

MEMORANDUM

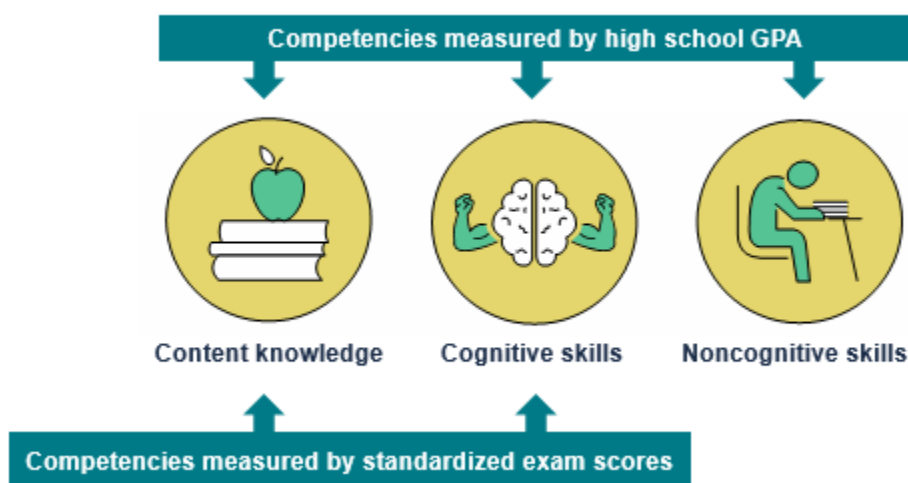
DATE 11/19/19
TO Representative Margaret Doherty, Chair, House Education Committee
FROM Michelle Hodara
SUBJECT Evidence base for using multiple measures for placement

Each year, large numbers of college students, particularly at community colleges, are required to take and pass at least one developmental education course in math, reading, or writing before they are considered “college ready” or academically qualified for college-level coursework (Bailey et al., 2010). Postsecondary institutions have typically used a single measure to determine if students are ready for college-level coursework or not: standardized test scores on SAT, ACT, ACCUPLACER, and/or COMPASS (Fields & Parsad, 2012). However, research has shown that this reliance on standardized test performance may result in the misplacement of students into developmental coursework when they could have succeeded in college-level coursework or, less frequently, college-level coursework when they could have benefitted from developmental coursework (Scott-Clayton, Crosta, & Belfield, 2014). The authors found that in two different large community college systems nearly a quarter to a third of students may have been incorrectly placed into developmental coursework when they could have succeeded in college-level coursework.

To address the incorrect placement of students in developmental education, community colleges are redesigning the way they assess the college readiness of incoming students by using **multiple measures** to assign students to the highest level of coursework in which they are likely to succeed (Bracco et al., 2014; Dadgar, Collins, & Schaefer, 2015; Scott-Clayton et al., 2014). Colleges that use multiple measures combine two or measures to determine incoming students’ course placement. These measures may include high school GPA, courses taken, and/or grades; standardized assessments (e.g., Smarter Balanced, SAT, ACT); GED; transcripts from previous colleges; writing assessments; questionnaires/intake forms; and past work and academic experiences.

High school grade point average (GPA) is one measure, in particular, that has shown evidence of predicting college academic performance more accurately than standardized exams (Camara & Echternacht, 2000; Geiser & Santelices, 2007; Hiss & Franks, 2014; Hodara & Lewis, 2017). High school grades or GPA may provide a better indicator of who is ready for college coursework because grades are a measure of cumulative academic achievement, not just academic proficiency in a single subject, and thus may signal a broader range of skills related to college readiness (Bowen, Chingos, & McPherson, 2009). Farrington and colleagues (2012) suggest that while test scores capture knowledge and cognitive skills, GPA measures not only these skills but also other competencies that fall under the umbrella of “noncognitive factors.”

Such competencies include self-control, tenacity, academic motivation, metacognitive strategies, study skills, time management, and problem-solving skills, to name a few.



Source: Hodara & Lewis, 2017 based on research from Farrington et al., 2012

Over the years, states and institutions, particularly community colleges, have reported drops in developmental education rates, perhaps in part due to the use of multiple measures. Examples of different multiple-measure approaches that use high school GPA are the following.

A hierarchical approach considers high school GPA first and then looks at student performance on other measures (Bracco et al., 2014). Massachusetts and North Carolina have a statewide course placement policy for recent high school graduates entering community college where colleges first consider a student's high school GPA and if it is at or above a "college readiness" cutscore (2.7 in Massachusetts and 2.6 in North Carolina), the student can enroll directly in college-level credit-bearing courses. If it is below the cutscore, then the colleges consider other measures that can exempt students from developmental education, such as passing senior year math (in Massachusetts) or meeting cutscores on ACT or SAT (in North Carolina). If students do not meet these criteria, then they must take the placement exam. Their score on the placement exam then determines what English and math courses they should take.

A second approach is to use a course placement formula developed locally between a school district and college that weights high school GPA and test scores according to their relative utility in explaining course grades (Dadgar et al., 2015). Using historical student-level data on their recent high school graduates who had enrolled in college math and English courses, Long Beach City College (LBCC) developed a unique formula that weights high school GPA, grades in last high school math and English courses, and test scores. They use this formula to make course placement decisions for incoming students from local school districts who participate in a student success initiative called "Promise Pathways." This new approach has resulted in fewer students being placed in developmental courses and more students passing college

English and math. The procedure developed by LBCC has been piloted at 11 additional California community colleges (Willet & Karandjeff, 2014). Currently, other California community colleges are considering this placement approach and are working on the infrastructure to support the sharing of high school transcripts (Dadgar et al., 2015).

A third approach uses high school GPA through an individual review of transcripts (Hassel & Giordano, 2011). English faculty at University of Wisconsin (UW) two-year colleges individually review a wide array of measures to determine which English course incoming students should take. For every student, faculty look at ACT scores, scores on the UW placement test, a writing sample, high school curriculum and grades, and a student survey and self-assessment. Faculty then recommend which English course and support course, if any, each student should take. This approach may be more feasible to implement at a small college or department because it requires time on the part of faculty to individually review student information and make placement decisions.

The Oregon community colleges have also been implementing major changes to how they assess incoming students' college readiness, moving from relying on a single standardized placement exam to a multiple measures process. In a year-long project (September 2018 to July 2019), REL Northwest worked side-by-side with community college stakeholders at Clackamas, Mt. Hood, Oregon Coast, and Southwestern Oregon Community College to produce evidence related to the effectiveness of multiple measures. Results from four colleges show that multiple measures is linked to better outcomes for students. A higher proportion of students placed using multiple measures progress into and complete college math and English in their first year at college compared to students placed using traditional methods. This signals that multiple measures may be placing students more accurately and accelerating progression into and completion of college coursework. At some colleges, first-to-second term college persistence rates are also higher for students placed using multiple measures. Finally, in some cases, students of color and low-income students placed using multiple measures have higher outcomes than their traditionally placed peers, suggesting multiple measures may be addressing equity gaps at community colleges. More research is needed to study both the implementation and impact of multiple measures at the Oregon community colleges to support improvements to innovative approaches to assessing college readiness and placing incoming students into the highest level of coursework in which they are likely to succeed.

References

- Bailey, T., Jeong, D. W., & Cho, S.-W. (2010). Referral, enrollment, and completion in developmental education sequences in community colleges. *Economics of Education Review*, 29(2), 255–270. <http://eric.ed.gov/?id=EJ876583>
- Bracco, K. R., Dadgar, M., Austin, K., Klarin, B., Broek, M., Finkelstein, N., et al. (2014). *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, CA: WestEd. <http://eric.ed.gov/?id=ED559630>
- Camara, W. J., & Echternacht, G. (2000). *The SAT® I and high school grades: Utility in predicting success in college* (Research Notes No. 10). New York, NY: College Board, Office of Research and Development. Retrieved December 7, 2015, from <http://research.collegeboard.org/publications/content/2012/05/sat-i-and-high-school-grades-utility-predicting-success-college>
- Camara, W., & Michaelides, M. (2005). *AP® use in admissions: A response to Geiser and Santelices*. New York, NY: College Board. Retrieved December 7, 2015, from <https://research.collegeboard.org/sites/default/files/publications/2012/7/misc2005-1-ap-use-admissions-geiser-santelices.pdf>
- Dadgar, M., Collins, L., & Schaefer, K. (2015). *Placed for success: How California community colleges can improve the accuracy of placement in English and math courses, reduce remediation rates, and improve student success*. Oakland, CA: Career Ladders Project. Retrieved December 7, 2015, from http://www.careerladdersproject.org/wp-content/uploads/2015/03/CLP_IP_Brief_37_508.pdf
- Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., et al. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance: -A critical literature review*. Chicago, IL: University of Chicago, Consortium on Chicago School Research. <http://eric.ed.gov/?id=ED542543>
- Fields, R., & Parsad, B. (2012). *Tests and cut scores used for student placement in postsecondary education: Fall 2011*. Washington, DC: National Assessment Governing Board. <http://eric.ed.gov/?id=ED539918>
- Geiser, S., & Santelices, S. V. (2007). *Validity of high-school grades in predicting student success beyond the freshman year: High-school record vs. standardized tests as indicators of four-year college outcomes* (Research & Occasional Paper Series: CSHE. 6.07). Berkeley, CA: University of California, Berkeley, Center for Studies in Higher Education. <http://eric.ed.gov/?id=ED502858>
- Hassel, H., & Giordano, J. B. (2011). First year composition placement at open-admission, two-year campuses: Changing campus culture, institutional practice, and student success. *Open Words*, 5(2), 29–59.
- Hein, V., Smerdon, B., & Sambolt, M. (2013). *Predictors of postsecondary success*. Washington, DC: American Institutes for Research, College & Career Readiness & Success Center. <http://eric.ed.gov/?id=ED555671>
- Hiss, W. C., & Franks, V. W. (2014). *Defining promise: Optional standardized testing policies in American college and university admissions*. Arlington, VA: National Association for College Admission Counseling. Retrieved December 7, 2015, from

<http://www.nacacnet.org/research/research-data/nacac-Research/Documents/DefiningPromise.pdf>

- Hodara, M., & Cox, M. (2016). *Developmental education and college readiness at the University of Alaska* (REL 2016-123). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest. <http://eric.ed.gov/?id=ED565798>
- Hodara, M., & Lewis, K. (2017). *How well does high school grade point average predict college performance by student urbanicity and timing of college entry?* (REL 2017-250). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest. Retrieved from <https://files.eric.ed.gov/fulltext/ED573041.pdf>
- Markle, R., & Robbins, S. (2013). *A holistic view of course placement decisions: Avoiding the HS GPA trap*. Princeton, NJ: Educational Testing Service.
- Sackett, P. R., Borneman, M. J., & Connelly, B. S. (2008). High stakes testing in higher education and employment: Appraising the evidence for validity and fairness. *American Psychologist*, 63(4), 215–227. <http://eric.ed.gov/?id=EJ795259>
- Scott-Clayton, J., Crosta, P. M., & Belfield, C. R. (2014). Improving the targeting of treatment: Evidence from college remediation. *Educational Evaluation & Policy Analysis*, 36(3), 371–393. <http://eric.ed.gov/?id=EJ1042032>
- Willett, T., & Karandjeff, K. (2014). *Stepping up: Progression in English and math from high school to college*. Sacramento, CA: Research and Planning Group for California Community Colleges. Retrieved December 7, 2015, from <http://rpgroup.org/sites/default/files/RPSteppingFinal.pdf>