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Graduation Rates, Student Goals, and Measuring Community College Effectiveness

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The educational effectiveness of community colleges is under new scrutiny as a result of both a federal government focus on accountability of higher education institutions and greater competition for the state funds traditionally directed to the colleges. Policymakers, who want to tie public college allocations to their outcomes, and families, who are investing sizeable amounts in increased community college tuition, want assurances that the colleges will provide educational returns that justify their cost.

Community colleges must collect and report graduation and transfer rates, based on the outcomes of fall semester cohorts of first-time, full-time students in degree programs, to meet the requirements of the Student Right-to-Know and Campus Security Act (1990). Current convention is to use these Student Right-to-Know (SRK) data as the measure of a college's effectiveness, and they indicate that completion rates are very low for community colleges overall. Indeed, more than half the students who enroll eventually leave without a credential. But the value of SRK data as appropriate measures for outcome-based accountability is disputed by college advocates, who assert that they are not accurate reflections of student success for a variety of reasons.

This Brief summarizes research conducted by the Community College Research Center that used data on student characteristics and educational outcomes from several federal government sources to explore the legitimacy of the various ways that college effectiveness can be assessed by using measures of student success. It takes account of the sometimes competing measurement preferences of the interested parties and identifies the strengths and weaknesses of each.

Graduation and Transfer Rates

Method of Measurement

The *SRK graduation rate* is calculated by dividing all first-time, full-time (FTFT) students who earn a degree or certificate at the college within 150 percent of the expected completion time for the program in which they enrolled (three years for most associate degree programs, with a more varied timeline for completion of a certificate) by the total number of students in the cohort. The *SRK transfer rate* is the number of cohort students who transfer to another institution within three years divided by the cohort total. Institutional rates measure only the graduation rate of students who earn a credential at, or transfer from, the college where they began their postsecondary education.

SRK graduation and transfer rates are available from almost every community college in the country, and such consistent outcome measures for all colleges are a potentially powerful research tool and also could allow comparisons and benchmarking of colleges. Community colleges, however, point to several potential problems with these indicators.

Accuracy of the SRK Data

Graduation Rate. The SRK graduation rate shows for the cohort starting in fall 1999 that 22.3 percent of first-time, full-time (FTFT) community college students in degree programs attained a postsecondary credential in their starting institutions after three years.

To determine the accuracy of the rate, we analyzed data from the Beginning Postsecondary Students Longitudinal Study of 1996-2001 (BPS, U.S. Department of Education, 2003), which tracks individual students across multiple institutions. Results indicated that a nearly identical 22.9 percentage of all FTFT degree-program community college students in the BPS sample earned a credential (certificate or associate degree) from their institutions of first enrollment within three years. Thus, overall, the three-year SRK graduation rate for full-time students is a reasonable approximation of the actual graduation rates.

Up to 40 percent of first-time community college students attended more than one institution during the six-year period in which they were tracked, according to calculations based on the BPS data. Given this mobility, institutions are likely to under-report the actual rates of student completion. Even if a student goes on to graduate at another institution, certainly a successful outcome for the student, that student is counted as a non-completer in institutional graduation rates such as the SRK measure. Thus, SRK data, measured at only a single institution, imply that students have lower rates of success than they actually do. The data create an unduly negative picture of individual college performance since they fail to give any credit for the subsequent educational outcomes of community college students who successfully transfer.

Transfer Rate. The SRK transfer rate is expected to make up for this failure by including, as a student success, the transfer from a community college to another postsecondary institution. However, according to the reporting requirements for SRK, colleges must include only those students for whom they can provide documentation of transfer, which may include students who transferred to

any other type of institution (National Center for Education Statistics, 2003b). According to this criteria, colleges may report students who enrolled at another two-year institution, which is not a legitimate successful outcome. Additionally, there is the potential for under-reporting of transfer rates because many colleges do not know what happens to their students once they leave.

To assess the accuracy of this measure, we compared the SRK transfer rate to a more precisely calculated rate using BPS. According to the SRK data, 15.9 percent of the FTFT SRK cohort transferred within three years of initial enrollment without earning a certificate or degree, whereas 30.7 percent of the BPS cohort transferred *to a four-year institution* within three years, or about twice the SRK rate. This wide discrepancy indicates that the SRK transfer rate is too inaccurate to provide any meaningful measure of student transfer, an important mission for community colleges.

Inclusion of Part-Time Students. Community colleges assert that the SRK data cohort of first-time, full-time students is atypical because the majority of community college students attend part time for at least some of their enrollment (Burd, 2004). Therefore, the SRK graduation rate does not reflect the experience of the typical community college student. This is a reasonable criticism since, according to BPS, only 58 percent of the students starting in community colleges in fall 1995 met the SRK criteria (enrolled full-time in a degree program).

Including part-time students would distort a measure that is based on a reasonably short period of time and would clearly lower the measured rates, not a finding supportive of community college interests. Thus, an analysis using part-time students would either have to use a much longer graduation period or focus on retention data—semester-to-semester or year-to-year—instead of completion.

Considering only full-time students in the SRK rates introduces another distortion, however. Students are included in the cohort as long as they *start* as full-timers—that is, they are full-time students on October 15th, when colleges usually take their enrollment census. Some of these students will change to part time, but they will be retained in the sample. Indeed, according to BPS, about 30 percent of students who start out as full-timers enroll part time for at least one semester within three years. So the SRK graduation rate turns out to be an underestimate of the graduation rate for those students who maintain full-time status throughout their period of enrollment.

Use of a Three-Year Measurement Period. A final criticism of the SRK rates is that three years is too short a period to judge the graduation rates of community colleges because many who complete programs require longer to do so. Indeed, almost one-third of those who start full time switch to part time to accommodate the multiple demands on their time, thereby lengthening their undergraduate experience. In addition, the many students who take remediation courses may spend a significant amount of time in college before they start accumulating credits toward their degree.

According to our calculations using BPS, however, the graduation rate, as SRK data present it, would rise only five percentage points if a six-year measurement period were used. However, increasing the time period would increase the difference between the institutional graduation rate (graduation from the institution of initial enrollment) and the individual graduation rate (graduation from any institution). We found from BPS that the three-year institutional rate is 22.9 percent and the individual graduation rate is 25.5 percent. But the six-year institutional graduation rate is 28.3 percent while the six-year individual graduation rate is a significantly higher 45.7 percent. Therefore, while using a three-year graduation rate certainly gives a more negative picture of graduation from community college, since many students go on to graduate in subsequent years, it does minimize the distortion created by attendance at more than one institution. While the use of institutional graduation rates and the short time period do tend to make community college graduation rates look lower then they are, lengthening the time period would increase the extent to which the institutional rate underestimates the individual rates, making the institutional rates even less reflective of actual student outcomes.

Simply looking at the absolute graduation rate of any individual college is probably going to be misleading, but, despite the distortions in the SRK data, such rates still may be useful for analyzing differences in performance among institutions. Even if the rates are too low, if they are all too low by a similar proportion, then searching for explanations for the differences among institutions could still yield important insights.

Student Characteristics and College Expenditures

As open access institutions, community colleges cannot increase their graduation rates by being more selective in admissions. They are expected to accommodate a wide variety of students, many of whom face financial, academic, and personal challenges that can thwart their retention and that may be beyond the control of the colleges. Several states even mandate that any student judged to be in need of remediation must enroll in a community college rather than a public four-year institution, thereby increasing the burden on community colleges of dealing with academically unprepared students. In addition, community colleges often must serve these students without additional resources available to them, as measured by expenditures per student.

Factors That Challenge Student Success

Overall, compared with students at baccalaureate institutions, community college students have more characteristics that might compromise their ability to succeed in college. They have generally lower test scores in high school and are far more likely to delay enrollment in college after high school, attend part time, or interrupt their college studies. Also, they are much more likely to come from households in the lower SES quartiles. All of these factors have been shown in many studies to be related to lower retention and graduation (Bailey, Alfonso, Scott, & Leinbach, 2004). Finally, community colleges serve many older students who face additional challenges to educational success because they are more likely to work full-time and may have families to support—characteristics that have been found to be significant barriers to educational success (Gooden & Matus-Grossman, 2002).

The High Demand on College Resources

Overall expenditures per full-time equivalent (FTE) student at community colleges averaged $8,623 in 2000-01, or only 45 percent of the $19,124 spent per FTE at four-year public colleges, based on calculations using federal government data (National Center for Education Statistics, 2003a). For just instructional expenditures per FTE, community colleges spent on average only 56 percent of the amount spent at four-year public colleges. And even this fraction may be too high, given that a FTE student count may not be the most appropriate number to use for comparison, since the majority of community college students are part-time and may require proportionately more educational services than full-time students. In other words, colleges may need more money to educate effectively two half-time students than they do for one full-time student.

Student Goals and Expectations

Many students arrive at community colleges intending to complete a degree, but others may enroll at their initial institution to "sample" college because it is close to home and affordable. Furthermore, the goals of some students may be met by taking a small number of courses. Community college advocates have these students in mind when they say that failure to complete a degree does not necessarily mean failure to achieve an educational goal.

Short-Term Goals

Students' answers in the BPS survey regarding their goals provide useful information. In response to the question: "What is your primary reason for enrolling in this school?" 57 percent said that they wanted a degree or certificate or to transfer to a baccalaureate institution. Forty percent wanted job skills or personal enrichment, although they may also seek degrees as a means toward those primary goals. Review of the respondents' status six years later showed that many students met their goals: 40 percent of those whose goal was to transfer had completed a degree, and half of those had earned a bachelor's degree. Twenty-one percent of those planning to transfer had done so, and 22 percent with transfer goals were still in school.

None of the students with the job skills goal completed a bachelor's degree, and after six years, three-fifths were no longer enrolled and had not completed any degree.

Eleven percent of the BPS sample left college before completing a semester of coursework. Eliminating them from the statistics on college completion on the assumption that they were never serious about postsecondary educational attainment, and therefore beyond the responsibility of the college, would obviously increase the college's rate. But it is possible that students leave college quickly because of poor teaching, inadequate services, failure to find courses that they need, or other problems that the colleges might be able to remedy.

These findings provide some validity to the claim that many community college students are seeking neither a credential nor to transfer, suggesting that even many non-completers may meet their educational goals, as indicated by their stated reason for enrolling. Yet, students also have long-term educational goals that frequently include the expectation of earning a degree.

Long-Term Educational Expectations

The BPS survey also asked students during their first year of postsecondary enrollment: "What is the highest level of education you ever expect to complete?" The results suggest that over the long run students are very ambitious. Seventy percent of beginning community college students expected to earn a bachelor's degree or more, while 80 percent expected to earn at least an associate degree. Even among certificate program students, 60 percent expected eventually to earn at least an associate degree. Nearly 80 percent of those whose primary reason for enrolling was to gain job skills or for personal enrichment still expected to earn some credential, an associate degree or higher, in the long term.

Many students are not meeting their long-term goals, however. More than one half whose primary reason for enrolling was to earn a certificate or degree did not complete any credential within six years. Among students whose expectation was to complete an associate degree, only 27 percent completed an associate or bachelor's degree within six years and over 60 percent left college without any credential. Among those expecting to receive a bachelor's degree, 27 percent earned one or an associate degree after six years, while another 19 percent of the group were still enrolled in college.

The Effect of Income and Ethnicity on Expectations

Students' expectations were significantly mediated by their ethnicity and social status. Although whites and blacks in the BPS sample demonstrated little difference in degree expectations, Hispanics exhibited much higher expectations for earning a bachelor's and graduate degree. Only 60 percent of low-income students expected to earn a bachelor's or higher degree, while over 80 percent of high-income students did. Low-income students were also significantly more likely to have unknown expectations or to have a certificate as their highest expected credential; they were twice as likely as other BPS respondents to state that they wanted job skills.

Indeed, socioeconomic status is strongly related to the probability of completion (Bailey, et al., 2004). If this correlation represents systematic difficulties faced by lower income and minority students, then colleges should try to ameliorate them. Alternatively, if systematic differences in expectations result from SES, community colleges need to strive to raise the expectations of poorer students, even when they themselves do not seek degrees, by helping them recognize the opportunities for advancement in education and subsequently in employment (Jenkins, 2003).

Given the significant differences in educational outcomes by race and income, it is doubtful whether colleges should accept student goals and expectations as reasonable benchmarks for success.

Conclusions

Criticisms of the institutional Student Right-to-Know (SRK) graduation rates are certainly valid. They do understate the share of students who graduate after

starting at a particular institution. Because of the short time period covered by SRK rates, they may offer more insights into the reasons for the large differences among institutions than into the debate over the low rates at all institutions. Further, since the rates provide an outcome measure on a national sample of community colleges, they are a potentially powerful research tool for understanding the determinants of college performance. Nevertheless, at this point, SRK graduation rates need to be used with caution. Yet their usefulness can be further explored by comparing the rates to more complete measures of student success that can be derived in states with comprehensive statewide student unit record tracking systems.

The judgment about the effectiveness of community colleges depends, to some extent, on an assessment of the meaning of student goals. Research clearly shows that low-income students have lower educational aspirations, but whether colleges have a responsibility to encourage those students to be more ambitious depends on the type of students and concreteness of their goals. It is one thing to accept the assertion of adult full-time workers who return to college for job advancement that they are there to learn "job skills." We should be less willing, however, to accept such limited goals from low-income students, of any age, who have had little success in school and lack confidence in their abilities or knowledge about what they need to do to progress.

There are also students who have ambitious long-term goals, yet do not progress very far toward them, and it can be argued that colleges should help them realize those goals. As long as there are considerable differences in expectations and achievement among the different income and racial and ethnic student groups, colleges should vigorously strive to reduce those gaps.

There is no question that community colleges encounter many difficulties as they serve students with serious economic, social, and academic challenges, and have less resources per student to draw on than other public postsecondary institutions. Among the public policies that could promote higher graduation rates are increased financial aid, funding for non-credit and remediation courses, flexible employment, job search assistance, affordable day care, and flexible regulations regarding work and schooling for welfare recipients. Certainly, improved K-12 systems would permit students to arrive at community colleges prepared for college-level work.

Nevertheless, while it is important to work for broader policy changes, and to recognize that there are limits to what colleges can do, it is a fact that some colleges have higher graduation rates than others and perform better on a variety of student outcome measures. Policymakers should not condemn colleges merely because of low graduation rates, especially if there are questions about the accuracy of the data. Neither, though, should colleges be complacent about their graduation rates, because they believe that students are getting what they want, however low their goals are, or because that is the best that they can do given all of their difficult problems to solve. It is the job of policymakers, researchers, and the colleges themselves to understand what distinguishes the more successful institutions and to improve the effectiveness of all colleges.

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