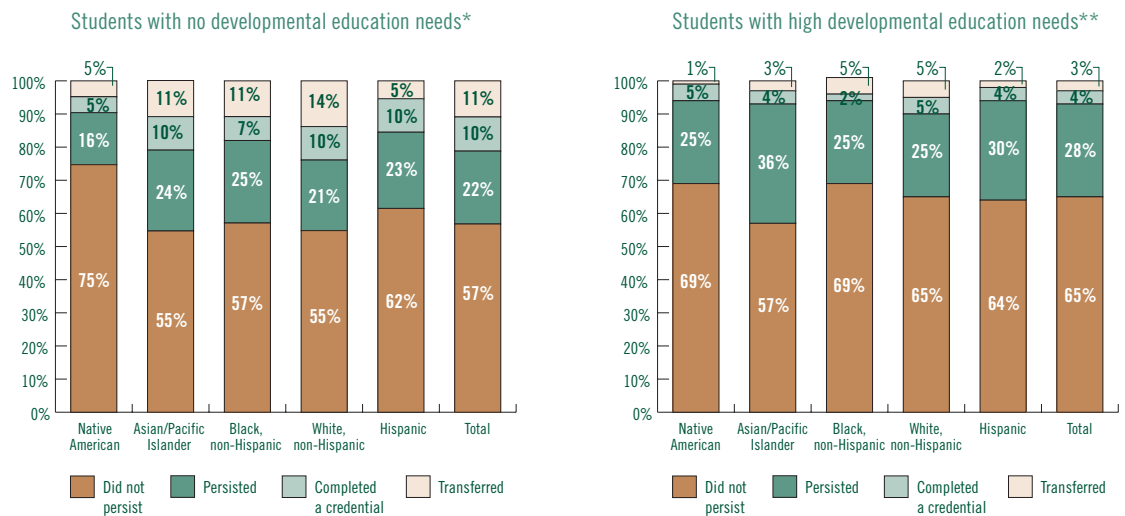
“As expected, students with no need for developmental education were more successful than those with high developmental education needs.”

The results for these two groups vary by race/ethnicity. Overall, 8 percent fewer students with high developmental needs were successful (persisted, attained or transferred) than those with no developmental needs (43 percent of students with no developmental needs versus 35 percent of those with high developmental needs).

The difference between these two student groups was less pronounced for Hispanic students than it was for black and white students. Two percent fewer Hispanic students with high developmental needs were successful (36 percent versus 38 percent of those with no developmental education needs succeeded). In contrast, 11 percent fewer black students with high developmental needs

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**Figure 2.** Persistence, attainment and transfer status of the 2002 Achieving the Dream cohort by the end of the third year by race/ethnicity: Students with no need for developmental education versus students with high developmental education needs



\*Not referred to developmental education in any subjects

\*\*Referred to developmental education in three subjects

Due to rounding, totals may not equal 100 percent.

Persistence through the third year is defined as enrollment during at least one term in the third year.

succeeded (32 percent versus 43 percent). The same was true for white students — 10 percent fewer white students with high developmental needs succeeded (35 percent versus 45 percent). Interestingly, 5 percent more Native American students with high developmental education needs succeeded than those with no developmental education needs (26 percent versus 31 percent).

## What Does This Mean?

Providing developmental education to prepare students for college-level work is an important task for community colleges. As shown by the initiativewide data, student groups vary in their need for, and success in, developmental coursework. The depth of developmental needs, moreover, is related to success: A higher percentage of students with no need for developmental education persisted, attained or transferred than those with high developmental education needs.

A comparison of students who did not persist — 65 percent of students with high developmental needs versus 57 percent of students with no need for developmental education — highlights a need to focus efforts on supporting developmental education students.

Research indicates that students with greater need for developmental education are less likely to attain credentials. The initiativewide data support this hypothesis. When looking at the relative success rates of these two student groups, however, it is important to remember that, at this point, the initiativewide data only track students through their third year of college.

Over time, the two groups' disparate completion and transfer rates may decline from the 14 percentage point difference seen at the end of year three. Students who begin their college work with developmental education likely need more time than their peers who were able to begin credential-bearing coursework immediately upon enrolling. Thus, it should not be surprising that students with no need for developmental education were able to complete their credentials more quickly.

The telling point will be what happens with the high-developmental-need students in the next few years. And there are data to support the hypothesis that the gaps will close. An analysis of Achieving the Dream data from the initial 27 participating colleges indicates that students who successfully completed a developmental course — any developmental course — in their first semester (earning a grade of C or better) were, from that point forward, more likely to persist and succeed than other student groups, *including those who did not need any developmental education.*

“*The depth of students' developmental needs is related to success: A higher percentage of students with no need for developmental education persisted, attained or transferred than those with high developmental education needs.*”

More research will be needed to evaluate this as well as other findings, including the finding that Native American students with high developmental needs are succeeding at higher rates than those with no developmental needs.

In the meantime, these data indicate that colleges investing in developmental education — in particular, supporting developmental students in their first semester of work — pays off.

Thus, identifying student groups with high developmental education needs is imperative to design and implement more intervention strategies tailored to meet their needs. Colleges are encouraged to identify students with greater need for developmental education and develop strategies to help them succeed.

## Achieving the Dream's Database

Achieving the Dream colleges can use the Achieving the Dream 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. ■

*Data Notes* is a bimonthly publication that examines data to illuminate the challenges facing Achieving the Dream colleges and to chart their progress over time.

Achieving the Dream: Community Colleges Count is a national initiative to help more community college students, particularly students of color and low-income learners, succeed. The initiative works on multiple fronts — including efforts at community colleges and in research, public engagement and public policy — and emphasizes the use of data to drive change. For more information, visit [www.achievingthedream.org](http://www.achievingthedream.org).

This issue of *Data Notes* was written by Sue Clery, senior research associate at JBL Associates, Inc., and Benito Solórzano, data/Web specialist at the American Association of Community Colleges, and edited and designed by KSA-Plus Communications, Inc.

If you have questions regarding this issue, or if there is a topic you would like to see addressed in *Data Notes*, please contact Sue Clery at [sclery@jblassoc.com](mailto:sclery@jblassoc.com).

This report uses the August 2006 version of the Achieving the Dream database.