

High School-to-College Transition Courses

A Typology of Design Choices

By Elisabeth A. Barnett

Increasing numbers of high schools are offering senior-year transition curricula in math and English to better prepare graduating students for college. These transition curricula are typically full-year, high school credit-bearing courses taken by students at risk of being placed into developmental (also known as remedial) courses upon enrollment in college. In many cases, students who successfully complete a transition course are officially designated as “college ready” and therefore bypass developmental education altogether.

Educators who are interested in developing transition courses currently have limited information about how others have done so. Based on the experiences of those who have developed or overseen transition courses, this brief provides a typology of transition course design options for those thinking about how to best plan and implement these offerings. Among other topics discussed, the brief considers alternative course goals, curricular and instructional approaches, which kinds of students are targeted for course enrollment, mechanisms for determining college readiness, and teacher supports.



TRANSITION CURRICULA: Courses, learning modules, or online tutorials typically developed jointly by secondary and postsecondary faculty and offered no later than 12th grade to students at risk of being placed into remedial math or English programs in college. This brief mainly discusses transition *courses* of a semester to a year in length.

The information shared here is based on research carried out in the 2017-18 academic year by the Community College Research Center.¹ CCRC researchers conducted interviews with key stakeholders—generally high school and college personnel who have helped to develop transition courses or others who are knowledgeable about them—from 12 randomly selected states, chosen from among states previously identified as having implemented transition curricula statewide or in local settings (see Fay, Barnett, & Chavarrín, 2017). We also sought out resources available online and used relevant literature to create this typology.

Background

Large numbers of students—nearly two thirds of those entering community colleges and 40 percent of those entering four-year institutions—are assigned to one or more remedial courses when they enter college, often delaying their enrollment in

college-level courses. These students typically complete their programs of study at considerably lower rates, as additional semesters are often required to graduate, driving up costs and sapping students' momentum (Bailey, 2009; Jaggars & Stacey, 2014). Transition courses are designed to avoid these obstacles by addressing knowledge and skill deficits while students are still in high school so they can enroll directly in college-level courses upon matriculation. Transition courses generally target high school seniors whose 11th grade assessment results indicate that they are not college-ready. The courses are typically designed collaboratively by high school and college educators to ensure that content taught in 12th grade matches what students will need to know when they begin college. Transition courses are mostly taught by high school teachers in high school classrooms.

CCRC's Prior Research on Transition Courses

When CCRC's *Reshaping the College Transition* research began in 2012, transition courses were just emerging on the national scene, and there was limited information on their design or effectiveness. Our research thus far has been multifaceted. It has included an analysis of policies related to early college readiness assessments and transition courses (Barnett, Fay, Trimble, & Pheatt, 2013); a study of the implementation of transition courses in four states (California, New York, Tennessee, and West Virginia; Barnett, Fay, & Pheatt, 2016); and an evaluation of the impact of transition courses on college outcomes in West Virginia and New York City (Pheatt, Trimble, & Barnett, 2016; Trimble, Pheatt, Papikyan, & Barnett, 2017). Key findings from our work to date include these:²

- Transition curricula are offered in 39 states.
- Increasingly, transition curricula are implemented through state-level initiatives rather than local initiatives. (Forty-four percent of those states in which transition courses are offered have developed courses through statewide initiatives.)
- Transition courses are more likely to be widely implemented when required by legislation or funded by state government.
- Transition courses are offered using face-to-face, online, and blended formats.
- Most states offer transition courses in both math and English.
- There is emerging evidence that some, but not all, transition courses produce better student outcomes in college.
- Transition courses may seek to: (1) help students to place out of developmental education in college, (2) better prepare students to undertake rigorous college coursework, (3) address other aspects of college readiness, and/or (4) address state standards.
- It can be complicated to implement transition courses with multiple goals.
- Students in transition courses are often, but not always, identified as those needing help to become college ready.
- Even when transition courses are available, they may not be offered to all students who could benefit from them.
- Some transition courses have built-in mechanisms that allow students to place out of developmental education in college; these may produce better outcomes.

Design Options

Educators interested in developing transition courses are seeking out information on course design. While there is limited evidence on which options are most likely to lead to positive student outcomes, we have some understanding of the choices states and localities have been making and why. Based largely on experiences in 12 states where transition courses have been implemented, we provide a typology of design options related to course characteristics and the structure and organization of these initiatives.³ We divide the typology into two segments: (1) design options that focus on the purpose, content, and delivery of the courses themselves, and (2) design options that consider how the courses are organized, paid for, and assessed.

Design Options for Transition Courses

Purpose, Content, and Delivery

- Course goals
- Course creation
- Key topics
- Instructional approach
- Student engagement
- College exposure

Structure, Organization, and Context

- High school credit
- College placement
- Student selection
- Teacher selection and support
- Costs and sustainability
- Assessing effectiveness

Design Options: Purpose, Content, and Delivery

Course Goals

OPTIONS	SAMPLE STATES
Placement out of developmental education in college	FL, TN, IL, MA, NH
Acquisition of a range of college-ready knowledge and skills	CA, OK, KY, FL
Other	IL: Teach math needed for careers OK, NH, TN: Provide bridge to dual enrollment NC: Provide advising and career exploration

Among the states we studied, transition course designers emphasize different and sometimes multiple goals. Most commonly, courses are designed to help students avoid remediation in college, either by strengthening their understanding of material previously encountered or by instructing them in the developmental education course content offered by a college.

A lot of these schools are concerned about the number of students that they have that are needing remediation when they go on. That information has been made public in our state. (AL)

However, some courses are designed with a broader approach to college readiness. Their primary purpose is to position students for success in college-level coursework and, in some cases, to improve K-12 instruction.

We don't think of this as strictly a "transition" course. We think of it as a reform to the way language arts or English is taught in high schools. ... In our 12th grade course, we have focused primarily on the standards relating to writing an argument and reading informational text, although we do have some literature. (CA)

Sometimes other goals are also taken into account. In several states, courses serve as an explicit bridge to dual enrollment opportunities. Students who complete their transition courses are eligible to take college (dual enrollment) courses and to accrue college credit while in high school. In other states, the intent is to introduce students to the types of math or writing that may be useful in their future careers or to provide career exploration.

These courses are supposed to be contextualized and about aligning with the career path that the student is on. (IL)

Because we will have those students for eight hours a week, we'll be able to provide a little more advising, more career exploration. (NC)

Course Creation

OPTIONS	SAMPLE STATES
Creation of new course	CA, IL, NY, TN
Development of new course based on established standards, framework, or materials	KY, MA, FL
Adoption of existing course	AL, OK, NH

In most states, transition course designers create original courses or use existing course frameworks to develop courses. Most often, both higher education and K-12 representatives are involved in course development. However, in some states, such as Tennessee, colleges develop the courses on their own, or local districts and teachers develop courses based on established frameworks or standards.

They just had a list of standards from the state saying these are the topics that you should cover, and then they were left on their own to decide what the course should look like. (FL)

In some settings, existing curricula, such as local college developmental education courses, are adopted. Leveraging these existing courses ensures that students are prepared for college-level courses using an approach already fully vetted and approved by the college. In other states and localities, the Literacy Ready and Math Ready courses created by the Southern Regional Education Board (SREB) are adopted or adapted. According to SREB, their courses are currently used in 12 states (J. Squires, SREB, personal communication, May 2018).

The course is closely modeled after our remediation course that would allow a student to get into a freshman-level math course. (NH)

What's going on really right now is that primarily we are promoting the SREB math transitional course. (OK)

In Massachusetts and Kentucky, a different approach has been used. Rather than developing a full course, designers have created or curated a set of resource materials for local schools. In Massachusetts, a set of online, self-paced materials supplements existing senior-year English and math courses to help students prepare for and pass the Accuplacer. In Kentucky, materials were posted online for high schools to use as they designed their own courses.

We met for about six months and actually crafted out course structures. The math gave exemplar problems, units, and that kind of thing, but the English and the reading were a little more developed in terms of text and questions and strategies. ... [We made them] available across the state to any school or district that wanted to use them. (KY)

Key Topics

OPTIONS	SAMPLE STATES
Math and/or English	All 12 states
College readiness skills	CA, NC
Planning for the future	KY, NC

While most transition courses focus on enhancement of math and English knowledge, some incorporate other content. Prior research has found that, of the 39 states with transition courses, all offer courses in math and 36 offer courses in English (Fay et al., 2017). Despite the consistency in subject matter, the specific math and English content that is used varies considerably between states. In English, the variation is largely driven by the extent to which literature is used and emphasized. Additionally, some courses incorporate material drawn from disciplines such as history and science to allow students to practice college-level reading in different content areas. In some states, English courses incorporate material about current events or about other topics students are likely to find relevant to their lives.

Math content generally focuses on algebra, but there is some variation when states use a "math pathways" approach in which college students not majoring in STEM disciplines take introductory math coursework in statistics and quantitative reasoning rather than algebra. Math transition courses in these states tend to focus on material that is aligned with college-level courses and information students need for future majors and careers.

We have what you call the Postsecondary and Workforce Readiness Act. ... And in it there is the legislation that it is supposed to have three paths. So one is STEM, one is quantitative literacy, and the third is technical math. Now some schools will create all three, but most schools will only do one or two. (IL)

A limited number of states explicitly focus on college readiness skills such as note taking, time management, and goal setting skills. Elsewhere, students are given an opportunity to engage in planning for college and careers through transition courses.

What we have is a high school planning and college exploration tool; each school has an account. Through that process we get to the career exploration, goal setting, transcripts, and resume writing. ... We mention the pairing of the two because obviously it's that high school planning and college readiness piece that makes the intervention more relevant to the student. (KY)

Transition math courses satisfy the non-cognitive skills outlined in the Illinois Essential Employability Skills Framework. (IL)

Instructional Approach

OPTIONS	SAMPLE STATES
Primarily direct instruction	CA, IL, KY, OK
Primarily online learning	TN (math)
Blended learning	MA, NC, TN (English)

Transition courses make use of primarily direct instruction, primarily online learning, or a blended approach. There appears to be considerable interest in using online resources in transition course instruction, especially in math. Practitioners view the digital option as a way to allow students to work on areas in which they are underprepared without spending time on skills they have already mastered. Online coursework also allows students to work at their own pace and to learn through modalities such as videos, example problems, and help features (Fay, 2017).

In other settings, education leaders believe that it is important to depend primarily on direct instruction, emphasizing the need for teachers' attention to student needs and the power of classroom interactions.

The cost of some commercial instructional products is a deterrent to technology use, but in some states, alternative sources of online content have been identified. These options include products offered by the nonprofit NROC Project in North Carolina; the publicly available, curated resources used in Massachusetts; and forthcoming online resources under development in Illinois. In Tennessee, the math modules used are a version of Pearson's MyMathLab, while the English course uses varied online resources.

Students are in a lab classroom. Where the class is held depends on technology in the school. Students watch a video or read text or outline writing online. They watch theatrical versions of Macbeth; they read some of the play out loud. The portion of the course that is teacher-led increases as the course goes on. The remedial portion of the class is all online, and they do that earlier in the course. The students appreciate the variety of doing some stuff online and having classroom time. (TN)

Student Engagement

OPTIONS	SAMPLE STATES
Teaching a different way	TN, CA
Contextualization (college- or career-focused material)	AL, NC, OK, KY
Relevant topics	CA

Educators who develop transition courses often discuss the topic of engagement, believing that some students may have not succeeded educationally because they feel disconnected from school and their studies. Varied approaches are used to ameliorate this problem.

The approaches used to engage students typically involve: (1) teaching in a new, innovative way that emphasizes the use of project-based learning, debate, or arts; (2) incorporating college-oriented subject matter such as history or science, or career-focused material such as allied health or business content; and (3) focusing instruction on topics students find relevant to their lives such as criminal justice reform or freedom of expression. Some students find the innovative approaches inspiring. A student in California stated, “It seems that every topic we go through, somehow [the instructor] connects it to life and he tries to give us motivation. It’s never too late to do anything and go out there and do what you always wanted.”⁴ Several states are using contextualization.

We’ll have some of the assignments in there contextualized around the four pathways, whatever they happen to be at the time. Right now it’s allied health, advanced manufacturing, business, and then college transfer. (NC)

College Exposure

OPTIONS	SAMPLE STATES
Students interact with college faculty or staff	TN
Students go to the college campus	NY

Exposure to authentic college experiences can help students to gain comfort with the transition to college (Barnett, 2016). Though uncommon, some transition courses deliberately connect students to college by providing them with opportunities to interact with college faculty or spend time on a college campus.

The motivation for offering these opportunities is that students may become more comfortable with the idea of going to college if they have experienced authentic college environments and people first-hand. In Tennessee, each transition math course has a faculty member of record from a local college who may spend time interacting with students in person or virtually. In New York City’s Lessons in Navigating College Transition (LINCT) program,⁵ students take their end-of-course placement tests on a college campus. While there, they spend time learning about the resources available to college students.

Design Options: Structure, Organization, and Context

High School Credit

OPTIONS	SAMPLE STATES
Senior-year subject area course	NH, CA, FL
Senior-year elective	OK
Content infused into existing courses (with no additional credit)	MA

Transition courses are often designed as standalone courses that offer high school credit and run for one semester or one year. Some courses count toward a student's high school subject area requirements (e.g., four years of math or English), while others are considered electives.

Transition courses' status as a subject area or elective course may depend on local and state regulations. In some cases, subject area courses must teach new content rather than review information from prior courses.

The goal here for the new courses that we've created is that they will count towards the minimum course requirement [in math]. (NH)

In some cases, external organizations such as the National Collegiate Athletic Association (NCAA) influence course designation decisions. High schools may be concerned about offering courses that are not approved by the NCAA as this could limit scholarship opportunities for student athletes as they matriculate into college.⁶

Among the states studied, the outlier is Massachusetts, where transition modules are integrated into existing senior-year math and English courses and do not count for additional high school credit of any kind.

College Placement

OPTIONS	SAMPLE STATES
Earning a particular grade in the course guarantees placement into college-level	IL, OK, AL, TN, NC
Passing an end-of-course test guarantees placement into college-level	MA, NH
Other	CA: students who successfully complete the course move from a "conditionally ready" to a "ready" designation ⁷ FL: no mechanism for changed placement

Most of the states included in the current research have a mechanism in place for providing a college readiness designation to successful students. Students typically earn the designation in one of two ways: either by receiving a certain grade in the transition course or by taking and passing the college's placement test at the end of the course.

In a number of cases, considerable work has been done at the policy level to construct agreements that allow students to be deemed college ready based on satisfactory

completion of a course. Depending on the state, a grade of B or C is considered sufficient, keeping in mind that these agreements may not be recognized by all colleges. In Illinois, for example, universities do not have to accept satisfactory transition course completion as an indication of college readiness (but they are required to publicly state whether or not they will accept this designation).

Our agreement with the community college is that if these students successfully complete these courses with a B or better, that will take them into a credit-bearing course. (AL)

In addition, after students in states such as Tennessee and New Hampshire complete a transition course, they may have the opportunity to take a dual enrollment course in the next semester. This option takes advantage of their newly determined status as college-ready, dual enrollment eligible students.

At the end of the course, students take the Accuplacer again. If they receive above 63, they can take applied math—now called quantitative reasoning—which is a dual enrollment course. (NH)

But even after students are designated as college ready, there is no guarantee that this information will be made available to colleges at the time of admission. In West Virginia, for example, some students took a transition course and met the criteria for college readiness but did not bring the needed evidence to the college; they were then placed into developmental education courses (Barnett et al., 2016).

Finally, it is also worth mentioning that evolving policies in states including California and Florida affect both the demand for transition courses and the way students are placed after completing them. Because of state policy changes, many fewer students in both states are required to take placement tests or developmental education in college than they were a few years ago.

They're not being assessed in high school. And they're also not being assessed when they get to college. So there's no assessment of college readiness at any point. (FL)

Student Selection

OPTIONS	SAMPLE STATES
Students who score below a cut score on a test take the transition course	AL, TN, FL, KY
Students who are deemed close to being college ready take the transition course	CA, AL
Other	CA: teacher recommendations are also considered NC: GPA determined; career interest is also considered IL, TX, and NH: based on math expected to be needed in the future

In most states, students take a standardized test in the 11th grade as part of the state K-12 accountability system. Many of these tests, including the ACT, SAT, PARRC, and Smarter Balanced assessments, incorporate a college readiness benchmark. In some

states, students who test below the benchmark are either required or encouraged to take a transition course, while in others, students take the course if they are close to being college ready, or are “on the bubble.” Sometimes, in states such as California, factors including teacher recommendations are taken into account.

An interesting variation is under development in North Carolina, where students who are assessed as needing a transition course choose one that is aligned with their college and career interests (health, manufacturing, business, or transfer). In states including Illinois, Texas, and New Hampshire, students may select a transition course that takes into account the math they expect to use in the future.

The transition course was, for most schools, marketed to those students who were non-STEM. (NH)

When students with different levels of skills are included in a single transition course, there may be advantages and disadvantages for students and instructors. For example, in these settings, more students may receive help and take steps toward college readiness, but teachers sometimes struggle to address students with a broad range of needs (Barnett et al., 2016).

Care must be taken in messaging around transition courses. In some states, the courses are presented as an extra boost for students expecting to attend college; in others, they are discussed as appropriate for low-level students or for those not currently on track to go to college. Prior research suggests that some students may interpret their placement into a transition course as an indication that they are not “college material,” which could discourage them from pursuing postsecondary education (Trimble et al., 2017).

Teacher Selection and Support

OPTIONS	SAMPLE STATES
Taught by regular high school math or English teachers	TN, CA, FL, AL
Taught by college faculty	AL, OK (a few)
Taught by regular teachers with external support from a college or other entity	AL, TN, NH, NC, OK: support from the college MA: support from a nonprofit organization

In most cases, regular high school math and English teachers teach transition courses. Very occasionally, they are taught by college faculty. In some cases, teachers with specific qualities or skills are sought out to teach the courses.

It’s a course that needs to be taught by someone who understands students who have difficulty with math. (NH)

Because of the self-paced component, we hope that the school will schedule the most motivating teacher. (TN)

Colleges or other organizations may offer teachers considerable aid. Support is offered systematically in Tennessee, Massachusetts, and North Carolina, states that use technology-driven curricula. In these states, a representative of the college or nonprofit

organization assists teachers with the technology, answers questions about the curriculum, and provides data reports showing student progress and problems.

At least once every two weeks and usually more often, we work with the teachers right in the classroom and show them how to operate the software and so forth. (MA)

In most states, initial professional development is offered to those who will be teaching a transition course, and additional enrichment is often available to those who want to further improve their skills or exchange ideas with others.

Costs and Sustainability

OPTIONS	SAMPLE STATES
Ongoing costs paid for with existing income streams	KY, FL
Ongoing costs require external funding	TN, NH, NC, CA
Schools pay for access to the course (partially subsidized)	MA

In most cases, the costs associated with transition course initiatives are related to set-up: developing the courses, providing training for teachers, and purchasing materials. These costs have typically been paid for by states or through grant funds. In some states, the ongoing costs of course implementation are minor—there are few costs above what would be needed to provide any other high school course.

There are, however, two main cases in which there may be substantial ongoing costs. One is when computer-mediated learning is involved. Here, costs for access to the online resources may be significant. Illinois is currently developing its own online learning resources, and a lower-cost online resource option from a nonprofit organization (The NROC Project) is being used in North Carolina.

Substantial ongoing costs may also be incurred when either a nonprofit organization or the postsecondary sector provides technical support to high schools. In Tennessee, the legislature provided considerable funds (\$2.5 million in 2017) to support field coordinators to work with high school teachers to implement all aspects of the transition course program. And in Massachusetts, similar work conducted by the nonprofit JFY NetWorks is paid for through a combination of state, local high school, and donor support.

In a number of states, financial support has recently diminished for transition course programs, which leaves local high schools trying to figure out what to do.

There is no more money to support the senior math course at the moment, but there is interest in keeping it going. It was funded under the Math Science Partnerships and then other funding sources. They are now trying to get state funds. (NH)

Assessing Effectiveness

OPTIONS	SAMPLE STATES
Internal evaluation	IL, AL, MA, TN
External evaluation	TN, CA, FL

In most settings, data are collected to assess the extent to which students improve on measures of college readiness through participation in a transition course. In Alabama, students in some schools' transition courses retake the ACT test as a way of evaluating how much they have learned. In Massachusetts, the Accuplacer is administered at the beginning and end of the year, and progress is calculated. In Massachusetts, these data are also used—along with the costs of credits at local colleges—to calculate potential cost savings to students.

Depending on how much your number has gone up, maybe we eliminated one remedial course, maybe we eliminated two courses, maybe we eliminated three courses. We also total up point gains and then we also we monetize it. So looking at it from the beginning: you were going to have to spend \$3,000 on remedial courses. Now we have eliminated half of those remedial courses, so we've saved you \$1,500. (MA)

In a number of states, external evaluation has been conducted to examine the implementation and effectiveness of the courses. Tennessee, California, New York City, and Florida have all participated in rigorous research studies in recent years (Fong, Finkelstein, Jaeger, Diaz, & Broek, 2015; Pheatt et al., 2016; Trimble et al., 2017).

Opportunities and Emerging Ideas

Based on the interviews we conducted, several transition course design options are gaining increased attention. Interest in them is often related to postsecondary reforms taking place that affect how students are placed into remedial education or college-level courses and how remedial programs at colleges function. Among these trends are a greater reliance on multiple measures assessment and placement systems, a movement toward “guided pathways” and the earlier selection of majors, and a push to improve the alignment of high school and college curricula and programming.

Multiple Measures Placement

Colleges are increasingly moving away from using standardized tests alone to place students and instead moving toward using multiple measures to assess students' readiness for college-level coursework. As of 2016, 57 percent of community colleges in the United States assessed math readiness using multiple measures, and 51 percent assessed English readiness using multiple measures (Rutschow & Mayer, 2018). This shift can influence transition course design in two ways. It can affect (1) how students are placed into transition courses, which is under discussion in North Carolina, and (2) how students who complete transition courses are judged to be college ready, as in Oklahoma.

The second criteria for placement into this remediation course in high school is: If you are in that window of 2.2 to 2.8 GPA, we will also look at your ACT and, if you have it, an SAT score. (NC)

We're encouraging universities and colleges to use multiple measures for course placement, and they're just now really getting into that. So we want them to look at this course as another possible measure. Four or five community colleges agreed to use this course, and if a student got an A or a B, they were placed in a college-level course. (OK)

Guided Pathways

Students are increasingly entering colleges that are engaged in “guided pathways” restructuring. Guided pathways is a comprehensive institutional reform model that aims to reorganize programs of study, support services, and instruction so as to make pathways through college more coherent and better connected to each student’s education and career goals. To bolster exploration of career fields, incoming students enter immediately into “meta-majors”—broad areas of study such as arts and humanities, business, or STEM (Bailey, Jaggars, & Jenkins, 2015). Some transition courses offer students opportunities to explore college major or career options, a trend that may increase as students are encouraged to have selected at least a broad area of interest by the time they finish high school.

Right now it's allied health, advanced manufacturing, business, and then college transfer. ... A student would choose one of those based on what they think their identified career path will be, and there will be some advising and career exploration provided to the student before they make that decision. But they will make that decision fairly quickly in that semester. (NC)

High School–College Alignment

Both transition courses and dual enrollment courses are typically designed in collaboration with colleges or at least with college-readiness standards in mind. They therefore serve as opportunities for high school faculty and staff to gain clearer ideas about college expectations for their students. In many cases, high school faculty have the opportunity to gain substantial exposure to these expectations by teaching transition and dual enrollment courses and by interacting with college instructors who are charged with overseeing their implementation. While there continue to be many barriers to high school–college alignment, these transition course and dual enrollment programs can play a role in reducing them.

In addition, students can benefit when there is a direct link from transition courses to dual enrollment courses. Dual enrollment, which is associated with positive outcomes for students (U.S. Department of Education, 2017), is often available only to the most advanced students. Transition courses can serve as an on-ramp to these courses (see section above on College Placement).

Conclusion

Transition courses can be an important option for policymakers and practitioners seeking to help more students graduate from high school ready for college. However, too little is known about how to design these courses to maximize their impact. Until more research on this topic is available, the experiences of those who have already made progress in developing transition courses can provide some guidance for others. Drawing on the knowledge of interviewees in 12 states, the information shared here on key design choices may be helpful to those engaging in similar efforts to improve students' college readiness and success while in high school.

Endnotes

1. Research briefs on key elements in English and math transition courses (Griffin, 2018; Barnett, Chavarín, & Griffin, forthcoming) are also based on this research.
2. All project publications are found at <https://ccrc.tc.columbia.edu/research-project/early-assessment-curricular-interventions.html>
3. In tables that appear below, we identify states that are undertaking particular design options, based largely on interviews with personnel in those states. But because we did not discuss all the design options cataloged here with representatives in each of the 12 states, the states listed for each option may not be exhaustive; we therefore identify them as “sample states.”
4. Quote taken from student focus group conducted during prior CCRC research (Barnett et al., 2016).
5. When included in earlier studies conducted by CCRC, this program was called At Home in College. See <http://www2.cuny.edu/academics/school-college-partnerships/linct/>
6. See <https://professionals.collegeboard.org/guidance/prepare/athletes/ncaa>
7. In California, 11th graders who score a level 3 performance on the Early Assessment Program test are considered conditionally ready for college-level work. To be considered ready, they must pass an approved course in the 12th grade with a C- or better. See <https://www.cde.ca.gov/ci/gs/hs/eapindex.asp>

References

- Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community Colleges*, 209(145), 11–30.
- Bailey, T. R., Jaggars, S. S., & Jenkins, D. (2015). *Redesigning America's community colleges: A clearer path to student success*. Boston, MA: Harvard University Press.
- Barnett, E. (2016). *Building momentum from high school into college*. Boston, MA: Jobs for the Future.
- Barnett, E. A., Chavarín, O., & Griffin, S. (forthcoming). *Math transition courses in context: Preparing students for college success* (CCRC Research Brief). New York, NY: Columbia University, Teachers College, Community College Research Center.

- Barnett, E. A., Fay, M. P., & Pheatt, L. (2016). *Implementation of high school-to-college transition courses in four states*. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Barnett, E. A., Fay, M. P., Trimble, M. J., & Pheatt, L. (2013). *Reshaping the college transition: Early college readiness assessments and transition curricula in four states*. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Fay, M. (2017). *Computer-mediated developmental math courses in Tennessee high schools and community colleges: An exploration of the consequences of institutional context* (CCRC Working Paper No. 91). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Fay, M. P., Barnett, E. A., & Chavarín, O. (2017). *How states are implementing transition curricula: Results from a national scan* (CCRC Research Brief). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Fong, A. B., Finkelstein, N. D., Jaeger, L. M., Diaz, R., & Broek, M. E. (2015). *Evaluation of the expository reading and writing course: Findings from the investing in innovation development grant*. San Francisco, CA: WestEd.
- Griffin, S. (2018). *English transition courses in context: Preparing students for college success* (CCRC Research Brief). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Jaggars, S. S., & Stacey, G. W. (2014). *What we know about developmental education outcomes*. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Pheatt, L., Trimble, M. J., & Barnett, E. A. (2016). *Improving the transition to college: Estimating the impact of high school transition courses on short-term college outcomes* (CCRC Working Paper No. 86). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Rutschow, E. Z., & Mayer, A. K. (2018). *Early findings from a national survey of developmental education practices* (CAPR Research Brief). New York, NY: Center for the Analysis of Postsecondary Readiness.
- Trimble, M. J., Pheatt, L., Papikyan, T., & Barnett, E. A. (2017). *Can high school transition courses help students avoid college remediation? Estimating the impact of a transition program in a large urban district* (CCRC Working Paper No. 99). New York, NY: Columbia University, Teachers College, Community College Research Center.
- U.S. Department of Education. (2017). *Dual enrollment programs*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_dual_enrollment_022817.pdf

Funding for this research was provided by ECMC Foundation.

Suggested citation: Barnett, E. A. (2018). *High school-to-college transition course: A typology of design choices*. New York, NY: Columbia University, Teachers College, Community College Research Center.

