

Repaving The Road To College-Readiness:



Strategies for Increasing the Success
of Mississippi's College Students
in Developmental Education



*The Working Poor
Families Project*

MEPC A Hope Initiative
MISSISSIPPI ECONOMIC POLICY CENTER



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About the Mississippi Economic Policy Center

The Mississippi Economic Policy Center (MEPC) is a nonprofit, nonpartisan organization that conducts independent research on public policy issues affecting working Mississippians. Through public outreach efforts, policymaker education and engaging the media, MEPC uses its analysis to ensure that the needs of low- and moderate-income Mississippians, in particular, are considered in the development and implementation of public policy with the ultimate goal of improving access to economic opportunity.

MEPC is managed by the Hope Enterprise Corporation (HOPE), a regional financial institution and community development intermediary dedicated to strengthening communities, building assets and improving lives in economically distressed areas throughout the Mid South.

To read more about MEPC, go to www.mepconline.org

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Executive Summary

Developmental education courses (remedial courses) offer a route to college-readiness for thousands of community college students across Mississippi each year. Developmental education provides the skills underprepared students need in math, english or reading, so they are better equipped to successfully take college courses, attain a credential, and gain employment with quality wages. Overall, 22,000 community college students needed remedial courses in 2011.

Taking developmental education courses requires additional time and financial resources from students and, as a result, has the potential to lengthen a student's path to a college credential. Students starting in developmental education also have lower completion rates than their college-ready counterparts. In Mississippi community colleges, the portion of first-year students starting in remedial courses that graduate within 3 years is 13.3%.

Mississippi's students are more likely to enroll in math remedial courses than any other subject, and many students require multiple semesters of remedial courses. Over 19,000 students took a remedial math course in 2011 while about 9,400 took remedial english. One quarter of all students in remedial education courses are second-year students.

The potential benefits to working age adults of completing remedial courses and moving through college quickly cannot be understated. One third of all Mississippi students enrolled in developmental education are over 21 years old. For adult students, remedial education is a critical gateway to college courses and higher wages, and often adults balancing the demands of family need additional support. In Mississippi, 255,000 adults over 18 years old are in jobs paying less than \$9.70 per hour. Adults reaching an associate's degree or taking some college-level courses earn \$10,900 more per year than those without a high school degree.

Raising the success of students starting in developmental education will require several improvements to Mississippi's current delivery of remedial courses. Throughout *Repaving the Road to College-Readiness*, four priorities in need of attention are detailed including:

- Better coordinating and improving policies for assessing student skills and placing students in developmental education;
- Improving the design and delivery of developmental courses;
- Adding support services that meet the academic and non-academic needs of an increasingly diverse student population; and
- Prioritizing data collection and evaluating the progress and outcomes of students starting in developmental education.

In addition, adequate funding to make the changes needed to developmental education must be a priority of its own. Each of these priorities will require financial support through state appropriations and resources from community college staff and leadership. Implementing these improvements will help Mississippi meet goals for increasing credential attainment and workforce competitiveness and will ensure more students of all ages have a smoother road to college completion.

Each year thousands of Mississippi students that enter post-secondary education do not persist to graduation. Not making changes that support these students is a missed opportunity for the state and its residents. Mississippi cannot afford to delay efforts to change developmental education and better support underprepared students. Through dedicating additional resources to developmental education and bringing in promising reforms in developmental course design and support services, Mississippi can reap the benefits of more students persisting to graduation.

Introduction

Every Mississippian needs roadways to job opportunities that provide economic security for themselves and their families. Challenging economic conditions over the last several years have driven home the importance of college credentials for both recent high school graduates and working-age adults. During the recession, adults without a college credential experienced unemployment more regularly than those with a credential and earned lower wages. To ensure more Mississippians move to college completion and to increase the competitiveness of Mississippi's workforce, Mississippi's Graduation Rate Task Force set clear goals for increasing post-secondary credential attainment over the next decade. To meet these goals, Mississippi's community colleges need resources to adapt and meet the academic needs of an increasingly diverse student body that includes a growing number of students in need of developmental education courses to succeed.

Mississippi's community colleges work to build the skills of the current and future workforce and are a critical resource for the state's employers and communities. However, too often students enrolling at community colleges do not persist to completion. Low completion rates are associated with the volume of students who enter without adequate preparation and who need additional support on the path to graduation. In the fall of 2011, 52% of Mississippi's first-time, full-time community college students entered unprepared to take on college-level courses. These underprepared students must enroll in developmental education courses (remedial courses) in the subjects of math, english or reading to become college-ready. In fall 2011, 22,400 students across Mississippi's 15 community college campuses were enrolled in developmental education courses.

Developmental education comes with a cost. Developmental courses do not count toward the credits students need to graduate and taking the courses increases

the time it takes to reach a degree. Remedial courses can also use a student's limited financial resources. At the same time, it is essential for building the workforce needed for Mississippi to be competitive.

Beyond time and costs, students in remedial courses are particularly at risk of stepping out of school before reaching their educational goals. In Mississippi community colleges, the portion of freshmen starting in remedial courses that graduate within 3 years is 13.3%.¹ Many factors affect the ability to persist to graduation for students enrolled in remedial education. Often students that enter underprepared are first generation college students, come from low-income households and/or are trying to balance school with responsibilities of work or family. All these factors contribute to a lower likelihood of persisting to graduation when paired with the skill gaps underprepared students have upon entering college.

The value to Mississippi and its workforce of strengthening developmental education at community colleges cannot be underestimated. Developmental education programs are critical to laying a foundation for underprepared students to move on to college-level courses. Without strengthening the delivery of developmental education, Mississippi will struggle to advance more working adults and high school graduates to credential attainment and quality job opportunities.

Repaving the Road to College-Readiness looks at the characteristics of the thousands of Mississippi community college students who take developmental coursework. The report discusses barriers underprepared students face to college success and the current design of the state's developmental education system. Examples of effective innovations in remedial programs are provided alongside national research on best practices for increasing the success of underprepared college students.

In the fall of 2011, 22,400 students across Mississippi's 15 community colleges were not college-ready and were enrolled in developmental education courses.

Why Should Mississippi Focus On Developmental Education?

With 52% of Mississippi's first-time, full-time community college students entering underprepared for college coursework, and only 13% of freshmen starting in developmental education persisting to graduation within three years, the need for an effective developmental education programs is clear. These courses lengthen a student's path to a credential and ultimately, jobs that pay wages that can support themselves and their families. Strengthening the delivery of developmental courses can start more students on a solid path to a degree, provide benefits to students of all ages, and build the state's workforce competitiveness.

Mississippi's Graduation Rate Task Force

State leaders in the Legislature and higher education have set ambitious goals for increasing the portion of Mississippi adults with post-secondary degrees. Mississippi's Graduation Rate Task Force plans to reach the national average for associate's degree and bachelor's degree attainment among adults by 2025. Meeting the goal presents a challenge, as Mississippi's community colleges and universities will need to produce 150,000 additional degrees beyond current levels of degree production.

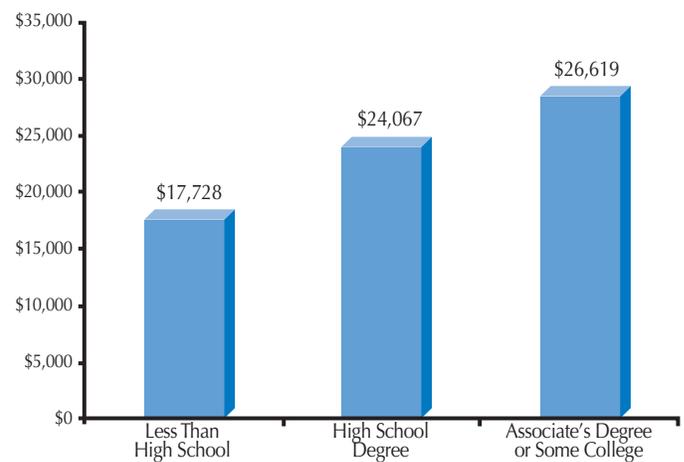
To increase degree attainment this drastically, Mississippi will need to make revisions to developmental education over the next decade. The Graduation Task Force goal cannot be attained through recent high school graduates alone. Producing 150,000 extra degrees will require improving the success of nontraditional, adult students in developmental courses.

The Connections between College Success, Wages and Self-Sufficiency

The relationship between educational attainment and economic security is strong, and a growing number of Mississippi jobs require some form of post-secondary education. Earning wages sufficient for a family's economic security also increasingly requires college coursework. Many families encounter poverty because they are unable to access jobs with quality wages. In Mississippi, 255,000 adults over 18 years old are in jobs paying \$9.70 per hour or less.² In comparison, families of four need \$10.73 per hour just to reach the federal poverty level.

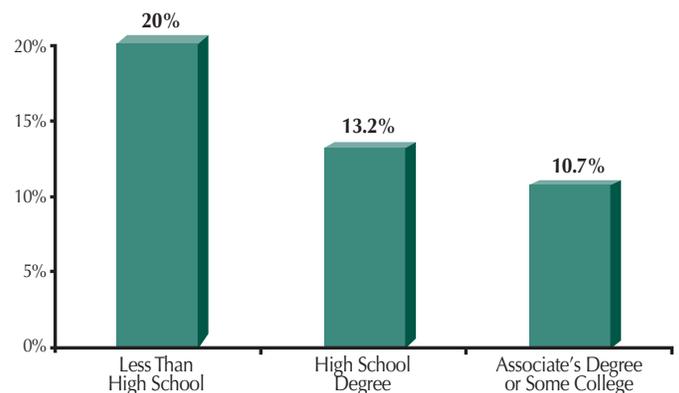
Adults with an associate's degree or some college earn \$10,900 more per year than those without a high school degree (Figure 1). Additionally, after the 2007 recession, 1 in 10 adults with college experience were unemployed compared to 1 in 5 without a high school credential (Figure 2). The figures illustrate that a college degree is increasingly critical for greater earnings and job stability. To advance to economic security, thousands of adults will need to access college through developmental education and pursue a credential while working or caring for family. Implementing policies that advance developmental education can give students a better path to college completion.

Figure 1, **Median Earnings By Educational Attainment** Mississippi Workers



Source: US Census Bureau. American Community Survey, 2006-2010

Figure 2, **Unemployment Rate By Educational Attainment** Mississippi Workers



Source: Economic Policy Institute Analysis of Current Population Survey

Who Is Currently Enrolled In Developmental Courses In Mississippi?

In 2011, 52% of first-time, full-time college students at Mississippi's community colleges enrolled in at least 1 developmental education course to raise their skill levels to what is needed to succeed in college-level courses.³ The indicator means that half of Mississippi's first-time college students are entering the doors of the state's community colleges without the necessary preparation to succeed in college coursework.

Characteristics of Developmental Education Students

In the fall of 2011, over 22,000 students were not prepared for college courses and, as a result, are at a higher risk of not persisting to college completion. However, not all of these students enroll directly after leaving high school. One third (35%) of all students enrolled in developmental courses in Mississippi are over 21 years old (Table 1). In total, 7,876 students in remedial courses were well beyond the age students traditionally are when they leave high school. Older students are more likely to be married, have children, be working and have stepped out of school for an extended period of time.

All these situational factors contribute to an added challenge for adult students of balancing personal responsibilities and their courses.

Table 1. Age of Developmental Education Students in Mississippi Colleges
Fall 2011, Audited

Students Age 15-21 Years	Students Age 22 Years and Older	Total Students Developmental Courses
64.9%	35.1%	22,413

Source: Mississippi Community College Board. Division of Research and Planning

Students that grow up in impoverished households and attend poor performing K-12 schools are more likely to need remedial coursework when they enter college.⁴ Mississippi's African American and white children are both vulnerable to growing up in these environments, but African Americans are more likely to grow up in a low-income household.⁵ In 2010, 49% of African American children lived in poverty compared to 18% of white children. However, Mississippi's children of both racial groupings are more likely to live in poverty than children nationally.

Across community colleges, students of color are more likely than white students to enter underprepared and in need of developmental education. In Mississippi, African American students represent 57% of students enrolled in developmental education courses, while white students account for 38% of those enrolled (Table 2).⁶ African American students are also less likely to complete their remedial sequence and enroll in related college-level courses than their white counterparts.⁷

Table 2. Students In Remedial Courses By Race
Fall 2011, Audited

	Other	African American	White	Total
Total Developmental Education Enrollment	1,171	12,832	8,410	22,413
Share of Developmental Education Enrollment	5%	57%	38%	100%

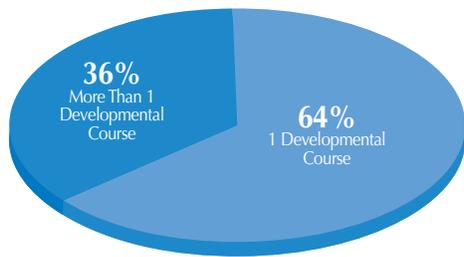
Source: Mississippi Community College Board. Division of Research and Planning

Students from low-income households and older students are at-risk of encountering both academic and financial obstacles. As Mississippi considers reforms to developmental education programs, the needs of adult and low-income students need to be incorporated into course and support design. Including these needs ensures a greater portion of Mississippi's college students can achieve a college credential and a quality career.

How long do Mississippi students take remedial coursework?

Many of the state's college students need multiple semesters of remedial coursework before reaching college-readiness. Previous data indicate that only 21% of freshmen at Mississippi's community colleges complete remediation and a college-level course in the same subject within two years.⁸ One challenge associated with extended periods of remediation includes the draining of limited financial aid resources. Additionally, as the time needed to receive a credential or a degree increases, the likelihood that a student will complete the program decreases. Often, students in developmental education courses also need remediation in more than one subject. Entering with skill deficiencies in multiple subjects can lengthen the time students spend in remediation and lengthen their path to a degree. In Mississippi, more than 1 in 3 remedial students is enrolled in multiple remedial subjects during one semester (Figure 3). Students also may need multiple semesters of remedial courses. In 2011, 1/4 of all remedial students were in their second year of college.

Figure 3, Number of remedial courses taken by Mississippi developmental education students per semester



Source: Mississippi Community College Board. Division of Research and Planning, Fall 2011, Audited

The length of time spent in remediation and the number of students enrolled in more than one remediation class underscores the need to have a robust remedial education system that moves students through the sequence quickly and with success.

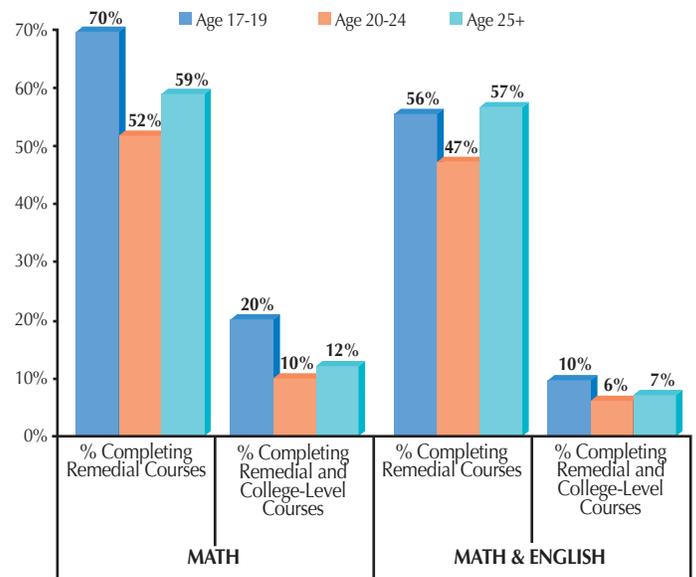
Outcomes of Students Starting in Remediation

Across Mississippi, 13.3% of students starting in remedial coursework persist to graduation within three years.⁹ This is similar to national rates among remedial students. However, too few community college students in Mississippi complete their remedial course requirements, and a very small portion complete college-level courses in their subject of remediation. This trend is true across age groups.

A large portion of students that start in developmental education leave school even before completing their developmental sequence. According to Mississippi-specific data released by Complete College America, less than 60% of students in the age groups of '20 to 24' or 'over 25' complete their required math remedial courses. The portion that complete math remediation and college-level math courses drops even further to 10% for students age 20 to 24 and 12% for students over 25. Only 1 in 5 students age 17 to 19 that start in math remediation completes remedial math requirements and college-level courses (Figure 4).

Students that need remediation in multiple subjects are particularly vulnerable to stepping out before completing their remedial course requirements. Rates of completing developmental coursework are lower for students needing remediation in both math and english than in only one subject. For example, less than half (47%) of students that need both english and math remediation between the age of 20 and 24, completed their remedial course requirements. Six percent of students in this age group went on to complete their remedial sequence and college courses. Across all ages less than 1 in 10 students starting in math and english remediation completes their remedial courses and college level courses.

Figure 4, Mississippi Students In Remediation Have Low Course Completion Rates



Source: Remediation, Higher Education's Bridge to Nowhere. 2012

For Mississippi's recent high school graduates and adults, a post-secondary credential is essential for building long-term economic security. The state has set goals for significantly increasing its number of credential holders and raising the workforce's competitiveness. More Mississippi students will need to successfully move through college to meet these goals, and the volume of students arriving at community colleges without the necessary preparation to successfully complete college courses presents a challenge to substantially raising students persisting through college. Additionally, the large portion of Mississippi's students that step out before completing remediation or moving on to college courses is a lost opportunity for the state that has negative effects on its families and workforce.

Changes can be made to improve the outcomes of these students. The following sections describe four priorities for adjusting the way Mississippi's community colleges deliver developmental education and makes suggestions for changes that can result in greater success among students starting out underprepared.

PRIORITY 1: ASSESSMENT AND PLACEMENT

Placement and testing policies for developmental education vary widely across Mississippi's community colleges. To place students in developmental education courses, colleges use a student's ACT scores. Colleges use the subject-specific ACT score in math, english and reading to determine if enrolling students need to be referred to developmental courses. While the ACT is the most common assessment tool for remediation screening, research regularly indicates that the ACT may not be the best predictor of college readiness. To better understand student deficiencies, colleges across the country are developing more targeted assessments of student skills to better place students and evaluate skill gaps.

In Mississippi, each college has discretion over setting the ACT score threshold that places students in remedial courses for each subject - called a cut score. If a student scores below the school-specific ACT score, they are referred to remediation. Colleges can also determine the number of remedial courses they deliver in each subject. Some schools offer 3 levels of developmental courses in a subject while others offer 1 or 2 courses, and the ACT score placing students into that class can vary. The same student might be required to take 2 courses at 1 school and 1 course at another. These additional courses mean a longer road to a degree for some students and more use of their limited financial aid. Different requirements can also be problematic for transferring students who encounter varied course requirements.

To advance more of Mississippi's underprepared students and meet the state's goals for degree attainment, innovations in remedial course design and support services will both be needed.

To help generate similar expectations for students, colleges and the Mississippi Community College Board should consider better coordination of standards for assessment of and placement in developmental education. Additionally, working to develop a more targeted assessment that better determines student skill levels as they enter college can better place students in remedial courses. Designing more effective and targeted placement tests can also help institutions better design curricula and supports to meet diverse student needs. Evidence is also growing that a student's placement in remedial education

may need to include more than test scores. In some states, such as North Carolina, studies have revealed that using a combination of test scores and high school grades can be a more effective placement strategy.¹⁰

As colleges pursue alternative testing and placement criteria, the upcoming changes in K-12 assessment through the Common Core Curriculum will also need to be considered. A more

consistent model for placing students in the remediation they need will also be important for adults beyond the K-12 system that transition into college from work or from adult basic education programs at the college.

Mississippi's leaders and the Community College Board should review strategies and findings from other states to generate a more effective assessment and placement structure for Mississippi's students. Moving to a more coordinated system of placing students in remedial education, without compromising each school's ability to innovate and meet the unique needs of their students, will be a critical part of strengthening remedial programs and creating similar requirements across community college campuses.

EXAMPLES FROM MISSISSIPPI:

Jones County Junior College

Some Mississippi community colleges have been trying to improve the success of developmental education students. This profile highlights one effort by Jones County Junior College. While data on outcomes is not yet available on these efforts, the effort and ideas demonstrate a willingness to advance developmental education students.

Like many other community colleges in Mississippi, Jones County Junior College (JCJC) found that 60% of their first-time students needed remedial coursework before taking college-level courses. Instructors and college leaders also saw that a substantial portion of these students were low-income students, working adults and/or the first from their family to attend college. Among students in remedial courses, those entering with the lowest ACT scores were most likely to repeat courses multiple times and need additional support.

In the fall of 2011, JCJC decided to take a new approach to try to increase the success of students entering with the lowest skill levels- those with an ACT score of 15 or below. The college designed a College Readiness Program that requires low-skill developmental education students to enroll in a set of four classes during their first semester including: Beginning Algebra, Intermediate English, Essential College Skills and College Orientation.

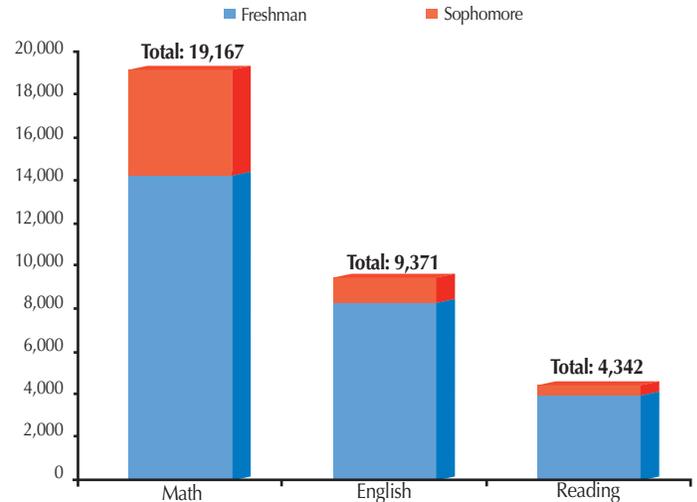
The same group of students moves together through each class, and students focus attention on just these four classes, not enrolling in additional coursework. In addition, a counselor is assigned to each cohort who monitors and calls students that miss courses or that mention encountering barriers like transportation access or financial aid needs.

Nearly 300 students enrolled in the College Readiness Program in the fall of 2011 underscoring the large number of students that enter the college in need of substantial remediation. By the spring of 2012, the college also started offering the College Readiness Program in the evenings, so working adults with families could enroll part-time more easily through night classes.

PRIORITY 2: COURSE DESIGN AND DELIVERY

Developmental education is offered in three subjects – math, reading and english. In Mississippi, students are most likely to need coursework in math. (Figure 5) shows the total number of students taking courses in each area of remediation in Mississippi’s college campuses.

Figure 5, **Enrollment In Remedial Courses by Subject and Class**



Source: Mississippi Community College Board. Division of Research and Planning. Fall 2011, Audited

In 2011, 19,167 students took a remedial math course while 9,371 took remedial english. Enrollment in remedial english and reading classes is typically smaller than in math, but often students with weak reading skills will also be enrolled in remediation for math and english. Nine percent of remedial students takes only a remedial english course compared to 19% that take math and english.¹¹

Of the students taking math remediation, 25% were sophomores underscoring that a considerable portion of remedial students must take classes for multiple years, elongating their path to graduation. In Mississippi, 11% of the students in remedial reading are sophomores.^{12,13}

Mississippi can make improvements to developmental courses that raise the success of the more than 22,000 students that enroll in them each year. Across the country, states and colleges have put in substantial effort to raise the success of underprepared students. Research suggests that changes in course design and student support services are effective in raising completion rates and retention. A review of remedial programs by MDRC found that the strategies holding the most promise focus on improving students’ skills within a compressed time frame and on linking remediation to relevant college-level work.¹⁴

Course Design

Three innovations in remedial course design have been demonstrated to improve the success of remedial students including:

- Courses that are delivered in a modularized structure that better target student deficiencies,
- Courses that integrate occupational content with remedial content, and
- Courses that condense developmental content into a shorter, more condensed course.

In addition, there is promise in models that group classes of remedial students together in cohorts. The cohort structure allows the same classmates to progress through a sequence of remedial courses together with additional support and a team of connected instructors.¹⁵ This approach may be particularly valuable for the thousands of Mississippi students that are required to enroll in all three remedial courses each year and students entering with very low skill levels.

To advance more of Mississippi's underprepared students and meet the state's goals for degree attainment, innovations in remedial course design will be needed. The reforms needed for students with slight skill deficiencies will be different from those needed for students with very low skill levels. Furthermore, all of Mississippi's community colleges will need resources and guidance to adapt curriculums and instruction models.

Funding for Developmental Education Course Design

To cover these costs, some states are using enhanced state funding for students in developmental education programs to innovate and provide instruction. One example is Washington's I-BEST model, through which students learn basic skills in the context of earning college credits toward a professional/technical certificate. Washington funds enrolled students at 1.75 times the normal amount that colleges are appropriated for each full-time student.¹⁶ The higher appropriations for these students has resulted in an increased likelihood that students earn college credit and gain credentials. A similar model for funding developmental education programs could be implemented to improve and redesign programs in Mississippi.

There is also evidence that models like Washington state's I-BEST framework may help students avoid remediation all together when used with students in basic education and GED courses. Similar instruction models in Mississippi could help reduce the portion of students entering with a GED that need remedial coursework.

PRIORITY 3: SUPPORT SERVICES

Over the last 20 years, Mississippi's community college students have become more diverse. More students of color are enrolling in higher education, and the number of students from low-income households is rising. As Mississippi's student population shifts, meeting a broader group of needs through developmental courses becomes more critical for institutions. Meeting the challenge will require innovation and reform from colleges and additional resources.

Since the mid-1990s enrollment has grown by 170% among African American students while enrollment among white students has grown more modestly at 24%.¹⁷ African American students are more likely to grow up in impoverished households and attend poor performing K-12 schools than their white counterparts.¹⁸ The challenges faced by students in that environment also lead to an increased likelihood of needing remedial coursework.¹⁹ Supports like course-specific tutoring and assistance with registration and financial aid are all critical for low-income students that are more likely to encounter financial and academic barriers.

In Mississippi, white students make up 38% of the students taking remedial courses, and African American students represent 57% of students.²⁰ However, the demographics of remedial course enrollment vary considerably by course. Enrollment in remedial math courses is relatively similar between white and African American students, while African American students represent 70% of the students in english and reading remediation.

One third (36%) of all students enrolled in developmental courses in Mississippi are over 21 years old. Older students are more likely to be married, have children, be working and have stepped out of school for an extended period of time. All these situational factors contribute to an added challenge for adult students of balancing personal responsibilities and their courses.

For an increasingly diverse student population that is starting in developmental education, both academic supports and non-academic supports are important for college success. Mississippi can do more to integrate proven support strategies to enhance student outcomes including providing:

- Student success courses that focus on study skills, time management and college orientation,
- Additional tutoring and supplemental instruction tied to a specific class, and
- Imbedded career and academic advising for all developmental students that encourages early enrollment in a course of study.²¹

Each of these options could boost the likelihood that community colleges' most at-risk students succeed in their pursuit of a college credential when they are paired with changes in course design.

For adults starting in developmental education, supports like child care, transportation vouchers and career counseling are also critical to increasing their success. Alternative class times help working adults that can only enroll in classes part-time or in the evenings. As working adults continue to enroll in community colleges, imbedding these supports in developmental education programs will be increasingly necessary to their success.

PRIORITY 4: DATA COLLECTION, EVALUATION AND ACCOUNTABILITY

State leaders will need to invest more resources in improving the delivery of remedial courses and support services. Those investments need to be paired with strengthened data collection and transparency on the outcomes of students starting out underprepared. Regularly released data can provide information on the characteristics of incoming students, on where students are most at-risk for stepping out of college, and on what new interventions increase the success of Mississippi's developmental students.

Recent requirements from the Mississippi Legislature will lead colleges to release data on developmental course enrollment to education leaders and public policy makers; however, there will still be limitations in regularly-released, publically available data on developmental students and their outcomes.

Examples of data to make available to educators, policy makers, and state and local leaders include:

- Characteristics of developmental education students (age, race, Pell eligibility, gender)
- Number and percent of students enrolling in each developmental subject
- Percent passing first developmental course and completing developmental sequences
- Percent enrolling in college-level courses
- Percent passing first college-level course
- Percent attaining a degree or certificate within 150% of the normal time and 300% of normal time.

Measures like these can be imbedded into a college's existing data collection and reporting. The measures would provide background for teachers, department chairs and administrators and inform a regular review of outcomes for remedial students. These measures can also be reported annually to the public and public policy makers to determine if additional support and resources are needed to advance success of underprepared students. In the longer-term, benchmarks can be set for the success and progress of students starting in developmental education. And state leaders can appropriate incentive funding to colleges advancing student outcomes associated with those benchmarks.

Mississippi has taken steps to release enrollment data in developmental education programs, but more regular information on student outcomes could also enhance educator and leader knowledge of these students. Mississippi needs better tracking and evaluation of students during their remedial sequence and into credit-bearing courses. Knowing where along the pathway to graduation developmental education students are vulnerable to stepping out or failing provides a path to continuous review and advancement of these programs that leads to more Mississippians attaining a college credential and a path to greater economic opportunity.

Recommendations For Strengthening Developmental Education:

Meeting the rising demands for skilled workers and the state's goals for degree attainment lifts up the need to improve the outcomes of developmental education students on community college campuses. These reforms are also important for working adults and high school graduates who seek out community colleges as a pathway to a degree and jobs with quality wages.

The value of making investments in strengthening and better coordinating developmental programs and enhancing data collection cannot be understated. However, several years of strained state funding have left many colleges with limited resources, and these reforms cannot be fully implemented without additional investment from the state. Making developmental education a priority can ensure students entering college with the greatest obstacles have a smoother pathway to success.

The five recommendations below make up a package of policymaking priorities that together can advance developmental education to a higher level of success. Through policy and program changes these can improve the performance of the community college system and its most underprepared students for many years to come.

RECOMMENDATION 1. Better coordinate and improve developmental education assessments and placement practices across the Mississippi community college system.

Mississippi's community colleges need greater coordination of placement and assessment policies, so students face similar requirements across colleges and are placed in the developmental instruction they need. Across the country, community colleges are exploring alternatives to the ACT and developing more targeted testing of student skills, and growing evidence indicates that alternative student characteristics such as high school grades may be a better predictor of a student's developmental education needs. Colleges are also considering how the upcoming shift to the Common Core curriculum may affect college assessment and placement. Mississippi should establish a commission with leaders in higher education to research and set a statewide system for more effectively testing and placing the state's developmental education students.

RECOMMENDATION 2. Implement new models in developmental education course design that are proven to increase student success.

Models to promote include: compressing developmental education courses, integrating content from developmental courses with occupational skills content, and breaking developmental courses into smaller, modularized units that are more targeted to student skill deficiencies. Innovations in course design should also consider how to ensure the content in developmental courses aligns with expectations in college-level math and English courses in the student's field of study, so students are more successful upon entering credit bearing courses.

RECOMMENDATION 3. Combine additional support services for students in developmental courses with innovation in course design.

Student success courses, supplemental tutoring and regular advising that encourages students to enter programs of study when they first enroll are each support options for bolstering the academic success of students in developmental courses.²² Services also help individuals adjust to the demands of college life and courses. These supports can be most effective when they are delivered in tandem with innovations in course design and are particularly important for at-risk students and adults trying to balance demands of their families, work and school.

RECOMMENDATION 4. Better track the characteristics and evaluate outcomes of developmental education students across the community college system.

Ultimately, advancing underprepared students in developmental courses will depend on better understanding barriers these students face and which courses and supports enhance their success. Several states including North Carolina, Texas and Connecticut provide annual information to community college staff and the public on the characteristics of developmental education students. The data reveals the likelihood students in remedial courses have of completing their developmental sequence, passing college courses and persisting to a degree. Mississippi should provide and analyze similar data with educators, state leaders and policy makers, so the state can make investments that increase student persistence and degree attainment.

RECOMMENDATION 5. Provide funding to colleges to develop and implement new models in developmental education.

Redesigning curriculum and delivering proven models in developmental education will take time and resources from college faculty and administrators. Colleges will need to dedicate more of their own resources to developmental education reform, but those resources need to be buttressed with additional state appropriations for developmental education students and philanthropic funding to elevate the number of Mississippi community college students that are successful in reaching their education goals.

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