Center for American Progress

Remedial Education

The Cost of Catching Up

By Laura Jimenez, Scott Sargrad, Jessica Morales, and Maggie Thompson September 2016

Center for American Progress

Remedial Education

The Cost of Catching Up

By Laura Jimenez, Scott Sargrad, Jessica Morales, and Maggie Thompson

September 2016

Contents

Introduction and summary

Across the country, millions of students enroll in college every year only to learn that they need to take classes that will not count toward their degrees because they cover material that they should have learned in high school. According to the authors' analysis for this report, these remedial courses cost students and their families serious money—about $1.3 billion across the 50 states and the District of Columbia every year. What is more, students who take these classes are less likely to graduate.[1] Simply put, remedial education—or developmental education as it is also known—is a systemic black hole from which students are unlikely to emerge.

> *"I felt the remedial courses were a waste of time. … If I was taught and learned how to think more critically and pushed to achieve more or reach higher standards in high school, I think I would be doing much better in college, and it would be easier."*
> *— Courtney, a first generation college student from Texas*

Courtney dropped out of college but had reenrolled by the time of the interview for this report.[2]

After defining remedial education, the authors briefly review the typical methods that institutions employ to identify students in need of remediation and the resulting national demographics of remediated students. Then, the report touches on national rates of progress through remedial education for major racial or ethnic and socio-economic student groups before focusing on how much money students spend on these courses that do not count toward a degree. While there are certainly reforms to the design of remedial education in higher education institutions that could improve student retention and completion, the recommendations that conclude this report focus on other ways for the K-12 and higher education systems to eliminate the need for remedial education for recent high school graduates.

The national rates of remediation are a significant problem. According to college enrollment statistics, many students are underprepared for college-level work. In the United States, research shows that anywhere from 40 percent to 60 percent of first-year college students require remediation in English, math, or both.[3] Remedial

classes increase students' time to degree attainment and decrease their likelihood of completion.[4] While rates vary depending on the source, on-time completion rates of students who take remedial classes are consistently less than 10 percent.[5]

Moreover, the problem is worse for low-income students and students of color, whose rates of remedial education enrollment are higher than for their white and higher income peers. According to a recent study, 56 percent of African American students and 45 percent of Latino students enroll in remedial courses nationwide, compared with 35 percent of white students.[6]

In addition to remedial education's impact on students' academic success, its financial costs are significant and quantifiable. The total figure is staggering: According to the authors' analysis, students paid approximately $1.3 billion for remediation in all 50 states and the District of Columbia. A detailed description of how the authors calculated these costs is included in the Methodology.

"Because of having to take remedial classes that don't count toward your degree, along with taking the classes that you are allowed to take, you always feel like you are trying to catch up."

— Victor, who dropped out of University of Texas at El Paso.[7]

While there may always be a need for remedial education, especially for those students returning to school after years in the workforce, the need for remedial education for recent high school graduates can be eliminated by ensuring that high schools do a better job preparing students for college and careers. The failure to do so is costing students and the country in so many ways.

The good news is that there is a way forward. By advocating for implementing higher academic standards such as the Common Core State Standards, students know that by meeting them, they will not need remediation in college. Raising standards is only one strategy to eliminate the need for remediation for recent high school graduates. This report touches on additional efforts that the K-12 and higher education systems and the federal government can undertake to ease the burden of remedial education on students. The higher education and K-12 systems together can increase academic continuity between high school and college by aligning the requirements for both and being transparent with students about what knowledge, skills, and coursework are needed to succeed in higher education. These two systems should also collaborate to reform remedial education by creating consensus around a definition of remedial education, placement practices, and structures for remedial education in public higher education institutions. The federal government can increase accountability for remedial education by tying the receipt of federal student aid dollars to the reporting of better data on remedial programs, including enrollment, placement, progress, and completion rates.

Methodology

There is no national standardized data on remedial education enrollment, progress, completion, or cost. To conduct the analysis for this report, the authors used two data sets to derive remedial education enrollment rates. The first data set is from Complete College America, or CCA, and includes actual total and remedial education enrollment for the first-time, full- and part-time fall 2010 cohort, with the exception of the Florida data, which is from the fall 2009 cohort, and the Rhode Island data, which is from the fall 2011 cohort. The CCA data set provides actual enrollment numbers in three mutually exclusive groups—remedial math, remedial English, and remedial math and English—for three types of public institutions—two-year, four-year "very high research,"[8] and other four-year institutions—for full and part-time students who are U.S. residents, as well as actual remedial rates for these groups based on actual enrollment.

For the same institution types in states outside of this data set, the authors first determined total enrollment using the U.S. Department of Education's 2014 release of its Integrated Postsecondary Education Data System, or IPEDS, by combining two figures for U.S. residents, in order to be consistent with the CCA's data: "full-time first-time degree/certificate seeking students" and "part-time first-time degree/certificate seeking students" for the fall 2013 cohort.[9] To get an estimated remedial education enrollment rate, the authors derived a multiplier—against total enrollment for each institution type—by reviewing actual enrollment from the CCA data set. In reviewing the actual enrollment data for just remedial English, the authors applied a remedial rate of slightly more than 8 percent for two-year institutions to each institution's total enrollment for a multiplier of 0.0814; slightly more than 1 percent for four-year very high research institutions for a multiplier of 0.0107; and almost 5 percent for other four-year institutions for a multiplier of 0.0471. Estimated remedial math enrollment rates are consistently higher for each institution type, at a rate of almost 26 percent for two-year institutions, with the multiplier equaling 0.256; 4 percent for very high research institutions, with the multiplier equaling 0.04; and slightly more than 18 percent for other four-year institutions, with the multiplier equaling 0.181. Estimated remedial math and English rates are generally lower than math remediation rates alone: slightly more than 25 percent for two year institutions for a multiplier of 0.253; not quite 1 percent for very high research four-year institutions for a multiplier of 0.006; and almost 8 percent for other four-year institutions for a multiplier of 0.0755. In those institutions that do not offer remedial education in either math, English, or both, the authors used a remediation rate of zero percent. For example, South Dakota's two-year institutions do not offer remedial education and neither do very high research four-year institutions in Connecticut, Hawaii, Louisiana, Missouri, and South Dakota. Likewise, Tennessee's rates are zero percent at other four-year institutions. Additionally, due to the quality of the data from a specific sub-set of New York public institutions, the enrollment rates in remedial education exclude students in the City University of New York system, which comprises 22 total institutions, seven of which are two-year institutions and collectively enrolled 97,751 students and 15 of which are four-year institutions and collectively enrolled 174,146 students in the fall of 2013—the year for which this analysis is primarily based.[10]

For the CCA states, the authors assumed that the provided rates in the data set were medians. For the non-CCA states, the authors identified the median percentage for each subject—math, English, and both math and English—and institution type. For example,

using the calculation in the previous paragraph, the authors found that the median rate of remediation exclusively in math for students in public two-year institutions in the United States was 26 percent.

To find the remedial education course cost per institution type per state and then the total cost per state, the authors estimated that students take eight college courses per year on average, which breaks down to four classes per semester, and assumed that of these, each remedial course costs the same as each nonremedial course at a single institution. The authors multiplied estimated or actual enrollment, as applicable, by the average course cost for each institution type found in the 2014 IPEDS data, "average net price—students receiving grant or scholarship aid."[11] Specifically, the authors multiplied the number of remedial math or English courses taken at each institution by the price of one course and then calculated the total by multiplying both types of courses by the price of two courses. This resulted in nine subtotals for each state, as applicable: remedial course cost for English, math, and both English and math—for mutually exclusive student counts—for each public institution type: two-year, four-year very high research, and other four-year institutions. These sum into a unique, single total per state.

Then, the authors divided the summed estimated or actual remedial education enrollment numbers by the total enrollment numbers to derive the percentage of remedial enrollment by state.

Student profiles

To identify the students profiled in this report, the authors used several methods. First, the authors administered a survey using SurveyMonkey and followed up with the respondents via phone interviews. Two individuals responded to the survey. Then, the authors reached out to their own former classmates and requested submissions of stories about their remedial education experiences. The responses to the following survey questions—verbatim from the survey instrument—inform the profiles:

- What year did you begin to attend college?
- Where did you attend or are attending college?
- How many remedial courses have you taken or will you need to take?
- How are you paying for those courses?
- Important part (feel free to add other information): Do you feel like your high school did not prepare you for college? Why or why not? Tell us about your experience with catching up in college through remedial education and any issues you may have encountered.

The survey and follow up interviews were conducted in October and November 2015.[12]

Defining remedial education in context

Not all postsecondary institutions use the same definition or process for determining who needs remedial education courses—also referred to as developmental education or basic skills courses. In general, however, remedial education consists of below-college-level noncredit courses and trainings in reading, writing, and math that are aimed at teaching students the academic competencies necessary to succeed in college-level coursework.[13]

A single measure for determining remedial education placement

There is no uniform approach within a state to determine who qualifies for remedial education. Higher education institutions assess applicant eligibility for credit-bearing coursework in a variety of ways. For most institutions, a student's performance on a college placement or admissions exam determines, or is at least a factor, in remedial placement. Most four-year institutions rely on a specific performance standard to determine which students possess the academic knowledge to pass a credit-bearing college-level course. This performance standard—commonly known as a "cut score"—is set for tests such as the ACT and SAT to determine whether or not a student possesses the skill set to succeed in college level courses.[14] Community colleges, which are typically two-year institutions, rely on placement exam cut scores on tests such as the ACCUPLACER or COMPASS exams to determine the need for remedial placement. A student's score on the aforementioned tests dictates whether or not the student will need to take remedial coursework and at what course level the student should be placed in the remedial course sequence. States, college systems, and institutions can set their own cut scores for these tests, so that a score placing students into credit-bearing coursework at one institution may place them in remedial education at another.[15]

The ACCUPLACER is a suite of exams developed by the College Board that are used to assess reading, writing, math, and computer skills. Thousands of institutions use ACCUPLACER results to inform placement decisions in remedial education and credit-bearing course work.[16]

Profile: Courtney, a first generation college student from Texas

Courtney started college directly out of high school in 2011. She took the ACC-UPLACER exams before she enrolled in college courses. These tests assessed her basic skills in English and math and determined readiness for college-level work in these subjects. Her scores on the exams left her ineligible to take credit-bearing courses, instead placing her into two remedial courses, which she paid for using her financial aid money.

As the first in her family to go to college, Courtney did not understand the impact of these tests on her college experience: "My parents didn't graduate from college or have any information to help with figuring out that process. … If I had known, I would have prepared myself for the exam[s]." She had relied on her high school for that preparation, but it failed her.

Courtney dropped out of college but had reenrolled by the time of the interview for this profile.[17]

A combined measure for determining remedial education placement

Some states and institutions have committed to using multiple variables—such as students' high school course-taking patterns, grade-point average, or a combination of exam scores and high school records—to identify college readiness and, if necessary, remedial placement.

TABLE 1

Examples of states, higher education systems, or colleges and their respective assessment and placement practices

State, higher education system, or college	Remedial education assessment and placement practice
Single measure	
City University of New York, or CUNY	CUNY relies on cut scores for the ACT, SAT, or New York Regents Exams for assessing college readiness and placement.
Kentucky	Kentucky relies on minimum cut scores from either the ACT or equal scores for the SAT, or else COMPASS or Kentucky Online Testing, or KYOTE, for college standards of readiness. If students do not meet the necessary cut score on the ACT they have the opportunity to take any of the other tests mentioned above to determine course placement.
Combined measure	
Davidson County Community College, North Carolina Ivy Tech Community College, Indiana	This system and these colleges use Multiple Measures for Placement. This means they assess students' college readiness by using a combination of variables such as grade point average and high school course-taking patterns to determine college readiness and, if necessary, the need for placement assessments. Students meeting GPA and high school course requirements are considered college ready; they therefore do not need to take a placement exam and instead may enroll in college credit courses. Those who do not meet high school transcript requirements can submit ACT or SAT test scores to determine course placement. If students do not meet the minimum cut scores on the ACT or SAT, the student will take a placement exam to determine remedial placement.
Massachusetts	Of the state's public colleges, 18 out of 19 launched pilot programs using students' high school GPA or a combination of using their high school GPA and scores on exams like the SAT to determine course placement.

Sources: Maryland Department of Legislative Services, "College and Career — Are Maryland Students Ready?," Presentation to the Senate Education, Business, and Administration Subcommittee and the House Education and Economic Development Subcommittee, February 2015; Council on Postsecondary Education, "College and Career Readiness in Kentucky," available at http://cpe.ky.gov/NR/rdonlyres/E1DA3E91-E750-4A3F-AF1B-DFD858079CC7/0/ACTandSystemwidePlacementStandards.pdf (last accessed July 2016); Kentucky Department of Education, "Assessments" (2015), available at http://education.ky.gov/AA/Assessments/Pages/default.aspx; Kathy Reeves Bracco and others, "Core to College Evaluation: Exploring the Use of Multiple Measures for Placement into College-Level Courses, Seeking alternatives or improvements to the use of a single standardized test" (San Francisco: WestEd, 2014), available at https://www.wested.org/wp-content/files_mf/1397164696product55812B.pdf; Center for Community College Student Engagement, "Expectations Meet Reality: The Underprepared Student and Community Colleges" (2016), available at http://www.ccsse.org/docs/Underprepared_Student.pdf.

Local variations in remedial education course structure

Postsecondary institution design of remedial education courses varies. Students may be placed in courses that range from one to as many as four sequential levels, or courses, below college level. These remedial courses can consist of multiple sequences spread out over multiple semesters or often multiple years. Accordingly, those who score higher on the admissions or placement exams but still fail to meet the minimum requirements are placed in higher-level remedial classes, while those who score lower are placed in lower-level classes. Based on decisions made at the state or institutional level, some students may be allowed to take remedial courses alongside credit-bearing courses. However, it is more likely that they must complete their remedial courses with a passing grade before advancing to the next level or enrolling in credit-bearing courses in those subjects. In addition, some higher education institutions may restrict the number of remedial courses in which a student can enroll or the amount of time that students can spend on remedial courses. For example, students in remedial education in Nevada must complete all of their remedial courses within their first year of college.[18]

Profile: Victor, a college student from Texas

In the fall of 2009, Victor was an entering freshman at the University of Texas at El Paso, or UTEP. He was informed by the university that he needed to take remedial math classes to prepare him for college level courses. He was surprised and a bit agitated by the requirement because he believed that his high school should have prepared him better. According to Victor, "The remedial classes are a repeat of the information [I] should have learned in high school." Over time, however, Victor found, "It was too difficult for me to pay for these remedial courses that I feel were costing me extra time and money."

Victor dropped out of UTEP and plans to reenroll in the fall of 2017.[19]

In total, the authors estimate that across the United States, it costs students in remediation and their families close to $1.3 billion in yearly out-of-pocket costs. These costs range from slightly more than $1 million in Alaska to more than $205 million in California—excluding the figure for the District of Columbia, which is an extreme outlier at $26,000. The lows of Alaska and the District of Columbia are likely due to the unique characteristics of these locations. Alaska is a sparsely populated state and has the lowest numbers of enrolled students out of states with multiple public institution types in this analysis. The District of Columbia only has one public four-year institution and as a result, has the lowest number of total enrolled students and the lowest number of students in remedial education.

TABLE 2

Out-of-pocket costs for remedial education by state

State	Out-of-pocket costs	State	Out-of-pocket costs
California	$205,488,000	Arkansas	$18,244,000
Texas	$98,749,000	Iowa	$17,684,000
Florida	$61,178,000	Kansas	$16,631,000
Ohio	$57,426,000	South Carolina	$15,552,000
New York	$48,216,000	Washington	$13,247,000
North Carolina	$45,530,000	New Mexico	$13,099,000
Pennsylvania	$44,528,000	Wisconsin	$12,526,000
Virginia	$37,036,000	Nevada	$11,801,000
Illinois	$35,827,000	Connecticut	$10,553,000
Georgia	$35,274,000	New Hampshire	$9,509,000
New Jersey	$32,795,000	Utah	$8,912,000
Michigan	$32,493,000	West Virginia	$7,426,000
Inidana	$30,719,000	Nebraska	$6,943,000
Minnesota	$30,438,000	Idaho	$6,499,000
Maryland	$30,107,000	Maine	$5,973,000
Missouri	$27,269,000	Montana	$4,548,000
Oregon	$27,043,000	South Dakota	$3,936,000
Arizona	$26,913,000	Hawaii	$3,772,000
Alabama	$26,624,000	Vermont	$3,534,000
Colorado	$24,642,000	North Dakota	$3,523,000
Oklahoma	$22,192,000	Rhode Island	$3,102,000
Mississippi	$21,454,000	Delaware	$2,760,000
Kentucky	$20,985,000	Wyoming	$2,432,000
Massachussetts	$20,743,000	Alaska	$1,179,000
Louisiana	$19,693,000	Washington, D.C.	$26,000
Tennessee	$19,605,000	**Grand Total**	**$1,286,378,000**

Source: Center for American Progress analysis of data from two sources. The first is from the fall 2013 study of student financial aid. See National Center for Education Statistics, "Integrated Postsecondary Education Data System," 2014 data files, "Student Financial Aid and Net Price," "Institutional Characteristics: Directory Information,"
"Fall Enrollment: Total entering class, retention rates, and student-to-faculty ratio: Fall 2014 (Fall 2013 cohort)," available at http://nces.ed.gov/ipeds/ (last accessed June 2016); and data from Complete College America, "Co-requisite Remediation: Spanning the Completion Divide" (2016) available at http://completecollege.org/spanningthedivide/#home.

Differences in costs within and between states may be due to several factors. The first is that remedial courses offered at public two-year and four-year institutions cost different amounts due to the differing costs of attending those institutions.

Nationally, based on the authors' analysis, students at two-year colleges collectively paid $920 million for remediation. Students at four-year public very high research institutions paid $33 million, and students at other four-year public institutions paid around $333 million in total for the 2013-14 school year, with the exceptions noted in the Methodology.

A second factor in the variation of costs for remedial education is the placement rate at two-year institutions versus four-year institutions. Most two-year postsecondary institutions have open enrollment policies, enrolling high numbers of students with fewer selectivity factors when compared with most four-year institutions. As a result, the pool of students needing remedial courses is higher at community colleges than at four-year institutions. In a recent report, the Community College Research Center estimated that 40 percent of 2012 high school graduates who entered a four-year college or university within a year of graduation were placed into remedial classes. This proportion increases to more than 68 percent of students entering two-year colleges.[20] The authors of this report found similar trends in their calculations. For example, students at two-year institutions were more likely to be enrolled in remedial courses—at a median rate of nearly 60 percent—than at four-year institutions—at approximately 30 percent—and four-year research institutions, at a median rate of about 4 percent.

A third factor for these cost differences is that the number of remedial education courses required for individual students varies. According to the Department of Education's National Center for Education Statistics, or NCES, graduates from a two-year institution who required remediation took an average of two to three remedial courses.[21] This is consistent with other researchers who have found that students who graduated from a postsecondary institution and required remediation took an average of two remedial courses.[22] Those two or three remedial courses translate to a semester or more devoted to remedial course work, and this time added comes with a cost.

Despite these high figures for remedial education, what students and their families pay is only a portion of what it costs to provide remedial education.

TABLE 3

Remediation rates by state

First-time students enrolled in remediation as a share of total estimated or actual enrollment

State	Remediation rate	State	Remediation rate
FL	93%	NH	42%
NV	85%	IL	41%
OR	78%	WV	41%
NM	58%	AZ	40%
MS	55%	MA	40%
HI	55%	VA	40%
MD	52%	LA	40%
AR	51%	TX	39%
OK	50%	MI	38%
IN	48%	IA	37%
OH	48%	UT	37%
KY	48%	PA	37%
CA	47%	RI	36%
ID	47%	CO	36%
NJ	46%	TN	36%
WY	46%	VT	36%
GA	46%	AK	35%
NY	46%	NE	35%
MO	46%	WA	32%
NC	44%	DE	29%
ME	43%	ND	27%
CT	43%	SD	23%
AL	42%	WI	18%
SC	42%	DC	11%
KS	42%	MT	2%
MN	42%		

Source: See Methodology.

Table 3 lists in descending rank order the actual or estimated enrollment in remedial education as a percentage of total enrollment for all 50 states and the District of Columbia; for the purposes of this section, the District will be considered a state. According to this calculation, most states—30 of them—fall in the national range of 40 percent to 60 percent annual remediation rates. Twenty-one states fall outside of this range. Of those above this range, remediation rates span from 78 percent to 93 percent. Of those below this range, all but one span from 11 percent to 39 percent; the outlier is Montana at 2 percent.

Profile: Jennifer, Colorado, college graduate

At a University of Colorado campus, the dean of the engineering department called Jennifer into his office to explain that she may have a hard time catching up to her peers. No other students from her community had elected to pursue the engineering program. Although she was a stellar student in her home town, Jennifer said the dean "was sure that my rural Colorado schooling left me behind."

Jennifer, who was the first person to attend college in her family, said that she "was determined to prove him wrong." However, she said that she soon found herself failing classes and receiving the "worst grades of [her] life" and that her "exemplary hometown academic record" did not prepare her for the rigors of college.

"I worked hard and spent scarce resources to catch up and eventually went on to graduate and have a successful career," Jennifer said. "But I was one of the lucky ones, and it was harder than it should have been."[23]

The cost of remedial education on student success

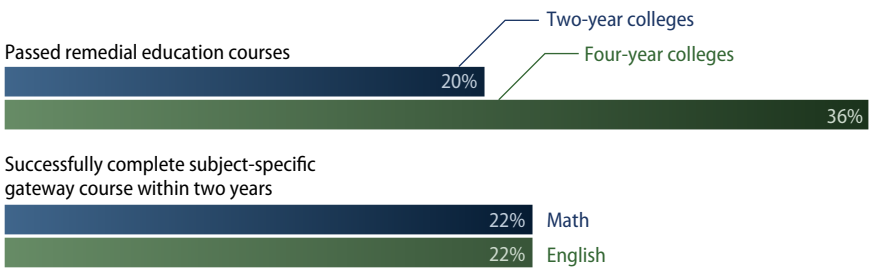
While the fiscal costs of remedial education are high, the impact on student outcomes might be even greater. Research shows that in any given year, anywhere from 40 percent to 60 percent of all U.S. college students are placed into remedial education.[24] Furthermore, studies have found that many students drop out before completing their remedial sequences and never even start credit-bearing college coursework. Researchers estimate that less than 50 percent of students persist

past their remedial courses to take credit-bearing courses.[25] This national statistic mirrors what is happening within states. In Texas, for example, only 50 percent of the 2010 cohort of community college students who received remediation in reading completed their remedial courses. (see Table 4) Of that 50 percent, only 37 percent completed their first college-level course. In math, only 33 percent of Texas students who enrolled in a remedial math course successfully completed the course, and of this group, only 18 percent went on to complete their first college-level course.[26] Ultimately, students who enroll in remedial courses are far less likely to complete college than their peers who do not need remediation.

The National Conference of State Legislatures estimates that less than 25 percent of students who need to take remedial courses in community college complete their academic programs within eight years.[27] Other figures show that less than 10 percent of students who are placed in remedial education complete a degree—whether two-year or four-year—on time.[28]

FIGURE 1

Percent of students in remedial courses who complete gateway courses



Source: Complete College America, "Spanning the Divide," available at http://completecollege.org/spanningthedivide/#far-too-many-students-start-in-remediation (last accessed July 2016).

Figure 1 shows that fewer students successfully complete each successive level of progression in and through remedial education. The trends are worse for so-called gateway courses, or foundational courses in mathematics and writing that introduce students to the analytical thinking and early research methodology that are key to pursuing a degree major.

FIGURE 2

National rates of remedial education enrollment by student groups

Note: Pell Grants are awarded based on demonstrated financial need.

Source: Complete College America, "Spanning the Divide," available at http://completecollege.org/spanningthedivide/#far-too-many-students-start-in-remediation (last accessed July 2016).

Similar trends are seen in a recent report by Complete College America, which indicates that 20 percent of students placed in remedial education at two-year colleges and 36 percent of their counterparts at four-year colleges complete a remedial education course within two years. Additionally, only 22 percent of students who complete remedial education courses complete the associated gateway subject course: for example, a first-level English or math course.[29]

This reality is disproportionately true for low-income students and students of color. According to the Complete College America report, 42 percent of all students in its study states enroll in remedial education, and this rate is higher for low-income students and students color.[30]

TABLE 4

Rates of progress at Texas public two-year colleges

Percentage of fall 2010 cohort of students below state standard

Progression levels	Reading	Writing	Math
Enrolled in remedial education	65%	60%	76%
Passed remedial education courses	50%	45%	33%
Successfully completed first college-level course	37%	34%	18%

Note: Cohort total is 125,853.

Source: Texas Higher Education Coordinating Board, "2016 Higher Education Almanac," available at http://www.thecb.state.tx.us/index.cfm?objectid=A44B548A-E50C-8417-E09BF83FC11EA1EF (last accessed July 2016).

The disproportionate rates of students of color and low-income students who recently graduated and took remedial education courses are a result of disparities in K-12 academic preparation. According to a report from the Texas Higher Education Coordinating Board, among Texas students that continued on to higher education in Texas, those who had participated in the free lunch program—which is based on financial need—were 14 percent less likely than their higher-income peers to meet college-ready state standards in math, writing, and reading. Students who qualified for reduced lunch were 10 percent less likely to meet the college-ready standards.[31]

Other national academic indicators point to similar trends of disparate rates of academic proficiency among students of color, who, along with low-income students, scored lower on the National Assessment of Educational Progress, or NAEP; the SAT; and the ACT. In 2015, for example, 43 percent of white eighth graders were proficient in math, compared with only 19 percent of Latino eighth graders and 13 percent of black eighth-grade students.[32] The results are similar in reading.[33] The same trends hold true in regards to the ACT and the SAT. Based on scores from students who graduated in 2014 and took the ACT, white students were 20 percent more likely than Latino students and 30 percent more likely than black students to meet the ACT college readiness benchmark.[34] Of the students who took the SAT, only 23 percent of Latinos and about 16 percent of black students met the SAT college and career readiness benchmark.[35]

The way forward: Recommendations for eliminating the need for remedial education for recent high school graduates

The implementation of higher academic standards in English and math, such as the Common Core State Standards, is an important step in reducing the need for remediation. Through the Common Core, students are taught to understand underlying concepts, "improve their critical thinking skills, approach problems from different perspectives, and apply what they learn to real-world problems," according to a report from the Center for American Progress.[36] The Common Core standards represent the culmination of decades of research into how students learn.

States that are implementing the Common Core have already shown positive outcomes. According to another report from the Center for American Progress, "A Look at the Education Crisis: Tests, Standards, and the Future of American Education," low-income students in Massachusetts are now "among the nation's highest performing."[37] The District of Columbia is another district that has increased high school graduation rates and observed a jump in student outcomes by reforming standards.[38] States must continue to implement and improve the Common Core standards and their aligned assessments.

What are Common Core State Standards?

The National Governors Association and the Council of Chief State School Officers—in response to the shared call from educators, policymakers, parents, and other stakeholders—developed the Common Core State Standards to raise academic standards in schools. They created a consistent set of stronger achievement benchmarks in math and English language arts for students in more than 40 states that chose to adopt the Common Core in 2010. The standards were designed to ensure that all students, including those with disabilities and nonnative English speakers, would be taught with high expectations so that they would have the opportunity to be academically prepared to succeed in college, as well as the global workforce, upon graduating from high school.[39]

While multiple steps are necessary to close the gaps in educational achievement and attainment between students of color, as well as those from lower-income households, and their white and/or wealthy peers, higher expectations of schools, teachers, and all students are a much needed and important step in the right direction. By increasing rigor through higher standards for all, states can better prepare students for educational success and college readiness. There are roles for students, institutions of higher education, and states alike to play in eliminating the need for remedial education.

Students should:

- Encourage their state governments to maintain and improve college- and career-ready academic standards so that all students attain the knowledge and skills needed to be ready for college. Each student who enters college or the workforce unprepared has a unique story of how lower expectations at various stages of their K-12 experience prevented her or him from being prepared for the next step after completing high school. Sharing these stories with education leaders and legislators through student voice groups or individual outreach is a simple and effective way to convey the importance of higher standards.

State K-12 and higher education institutions—working together—should:

- Effectively implement rigorous standards at the elementary and secondary levels to decrease the need for remediation immediately following high school graduation.
- Create academic continuity between the K-12 and postsecondary systems so that the standards and tests necessary to complete high school are aligned with entrance requirements for credit-bearing coursework in postsecondary education; further create academic continuity so that units and course level requirements are the same for high school graduation and college admission.
- Clearly communicate what knowledge and skills are needed for students to be prepared to succeed in college. This includes providing accurate and timely information to students about the state academic standards, as well as high school graduation and college entrance requirements. Students should receive this information well before their final year of high school in order to allow them to plan their high school coursework and activities so that they can ensure that they are college and career ready by the time they graduate.
- Create common definitions, structures, and placement practices for remedial education within each state to eliminate variations that can cost states and students time and money.

The federal government should:

- Require state institutions to have a common definition of remedial education as a condition of receiving federal financial aid funds. It should also require better reporting of data on remedial programs, including enrollment, placement, progress, and completion. The absence of consistent and updated national and state data regarding cost, the number of students in remedial programs, the level of remedial sequences students are placed in, demographic breakdowns, and student success—or lack thereof—in remediation make it impossible for schools to identify issues with their programs.

Conclusion

Graduating with a postsecondary degree or other postsecondary credential has become a necessity in order to successfully compete for stable, middle-class jobs in today's economy. Unfortunately, too many students head to college underprepared for the rigor of college coursework.

Once in college, students can ill afford the additional time and resources demanded by the remedial courses required to complete their degrees, and as a result, too many of the most vulnerable students drop out. While there currently is a need for remedial classes, states, higher education institutions, and K-12 education systems must do more to successfully prepare students to complete college and eliminate that need altogether. Higher standards and collaborative efforts across higher education and K-12 education are essential steps in creating a stronger education system for all students.

About the authors

Laura Jimenez is the Director of Standards and Accountability for the K-12 Education Policy team at the Center.

Scott Sargrad is the Managing Director of the K-12 Education Policy team at the Center for American Progress.

Jessica Morales is a former Policy Advocate at Generation Progress.

Maggie Thompson is the Executive Director of Generation Progress.

Endnotes

1 Alliance for Excellent Education, "Saving Now and Saving Later: How High School Reform Can Reduce the Nation's Wasted Remediation Dollars" (2011), available at http://all4ed.org/wp-content/uploads/2013/06/SavingNowSavingLaterRemediation.pdf.

2 Courtney Paredes, email interview with authors, November 9, 2015.

3 National Center for Public Policy and Higher Education, "Beyond the Rhetoric: Improving College Readiness Through Coherent State Policy" (2010), available at http://www.highereducation.org/reports/college_readiness/CollegeReadiness.pdf; Alliance for Excellent Education, "Saving Now and Saving Later"; National Conference of State Legislatures, "Hot Topics in Higher Education: Reforming Remedial Education," available at http://www.ncsl.org/research/education/improving-college-completion-reforming-remedial.aspx (last accessed June 2016).

4 Ibid.

5 John Armstrong and Katie Zaback, "College Completion Rates and Remedial Education Outcomes for Institutions in Appalachian States" (Washington: Appalachian Regional Commission, 2014), available at http://www.arc.gov/assets/research_reports/CollegeCompletionRatesandRemedialOutcomesforAppalachianStates.pdf.

6 Complete College America, "Corequisite Remediation: Spanning the Completion Divide," available at http://completecollege.org/spanningthedivide/#home (last accessed May 2016).

7 Victor Vargas, email interview with authors, October 19, 2015.

8 The Carnegie Classification of Institutions of Higher Education™ at the Center for Postsecondary Research at the Indiana University School of Education classifies degree-granting institutes of higher education that are eligible for federal higher education funds by various descriptors, including instructional programs and research activity. "Very high research" is one such classification an institution can receive. For more information, see The Carnegie Classification of Institutions of Higher Education, "Definitions," available at http://carnegieclassifications.iu.edu/definitions.php (last accessed August 2016).

9 National Center for Education Statistics, *2011-12 National Postsecondary Student Aid Study* (U.S. Department of Education, 2013), available at http://nces.ed.gov/surveys/npsas/; National Center for Education Statistics, *2003-04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09)* (U.S. Department of Education, 2013), available at http://nces.ed.gov/surveys/npsas.

10 City University of New York, "Trends in Total Enrollment: Fall 1990 - Fall 2015" (2016), available at http://www.cuny.edu/irdatabook/rpts2_AY_current/ENRL_0012_ALLYR_TRND.rpt.pdf.

11 National Center for Education Statistics, *2011-12 National Postsecondary Student Aid Study*; National Center for Education Statistic, *2003-04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09)*.

12 Complete College America has been collecting data for each of the twelve Common College Completion Metrics from the Alliance of States in the spring of each year since 2010. For detailed definitions, see Complete College America, "Complete College America Common College Completion Metrics Technical Guide" (2016), available at https://ccacollection.sheeo.org/CCA/homeattach/2016/2016MetricsTechnicalGuide.pdf. It is important to note that South Dakota data only include institutions that are part of the state's Board of Regents; Massachusetts data do not include any University of Massachusetts campuses; Florida data only include institutions that are part of the Florida College System; and Wisconsin data only include the University of Wisconsin System.

13 National Conference of State Legislatures, "Hot Topics in Higher Education."

14 Katherine L. Hughes and Judith Scott-Clayton, "Assessing Developmental Assessment in Community Colleges" (New York: Community College Research Center, 2011), available at http://ccrc.tc.columbia.edu/media/k2/attachments/assessing-developmental-assessment-brief.pdf.

15 Deanna L. Morgan and Michalis P. Michaelides, "Setting Cut Scores for College Placement" (New York: The College Board, 2005), available at https://research.collegeboard.org/sites/default/files/publications/2012/7/researchreport-2005-9-setting-cut-scores-college-placement.pdf.

16 Cindy L. James, "ACCUPLACER™ OnLine: An Accurate Placement Tool for Developmental Programs?", *Journal of Developmental Education* 30 (2) (2006), available at http://search.proquest.com/openview/2910036b38b192f6ea9b8f9d68e29f24/1?pq-origsite=gscholar.

17 Courtney Paredes, email interview with authors.

18 Nevada System of Higher Education Office of Academic and Student Affairs, "2013-14 Remedial Placement & Enrollment Report" (2014), available at http://system.nevada.edu/tasks/sites/Nshe/assets/File/BoardOfRegents/Agendas/2014/jun-mtgs/asa-refs/ASA-8a.pdf.

19 Victor Vargas, email interview with authors.

20 Elisabeth A. Barnett, Maggie P. Fay, and Lara Pheatt, "Implementation of High School-to-College Transition Courses in Four States" (New York: Community College Research Center, 2016), available at http://ccrc.tc.columbia.edu/media/k2/attachments/high-school-college-transition-four-states.pdf.

21 Author's analysis of three sources: National Center for Education Statistics, *2011-12 National Postsecondary Student Aid Study*; National Center for Education Statistics, *2003-04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09)*; Judith Scott-Clayton, Peter M. Crosta, and Clive R. Belfield, "Improving the Targeting of Treatment: Evidence from College Remediation." Working Paper 18457 (National Bureau of Economic Research, 2014), available at http://www.nber.org/papers/w18457.pdf.

22 Mary Nguyen Barry and Michael Dannenberg, "Out of Pocket: The High Cost of Inadequate High Schools and High School Student Achievement on College Affordability" (New York: Education Reform Now, 2016), available at http://educationpost.org/wp-content/uploads/2016/04/EdReformNow-O-O-P-v7.pdf.

23 Jennifer Mayer-Sandoval, phone interview with authors, October 19, 2015.

24 National Center for Public Policy and Higher Education, "Beyond the Rhetoric."

25 Brenda Bautsch, "Reforming Remedial Education" (Washington: National Conference of State Legislatures, 2013), available at http://www.ncsl.org/documents/educ/REMEDIALEDUCATION_2013.pdf.

26 Texas Higher Education Coordinating Board, "2016 Texas Public Higher Education Almanac" (2016), available at http://www.thecb.state.tx.us/index.cfm?objectid=A44B548A-E50C-8417-E09BF83FC11E-A1EF.

27 Bautsch, "Reforming Remedial Education."

28 Armstrong and Zaback, "College Completion Rates and Remedial Education Outcomes for Institutions in Appalachian States."

29 Ibid.

30 Ibid.

31 Texas Higher Education Coordinating Board, "Annual TSI High School Summary Report" (2014), available at http://www.thecb.state.tx.us/reports/PDF/5608.PDF?CFID=30110123&CFTOKEN=64901581.

32 The Nation's Report Card, "2015 Mathematics & Reading Assessments: Both fourth- and eighth-grade students score lower in mathematics than in 2013; scores higher than in 1990," available at http://www.nationsreportcard.gov/reading_math_2015/#mathematics?grade=4 (last accessed August 2016).

33 The Nation's Report Card, "Average reading for fourth-grade students not significantly different in comparison to 2013; eighth-grade students score lower than 2013," available at http://www.nationsreportcard.gov/reading_math_2015/#reading?grade=4 (last accessed August 2016).

34 ACT, "The Condition of College & Career Readiness 2014" (2014), available at https://www.act.org/research/policymakers/cccr14/pdf/CCCR14-NationalReadiness-Rpt.pdf.

35 College Board, "2014 College Board Program Results: SAT," available at https://www.collegeboard.org/program-results/2014/sat (last accessed June 2016).

36 Max Marchitello and Catherine Brown, "Math Matters: How the Common Core Will Help the United States Bring Up Its Grade on Mathematics Education" (Washington: Center for American Progress, 2015), available at https://cdn.americanprogress.org/wp-content/uploads/2015/08/12095408/Marchitello-CCSSmath-reportFINAL.pdf.

37 Ulrich Boser, Perpetual Baffour, and Steph Vela, "A Look at the Education Crisis: Tests, Standards, and the Future of American Education" (2016), available at https://www.americanprogress.org/issues/education/report/2016/01/26/129547/a-look-at-the-education-crisis/.

38 Ibid.

39 Common Core State Standards Initiative, "Frequently Asked Questions," available at http://www.corestandards.org/about-the-standards/frequently-asked-questions/ (last accessed June 2016).

Our Mission

The Center for American Progress is an independent, nonpartisan policy institute that is dedicated to improving the lives of all Americans, through bold, progressive ideas, as well as strong leadership and concerted action. Our aim is not just to change the conversation, but to change the country.

Our Values

As progressives, we believe America should be a land of boundless opportunity, where people can climb the ladder of economic mobility. We believe we owe it to future generations to protect the planet and promote peace and shared global prosperity.

And we believe an effective government can earn the trust of the American people, champion the common good over narrow self-interest, and harness the strength of our diversity.

Our Approach

We develop new policy ideas, challenge the media to cover the issues that truly matter, and shape the national debate. With policy teams in major issue areas, American Progress can think creatively at the cross-section of traditional boundaries to develop ideas for policymakers that lead to real change. By employing an extensive communications and outreach effort that we adapt to a rapidly changing media landscape, we move our ideas aggressively in the national policy debate.

Center for American Progress

1333 H STREET, NW, 10TH FLOOR, WASHINGTON, DC 20005 • TEL: 202-682-1611 • FAX: 202-682-1867 • WWW.AMERICANPROGRESS.ORG