PATHWAYS TO POSTSECONDARY SUCCESS

Maximizing Opportunities for Youth in Poverty

PATHWAYS to Postsecondary Success is a five-year project funded by the Bill & Melinda Gates Foundation and affiliated with UC/ACCORD. It consists of a series of mixed-methods studies of the educational pathways of California's lower-income youth. Through a series of research briefs and reports, the project aims to advance research on poverty, produce useful tools that improve educational practice, and inform the U.S. policy agenda on the relationship between poverty and education.

Latina/o Community College Students: Understanding the Barriers of Developmental Education highlights the trajectories of Latina/o students who test into developmental coursework and brings attention to the stumbling blocks created by these courses. Based on the findings, the authors offer suggestions for improving Latinas/os' developmental education completion rates.

POLICY REPORT

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Latina/o Community College Students: Understanding the Barriers of Developmental Education

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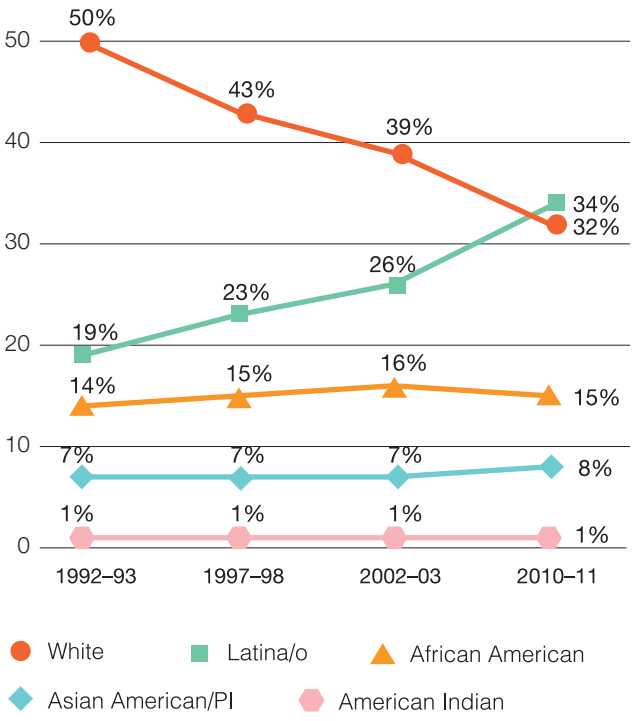
Latina/o students are the largest and fastest growing group in the K–12 sector of U.S. education (Lee et al., 2011; U.S. Census Bureau, 2012).[1] Nationally, there are over 12 million Latina/o students in the K–12 population —23% of the overall total (U.S. Census Bureau, 2011a). In California, 53% of all K–12 students are Latina/o (California Department of Education, 2013). This rapid increase in the Latina/o student population impels us to examine their postsecondary educational pathways. Notably, 80% of California Latina/o postsecondary students enroll in community colleges (Moore & Shulock, 2010).[2] As **Figure 1** shows, Latina/o enrollment in the California Community College (CCC) system is at an incline, while white student enrollment is declining. In 2010, Latinas/os surpassed the white student population as the largest group in the CCC system. These figures make clear that community colleges represent an increasingly vital postsecondary entry point for Latina/o students.

Relatively few Latina/o community college students persist to transfer, obtain a certificate, or complete a degree. The CCC system is designed to provide basic skills education, life-long learning opportunities, Career and Technical Education (CTE), and the opportunity to transfer to four-year colleges. On average, out of 100 Latinas/os in California who enroll in a CCC, four will complete a CTE degree and 14 will transfer to a California State University (CSU) and/or a University of California (UC) campus (**Figure 2**).[3] Therefore, large numbers of students leave school without a certificate or degree. Thus, in spite of increasing enrollment, the community college system also represents the point in the educational pipeline where we lose the greatest number of Latina/o students (see Moore & Shulock, 2010; Ornelas & Solórzano, 2004; Rivas, Perez, Alvarez, & Solórzano, 2007; Solórzano, Villalpando, & Oseguera, 2005).

Figure 1

California Community College Enrollment by Race (1992–2011)

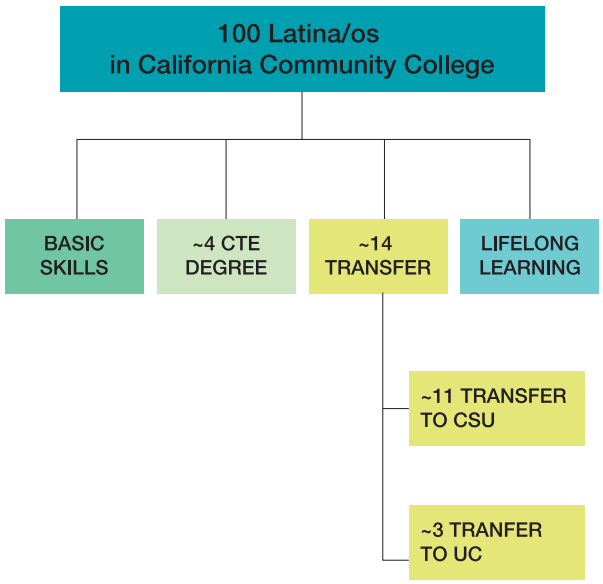


Source: California Community Colleges Chancellor's Office, 2012

Note: Missing percentages represent "other" racial/ethnic categories.

Figure 2

The Latina/o California Community College Pipeline (2010)



Source: Moore & Shulock, 2010

Developmental coursework is designed to support students who are academically underprepared. After submitting a community college admissions application, CCC students take a standardized multiple-choice placement test to measure academic competencies in math, English writing, and English reading.[4] Test scores determine whether they can enroll in college-level courses; those who test below transfer-level math or English must enroll in developmental courses to increase their skill-sets.[5] Once students complete the required preparation course(s) they become eligible to enroll in college- and/or transfer-level "gatekeeper" coursework (Grubb et al., 2011a). In the CCC system, 85% of all students assess below transfer-level math and 72% test below transfer-level English (California Community Colleges Chancellor's Office, 2012).

If developmental courses function as intended, students progress through them and move on to coursework that advances them toward certificates, associate's degrees, or transfer to four-year colleges or universities. It is not clear, however, that Latina/o students experience developmental education in this way (Solórzano, 2012). Therefore, the purpose of this brief is to:

1. Describe the known limitations of developmental education.
2. Highlight the trajectories of Latinas/os who enroll in these course sequences.
3. Provide recommendations to improve the completion rates of Latinas/os in developmental education.

Developmental education assessment procedures and coursework can create obstacles on students' PSE pathways.

Placement assessments are limited measures of student ability. Regrettably, the majority of students take placement assessments without first receiving information regarding the implications the results will have on their educational trajectories (Grubb, 2013; Venezia, Bracco, & Nodine, 2010). Consequently, students may not adequately prepare for these highly significant exams. Moreover, placement tests are weak predictors of student performance in transfer-level courses (Burdman, 2012). In fact, high school courses and multiple other measures have been shown to better predict success in college (Geiser, 2003; Geiser & Santelices, 2007; Ngo, Kwon, Melguizo, Prather, & Bos, 2013).

Many students who enroll in basic skills courses do not progress to college-level coursework. Developmental education is envisioned as a set of systemic supplementary courses that aid student acquisition of college-level English and math skills. In theory this is important and worthwhile preparation. In practice, however, students testing into low levels of developmental education face numerous challenges (Burdman, 2012). For example, studies find that the majority of students who begin developmental education course sequences do not complete them (Bailey, 2009; Bailey, Jeong, & Cho, 2010). Furthermore, students who do complete developmental courses may not be provided the supports they need to later enroll in or pass the related transfer-level courses (Burdman, 2012).

Developmental coursework creates extra burdens for students who must enroll. For students who persist, the introduction of extra courses for transfer creates additional transition and exit points in their pathways, greatly diminishing their likelihood of completing transfer-level math and English (Grubb et al., 2011b; Hern, 2012; Solórzano, 2012). Students typically do not receive graduation or transfer credits for developmental courses, which slows their time to certificate, degree, or transfer. This can cut into their financial aid packages, creating an additional financial burden (Burdman, 2012). Given the increasing costs of tuition,[6] dwindling availability of financial aid, and limited course offerings, these considerations should not be taken lightly.

Community College Coursework

Community college students have a variety of courses available to them, some of which are required of all students in particular programs, others of which are mandated based on placement testing results.

College-level courses allow students to earn community college credit but the credits do not transfer to four-year institutions.

Transfer-level courses allow students to earn college credits that can be used in preparation to transfer to four-year colleges.

Developmental education is also sometimes called "remedial education" or "basic skills." Students are required to enroll in these courses if they need preparation in order to pass college-level coursework that is required for their certificate or degree programs. These courses can cover a range of subjects, but in this brief we focus on two basic skills subjects: math and English.

How do Latina/o students fare during and after developmental course sequences?

To further explore how the shortcomings in developmental education assessment and implementation affect California's Latina/o community college students, we examined their trajectories during and after their math and English developmental course sequences.[7] The results demonstrate that students' initial assessments can put them on a path that greatly affects whether they successfully persist to degree or transfer.

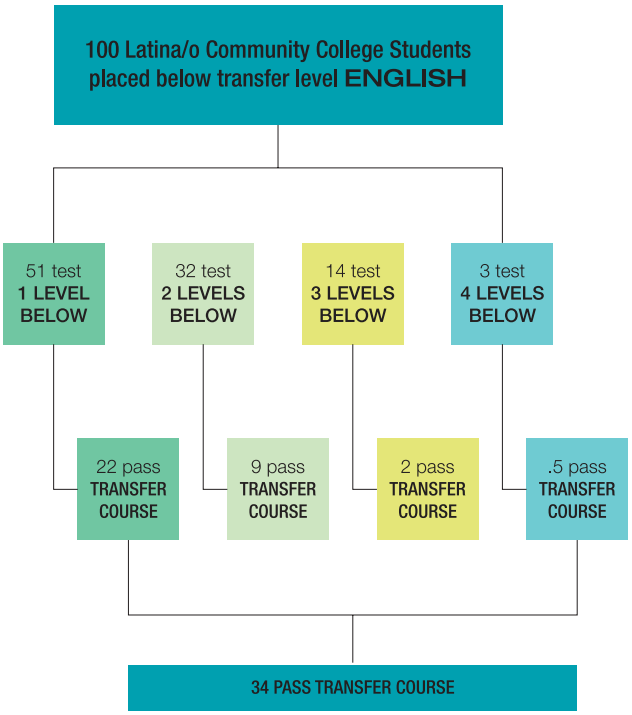
Methodology: Tracking Latina/o Students Through CCC Developmental Education

The educational pipelines in this brief are drawn from the Basic Skills Progress Cohort Tracking Tool data provided by the California Community Colleges Chancellor's Office. This data set follows the developmental course progress of students at all 112 California Community Colleges. The data capture student placement, course attempts, and course success numbers. Customized searches allow users to filter data by demographics and specific financial aid characteristics.

In this policy brief, we focus on the progress of Latina/o students in developmental math and English over a three-year period (fall 2009 to spring 2012). We focus specifically on the number of Latina/o students who assessed into each level of developmental education and the number of students who later successfully passed transfer-level courses in English and math.

Figure 3

California Latina/o Developmental English Education Pipeline



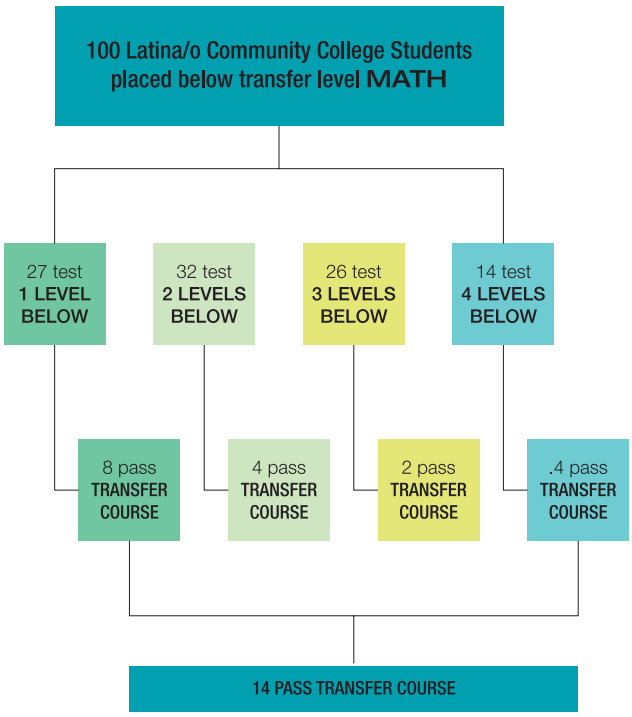
N = 39,902

Source: California Community Colleges Chancellor's Office, Basic Skills Progress Tracker Data, Fall 2009–Spring 2012

Latinas/os' success in developmental English coursework is related to initial placement level.[8] When a Latina/o student begins a CCC trajectory with developmental education courses, the lower she or he is placed below transfer-level English courses, the lower the likelihood of success in the related transfer-level coursework.[9] **Figure 3** illustrates that in California, out of 100 Latina/o students who assess into developmental English, only 34 will pass a transfer-level course in a three-year period.[10] If you examine the pathway of the three students who assess four levels below transfer-level English, only 17% (.5 students) will pass a transfer course. On the other end of the spectrum, 22 of the 51 students (or 43%) who assess one level below will complete a transfer English course within three years of enrolling in a community college. In other words, students who are placed at Level 1 are 2.5 times more likely than their Level 4 counterparts to pass a transfer-level English course.

While the vast majority of Latina/o students assess into developmental English at one and two levels below, the data in Figure 3 indicate that students at all assessment levels are having trouble completing college-level English within three years of enrollment. It is evident that starting at a lower assessment level is an especially serious impediment to timely progress.

Figure 4
California Latina/o Developmental Math Education Pipeline



N = 53,485

Source: California Community Colleges Chancellor's Office, Basic Skills Progress Tracker Data, Fall 2009–Spring 2012

Latina/o students have even greater difficulty advancing through developmental math course sequences, and their success is again related to initial placement. Out of 100 Latina/o students whose test scores place them in developmental math, only 14 will successfully complete a transfer-level course in three years (**Figure 4**). Commencing with the longest pathway, 14 students will assess four levels below transfer-level math, but less than one of those students (only 3% of the students who place at this level) will complete the transfer course in a three-year period. Examining the shortest pathway reveals that of the 27 students who test one level below, eight (or 30%) will pass the transferrable math course. Thus, students who assess into one level below transfer math are 10 times more likely to pass a transfer-level course then are students who assess four levels below. This again underscores the importance of assessment and math developmental education for Latina/o students' postsecondary success.

Conclusions and Recommendations

These ominous statistics emphasize the significant impact that the current state of developmental education has on Latina/o students' opportunities to complete transfer-level coursework. In both English and math, students have better odds of passing transfer-level courses when they begin closer to that goal. Unfortunately, these data point to a major breakdown in the developmental math and English sequences for Latina/o students. Thus, while the concept of developmental education has value, CCCCO data suggest that Latina/o students are not served well by its current implementation.

After an extensive search, we found there is a dearth of literature addressing possible effects on Latinas/os' developmental education outcomes.[11] More data are needed on the matter, especially related to the impact of various assessments, course sequencings, pedagogy, and student support services. Institutions of higher education must examine critically the process and efficiency of developmental education sequences. Failing to do so supports the continued inequality of student success in higher education.

In the meantime, given the urgent need to address the shortfalls of developmental education for Latinas/os, we make the following short and long term recommendations:

- **Institutionalize measures other than assessment tests to place students in English and math courses.** Although community colleges utilize high school grade point averages and transcripts on a case-by-case basis, this option needs to be offered to all incoming community college students. This will allow for more accurate placement and ensure that all students are placed at the highest levels possible in developmental course sequences.

- **Increase student awareness of the community college placement process and its significance.** Test-takers can be primed beforehand, perhaps through mandatory workshops that prepare them before they sign up for assessments.[12] If students are made aware of the effects that test results can have on their educational trajectories, and if they

are given adequate support to develop key skills that allow them to do well on the tests, they may achieve higher scores and be placed at higher levels of developmental coursework.

- **Offer professional development opportunities to high school teachers, counselors, and administrators to support them in preparing high school students for community college placement assessments and coursework.** The ultimate goal of placement assessment and developmental education is to ensure that students have strong math and English skills. If K–12 educators have the tools and resources they need to provide students with these skills, students will do better on placement tests and in their coursework overall, ultimately giving them a greater chance at postsecondary success.

- **Reduce the length of developmental course sequences.** Extended course sequences increase the number of exit points in students' educational pathways, thereby increasing the chances that they will stop out or be pushed out altogether. If they are offered accelerated courses that target specific skill-sets, they may be more likely and able to remain enrolled and persist to transfer, certificate, or degree.

- **Improve community college developmental education classroom instruction.** Students may not be receiving the support they require to complete developmental education sequences and the related transfer-level courses. Administrators and instructors should reconsider pedagogical strategies, increase classroom support, and reduce class sizes with the goal of making instruction more effective.

The available data suggest that Latinas/os as a whole are struggling to move forward in developmental education courses. Nevertheless, leakages of the magnitude described here point to a large-scale failure to effectively serve Latina/o community college students. Deep-rooted flaws within the developmental education system must be addressed to ensure broader success for this growing and vital segment of California's population.

Notes

1 Currently, Latinas/os represent 17% of the overall United States population (U.S. Census Bureau, 2011b). This percentage is expected to continue increasing since Latinas/os have: 1) the highest U.S. birth rate, at 18.7 births per 1,000 population (Martin et al., 2012); 2) a life expectancy of 81.4 years, the highest in the United States, and 3) large and growing immigration numbers from Latin America (Hoyert & Xu, 2012).

2 Twenty percent of Latina/o college students are enrolled in the other two postsecondary segments—the California State University and University of California systems.

3 Because the proportion of proprietary college students is small compared to the proportion of public community college students, and to highlight our focus on students' experiences in the California Community Colleges system, we have excluded proprietary students from Figure 2. We focus on public institutions because they provide higher education access and opportunity to the largest number of Latina/o students.

4 An expanded explanation of California Math assessment and placement procedures can be found in Melguizo, Prather, & Bos (2013).

5 For more information regarding course requirements for transferring, certificates, and degrees see: Fong, Melguizo, Prather, & Bos (2013).

6 Since the 2009–2010 academic year, California Community College tuition has increased from $26 to $46 per unit. This change in fees represents a 77% increase over four academic years. Thus, the tuition cost per year for a full-time student has increased from $624 (2009–2010) to $1,104 (2012–2013) (California Community Colleges Chancellor's Office, 2013).

7 We chose to include students at all levels of developmental education to acknowledge their higher education aspirations.

8 The assessment levels for English are: Level 1—One level below Freshman Composition; Level 2—Two levels below Freshman Composition; Level 3—Three levels below Freshman Composition; Level 4—Four levels below Freshman Composition. The assessment levels for Mathematics are: Level 1—Intermediate Algebra/Geometry; Level 2—Beginning Algebra; Level 3—Pre-Algebra; Level 4—Arithmetic. See: Perry, Bahr, Rosin, & Woodward (2010).

9 Moreover, an unknown number of students who test into developmental education do not enroll in the required coursework (Bailey, 2009).

10 As with all large institutional data sets, CCCCO data do have limitations. Namely, all data are self-reported by each college campus. Additionally, access to disaggregated data regarding student enrollment at the state level is limited. Nevertheless, the statewide data are used by the CCCCO to conduct analyses and publish reports.

11 It is important to note that the problem of student success and basic skills coursework is recognized by the California Community College (CCC) system. In 2006, the CCC launched the Basic Skills Initiative (BSI) that required each of the system's 112 campuses to evaluate student outcomes and implement effective practices to improve student success, with a particular focus on developmental education. Backed by funds from the state legislature, colleges received allocations based on their assessments of their basic skills needs. Funds were also provided for workshops to train faculty and staff across the CCC, to disseminate information regarding effective practices and strategies, and for faculty development at the local campus level (see Illowsky, 2008).

12 We should also be aware that priming works in other ways such as in "stereotype threat." That is, one's academic performance can be negatively affected when one is primed with stereotypes related to one's race. See, for example, Steele (2010).

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