

Commentary on the Board of Regents Policy: Alignment and Timely Completion of  
Mathematics and English Implementation at Connecticut State Community College in fall 2023  
Executive Summary DRAFT

These comments relate to the draft of the policy regarding alignment and timely completion of math. Although the policy is proposed as related only to the community colleges, by necessity, given the close coordination between the colleges and the universities, especially given efforts since 2012 to design, approve, and provide seamless transfer opportunities through the TAP Transfer Pathways (and other venues), the colleges and universities cannot be separated, since what occurs at the colleges, will subsequently affect what occurs at the universities. This commentary is divided into several sections to address a number of points.

**Mathematics Pathways** – Aligning Mathematics to Program and Career - The proposal states, “For programs that do not require algebra-based math, algebra is no longer a required prerequisite in order for the college-level mathematics courses to be accepted and applied at four-year schools to which students transfer.”

This is a decision that can only be made with the agreement of the CSUs. Neither has a discussion taken place nor has an agreement been reached; in fact this math model has been rejected by the CSUs in the past. The TAP Transfer Pathways have been worked out cooperatively between the CSUs and the community colleges over a period of five or more years. This change would negate those negotiated agreements and would render the TAP transfer pathways as invalid since the agreed-upon math requirement would no longer be met (as defined in the original framework of the program from 2012).

In addition, the proposal states that “the first mathematics course a community college student will take will be a gateway, college-level, transferable course aligned with the student’s area or program of study, and therefore aligned to the student’s academic and career goals”. The proposal then partitions the various fields of study into six groups, with suggested pathway courses for each one. However, many students who begin their studies at a community college are undecided about their career goals. Having too many different gateway courses will mean that students who change their program of study will have to take multiple gateway courses. It is thus preferable to have a single, or perhaps two, gateway courses. The decision should be made by the faculty at CSCU.

**Placement Based on High School GPA**

The proposal advocates for placing students in classes primarily based solely upon high school GPA, citing the Bahr et al. article:

“Bahr and associates (2019) report that “cumulative high school grade point average (GPA) is the most consistently useful predictor of performance across levels of math and English coursework” (pp. 178-179).”

While Bahr et al. (2019) support using high school GPA for placement, they acknowledge that there is “limited research to date” on the subject, and they recommend using the data in a much more nuanced manner than advocated in the proposal, which on a practical level might be difficult to apply. Among other conclusions, Behr et al., state that an overall higher GPA would be needed to “signal a given level of math competence than is necessary to signal the corresponding level of English competency.” It is also unclear how reliable GPA would be for students who are not recent high school graduates with the authors stating, “More research is needed on the relationship between the length of delay between high school graduation and college enrollment and the extent to which measures of high school achievement can be used to predict performance in math and English coursework.” They further state that if high school GPA is used, a differential model would need to be employed for various college-level math courses and that the information should be used in conjunction with subject-specific skill milestones that come late in the high school career. Therefore, “the most up-to-date transcript information” should be utilized for incoming college students. This leads to the next issue of the suggestion in the proposal that “Students may opt to self-report their high school GPA” because simple reporting of a cumulative number will not allow for the nuanced placement criteria described in the article and self-reporting has not been demonstrated to be reliable in place of transcripts.

In addition, the proposal states that “The research is clear that the use of single high-stakes tests to place students in developmental education is harmful and inequitable”. While we agree that it is unwise to determine a student’s placement through a single high-stakes test, in practice, a student’s placement is determined by a thorough examination of a variety of factors, and students who believe that their placement level is inaccurate are invited to provide evidence that they should be placed in a higher (or lower) level course. Requiring placement to be done through high school GPA is a good example of “throwing out the baby with the bath water”. While there may be issues with the current placement system, there is no reason to completely throw it out instead of fixing it.

### **Self-reporting of high school GPA**

The proposal states that according to Kadlec and Dadgar (2020), “the latest research indicates that students self-reporting of high school course grades and GPAs can be reliably used in place of official high school transcripts.” The Kadlec and Dadgar report, however, is not a peer-reviewed article, but rather a compilation of information with citations that are not clearly linked to the statements that are made. In fact, the most recent article cited by Kadlec and Dadgar on this subject is the Bahr article from 2019 which states “It will be important for future research to investigate the viability of students’ self-reported information about high school achievement in place of information reported directly by high schools.” Further, the Kadlec and Dadgar article is actually produced by an organization called Strong Start to Finish, which self-describes on its website as “a network of like-minded individuals and organizations from the policy, research, and practice spaces who’ve come together for one reason – to help all students, not just the select few, find success in postsecondary education.” This is not a

credible source to utilize in the development of policy that will determine student course placement.

### **Corequisite rather than Prerequisite Delivery of Support**

The proposal advocates for elimination of prerequisites and utilization of a corequisite model with all students to be enrolled directly in college-level English and mathematics with supports to maximize success as needed. In the proposal there are a number of conclusions that have been drawn based upon selectively citing some statements from the Ran and Lin article (2019) and other articles without presenting a complete picture.

Several conclusions from this article, however, indicate that the corequisite model is not supported as a one-size-fits all solution:

“We found no significant impacts of placement into corequisite remediation on enrollment persistence, transfer to a four-year college, or degree completion. This suggests that corequisite reforms, though effective in helping students pass college-level math and English, are not sufficient to improve college completion rates overall.”

Further, more importantly, the success of the corequisite model in the article refers specifically to the group of students who have taken an alternate math model. Therefore, the predicted effects in the proposal of utilizing a corequisite model are not supported based on this article, since the results are due to the alternate math model and not the corequisite model.

“In the current study, we were able to disentangle the effects of these two approaches and found that the positive effects of corequisite reform in Tennessee in math, relative to prerequisite remediation, were largely driven by efforts to guide students not interested in a STEM program to take statistics, math for liberal arts, or other types of math that align with their program requirements. Students placed into corequisite algebra had gateway completion rates similar to those of students taking prerequisite remedial math on the algebra-calculus track.”

Boatman and Long (2018) also do not conclude in favor of unilateral application of a co-requisite model stating that, “Importantly, while most of the literature only examines the effectiveness of developmental courses for students at the margin of needing any remediation, our results suggest that more, rather than less remediation may be beneficial for students with weaker preparation. These results suggest that states and institutions need not treat remediation as a singular policy but instead should consider it as an intervention that might vary in its impact according to student needs.”

They describe a distinct difference between students who are “on the margin of needing one remedial course,” and those who are less prepared by stating, “However, students with lower levels of academic preparedness experienced much smaller negative effects from remediation, and in some cases, remedial courses are estimated to improve later student outcomes,

particularly for students attending 2-year colleges. For example, we estimate that students placed in reading and writing courses two levels below college level are more likely to persist or attain a degree than similar students who were placed one level below college courses. These results suggest that remedial and developmental courses can either help or hinder students differently depending on their level of academic preparedness.”

Therefore, the proposal should not be approved based upon its faulty premises regarding course placement based solely upon GPA, utilization of self-reported GPA, and use of the co-requisite model. This proposal would serve to disenfranchise our least academically-prepared students by denying them the preparation that would help them to succeed. It is suggested that, based upon the literature, a more thoughtful and nuanced approach be proposed that takes into consideration the fact that a one-size-fits-all approach is simplistic and not supported by the literature. Further, the unilateral proposal to not require the algebra prerequisite dictates curriculum, which is a faculty purview, in a top-down manner that violates the Collective Bargaining Agreement and invalidates the TAP transfer agreements.

### **Procedural aspects of development of the proposal and faculty involvement**

The ACME proposal was designed by the ACME working group, a group that inappropriately included administrators and outside consultants, and despite the claim that “over 100 faculty and staff were involved in crafting the recommendations”<sup>2</sup>, almost all of the CSCU faculty in the working group left before the end because their voices were not heard and their opinions were dismissed, and none of the faculty in the group were elected by their peers to represent them.

If the Board and the System Office are serious about developing a proposal that will have “buy-in” from the faculty who will be teaching the developmental courses, and the faculty who will be teaching the courses that rely on the developmental courses for preparation, the Board and the System Office should create a new working group consisting entirely of faculty from the 17 institutions of CSCU, including faculty from the disciplines of English and Mathematics as well as other disciplines, and that such faculty should be selected by the campus governance bodies, to create a new proposal that achieves the goals of improving student success and promoting equity, in a way that respects faculty expertise, and without infringing upon faculty rights.

After all, one of the major goals of the Board, of the CSCU administration, and of its next President, should be to each back the respect and trust of the faculty, which have been steadily eroded in the last several years. One way that this could be accomplished is to present the faculty with a problem that needs to be solved, and trust the faculty to come up with an appropriate solution. This is especially true in the case of a matter that involves curriculum, one of the areas where the role of the faculty is *decision-making* rather than simply advisory.