

Developmental Education in Community Colleges

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When students arrive to enroll in community college, almost all are asked to take a skills assessment in math, reading, and writing. Based on these assessments, students are either categorized as “college-ready” and can enroll in college-level classes in the relevant subjects, or they are considered “developmental” or “remedial” students and are referred to academic services designed to raise their skills up to college standards. Many students are referred to multiple levels of remediation—up to five levels in some cases. This means that such students would have to successfully navigate five semesters of pre-college instruction before being prepared for their first college-level course.

While a variety of other remedial services are offered, the large majority consists of these semester-long developmental classes in the subjects to which students have been referred. About 60 percent of incoming students are referred to at least one developmental course.¹ This is often surprising to them since the large majority of community college entrants are high school graduates. And for many, remediation is not just a course, but rather, for those referred to multiple levels, a whole curriculum.

Addressing the needs of developmental students is perhaps the most difficult and most important problem facing community colleges. Developmental students face tremendous barriers. Less than one quarter of community college students who enroll in developmental education complete a degree or certificate within eight years of enrollment in college. In comparison, almost 40 percent of community

college students who do not enroll in any developmental education course complete a degree or certificate in the same time period.² It will be very difficult to meet the Obama administration’s goal of increasing the number of community college graduates by 5 million by 2020 without making significant progress on improving outcomes for students who arrive at community colleges with weak academic skills.

In this Brief we first report on evidence about the effectiveness (or, unfortunately, in too many cases, the ineffectiveness) of remediation and then provide information about the progression of students through the developmental sequence. We discuss problems associated with the crucial assessments and make a brief statement about costs. We then describe three initiatives designed to improve the performance of remedial services.

Effectiveness

Do the services provided to students through developmental education programs work to improve student outcomes? Given the size and importance of the developmental function, there are surprisingly few rigorous evaluations, and outcomes from those are not encouraging. Two rigorous studies, one in Florida and one in Texas, found that students who participated in remediation did no better on several outcome measures than similar students who enrolled directly in college-level courses.³ On the other hand, a study in Ohio, using a more restricted sample, found positive effects for math remediation but none for

reading.⁴ But the results of these studies are most reliable for referred students whose assessment scores put them close to the remediation cutoff points—that is, these were among the stronger of the students who were referred to developmental education. We know very little about the effectiveness of developmental education for students who score well below the cutoff score, although a study of a program for students in adult basic skills classes in Washington State—the I-BEST program—does show promising early outcomes. This will be discussed in more detail below.

Progression

Analysis of the progression of students through developmental education provides some insight into why these students are unlikely to go on to complete a degree or other credential. Using student data from colleges participating in the nationwide Achieving the Dream initiative (<http://www.achievingthedream.org/>), we found that many students do not complete their sequences of developmental courses, and a sizeable proportion of those referred never even enroll.⁵ To take math developmental education as an example, 28 percent of those referred did not enroll. Another 30 percent failed or withdrew from one of the developmental courses in which they enrolled. Ten percent dropped out of their developmental sequences without ever failing a course. Thus, only 31 percent successfully completed their sequences of math remediation. Of those completers, about half (16 percent of all of those referred) actually completed a college-level course in math within three years. (Outcomes for reading were somewhat better: about one quarter completed the first relevant college-level course within three years.)

The data on progression provide several insights into directions for reform. First, the sequence of course is often too complicated and takes too long. This suggests a comprehensive strategy that effectively

recruits students to enroll in the first place, that improves the teaching that takes place in the remedial classroom in order to retain students in the courses, and that helps students bridge the gap between courses.

Of course the best developmental education program is the one that avoids the need for remediation in the first place. Certainly K12 reform will help, but students will continue to arrive needing help (many community college students have been out of school for several years or were schooled in their home countries). Intensive bridge programs that take place in the summer before college starts have the potential to make up for weaknesses and allow students to start college at the college level.

Assessments

Problems with the assessments (often called placement tests) used to refer students represent another barrier to improved outcomes for students with weak academic skills. Overall, there is no consensus about what constitutes preparation for college. States and institutions use many different assessments, and even when they use the same assessments, they often set different cutoff scores. Moreover, there is no obvious point of discontinuity in the distribution of cutoff scores that might provide a meaningful point to distinguish between “remedial” and “college-ready” students. Thus, there is little to differentiate students within the wide range of students above and below the cutoff scores.

Moreover, students who are referred to developmental courses through the assessments face many different problems. Again taking math as an example, some students may have had difficulty learning math in high school, some may have taken very little math, some older students may have done well in math but have forgotten much of what they learned, and others may have language problems and experience trouble understanding the placement tests. These different groups of students need different types of services, but the assessments do not

differentiate among them, and the colleges do not provide different classes or other interventions to address the varied reasons for the skills deficiencies. Assessments that do a better job of identifying particular weaknesses could lead to more customized developmental programs that have the potential to reduce the time that students must spend in remediation.

Some developments over the past two years suggest that we may be moving toward a better system of assessments. The Common Core State Standards that have been adopted by 34 states have advanced the national discussion of what constitutes being ready for college, and assessment companies are developing more diagnostic assessments, but these improvements are still at an early stage. In the meantime, states such as Florida and California are already implementing early college readiness testing along with opportunities for remediation for students while they are still in high school. These are examples of state-level efforts that aim to engage high schools around the need to reduce remediation of their graduates.

Costs

Developmental education is certainly costly. States spend tens of millions of dollars on remediation, and very rough national estimates suggest that well over \$1 billion a year are spent on these services. But it is students who probably have to bear the most significant costs. They must not only pay for the classes but also must delay their progress through college. Many students are discouraged when they find out that they are not eligible for college-level courses. This may explain the high “no-show” rates among those referred to remediation.

Reform Initiatives and Exemplars

Thus, developmental education is costly and not very effective. But there is some reason for optimism. It is only recently that improvements in the availability and quality of

data have revealed the extent and nature of the problems that we have described. This better understanding of the problems is informing the many potential solutions that are currently being tested.

For example, Bill and Melinda Gates Foundation and Lumina Foundation for Education have funded the Developmental Education Initiative (DEI) as an outgrowth of Achieving the Dream (<http://www.deionline.org/>). Sixteen colleges are participating in the DEI, the purpose of which is to help the colleges expand small or pilot programs that have been shown to be effective. Lumina Foundation has also funded an initiative titled Getting Past Go (<http://www.gettingpastgo.org>), which is focused on improving developmental education through enhanced state policy. The National Center for Postsecondary Research, funded by the Institute for Education Sciences in the U.S. Department of Education, is conducting rigorous evaluations of developmental education models and interventions, including studies of six learning communities (discussed below) and a study of intensive summer bridge programs designed to help students become college-ready in a compressed time period the summer after high school graduation. These programs appear to have potential, but most of them are at early stages.

Below we outline three promising programs for which we do have some evaluation evidence.

Accelerated Learning Program (ALP)

Description: In Accelerated Learning Programs, or ALPs, students placed into upper-level developmental courses are “mainstreamed” into college-level courses in that subject, and are simultaneously enrolled in a companion ALP course (taught by the same instructor) that meets in the class period immediately following the college-level class. The aim of the ALP course, which has a small number of students, is to help students maximize the likelihood of success in their

first college-level course and to speed up their progress through the developmental sequence.

Value-added: ALP accelerates those students who are most ready to take their first college-level course by allowing them to bypass the highest level of developmental education. Students needing remediation are thus “mainstreamed” directly into college-level coursework that incorporates supplemental instruction, tutoring, or other supports. In some other acceleration models, colleges combine developmental courses at different levels, thus reducing the total number of such courses students must take. ALP is more of a structural innovation than an instructional one, save for the additional instruction that the college-level instructors provide for these developmental students.

Population targeted/served: ALP serves students at the upper end of the developmental range, that is, those students who are assigned to remediation but score near the developmental cut-off point on assessments.

Evidence of effectiveness: The Community College of Baltimore County (CCBC) has had the ALP since the 2007-08 academic year. Using a multivariate analysis, one study found that among CCBC students who were referred to the highest level of developmental English, those who enrolled directly into the college-level course and the concurrent ALP companion course were significantly more likely to take and pass that college-level course and the course immediately after it (English 101 and 102) than those who enrolled in the highest level of developmental education.⁶ ALP was also found to be a significantly more cost-effective pathway through the required college-level English courses than the traditional developmental sequence, as measured by cost per successful student. Because of the promising preliminary findings on the program, CCBC is in the process of scaling up ALP such that by next year, the majority of students who are referred to the highest level developmental English course will be enrolled in English 101 with the concurrent ALP support course.

Integrated Basic Education and Skills Training (I-BEST)

Description: In the I-BEST model, basic skills instructors and professional-technical faculty jointly teach college-level occupational classes that admit basic skills students. The objective is to accelerate the rate at which adult basic skills students advance to college-level programs that lead to career-path employment. The Washington State Board for Community and Technical Colleges (SBCTC) has implemented I-BEST since the 2005-06 academic year, when 10 colleges piloted the program. In 2007-08, I-BEST was expanded to all 34 colleges in the system.

Value-added: By integrating instruction in basic skills with instruction in college-level professional-technical skills, I-BEST seeks to increase the rate at which adult basic education students advance to college-level programs and complete postsecondary credentials in fields offering good wages and opportunities for career advancement. In the state of Washington, I-BEST is funded at 1.75 times the normal rate per full-time equivalent student to compensate for the cost of using two faculty members as well as other planning and coordinating costs.

Population targeted/served: I-BEST serves basic skills students with an interest in enrolling in occupational classes that lead to jobs with higher wages. The program is targeted to students who have specific occupations in mind and who cannot afford to wait to finish basic skills before enrolling postsecondary education and training.

Evidence of effectiveness: Using propensity score matching, one study found that students who enrolled in I-BEST were more likely to progress into credit-bearing courses, persist in college, accumulate credits that count toward a credential, and make learning gains on basic skills tests.⁷ A forthcoming paper that employed difference-in-differences analysis, found that students who were exposed to I-BEST were 10 percentage points more likely

to earn college-level credits and more than seven percentage points more likely to earn a certificate.⁸ Due to the positive preliminary findings, I-BEST has generated much excitement within Washington's community college system and elsewhere. Other states look at it as a model for constructing similar programs, and major foundations such as the Bill & Melinda Gates Foundation have expressed interest in replicating it.

Learning Communities

Description: Many community colleges operate learning communities to improve low rates of student success. Basic learning communities co-enroll a cohort of students into several classes together. More comprehensive versions include integrated curricula, collaboration among instructors, and student services such as enhanced advising and tutoring which are embedded into the course.

Value-Added: Learning communities provide academically low-performing students with the opportunity to enroll and complete courses together at the developmental level. Students are grouped in small cohorts (a program in Kingsborough Community College places 25 first-year students in each cohort) and enroll in a developmental course, a course on another academic subject, and a one-credit college orientation course. This is designed to help students advance through developmental education and into college-level courses within a structure of cohort accountability.

Population targeted/served: Learning communities are designed to serve academically low-performing students who have been referred to developmental courses upon arriving at an institution as first-time students. Many of the students in these programs are also from low-income backgrounds.

Evidence of effectiveness: Researchers have shown that more comprehensive programs led to positive impacts on student engagement, college persistence, credits earned, and

developmental course sequence completion in English.⁹ However, the evidence was mixed as to whether the programs increased persistence, measured within two years. Less comprehensive learning community programs had no substantive effects.

Summary and Conclusion

By stepping back and taking in the broad picture of developmental education, one sees an extensive system that involves thousands of dedicated counselors and professors carrying out a crucial function. But at the same time, that system is characterized by uncertainty, lack of consensus on the definition of being college-ready or of the best strategies to pursue, high costs, and varied and often unknown benefits. Many students who are referred to developmental education never enroll in it. Many who complete one remedial course fail to show up for the next course in the sequence. Overall, fewer than one half of students who are referred to developmental education complete the recommended sequence. What is more, many students who do complete their developmental courses do not go on to enroll in the associated college-level courses. The evaluation data concerning developmental education are equally discouraging. Much of the research on developmental education is suggestive but cannot reliably measure the effect of remediation or differentiate among different approaches. The handful of more definitive studies shows mixed results at best.

This picture is further complicated by the lack of consensus about what constitutes being college-ready and by assessments that have only a weak relationship with subsequent educational performance. This uncertainty is reflected in the bewildering plethora of assessments and cutoff points used around the country. And perhaps even more importantly, there is no break or discontinuity in assessment test scores that clearly differentiates developmental from college-level students. Many students who test out of remediation nonetheless struggle in their

college courses, and educational outcomes for such students are too low. Thus, a sharp distinction in the services received by these two types of students is not justified.

The picture of past and current developmental education appears bleak. If students cannot get established in college with college-level courses, then they will certainly not be able to graduate. But the initiatives that we have described and many others currently on the drawing board and in the field have the potential to significantly improve the effectiveness of these services. Finding better ways to address the needs of underprepared students is a necessity for meeting the Obama administration's goal of increasing the number of community college graduates by 5 million by 2020.

Endnotes

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