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The Next Phase of Placement Reform

Moving Toward Equity-Centered Practice

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Students of color and low-income students are disproportionately placed into prerequisite developmental education sequences upon college entry. Students who are placed into these sequences often fail to complete them, persist in college, or complete a credential, and these negative outcomes are concentrated among students of color and low-income students.¹ Differential placement into developmental sequencing across student groups can be at least partly explained by colleges' reliance on test-only placement systems and conservatively chosen cut scores. Research shows that using standardized tests does a relatively poor job of measuring student potential for success in college-level courses² and that the distribution of scores across students can be largely explained by prior systemic inequalities that create barriers to success among underserved students.³ In other words, test-only placement systems can lead to inaccurate placement determinations that serve to perpetuate achievement gaps by race/ethnicity and socioeconomic status (SES).

In response to the pitfalls of traditional, test-only placement systems, colleges across the country are increasingly experimenting with and adopting alternative placement strategies that reduce the number of students assigned to prerequisite developmental education and increase access to college-level courses. These reforms benefit underserved students but by themselves are not enough to eradicate long-standing disparities by race/ethnicity and SES in outcomes such as introductory college-level (or gateway) course completion and credential attainment. For placement reform to be both effective and equitable, it is best coupled with additional related reforms, including improvements to curriculum, instruction, and student supports.

Aimed at practitioners, this brief provides guidance to institutions seeking to design and implement placement systems that redress limitations of test-only systems and that work in conjunction with other reforms to generate more equitable outcomes. In what follows, we draw on research literature as well as examples from the field to highlight promising strategies for addressing barriers to equitable access to and success in college-level courses, including barriers that may persist after broad placement reform has been implemented.

Equity and Placement

Inherent in the development of assessment and placement policy are choices to restrict or expand access to college-level coursework. In the last decade, research evidence has established the implications of those choices, in particular the disadvantage experienced by those whose college-level access is restricted. Some colleges are now trying to use that evidence to design more equitable assessment and placement systems.

Traditionally, community colleges use the results of placement tests to determine whether or not incoming students possess the skills and knowledge perceived to be needed for college-level coursework in math or English. Students identified as not ready for college-level courses are placed into sequences of one or more prerequisite developmental courses, which are meant to prepare students for college-level coursework but which also serve to discourage students and delay their entry into college-level courses.⁴ What is more, evidence has shown that test-only systems do a poor job of identifying which students need additional support to successfully complete college-level courses. These systems are much more likely to underplace than to overplace students; that is, they are more likely to misplace students (who would likely succeed in college-level math and English) into developmental education courses than they are to misplace students into college-level courses (who would likely fail them).⁵

In response, institutions are increasingly adopting multiple measures of assessment to better predict students' chances of success in college-level math and English courses. In addition to placement test scores, these measures may include high school GPA, high school coursetaking patterns, and noncognitive assessment results. This shift to multiple measures assessment (MMA) is based on the notion that more accurate placements through the use of multiple measures will yield greater numbers of students who will avoid prerequisite developmental sequences that could hinder progress and dampen persistence in college.⁶ Indeed, experimental research has shown that MMA can result in greater rates of college-level placement and completion of math and English gateway courses than traditional, test-only placement systems.⁷

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Despite these positive results, when implemented in isolation from other reforms, these new placement systems have not been particularly effective in eliminating or reducing existing equity gaps in placement into or completion of college-level courses. For example, a study of the impact of MMA on student outcomes conducted at community colleges in the State University of New York system revealed that while all students placed under a multiple measures system were significantly more likely to place into a college-level math or English course, White students still placed into college-level courses at a higher rate than their Black and Latinx peers.⁸ Although the Black-White placement gap narrowed in favor of Black students in English by 8 percentage points (from 16 percentage points to 8 percentage points), the placement gap between Black and White students widened in math by 5 percentage points (from 11 percentage points to 16 percentage points). The placement gap in math between Latinx and White students also widened by 3 percentage points (from 2 percentage points to 5 percentage points). There was no evidence that the Latinx-White placement gap in English changed due to MMA.

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These differential results are not surprising given that MMA and other universal placement reforms are not specifically designed to address disparities by race/ethnicity, SES, or age. The use of MMA may thus improve student outcomes generally yet still reflect historic disparities that could further disadvantage certain groups of students (e.g., MMA might make use of high school coursetaking as a measure for placement, but Black, Latinx, and low-income students often attend high schools that offer less advanced coursework than other schools). Moreover, MMA and other placement reforms often operate within policy and practice contexts in which minoritized students are steered through advising norms toward courses and programs of study that are considered less challenging or that are not necessarily aligned with students' skills, interests, and goals. This may have important implications on college outcomes such as persistence and degree completion as well as on labor market outcomes.

To close equity gaps, colleges can address the conditions that continue to hinder some students from completing courses and earning credentials. This does not imply that institutions must forfeit gains made from more accurate placement for all students; colleges can augment current placement reform efforts that expand access to college-level courses with programs, policies, and practices aimed at changing the experience of specific student subgroups. The examples selected for this brief highlight three distinct entry points for this work that span the placement process, including redefining the culture around placement, selecting and using placement criteria that acknowledge and value the diversity of pre-college experiences of incoming students, and providing supports that anticipate the varied needs of students after placement determinations have been made. In all cases, the strategies employed are specific to one or more student populations identified as being marginalized by the institution and its placement system.

Strategies for Equity

Establishing an Asset-Based Orientation

Traditional assessment and placement practices associated with test-only systems are grounded in a deficit orientation to student performance that seeks to identify fundamental academic weaknesses at college entry. Traditionally, academic preparedness is measured narrowly, under the assumption that college-ready competencies can be identified and assessed adequately with short tests in math, reading, and writing. The deficit orientation holds that many students may be so severely underprepared that they should not begin college-level courses without first making substantial gains in these academic competencies.⁹ Indeed, under traditional systems, many students are deemed to require substantial, not-for-credit, prerequisite remediation through developmental coursework before they can enroll in most entry-level college courses.

In seeking to identify, quantify, and remediate academic weaknesses among students, traditional developmental education tends to restrict or at least delay access to college-level coursework, often for multiple semesters. An asset-based orientation to student performance, in contrast, focuses on what students can do and on identifying and leveraging students' strengths to promote their success. The implementation of corequisite remediation is an example of leveraging students' strengths to promote their success.

Corequisite remediation allows students who may have traditionally been placed into prerequisite developmental education to enroll instead in a credit-bearing gateway course along with a developmental support course or other supplemental instruction. Corequisite remediation and the broader asset-based orientation emphasize that students who are not well prepared in narrow academic terms may well bring knowledge, skills, and motivation not measured by standardized tests to engage productively in college-level instruction. Corequisite remediation provides these students with additional resources, via the developmental support course, that can build on their knowledge and skills to help them succeed in the paired college-level course. Studies of corequisite remediation suggest that many students can be successful when granted immediate access to college-level coursework.¹⁰

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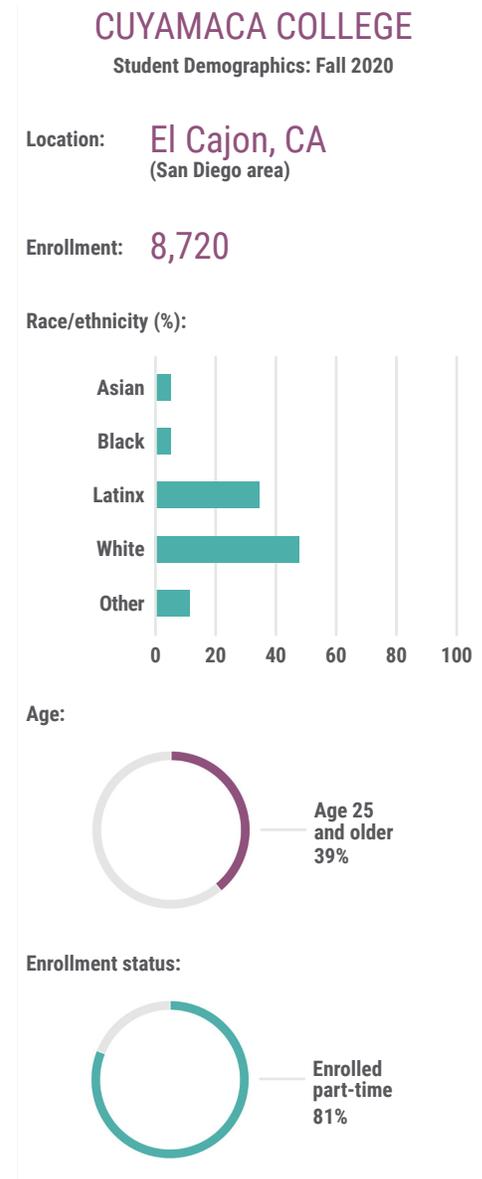
Developing an asset-based orientation requires more than a change in policy—a deeper cultural shift at the college is also required. Faculty and student services professionals are crucial actors in this shift. Steps that some colleges have taken to shift their culture and build expertise necessary to design and implement equitable courses and supports include sustained professional learning in areas such as identification and reduction of negative bias¹¹ and the development of a growth mindset.¹² When adequately resourced and grounded in college- or system-wide equity goals, these learning opportunities provide a rationale and strategy for faculty and staff to rethink placement and other practices in ways that leverage students' strengths.

Cuyamaca College: Advancing Equity-Minded Culture

Since 2016, Cuyamaca College faculty and staff have sought to broaden access to college-level courses by reforming the community college’s placement practices and the structure of its developmental course offerings. Cuyamaca introduced MMA to place students; it also implemented corequisite remediation in an effort to eliminate prerequisite developmental course taking. In terms of MMA, Cuyamaca began using a questionnaire in which students self-report their high school performance and intended program of study. After the college stopped using Accuplacer test scores in 2018, these self-reported data became the only criteria used to place students. Under the revised system, students are provided with a recommended placement but are permitted to appeal it—and college stakeholders report that student appeals are almost always granted. Importantly, the college also began offering faculty and staff the opportunity to participate in equity-minded professional development aimed at establishing “a culture of validating students’ identities and culture, engaging students in their academic work, and recognizing student capacity.”¹³

Since implementing MMA, corequisite courses, and equity-minded professional development, Latinx-White gaps in gatekeeper course completion rates have reversed at Cuyamaca College. Whereas Latinx-White gaps favored White students in 2015, Cuyamaca College had a slightly higher proportion of Latinx students than White students completing a college composition or transfer-level math course in their first term by 2018.¹⁴ Although this trend could have been influenced by a number of factors and should not be interpreted as being caused by any specific policy or practice change, many faculty and staff credit professional development opportunities that led to the stronger adoption of an asset-based orientation. Described in more detail below, greater participation among faculty and staff in professional development and other activities tended to increase support to broaden access to college-level coursework and to make substantial efforts to improve the student experience inside and outside the classroom, particularly among minoritized students. The professional development activities provided faculty and staff with an opportunity to discuss and review student data and to reflect on their own practices and on college policies.

As Cuyamaca began implementing MMA and corequisite courses, it received a grant from the State of California to support implementation. The grant supported the college’s equity-minded professional development through the creation of several Communities of Practice for the different gateway classes wherein faculty and staff share best practices, have candid discussions, and dismantle policies and practices that can result in inequitable student



Source: National Center for Education Statistics

outcomes. In addition, Cuyamaca sent part- and full-time instructors to trainings hosted by the California Acceleration Project (CAP), the Community College Equity Assessment Lab (CCEAL), and other organizations to help faculty and staff identify their biases, shift their mindsets, and learn new ways to teach and advise students. Cuyamaca leaders prioritized staff that do not normally attend trainings and allowed faculty to attend trainings more than once. The college leadership was very supportive of these activities and maintained funding for ongoing professional development after the state grant ended. Support from leadership was important because it established equity as an institutional priority, directed the allocation of resources to this work, and motivated stakeholders to engage in it.

Cuyamaca also established the Equity-Minded Teaching and Learning Institute at the college, which aims to keep equity at the forefront of all instructors' minds and to help instructors understand that building an asset-based orientation is a process informed by ongoing learning. Institute gatherings have focused on eliminating bias among instructors and showing them how to grade assignments and develop course syllabi in more equitable ways. Faculty also attend anti-racism trainings, which help shine a light on practices that perpetuate inequality at the college and in higher education more generally. The institute also provides a safe space for faculty and staff to voice their concerns and work through them with their peers.

A common phrase now used at Cuyamaca is "Turn the mirror around." Instead of focusing on student deficits, faculty and staff are asked to turn the mirror around to focus on how they can prepare themselves to educate the students that enroll at the college. What has happened over several years at Cuyamaca College is a good example of how ongoing professional development can be a pillar of cultural change that is integral to the development of an asset-based orientation among faculty and staff.

Keeping Specific Student Populations in Mind

Colleges seeking to build better placement systems often consider high school GPA as an important alternative or additional measure (to placement test scores) for gauging college readiness. Faculty and staff familiarity with GPA facilitates ease of interpretation, and research suggests that high school GPA is more predictive of college readiness than standardized placement test scores, which also generates support and buy-in among stakeholders.¹⁵ However, not all students have access to their high school records. For example, GED recipients who are not assigned grades and older students who graduated from high school too long ago for their transcript to be considered valid by the institution are unable to participate in redesigned placement procedures that utilize the official high school GPA as a primary criterion for placement. International and immigrant students may also be excluded from a placement system that relies on student records from prior participation in U.S. secondary schools. These drawbacks are most concerning when institutional policies default back to a test-only placement procedure when alternative measures are not available for particular students.

Some states and institutions are developing creative solutions for students lacking high school transcripts. For example, some colleges accept student-reported high school GPA data, which are more accessible and less costly to obtain than official transcripts. Research has shown that

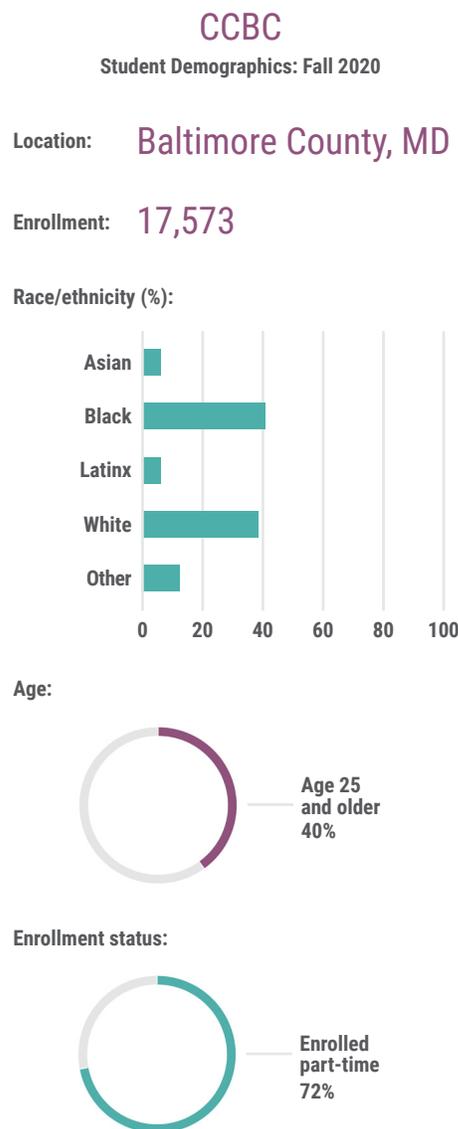
students tend to accurately report these data.¹⁶ Some colleges also consider how students' prior life experiences might be used to inform placement decisions. For example, an asset-based approach to placement focused on identifying nonacademic competencies may be particularly beneficial for veterans and older students who come to college with significant prior learning and skills through military service and employment that are not typically captured by traditional placement measures. Institutions seeking to develop an equitable placement system can begin to think through specific barriers that different groups of students might encounter.

Community College of Baltimore County (CCBC): Redesigning Placement into English

In 2017, the Community College of Baltimore County convened a working group of English and academic literacy faculty to consider ways to improve student outcomes through placement. In that year, college data showed that only 36 percent of students placed into college-level standalone English courses, based solely on their Accuplacer scores. The data also showed low levels of retention and success for students being placed into prerequisite developmental education courses. Importantly, the college observed strikingly disparate placement rates between Black and White students. In 2016, nearly half of Black students but fewer than one quarter of White students were referred to a prerequisite or corequisite¹⁷ developmental English course based on their placement scores.

The working group viewed this disparity as a product of the college's placement practices and decided to dismantle and rebuild the existing system so that Black students were not placed into developmental courses (either prerequisite or corequisite) at such a starkly disproportionate rate. The working group undertook a review of the literature on testing and placement, which highlighted the superiority of high school GPA as a placement measure for college readiness as well as the role that the use of standardized testing could play in perpetuating disparate treatment. In 2019, the college introduced high school GPA as the primary measure for placement, and students who earned a cumulative GPA of 3.0 or higher within the prior five years were placed directly into college-level English.

However, the working group quickly realized that the college's five-year shelf life on high school GPA had important implications for older and returning students. Students who graduated high school more than five years before undergoing the placement process were to be placed according to their Accuplacer scores, which could drive disparities in placement results by age. In response, the working group returned to the literature and interviewed colleagues at peer colleges to better understand available alternative placement methods for students without



Source: National Center for Education Statistics

access to commonly accepted placement measures (e.g., high school GPA or ACT/SAT scores). In spring 2020, CCBC piloted a Self-Directed Placement (SDP) policy for students whose high school transcripts were more than five years old and therefore not considered in placement decisions. The college's SDP approach includes an online survey that prompts students to consider their life experiences and strengths inside and outside of the classroom. The survey asks questions that are designed to help students select the course option that best supports their individual path to success.

Although CCBC's approach has not been rigorously evaluated, early descriptive results from CCBC suggest that its efforts to make placement more equitable and to tailor it to the circumstances of varied incoming students increase access to college-level English among Black and older students. In fall 2020, Black students placed by their high school GPA were 47 percentage points more likely to be directed into standalone college-level English courses than were Black students placed by Accuplacer the year before (the rates were 63 percent in 2020 and 16 percent in 2019). Similarly, students over the age of 21 who participated in SDP experienced a 26 percentage point gain in access to college-level English (the rates were 54 percent in 2020 versus 28 percent in 2019).

This undertaking by CCBC to redesign placement into English demonstrates one way in which colleges can consider and respond to varying needs and experiences of a diverse student population. CCBC has implemented a placement system that provides more equitable access to college-level courses for at least two specific groups of students: Black and older students. Importantly, the college plans to continue to draw on data to better understand the experiences of other student populations and to further modify or differentiate the placement process as needed.

Supporting Students Beyond Placement

Placement marks only the beginning of a student's college experience. Placement and developmental education reform must therefore work in concert with other reforms and supports to ensure that any early progress toward generating equitable outcomes is sustained. A growing body of evidence suggests that students can benefit from multidimensional support throughout their college trajectory. Such support can be introduced through the strategic integration of college-wide reforms, as is done under the guided pathways approach,¹⁸ or in the form of a single comprehensive program that is extended to cohorts of eligible incoming students, like the City University of New York's (CUNY) Accelerated Study in Associate Programs (ASAP) or the foundation-run One Million Degrees program in Illinois.¹⁹ Critically, both ASAP and One Million Degrees provide students with wraparound services that include academic support, financial support, and personal support in the form of mentoring or advising. Additionally, these programs offer students career advising and professional development. Rigorous research examining CUNY ASAP²⁰ and One Million Degrees²¹ has shown that these programs can improve students' short-term outcomes, including number of credits earned, full-time enrollment, and first-year persistence; they can also substantially increase students' chances of obtaining an associate degree.

Yet comprehensive programs do not necessarily redress long-standing disparities in education attainment by race/ethnicity.²² Indeed, the benefits described above with respect to ASAP apply equally to all students subject to the intervention, suggesting that equity-focused practitioners and policymakers should consider supplementing or modifying features of universal reforms to better address the specific needs of underserved students (e.g., by providing advising services in students' home language to build comfort and trust or by embedding culturally responsive practices into supports to acknowledge and value the identity of particular student populations). Established programs such as PUENTE (thepuenteproject.org) and Umoja (umojacommunity.org) strive to incorporate culturally relevant material and mentoring support tailored to specific minoritized student populations (these programs have not been explicitly integrated into broad reform models such as guided pathways or ASAP, nor have they been rigorously evaluated).

Frameworks such as the Culturally Engaging Campus Environment (CECE) may help institutional stakeholders and policymakers envision ways to both sharpen the equity focus of evidence-based universal reforms (during and after the placement process) and address structural and cultural obstacles to equity within colleges more generally. In describing the CECE framework, Museus (2014) outlines what it would look like to shift the responsibility for developing students' sense of belonging, college knowledge, and relationship-building from students to institutions, and he specifies different elements that can be embedded in supports inside and outside of the classroom. These elements include cultural familiarity (which could be encouraged by creating campus spaces for students to connect with faculty, staff, and peers who understand their cultural identities and experiences), cultural relevance (which could be strengthened through opportunities for students to learn more about their own cultural communities via curricular and co-curricular experiences), and proactive philosophy (in which faculty, administrators, and staff strive to bring important information, opportunities, and support services to students, rather than waiting for students to seek them out on their own). The CECE framework can serve to initiate and scaffold institutional offerings that affirm and build on the knowledge and experiences that students from racially diverse populations bring with them to college.

Broad and ambitious models for building student success among underserved student groups, like the CECE framework, may resonate with students entering college with a wide range of experiences, educational histories, and language skills. In response to the enactment of state legislation such as California's Assembly Bill (AB) 705²³ and the implementation of placement reforms such as MMA, both of which serve to increase the number of students with immediate access to college-level courses, it is important that institutions make concerted efforts to identify and deploy supports (pedagogical and otherwise) to help students from groups that may have not felt supported or welcomed in the past. To change these students' learning experiences in a meaningful way, colleges should consider embedding curricular, advising, and other supports to address underserved students' cultural and linguistic needs.

What would it look like to shift the responsibility for developing students' sense of belonging, college knowledge, and relationship-building from students to institutions?

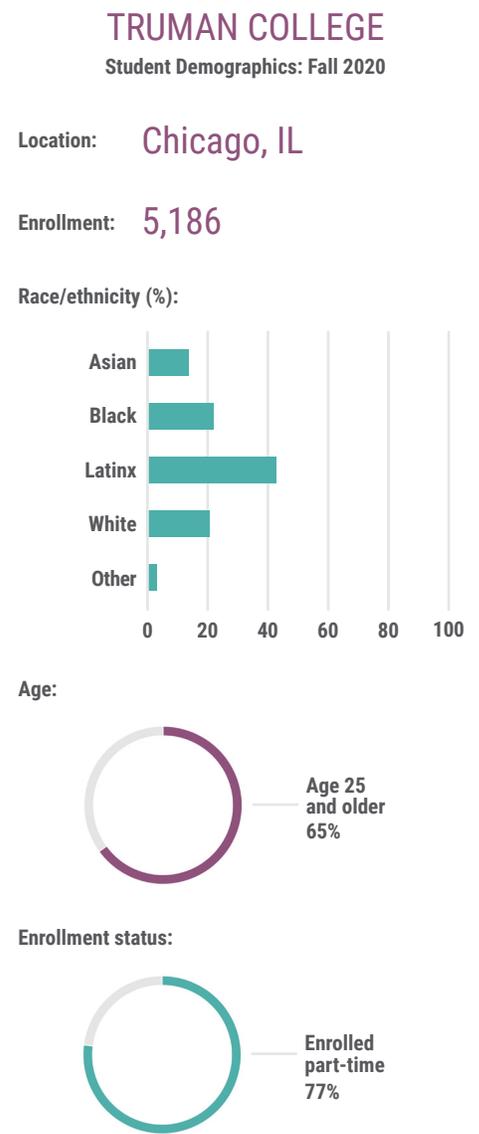
Truman College, City Colleges of Chicago: Transitional Bilingual Learning Community (TBLC)

One example of a multidimensional support program that is consistent with the principles described in the CECE framework and which is specifically designed to help minoritized students through their college-level coursework is the Transitional Bilingual Learning Community (TBLC) at Truman College, a community college that is part of the City Colleges of Chicago system. A group of faculty launched the TBLC in March 2002 to support immigrant Latinx students in making the transition from high school to college. The TBLC began as a two-semester program for full-time immigrant Latinx English Learner (EL) students with bilingual abilities in English and Spanish who have the goal of attaining a college degree. The TBLC focuses on supporting these students’ proficiency in academic English, their bilingual abilities, and their bicultural identities. The program uses targeted, holistic academic and nonacademic supports to help participants, integrating the use of culturally sustaining and asset-based approaches that value multiple linguistic and cultural backgrounds.

Incoming students who are part of the TBLC may enroll in college-level courses while also receiving English as a Second Language (ESL) support and receiving financial support in the form of the TBLC Scholarship, which can range between \$350 and \$650 per semester. Having immediate access to college-level courses is a key opportunity. Students enrolled in the “credit” ESL program outside of the TBLC have very limited options to take college-level courses, as these courses typically require the completion of the ESL program as a prerequisite.²⁴ Similar to MMA and other placement reforms, the TBLC expands access to college-level courses, but it also helps to ensure that students have the resources they need to succeed in those courses.

Students who take TBLC-designated courses during their time in the program join a learning community cohort, which allows students to engage with other students who have similar backgrounds in an environment that elevates their bicultural and bilingual assets. In addition to corequisite developmental course offerings in English, students are able to take ESL, math, college success, social science, and humanities courses with their cohort. Additionally, the TBLC has an embedded advisor, bilingual in Spanish and English, who students meet with frequently.

Truman faculty report internal research showing that the TBLC has served 500 students since its inception. Eighty percent of participants complete the program, meaning that they complete the TBLC college-level courses and move on to other college-level courses. Descriptive data suggest that TBLC students may be more likely to continue their college education, earn an associate degree, and transfer to a four-year college than similar Latinx students not in the TBLC program.



Source: National Center for Education Statistics

Following the success of the TBLC, Truman College expanded the program with an eye toward continuous improvement. For example, it extended the program for some students from two to three semesters and added new TBLC course offerings. In fall 2013, the TBLC STEM Cohort was launched to help prepare bilingual Latinx students interested in STEM to pursue college-credit courses needed for STEM majors. As the TBLC example demonstrates, offering culturally sustaining supports to minoritized students can benefit their progress through college well beyond the placement process.

Conclusion

Over the past decade, institutions of higher education and community colleges in particular have worked to improve student success through alternative placement systems. Reforming placement has increased student success by expanding access to college-level courses, and some colleges are now seeking ways to build on this success and eliminate disparities in outcomes by race/ethnicity, SES, age, and linguistic background. This brief has discussed promising strategies to close these gaps.

The strategies highlighted here require considerable resources and demand sustained institutional commitment. They also require coordinated action among faculty and staff. The examples we have described suggest that colleges can make substantial progress in generating more equitable student outcomes by designing improved placement systems and by supporting them through other equity-minded reforms that address common barriers faced by underserved student groups. While the specific approach taken by individual institutions may vary, we offer the following considerations for colleges embarking on this work:

- **Adopting an asset-based orientation to student performance can help accelerate student progress by recognizing and leveraging the experiences and skills students bring with them to college.** Placement reform provides an opportunity to increase success in college-level coursework among underserved students who would otherwise have more limited access to college-level courses. Affirming students' identities and building on their life experiences to support academic progress helps center equity in placement reform and related practices. This requires an intentional cultural shift toward inclusivity and asset-based thinking among faculty and staff. This cultural shift can be supported by professional development programs that encourage institutional actors to examine their current assessment and teaching practices and that provide the tools and resources necessary to change them.
- **Complementary placement practices can be used for incoming students who do not have access to high school GPA or other records that are often required under reformed placement systems.** Reformed approaches, like MMA, often focus on high school GPA or other high-school-based criteria. While more predictive of college readiness than traditional placement test scores, alternative placement criteria such as high school transcript data may be unavailable for some students, especially older and immigrant students. Instead of defaulting back to placement test scores for such students, colleges can develop complementary practices for them, such as using measures that consider nonacademic skills and experiences that students may have acquired before coming to college.

- **Introducing multidimensional support programs focused on the needs of specific student groups can reduce disparities not resolved through placement reform alone.** When implemented in isolation of other innovations, placement reform may not influence the classroom experience. Evaluations of recent comprehensive reform models demonstrate a promising avenue for positive change and reveal an opportunity to further advance equity. Multidimensional supports tailored to the needs of particular student groups can serve to affirm diverse students' identities and cultures while supporting academic development and momentum. And research on comprehensive programs such as ASAP shows that an array of supports provided to students can make a big difference in their outcomes.

The equity-focused practices discussed in this brief are not particularly widespread at colleges, in part because they require significant effort to establish. In order to create an environment where such innovations can begin to take a stronger hold, more research is needed to better understand both impacts on student outcomes as well as effective strategies for implementation. Nonetheless, the fact that these innovations have been undertaken by some colleges illustrates that there are opportunities for enhancing equity through the reform of placement and related practices.

Notes

1. Chen (2016); Stewart et al. (2015).
2. Scott-Clayton (2012).
3. Soares (2012); Bowen et al. (2009).
4. Scott-Clayton & Rodriguez (2015).
5. Belfield & Crosta (2012); Scott-Clayton (2012); Scott-Clayton et al. (2014).
6. Bailey et al. (2010).
7. Barnett et al. (2018); Cullinan et al. (2019); Barnett et al. (2020).
8. Barnett et al. (2020).
9. Ganga et al. (2018).
10. Logue et al. (2016); Miller et al. (2021); Logue et al. (2019); Mejia et al. (2020).
11. Boudreau (2020).
12. Mindset refers to the set of beliefs one has about ability, intelligence, and learning. A growth mindset holds that intelligence is not a static, deep-seated trait but rather is mutable and can be developed with practice and the right motivation; it directs focus on the desire for learning, on empowering students to embrace challenges, and on persistence in the face of setbacks (Dweck, 2006). As compared to a fixed mindset that may be associated with a deficit-based orientation and traditional placement testing, a growth mindset emphasizes how students can develop academic skills with appropriate support.
13. Cuyamaca College (n.d.).
14. Mejia et al. (2019).
15. Cullinan & Biedzo (2021).
16. ACT (2013); Cassady (2001); Shaw & Mattern (2009); Sticca et al. (2017).

17. In 2007, CCBC introduced a corequisite developmental English course model through the Accelerated Learning Program, in which participants—upper-level developmental writing students—enroll directly in English 101 while taking a companion course that provides extra academic support.
18. Jenkins et al. (2018).
19. Weiss & Bloom (2022).
20. Scrivener et al. (2015).
21. Bertrand et al. (2019).
22. In the CUNY ASAP evaluation (Scrivener et al., 2015), no statistically significant differences between subgroups were observed. While the program was effective for all groups, the data does not suggest that ASAP was more effective for any particular subgroup as compared to another. Due to small sample size, several subgroups were not analyzed as part of the study.
23. AB 705, which became law in October 2017, requires that a community college district or college in the California Community Colleges (CCC) system maximize the probability that a student will enter and complete transfer-level coursework in English and math within a one-year timeframe and use, in the placement of students into English and math courses, one or more of the following criteria: high school coursework, particular high school grades, and high school GPA. AB 705 also authorizes the CCC Board of Governors to establish regulations governing the use of measures, instruments, and placement models to ensure the goal of maximizing the probability that a student will enter and complete transfer-level coursework in English and math (CCC, n.d.).
24. Credit ESL courses provide instruction in reading, writing, and oral language development, operating like developmental education courses in that they count as credit for financial aid purposes but do not count as credit toward students' certificates or degrees.

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