San Mateo County Community College District – A Framework for Measuring Student Success

Background
In the past decade, the colleges of SMCCCD – Canada College, College of San Mateo, and Skyline College, have become increasingly sophisticated in their use of data and evidence to address issues of student success. The colleges have largely evolved independently in their inquiry into these issues, and there is a desire to reach a common definition of "student success" that can be measured in a robust and consistent way. Of course, there are many definitions of student success, which vary widely in their scope and are very dependent on the lens with which one views success.

There exists a growing trend nationally that emphasizes longitudinal measures of student success – often termed "completion" measures – that focus on students' reaching goals such as certificates, degrees, and transfer to 4-year institutions. Common accountability measures such as ARCC in California and IPEDS rates nationally utilize such metrics, and the colleges' performance on such measures is made public. It has been noted by many that such measures may miss longitudinal completion of significant segments of CC students, namely those students who come to the CCs for career advancement or career retraining, take 1 or 2 courses, succeed at very high rates, and get exactly what they need from the CCs. This is most certainly true – and we absolutely should do a better job at determining the end goals of the entire range of our student populations, including those here for career advancement or career retraining. In doing so, we could do a more thorough job of tracking "student success" for this group of students.

However, it is also true that the student segments who are attempting to obtain certificates, AA/AS degrees, and transfer are extremely important groups on our three campuses, and that they are of significant size (estimates range from 40% to 60% of unique students in any given Fall term). As such, this brief outlines an approach to more authentically measuring student success for our cohorts of students attempting to reach these goals.

Methodology

In my role as Senior Research Fellow at the RP Group of California, I have had the opportunity in the last year to work on a major Gates Foundation-funded national initiative focused on improving completion in community colleges called Completion by Design. More information is available at http://www.completionbydesign.org/ , but for the purposes of this brief, the approach to completion data utilized in this project can be very useful to us as a template for defining student success locally in SMCCD. It is based on the work of Davis Jenkins and the team at the Community College Research Center (CCRC) at Columbia University in New York, who collected this data for the 20 colleges in OH, NC, TX, and FL involved in the initiative. Specifically, for all first time in college (FTIC) cohorts at a college, we have looked at the following "positive" 5-year educational outcomes:

1. Certificates of less than one year
2. Certificates of greater than one year
3. AA / AS Degrees without transfer
4. Transfer to a 4-year institution with an AA/AS degree or certificate
5. Certificates, Associates, or Bachelor's Degrees at another institution
6. Transfer to a 4-year institution without an AA/AS degree or certificate
7. Remaining enrolled with 30+ transfer units completed after five years

As a way of visualizing these positive completion outcomes, CCRC utilizes a simple stacked bar chart that does a great job at portraying much of the nuance of these categories. CCRC also segmented the entering FTIC cohort into a number of segments such as starting program level, full-time vs. part-time, developmental education status, etc. Here is an example broken down by starting program level from an anonymous CBD college:

5-Year Highest Educational Outcome by Starting Program Level
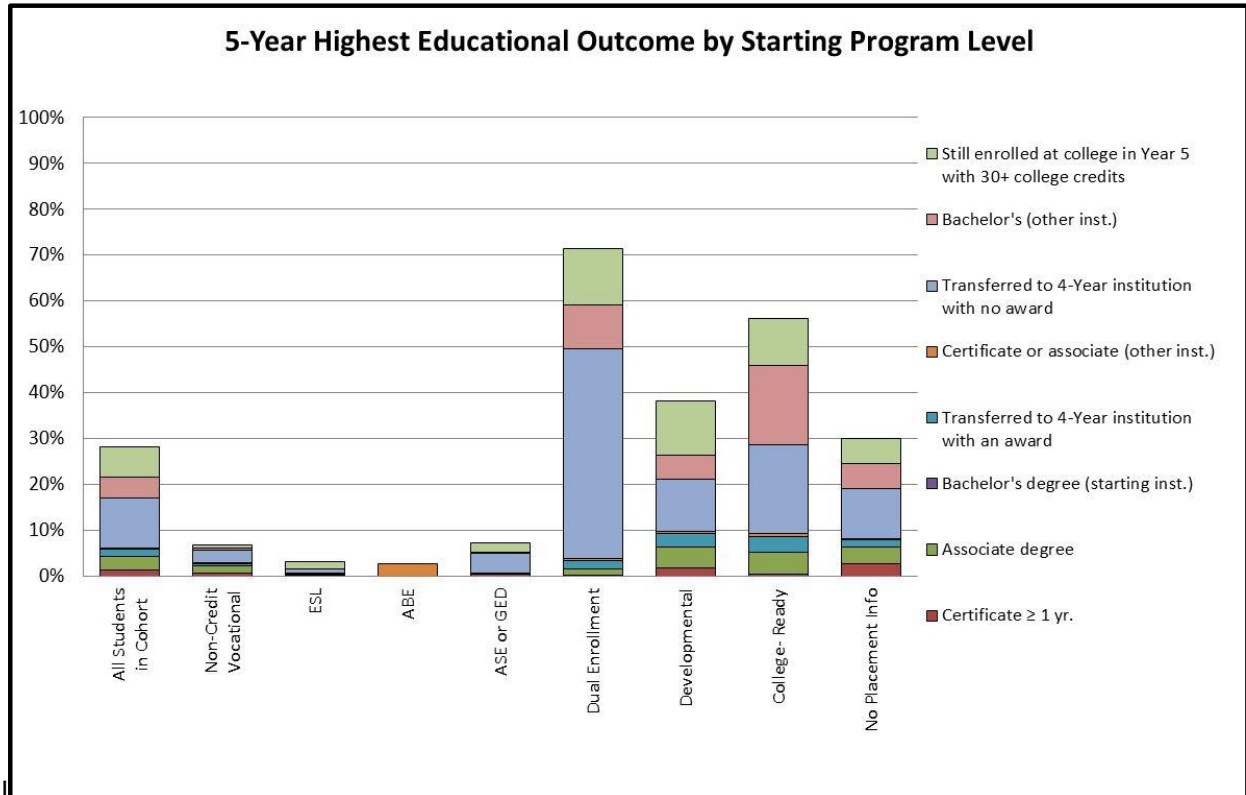
For example, we can see in the first column that overall 29% of the entering FTIC cohort at this college had one of the seven positive outcomes; as such, 71% did not reach one of these positive outcomes. Other highlights include that dual enrollment (we would call them "middle college") students are extremely successful and that the "transfer to a 4-year without an award" group is very large at this college.

I would suggest that we reproduce this analysis as our core measure of student success for first-time in college students at Canada, CSM, and Skyline. Note that outcomes 5 and 6 require the use of National Clearinghouse data, and especially #6 represents a significant group of students both nationally and within California that is often invisible to completion measures. We will need to come to an agreement on which FTIC college students to include in the starting cohort; we could select all FTIC students, or for example only select those who attempt 6+ units or 12+ units to try and account for those students who may not be on the path to these outcomes.

Considerations

Note that this data requires waiting five years to get completion outcomes on a given entering cohort of FTIC students. As such, we should also add to this method of looking at completion a series of "intermediate milestones", which can be measured after one semester, one year, or two years. We can leverage additional work by Leinbach & Jenkins and CCRC in Washington State (see

for more details) to identify such measures. These measures are highly correlated with eventual positive completion outcomes such as those identified above. A short list that we could measure with current datasets includes:

- Successful completion of 15 transferrable units
- Successful completion of 30 transferrable units
- Successful completion of transfer-level Math and English (not applicable for many certificate students)

In addition, Greg Stoup has been investigating key loss points for this cohort, and although still in process, early examples include:

- Unearned transferrable units exceeding 15 units
- Unit load dropping by more than 4 from a student's first Fall semester to the second Fall semester
- Failure to complete college-level English in the first 3 semesters
- Failure to complete college-level Math in the first 4 semesters

We feel that tracking these early indicators to help us intervene with students will be a great opportunity to stem attrition and increase student completion. Greg will follow up with the group to present key findings from this analysis.

Next Steps

- This brief should be vetted for feedback from various groups.
- A decision about who should be included in the FTIC cohort to be tracked needs to be made. My suggestion is to take FTIC students who attempt 6+ units in their first semester.
- We can then utilize the methodology to examine these completion outcomes for the 2005-06 entering cohort (tracking through Spring 2011).
- Additionally, selections of the intermediate milestones that we will track need to be made. I would suggest the completion of 15+ transferrable units and 30+ transferrable units as the key milestones, and also including up to four of Greg's suggestion from his exploratory data analysis.
- We can also check the intermediate milestone attainment for this 2005-06 group, and then look to the Fall 2009 or Fall 2010 cohorts to compare likely progress in more recent years.
- A final step would be to strategize how to identify the career retraining / advancement students that don't fit this completion paradigm, and determine how to measure their success. A likely proxy at this point are course success rates, especially given that these students often take only one or two courses.