



# HOUSE BILL 2681: February 2016 Preliminary Report



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## INTRODUCTION

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This preliminary report on the efforts of the House Bill 2681<sup>1</sup> (HB 2681) work group is divided into two primary sections: a context-setting background section followed by a progress report section on the activity of the HB 2681 work group in Fall 2015.

The background section begins with some foundational information on the topic of student readiness for entry-level college courses and placement testing in community colleges. An overview of common placement tests and approaches is provided, with descriptions of the American Council on Education (ACE) recommendation on use of the GED® for placement purposes and the 2015 Oregon community college agreement to pilot use of the Smarter Balanced Assessment in placement. Finally, descriptions of Oregon’s ongoing Developmental Education Redesign (Dev Ed Redesign) project and its subsequent work group focused on Assessment and Placement (Dev Ed Placement) frame the landscape in which the HB 2681 work group is situated.

The progress report section focuses squarely on the HB 2681 work group’s efforts, including recommendations to community colleges regarding placement and initial recommendations to the Oregon legislature, Higher Education Coordinating Commission (HECC) and State Board of Education (SBE) to improve community college placement practices.

The HB 2681 work group will continue to meet in 2016 in order to meet its charge of preparing a final report with recommendations for legislation based on its efforts.

## BACKGROUND

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### BILL OVERVIEW

House Bill 2681 (2015) directs the HECC and SBE to convene a work group of stakeholders to “recommend effective processes and strategies for placing students in community college, including consideration of whether to use a statewide summative assessment for students who are entering a community college directly after high school.” The legislation requires the HECC and SBE to jointly submit to the interim legislative committees on education a preliminary report on February 1, 2016 and a final report on September 15, 2016.

### CONTEXT ON COMMUNITY COLLEGE PLACEMENT AND DEVELOPMENTAL EDUCATION

Concerns about student readiness upon entering community colleges are well known; nationwide, about two-thirds of students are enrolled into at least one developmental education course in math, reading, or writing (Bailey, Jeong, & Cho, 2010; Radford & Horn, 2012 as cited in Hodara, 2015). In Oregon, the percentage of students referred to developmental education is similarly high; a contemporary study on participation in

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<sup>1</sup> <https://olis.leg.state.or.us/liz/2015R1/Downloads/MeasureDocument/HB2681/Enrolled>

developmental education among recent high school graduates found that nearly 75% of those students took at least one developmental course upon enrolling in an Oregon community college (Hodara, 2015).<sup>2</sup>

Placement testing is a common feature in community colleges' intake processes for students, the majority of whom are above "traditional" age.<sup>3</sup> The tests are designed to determine students' knowledge and skill levels in reading, writing, and mathematics. The placement tests used may be locally created or nationally developed (Accuplacer, administered by College Board, or Compass, administered by ACT).<sup>4</sup> Students who demonstrate the need for additional skills in one of the subject areas in order to be successful in a college's entry-level, transferable, college-credit-bearing courses may be referred to courses within that college's developmental education sequence. The degree of reliance on test scores in placement practices determining whether and to which developmental courses students are referred varies across community colleges.

Community colleges currently have limited access to information about students' prior academic achievement while in high school. In light of the Oregon Promise, Dev Ed Redesign project, Core to College initiative, 40-40-20 academic attainment goal, and other factors there is considerable interest in the potential of such information to support students' seamless transition to, and success in, postsecondary education. For example, research demonstrates that high school grade point average (HS GPA) is often a greater predictor of college outcomes than standardized tests, although this could increase referral to developmental education for some students (Scott-Clayton & Stacey, 2015). Multiple measures of student readiness have been shown to result in greater placement accuracy and thus increased rates of success.

There are several reasons to be concerned about the percentage of Oregon students referred to developmental education, including issues of

- **Equity:** Current placement practices are likely to underestimate student potential, particularly for women, students of color, low income students and first generation college students (Hetts, 2015);
- **Costs:** The cost of remediation is high—for students, as well as for institutions and states. Nationwide, the direct cost at community colleges alone for providing developmental education is estimated to be as much as \$4 billion annually (Rodriguez, Bowden, Belfield & Scott-Clayton, 2015);
- **Misplacement:** A recent study found that one in four test-takers in math and one in three test-takers in English were severely misplaced using current test-based policies, with underplacements being much more common than overplacements (Rodriguez, Bowden, Belfield & Scott-Clayton, 2015);
- **Completion:** The percentage of students who complete a postsecondary degree or certificate is significantly lower for those who take developmental education—and rates of completion plummet the further back in a remedial sequence the students begin. This is seen both in national research (Bailey & Cho, 2010) and in Oregon (Hodara, 2015).

The Oregon-specific Hodara study found that individual academic achievement in high school has a significant influence on participation in developmental education for recent high school graduates. The predictive power

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<sup>2</sup> [https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL\\_2015081.pdf](https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2015081.pdf)

<sup>3</sup> In 2013-14, 29% of Oregon community college students fit the "traditional age" definition (18-24).

<sup>4</sup> ACT announced in June 2015 that the Compass test will be phased out in 2016, with all versions of the test eliminated by the end of the year.

of this information was determined on the basis of performance on the Oregon Assessment of Knowledge and Skills (OAKS) for students in the selected sample, high school graduates from 2004-05 to 2006-07. Unfortunately, high school transcript information was unavailable for this study; the study was unable to capture factors such as cumulative high school grade point average or highest courses and grades earned in mathematics and English/language arts as evidence of prior academic achievement. Yet this research suggests that looking to a student's academic background may be a useful tool for informing the placement of a student who matriculates to an Oregon community college immediately after graduation from high school.

Students enter community colleges from a variety of backgrounds: although some enroll directly after completion of high school, the majority do not. For those students who enter a community college as returning adults—as high school graduates, as GED® passers, through the doors of Adult Basic Education, after other educational, work, or life experiences—as well as for recent high school graduates, there may be benefits to adjustments in community college placement practices. Might such adjustments increase the numbers of students who are referred to entry-level courses, courses higher in a developmental education sequence, or co-requisite support courses designed to increase their success? Can Oregon positively impact the academic outcomes for all students by approaching the determination of college readiness with an attention to the demonstration of student potential to succeed in college courses?

These important questions reflect the principles established by the Oregon Equity Lens, which reminds us that “equity requires the intentional examination of systemic policies and practices that, even if they have the appearance of fairness, may in effect serve to marginalized some and perpetuate disparities.”<sup>5</sup>

## **THE 2014 GED® HONORS LEVEL AND ACE RECOMMENDATION FOR PLACEMENT**

The GED® program provides a bridge to higher education, trade schools, apprenticeship programs and employment opportunities for Oregonians who have not yet earned a high school diploma. The Office of Community Colleges and Workforce Development (CCWD) works in partnership with GED® Testing Service (GEDTS) and the 17 community colleges to provide testing, preparation and instruction across the state. Through the State GED office, 17 community college and over 70 test sites across Oregon receive technical assistance, training and guidance in support of the new 2014 GED® test series.

The program provides the GED® test to adults without a high school credential. Sixteen and 17 year olds may test if they are enrolled in an approved Oregon Option program or exempted from compulsory attendance by a school district. There is no residency requirement in the State of Oregon. The GED® tests in Oregon are available in Spanish and English. Accommodations are approved through the official accommodations department with GED® Testing Service.

The 2014 GED® test series measures important knowledge and skills that are usually acquired during a regular program of study in high school. However, in the new 2014 GED® test series there is an increased emphasis on testing knowledge and skills needed for the workplace and for higher education. The 2014 GED® test series covers four academic areas: Reasoning through Language Arts, Social Studies, Science, and Mathematical

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<sup>5</sup> [http://education.oregon.gov/wp-content/uploads/2015/09/Final\\_Equity\\_Lens\\_Adopted.pdf](http://education.oregon.gov/wp-content/uploads/2015/09/Final_Equity_Lens_Adopted.pdf)

Reasoning. In addition to subject knowledge, the tests are aligned to the Common Core State Standards (CCSS) and the Career and College Ready Standards (CCR).

In 2014, the American Council on Education (ACE) formed a group of independent college faculty to review, assess and validate whether the tests have the appropriate content, scope, and rigor for college credit recommendations. Per their review, ACE made the following recommendations for those individuals who score at the GED® with Honors level on the new 2014 GED® test series:

- Bypass placement exams for postsecondary programs;
- Exemption from developmental level courses at the postsecondary level;
- Enrollment in credit-bearing courses at the postsecondary level.

## **THE 2015 OREGON SMARTER BALANCED POLICY AGREEMENTS**

The legislative charge of HB 2681 calls for consideration of the use of a statewide summative assessment for students who are entering a community college directly after high school. The Smarter Balanced Assessment is the statewide assessment for English/language arts and mathematics in grades 3-8 and high school; it replaced the OAKS assessment in 2015. The assessment is administered online in Oregon public schools. The test coordinator for the school district receives training and guidance in support of the Smarter Balanced Assessments. The high school Smarter Balanced Assessment is administered to students in grade 11. The test includes extensive accessibility features, including translations.

The Smarter Balanced Assessments are aligned to the Common Core State Standards. Achievement level thresholds for the assessment were established across the multistate consortium in 2014 using a bookmarking process which included five Oregon postsecondary faculty members as well as fifteen Oregon educators.

In February 2015, Oregon community college presidents collectively adopted a landmark placement test exemption policy to accept college-readiness scores demonstrated on the 11<sup>th</sup> grade Smarter Balanced Assessment, along with evidence of advanced learning in grade 12, for consideration in student course placement.<sup>6</sup> The agreement is intended as a pilot, with an anticipated review for effectiveness and impact in 2018.

The agreement depends upon breaking the high school information barrier by establishing a process at the state level for efficiently and effectively communicating test scores to community colleges for incoming students who have met the requirements and wish to apply the exemption. As the community college agreement to use the Smarter Balanced Assessment in placement illustrates, systemic changes to placement processes in order to adopt a multiple-measures approach depends upon the collection and transmission of information that will better enable community colleges to determine appropriate course placement and supports for students.

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<sup>6</sup><http://oregoncoretocollege.org/sites/default/files/Letter%20from%20Presidents%20to%20Ben%20Cannon%20030415.pdf>

## COMMUNITY COLLEGE DEVELOPMENTAL EDUCATION REDESIGN PROJECT, 2013-PRESENT

The convocation of the HB 2681 work group followed nearly two years of Dev Ed Redesign project work undertaken by all 17 Oregon community colleges, facilitated through the leadership of the Oregon Community College Association (OCCA) and the Office of Community Colleges and Workforce Development (CCWD). The Dev Ed Redesign project has advanced the effort for community colleges to rethink the way they operate developmental education in our state – including how students are placed into courses at the outset. Since the Dev Ed Redesign efforts included the core concern that the HB 2681 work group was charged to address, an intentional collaboration was forged in order to harness the momentum of an existing project, to ensure an alignment between the two efforts while avoiding duplication, and to enable the HB 2681 work group to fully benefit from a real-time understanding of placement changes already underway across all Oregon community colleges notwithstanding the legislative charge of HB 2681. The HB 2681 work has benefited from the addition of K-12 and university stakeholders in the statewide conversation regarding community college placement processes.

Recommendations for community colleges regarding developmental mathematics, reading and writing, student services, and assessment and placement practices were outlined in the Dev Ed Redesign project's August 2014 report.<sup>7</sup> Among those recommendations was a suggestion to create “a statewide system that uses effective placement processes and strategies that recognize students arrive at community colleges with different education backgrounds, life experiences, skills and goals, Oregon community colleges should consider strongly the creation of a set of common practices and commitments for the placement of students. These should be designed to more accurately place students and more intentionally err on the side of enrolling students into college-level courses or accelerated and co-requisite models.” The Dev Ed Redesign work group held a special-focus placement meeting in April 2015 to launch a deeper statewide community college discussion on local and national research, current practices, and methods of advancing change; this meeting spurred the creation of the Dev Ed Placement group, again comprised of campus teams from each of the community colleges. The Dev Ed Placement group held webinar meetings in August 2015 and September 2015, which included presentations by Dr. Michelle Hodara of the Regional Education Laboratory at Education Northwest on the Oregon placement research, and Dr. John Hetts of the Educational Results Partnership on national placement research as well as research conducted at Long Beach City College in California.

The Dev Ed Placement group held in-person meetings in October 2015 and December 2015. These Fall 2015 meetings included members of the HB 2681 work group as well as the campus teams participating in the Dev Ed Placement group.

A table illustration of the distinctions between the groups is provided below.

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<sup>7</sup> <http://www.occa17.com/assets/documents/Reports/developmental%20education%20redesign-decreasing%20attrition%20and%20time%20to%20completion%20at%20oregons%20community%20colleges%208-2014.pdf>

## Statewide Community College Placement-Focused Groups

Group Name	Description	Start Date
Dev Ed Redesign	Examine developmental education practices throughout Oregon and the United States and make recommendations on the implementation of best practices that result in greater student success for students in Oregon.	November 2013
Dev Ed Placement	Review Dev Ed Redesign recommendations regarding assessment and placement; consider local and national research; provide updates and review recent changes in Oregon community college placement practices; consider the use and implementation of multiple measures and/or shared placement practices across campuses – with the ultimate goal of placing students in the highest possible class in which they are likely to be successful. Inform the HB 2681 work group with a set of community college recommendations for the redesign of placement practices in Oregon.	April 2015
HB 2681 work group	Recommend effective processes and strategies for placing students in community colleges.	October 2015

## FORMATION AND COMPOSITION OF HB 2681 WORK GROUP

HECC and ODE staff conducted outreach to collaboratively establish the roster of stakeholder representatives to participate on the HB 2681 work group. In order to strengthen its connection to the Dev Ed Placement group described above, steering committee members of the Dev Ed Placement group agreed to serve on the HB 2681 work group, and were joined by representatives of the additional stakeholder groups identified in the legislation. In addition, a deliberate outreach was made to ensure representation of GED®, Adult Basic Skills, and Academic Foundations leadership in the HB 2681 work group.

## HB 2681 Participation Roster

Affiliation	Name	Role
<ul style="list-style-type: none"> <li>• ABS/GED Rep</li> <li>• ODE Staff</li> <li>• OCCA</li> <li>• ODE Staff</li> </ul>	<ul style="list-style-type: none"> <li>• Tanya Batazhan</li> <li>• Holly Carter</li> <li>• Elizabeth Cox Brand</li> <li>• Derek Brown</li> </ul>	<ul style="list-style-type: none"> <li>• Director, ABS, PCC</li> <li>• Director, Assessment</li> <li>• Director, Student Success, OCCA</li> <li>• Assessment</li> </ul>

<ul style="list-style-type: none"> <li>• Dev Ed Steering</li> <li>• Dev Ed Steering</li> <li>• Dev Ed Steering</li> <li>• ABS/GED Rep</li> <li>• ABS/GED Rep</li> <li>• CC Student</li> <li>• High School Rep</li> <li>• HECC Staff</li> <li>• Dev Ed Steering</li> <li>• ODE Staff</li> <li>• Dev Ed Steering</li> <li>• HECC Staff</li> <li>• HECC Staff</li> <li>• University Rep</li> </ul>	<ul style="list-style-type: none"> <li>• Stacey Donohue</li> <li>• Sydney Frost</li> <li>• John Hamblin</li> <li>• Phillip King</li> <li>• Jason Kovac</li> <li>• Andrew Kunzi</li> <li>• Erik Lansdon</li> <li>• Teresa Alonso Leon</li> <li>• Marie Maguire-Cook</li> <li>• Cristen McLean</li> <li>• Doug Nelson</li> <li>• Sean Pollack</li> <li>• Lisa Reynolds</li> <li>• Lyn Riverstone</li> </ul>	<ul style="list-style-type: none"> <li>• Interim Instructional Dean, COCC</li> <li>• Manager, Student Recruitment, Orientation, Testing, MHCC</li> <li>• Director, Enrollment, MHCC</li> <li>• Dean, Academic Foundations and Connections, Clackamas CC</li> <li>• Dean, Academic Foundations, LBCC</li> <li>• Student, Chemeketa CC</li> <li>• Counselor, Springfield HS</li> <li>• GED Administrator, CCWD</li> <li>• Faculty, English, RCC</li> <li>• Assessment</li> <li>• Faculty, Math, COCC</li> <li>• Ed Specialist, University Coord</li> <li>• Ed Specialist, CCWD</li> <li>• Instructor and Academic Advisor, Math, OSU</li> </ul>
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## PROGRESS REPORT

### SUMMARY OF FALL 2015 ACTIVITIES

The HB 2681 work group joined the October 23 and December 4 meetings of the Dev Ed Placement group; immediately after each of those meetings, the HB 2681 work group held standalone meetings to reflect on the information, discussion, feedback and recommendations provided by the larger group.

A significant portion of the Dev Ed Placement September webinar and the October 23 meeting were focused on research presentations from Dr. John Hetts, former Director of Institutional Research for Long Beach City College who currently serves as the Senior Director of Data Science for the Educational Results Partnership. Both the HB 2681 work group and the Dev Ed Placement group found several key points from his presentation compelling, including the observations that:

- Research increasingly questions effectiveness of standardized assessment for understanding student capacity;
- Standardized placement tests tend to have little relation to college course outcomes (e.g., Belfield & Crosta, 2012; Edgecombe, 2011; Scott-Clayton, 2012; Scott-Clayton & Rodriguez, 2012: [bit.ly/CCRCAssess](http://bit.ly/CCRCAssess));
- Standardized placement tests underestimate the capability of the majority of community college students: students of color, women, first generation college students, and those from low socioeconomic backgrounds (Hiss & Franks, 2014; [bit.ly/DefiningPromise](http://bit.ly/DefiningPromise));

- Placement tests do not yield strong predictions of how students will perform in college... more importantly, the tests do not have much explanatory power across a range of measures of performance including college GPA, credit accumulation, and success in gatekeeper English and math classes (Belfield & Crosta, 2012);
- Cumulative high school grade point average (HSGPA) is consistently shown to be a better predictor of first year college GPA, degree completion or transfer (Radunzel & Noble, 2012);
- There is incredible variability in cut scores; 2-year colleges often use higher cut scores than 4-year institutions (Fields & Parsad, 2012);

During its standalone meeting that followed, HB 2681 work group members expressed a strong conviction that reforms related to placement should be framed around the interest in improving equitable access to college courses for all students. The group reflected on the discussion Dr. Hetts led regarding the impact of placement testing on the mindset of entering students—effectively communicating to students that institutions are suspicious about whether or not they are “college material”—and observed that revising placement policies and practices to best support equity will result in a paradigm shift for faculty and administrators, as well as students. The HB 2681 work group affirmed the movement toward consistent approaches to placement at community colleges statewide, the use of multiple measures for placement, and use of standardized assessments as a last resort or in the case where insufficient evidence of student capacity for entry-level work is available. The role and value of placement tests may vary by subject area.

In November, 45 members of the Dev Ed Placement/HB 2681 work groups responded to a survey that asked them to identify whether they strongly agreed, agreed, disagreed, strongly disagreed or were neutral regarding a series of statements related to Dr. Hetts’ presentation and the work group discussions. Staff synthesized the survey results and aligned them with the original recommendations of the 2014 Dev Ed Redesign report, presenting the results to the two groups for discussion at the December 4 meetings.

The Dev Ed Placement work group used the synthesis document as a springboard for discussion and divided into smaller content-focused groups (reading and writing, mathematics, and administration of placement testing) in order to refine their recommendations for consideration by the HB 2681 work group. In its standalone meeting, the HB 2681 work group affirmed its shared principles and identified further areas to investigate following the presentation of this preliminary report.

HB 2681 work group members support improvements to the way community colleges place students.

Workgroup participants are motivated by a desire to better understand and support all students in their success, and are concerned about the potential underplacement of students, especially students from historically underrepresented demographic groups, that inhibits successful transition to, persistence in, and completion of postsecondary education programs.

**INITIAL RECOMMENDATIONS REGARDING EFFECTIVE PROCESSES AND STRATEGIES FOR COMMUNITY COLLEGE PLACEMENT**

The HB 2681 work group recommends the following actions for implementation directly by community colleges in accordance with their overall structure and capacity:

- Move from using only a standardized assessment as the default placement tool for all students and toward a system of multiple measures to increase the accuracy of placement decisions.

As identified in the recommendations from the mathematics subcommittee of the Dev Ed Placement group, these additional measures may include: cumulative HS GPA; examination of last relevant content class taken, date of completion, and grade earned (high school transcripts); SAT/ACT scores; Smarter Balanced Assessment scores; relevant AP/IB test scores; GED scores; military training; admission letter to a university indicating proof of “college readiness”; high school teacher recommendations; non-cognitive measures; holistic review .

It is recommended that each community college determine if and at what point during the placement process a standardized test is used to place students in courses. Each college must determine which of the above measures to use depending on the student, the subject area, the college’s resources, and the district it serves.

- Find methods to easily and efficiently process placement indicators that a student does not require additional standardized testing and has demonstrated capacity to succeed in college-level courses.
- Use “decision zones” (a range of scores and non-cognitive measures) rather than strict cut scores alone to increase placement in college-level courses, when a standardized test is the primary method for a placement determination.
- Strengthen the college placement test/preparation program in order to decrease the possibility of underplacement.
- Seek to exchange information and honor other colleges’ placement determinations for students who transfer between community colleges.

Initial recommendations to the Oregon legislature and state agencies:

- Ensure that data is available to support a multiple measures approach to placement. Address the systemic barriers (e.g. lack of a common student identifier across data systems; lack of data sharing across sectors; discrepant data systems within and between education sectors) that hinder community colleges’ ability to obtain high school information and other relevant data to place students and to support their success.
- Provide opportunities for college instructors, particularly writing instructors, to collaborate with high school teachers and to examine the high school curriculum, assessments, and work samples to determine whether and how this information could contribute to placement determinations.
- Provide targeted twelfth grade learning opportunities and experiences for high school students who have not met the college content- readiness benchmarks of Smarter Balanced to increase their knowledge, skills, and capacity for postsecondary success during the twelfth grade. Ensure that the content of these experiences reflects best practices in developmental education.

- Invest in the use of multiple measures by community colleges so that the costs of adding multiple measures to their placement processes do not hinder the adoption of this approach. Consider investments in personnel as well as in data systems, since a multiple measures approach requires more individualized student intake processes.

## FUTURE WORK OR THE HB 2681 WORK GROUP

In Spring 2016, the HB 2681 work group intends to conduct further investigation on the concept of Directed Self-Placement, an approach recently implemented at some community colleges in the state of Washington which provides placement paths tailored to students' backgrounds.<sup>8</sup> In addition, the HB 2681 work group will seek the engagement of college Registrars, Institutional Researchers, and K-12 Information Technology Directors in the topic of community college placement. The work group will also seek to expand the involvement of high school educators, counselors, and students.

The HB 2681 work group will continue to monitor placement process changes at Oregon community colleges—these are expected as many of the Oregon community colleges will be determining their transition plans following the 2016 sunset of the Compass test (currently in use at 12 of 17 Oregon community colleges).

For the final report due September 2016, the HB 2681 work group have will identified those recommendations which require legislative direction to help ensure the successful placement of community college students.

## REFERENCES

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- 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>
- Belfield, C.R., & Crosta, P. M. (2012). Predicting success in college: The importance of placement tests and high school transcripts. (CCRC Working Paper No. 42). New York, NY: Columbia University, Teachers College, Community College Research Center. <http://ccrc.tc.columbia.edu/media/k2/attachments/predicting-success-placement-tests-transcripts.pdf>
- Edgecombe, N. (2011). Accelerating the academic achievement of students referred to developmental education. (CCRC Working Paper No. 30). New York, NY: Columbia University, Teachers College, Community College Research Center. <http://ccrc.tc.columbia.edu/media/k2/attachments/accelerating-academic-achievement-students.pdf>
- Fields, R., & Parsad, B. (2012). Tests and cut scores used for student placement in postsecondary education: Fall 2011. National Assessment Governing Board. Washington, D.C. <https://www.nagb.org/content/nagb/assets/documents/commission/researchandresources/test-and-cut-scores-used-for-student-placement-in-postsecondary-education-fall-2011.pdf>

---

<sup>8</sup> For example, see <https://placement.highline.edu/>

- Hetts, J.J. (2015). Let Icarus fly: Multiple measures, assessment, and the re-imagination of student capacity. (Presentation).  
<http://www.occa17.com/assets/documents/DevEd/oregon%20cornerstones%20of%20gateway%20course%20completion%2010232015%20for%20distribution.pptx>
- 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.  
<http://www.nacacnet.org/research/research-data/nacac-research/Documents/DefiningPromise.pdf>
- Hodara, M. (2015). What predicts participation in developmental education among recent high school graduates at community college? Lessons from Oregon. (REL 2015–081). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest.  
[https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL\\_2015081.pdf](https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2015081.pdf)
- Radford, A. W., & Horn, L. (2012). An overview of classes taken and credits earned by beginning postsecondary students (Web Tables, NCES 2013–151rev). Washington, DC: U.S. Department of Education, National Center for Education Statistics.  
<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2013151rev>
- Radunzel, J., & Noble, J. (2012). Predicting long-term college success through degree completion using ACT composite score, ACT benchmarks, and high school grade point average. Iowa City, IA: ACT.  
[https://www.act.org/research/researchers/reports/pdf/ACT\\_RR2012-5.pdf](https://www.act.org/research/researchers/reports/pdf/ACT_RR2012-5.pdf)
- Rodriguez, O., Bowden, B., Belfield, C., & Scott-Clayton, J. (2015). Calculating the costs of remedial placement testing. (CCRC Analytics). New York, NY: Columbia University, Teachers College, Community College Research Center.  
<http://ccrc.tc.columbia.edu/media/k2/attachments/calculating-cost-remedial-placement-analytics-2.pdf>
- Scott-Clayton, J. (2012). Do high-stakes placement exams predict college success? (CCRC Working Paper No. 41). New York, NY: Columbia University, Teachers College, Community College Research Center.  
<http://ccrc.tc.columbia.edu/media/k2/attachments/high-stakes-predict-success.pdf>
- Scott-Clayton, J., & Stacey, G. W. (2015). Improving the accuracy of remedial placement. New York, NY: Columbia University, Teachers College, Community College Research Center.  
<http://ccrc.tc.columbia.edu/media/k2/attachments/improving-accuracy-remedial-placement.pdf>
- Scott-Clayton, J., & Rodriguez, O. (2012). Development, discouragement, or diversion? New evidence on the effects of college remediation (NBER Working Paper No. 18328). Cambridge, MA: National Bureau of Economic Research.  
<http://eric.ed.gov/?id=ED534619>

