

Developmental Education

► Can It Improve College Attainment Rates?

For many, the need for postsecondary institutions to offer developmental education to students who enroll in their institutions is symptomatic of the U.S. education system's failure to prepare students for postsecondary education and the workforce.

The high percentage of students requiring developmental education, the costs associated with its delivery and research suggesting that students who enroll in developmental education have grim prospects for earning a degree have motivated policymakers to take aim at developmental education as a redundant and ineffective component of the education system.

However, with a growing number of jobs requiring postsecondary education, and a large percentage of the population available to be trained for these jobs coming from communities traditionally underserved by postsecondary education, it may be time for policymakers to give developmental education programs a second look as a way to increase college attainment rates.

Emerging research suggests that developmental education programs positively contribute to student persistence and graduation. In addition, research has given us a better idea of how to develop policy and practice to make developmental education programs more effective and efficient. This issue of *The Progress of Education Reform* will address the following three questions:

- Models for delivering and evaluating developmental education
- The positive impact of developmental education on college attainment
- How public policy can improve developmental education and improve college attainment rates

1. What are the challenges that developmental education programs face that affect their success?
2. Are developmental education programs an effective strategy for increasing college attainment rates?
3. How can state policy improve the success of developmental education programs?

The following studies provide valuable insights on each of these questions and will assist policymakers as they consider how to leverage developmental education programs as useful tools for increasing college attainment.



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"Lights Just Click on Every Day" in Defending the Community College Equity Agenda

Kerry Charron and Dolores Perin. *The Johns Hopkins University Press*, T. Bailey and V. Smith Morest, editors. Baltimore, 2006. p. 155-194.

Background

A National Field Test conducted case studies at 15 community colleges to better understand developmental education programs and to set the stage for further research.

Findings: Developmental Education Programs Vary in Policy and Practice

What Impacts the Need for Developmental Education Programs?

The study revealed several factors that cause student academic difficulty, including:

- ▶ Open-admissions policy at community colleges
- ▶ Inappropriately low cutoff scores on placement tests
- ▶ State policies confining remediation to community colleges
- ▶ Low high school standards
- ▶ Limited English proficiency among new immigrant students and other non-native English speakers
- ▶ Students with learning disabilities
- ▶ Lack of confidence among students
- ▶ Unskilled, unmotivated and immature younger students.

Remediation is fundamental to the community college's ability to pursue the equity agenda. It is well known that students arrive at community colleges with a vast range of backgrounds and levels of academic preparedness ... It becomes the task of community colleges to offer all of these students — those who have succeeded academically in the past and those who have not — the same chances of completing a degree.

~ Kerry Charron and Dolores Perin

Types of Instruction

The study found that developmental education was delivered in three ways:

- ▶ *Standard remedial courses*: traditional semester- or quarter-based courses that are divided between classroom instruction and labs
- ▶ *Modified remediation*: self-paced remediation, tutor-based instruction, online offerings, accelerated courses, summer courses, contextualized courses, study skill courses and combined writing and math courses
- ▶ *Special programs*: customized approaches dedicated to high-need students. Colleges made use of learning communities and combined instruction with student and social services.

Indicators of Effectiveness

The study identified the following indicators colleges use to measure program effectiveness:

- ▶ Student completion of developmental education courses
- ▶ Student return to college the following semester
- ▶ Developmental course dropout rate
- ▶ Student movement to higher-level courses (either developmental or college-level)
- ▶ Test scores and grades
- ▶ College performance and graduation.

Policy Implications

Charron and Perin offer a list of actions policymakers should consider:

- ▶ Aligning developmental education placement standards with the knowledge and skills required in college-level courses
- ▶ Addressing the growing number of English language learners and their impact on developmental education
- ▶ Reconciling the need for more time on task for students with the pressure to move students quickly through developmental education programs
- ▶ Determining whether to measure developmental education effectiveness by what happens to students who complete programs or by the success/failure rate of all students who enroll
- ▶ Researching with precision the effectiveness of developmental education programs.

Can Community Colleges Protect Both Access and Standards? The Problem of Remediation

Dolores Perin. *Teachers College Record*. Community College Research Center, Teachers College, Columbia University. Vol. 108, Number 3, March, 2006. pp. 339-373.

Background

The variation in developmental education programs makes setting policy to improve its effectiveness difficult. The study provides insight into how state policymakers can improve developmental education.

Findings: Assessment and Placement Are Primary Policy Levers

The following six categories of policy impact the delivery of developmental education programs:

1. *Mandatory or Voluntary Assessment*

Community colleges assess new students, regardless of whether state policy requires it. However, institutional practice often circumvents the policy. Not all skills are assessed, not all students are assessed and instructors often waive the assessment requirement.

2. *Selection of Assessment Instruments*

Assessment of students varies considerably. Institutions use single or multiple measurements, formal and informal testing. Instructors rely on informal measures because they do not trust formal measurements as accurate.

3. *Setting of Cut Scores on Assessments*

States typically rely on institutions to set cut scores to determine placement. When states recommend cut scores, institutions often choose to disregard them.

4. *Mandatory or Voluntary Placement*

Institutions mandate placement into developmental education, regardless of state policy. However, institutions do limit the number of students who enroll.

5. *Remedial Advance and Exit*

States do not regulate measures of student progress and exit from developmental education. Institutions use informal measures, grades and instructor judgment to determine student competencies. Measurement of student competencies are not uniformly applied.

6. *Timing of Remediation*

States do not regulate when students must take developmental education courses, but many institutions encourage students to enroll in courses early in their academic programs. When students require multiple developmental courses, institutions find ways to soften the requirements.

Institutional Practice Can Undermine Student Success

Institutions apply developmental education policy selectively. Institutions relax policies to reduce or increase enrollments in developmental education, to vary the level of precision in assessment and to promote student retention.

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Other Resources

The Tennessee Board of Regents Developmental Studies Redesign Initiative:

Through a grant from the U.S. Department of Education Fund for the Improvement of Postsecondary Education, ECS and the Tennessee Board of Regents (TBR), in partnership with the National Center for Academic Transformation (NCAT), are redesigning developmental education programs at TBR institutions with the expressed goal of increasing their efficiency and effectiveness. To learn more visit the National Center for Academic Transformation at: <http://www.center.rpi.edu/>

Achieving the Dream

The Lumina Foundation's effort to build the capacity of community colleges to gather and analyze data for the purpose of improving institutional practice that increases the success of a diverse population of students includes important work on strategies to evaluate and improve developmental education programs. For more information visit: <http://www.achievingthedream.org/default.tp>

ECS Research Studies Database

More indepth summaries of the studies in this publication and other studies related to developmental education programs are available in the ECS research studies database. Please visit: <http://www.ecs.org/rs/>

Community College Research Center (CCRC)

CCRC, located at the Teachers College at Columbia University, conducts research on the major issues affecting community colleges in the United States and contributes to the development of policy and practice that expands access to higher education and promotes success for all students. For more information about the resources available visit: <http://ccrc.tc.columbia.edu/>

The ECS Postsecondary Education and Workforce Development Institute

The Postsecondary Education and Workforce Development Institute works closely with policymakers and institution, business and community leaders to drive innovation and change within higher education to meet the challenges of preparing the workforce of the 21st century. For more information visit us at: www.ecs.org or contact the institute director, Bruce Vandal at bvandal@ecs.org.

Policy Implications

Remedial assessment and placement policies can represent unsuccessful attempts by colleges to balance student access and academic quality. State mandates and institutional policies are broadly followed by institutions, but often times are softened in an attempt to compensate for factors that threaten access or academic quality.

Redesigning Developmental Education

Developmental Education programs will need to increase their effectiveness and define their role as a part of state strategies to improve college attainment rates. Developmental education programs must:

- ▶ Set standards for student competency and program productivity
- ▶ Evaluate student competencies and program productivity
- ▶ Examine institutional practice and its relationship to state policy
- ▶ Differentiate interventions between adult and younger students to better meet their needs.
- ▶ Accomplish all of the above in a more cost effective manner.

State policymakers should:

- ▶ Adapt state policy and funding models to maximize the potential of developmental education to improve college attainment rates
- ▶ Incorporate developmental education programs into state P-20 efforts.

Stepping Stones to a Degree: The Impact of Enrollment Pathways and Milestones on Community College Student Outcomes

Juan Calcagno, Thomas Bailey, Peter Crosta and Davis Jenkins. CCRC Working Paper No. 4. Community College Research Center, Teachers College, Columbia University. October, 2006.

Background:

Adult students are less likely than first-time students to complete a community college program or transfer in six years. This study examines whether the gap in student success rates could be understood by examining how enrollment pathways, such as developmental education and enrollment milestones affect educational outcomes for older and younger students.

Findings

The study's findings were broken into the following two categories:

Reaching Academic Milestones

- ▶ External pressures, such as work and family obligations, appear to negatively impact degree completion for adult students. Outside of these factors, when controlling for all institutional and student academic variables, older students appear more likely to earn a degree than younger students.
- ▶ Earning 20 non-remedial credits significantly increases chances of earning a degree. However, younger students are more successful than older students when reaching this milestone.
- ▶ Students who finish 50% of their program increase their chances of earning a degree. Younger students are more successful when they get to this point than older students.

Impact of Developmental Education

- ▶ Developmental education negatively impacts degree attainment, but to a lesser extent for older students than younger students.
- ▶ The impact of developmental courses in reading and writing is the same for older and younger students.
- ▶ Math is a key barrier for adult students because their skills are more likely to be rusty and therefore require more developmental education.
- ▶ For students enrolled in remedial writing, passing the first-year, college-level, composition course more than doubles their odds of graduating.
- ▶ For students enrolled in remedial math, completion of college-level algebra is positively related with graduation. However, for older students, their odds for success are about half of what they are for younger students.

Policy Implications

The implications for policy and practice at community colleges are:

- ▶ Provide more intensive supports to students early in their enrollment
- ▶ Differentiate types of remediation between younger and older students; “brush up” courses may be all that is warranted for older students
- ▶ Work closely with middle and high schools to better prepare and motivate youth for postsecondary education
- ▶ Ensure that remedial students take and complete initial-level college math courses
- ▶ Mitigate the impact of external pressures on adult students by providing flexible scheduling, evening and weekend courses, childcare and distance learning
- ▶ Offer accelerated programs and financial support to enable older students to attend full-time and thus shorten the time it takes to reach key milestones on the way to degree completion.

Percent of entering freshmen at degree-granting institutions enrolled in developmental courses, 2000

Institution Type	Percent of students
All Institutions	28%
Public 2-year	42%
Private 2-year	24%
Public 4-year	20%
Private 4-year	12%

Source: Basmat Parsad and Laurie Lewis. *Remedial Education at Degree-Granting Postsecondary Institutions: Statistical Analysis Report*, NCES 2004-010, National Center for Education Statistics, U.S. Department of Education Institute for Education Sciences, Washington DC, 2003.

Addressing the Needs of Under-Prepared Students in Higher Education: Does College Remediation Work?

Eric Bettinger and Bridget Terry Long. National Bureau of Economic Research Working Paper. April, 2006

Background

There is little evidence that developmental education programs positively contribute to college success. Most institutions do not have competency or productivity standards for their programs. In addition, studies of developmental education programs have been methodologically flawed because they do not control for the differences that exist among students. This study attempts to address these concerns.

Findings: Developmental Education Programs Positively Impact Postsecondary Success for Marginal Students

The study examines students who are on the margins between being placed in developmental education and being cleared to enroll in college-level courses. The study finds that remediation, when controlling for other factors, decreases the likelihood of dropping out of college and increases the likelihood of earning a bachelor's degree within five years.

Impact of Developmental Education by Student Ability Level

The study finds positive results for average and above-average students who enroll in developmental education.

- ▶ Students who score at the average on the ACT and are enrolled in either math or English developmental education courses are less likely to drop out of college and more likely to graduate in five years.
- ▶ Students who are above average on the ACT math exam and take a developmental math course are less likely to drop out and more likely to graduate in five years than similar students who do not enroll in developmental math.

Observations

Bettinger and Long suggested the following actions to improve the effectiveness of developmental education:

- ▶ Study the impact of developmental education courses on students who are extremely under-prepared for postsecondary education.
- ▶ Examine instructional strategies and support services that increase student success.
- ▶ Encourage states and institutions to utilize developmental education to improve college attainment.

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