Questions from the Audience at the Align Workshops (both days)

Q: What is “offered” based on since we haven’t submitted schedules for Spring 2021 yet? Are they based on last spring’s schedule?

A: Offered is what is in the Spring 21 schedule now, which is what Alvina rolled forward from Spring 20, plus whatever changes you have made to date. Class schedule information is imported by Ad Astra daily. The information in the offered column will change as you make changes to the schedule going forward.

Q: What are we seeing in the needed column?

A: This is the blended or weighted data, comprised of the forecast demand from the historical analysis (80%) and the forecast demand from Predict (20%).

Q: Are tentative sections included in the “offered” category?

A: No. Ad Astra only sees what is available to students - so courses with a class status of “A”. It will pick up sections with a status of “A” and either a print schedule of “N” or “P”. In this way, the seats offered reflect the seats available to students, even if hidden in the schedule to manage enrollment, as with Metro sections or courses for other specific populations of students.

Q: Will advisor request approvals be reflected in student requirements imported by Predict?

A: We will have to ask about this. Because of the electronic graduation initiative and the implementation of Degree Planner, advisor request will need to be displayed in student records as having met requirements. Since Predict imports the same data, we think advisor request will be reflected in the analysis.

Q: How are undeclared students accounted for?

A: Some universities have meta-majors for undeclared students and those pathways can be used for the analysis. Otherwise, that demand shows up only in the historical analysis rather than Predict – undeclared students, minors and pre-majors are going to be contribute to the trend of enrollment each term and be accounted for in the historical analysis.

Q: How are changing enrollments accounted for – either incoming freshmen or transfer students, or increased or decreased overall enrollments?

A: The analysis includes historical trends in retention rates and graduation rates to simulate students who leave between terms and who graduate, and historical trends in
enrollment of new FTF and transfer students to simulate students who are arriving (this includes a distribution of simulated students to different majors based on past trends in that distribution). If SF State knows that there's going to be a dramatic change in enrollment -- for example, an impacted program will be coming off impaction -- adjustments can be made in the model to account for those differences for a coming term. Otherwise, those sorts of changes will be picked up in the trend information for a future term.

Q: Can this same system be used to pro-actively suggest to STUDENTS which courses they should take next semester?

A. No, that is not the purpose of Align or Monitor. But SF State is implementing Degree Planner, an interactive degree planner which will show students all requirements they have to satisfy (majors, minors, GE, university) term by term. Met requirements will be marked one way, missed requirements another. Students can move things from one semester to another, select the course they intend to take to meet that requirement from a list of options available (if there are options) and then populate their registration cart with those courses. Ad Astra will be importing student data from the degree planner once fully implemented.

Q: How does the need to satisfy a requirement on the path to degree get treated if a student can choose among a number of courses to satisfy that requirement (when assessing demand)? For example, how would demand be divided among four different options in an area of the major?

A: Behind the scene, there are course groups that include all of the courses that can be used to satisfy different requirements -- for example, all lower division GE Area E courses, or all courses students choose from to meet a major breadth area. Historical trends based on student choice between these courses is used to provide a distribution of demand between the options, and that distribution is used to proportionately assign needed seats to each course in the list.

About the use of Predict in the overall analysis

Q: I am looking at the historical and predict data for some of my classes and the predict data is extremely poor. For example, for DS 412 we run it for maybe like 700 students, but the predict demand is only 58. The historical demand is 685 and seats needed is coming in at 560, so the historical data is being weighted 80% and the Predict data is being weighted 20%. Other DS and BUS classes likewise have extremely low predict values that don’t even pass the reality test. Why is Predict even being included now, why not just rely on historical data?

A: There may be some courses, like GE courses, where Predict data may be a reasonable indicator of demand. Because this is the first semester with Predict, the
weight of Predict in forecasting need was set to a fairly low value of 20%. This weight can be changed in the application, but only for all courses, not on a program by program basis. But we will look into reducing the weight of Predict demand at this point in time.

The decision made about how many seats to offer ultimately comes down to programs reviewing this data and deciding what makes sense in light of all of the context you have for your program. In this case, as noted, you may decide that you are not going to pay attention to the Predict demand and instead make a decision based on historical demand.

Q: is it possible to allow users to set the ratio? Could do a what-if analysis that way.

A: You can download the data for your department to excel (excel export arrow). In the spreadsheet, there will be a column with the sections and seats forecast based on the historical analysis, the sections and seats forecast based on the predict analysis, and the blended need (currently 80% historical and 20% predict). You could adjust the weights to calculate a different blended demand for your courses that way.

Suggestion: Predict does seem like a very complicated forecast and if the historical forecast is pretty accurate, then we might just want to go with a simple accurate forecast rather than trying to do something fancy with all this predict and complications, especially if not very accurate. I’m suggesting some sort of validation - take a snapshot of our predictions and then see what actually happens and calculate some forecast performance measures to the accuracies of these forecasts.

Response: A validation study will be done by Ad Astra– this is the first semester using predict and the development team is actively working on improving the outcomes with predict. Given the size and demand of the BSBA program, looking at the roadmaps and how the requirements are being coded needs to be done. Given that data is ingested nightly, there are opportunities to improve during the current cycle.

Q: Can Ad Astra predict excess demand in a class?

A: If the predict demand is greater than historical demand, that could be an indication of excess demand.

Q: Predict is not saying that a particular student needs that particular course… right?

A: Predict identifies students who have a requirement “next up” according to their roadmap. This could be an earlier requirement marked as missed, or a requirement listed in the next 15 units for the student. But Predict can’t guarantee that the student will actually take that class in the next term to meet that requirement. In the case where students have a choice between different courses to meet a requirement, the analysis may model that 20% of the students who need to meet this requirement will take
Course A and 80% will take course B, but it can’t really assign a specific student to a course accurately.

The forthcoming degree planner, if students use it to indicate what they intend to take in the coming term, will provide numbers for specific courses in Predict that are linked to student intent to enroll.

Questions about Scheduling

Q: Can this platform help us figure out when to offer another section, if we decide to open another section, to minimize schedule conflicts so that students will be able to enroll?

A: There is a heat map feature being developed to provide some insight into the best places to offer sections.

Q: It could be helpful to be able to monitor registration at the section level, by instructor or by days and times, to help us create sections at particular days and times or with instructors that we know students will sign up for.

A: In Monitor, the developers are working on pulling in this sort of section level data (schedule, instructor) to that this can be tracked during registration. In Align, when you select a course title, there is a section enrollment display that allows you to review enrollments in all sections for a given term to see how evenly the different sections fill. When you click on the Section tab, you’ll see the schedule and instructor of each section from the previous term (will be there until it changes in the schedule) so you might get some insight on the relationship to fill and schedule or instructor.

Questions about Curriculum:

Q: We made several changes in our curriculum in Fall 2019, adding a required course and making former requirements electives. Will this data be far less useful for the courses that have changed?

A: You will need to use your own knowledge of the changed role of the class in your curriculum for a term or so, until the historical data can catch up. You may need to disregard data from past terms when the course played a different role in the curriculum. As the pathways get updated going forward in the degree planner, that will modify the Predict demand as well. Also, if a course subject or number was changed, that can put a hitch in the analysis. One example of this is for Metro courses being run with an A U subject for the first time in Fall 20. There is no historical demand available for these A U courses in the Spring since they’ve never been offered with the A U subject.

Q: How are cross-listed courses handled?
A: The combined need for all subjects in a cross-list is not analyzed. Instead, each subject in a cross-list is analyzed as an individual course. To see the combined demand across all subjects in a cross-list, remove any filters and search on the title of the course. Each course, with the offered and needed information will be displayed and the department responsible for offering the course in the upcoming term can use that information to get a feel for the combined seats or sections needed for a cross-listed course.