

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.

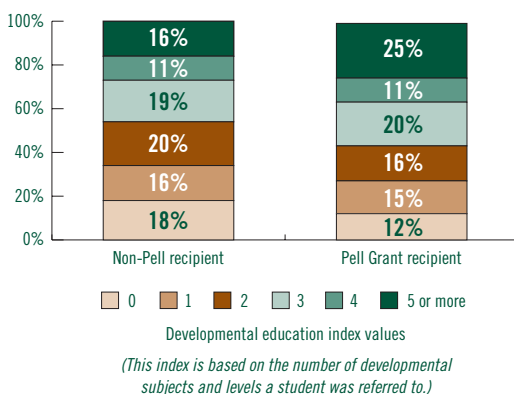
Tracking a cohort over time makes it possible to compare the progress and outcomes of different groups of students (e.g., groups defined by race, age or other demographic characteristics) and to determine if there are gaps in achievement among groups of interest.

Do Pell Grants Make a Difference?

Achieving the Dream aims to identify and close achievement gaps among community college students. One such gap has occurred in the persistence and completion rates of students from low-income families compared to those from higher-income families. The U.S. Department of Education reports a 10 percent disparity in persistence and five-year completion rates between students from families with incomes in the lowest-income quartile and those in the highest-income quartile: 61 percent of students from low-income families who enrolled in post-secondary education (two- and four-year institutions) in 1995–96 were still enrolled or had attained degrees within five years, compared to 71 percent of those from high-income families.¹

The Pell Grant program was designed to provide access to higher education for financially needy students. During the 2003–04 academic year, the average Pell Grant received by community college students nationally was \$2,240.² Because Achieving the Dream does not collect family income data, the initiative uses Pell Grant receipt as a proxy for low-income status.

Figure 1. Developmental education index of the 2002 Achieving the Dream cohort by Pell Grant receipt



Note: Due to rounding, totals may not equal 100 percent.

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Data collected from the 35 participating Achieving the Dream colleges allow us to examine persistence and completion differences between Pell Grant recipients and nonrecipients.³ This analysis compares students in the 2002 Achieving the Dream cohort in terms of achievement and persistence over three academic years based on whether they did or did not receive Pell Grants. The results reveal a complicated relationship between Pell Grant receipt and measures of student success. Pell Grant recipients do better by some measures and worse by others. Note: During the three years analyzed in this report, many of the 35 colleges had not yet begun any new practices related to Achieving the Dream.

What Does the Cohort Look Like?

Nearly half (49 percent) of the students in the 2002 Achieving the Dream cohort received Pell Grants in the first term.⁴ Pell Grant recipients were more likely to attend college full time during their first term than students who did not receive Pell Grants — 61 percent compared to 43 percent, respectively. Thus, although they constitute approximately half of the cohort, Pell Grant recipients represent more than half (58 percent) of the students attending college full time during their first term. Due to inherent differences between students who attend college full time and part time, the remainder of this analysis uses data only for 2002 cohort students who were enrolled full time in their first term.

Developmental Education: How Prepared Are Students?

Students who received Pell Grants needed more developmental education than those who did not receive these grants. Figure 1 displays the Achieving the Dream developmental education index for Pell Grant and non-Pell Grant recipients. This index uses a derived variable based on

¹Horn, L. (November 2004). *College Persistence on the Rise? Changes in Five-Year Degree Completion and Postsecondary Persistence Rates between 1994 and 2000* (NCES 2005-156). U.S. Department of Education, p. 24. Washington, D.C. Available: <http://nces.ed.gov/pubs2005/2005156.pdf>.

²Berkner, L. (February 2005). *2003–04 National Postsecondary Student Aid Study* (NPSAS:04). U.S. Department of Education. Washington, D.C.: National Center for Education Statistics. Available: <http://nces.ed.gov/pubs2005/2005158.pdf>.

³This analysis is based on the 70 percent of students in the 2002 cohort for which colleges could report Pell Grant data; some colleges could not report Pell Grant data for the 2002 cohort.

⁴Students receiving Pell Grants during their first term are likely to continue to receive Pell Grants in terms they enroll in consecutively; of students who received Pell Grants during the first term, 95 percent to 98 percent received Pell Grants in consecutive terms.

developmental education. This variable is based on the number of developmental subjects a student was referred to as well as how many levels below college level the student placed: If a student was referred to three different types of developmental education, both two levels below college level, the derived index for this student is six.

Eighteen percent of nonrecipients, compared to 12 percent of Pell Grant recipients, did not need any developmental education. Further, of students referred to developmental education, Pell recipients had the greater need. One quarter (25 percent) of Pell Grant recipients, compared to 16 percent of nonrecipients, had a developmental index of five or higher.

Persistence

Students receiving Pell Grants were more likely to persist or to complete their credentials in their first three academic years than were nonrecipients. The persistence and completion gap, however, decreased over time. As shown in Figure 2, 77 percent of Pell Grant recipients persisted to the second term or completed credentials in the first year compared to 63 percent of nonrecipients — a 14 percentage point differential. By the third year, however, the persistence gap closed to four percentage points, with 33 percent of Pell Grant recipients, compared to 28 percent of nonrecipients, persisting or completing. Note: Figure 2 displays persistence and completion rates, but the difference between Pell Grant recipients and nonrecipients is concentrated in the persistence rates.

Other research studying students in low-, middle- and high-income groups found no difference in persistence for community college students in the

Figure 2. Percentage of 2002 Achieving the Dream cohort students persisting or completing their credentials in the first three years by Pell Grant receipt

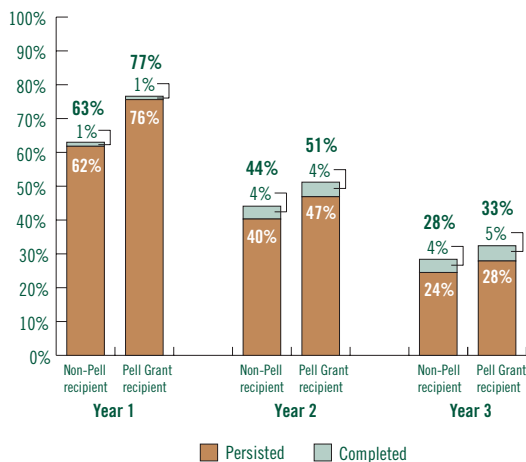
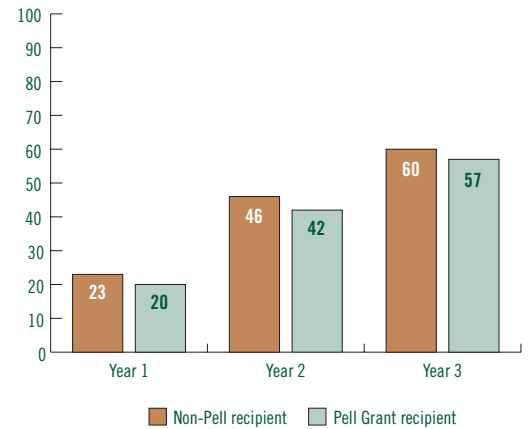


Figure 3. Number of accumulated credits for 2002 Achieving the Dream cohort students by Pell Grant receipt



third year when comparing Pell Grant recipients to nonrecipients.⁵

Accumulated Credits

Students who did not receive Pell Grants accumulated slightly more credits than those who received Pell Grants.⁶ As Figure 3 displays, nonrecipients on average accumulated three credits more during the first year than did students who received Pell Grants — 23 credits, compared to 20 credits earned for nonrecipients. During the second and third years, the difference persisted. By the end of the third year, recipients and nonrecipients accumulated 57 and 60 credits, respectively.

As Figure 4 shows, in addition to accumulating slightly more credits, nonrecipients also had a consistently higher completions ratio. In other words, nonrecipients consistently completed a slightly higher percentage of credits attempted than Pell Grant recipients. During the first three academic years, students who did not receive Pell Grants completed 79 percent to 81 percent of the credits they attempted during each of the three academic years. Pell Grant recipients, by contrast, completed an average of 73 percent to 79 percent of attempted credits during the three years. Of interest, however, is that completions ratios for Pell Grant recipients increased each year, with the final year being very close for Pell Grant recipients and nonrecipients at 79 percent and 80 percent, respectively.

Grade Point Average

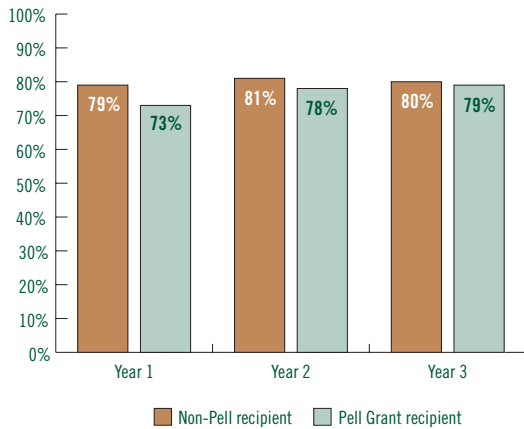
There was minimal difference in the average grade point average (GPA) for students who received Pell Grants compared to those who did

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⁵Wei, C., Horn, L. (May 2002). *Persistence and Attainment of Beginning Students with Pell Grants* (NCES 2002-169). U.S. Department of Education. Washington, D.C. Available: <http://nces.ed.gov/pubs2002/2002169.pdf>.

⁶For students with continuous enrollment through the third academic year, 2004–05.

Figure 4. Credit completions ratios for 2002 Achieving the Dream cohort students by Pell Grant receipt



not. For students with continuous enrollment through the three years, the average GPA of Pell Grant recipients were two-tenths of a point below those of nonrecipients during the first year (Figure 5). The differences seen during the first year began to diminish during the second year. By the end of the third year, there was no difference in the average GPA for Pell Grant recipients and nonrecipients.

What Does This Mean?

Without a direct measure of income, it is not possible to determine how low-income students compare with other students in terms of achievement. However, this analysis provides an approximation of students who have less access to financial means and receive compensatory help in the form of Pell Grants, and how their achievement compares with students who do not receive Pell Grants.

The analysis indicates that the Pell Grant program appears to be successful in helping to close achievement gaps. This analysis provides evidence that Pell Grants may help students overcome the critical hurdle of paying for college. By removing the issues associated with financial barriers, students with less access to financial resources, who come to college less academically prepared, are better able to focus on academics than financial issues and, therefore, better positioned to succeed and persist over time. Three findings support this conclusion.

First, students who received Pell Grants had higher persistence rates, particularly in the first year, than students who did not receive these grants. Some students who do not qualify for Pell Grants may still face financial obstacles; therefore, it is possible that these nonrecipients had lower persistence rates because they had to struggle with financial issues or juggle more working hours to pay for college. Future research can explore this hypothesis by looking at differences

among students who do not persist, including a comparison of Pell Grant recipients and other students.

Second, although nonrecipients accumulated a few more credits than recipients on average, by the third year, Pell Grant recipients closed the gap in the completions ratio (the percentage of courses completed that they attempted).

Third, although nonrecipients achieved slightly higher GPAs than students who received Pell Grants in the first year, Pell Grant recipients closed this gap and, by the end of the third year, achieved an average GPA equivalent to that of nonrecipients.

The achievement gaps early in the careers of Pell Grant recipients might simply reflect the historical tendency for students from lower-income families to be less academically prepared than their higher-income peers. Yet this analysis seems to indicate that Pell Grants help students overcome this barrier and persist despite limited

Figure 5. Cumulative grade point average (GPA) for 2002 Achieving the Dream cohort students* by Pell Grant receipt



*For students with continuous enrollment through the three-year analysis period.

financial resources. In short, receipt of a Pell Grant appears to help lower-income students close achievement gaps. The data show that after two or three years Pell Grant recipients achieve course-completion rates and GPAs that match those of nonrecipients.

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 that need special attention. ■

Data Notes is a monthly 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.

Data Notes is written by Sue Clery, senior research associate at JBL Associates, Inc., 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.

This report uses the April 21, 2006, version of the Achieving the Dream database.