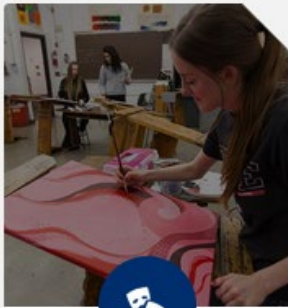
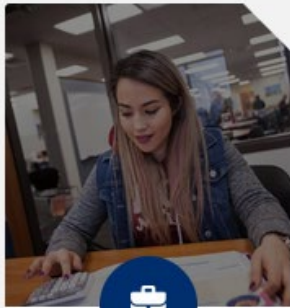


CBC Institutional Progress Fall Update: 2021-22



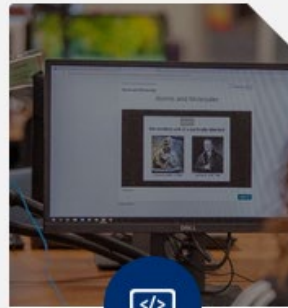
Arts, Humanities & Communications



Business



Career & Technical Education



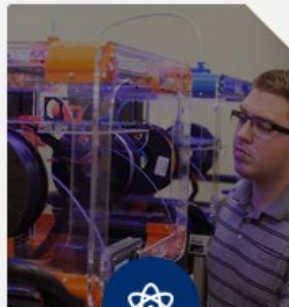
Computer Science



Education



Health Sciences



Math, Science & Engineering



Social & Behavioral Sciences

April 6, 2022

Columbia Basin College
Authored by: Institutional Research

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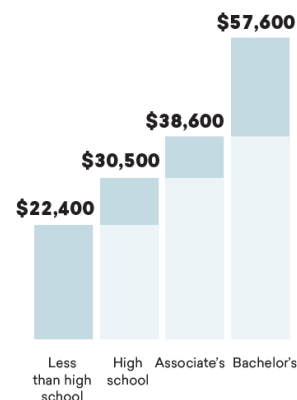
Background

Degree completion has proven to be the primary driver of both student and public value of the community college. This student and public value is based on broad-based, repeated/replicated research over several decades. Additionally, the value of a degree, and its predictors, provide the basis for educational interventions to affect completion – which are embodied in many Guided Pathways interventions.

The Student and Public Value of CBC Degree Completion is High.

In 2016, Economic Modeling LLC (“EMSI”) conducted an independent review of CBC’s ROI for students, the taxpayer, and a net social impact. Their review showed that student investment in CBC was returned fourfold (only measurable benefits), with an annual rate of return of 16.7% and the annual rate of return for taxpayers was 11.4%. Most of this economic value is driven by increased productivity and wages commended by a degree. At the midpoint of their career, Associate’s degree students earned over \$8,000 more annually than their peers with only a high school diploma (Figure 1). With completion as the goal, in October 2018, CBC presented indicators based on new Board Policies (Mission, Vision, and Values) that center upon degree completion and its key predictors (critical basic conditions), and those measures were refined and updated in December 2021 after the first three-year cycle.

HIGHER EARNINGS BY EDUCATION LEVEL AT CAREER MIDPOINT IN WASHINGTON



Washington State Average Earnings Rise with Educational Attainment (EMSI 2016)

The “Steps to Success” as Predictors of Completion: The Importance of Early Indicators¹. While degree completion is the ultimate goal, it is not a particularly timely metric. Three years is a long time to wait for a

¹ Moore, C., Offenstien, J., & Shulock, N. (2009). *Steps to success: Analyzing milestone achievement to improve community college student outcomes*. California State University, Sacramento, Institute for Higher Education Leadership & Policy. See also Washington State Board for Community and Technical Colleges (2007), Student Achievement Initiative (SAI).

final referendum on what has been accomplished three years prior. This puts a premium on finding the best “early predictors” of ultimate student success to use as a guide. While not an exact science, a handful of meaningful leading indicators of degree completion provide a foundation for this report – course success, retention, completion of gateway courses, and timely credit attainment. Importantly, again, these indicators take less time to reliably assess – typically after the close of each academic year.

Not only are these early indicators timely, but they do a very good job in helping us forecast longer term student outcomes.² Over 80% of the variance in three year completion outcomes can be explained by only 13 indicators – many of which are included in this report. We repeat every year across campus that “the first year in a student’s career is pivotal for their long-term success” – establishing a new identity as a college learner, “lighting the fire” of that new journey, and making real progress in credit attainment. In the first year, we can argue that the very first term in a student’s career is the most important part of that year.

Executive Summary

This report will be a bit less lengthy than our usual report. We have only one term behind us in these measures, and a few key metrics are sufficient to get a handle on our **first term performance** and get a sense of where we are likely to land by the end of the year. It also helps give us a jump on any emerging trends or opportunities.

The following are our main takeaways from this year - “Strengths and Opportunities” - and a quick note on our CBC Enrollment patterns over time – after which are quick one-page reviews of key measures.

Mission Fulfillment Results (Overall Strengths and Opportunities)

Table 1 shows “Overall Year to Year Change” in our Fall Leading Indicators and the results of very simple forecasting based on first term results.

Fall Strengths:

- **2021-22 Entry Cohort Math and English.** On the heels of a strong 2020-21 entry cohort, our first-year students who started in Summer or Fall of 2021 have done well in the first term compared to previous years. Early Math and English are seeing tremendous gains even after last year’s jump.
- **Additionally, Credit Attainment and First Year Course Success** have not moved significantly, appearing to solidify last year’s strong performance.

Fall Opportunities:

- **Fall to Fall Retention (down 3.1% overall).** This may not be too surprising given the Fall decrease in enrollment. Still it is the largest of concerns given the strength that the 2020-21 Entry Cohort had shown last year.
- **Three Year Completion (down 1.6% overall for Fall comparisons, down 2.3% in forecast).** We include this measure in “weakness” not because it has shown particularly strong movement, but because some early indicators of the 2019-20 Entry Cohort were modestly strong that might have led us to see this number higher. The higher number still may materialize in incoming graduation apps this year.

² Yanagiura, T. (2020). Should Colleges Invest in Machine Learning? Comparing the Predictive Powers of Early Momentum Metrics and Machine Learning for Community College Credential Completion. CCRC Working Paper No. 118. *Community College Research Center, Teachers College, Columbia University.*

Table 1. Change in Fall Leading Indicators and Year End Forecasts (For Available Indicators)

Fall Update Predictors	Cohort	Fall Leading Indicator Change	Forecast	HSI Equity (Leading Indicator)
Three Year Completion	2019-20	-1.6%	-2.3%	Small gain
Year 2 Credit Attainment 45 Credits	2020-21	3.9%	4.4%	Small gain
Retention	2020-21		Actual: -3.1%	Small decline
Course Success (2.0 or Better)	2021-22	-0.5%	-0.4%	Moderate gain
Year 1 30 Credit Attainment	2021-22	1.2%	0.9%	Small gain
College Level English	2021-22	6.5%	5.9%	Small decline
College Level Math Completion	2021-22	2.6%	4.6%	Large Gain

*Highlighted percentages are those that show appreciable change from the previous year.

Entry Year Student Identification (Changing Mix of Academic vs Prof/Tech Students)

Table 2 is more of a data note, but an important one. Our Entry Cohorts each year have been lower under COVID (“Overall” column indicating new, non-Running Start students), but the composition has changed as well. It’s possible that students are becoming more workforce minded under COVID, or that transfer students are less likely to enter. It is also likely that our identification of students has improved under Guided Pathways – where new students who used to be “UNDECIDED” are forced to choose programs, and that those program are increasingly Professional/Technical in nature.

Table 2. Entry Cohort Size – For Help in Interpreting Results

Cohort	Overall	Academic Transfer	Prof/Tech	Academic Transfer %
2017-18	1,422	1,071	351	75.3%
2018-19	1,456	1,109	347	76.2%
2019-20	1,403	948	455	67.6%
2020-21*	1,218	720	498	59.1%
2021-22*	1,113	636	477	57.1%

*-New Guided Pathways Coding Winter 2020

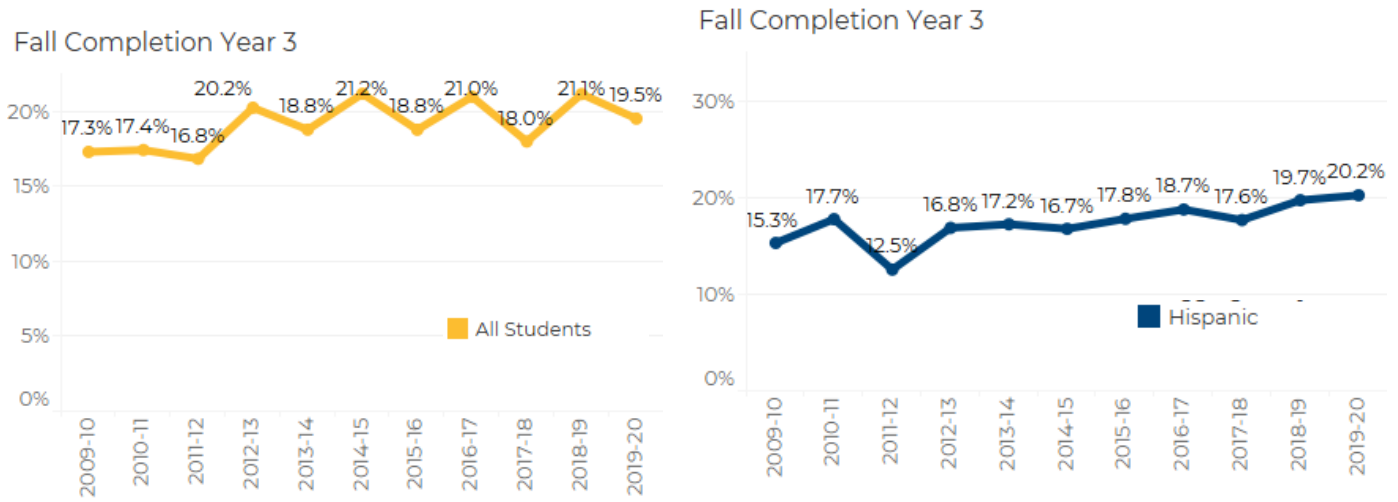
Charts: Fall Leading Indicators and Year End Forecasts

This report is meant as a “Fall Update” of a key subset of Mission Fulfillment measures in order to get a very preliminary read on what 2021-22 results might look like – **in that first term**. Historically, these have done a good job in forecasting. With any prediction about the future: “past results do not guarantee future returns”, and COVID has made a lot of predictions look bad in post-secondary education as of late. *That said, if what we see is even halfway right this year, our metrics look on track to solidifying many of last year’s gains.*

The following pages show historical charts our measure changes in the Fall (updated in the Fall of 2021), what those changes might imply as a forecast to the end of the year, and quickly examine any potential equity changes.

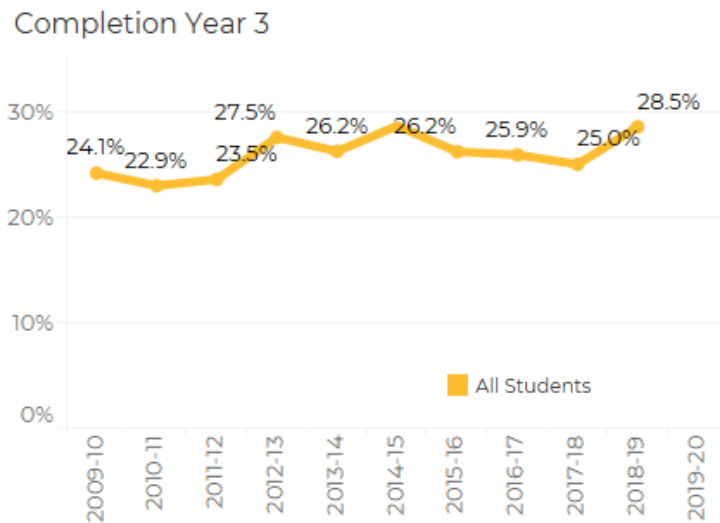
(2019-20 Cohort) Three Year Completion (28.5% to 26.3%)

Fall Leading Indicators of Three Year Completion – All Students and Hispanic/Latinx



Three year completion rates after Fall term of a student’s third year have ranged from 18% to 21% historically. Last year, overall, completion by this time is 1.6% below last year, +0.5% for Hispanic students.

Forecast: Our simple forecast is for a 2.2% drop in three year completion to 26.3% and our completion + transfer to be between 32% and 33%, down from 34.4% by year’s end

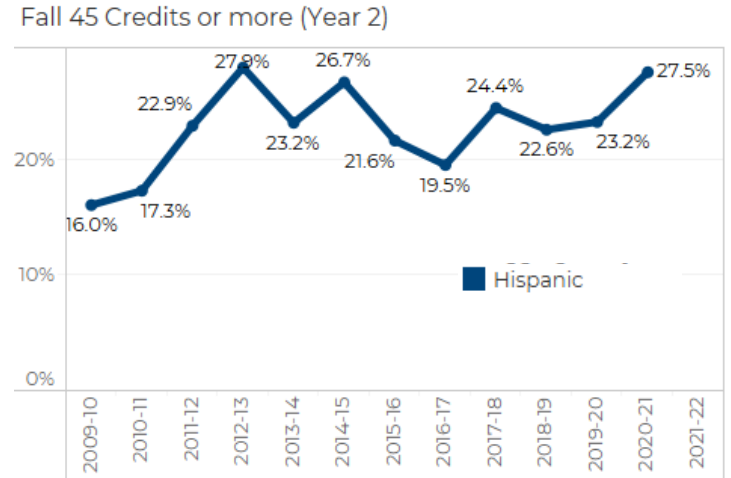
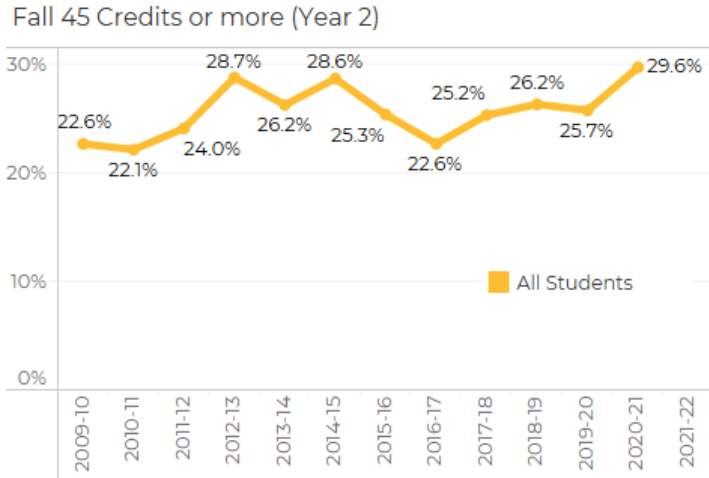


In the final two terms to the end of year, three year completion rates overall typically increase by 4-8%.

HSI Equity: Small gains (less than 2%)

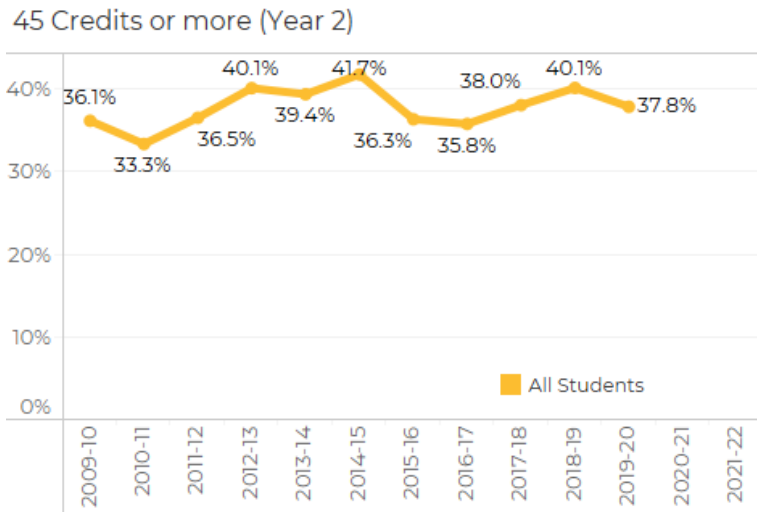
(2020-21 Cohort) Two Year, 45 Credit Completion (37.8%% to 42.2%)

Fall Leading Indicators of Two Year, 45 Credit Completion – All Students and Hispanic/Latinx



Two Year, 45 Credit Completion rates after Fall term of a student’s third year have ranged from 22% to 30% historically. Last year, overall, completion by this time is 3.9% above last year, +4.3% for Hispanic students.

Forecast: Our simple forecast is for a 4.4% increase to 42.2%.

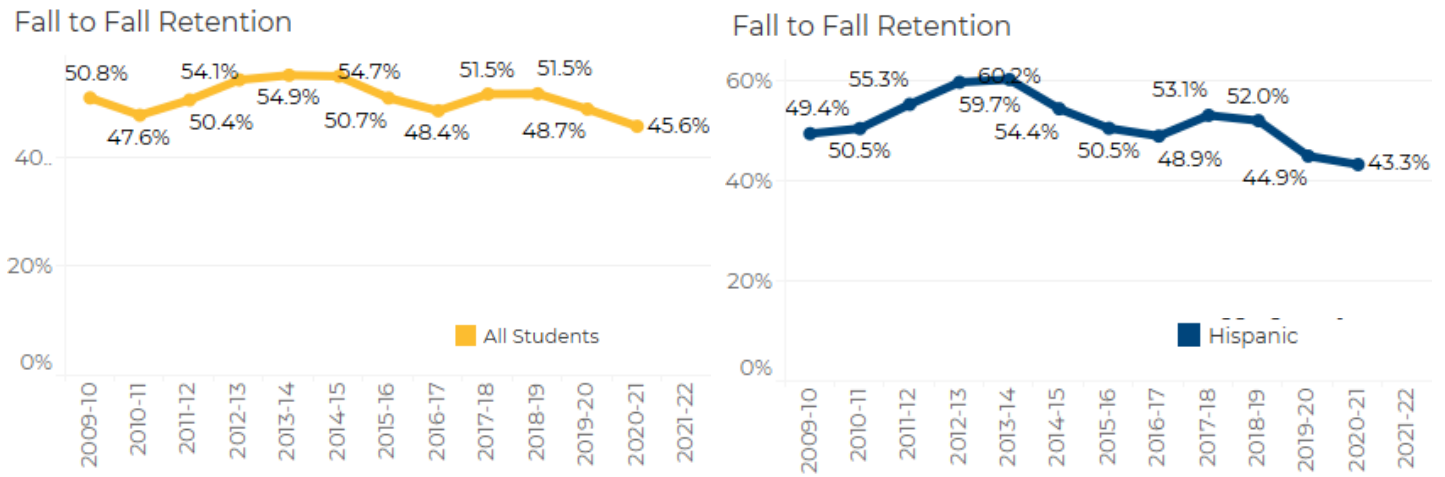


In the final two terms to the end of year, Two Year, 45 Credit Completion rates overall typically increase by 12-16%.

HSI Equity: Small gains relative to total (less than 2%)

(2020-21 Cohort) Retention: First Year – Fall to Fall (48.7% to 45.6%)

Fall to Fall Retention (**Actual**) – All Students and Hispanic/Latinx



In the final two terms to the end of year, **Fall to Fall Retention** rates overall typically range from 48% to 55%.

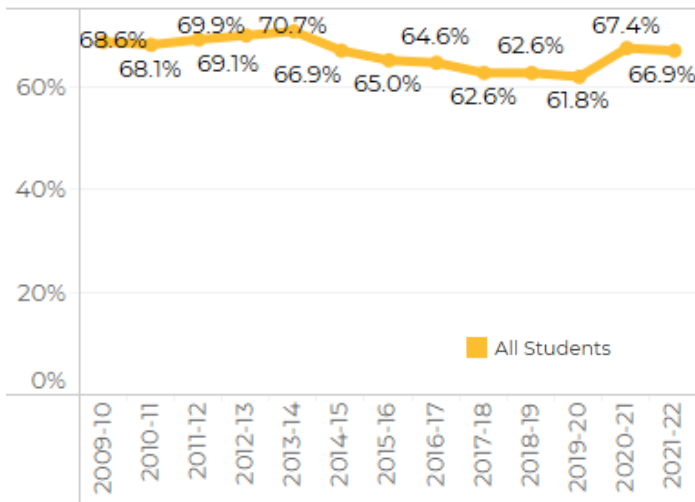
After this Fall, we are well below our normal retention rates (45.6% overall; 43.3% Hispanic)

HSI Equity: Small declines from previous year (less than 2%)

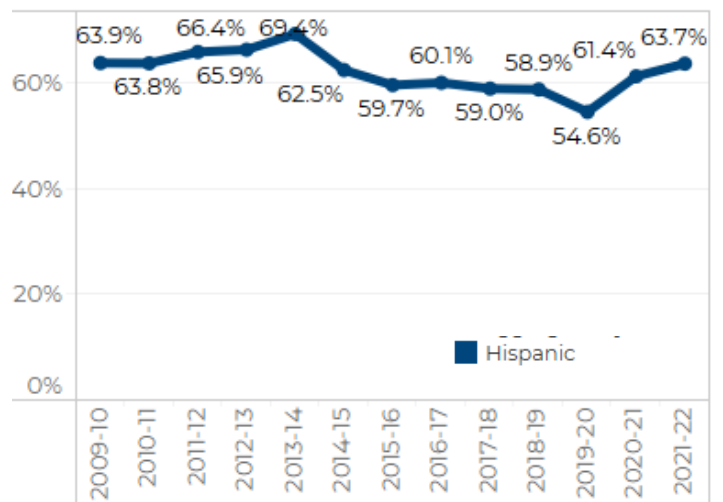
(2021-22 Cohort) Course Success in First Year Forecast (46.8% to 46.4%)

Fall Term Course Success (“On Track”) – All Students and Hispanic/Latinx

Fall Course Success 'On Track'



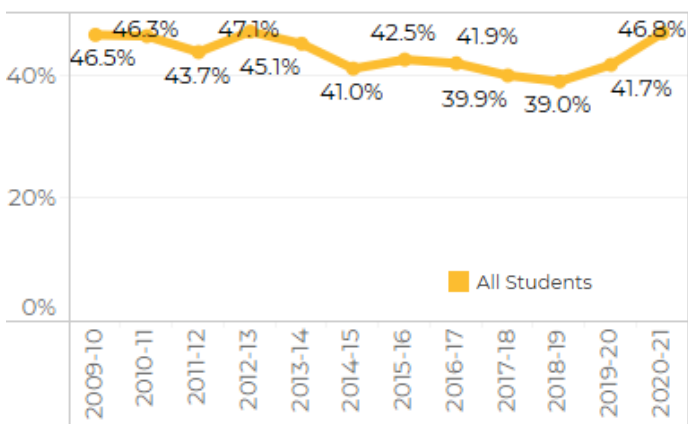
Fall Course Success 'On Track'



Full Year Course Success (“On Track” – student obtains a 2.0 or better in every course taken in the year) is an extremely strong predictor of completion or transfer in three years. After Fall term, this measure has tracked from 60% to 70% historically. To the end of the year, students take more courses, and have more chances to obtain a grade of less than 2.0, and this rate decreases to between 40-47%. “On Track” student rates as of Fall fell by 0.5% overall.

Forecast: Our simple forecast is a 0.4% decrease to 46.4%.

FTEC Course Performance: Course Success 'On Track'



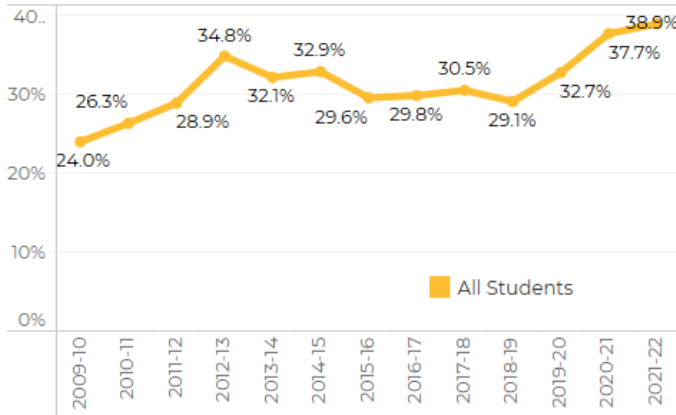
From Fall, overall “On Track” rates decrease roughly 20% from Fall levels.

HSI Equity: Modest gains (greater than 2%)

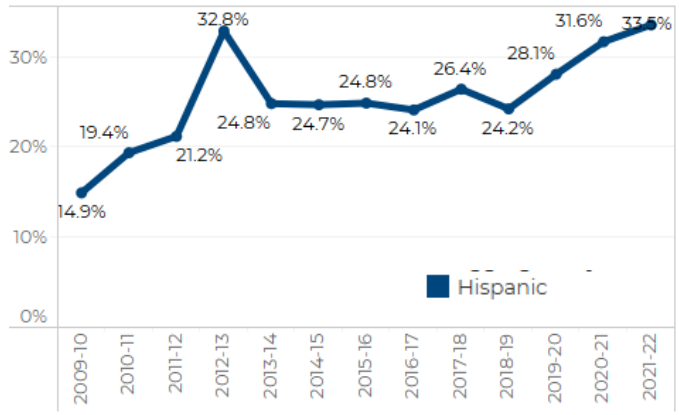
(2021-22 Cohort) One Year, 30 Credit Completion (42.3% to 43.2%)

Fall Leading Indicator: 13 College Level Credit in First Term – All Students and Hispanic/Latinx

Fall 13 Credits or more



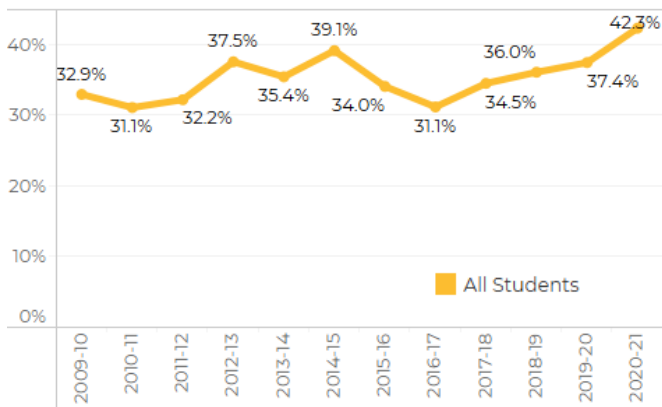
Fall 13 Credits or more



One year 30 Credit Completion is another extremely strong predictor of completion or transfer in three years and a collegewide goal. After Fall term, students earnings 13 college credits or more in their very first term increased by 1.2%.

Forecast: Our simple forecast is for a 0.9% increase to 43.2%.

30 Credits or more

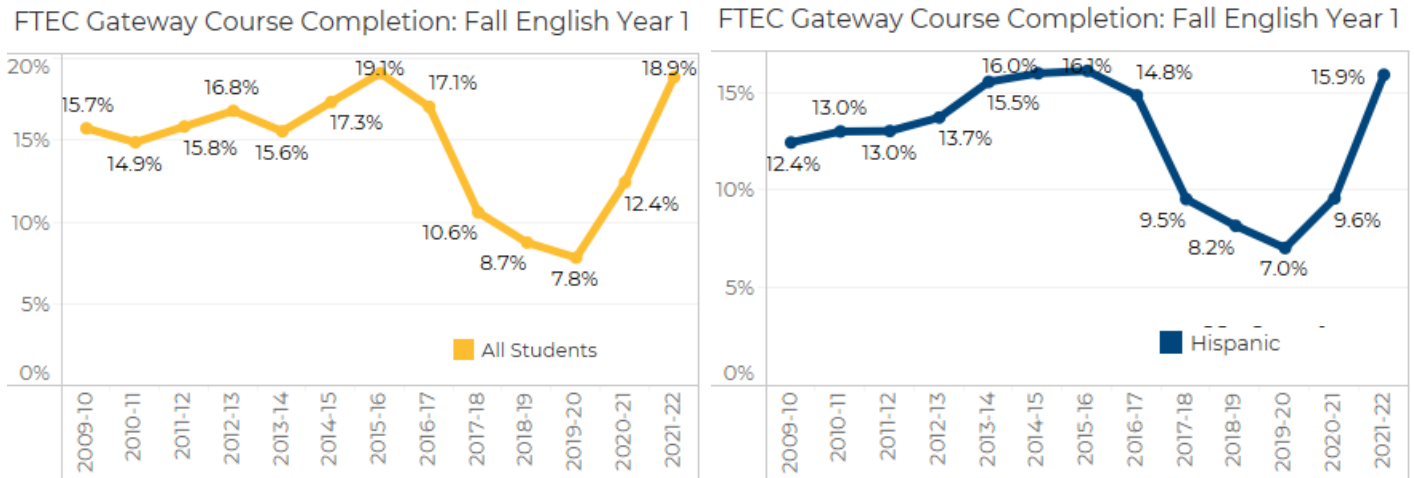


To the end of the year, students who earn 13 college credits or more have a distinct advantage and these rates are fairly comparable to where 30 college credits is likely to be.

HSI Equity: Small gains (less than 2%)

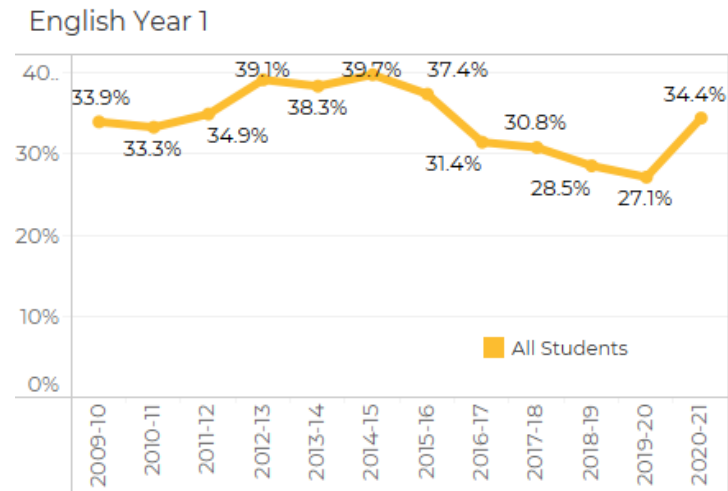
(2021-22 Cohort) One Year, College Level English (34.4% to 40.3%)

Fall Leading Indicators Completion of First Year College English – All Students and Hispanic/Latinx



First Year College Level English Completion is a strong predictor of completion or transfer in three years and a collegewide goal. After Fall term, this measure has tracked as low as 7% to above 19%. This year’s Fall completion of college English has increased 6.5%.

Forecast: Our simple forecast is for a 5.9% increase to 40.3%.



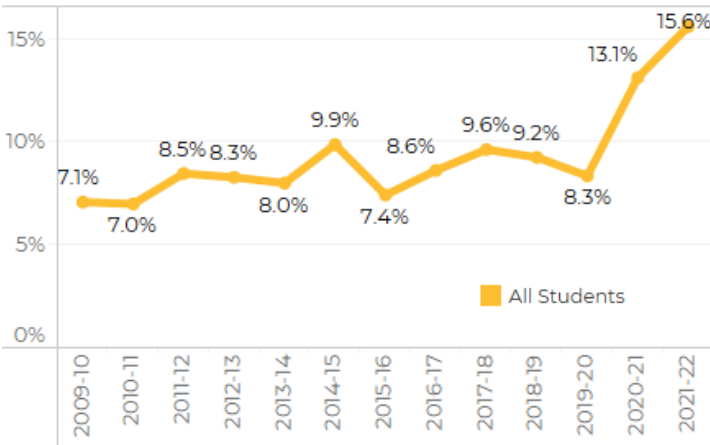
To the end of the year, more students take college English, and rates increase by 20-25% over the next two terms.

HSI Equity: Small relative decline (less than 2%)

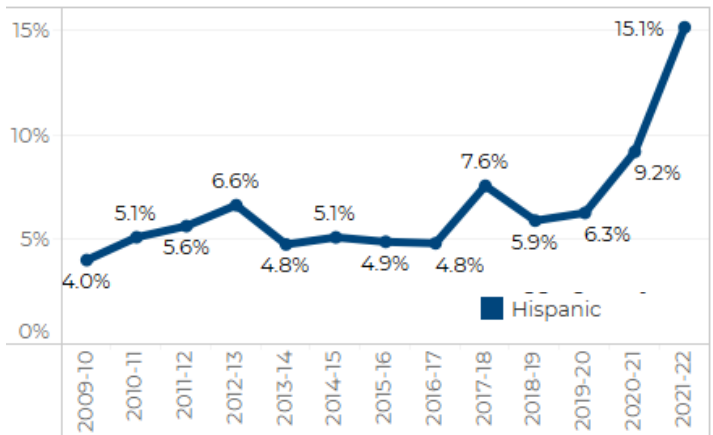
(2021-22 Cohort) One Year, College Level Math (31.2% to 36.8%)

Fall Leading Indicators Completion of First Year College Math – All Students and Hispanic/Latinx

FTEC Gateway Course Completion: Fall Math Year 1



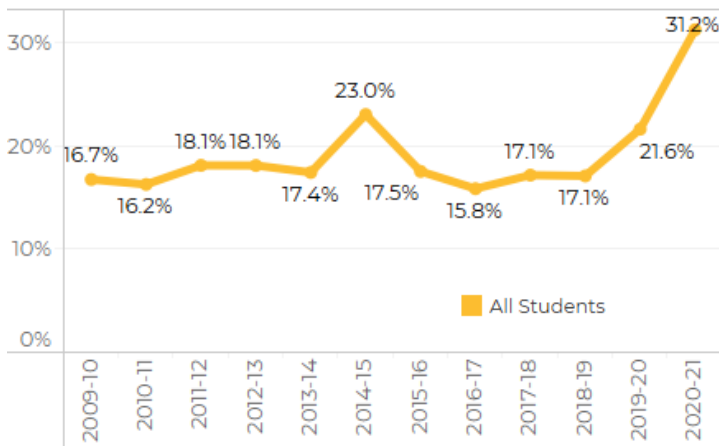
FTEC Gateway Course Completion: Fall Math Year 1



First Year College Level Math Completion is a very strong predictor of completion or transfer in three years and a collegewide goal. After Fall term, this measure has tracked as low as 7% to above 15%. This year’s Fall completion of college math has increased 2.5%.

Forecast: Our simple forecast is for a 5.6% increase to 36.8%.

Math Year 1



To the end of the year, more students take college math, and rates increase by 10-20% over the next two terms.

HSI Equity: Large gain (greater than 5%)