

UNDERSTANDING AND ADDRESSING OUR EQUITY GAPS

Context:

- While we've had many discussion about which populations of students outperform others, these analyses haven't really dug deeper than looking at race/ethnicity and sex.
- We now have access to FAFSA/ORSAA data for analysis which provides more reliable information on first generation status and family income.
- The new NWCCU standards explicitly require us to identify our 'equity gaps' (which students are at higher risk to stop-out or not succeed), communicate across the College about them, and act specifically to address these gaps.
- We need an understanding of our equity gaps that is broadly communicated across the College and drives our continuous improvement efforts.

Questions to consider:

1. What do these findings mean for each of us and our teams?
2. How are we already addressing these gaps? How could we be?

Included here is the result of my most recent analyses, including first generation status and family income. If you don't want to swim around in tables, jump to the summary of findings at the end of the document.

Equity Gaps Analysis:

- Sample includes first-time at TBCC students who enrolled in the Fall term from 2015-2016 through 2019-2020 (5 Cohort Years). The trend over the last 5 year has been toward increasing numbers of women and Latinx students as a percentage of the student body.

Cohort Year	N	%	
		Women	% Latinx
2016	94	56.4%	18.1%
2017	118	51.7%	13.6%
2018	137	61.3%	20.4%
2019	105	58.1%	23.8%
2020	90	63.3%	22.2%
Total	544	58.1%	19.5%

- FAFSA/ORSAA applications provide first generation and family income data – for those students who completed the applications - which is a subset of all new students:

Cohort Year	N	% First Gen	% Low Income
2016	67	62.6%	43.8%
2017	90	52.2%	58.3%
2018	115	62.6%	50.5%
2019	86	55.8%	50.0%
2020	78	78.2%	50.7%
Total	436	61.9%	51.0%

- I've calculated 'family income' using the 'expected family contribution' from the FAFSA/ORSAA. Expected family contribution (EFC) can be used as a proxy for family income. EFC ranges from zero, for those families with the least resources, to tens of thousands of dollars for wealthy families. I've coded students with an EFC of zero as low income, and all other students as middle income. About half of students who completed the FAFSA/ORSAA are categorized as low income. This is a very gross categorization – meaning there may be more nuanced ways to categorize students using EFC, but the patterns that emerge using just these two categories are already revealing.
- We can look at the relationship between student characteristics and these leading indicators:
 - Staying enrolled
 - Fall to Winter Persistence – students who returned to enroll in winter term
 - Fall to Fall Retention - students who returned to enroll in the following fall term
 - Credit Accumulation
 - 12+ Credits in Term 1 – earned 12 or more credits in term 1
 - 36+ Credits in Year 1 – earned 36 or more credits in year 1
 - Passing Gateway Courses
 - Passing college level Math in Year 1 – passed MTH111 by the end of year
 - Passing college level Writing in Year 1 – passed RDWR115 or WR121 by the end of year 1
- **We need to be cautious about interpreting differences between percentages.** Many of these groups are small (Latinx students, for example). In this case, one or two students have a significant impact on the percentage or rate. I'll indicate where differences among groups are large enough to be statistically significant – but we can look for trends and patterns across groups and indicators.

Factors We Know

- Age - traditional aged students generally outperform older students. 18-21 year olds persist at higher rates, are more likely to meet credit accumulation benchmarks and pass gateway courses.

Age	N	Persisted to Winter Term	12+ Credits in Term 1	Retained to Fall Term	36+ Credits in Year 1	Passed Gateway Math	Passed Gateway English
18-21	324	71.9%	27.2%	40.7%	22.2%	29.6%	59.9%
22-29	100	62.0%	15.0%	43.0%	13.0%	14.0%	40.0%
30+	119	57.1%	9.2%	28.6%	9.2%	6.7%	21.0%
Grand Total	543	66.9%	21.0%	38.5%	17.7%	21.7%	47.7%

- CNOW - unsurprisingly, students who enter TBCC having taken college level courses during high school outperform those who have not. Some of the CNOW students have already passed college-level math and/or English before they enter TBCC, so this finding isn't surprising. Note that the credit accumulation measures only include credits earned at TBCC after high school.

CNOW	N	Persisted to Winter Term*	12+ Credits in Term 1*	Retained to Fall Term*	36+ Credits in Year 1*	Passed Gateway Math*	Passed Gateway English*
No TBCC Courses during High School	333	61.9%	12.9%	33.6%	11.1%	15.3%	36.6%
Some Previous TBCC Credits	198	77.3%	31.3%	47.1%	28.3%	34.9%	66.2%
Grand Total	531	67.6%	19.8%	38.6%	17.5%	22.6%	47.7%

* Statistically significant difference

- Pell – Broadly, it appears that recipients of Pell may outperform others in their first year, persisting to winter and earning 12+ credits. They are significantly more likely to pass gateway English at higher rates. They don't meet the 36+ credit benchmark at a high rate and aren't retained at a higher rate though.

Pell Status	N	Persisted to Winter Term	12+ Credits in Term 1	Retained to Fall Term	36+ Credits in Year 1	Passed Gateway Math	Passed Gateway English*
Recipient of Pell	274	69.0%	24.5%	36.5%	17.2%	21.9%	50.7%
Didn't Receive Pell	270	64.8%	17.8%	40.4%	18.2%	21.5%	44.8%
Grand Total	544	66.9%	21.1%	38.4%	17.7%	21.7%	47.8%

* Statistically significant difference

- Enrollment Status – Full-time students are more likely than part-time students to persist to winter and retain to the following fall. Similarly, they are more likely to pass gateway courses.

Enrollment Intensity	N	Persisted to Winter Term*	Retained to Fall Term*	Passed Gateway Math*	Passed Gateway English*
Full-time	309	76.7%	45.7%	31.9%	63.4%
Part-time	235	54.0%	28.2%	10.1%	26.0%
Grand Total	544	66.9%	38.4%	22.8%	47.8%

* Statistically significant difference

Factors We've Discussed

- Sex – The trend may be that women outperform men on persistence to winter term and passing Gateway English, but these differences aren't statistically significant.

Race/Gender	N	Persisted to Winter Term	12+ Credits in Term 1	Retained to Fall Term	36+ Credits in Year 1	Passed Gateway Math	Passed Gateway English
Women	312	71.7%	20.9%	39.1%	17.2%	22.6%	52.9%
Men	232	64.2%	17.5%	37.3%	17.0%	24.1%	40.1%
Grand Total	544	68.6%	19.4%	38.3%	17.1%	23.2%	47.5%

- Race/Ethnicity – Latinx students outperform white students in credit accumulation in their first term (12+ credits in Term 1) and in completing Gateway English.

Race/Ethnicity	N	Persisted to Winter Term	12+ Credits in Term 1*	Retained to Fall Term	36+ Credits in Year 1	Passed Gateway Math	Passed Gateway English*
White	410	67.1%	17.8%	35.1%	15.9%	22.7%	44.1%
Latinx	99	74.7%	26.3%	51.5%	22.2%	25.3%	61.6%
Undisclosed Identities	35	57.1%	31.4%	40.0%	25.7%	17.1%	51.4%
Grand Total	544	67.8%	20.2%	38.4%	17.6%	22.8%	47.8%

* Statistically significant difference

- Sex and Race/Ethnicity – As we've discussed previously, it's important to disaggregate both on race/ethnicity and sex – as these subgroups often perform differently. Specifically, Latina women outperform white women in Fall retention, with 56% of Latinas returning for fall, compared to 34% of white women (the lowest rate of any subgroup). White men show the lowest rates of credit accumulation in term 1, with only 15% earning 12 or more credits. White women show the lowest rates of passing Gateway Math (21%), while white men show the lowest rates of passing Gateway English (37%).
- Degree Goal at Admission – in past analyses we've discussed that students in some degrees/majors are more likely to persist and graduate, but these analyses have used 'current major'. Students change majors, with many moving out of AGS to other majors. The table below looks at the performance of students disaggregated by their degree goal at admission.
 - Some degrees include multiple majors – and it may make sense to look at student success indicators as a function of major. But these analyses are limited by small samples – and make more sense as a part of program reviews.

- o Looking broadly at degree goal at admission, it appears that students with a degree goal of AGS at admission are less likely to be retained to year two, and earn fewer credits in year one.

Degree at Admission	N	Persisted to Winter Term	12+ Credits in Term 1	Retained to Fall Term*	36+ Credits in Year 1*	Passed Gateway Math	Passed Gateway English
AAS	154	64.9%	18.2%	39.6%	17.5%	18.8%	37.7%
AAT	113	81.4%	27.4%	48.7%	28.3%	41.6%	65.5%
AGS	155	63.2%	16.1%	28.4%	11.6%	11.6%	47.7%
ASB	22	77.3%	27.3%	40.9%	27.3%	40.9%	68.2%
AST	67	67.2%	22.4%	40.3%	13.4%	29.9%	44.8%
Grand Total	511	68.9%	20.6%	38.4%	18.0%	24.1%	49.1%

* Statistically significant difference

New Factors

- First Generation Status – Students who indicate that they have no parents with a college degree are designated as ‘first generation’. Students with at least one parent with a college degree are identified as ‘College’ in the analysis below. This variable comes from completed FAFSA/ORSA, as well as data gathered during new student orientation. The data don’t indicate a clear advantage for students from college going families in term persistence or retention. First generation students may be less likely to pass gateway courses, but these differences aren’t statistically significant.

First Generation Status	N	Persisted to Winter Term	12+ Credits in Term 1	Retained to Fall Term	36+ Credits in Year 1	Passed Gateway Math	Passed Gateway English
First Generation	261	70.50%	21.46%	40.61%	19.16%	20.69%	51.72%
College	175	67.43%	26.86%	41.14%	21.71%	34.29%	56.57%
Grand Total	436	69.27%	23.62%	40.83%	20.18%	26.15%	53.67%

- Family Income – Students from low income families showed much lower rates of persistence, retention, and credit accumulation. They are also less likely to pass gateway courses.

Family Income	N	Persisted to Winter Term*	12+ Credits in Term 1*	Retained to Fall Term*	36+ Credits in Year 1*	Passed Gateway Math*	Passed Gateway English*
Low Income	195	58.46%	14.36%	25.13%	11.28%	12.31%	38.97%
Middle Income	190	78.42%	30.73%	52.11%	26.84%	40.53%	64.74%
Grand Total	385	68.31%	23.00%	38.44%	18.96%	26.23%	51.69%

* Statistically significant difference

Completion:

We measure Completion Rate for full-time students at three years and at four years for part-time students, beginning with the 2016 Cohort. Due to this lag, we have only limited completion rate data, and the sample sizes are small. Disaggregated data on completion rate shows no statistically significant differences, and aren't included here. Future analyses will include disaggregated completion rates, as sample sizes grow.

Summary:

The goal of these analyses is to dig deeper into student success and identify the factors that indicate risk for failure – especially those factors where there is an opportunity to intervene. As we understand, traditional age students, those enrolled full-time and those with college credits earned in high school are most likely to succeed at TBCC, as measured by performance on these leading indicators. These findings aren't surprising and may not suggest obvious responses.

Student race/ethnicity and sex interact in complex ways in terms of student success indicators, but it's important not to overstate the differences in performance among student groups. While women outperformed men somewhat on persistency rate and credit accumulation in term one, this advantage doesn't carry through the first year. Latinx students seem to outperform others on nearly every measure, but due to small sample sizes, these differences aren't statistically significant. Latino men are only 33% of all Latinx students, a smaller proportion than the proportion of white men enrolled (44%), suggesting that Latino men are under-represented at TBCC. White students are underperforming Latinx students, with low rates of credit accumulation and low rates of retention to year 2. White women show the lowest rates of passing Gateway math and white men show the lowest rates of passing Gateway English.

Students' declared degree goal may be fluid, and we don't want to over-interpret these data. But we know from the Guided Pathways model that students who don't 'get on a path' early in their first year, are less likely to succeed. So the finding that AGS students are less likely to persist, be retained to year 2, and accumulate credits, is an interesting one. AGS may be a catch-all degree at admission, for those students who may be unclear about their path, and may be an indicator of those students who are at risk to fail. We have focused on getting students on path as a part of our Guided Pathways implementation, and we may want to consider if there are more or different interventions needed for AGS students.

The most revealing of the findings is that first generation status isn't a strong predictor of student performance on these indicators, but family income is. Low income students are significantly less likely than middle income students to reach each of these benchmark indicators. It's unusual to find differences this stark and consistent. There has been a good deal of work to build supports for low income students, both financial and social supports, and this work will be outlined as a part of our accreditation report. We also should describe how we will be working on eliminating these equity gaps in the future. That is the question that we as a college community should consider.

