Rebecca Dean
NECHE 5th Year Report
Persistence, Retention, and Student Success
September 2020

NECHE 5th Year Report Persistence, Retention, and Student Success
Data Fall 2015 to Spring 2020 (20110 – 202030)

INTRODUCTION

NHTI – Concord's Community College has undergone significant changes since our ***2016 NECHE Self Study***. Probably the most significant change has been with the hiring of a new, visionary and data-driven president who is focused on both external and internal factors impacting student success, retention and completion. Under her direction and leadership, the college has renewed our commitment to the larger community but also to the lives of our students who enroll for the purpose of pursuing hopes and dreams that can only be achieved through postsecondary education.

Our ***2016 NECHE Self Study*** allowed us to reflect on the big items that the visiting team highlighted as areas of growth for NHTI. The college has focused on those areas and have worked hard to make progress on them. We worked with Dr. Carole Anderson and Dr. Laura Gambino from NECHE who helped us focus on assessment and using data for a continuous improvement process.

This hard work is especially true as it relates to using institutional data to show what we are doing to improve student learning, retention and completion. Under the direction of the VPAA, a new committee was formed called the Learning Outcomes and Assessment Team (LOATS) whose key focus was on creating measurable student success outcomes. The team took a three-tier multidimensional approach by targeting institutional outcomes, program outcomes and course outcomes. The impact of their work led to the development of our new *Educated Person Statement* that now includes 21st century workforce skill development and the more intentional integration of Diversity, Equity and Inclusion into NHTI's definition of an educated person.

Of special note is the highly collaborative efforts that the entire college community engaged in during the 2019-2020 academic year to develop a new and exciting ***2020 – 2025 NHTI Strategic Plan***. This plan is forward-thinking and includes quantitative key performance indicators that are measurable and highly student-centered. This new Strategic Plan is something special for the college because the focus on student success is a fresh and current way of thinking that the college has not experienced before. This seismic student-centered shift has allowed all stakeholders at the college to do what our ***NECHE 2016 Self Study Report*** asked us to do: focus on student success, retention, and completion with the use of evidence-based practices and data.

The key performance indicators that propelled the college since 2016 have been focused on what are called momentum metrics. The college focused on these particular metrics because of the significant impact Guided Pathways has had on the college. With COVID-19 and its impact on remote learning, we also examined online courses success.

In light of the racial unrest that currently divides our nation and local communities, we also analyzed student success and completion data by race and ethnicity. The purpose of this analysis was not only to look at our completion rates but to also determine if an achievement gap exists, which it does.

The first section is on overall student enrollment at NHTI and assessing momentum of all students by enrollment in Gateway Math courses and Gateway English courses. This includes both corequisite

courses and non-corequisite courses. Additionally, the first section examines enrollment in online courses and Open Education Resource (OER) courses.

The second section of this report focuses on completion and success metrics as it relates to student populations. This section is an examination of success and completion rates with an eye on how we are serving the needs of our underrepresented populations.

NATIONAL PERSPECTIVE ON STUDENT SUCCESS

The ubiquitous language of the "changing landscape" in higher education is directly connected to the dramatic pivot towards postsecondary institutions becoming student-centered institutions that focus on student success, retention and completion. In the last ten to twelve years a movement called student success has made greater completion rates, equity and social mobility the core focus of institutional responsibility (Lipka, 2019). This means that low retention rates, low completion rates, low enrollments, and disparate rates of success in developmental course placement and pass rates are now being critically examined on the institutional level but also the state and national level. Jon McGee in his recent book *Breakpoint: The Changing Marketplace for Higher Education* (2015) describes these times as disruptive times where there is significant contextual change and others describe it as a crisis in higher education (Archibald & Feldman, 2017).

Every single community college student comes to college with individual struggles, hopes, and dreams. But too many students fail while on their path to achievement and this failure is not only a personal failure but also an institutional failure and it impacts individuals, their families, the institution, society and our economy (Marti, 2016). If NHTI or any community college cannot enable students to succeed, then our students cannot become productive members of the national economy and the national economy cannot thrive (Marti, 2016).

Since our 2016 Self Study Report and under the leadership of our new president, NHTI has continued to move towards being an institution that has changed its landscape with a focus on student success. With this focus on student success, the guiding question about NHTI's enrollment is less about getting people to start college and more about getting a broader range of them to succeed in obtaining an education that will serve them well for many years to come (Bowen & McPherson, 2016).

Unfortunately, as NHTI struggles with increasing it enrollment numbers and completion rates, we compared ourselves to the national completion data. National completion rates for students enrolled in 2-year institutions has recently slightly in recent years (*Table A*). In 2008, the completion rate was 21% and remained relatively steady until 2015 with a momentum uptick with 2017 have completion rates rise to 27%. NHTI's completion rates are higher than the national average at 31% (U.S. Department of Education College Scorecard).

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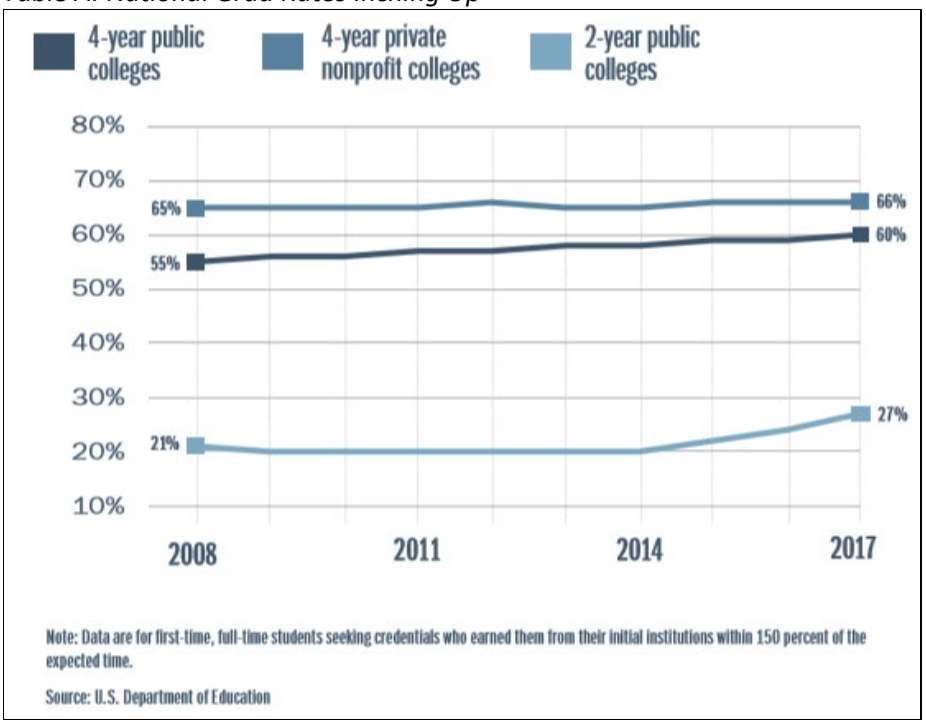
Table A: National Grad Rates Inching Up

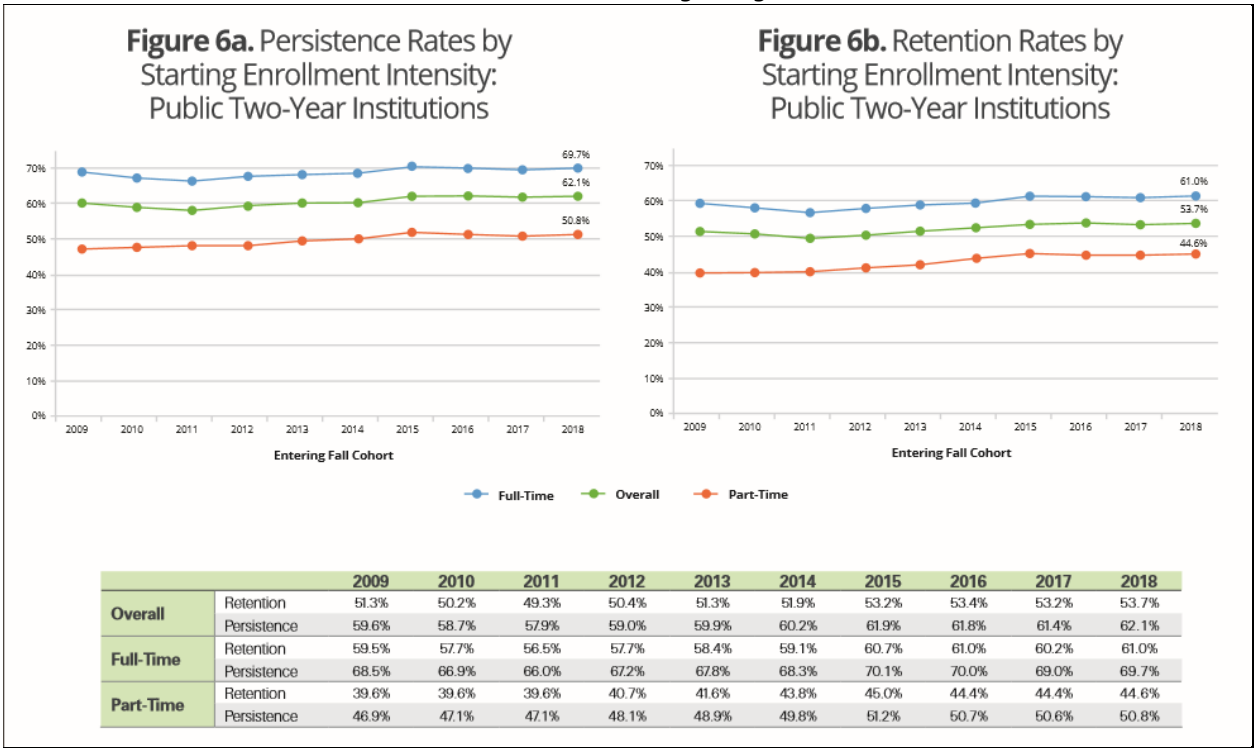


Source: The Truth About Student Success

Despite the fact that NHTI's completion rates are slightly higher than the national completion rates, we need to be doing better. In preparation for our 5th Year NECHE report, we first researched national student persistence and retention data and then drilled down into our own persistence and retention data. We simultaneously analyzed our student success and completion data. The results of this analysis can be found in the section of this report designated as *Race and DEI Analysis*.

The first set of national data we looked at was persistence and retention rates for 2-year institutions. When looking at the national persistence and retention data by 2-year institutional cohort groups from 2009 – 2018, overall retention rates by cohort have remained fairly steady over the years hovering around 50% to the current 53.7% rate (*Table B*). Persistence rates have peaked slightly from 2009 – 2018 with the rate in 2018 at 62.1% While the Department of Education College Scorecard does not track persistence rates, a recent report indicated that NHTI students return the following semester at the rate of approximately 78%. Comparatively, the NHTI has a retention rate of 63%, which is similar to the national retention rate. While a 63% retention rate is good, we need to do better to ensure the success and completion of our students.

Table B: Overall Persistence and Retention Rates 2018 Beginning Cohort



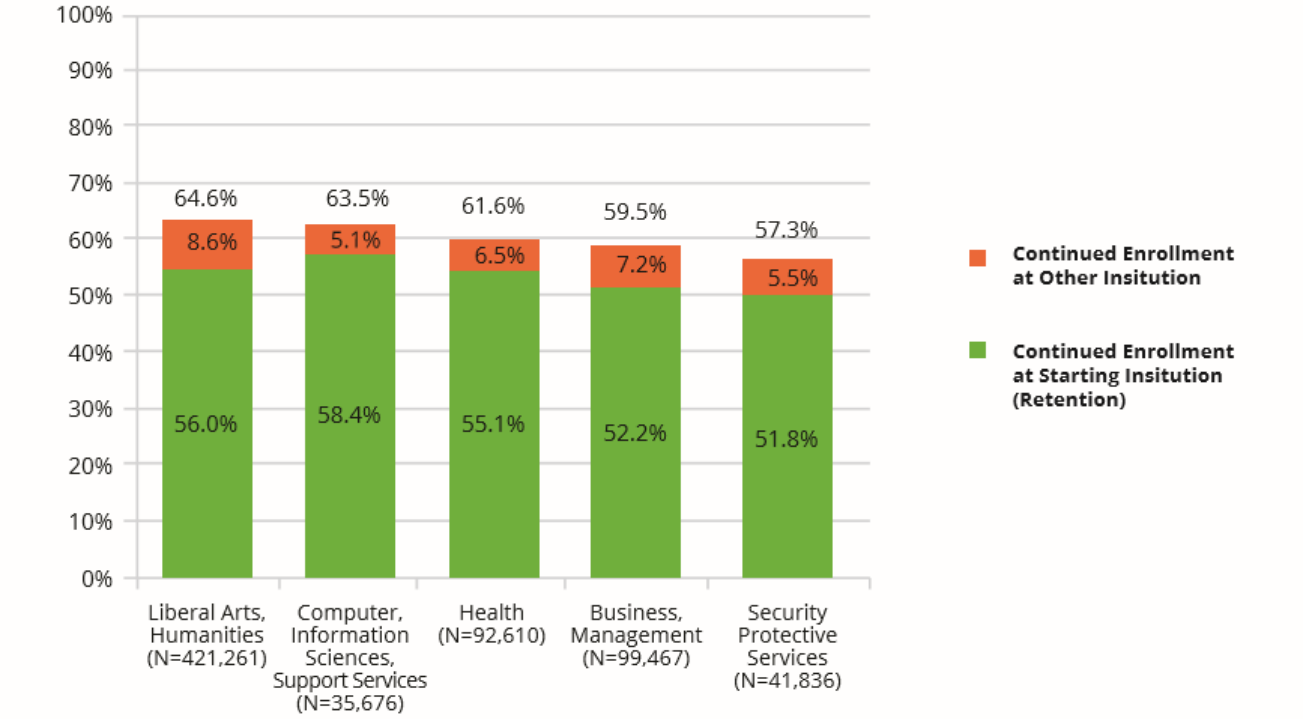
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Overall	Retention	51.3%	50.2%	49.3%	50.4%	51.3%	51.9%	53.2%	53.4%	53.2%	53.7%
	Persistence	59.6%	58.7%	57.9%	59.0%	59.9%	60.2%	61.9%	61.8%	61.4%	62.1%
Full-Time	Retention	59.5%	57.7%	56.5%	57.7%	58.4%	59.1%	60.7%	61.0%	60.2%	61.0%
	Persistence	68.5%	66.9%	66.0%	67.2%	67.8%	68.3%	70.1%	70.0%	69.0%	69.7%
Part-Time	Retention	39.6%	39.6%	39.6%	40.7%	41.6%	43.8%	45.0%	44.4%	44.4%	44.6%
	Persistence	46.9%	47.1%	47.1%	48.1%	48.9%	49.8%	51.2%	50.7%	50.6%	50.8%

Source: National Student Clearinghouse Research Center. *Persistence and retention report*. August 13, 2020. https://nscresearchcenter.org/wp-content/uploads/PersistenceRetention2020.pdf

Since we need to do better to ensure the increase in persistence and retention rates of our students, we also examined that national data on what the top majors are at 2-year institutions (*Table C*). The top five programs are below with Liberal Arts, Humanities being the top enrolled program at 2-year colleges. Nationwide that program has a persistence and retention rate of 64.6% and that includes 8.6% of students who enrolled at another institution from the starting institution.

It will be an action going forward for NHTI to analyze persistence and retention rates by program and use the national data to assess our own rates and create a plan for improvement.

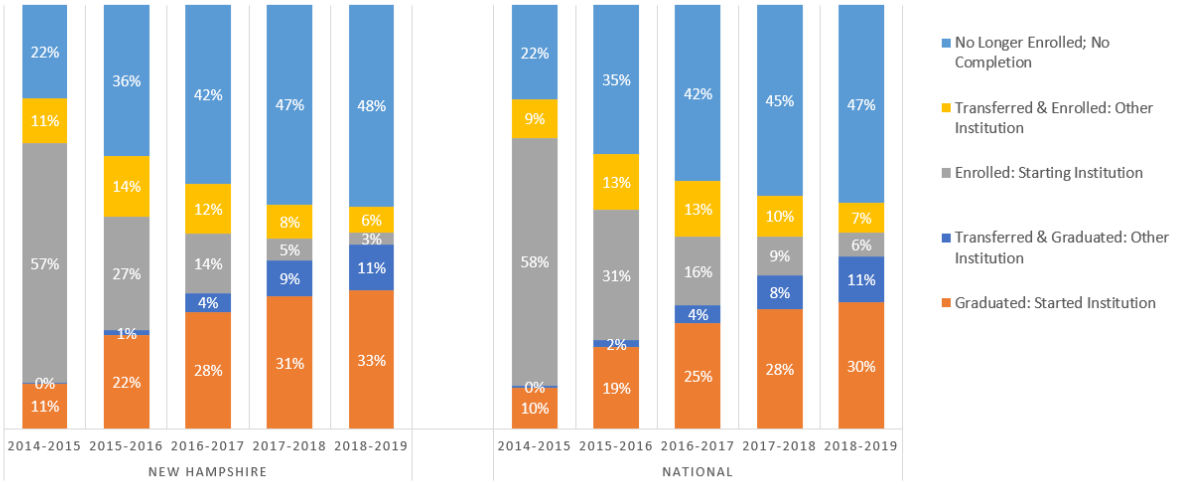
Table C: Persistence and Retention Rates in Top Five Common Majors: Associate Degree



Source: National Student Clearinghouse Research Center. *Persistence and retention report*. August 13, 2020. https://nscresearchcenter.org/wp-content/uploads/PersistenceRetention2020.pdf

The college also researched state data as it relates to persistence, retention and completion (*Table D*). From 2014 to 2019, our state completion data is slightly higher than national data (as noted previously). Our state transfer data has slightly decreased over the years compared to the national data. Unfortunately, the New Hampshire data and the national data for students who are no longer enrolled and did not complete, is the largest percentage with the majority of students dropping out and not completing. In the 2018-2019 academic year, 48% of New Hampshire 2-year students were no longer enrolled and had not completed while 47% of overall 2-year students were no longer enrolled and had not completed.

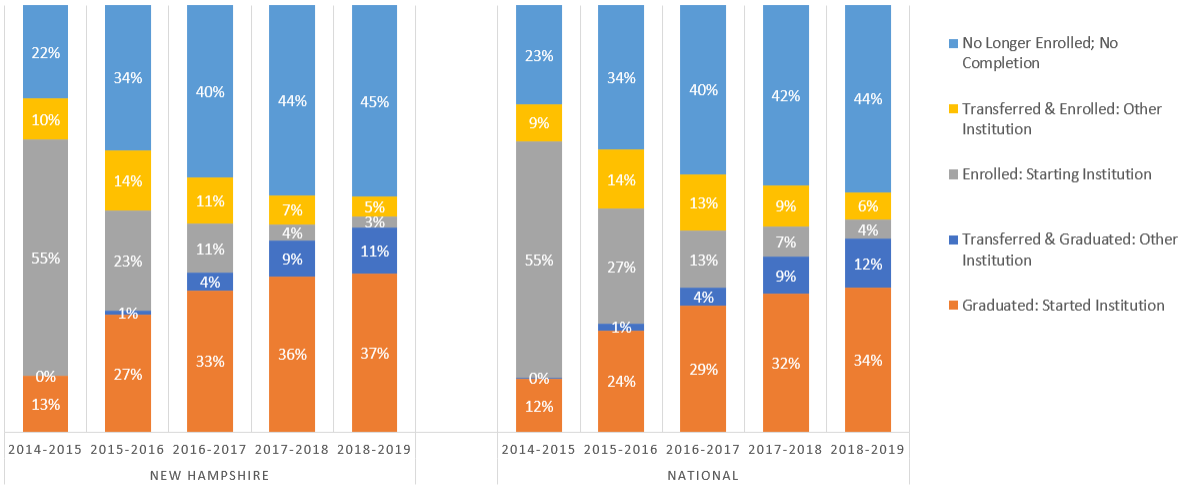
Table D: National vs. New Hampshire Yearly Success and Progress Rates for Students Who Started Two Year Public in Fall 2013



Source: National Student Clearinghouse Research Center. *Yearly success and progress rates report*. May 4, 2020. https://nscresearchcenter.org/yearly-success-and-progress-rates/

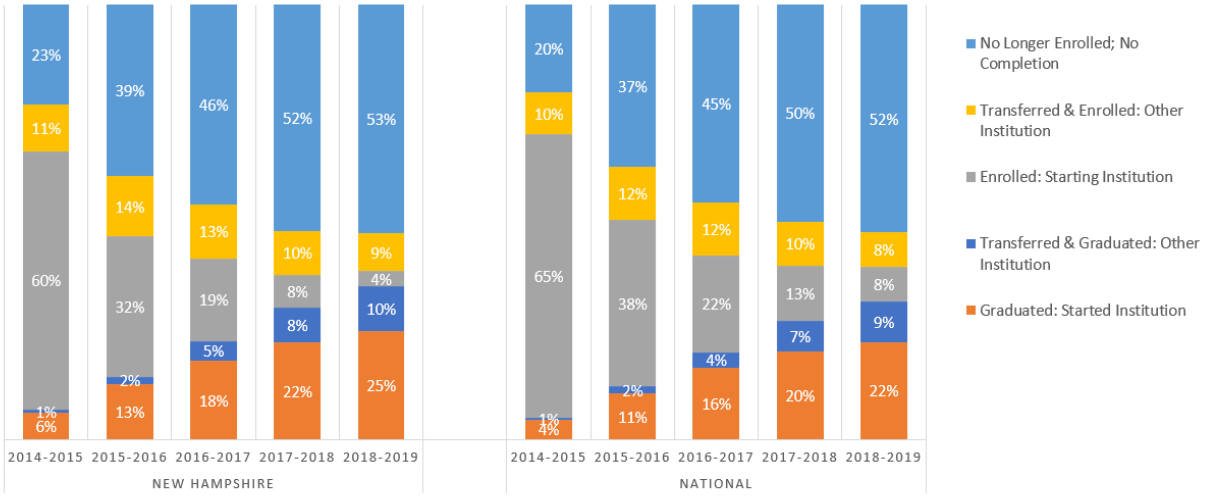
The full-time comparisons are below (*Table E*) for yearly success and progress rates in 2-year institutions as well as the part-time comparisons (*Table F*).

Table E: Full-time Students New Hampshire vs. National



Source: National Student Clearinghouse Research Center. *Yearly success and progress rates report*. May 4, 2020. https://nscresearchcenter.org/yearly-success-and-progress-rates/

Table F: Part-time Students New Hampshire vs. National



Source: National Student Clearinghouse Research Center. *Yearly success and progress rates report*. May 4, 2020. https://nscresearchcenter.org/yearly-success-and-progress-rates/

DIGGING DEEPER: COURSE LEVEL PERSISTENCE, RETENTION AND STUDENT SUCCESS ANALYSIS

Within the framework of national and state data, the student success metrics used for our 5th Year NECHE Report align with our Guided Pathways efforts and with the recent impact of COVID-19 and the move to remote learning. Additionally, the Community College System of New Hampshire recently instituted OER courses and we analyzed the current impact on student success of students enrolled in those courses.

Data Source

The data used for this report was from Fall 2015 to Spring 2020 and was obtained from the CCSNH Data Warehouse where all data is obtained from Banner fields.

Metrics and Measures of Student Success

The metrics used to examine student success, retention and completion fell into the following categories.

- Overall Success in Gateway Math Course
- Overall Success in Gateway English Course
- Overall Success in Corequisite vs. Non-Corequisite Courses
- Persistence and Retention and Success in Gateway Math and Gateway English Courses
- Online Course Success
- Open Educational Resources (OER) Success

Definitions

- Success in a Course - Successful completion is defined as completing the course with a C or higher. This is the standard definition of success based on national measurements and ability to transfer courses.
- Persistence: The number of students who are enrolled the next semester.

- Retention: The number of students who are enrolled the next term.
- Completion: The number of students who completed their credential.

Overall Success in Gateway Math Course

Gateway Math courses at NHTI include Math 120, Math 120 XC, Math 124, and Math 124XC. The XC designates corequisite courses that have an added hour on instruction or support. When looking at the five-year data, more students successfully pass non-corequisite courses than co-requisite courses. This data is surprising because of initial data indicating that students enrolled in corequisite courses had a higher success rate than non-corequisite courses. However, the data in *Table G* indicates that 63% of students enrolled in Math 120 successfully completed the courses compared to only 56% of students enrolled in the same corequisite course. The same difference can be found with Math 124 but the discrepancy between the corequisite and non-corequisite courses is more concerning. Only 37% of students in Math 124XC successfully completed the course compared to 50% of students in Math 124.

Table G: Overall Success in Gateway Math

Overall Success in Gateway Math Course [C or higher]	
Math 120	63%
Math 120XC	56%
Math 124	50%
Math124XC	37%

Evidence-based Plan of Action

When just 37% of students pass a course, any course, the college must take a deeper dive into the data to see what is going on. However, when this success rate is attached to a gateway course, the plan of action must include a sense of urgency for a plan of action. The corequisite model is a national model with an abundance of data that demonstrates its success nationwide, especially at community colleges. The college would benefit from faculty professional development that helps them design and effectively assess student success in corequisite courses. Additionally, students would benefit from math faculty supporting attendance in the Math Lab and with other academic support services.

What the data also indicates is that more data is needed to answer such questions as how the students are assessed in these courses, how many times are they assessed, what time the course is offered, and other instructional variables to assess what is going on in the corequisite classes that the college can offer the department to grow and increase the number of students successfully completing Gateway Math courses.

Overall Success in Gateway English Course

NHTI offers English 101 (ENGL 101) and the companion corequisite course English 101XC (ENGL 101XC) as students first college-level English course. The five-year data indicate 66% of students enrolled in ENGL 101 successfully complete the course compared to 43% of students successfully completing the corequisite course (*Table H*). This means that slightly less than 60% of students enrolled in the corequisite courses successfully complete the course.

Table H: Overall Success in Gateway English

Overall Success in Gateway English Course [C or higher]	
ENGL 101	66%
ENGL 101XC	43%

Evidence-based Plan of Action

The student success data once again indicate a concern about the corequisite model. The college would benefit from professional development opportunities for faculty teaching these courses. As has been history at the college, it may also benefit the college to look at variables such as how many fulltime instructors are teaching corequisite courses, when is the course offered, is the overall structure of the English corequisite model needing revision, and how is assessment done in the course. The data also indicates more intentional support of students to use tutoring services and other support services.

Overall Success in Corequisite vs. Non Corequisite Course

An overall comparison of corequisite vs non-corequisite courses over the last five years was done and the data indicate that non-corequisite courses have a significantly higher success rate than corequisite courses (*Table I*). This is true for both Gateway Math and Gateway English courses. While slightly more than half the students successfully complete the non-corequisite course, the numbers for the corequisite course are concerning. Math 120XC has the highest rate of students successfully completing the course. Math 124XC had the lowest success rate.

Table I: Success Corequisite vs. Non Corequisite

Success in Corequisite vs. Non Corequisite Course		
	Corequisite	**Non Corequisite**
Math 120	56%	63%
Math 124	37%	50%
ENGL 101	43%	66%

Evidence-based Plan of Action

The evidence suggests that the college would benefit from an overhaul of their corequisite model in both Math and English. This not only includes the format but the way the courses is being taught and how competency is being assessed. The initial data coming from the Math department regarding corequisite instruction was overwhelming in support of the corequisite model, especially as it compared against the success rate of students in developmental courses. In order to avoid disruption in student pathways at NHTI, a closer look at these gateway courses would be helpful in light of this data.

Persistence and Retention and Success in Gateway Math and Gateway English Courses

To understand the impact of not passing a Gateway English or Gateway Math course on a student's academic momentum, data on persistence and retention was examined. The purpose of this examination was to assess if successfully completing a course was a predictor of a student returning the next semester (persistence) or next term (retention).

Gateway Math Persistence and Retention

To what degree does success in Gateway Math impact a student returning the next semester or the next term? According to the five-year data, it is a strong predictor for persistence and retention with returning the following semester having the highest level of prediction (*Table J*).

The data indicate that only 20% of students who successfully completed Math 120 course did not return the following semester and only 40% did not return the following term. While these numbers are still not what we would want to see, they indicate that success in Math 120 is a predictor of a student's academic momentum.

For students enrolled in the corequisite version of the same course (Math 120), the data is even stronger for the course being a predictor of persistence and completion. 86% of students who successfully completed the corequisite version of Math 120, returned the next semester and 55% returned the following term. While the term-to-term retention is not as high as we would like it to be, the semester-to-semester persistence is impressive. Successful completion of Math 124 and 124XC remain at 82% of students who return the next semester, which once again is impressive. However, those who don't return the next term hover between 55% - 67%. The good news is that this means more than half the students return the following term.

Table J: Success in Gateway Math and Persistence

Success in Gateway Math Course and Persistence		
	Returned Next Semester	**Returned Next Year**
Math 120	80%	60%
Math 120XC	86%	55%
Math 124	82%	67%
Math 124XC	82%	55%

Evidence-based Plan of Action

The evidence here is significant to the completion efforts of NHTI and using Math as a predictor of persistence and retention at NHTI. Math 120XC students should be examined more closely to see what caused them to return the following semester but then not the following term. What was the barrier? What happened? What was their overall GPA? This holds true for all other students who successfully passed a Gateway Math course, returned the next semester but then stopped attending. This is of such importance that it cannot be stressed enough. Gateway Math is key part of a student's academic journey in postsecondary education and it would benefit the college to dig deeper with this data to understand what is going on. Because of this, addressing the needs of students at-risk of not successfully completing a Gateway Math course is of utmost importance.

Gateway English Persistence and Retention

As was asked with Gateway Math courses, with the Gateway English five-year data we also asked to what degree does success in Gateway English impact a student returning the next semester or the next term? According to the five-year data, it is a strong predictor for persistence and retention with returning the following semester having the highest level of prediction (*Table K*).

As the data indicate, success in Gateway English is a strong predictor of students returning the next semester and a somewhat strong predictor of students returning the next term. In both the corequisite course and the non-corequisite course, over 80% of the students who completed the course with a C or higher returned the next semester. Those who then returned the next year ranged between 52% - 62% with corequisite students having a less likely chance of returning the next term.

Table K: Success in Gateway English and Persistence

Success in Gateway English Course and Persistence		
	Returned Next Semester	**Returned Next Year**
ENGL 101	83%	62%
ENGL101XC	84%	52%

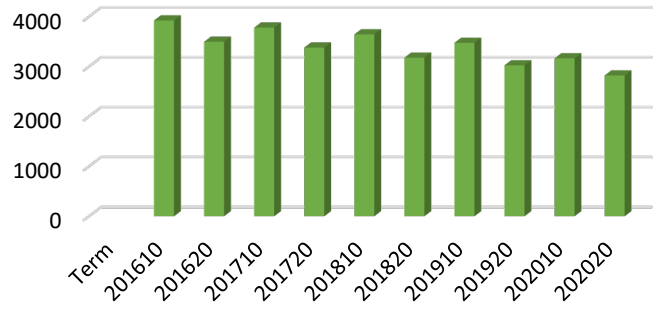
Evidence-based Plan of Action

The evidence-based plan of action here mimics what was found with Gateway Math courses. Gateway English is a strong predictor of students returning the next semester. It would benefit the college to ask the same questions as presented with the Evidence-based Plan of Action with Gateway Math courses and asses just where the barriers are for students at NHTI and we can address these barriers. The data allows us to understand that addressing the needs of students at-risk in a Gateway English course is of utmost importance to the college.

Online Success

The enrollment profile of students enrolled in online courses at NHTI has remained steady over the last fiver years (*Table L*). The decrease in online enrollment coincides with our dip in overall enrollment at the college. As indicated by the profile below, the peak over the last five years was in Fall 2015 and with Spring 2020 reaching below 3000 total students (not unique values) enrolled in an online course.

Table L: Total NHTI Online Course Enrollment



While overall online enrollment has dropped in the last five years, there has been a slight increase in the successful completion in online courses with Spring 2016, Spring 2018, Fall 2019 and Spring 2020 seeing some of the highest success rates (*Table M*).

Table M: Success in Online Courses

Success Profile in Online Courses		
Term	Total	C or Higher
201610	792	74.65%
201620	905	78.15%
201710	828	73.86%
201720	920	77.44%
201810	845	74.51%
201820	935	78.57%
201910	897	77.13%
201920	906	77.04%
202010	930	78.09%
202020	966	78.35%

Evidenced-based Plan of Action

The five-year online data indicate that online course success rates have remained steady over the last ten semesters. Students have roughly a 75% chance of passing an online course with a C or higher. This finding is significant in light of the seismic shift to remote instruction during the pandemic. The data indicates that the majority of students who enroll in an online course will successfully complete the course with a C or higher.

Open Educational Resource (OER) Courses

The data for courses that designated as OER courses include Fall 2019 and Spring 2020 (*Table N*). The college is new to OER initiatives and began to offer courses in Fall 2019 as OER courses. In Fall 2019, 4% of students were enrolled in an OER course with 57% of these students receiving a grade of C or higher. In Spring 2020, the percentage of OER students more than doubled to 19% of students enrolled in an OER course and 85% of these students completed the course with a grade of C or higher. This data is promising for OER courses.

Table N: OER Course Enrollment

Open Educational Resource (OER) Designated Course		
	% of students enrolled	CUM GPA 2.0+
Fall 2019	4%	57%
Spring 2020	19%	85%

Data for this report also included the same course but compared the success rate of those in the OER version of the course and those in the non-OER version of the course (*Table O*). While in Fall 2019, non-OER students had a higher success rate, by Spring 2020 OER courses had the same success rate as their non-OER cohort.

Table O: OER Success Rates

OER vs Non OER and Success		
	OER	Non-OER
Fall 2019	51%	75%
Spring 2020	77%	77%

Evidenced-based Plan of Action

The data for OER courses is promising and this is good news for the college as we work towards closing the achievement gap with our underrepresented populations in NH. The college plans to continue working with the system-wide leaders on this initiative along with Department Chairs and their faculty to expand the number of courses designated as OER courses in the coming years. This will be especially important as the college makes decisions related to expanding online and remote courses in response to the pandemic that hit the nation in spring 2019.

LIMITATIONS OF THE DATA

As with any data analysis, there were several limitations with the data used for our 5th Report. One limitation is that the data was not run by cohort groups. Therefore, we do not know if students were transfer students, change of program students, or newly accepted students.

Additionally, we do not know if students enrolled in the courses used for analysis were taking the course for the first time or if it was a repeat.

For corequisite courses, students are placed into these courses mainly based on placement testing scores or voluntarily. Therefore, it is challenging to assume a baseline level of competency for students enrolled in these courses.

Another limitation is that the OER data is a very small data set as it is only two years of results.

Additionally, we also were not able to control for those students who graduated but are taking more than five years to do so.

The data spans five years. Additional years may provide different results.

Finally, many courses can be completed with a grade of C- or D. Those students were not included in the successful completion data because of how student success was defined for this report.

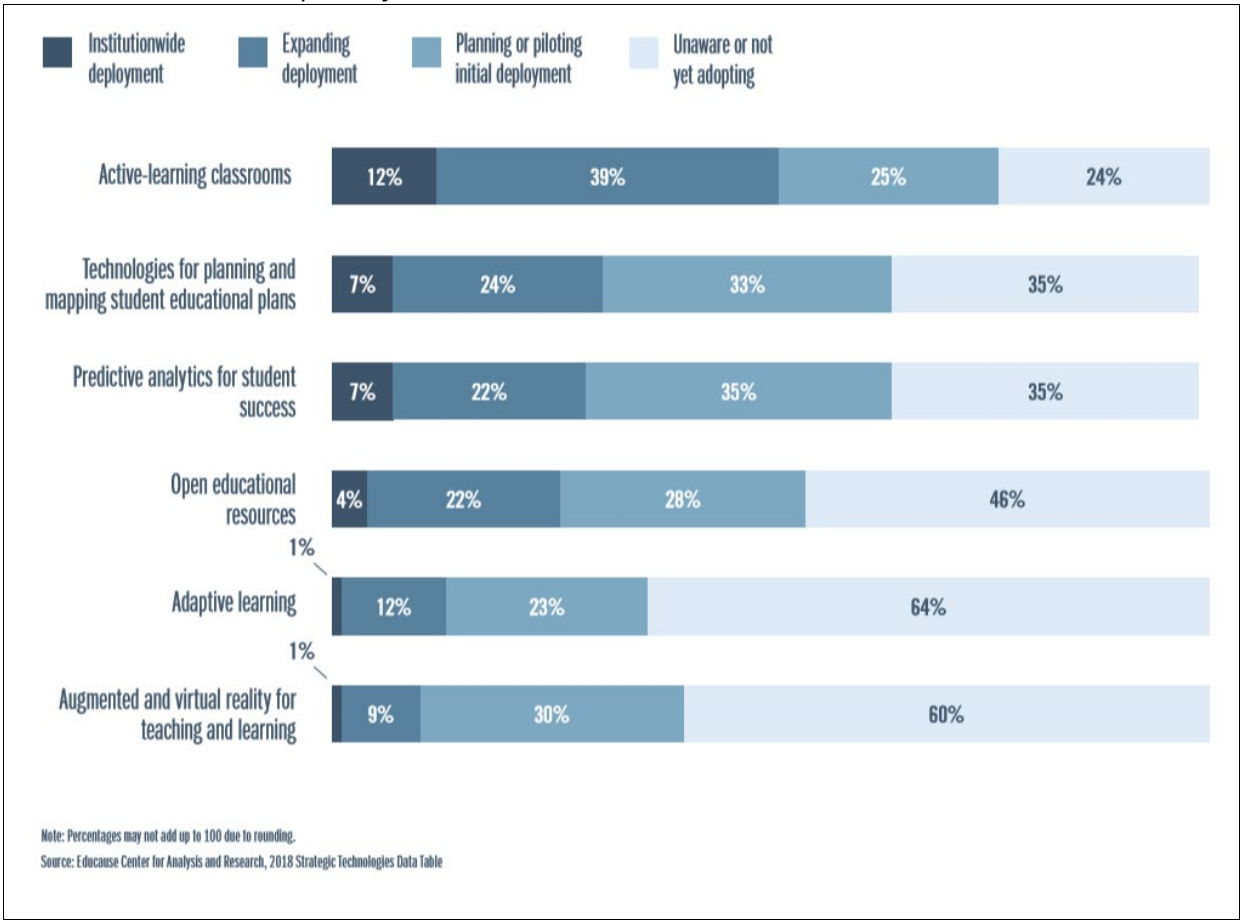
BROADER PERSPECTIVE ON STUDENT SUCCESS INITIATIVES AND WHAT WE ARE ALREADY DOING

As the college engaged in the 5-year NECHE report, we are positive the college is moving in the right direction despite the challenges that are head, especially with our gateway course success rates and the modifications made to our in-person student support services that have all gone almost virtual since March 2019. As the college engaged in the 5-year review process, we continued to look at national data as it compared to what the college was doing and not doing. As documented in the table below, the college has deployed or is in the process of deploying nationwide student success tactics (*Table P*). This is something the college recognizes and values the support from the Community College System of New Hampshire for the ability and resources to deploy many of these tactics.

We currently are using the student-facing platform EAB Navigate to heighten our communication with students and intentionally monitoring of students at-risk. The college will require in the 2020-2021 academic year all students to register using EAB Navigate and are currently in the process of verifying all program maps in Navigate and training staff, faculty and students on how to register using Navigate.

In addition to mapping educational plans using Navigate, in fall 2019 the college implemented year-long scheduling that allows students to plan out their academic plans for two consecutive semesters.

Table P: Institutional Adoption of Student-Success Tactics



Source: The Truth About Student Success

Predictive analytics is another nationwide student success tactic and the college is fortunate to have our Veera Bridge and Rapid Insight Data Warehouse to utilize for student data analysis. In the next section, we will address the need for future plans to include more systematic use of predictive analytics in order to help our most at-risk students in gateway and milestone courses.

Augmented and virtual reality for teaching in learning was not broadly on our radar until March 2019 when the pandemic hit and necessitated the need to move all of our lab-based courses to a remote learning platform. Since that time, most of our lab-based courses (Allied Health, Electrical Engineering,

Architectural Engineering, Information Technologies, and Gaming) have all purchased and onboarded virtual reality or augmented reality technology in their virtual classrooms. The purchase of these tools was made available with CARES Act money and were critical to maintaining the learning outcomes and objectives for our competency-based courses.

The use of OER for courses along with active learning and adaptive learning are also tactics that the college has been engaged in over the years. With the increase of the number of students requesting accommodations through our Accessibility Services Department, the faculty have engaged in adaptive learning classroom instruction and assessment on various levels. This typically has happened when an individual student requires accommodations that the faculty member embeds for all students in the classroom.

CONCLUSION AND PLAN OF ACTION

Community Colleges, including NHTI, must demonstrate an incredible institutional will to succeed in order to stabilize and reinvigorate our relevance in the twenty-first century as a transformative student-centered institution where pedagogy and support-services are informed by our ***2020 – 2025 NHTI Strategic Plan*** and its emphasis on a culture of care (Marti, 2016).

Top-Tier High Priority Action Items (action to be in progress by December 2020)

- **Overhaul Corequisite Courses**: The evidence suggests that the college would benefit from an overhaul of their corequisite model in both Math and English. This not only includes the format but the way the courses is being taught and how competency is being assessed. The initial data coming from the Math department regarding corequisite instruction was overwhelming in support of the corequisite model, especially as it compared against the success rate of students in developmental courses. In order to help avoid disruption in student pathways at NHTI, a closer look at these gateway courses would be helpful in light of this data.
- **Closer Examination of Gateway Course Completion**: The evidence here is significant to the completion efforts of NHTI and using Math as a predictor of persistence and retention at NHTI. Math 120XC students should be examined more closely to see what caused them to return the following semester but then not the following term. What was the barrier? What happened? What was their overall GPA? This holds true for all other students who successfully passed a Gateway Math course, returned the next semester but then stopped attending. This is of such importance that it cannot be stressed enough. Gateway Math is key part of a student's academic journey in postsecondary education and it would benefit the college to dig deeper with this data to understand what is going on. Because of this, addressing the needs of students at-risk of not successfully completing a Gateway Math course is of utmost importance.
- **Heighten the use of EAB Navigate**: Build all programs into EAB Navigate for registration and program map
- **Formation of a Strategic Enrollment Management Committee**: Form a committee that will be responsible for all areas of student enrollment and completion.

Mid-Tier Priority Action Items (action to be in progress by May 2021)

- **Use Predictive Analytics for Gateway and Milestone Courses**: Learn how to use predictive analytics for advising our most at-risk students. This includes looking at the Drop Report and Final Grade report for the following predictors:
    - Successful Completion of Gateway Math

    - Successful Completion of Gateway English
    - Successful Completion of first and subsequent program-specific Milestone Courses.
- **Increase the Use of Technology:** This is for both instruction and student use and includes the use of EMSI Career Coach and Degree Works.
- **Increase the Number of OER Courses**
- **Program Analysis:** Analyze program level persistence and retention data
- **Fully Implement the Use of Navigate for Registration:** Full implementation Navigate for program maps and registration.

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Rebecca Dean
NHTI Race/DEI Report

Underrepresented Student Data
Fall 2015 – Summer 2020 (201610 – 202030)

Data Source
The data used for this report was from Fall 2015 to Summer 2020 and was obtained from the CCSNH Data Warehouse where all data is obtained from Banner fields. NHTI uses the same coding for race and ethnicity as IPEDS (Integrated Postsecondary Education Data System) and students self-identify themselves when applying to NHTI.

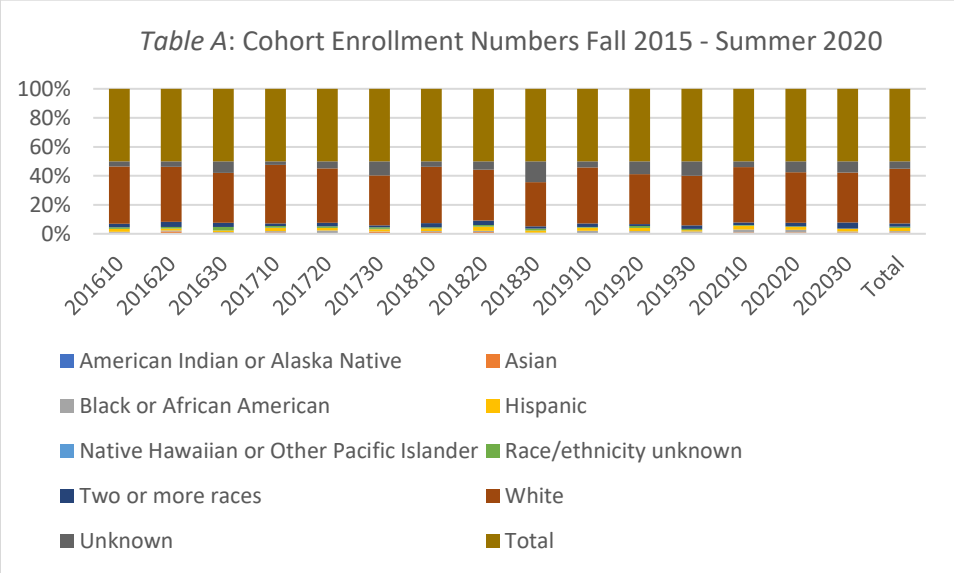
Metrics
The metrics used to examine success and retention of student populations by race and ethnicity fell into the following categories.

- Success in Gateway Math Course
- Success in Gateway Math Course and Completion
- Success in Gateway English Course
- Success in Gateway English Course and Completion
- Success in Lab Science Course
- Success in Lab Science Course and Completion
- Overall Average Grade Point Average (GPA)
- Dropped a Course and Completion

Definition of Success in a Course
Successful completion is defined as completing the course with a C or higher. This is the standard definition of success based on national measurements and ability to transfer courses.

<u>OVERALL NHTI ENROLLMENT PROFILE</u> [Fall 2015 – Summer 2020]

The majority of students at NHTI since fall 2015 have identify as White (*Table A*). Students who identify as being of Two or More ethnicities is the next highest population, with students identifying as Hispanic being our next highest population followed by students who identify as Black.



This report examines the success and completion rates for students who identify in statistically significant race and ethnicity categories at NHTI. While NHTI enrolls students who identify as Native Hawaiian, Asian or American Indian or Alaska Native the numbers of students in these categories are so

small that the data results would have not been robust enough to make any implications for improvement or critical analysis.

Part-time Status vs. Full-time Status

The five-year data indicate that the majority of our students are part-time who enroll in less than 12 credits a semester (*Table B*). The students who identify as Two or More ethnicities having the highest percentage of part-time status (70%) followed by White students (67%). Black students had highest percentage of full-time status students. 47% of Black students have fulltime status, Hispanic students 37% and White students 32%.

Table B: Total Numbers Fall 2015 to Summer 2020

Full-time or Part-time Status			
	Full-time	Part-time	Total
Black	88	98	186
Hispanic	144	237	381
2 or more	129	305	434
White	2241	4711	6952

STUDENT SUCCESS and COMPLETION

Success in Gateway Math Course

Successfully completing the student's first college-level math course, also known as a Gateway Math course, is important for pathway momentum and completion.

Math 120, Math 120XC, Math 124, and Math 124XC are the Gateway Math courses used for analysis in this report. The past five years of data indicate that students who have the highest success rate in a Gateway Math course at NHTI identify as White (68%) while those who identify as Two or More ethnicities are not far behind with a 66% successful completion rate (*Table C)*. Students who identify as Black have the highest rate of not successfully completing the course (55%).

The data indicate that there is a significant difference between the successful completion of a Gateway Math course for Black students compared to all other ethnicities.

Table C: Success in Gateway Math

Success in Gateway Math		
	Successful	Unsuccessful
Black	49%	55%
Hispanic	62%	37%
2 or more	66%	33%
White	68%	31%

Evidence-based Implications

With a more than 10% discrepancy between the success rate of Black students and their peers, the college would benefit from intentionally building in supports for Black students and monitoring their progress in Gateway Math courses. These supports could include peer tutoring, intrusive advising, and

enhanced at-risk flagging systems where faculty identify at-risk students multiple times before the current structure of midsemester warnings.

Success in Gateway Math and College Completion

Upon further analysis of the percentages of success in a Gateway Math course, the data indicate that students who successfully complete a Gateway Math course were more likely to complete their credentials within five years than those students who did not successfully complete the course (*Table D*).

23% of White students completed their credential after successfully passing their Gateway Math course compared to only 13% who completed their credential after not successfully completing their Gateway Math course. The same holds true for students who identify as Two or More ethnicities. 21% of those students successfully completed the math course earned their credential in five years. However, the difference between completion and success is not significant for Black students with 10% of those students completing their credential after successfully completing the math course and 9% complete after unsuccessful completion of the math course. The data indicate that successful completion in a Gateway Math course is not a predictor of completion NHTI students, especially for Black students.

Table D: Success in Gateway Math and College Completion

Success in Gateway Math and College Completion		
	Successful	Unsuccessful
Black	10%	9%
Hispanic	17%	11%
2 or more	21%	16%
White	26%	13%

Evidenced-based Implications

The implications here are a bit bleak in regards to Black students who successfully complete a Gateway Math course. As indicated by the previous set of data, Black students are less likely to successfully complete their Gateway Math courses compared to their peers. Unfortunately, even when Black students successfully complete their Gateway Math course, they are the least likely to go on to complete their credentials compared to their peers. The college would benefit from doing further research into why Gateway Math courses are not predictors for completion, especially for Hispanic and Black students. Assessing what other variables impact these student's academic momentum *after* completing their Gateway Math class would be helpful. This assessment would be most beneficial if done by races and ethnicities within cohort groups rather than a more generalized assessment.

Success in Gateway English Course

In addition to a college-level math course, all students must successfully complete a college-level English 101 course. There are two versions of the course offered at NHTI and that were used for this study. ENGL 101 and ENGL 101XC are the two Gateway English courses at NHTI. The XC version is the co-requisite version where students receive an extra hour of instructional time.

The success rates of all students in their Gateway English course are more promising than in their Gateway Math courses (*Table E*). Overall, more than half the students who enrolled in a Gateway English course successfully passed the course with a C or higher.

Table E: Success in Gateway English

Success in Gateway English		
	Successful	Unsuccessful
Black	58%	41%
Hispanic	57%	33%
2 or more	73%	26%
White	75%	24%

Evidence-based Implications

The success rate of all students in a Gateway English class would benefit from further analysis. However, the five-year data indicate a high level of success in Gateway English courses for students at NHTI. More than half the students who enroll in a Gateway English class successfully complete the class with a C or higher. But the college would benefit from further analyzing why its Black Hispanic students have the lowest success rate in a Gateway English course. As mentioned previously, the college would also benefit from additional support services, including peer tutoring, intrusive advising, and enhanced at-risk monitoring by faculty teach these courses.

Success in Gateway English Course and Completion

The data indicate that although over half of the students enrolled in a Gateway English course successfully completed the course, the chances of going on to complete their credential is not as promising (*Table F*). According to the data over the last five years, if a Black student successfully completed a Gateway English course, only 10% of these students went on to complete their credential in five years. The results are even less promising if a Black student did not successfully pass a Gateway English course as none of those students went on to complete their credential. The same statistic is true for students of Two or More ethnicities. If they did not successfully complete their Gateway English course, none of them went on to successfully complete their credential.

What the data appear to indicate is that students who do not successfully complete their Gateway English course have a 5% or less chance of completing their credential in five years.

Table F: Success in Gateway English and College Completion

Success in Gateway English and College Completion		
	Successful	Unsuccessful
Black	10% completed	0% completed
Hispanic	16% completed	2% completed
2 or more	19% completed	0% completed
White	27% completed	5% completed

Evidence-based Implications

The evidence-based implications here are significant. While the completion rates are relatively low, the data indicate that successful completion in a Gateway English course is a predictor of completion, especially for Black, Hispanic and 2 or more races. As mentioned in the previous data, the success rate in Gateway English classes is impressive but more needs to be done for underrepresented populations. The college would benefit from continued use of its co-requisite model and enhanced academic support system. Additional analysis of what happens after a student does not successfully pass a Gateway

English class would also be needed to understand what happens to students after they do not pass their Gateway English course.

Success in a Lab Science Course

All students at NHTI are required to take at least one lab science course to complete their credential. Data over the last five years indicates that more than half of the Black students successfully pass their lab science class (*Table G*). The same is true for all other ethnicities with White students having the highest rate of successful completion. 77% of White students successfully complete their lab science course while about 71% of both Hispanic and Two or More ethnicities successfully complete a lab science course.

Table G: Success in a Lab Science Course

Success in a Lab Science Course		
	Successful	Unsuccessful
Black	55%	44%
Hispanic	71%	28%
2 or more	70%	29%
White	77%	22%

Evidenced-based Implications

When analyzing the five-year success rate of students enrolled in a lab science course at NHTI, the data indicate a fairly significant success rate with more than half of all students successfully completing the class. However, once again, Black students are the least likely to earn a C or higher. The college would benefit from additional analysis, especially when it comes to what portion of the class students do not successfully complete. Is it more the lecture-based part of the course or is it more the lab-based part of the course? If it is the lecture portion, enhanced support such as Supplemental Instruction, would support all students in the course. If it is the lab portion, additional Open Lab time may benefit the students.

Success in a Lab Science Course and Completion

When examining the data of completion rates for students who successfully or unsuccessfully complete a lab science course, the results show that over five years Black students were least likely to complete their credential (*Table H*). Only 19% of Black students completed their credential compared to 34% of White students who completed their credential. However, Black students compared to Hispanic or Two or More students were slightly higher in their completion rates if they did not successfully pass a lab science course. 12% of Black students who did not successfully pass completed their credential in five years. Only 9% of Hispanic students and 8% of Two or More students went on to complete their credentials.

Table H: Success in a Lab Science Course and College Completion

Dropped A Course & College Completion		
	Unsuccessful	Successful
Black	12% completed	19% completed
Hispanic	9% completed	21% completed
2 or more	8% completed	31% completed
White	11% completed	35% completed

Evidence-based Implications

The findings here are significant for the college to examine further. It is significant that 35% of White students who successfully complete a lab science course and 31% of 2 or More Race students go on to complete their credential while only 19% of Black or Hispanic students do the same. What is significant here is the remarkably high completion rates for White and 2 or More Race students. 35% and 31% completion rates are to be celebrated but it also needs to be very carefully examined further. Why such a big completion rate for White and 2 or More Races and not for Black or Hispanic students? What are other factors impacting White and 2 or More Races that don't impact Black or Hispanic students, especially after they complete this course.

Overall Average GPA

In order to successfully to meet all program outcomes and requirements, students must have a minimum GPA of 2.0 in their program courses. The overall average GPA for the last five years of Black students is 1.75. The lowest out of the other student groups with Hispanic students having an average overall GPA of 2.12, Two or More has a 2.28 average overall GPA and White students have a 2.49 average GPA.

Table I: Overall GPA

Overall Average GPA	
Black	1.75
Hispanic	2.12
2 or more	2.28
White	2.49

Evidence-based Implications

Overall Grade Point Average has routinely been a predictor of success and completion in postsecondary education. When examining the average Overall Cumulative GPAs over five years at NHTI, the average GPA by Race and Ethnicity supports the other data presented in this report. White, 2 or More Races and Hispanic students all have an average Cumulative GPA above a 2.0. Black students have 1.75 average Cumulative GPA over the last five years. The implications for the college here once again tie into the data that is repeated over and over again with this report: our Black students enter into NHTI with little hope of being successful or completing their credential. The college would benefit from examining how we enroll these students from the point of application to the point of enrollment to the point of stopping out to look for possible patterns, correlations, or even causations.

Dropped a Course and College Completion

Dropping a course appears to have a greater negative impact on completion for Black and Hispanic students than it does for other students (*Table J*). The data indicate that only 2% of the Black students who dropped a course went on to complete their credential at NHTI. The rate isn't that much higher if they didn't drop a course as only 11% of Black students completed their credential without dropping a course. For Hispanic students, the chances of completing a credential are the same as they are for Black students if they don't drop a course. However, the chances of completing are slightly higher if they drop a course with 5% of these students going on to complete their credential. 19% of White students who did not drop a course completed their credential while 12% completed their credential if they dropped a course.

Table J: Dropped a Course and College Completion

Dropped A Course and College Completion		
	Dropped	Did Not Drop
Black	2% completed	11% completed
Hispanic	5% completed	11% completed
2 or more	10% completed	13% completed
White	12% completed	19% completed

Evidence-based Implications

Dropping a course temporarily or permanently alters the academic momentum of students. The evidence indicates that the college would benefit from a more intentional and systematic approach to allowing students to drop a course. Without restricting the freedom to drop a course, the college may need to consider implementing procedures or levers so that students do not drop a course in isolation, in frustration and without have talked to someone.

LIMITATIONS OF DATA

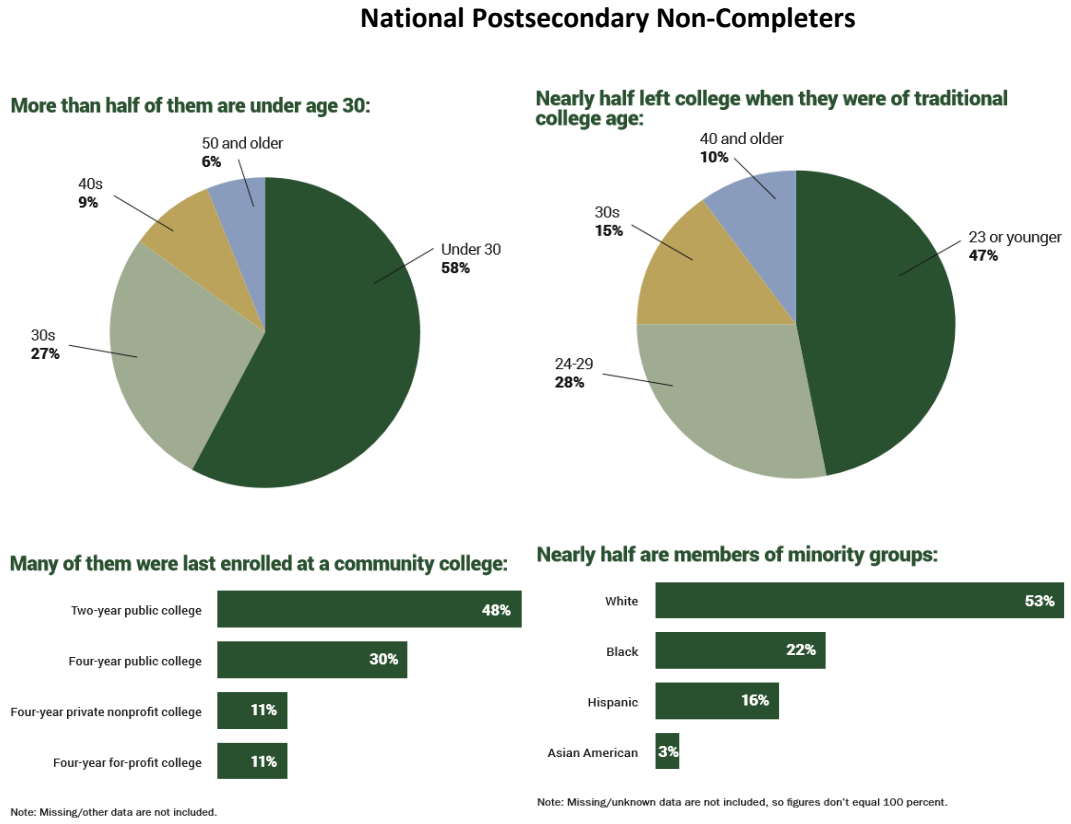
As with any research, there are limitations to the data used for this report. One of the most significant limitations is that the data only includes students who self-identify their race and ethnicity on their application to the college. This means that the data does not capture non-matriculated students or students who did not self-identify. Additionally, we also were not able to control for those students who graduated but are taking more than five years to do so. Additionally, the data does not indicate if the student repeated a course or took a developmental course first (developmental courses in Math are still available for students).

BROADER IMPLICATIONS

From a national perspective, the current available research is concerning about the prodigious achievement gap among underrepresented students. As a society, we need to be doing better with closing the achievement gap among underrepresented students and their cohorts, especially in postsecondary education. This comes from the belief that all people deserve the equitable opportunities to pursue educational goals without huge disparities in resources or pathways to success.

The data analyzed in this report highlight the momentum of students over a five-year period. While an Associate Degree is historically designed as a two-year degree, even after five years, most students do not complete their credential. While IPEDS tracks completion on a 150% rate (three years), very few students complete their credential in that time period.

If we look at a national level, according to the Chronicle Almanac 2020-2021, the nation has fallen short in becoming the leader in college attainment (p.10). According to 2020-2021 data, 58% of students leaving postsecondary education were under the age of 30 and 48% had last attended a community college.



Source: Chronicle Almanac 2020-2021

If we look at a more local level, in the state of New Hampshire, 27.7% have a high school diploma, 18.4% has some college, no degree, 10.2% has an Associate degree, and 22.4% have a Bachelor's degree. This means that 46.1% of the population in NH has no postsecondary credential (Chronicle Almanac 2020-2021).

If we then take these statistics and look at the success and completion rates for our students in Gateway Math, Gateway English and Lab Science courses, courses needed to complete their pathway, these courses are critical for momentum and completion in a degree program.

When narrowing the scope down to the racial and ethnic distribution of NHTI students compared to the state of NH, we see that NHTI is not much different from the state. New Hampshire is predominately a White state with 92.4% of its residence identifying as White (Chronicle Almanac 2020-2021). Hispanic is the next highest at 3.9% and Two or More at 2.2% of its population. Residents who identify as Black make up 1.7% of the population in the state. As one can see, this distribution mirrors the racial and ethnic distribution at NHTI.

RECOMMENDATIONS FOR NHTI

What are the next steps for the institution? The following recommendations are summaries of what may need to be considered in light of the five-year NHTI data.

- **Keep the NHTI Strategic Plan 2020 - 2025 Front and Center:** The 2020-2025 Strategic Plan is the guide and the goal with its intentional emphasis on diversity, equity, and inclusion. The new Coordinated Care Advising Model is also crucial in any next steps because its pure design is to systematically track and monitor our most at-risk students.

- **Use Data for Decision-Making:** The continued use of evidenced-based practices is key to the success of our students. This includes all aspects of the Guided Pathways initiative, especially maintaining our co-requisite courses and supporting students to take at least 30 credits over the span of three semesters. This also includes Pillar Two of the Coordinated Care Advising Model.

- **Repurpose the former NHTI Summer Lynx Program:** The college would benefit from having a program that offers underrepresented students a Gateway Math or English course or even a Lab Science course along with another credited course (perhaps a course directly tied to their major) and have the students be directly linked to an academic advisor on the first day of the program.

- **Address the Unique Needs of Hispanic Students:** The college would also benefit from looking at the needs of their Hispanic students, which is the second largest population at the college. It may also be interesting to do intentional programming or outreach to these students along with the Two or More ethnicities students to learn more about their families, needs, challenges, and goals while attending NHTI.

- **Elevate the Use of Intrusive and Systematic Student Supports:** These supports could include peer tutoring, intrusive advising, and enhanced at-risk flagging systems where faculty identify at-risk students *multiple* times during the semester.

- **Assess Other External Variables:** Assessing what other external variables (i.e. employment, living off campus, age, athlete, etc.) impact these student's academic momentum *after* completing their Gateway Math class would be helpful. This assessment would be most beneficial if done by races and ethnicities within cohort groups rather than a more generalized assessment.

- **Assess Other Academic Variables:** The college would benefit from additional analysis, especially when it comes to what portion of the class students do not successfully complete. Is it more the lecture-based part of the course or is it more the lab-based part of the course? If it is the lecture portion, enhanced support such as Supplemental Instruction, would support all students in the course.

- **Student Cycle Analysis:** The implications for the college here once again tie into the data that is repeated over and over again with this report: our Black students enter into NHTI with little hope of being successful or completing their credential. The college would benefit from examining how we enroll these students from the point of application to the point of enrollment to the point of stopping out to look for possible patterns, correlations, or even causations.

- **Drop Report Analysis**: Dropping a course temporarily or permanently alters the academic momentum of students. The evidence indicates that the college would benefit from a more intentional and systematic approach to allowing students to drop a course. Without restricting

the freedom to drop a course, the college may need to consider implementing procedures or levers so that students do not drop a course in isolation, in frustration and without have talked to someone.

CONCLUSION

Community Colleges, by their very design, are open-access institutions that offer people the opportunity to pursue higher education no matter what their history or background may be. NHTI is an institution that has the promise and hope to excel in closing the achievement gap of its students. From the qualified faculty, to the dedicated administration, to the students themselves, it's an institution that has everything going for them to intentionally engage in discussions and develop strategies to change the current patter of success that has occurred over the last five years for our students. By looking at the current data and using additional analysis of variables not included in this report, the college sits in an optimal place to change the trajectory of success for students, especially Black and Hispanic students.