A BETTER WAY TO PLACE STUDENTS

What Colleges Need to Know About Multiple Measures Assessments

How should colleges determine whether students are placed into developmental or college-level courses?

Each year, colleges place millions of students into developmental math and English courses upon enrollment.[1] To do so, colleges most often use a high-stakes placement test, which numerous research studies have shown to be highly inaccurate in determining how well students are prepared for college. As a result, these tests "underplace" many students into developmental education classes who would have been successful immediately if they had taken college credit-bearing courses instead.[2]

Developmental education courses are designed to give students the skills they need for success in college-level courses, but they also delay students' enrollment in credit-bearing coursework, lengthen the time it takes them to earn a degree, and may decrease the chances they will ever graduate.[3] Colleges could boost incoming students' college-level course pass rates by improving the assessment tools they use to place those students, with the goal of minimizing underplacement and increasing the number of students taking college-level courses. Using more than one measure to assess students' skills—a strategy known as a multiple measures assessment (MMA)—can be an excellent way to achieve this goal.

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MULTIPLE MEASURES ASSESSMENTS: AN ALTERNATIVE TO HIGH-STAKES TESTING

Recognizing the need to increase the number of students enrolling in college-level courses, MDRC and the Community College Research Center (CCRC) have been studying alternatives to high-stakes standardized placement tests.

Colleges have many choices of measures and typically select them based on their predictive validity, availability, ease of use, and cost. There is strong empirical evidence that the high school grade point average (GPA) is one of the best available predictors of student success in college.[4] Unlike a one-time assessment, the GPA is an aggregate measure of performance over multiple years and reflects not only students' content knowledge, but also the types of behavior that influence success in college, such as attendance and participation. Box 1 presents various options for determining course placement using multiple measures of college readiness.

MDRC and CCRC collaborated to evaluate the impact of two MMA models—one based on placement formulas at seven 2-year state colleges in New York and another based on decision bands at four 2-year state colleges in Minnesota. The research team conducted a randomized controlled trial at the study colleges in each state, assigning incoming students in the study sample to either a control group, whose members were placed using traditional placement testing, or a program group, whose members were placed using MMA.

The study found that students who are placed into college-level courses using MMA are more likely to complete gatekeeper courses—basic introductory or prerequisite college-level courses—than their counterparts who are placed into developmental courses using placement tests. These findings held for placements in math and English courses in the first semester and after three semesters.[5] The study also found that student success rates can improve when MMA is applied and students who would have otherwise been placed into developmental education courses are instead referred to college-level courses. Other key findings from the study include the following:

- In the first semester, students who were "bumped up" using MMA—that is, placed into a college-level course when they would have otherwise been referred to developmental education using a traditional placement method—were more likely to enroll in and complete this college-level course than similar students in the control group.

- By the end of the third semester, students who were bumped up to college-level courses using MMA were more likely to have completed their gatekeeper courses than their counterparts in the control group.

- However, students who were "bumped down" using MMA—that is, placed into a developmental education course when they would have otherwise been referred to a college-level one—experienced a negative effect similar in magnitude to the positive effect experienced by students who

were bumped up. Although a useful predictor of college course success, the MMA model based on placement formulas bumped down some students who would have benefited from taking college-level courses as much as those who were bumped up into these courses. Students who were bumped up using MMA were roughly 9 percentage points more likely to pass a college-level math or English course within three semesters than they would have otherwise been if a traditional placement method had been used. In contrast, the students who were bumped down using MMA were roughly 8 percentage points less likely to pass a college-level math or English course within three semesters. This finding indicates that an acceptable score on one placement measure should outweigh subpar scores on other measures in order to improve students' chances of success in college-level courses.

FOR WHOM DO MULTIPLE MEASURES ASSESSMENTS WORK?

It is important not only to understand how these assessments work in the aggregate but to ensure that they benefit student populations of interest, especially as states look for viable solutions to close achievement gaps. The study conducted at the state colleges in New York tracked impacts (causal effects of the MMA model) on student placement in college-level courses, enrollment, and college completion across several demographic characteristics, including student's race, gender, age, and Pell Grant recipient status (a proxy for family income).

Students in all the racial or ethnic, gender, and Pell Grant recipient status subpopulations considered in the study were placed into college-level courses at higher rates when using MMA (with the exception of male students in math courses). The positive effects associated with using MMA to place students in math courses were observed in all racial subgroups in the first semester. However, those impacts did not persist after three semesters. The placement formulas approach piloted by the state colleges in New York reduced the achievement gap in English. That said, policymakers need not consider only this approach to address inequities in student success. Findings from the evaluation of the decision bands MMA model piloted at the state colleges in Minnesota and on whether it was more effective will be available in late 2021.[6]

THE BOTTOM LINE

Placement systems based on simple decision rules that take into account high school GPA, placement tests, and other available measures can provide students with more than one way to demonstrate college readiness. While the cost to set up an MMA system can be substantial, once in place, the expense to operate it is comparable to that of administering placement tests alone. Using an MMA system can help place more incoming students in college-level math and English courses. More of those students will in turn pass their gatekeeper courses and make significant progress toward their postsecondary education goals.

For more information, see MDRC's 2018 guide on implementing an MMA system for states and post-secondary institutions based on lessons learned from a pilot study.[7]

NOTES AND REFERENCES

1   Paul A. Attewell, David E. Lavin, Thurston Domina, and Tania Levey, "New Evidence on College Remediation," *Journal of Higher Education* 77, 5 (2006): 886-924.

2   Clive R. Belfield and Peter M. Crosta, *Predicting Success in College: The Importance of Placement Tests and High School Transcripts* (New York: Community College Research Center, Teachers College, Columbia University, 2012); Judith Scott-Clayton, "Do High-Stakes Placement Exams Predict College Success?" CCRC Working Paper No. 41 (New York: Community College Research Center, Teachers College, Columbia University 2012).

3   Thomas R. Bailey, Shanna Smith Jaggars, and Davis Jenkins, *Redesigning America's Community Colleges: A Clearer Path to Student Success* (Cambridge, MA: Harvard University Press, 2015); Shanna Smith Jaggars and Georgia West Stacey, *What We Know About Developmental Education Outcomes* (New York: Community College Research Center, Teachers College, Columbia University, 2014).

4   Belfield and Crosta (2012); Scott-Clayton (2012).

5   Three-semester findings were released in summer 2020 for the state colleges in New York. Three-semester findings for the state colleges in Minnesota will be published in 2021.

6   Subgroup analyses from the state colleges in Minnesota will be available in 2021.

7   Dan Cullinan, Elisabeth A. Barnett, Alyssa Ratledge, Rashida Welbeck, Clive Belfield, and Andrea Lopez, *Toward Better College Course Placement: A Guide to Launching a Multiple Measures Assessment System* (New York: MDRC, 2018).

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