

CSUCI Block Scheduling Report: Fall 2022 Review and Recommendations

In January 2022, the Vice Provost was charged with implementing block scheduling for a minimum of four (4) courses at CSUCI for the Fall 2022 semester for all incoming first-time, full-time students. Simultaneously, a decision was made to scale up the number of learning and living-learning communities (LC/LLCs) for this student population. CSUCI had already successfully implemented blocks for required Math and English courses, and this next step was to expand on these existing blocks. In conversation with the University Registrar, it was determined that blocks would need to be rolled out within eight weeks from the start of the initiative's launch (see timeline).

A team including the Vice Provost, Enrollment Management, University Registrar, Student Systems, IT Strategy, Academic Advising, the School of Arts & Sciences Interim Associate Dean, and Enterprise Applications came together to begin discussions about the technical requirements for block scheduling. The Provost informed the campus of Cl's plan for Fall 2022, "to pre-populate students for a minimum of four courses each semester for the first two years." The Vice Provost reached out to other CSU campuses that had already implemented block scheduling to learn from their experiences. Bakersfield and Pomona campuses were particularly helpful in offering guidance. Research showed that block scheduling exacerbated equity gaps at CSUB therefore CSUCI decided to institute a guided registration strategy used to build blocks.

The Block Scheduling Technical and Planning team reviewed enrollment projections based on admit rates and CSUCI's historical yield rate by major, the Degree Planner dashboard data, and the dashboard data on trends for Fall 2021 First Time Freshman. The team also reviewed academic road maps developed by academic programs to investigate what courses would need to be included in blocks, given faculty input into the development of those documents. All the materials, feedback, and guidance were put together to create an outline for implementation and roll out of block scheduling via guided registration and the scaling up of student participation in LC/LLCs. The plan was shared with academic program chairs, and the team received robust feedback for consideration.

Based on conversation with the Provost, deans, and program chairs, the Block Scheduling Technical and Planning team was expanded to include three program chairs and renamed the Block Scheduling Implementation Team. The team membership included:

Jessica Lavariega Monforti, Vice Provost, Chair Mary Adler, Chair of English Sean Anderson, Chair ESRM Geoff Buhl, Chair of Mathematics Hung Dang, AVP Enrollment Management Ana Rosa Duran, Director of Enrollment Technology and Operational Data Colleen Forest, University Registrar Phil Hampton, AD School of Arts & Sciences Monica Rivas, Director of Academic Advising



The Block Scheduling Implementation Team met frequently to develop and implement an incoming FTFT student pre-registration survey to inform the building of the course block, add a mod from another CSU into our PeopleSoft platform to ease enrollment and tracking, incorporate the LC/LLC scale up into guided registration, and integrate road maps and guided registration into new student orientation and academic advising.

As CSUCI approached completion of the Block Scheduling Pilot set up, a Block Scheduling Continuation Workgroup was formed by including all of the Block Scheduling Implementation Team members minus our ITS colleagues, and charged with developing a plan for implementing Block Scheduling with 100% of first-time freshmen for the Spring 2023 and the sophomore year of Fall 2022 first-time, full-time students. While addressing the issues of sustainability and workload, the workgroup was charged with creating a plan that would preserve the following goals of Block Scheduling:

- Continue to use guided registration approach to blocks;
- Set a goal for students to take 15 units per semester;
- Guide students to take courses following their major roadmap and to complete their general education requirements; and
- Develop, scale, and maintain LC/LLCs.

Block Scheduling Successes

A review of Block Scheduling by the workgroup highlighted several gains achieved by the Pilot that have had a positive impact on CSUCI student success:

- Block Scheduling highlighted the importance of the GI 2025 Initiative for the campus community.
- 2. Block Scheduling helped us to identify barriers to student retention, progress, and success.
 - We identified a disconnect between the road maps and scheduling logistics;
 - We are rethinking the way we implement learning communities and living-learning communities.
 - We are examining additional barriers within General Education.
- 3. Block Scheduling created an opportunity for examining how to grow a culture of planning for student needs among Enrollment Management, Associate Deans, General Education, and Department Chairs.
 - We now better understand the need for an established process for attempting to project course needs and to meet those needs proactively instead of reactively.
 - We realized the importance of revisiting the Roadmaps and aligning scheduling to the roadmaps.
- 4. Block scheduling highlighted the importance of implementing the new digital degree planner for Department Chair planning.



- 5. The block scheduling process helped us to address ways to factor in students' choices for courses. Typically, Advisors create schedules for the students that fulfill general education and major requirements and that makes sense from a scheduling perspective. However, the schedules are not based on the interests of our students; they limit student choices and ultimately limit their overall university experience. Introducing guided registration into block scheduling addresses this concern directly.
- 6. Pairing the block scheduling process with an advance survey related to Directed Self Placement (DSP) helped to maintain the culture of DSP for composition courses within the first year experience.

Reflecting on these gains, and the charge to expand Block Scheduling while maintaining the key goals of the program, the workgroup evaluated the resources that have been utilized during the Pilot and what would be needed going forward.

Resources—Past, Present, and Future

Planning and implementing block scheduling for Fall 2022 required a massive commitment of the Registrar's Office, Student Systems, Academic Advising and New Student Orientation, the Director of Learning Communities, and Department Chairs. The block scheduling implementation group relied heavily on the Registrar and Director of Enrollment Technology, taking time away from their core functions. They were tasked with the following:

- Create block tables in alignment with EOs, CO guidelines, and CI priorities;
- Work with chairs to determine/interpret road map intentions;
- Negotiate with chairs to build capacity in high-demand classes to meet student demand for blocks; and
- Enroll students in blocks, with over 300 students also enrolling in learning communities.

The Registrar and ET Director spent a majority of their working hours on block scheduling-related tasks in Spring and Summer 2022. The tight timeline for implementation and manual/labor intensive nature of the work meant that significantly more tasks and time are required for resolving problems that arise due to schedule changes, student need, and human error. Ultimately, multiple touch points are required to Block Schedule each and every student.

Logistical Concerns

- 1. While enrollment increased in LC/LLCs over last year, not all students were enrolled in LC/LLCs, which made it difficult to create blocks for all students.
- 2. We need to ensure all information about students (e.g., high school transcripts, dual enrollment grades, AP scores) is available at the time of enrollment. If the Advisors were to enroll students earlier in the summer, they would have to revisit each students' schedule, thus doubling their work.
- 3. It is a burden to confirm AP scores and to ensure registration holds are lifted.



- 4. The workload of Department Administrative Coordinators is also increased by Block Scheduling. They must adjust enrollment caps and enter notes into PeopleSoft prior to student registration. Then, they must re-adjust the enrollment caps, followed by ensuring that students on wait lists are enrolled into courses in the Department.
- 5. Inaccurate enrollment projections for the incoming class create a number of logistical problems to resolve throughout the Block Scheduling process. For example, when we don't have enough sections of a course and must add sections later in the cycle than is realistic. Another example is when FTFT students transfer credits in and no longer need to take courses offered in LC/LLCs.
- 6. Throughout this process, unexpected problems regularly arise, requiring time and attention. For example, a required support course for Category 4 students, ENGL 299, was not factored into the guided registration. This wasn't realized until after registration was completed; the Registrar's Office administratively enrolled students in the course prior to the start of the semester, and the ENGL 299 course instructor reached out to the enrolled students to let them know they'd been enrolled and welcome them to the course. Typically, there is some attrition in that class because the course can be dropped without consequence, but students seemed to stay enrolled this time. For Fall 2023, we can build this support course into guided registration for Category 4 students taking either ENGL 102 or 105. Math 97 & 98 could also be dropped by students in category 4. Categorization can change over summer when senior grades come in.

Barriers to Student Success

- 1. Some students do not want or cannot take 15 units each term. If Advisors have built a relationship with their students, they can learn what the barriers are to a 15-unit schedule and can offer guidance. For example, they could work with students to plan for 30 units in the year, utilizing courses in Winter and Summer sessions. They would also be able to help students to navigate the financial aid implications of a year-round schedule.
- 2. The University needs to revise the scheduling process to better support block scheduling. The current deficiencies in the schedule process rear their heads both in block scheduling and in learning community parameters. Revising the schedule process to a modern and less distributed system will benefit many aspects of the university.
 - a. Little accountability or support for chairs to meet resource targets, which are routinely distributed after schedules are constructed and change frequently.
 - b. Existing student course demand data is unreliable, in part because of fluctuations in retention and enrollment numbers.
 - c. Schedule building for the university's class offerings occurs in silos each chair builds their schedule using their own practices, and there is little communication between chairs to coordinate schedule offerings.
 - d. Common belief among chairs that instructional resources are not distributed fairly and/or transparently in some units.



- e. Course scheduling needs to be planned and submitted for the AY, not semester by semester.
- f. The catalog should provide students with more accurate information on frequency of course offerings.

Impact of Enrollment Across Programs

- 1. Preliminary analysis using Fall 2022 Census data demonstrates that, overall, the implementation of guided registration in Fall 2022 is positively correlated with first-time full-time (FTFT) enrollment growth. 602 FTFT students enrolled in Fall 2022, an increase of 11.5% over the 540 FTFT students enrolled in Fall 2021. Similarly full-time equivalent student (FTES) enrollment increased by 8.1% over this same period, from 529.2 to 572.1 FTES. The growth in FTFT enrollment is notable given that overall undergraduate enrollment declined by 11.9% in terms of headcount and 13.6% in terms of FTES. In Fall 2022, 83.7% of new freshmen were enrolled full-time, an increase of 4.3 points from Fall 2021. FTFT students represented 11.0% of the undergraduate student population in Fall 2022, compared to just 8.7% of the undergraduate population in Fall 2021. The impact on student groups that have been historically underrepresented in higher education was even larger. For example, the number of students from historically underrepresented race and ethnic groups (HUGs)¹ enrolled as FTFT increased by 28.1%. For Black/African American students this growth in FTFT enrollment was 56.3% and was 30.9% for Latinx students. The enrollment of FTFT Pell eligible students grew by 31.8%, while FTFT first generation² students' enrollment grew by 18.3%.
- 2. Overall, undergraduate courses (i.e. course numbers below 500) experienced a decline in both headcount (11.7%) and FTES (13.5%) enrollment between Fall 2021 and Fall 2022. FTFT and new freshmen enrollment actually increased in undergraduate level courses during this time period, however, with an 11.5% growth in headcount and 8.11% growth in FTES among FTFT. When disaggregated by course subject, however, it's clear that some academic programs experienced growth in their course enrollments while others experienced a decline between Fall 2021 and Fall 2022. Undergraduate courses offered in Art, Chicano/a Studies, Communication, Computer Science, Environmental Science and Resource Management, History, Math, Performing Arts, Performing Arts Music, Philosophy, and Political Science all experienced a decline greater than 10% in enrolling new freshmen students in Fall 2022.³ In many cases, the overall decline in course enrollments was actually driven by changes in non-new freshmen enrollment patterns. For example, although the FTES among new freshmen in Communication undergraduate courses declined by 19.8%, it declined by 25.5% among transfers and continuing students, with transfer and continuing students having a bigger impact in

¹ Historically underrepresented groups (HUGs), includes Black/African American, Hispanic/Latino, and Native American/Alaska Native students.

² First generation college students are students for whom neither parent has a four-year degree.

³ Analysis was limited to course subjects that enrolled a minimum of 10 new freshmen students.



overall headcount as well (i.e. a decrease of 39 new freshmen compared to 145 transfers and continuing students). In fact, many undergraduate course subjects experienced an increase in new freshmen enrollment, but a decrease in transfer and continuing student enrollment. For example, new freshmen FTES in Economics undergraduate courses increased by 32.5%, but declined by 42.1% among transfers and continuing students. Changes in course enrollment patterns are complicated by a number of confounding factors, including the increase of LC/LLCs, the growth in Area F enrollment, et cetera. A full analysis of the impact of guided registration on course enrollments will be completed at the end of AY 2022-23 so that Spring 2023 enrollment/retention patterns, course outcomes (e.g. grades, GPA, DFWI rates), and related equity gaps can be explored in more detail.

- 3. 31.2% of FTFT made adjustments to their class schedules after orientation. Preliminary analysis indicates that most of these changes involved changes between class sections and/or courses within their major roadmap rather than selecting a class that was not recommended during guided registration and by their major roadmap. Comparatively, 36.7% of non-FTFT students made changes to their schedules during this same time period. Among programs with at least 10 FTFT in Fall 2022, students majoring in Computer Science, Health Science, Biology, Nursing, Psychology, Business, and undeclared were the most likely to make changes to their class schedules after orientation. Undeclared students were the most likely to make changes to their schedules after orientation, with 54.5% making at least one change after orientation. Among the undeclared students who made changes to their schedules, however, just 37.1% moved out of the courses suggested at guided registration based on their responses to the pre-registration survey and the major area they indicated leaning toward. Interestingly, programs with the most FTFT majors experienced the highest rates of deviations from guided registration/roadmaps, while programs with fewer FTFT majors experienced little to no changes after orientation, including Art, Early Childhood Studies, Environmental Science and Resource Management, Liberal Studies, Mechatronics, Performing Arts, and Sociology.
- 4. Although FTFT enrollment (headcount and FTES) increased between Fall 2021 and Fall 2022, the mean unit load for FTFT students decreased slightly from 14.9 to 14.5 units, a decline of 2.7%. This decrease in mean unit load is larger than the decrease for the overall undergraduate population (1.0%) and new transfers (1.5%). It should be noted, however, that new and returning FTFT are the only undergraduate students to enroll in an average of 14+ units in both the 2021 and 2022 Fall semesters. Among FTFT, HUGs, Pell eligible, and first generation students experienced a larger decline in mean unit load, with the decrease ranging from 2.7-3.4%. Despite overall growth in FTFT headcount, there was a decline of 6.1% of FTFT students taking 15 or more units from Fall 2021 to Fall 2022, while FTFT students taking 12-14 units grew by 97.0%. In other words, FTFT students were less likely to take 15 or more units in Fall 2022 than they were in Fall 2021, with underrepresented students also being less likely to take 15 or more units than



their non-underrepresented peers. In fact, preliminary analysis indicates that less than half (42.8%) of FTFT enrolled in a fifth course (and stayed enrolled through Census) after being guided into their first four classes during orientation. Students who participated in the Summer 2022 Student Success Academy were slightly more likely to enroll in 15 or more units than their peers who did not participate in the academy. Student Success Academy students enrolled in 14.6 units on average, with 50% enrolling in 15 or more units in Fall 2022, compared to 14.5 units on average with 42% enrolling in 15 or more units for students who did not participate in the academy.

Considerations

In considering continuation and expansion of Block Scheduling, the workgroup identified a few alternatives to the current model that we initially thought would reduce the workload involved. And we identified additional barriers to the expansion of the program.

Spring 2023 Block Scheduling

The recommendation from this group for spring was to focus on guided registration in A2, B4, support and LC/LLC continuation courses. The Registrar's Office developed a document entitled, "Completing First Year Enrollment Requirements," that included content for both a brief webpage and email notice to students who will have guided registration on their accounts for spring. The following email message was then sent out:

Subject: Required Courses for Spring 2023

Dear Student,

Spring registration is right around the corner! To help you stay on track with first year enrollment requirements, you will be guided into one or more courses during your spring enrollment appointment. Please review our Completing First Year Enrollment Requirements webpage for further details. You will also find video tutorials to assist you with your spring guided registration.

Sincerely,

Registrar's Office

General Education

The current process for constructing and vetting blocks created too many used block options. Chairs and programs should not be choosing General Education courses for their majors if those General Education courses are not major requirements. Students need to have choices in selecting General Education courses outside of General Education requirements that are not included in their major, and giving students such agency increases their engagement. Moreover, the apparent plan to revise roadmaps to align with



block schedules further deemphasizes student choice in General Education by making selections for any students who rely on the roadmaps for their choices.

Fall 2023

Recommendations and actions from the group include the following:

- Guided registration service indicators will be placed on all FTFT student files, and left on the records for as long as possible.
- About 70% of FTFT students will be in LC/LLCs and the structure of LC/LLCs will likely be two per LC; additional structural decisions will be made by the Learning Community Task Force and shared with this group soon.
- Ana Rosa has discovered how to order the service indicators; this means far less service indicators need to be built. But more technical discussions will come later. Further, she shared that Guided Registration recognizes when a class is full and allows the student to register for other courses.
- We need to push students to register for 15 units via guided registration, whether they
 are in LC/LLCs or not. The pre-registration survey will be edited a bit to reflect lessons
 learned.
- Pre-registration survey will ask incoming students to rank their interest in learning community options which will determine the blocks to which they are assigned. Block scheduling and learning community survey information will be combined to streamline communication to incoming first-year students.
- Sophomore student enrollment via guided registration will be limited to two courses, focusing on general education requirement completion.
- Block Scheduling Task Force will determine and provide program chairs with structural information such as guidance on when to schedule first-year courses, cap sizes, how many sections to offer, etc.
- Coordinate more registration and advisement support for first-year students enrolling into their spring semester. While communication was sent with a new webpage & tutorials, first-year students may need more touch points and guidance on enrolling for their second semester.

Review Summary

In summary, the workgroup identified a number of successes directly related to Block Scheduling, along with a number of significant challenges that would need to be addressed to continue and expand the initiative. Note that \$30K was allocated via the Inclusive Excellence Action Plan (IEAP) funding request to expand block scheduling for first-year students. These funds will support technology needs to help automate operations. To overcome remaining challenges, the following resources would need to be secured:

 Additional registrar's office staff are needed to support implementation of our campus-wide approach to meet requirements of GI2025 for block scheduling and



Executive Order 1110 to ensure that the curriculum, student support and placement procedures facilitate student success in mathematics and quantitative reasoning.

- Funds to support a marketing campaign to encourage student participation of Cl's digital degree planner.
- Additional staff in the Office of Academic Programs to support 2- and 4-year academic road maps linked to block scheduling.
- Additional permanent funding to support the scale up of learning and living-learning communities (LC/LLCs), which form the foundation of the block through guided registration.

Recommendations

- 1. Future Guided Registration should be simplified. Less than half of the blocks that were created for Fall 2022 were actually used by students.
- 2. Better integration of learning communities and block scheduling. Ideally, learning communities would be built on the four year road maps and include required courses in the degree as "anchors" as opposed to UNIV 150.
- Use of the Degree Planner should be expanded and used to guide the development of any block schedules for continuing (e.g. Fall 2022 FTF in their sophomore year) students.
- 4. Planning for Fall 2023 should begin immediately to ensure that there is time to develop plans for learning communities and block scheduling of new and continuing FTF. Schedules are due in February and planning needs to be completed by early January.
- 5. The scheduling process needs revision to better support block scheduling.
- 6. Continued assessment and evaluation of student success via block scheduling and guided registration is necessary.

Block Scheduling Continuation Workgroup Members

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