

## **6. Reflective Essay on Assessment, Retention, Student Success**

Northern Essex Community College (NECC) has selected to respond to 6.b. Assessment of student learning: “What and how students are learning” and 6.c. Measures of student success, including retention and graduation.

Northern Essex takes pride in that a vast majority of its graduates transfer or go to work in a program-related career upon completion, and that its advisory boards laud the knowledge, technical skills, and employability of its graduates. Successful Northern Essex students have what it takes to be active, productive, and impressive participants in the local community and in the workforce. College staff also acknowledges that not enough students make it to the finish line, and that is where the heart of this work continues. In this essay, discussion will revolve around main goals and measures, tied to particular programmatic or policy changes in the past five years from the classroom and program level to the institutional assessment level. The reader will learn of the adoption of the acquisition of six Core Academic Skills that are now graduation requirements for all incoming Associate Degree seeking students, and what Northern Essex is doing to increase its course completion, retention, and graduation/transfer rates overall.

The college has been tracking overall retention, graduation, and course completion rates (with a grade A-C) for many years, while focusing in particular on age, ethnicity, and students transitioning from developmental-level courses into college level courses. The college took advantage of guidance and funding to jumpstart some strategies to impact goals through participation in Achieving the Dream (ATD), a national initiative that is dedicated to helping more community college students, particularly low-income students and students of color, stay in school and earn a college certificate or degree. Evidence-based, student-centered, and built on the values of equity and excellence, Achieving the Dream has served as a lens for the college to pursue its goals for student success. Northern Essex became an ATD Leader College in 2011 and was recertified in 2014. As a Leader College, Northern Essex takes pride in the translation of data analysis into policy and program improvement, driving student success measures. In the following sections, some of those policy changes and academic initiatives will be described in more detail, and how they impact student success. Finally, this discussion provides appraisal and projections for the next five years.

### Findings and Analysis

#### **b. Assessment of Student Learning: What and How Are Our Students Learning**

##### *Institutional Assessment*

At an institutional level, college staff wanted to ensure that students were gaining competency in six key general education skills: Global Awareness, Public Presentation, Science & Technology, Information Literacy, Quantitative Reasoning, and Written Communication. NECC decided to require all incoming Associate Degree seeking students to take at least one course intensive in each of the skills. As mentioned in Standard 4, the Core Academic Skills requirement stemmed from the faculty-driven 2009 effort to establish “A Vision for Core Academic Skills at Northern Essex Community College” and resulted in the adoption of the six Core Academic Skills. It is understood and promoted to students that regardless of whether students will be joining the workforce after attending Northern Essex or transferring to a four-year college or university, that these core academic skills will lead to success in both career and life. Beginning in fall 2014, if a student is new to the college and has no academic

history at the college, s/he is required to take at least one course that is intensive in each of Northern Essex's six core academic skills in order to be eligible to graduate. As of September 2014, there were 201 courses approved as skills intensive. Once a course is designated, all sections of that course are required to meet the criteria of that intensive designation. Since the college initially embarked on this course of action in 2010, assessments have been completed on five of the six of the core academic skills on a rotating basis. The Institution Level Outcome Assessment on the Core Academic Skills can be found at these links:

- Communication Assessment: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/outcomes-assessment/institutional/communication-assessment-2009-10-academic-year/>
- Global Awareness: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/outcomes-assessment/institutional/global-awareness-and-quantitative-reasoning-assessment-2010-11-academic-year/>
- Information Literacy: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/institutional/information-literacy-assessment-%e2%80%93-2011-12-academic-year/>
- Quantitative Reasoning: <http://facstaff.necc.mass.edu/wp-content/uploads/2013/07/IA-Report-QR-Spring-2013.pdf>
- Public Presentation: <http://facstaff.necc.mass.edu/wp-content/uploads/2014/09/IA-Report-PP-Spring-2014.pdf>

Science and Technology is scheduled for assessment in 2016.

The assessments typically consisted of locating students with 45 or more credits completed and identifying instructors with such students in their classes and who had developed, or were willing to develop, an assignment that could be assessed using the rubric associated with that particular core academic skill. Instructors agreeing to participate, next submitted samples from the identified students. A team of raters with expertise in that skill would then apply the rubric to the collected products and results were then discussed in the reports of each skill assessment.

NECC has also played a lead role in the statewide efforts to coordinate assessment of institutional outcomes through its involvement in AMCOA (Advancing a Massachusetts Culture of Assessment) and its statewide assessment pilot. AMCOA consists of a group of assessment leaders from each of the Massachusetts public undergraduate campuses. The team meets on a regular basis to share assessment practices, discuss assessment issues, and organize state-wide conferences for professional development related to learning outcomes assessment. Massachusetts is now part of a nine-state pilot of institutional assessment using authentic student products.

#### *Program Level Assessment and Program Review*

Northern Essex has been engaging in program reviews and outcomes assessment at the program level for the past ten years, in a systematic and structured way, led by the former Associate Dean of Academic and Institutional Effectiveness. The program review work being done at Northern Essex Community College is extensive, involving college faculty, administrators, and staff, as well as representatives of area employers and four-year colleges. The reviews evaluate each program's mission, enrollment,

curriculum, student outcomes, faculty, budget, and resource needs. The reviews follow a posted schedule, and include action plans and associated resource requests, as well as the development of, or updates on, program outcomes assessment plans. Each year, at a program review summit, faculty presents results of the program reviews. Some samples can be viewed here: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/assessment-summits/>.

As the reader will note on the E-Series forms, all programs listed have formal learning outcomes developed and assessment plans are in place, as the plans are created at the same time as the initial program review. Each year between the five year full program reviews, faculty carry out assessments according to the plans and adjust their curriculum and teaching accordingly. As the college monitors programs, student demand, and regional workforce trends, sometimes programs are archived and other new programs are developed to meet new needs. For example, due to a decrease in student demand for Paralegal programs, Northern Essex has recommended inactivation of the Paralegal Transfer Option, the Paralegal Career Option, and the Paralegal Certificate Program. Recommendations were made by the Coordinator of the Program once enrollments dropped below a sustainable level, and those recommendations were approved by the Academic Affairs Committee and the Academic Vice President of the college. Students currently enrolled must complete their program by fall 2016 and they have all been contacted and given a “teach-out plan” to assure program completion. At the same time, there have been four new programs approved to begin.

This spring, Academic Affairs approved the creation of an Automotive Technology Certificate. This program was designed to meet industry needs in the Merrimack Valley region and courses were developed based on curriculum supported by the National Automotive Technicians Education Foundation (NATEF). Curriculum is designed with scope and sequence in mind so that students will be able to continually build on previous lessons. Also approved was a new option under the Engineering Science Associates Degree Program—Advanced Manufacturing Technology Option. This option introduces students to the principles, analysis, and equipment of engineering manufacturing. Emphasis is placed on fundamentals through “hands on” curriculum. The program is designed to serve two purposes for students. First, the objective has an occupational focus. The curriculum prepares graduates to work in such occupations as machinists, technicians, engineering assistant, manufacturing specialists, and prototype fabricators for engineering and manufacturing companies that specialize in design, development, manufacturing, and service. Second, the majority of the courses in the program prepare students to pursue an upper level degree in engineering.

When the iHealth initiative investigated potential programs to develop, faculty and administrators reviewed both the federal Bureau of Labor Statistics as well as local job listings to determine if there were current and future opportunities for jobs in the areas of Ophthalmic Assistant and Medical Laboratory Technology. Focus groups were held with managers and supervisors of local area healthcare facilities in order to obtain their feedback on the need for these programs as well as their input on the structure of the program, courses, and externship/practicums as well as their interest in providing externship/practicum rotations for students in their facilities. The college also looked at the other Massachusetts community colleges and other state and private colleges to see which offered the same or similar programs to ensure Northern Essex wouldn't be saturating the market. All of these factors were used to determine the need and viability for the development of these programs. Once the need for the program and the opportunity for employment were determined, paperwork was submitted to Academic Affairs and to the Massachusetts Department of Higher Education for AS degree programs. With the certificate programs, the college must ensure it provides the supporting documentation to

meet the federal financial aid gainful employment requirements so that certificate programs are eligible for financial aid.

In some cases, program reviews have brought about significant change in existing programs. For instance, what started as a review of the General Studies: Physical Education, Exercise Science, and Sports Studies program resulted in revisions and the creation of a new program, Movement Science, which was offered beginning in fall 2014. The revisions, which included changes to current courses and the development of new courses, were made considering the college's resources and student interest, and to ensure that students are well-prepared for transfer to programs offered at four-year colleges. While transfer agreements for the new program are in place at Salem State University and Springfield College, plans going forward are to develop additional agreements with other area colleges. Other goals include expanding the Movement Science Program to the Lawrence campus and Lawrence YMCA, increasing opportunities for students to earn professional certifications, and perhaps adding evening courses.

To assist faculty in the work of outcomes assessment at the course and program level, the Guide for Developing and Implementing an Outcomes Assessment Plan was written in 2005. The Northern Essex outcomes assessment process begins with the development of a program outcomes and curriculum map, typically done in conjunction with a program review, as mentioned above. The reader may view curriculum maps here: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/program-outcomes-and-curriculum-maps/>.

The map details program objectives and associated student learning outcomes—"what" students are expected to know or be able to do after they complete the program—as well as the curricular contexts or experiences that are designed to contribute to or support this learning—"how" will the objectives be accomplished. Each year, programs are encouraged to conduct assessments related to selected outcomes. Assessment results are analyzed and interpreted, and appropriate action plans developed. This work is detailed in program assessment summaries and also presented by faculty in annual college-wide assessment summits.

Other assessment tools include rubrics, surveys of graduates and employers, as well as evaluation of practicum and externship experiences <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/assessment-tools/>. Rubrics are in place for particular courses or programs. One exciting endeavor occurring at Northern Essex is a group of faculty across the ESL, Academic Preparation, and the English departments working to measure student progress in writing across courses/levels. The Writing/Reading Assessment Team (WRAT) has been working together, collecting student samples with the intent to norm them much like ESL faculty do within their curriculum, to ensure the continuity of important reading and writing skills across levels. Time and resource constraints make this model challenging to employ and sustain. Although assessing a skill across multiple levels of a discipline is difficult work, it enables faculty to see where gaps may exist in student learning, and enables them to more accurately scaffold the learning objectives so that they align with the expectations of what a student can do when they enter the next course level. It also gives more continuity to the student to know that a skill they successfully acquired in one course is acknowledged in the next course and expectations will not vary wildly about incoming skill level.

The reader can view in the E-Series forms that every program that has been reviewed has extensive measures of data/evidence to determine that graduates have achieved the stated outcomes for their degrees. These data/evidence measures include assignments, exams, in-class exercises or presentations,

portfolios, journal entries, research papers, case studies, and faculty-developed rubrics. The formal learning outcomes define 'what' is being learned and the other measures are determining in large part the 'how.' The 'how' can take many forms at Northern Essex, both inside and outside of the classroom.

### *Internships/Civic and Community Engagement/Service Learning*

In conjunction with academics, with formal learning outcomes and student reflection, NECC's revitalized Internship Program and growing Service Learning component are demonstrating in context 'what' and 'how' our students are learning. In alignment with the statewide manual for internships and coops, and as an outgrowth of the college's Strategic Goal 4 – *Improve student career preparation*, the Internship Program started with two departments: Business and Journalism and grew to include Computer Information Science. Eleven students participated in spring 2014, 19 in fall 2014, and 33 in spring 2015. More than half of participating students were offered positions at the sites of their internships. The program is rigorous and classes are taught by faculty, contextualizing the content to their discipline. Students participate in a series of workshops to prepare them for placement in the workplace, and they write reflection papers on their experience. Students are awarded credit for participation and in most cases they are also paid by the internship site.

Service learning has slowly but surely been gaining traction at NECC under the guidance of a faculty member with course reassignment for its coordination. The Service Learning Fellowship program has offered professional development to faculty wanting to teach a course with a service learning component and multiple partnerships with community organizations have been leveraged for mutual benefit. Students are learning about public policy, social justice, and various other topics while giving back to their communities in a substantive way. No college-wide formal evaluation or data collection has been done on service learning activities to date, although this past September, a group was formed with members from across the college in order to begin to systemically collect data about all of the civic, community engagement, and service learning activities across the college and student population with the intention of meeting the Carnegie Classification guidelines in the future.

College staff recognizes that students learn inside and outside of the classroom. Their participation in the Student Leadership Development Program, in Student Senate, student clubs, on athletic teams, and in community service all engage students in learning about their community—the college community and the greater community they live in, and the impact they can have as civically engaged citizens. It makes them more engaged on campus, and they bring that attitude into the classroom, thus participation in these activities plays a role in student retention, while serving as a platform for learning.

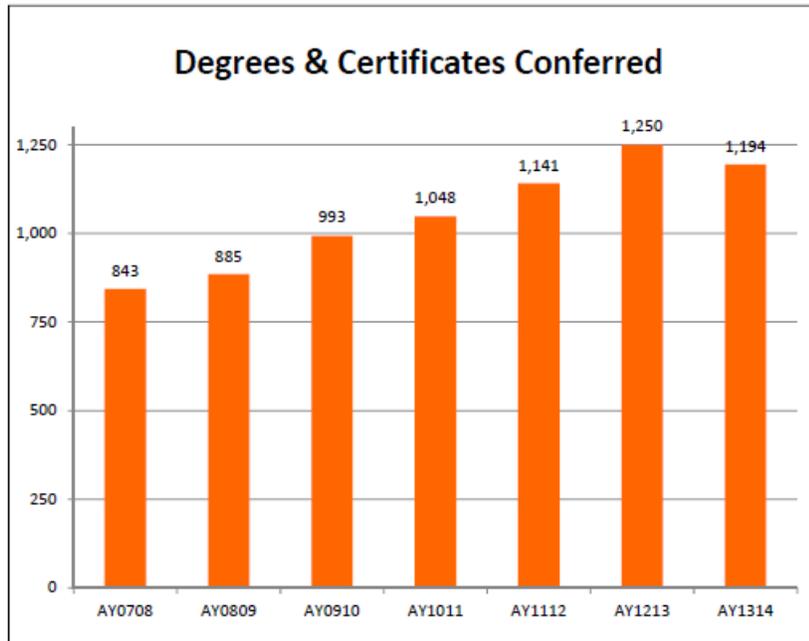
### **c. Measures of Student Success, Including Retention and Graduation**

#### *NECC KPIs*

The college used to track a large number of Key Performance Indicators, but did not have specific strategies dedicated and measured for impact toward KPI improvement. Achieving the Dream helped the college to focus its rich data collection on specific, targeted populations which were chosen by disaggregating data, and building strategies to effect positive change. Northern Essex maintains longitudinal data and sets goals for five key performance indicators: Degrees and Certificates Conferred, Retention, Overall Course Completion Rates, Course Completion in Mathematics, Course Completion in English Composition I—and for each indicator after the data for all students are reported, they are disaggregated for students under age 25, for Hispanics, for males, and for Hispanic males.

### *Degrees and Certificates Conferred*

Apart from a small dip in AY13-14, Northern Essex has seen steady growth in degrees and certificates conferred, climbing from 843 in AY07-08 to 1,250 in AY12-13. As Hispanic students become a larger proportion of the student body, so are they graduating in higher numbers, from 84 in AY07-08 to 273 in AY13-14. The number of Hispanic males graduating has more than tripled between AY07-08 and AY13-14. Although a goal is to see this number grow even faster, it is remarkable given the challenges Hispanic males have in course completion.



	AY0708	AY0809	AY0910	AY1011	AY1112	AY1213	AY1314
Overall	843	885	993	1,048	1,141	1,250	1,194
Age <=25	328	381	388	443	438	524	495
Hispanic	84	109	141	157	187	248	273
Males	216	266	307	306	349	327	320
Hispanic Males	18	31	42	53	58	58	69

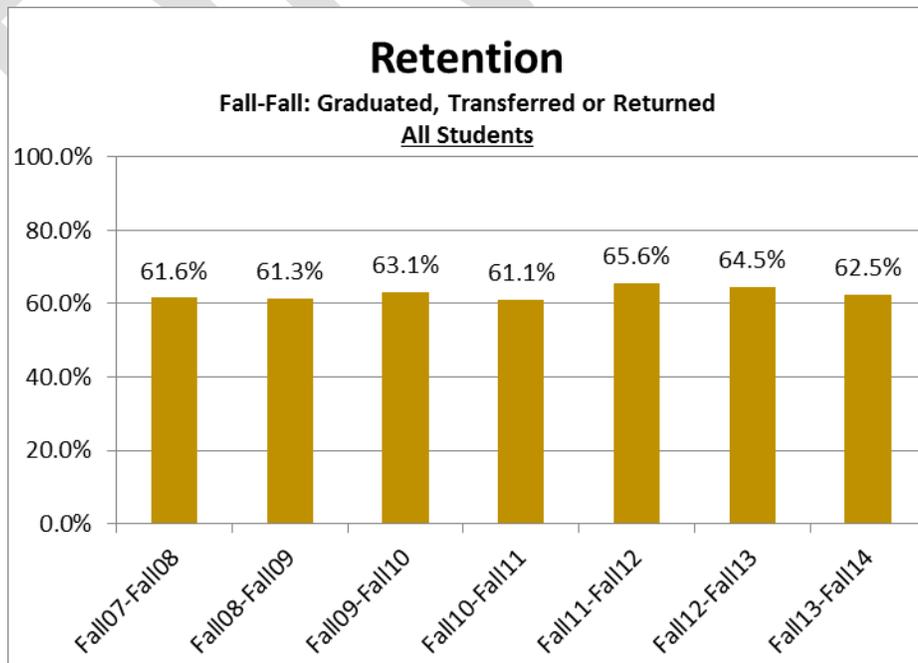
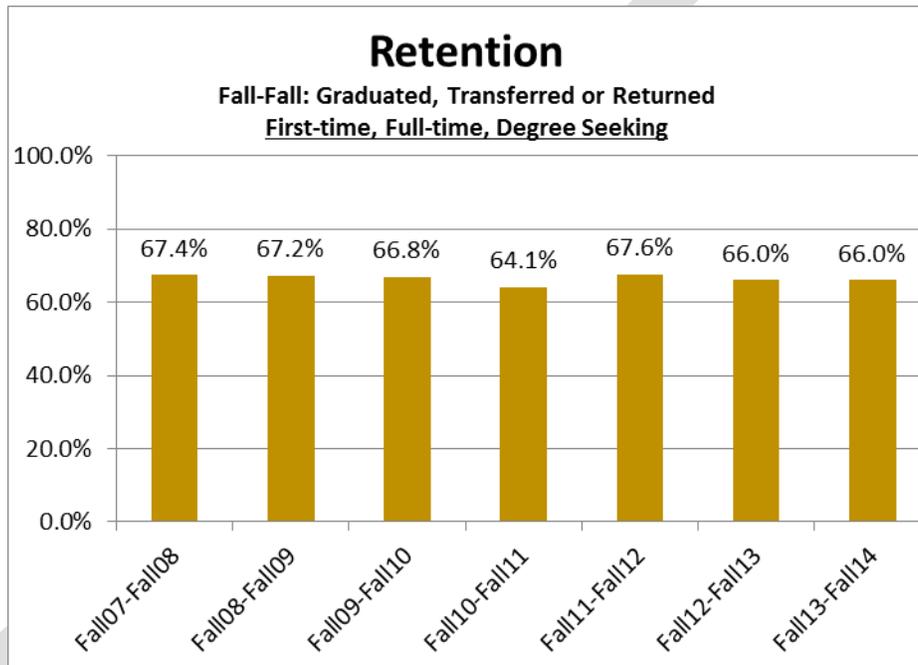
### *Transfer*

Of the 1,086 graduates in AY12-13, there were 739 respondents to the 2013 graduate survey to determine employment and continued education; 63% of respondents replied that they were in school furthering their education after graduating from Northern Essex and 84% of those (212) reported that their current studies were related to the program that they completed at Northern Essex. According to the college's published Right to Know Statement, July 2014, the four-year average Student Right to Know transfer rate is 23%.

### *Retention*

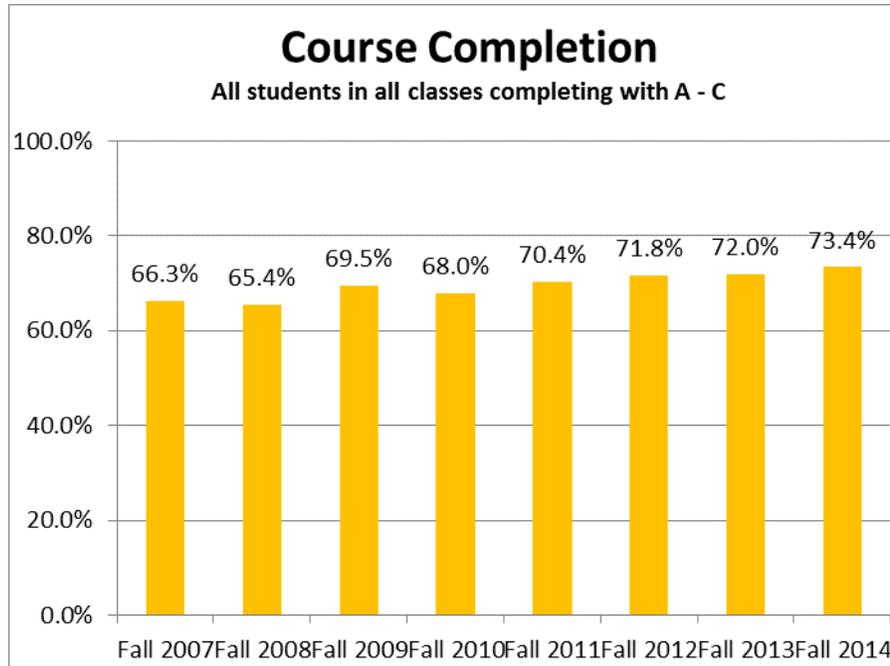
While the college's trend data on retention for "first-time, full-time, degree seeking students" has remained relatively flat over the last five to seven years, averaging just over 66%, the retention rate for *all students* has slightly dipped over the last three years from 65.6% for fall 2011-fall 2012 to 62.5% in fall 2013-fall 2014.

Although the college has experienced decreased enrollment recently, the Hispanic population continues to grow and brings some of the most underprepared students. Additionally, there are larger numbers of students enrolling with challenges of mental health illness, homelessness, and those in need of various community social service supports. The college has multiple interventions and services in place to help ameliorate these challenges. By scaling up some practices college-wide, the goal is to increase retention rates overall over the next five years.



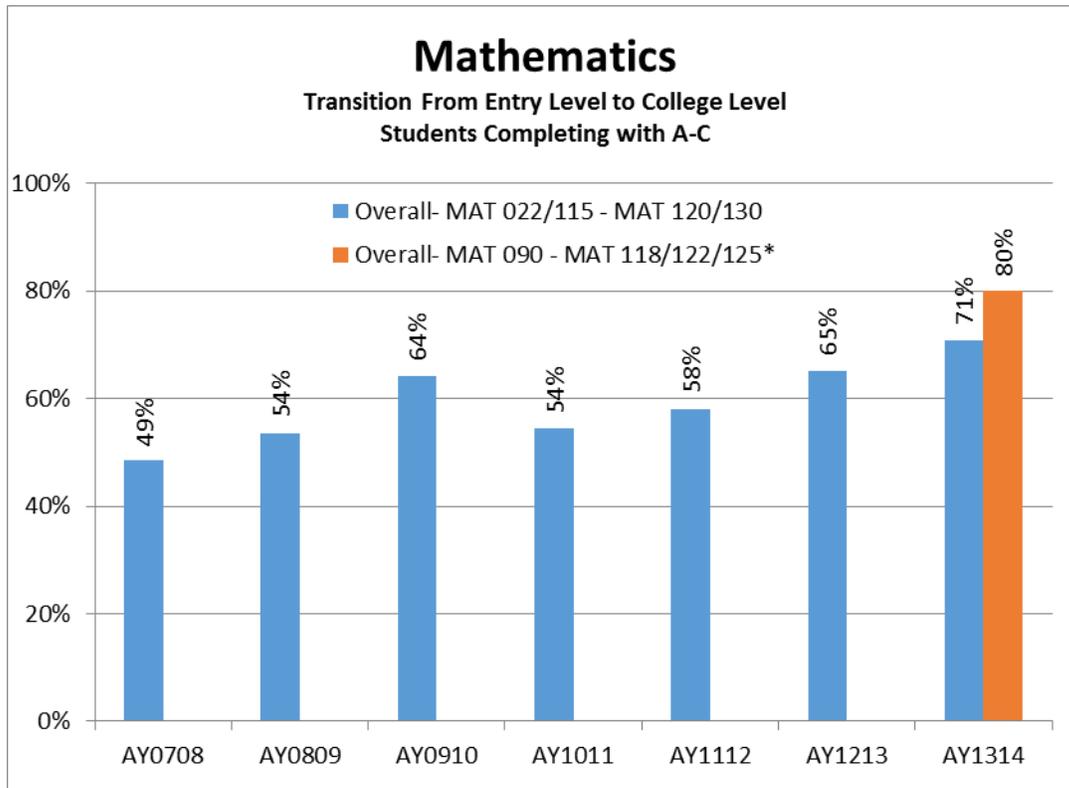
### Course Completion

The overall course completion rate (with a grade of A-C) for Northern Essex in fall 2014 was 73.4%, an increase of 7.1 percentage points since fall 2007. Gains can be seen as well in all of the subgroups (students under age 25, Hispanics, and Hispanic Males) of 7-10 percentage points in the same span of time.



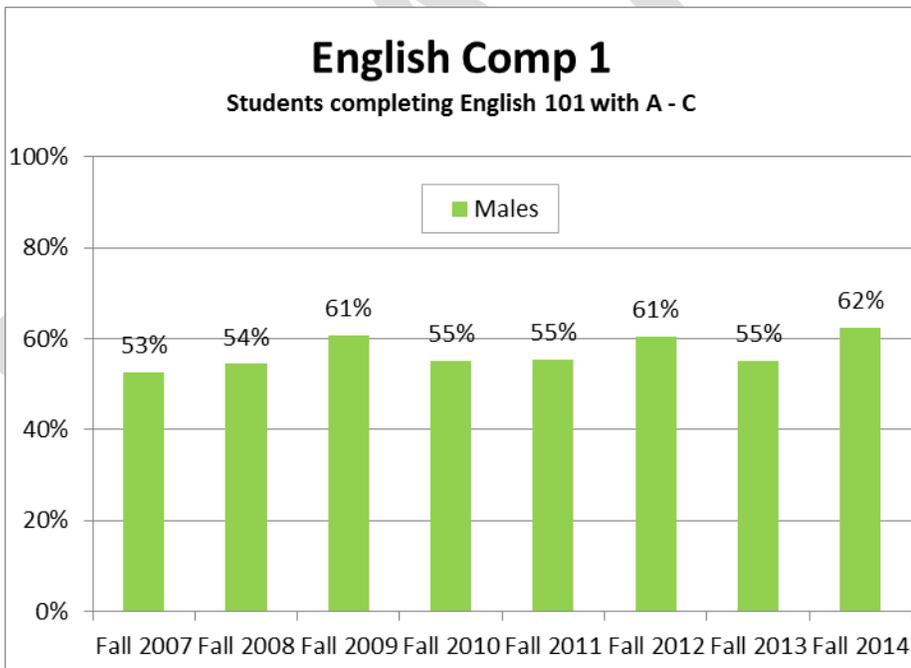
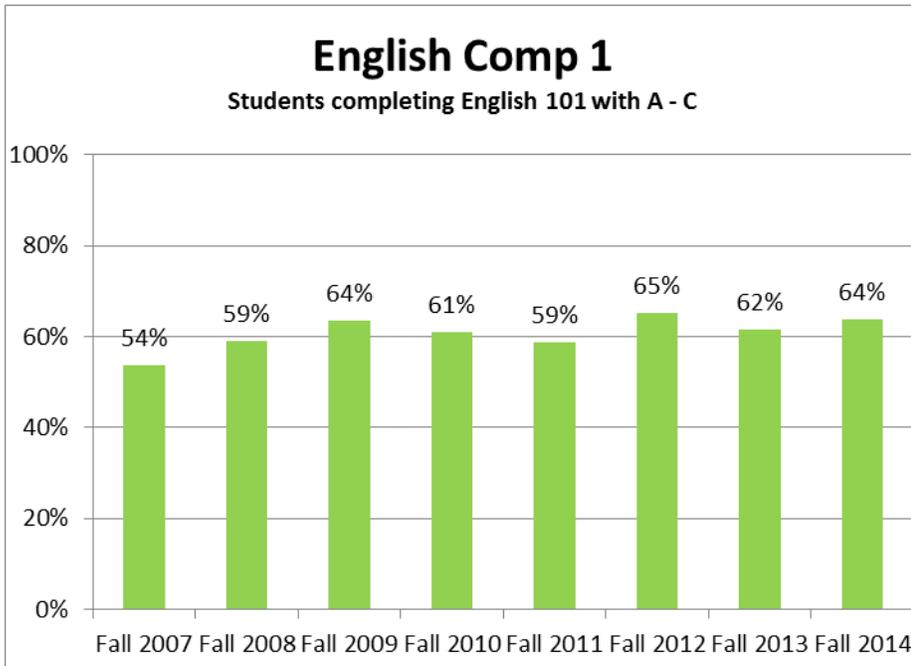
Additionally course completion rates specifically in Mathematics and in English Composition I are key hurdles for students and are predictors of future success in college level courses. Since Northern Essex staff has recently implemented some innovative approaches to Math and has begun to use accelerated learning models in developmental math and English, better outcomes in course completion rates in those areas have been experienced.

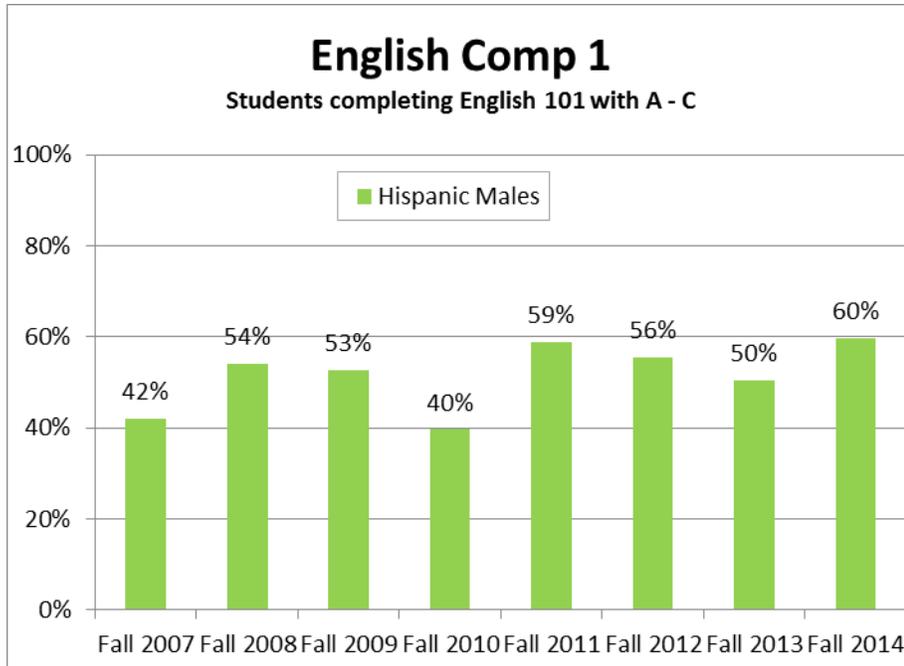
The following chart shows the bump-up in students completing transition from developmental to college level mathematics with a grade of A-C once the college employed a non-STEM pathway for students who would not be pursuing a degree in one of the STEM fields. This approach is one taken by more and more schools when understanding the kind of math students really need. *Changing Equations* (<http://www.learningworksca.org/changingequations/>) highlights a new movement in a growing number of the nation's community colleges to prioritize statistics and quantitative reasoning, a major departure from the traditional one-size-fits-all remedial math sequence that emphasizes intermediate algebra. For the first time in AY13-14, the college offered Math Literacy for College Students (MLCS) to replace developmental algebra for non-STEM majors.



The blue bars signify the STEM pathway which prior to AY13-14 was the only pathway for students—a transition from Basic Algebra II (MAT 022) or Applied Technical Mathematics (MAT 115) to College Algebra (MAT 120) or College Algebra & Trigonometry (MAT 130). The orange bar represents the new non-STEM pathway, consisting of Math Literacy for College Students (MAT 090), a developmental course designed to integrate numeracy, data analysis, proportional reasoning, algebraic reasoning, and functions replacing the algebra taken by STEM majors. The courses that follow MLCS include Mathematical Ideas (MAT 118), Quantitative Reasoning (MAT 122), and Statistics (MAT 125). These courses provide non-STEM majors with a strong foundation to become better informed citizens, sound financial planners, successful care professionals and lifelong learners. The results hold across all subgroups followed (students < age 25, Hispanics, and Hispanic Males).

Likewise, course completion rates have risen in English Composition I this past year (fall 2014) after uneven results over several years. Although it is too early to say that the upward trend will continue, the college has been employing new approaches to boost completion rates in English Composition I that seem to be rendering positive results. The college has seen the highest rates in seven years for English Composition I completion (A-C) for Males and Hispanic Males in fall 2014.





Northern Essex has leveraged its work with Achieving the Dream to explore new strategies or policies that will positively affect the KPIs, or in human terms, student success outcomes. Some of those activities include more intensive work with local high school districts, both in the realm of Dual Enrollment and Early College as well as early placement testing. On campus, students experience comprehensive orientation and advising, a First Year Experience course and early alert programming, accelerated developmental courses and learning models, math pathways described above, along with other smaller-scale initiatives.

#### *Dual Enrollment/Early College*

As discussed in Standard 4, Northern Essex has substantially increased its involvement with local high school districts, offering two Early College programs and dual enrollment in conjunction with 16 distinct schools in AY15. Since AY13, these programs have increased from six to eleven projects, from five to sixteen schools, and experienced a 430% increase in registration from 143 in AY13 to 758 in AY15. This growth represents more high school students becoming familiar with Northern Essex Community College, its faculty, and its campuses while earning college credits within the Mass Transfer Block. It is hoped that this exposure will lead to more students attending Northern Essex before transferring to four-year institutions, and increasing the college's course completion, retention, and graduation/transfer rates. Across all sections in fall 2013, the course completion rate for these classes was 88.6%, as compared to the college's overall course completion rate of 72% in this same time frame.

As early engagement through dual enrollment or early college contributes to students feeling connected, so does the Northern Essex Hispanic-Serving Institutions Title V Summer Bridge program (United States Department of Education grant), which has helped approximately 36 Hispanic students entering Northern Essex from Lawrence High School transition to college in the past three years. Overall, these students attain an average GPA of 3.0 during their college career. Students are able to acclimate to campus, meet other students, review and improve English and Math skills, and have even leaped a

level or more in placements over the two-week span of classes, saving them money and time in their first semester.

### *Orientation/Advising/DegreeWorks*

Northern Essex became even more intentional and structured about orientation and advising in the past five years. Orientation is promoted as required for every new student. Sessions are offered both in-person and online. Students are assigned a date to attend, and if they do not, a second session is assigned. Finally, if students have not attended orientation, they are emailed a link to complete the online orientation. Northern Essex is reaching 80% of incoming students with its comprehensive orientation presentation. Students gain insights into the workings of the college, how to navigate advising, financial aid, college policies and the Student Code of Conduct, while learning about all the academic and non-academic support services available to them, classroom expectations, and all the clubs, organizations, and leadership opportunities open to them at the college. Northern Essex keeps extensive data on orientation for continuous improvement, and enlists the assistance of student orientation leaders to work with staff to offer the 'student perspective' on college life.

To improve the advising experience, the college now requires all students to have academic plans laying out their courses over the next few semesters. To make the plans more accessible to students and faculty advisors, the college did away with paper and pencil and instituted a software program called DegreeWorks. DegreeWorks facilitates faculty advising throughout students' tenure at the college and allows students to see their degree progress, "what if?" scenarios if they were to change majors, and what grades they would need to achieve to reach a desired GPA. Students are more likely to persist when they can see their progress and path to completion. Near the top of every DegreeWorks plan, a student can see what percentage of their program they have completed, and below they can view which courses are still needed. All new students must go to the Career Planning and Advising Center (CPAC) either on the Haverhill or Lawrence campus. These "One-Stops" have staff who can aptly address registration, choosing a major, and financial aid, all in one place. Only after a student accumulates 12 or more credits or is assigned a faculty advisor may they register without going to the CPAC.

In the 2013 General Studies program review, Northern Essex found that many students who entered the college as undecided and were enrolled in General Studies, had low retention rates and did not make significant progress in any particular program. Too much choice rendered students paralyzed, programmatically. Through this data analysis and with an eye toward student success and more students completing, there has been a policy change in Advising and adopted by NECC as of spring 2015 to discontinue the General Studies major and to put undecided students into the Liberal Arts program, which has considerably more structure. The General Studies major will remain an option only for students who are entering with a specific career/program goal in an academic program which Northern Essex does not offer. These students will be admitted into General Studies: Individualized Study with a carefully customized set of courses that will support transfer to another institution to which the student intends to go. Examples of these types of programs are Architecture and Pre-Veterinarian. It is believed that this policy change will have a positive impact on retention and program completion over the next several years.

### *First Year Experience*

Achieving the Dream data led the college down the path several years ago of developing a College Success Seminar course (CSS), which has evolved and grown immensely over the past six years into a robust, structured yet flexible college-level course with clear course outcomes and rubrics for measuring

competencies in the areas of Communication and Presentation Skills, Critical Thinking, and Goal Setting and Problem Solving. Starting with just 54 students in 2009 and growing to more than 550 students in fall 2014, Northern Essex has focused a lot of energy and continuous improvement on the course in which students declare:

“I just really learned a lot about myself. I learned stuff about myself that I didn’t know a year ago. I found out what I was strong at that will definitely help me make decisions about what I want to do.”

“I learned that what I wanted to be in the future was what mattered and I’d never had a teacher that seemed to really care about what I wanted to do or become as a person. Knowing that the teacher really cared and was interested in me. She was willing to help out whenever I needed something.”

“It’s a good class and I really do recommend it. It opens your mind in a way that you’re okay to talk in front of class.”

Additionally, although the course to date has focused on students who have assessed into two or more developmental level courses, students and many faculty see the benefit for all new students. The data reflect that students who took the CSS course fared better in the next semester’s course completion as well as retention versus students who assessed into it but didn’t take it. As of spring 2013, 89% of students who completed CSS also completed their developmental coursework with at least a C, compared to 67% of students who did not take CSS. Students who completed a different college-level course did not show the same overall course completion rate as CSS completers, with only 83% of those students completing their developmental courses with at least a C; the difference between the CSS completers and both other cohorts is statistically significant ( $p < .05$ ). CSS completers also have higher average GPAs (3.2) than their two peer groups (2.4 and 2.9, respectively), and generally complete more credits per term (9.0, compared to 5.4 and 6.6). Based on the growth shown in the data on CSS completers, the course is meeting its first goal of improving students’ college readiness and achievement in the first semester.

Longitudinal data are currently being collected to determine how CSS impacts long-term outcomes such as retention and program completion. Initial results from 2011-2013 show the percentage of students who complete CSS with at least a C and return fall to spring is significantly higher than the college average for this cohort; in some cases more CSS completers return than students who have completed at least six credits with at least a C. In general, fall to fall retention is lower across the student body; however, CSS completers maintained their advantage over the general cohort. These figures suggest that students who complete CSS with a C or better are more likely to return the following semester, and maintain that tendency for a full school year. This is a significant trend given this cohort’s traditionally weak retention rate; it suggests that the CSS course is meeting its second goal of improving student retention.

### *Early Alert*

In fall 2014, NECC implemented a pilot of Starfish Early Alert, rebranding it to Starfish Early Success for the college’s use. For the first year, only particular groups of students were included in the system where staff, faculty, and students could communicate and faculty could ‘flag’ students with academic struggles or send them kudos for encouragement. CSS students, and more broadly, all students in two or

more developmental-level courses, were being tracked in Starfish by retention staff. Use of Starfish strengthened the link between CSS faculty and students with academic support services staff, and student outcomes. Likewise, athletes, students in PACE/TRiO (United States Department of Education Student Support Services TRiO grant, titled PACE, Pathways to Academic and Career Excellence), those in student clubs and organizations, dually-enrolled students, and those in academic suspension were also tracked. There was 45% participation in Starfish the first semester with a total of 1,210 academic flags raised and 2,021 kudos sent. All Northern Essex students will be in Starfish as of fall 2015 and more data analysis of outcomes across all groups will take place.

As students move into college-level courses of all types, some subjects are especially challenging, and are a strong determinant of long-term success. Mathematics is that subject for many students across the nation. English Composition I is another course all students must complete successfully to move ahead. As mentioned above under the section on course completion, Northern Essex has implemented some policy and curriculum changes to positively impact student outcomes in these two arenas.

#### *Accelerated Developmental Course Options*

NECC's new accelerated course options offer another avenue for increasing course completion rates and retention for students advancing from developmental-level to college-level courses. As mentioned in Standard 4, NECC, like most colleges, is striving to move students faster and more efficiently through developmental coursework so that they maximize financial aid use and experience success and higher completion rates in college-level courses, thus becoming more likely to complete their degrees. Northern Essex is in its fourth semester of offering co-requisite courses pairing developmental writing (Writing Fusion) or advanced ESL with college-level English Composition I, and in its second semester of offering developmental algebra (Math Fusion) paired with College Algebra and Trigonometry. The co-requisite model is drawn from the *Accelerated Learning Program*, or ALP, developed at the Community College of Baltimore County and has been widely replicated across the country. Northern Essex is seeing results. In the case of English Composition I completion with at least a C, the overall rate for all students was 64% in fall 2014, but the overall course completion rate for students in ALP (English Composition I and Writing Fusion or ESL Advanced Integrated Writing) was 79.26%, an increase of over 15 percentage points.

A new, integrated developmental reading and writing course, *Reading, Writing, and Reasoning*, prepares students placed at the Basic Writing level and any level of developmental reading to enter English Composition I in the next semester. The integrated model provides a clearer pathway from developmental to college-level coursework with fewer opportunities to drop a class in the process. This is especially true when it replaces a student having to take Basic Reading, then College Reading and Basic Writing prior to English Composition I. Two sections were offered in fall 2014 and due to its popularity, expanded offerings are planned for the coming academic year. The course was first developed by Chabot College under the California Accelerated Project and recognizes the essential function of reading in developing good writing skills.

Along with Math Literacy for College Students (MLCS) mentioned in the Math Pathways discussion earlier, there were 13 sections in fall 2013 and 12 sections in spring 2014 of modularized developmental math, which follows the NCAT (National Center for Academic Transformation) or emporium model, which eliminates all lectures and replaces them with a learning resource center model featuring interactive software and on-demand personalized assistance. At Northern Essex, this course enables

students to advance through the curriculum as they demonstrate mastery of the material, allowing them to complete up to two levels in a single term. An embedded tutor assists the instructor.

For all developmental math classes in fall 2012, prior to the implementation of the modularized course delivery format, the completion rate was 64%. For all modularized math classes in spring 2013, the course completion rate (CCR) was 69%, 72.5% in fall 2013, and 68% in spring 2014. In these same three semesters, 71 students in modularized classes completed two courses in one semester. Of the students passing two courses in one semester in just the fall of 2013, 58% took a higher level math course the following semester, and 82% of these students successfully passed the higher-level course.

### *Wraparound Retention Support*

To complement the academic interventions and strategies Northern Essex employs and the academic support services in place, such as tutoring, and an early alert system, data suggest that there are many nonacademic barriers to retention that the college must acknowledge and face. As best it can, and with limited resources, Northern Essex provides nonacademic support through availability of staff to make social service referrals for students with needs in childcare, health, housing, and legal services as well as having a part-time mental health counselor on each campus for short term therapy and referral out. The college also has a Retention Scholarship and accompanying policy to guide disbursement of small scholarships to students in good standing who have a gap between free aid and their class and course materials expenses for whom remaining in school may not be possible without that support.

### Appraisal and Projection

Northern Essex Community College is making real progress on many measures, but there is much more work to be done. In this section, the reader will find points of appraisal arising from the Findings and Analysis section, with projections of what the college anticipates in the next five years.

### *KPIs and Related Strategies*

Northern Essex set target goals for four of its KPIs for 2012 and 2016: Retention, Overall Course Completion, Course Completion in Mathematics, and Course Completion in English Composition I. The 2012 goals were met, but the college is lagging in meeting its 2016 goals. Although Achieving the Dream helped to focus in on particular gaps and allowed the college to experiment with different strategies, some of which have proven to be quite successful, most of them affected only a small percentage of the total college population, thus not having an impact on the KPI measures quickly. In addition, over time what was a robust Data Team consisting of the Dean of Institutional Research, several faculty and staff, dwindled and lost its influence of keeping strategies on top of relating their individual data with the larger goals. The college's Strategic Planning Steering Committee is in the process now of reconstituting the Data Team with broader inclusion of staff and faculty and an agenda to pull all of the college's strategic goal teams and academic intervention strategies together to create a meaningful data framework with intermediate goals. This team will be in place by fall 2015.

Northern Essex has seen improvement in course completion rates overall from 69.5% five years ago to 73.4% in fall 2014, but it needs to do better to meet the 2016 goal of 76%. Reviewing strategies regularly and analyzing the data that comes from the interventions helps to determine whether or not scaling an intervention makes sense. Retention rates are slipping as well, further away from the goal of 70% even though there are solid strategies in place for students—they are not well connected to each other and in

many cases they are not brought to scale. Northern Essex is at a turning point with the College Success Seminar course, which has strong, supportive data for improving both course completion and retention rates among those students who completed the course successfully, and that number of students has grown significantly but had been targeting students in developmental-level courses even though CSS is a college-level course. A proposal is circulating currently to change the course name to FYS (First Year Seminar) which is more widely recognized among schools to which students transfer, and to make the course a graduation requirement. Making it a requirement would mean that any student new to Northern Essex would need to complete the course in the first or second semester. The proposal provides for not only a stand-alone course, but also one that could be embedded in an existing 100-level course. The college already has examples of that being done once in an English Composition I class, and as a new course developed in the Health Studies division. If the proposal is approved, FYS is projected to become a graduation requirement as of fall 2016.

Around such a requirement, and in conjunction with other services and supports, Northern Essex looks to create a true, holistic First Year Experience. Bringing together the strengths of Orientation, Advising, Career Preparation, Early Success (early alert programming), Student Engagement, and Civic and Community Engagement while working in stronger collaboration with each other and with academic strategies, the college should see greater impact on its Key Performance Indicators. For those students requiring developmental-level courses, Northern Essex also projects an increase in accelerated learning programs or models that will shorten the time students have to spend in them. The sooner students can move onto their major of choice, the more likely they will be retained. The course completion rates (CCR) for ALP students in English Composition I was over 15 percentage points higher than the overall CCR for students successfully completing English Composition I. Although it will be financially costly initially to run Fusion courses because they have half the class size, the college trusts that like other colleges who run accelerated learning programs, the investment will pay off in higher retention and ultimately more courses taken by students. Likewise it is thought that with the addition of modularized developmental math and the new Math Pathways (STEM and non-STEM) students will overcome one of the biggest barriers to successful progress they have, and not put off taking math until the end of their community college career.

Another projected movement at Northern Essex is to create more structured pathways within the Liberal Arts, so that students follow their academic plan and move through courses in a more dictated and logical sequence. The highest rates of retention and completion are seen among those programs for which the curriculum is highly structured, such as in the health programs, education programs, and engineering. Although the college understands the need for flexibility with the community college population, and acknowledges the difficulties of balancing work, family, and school, staff also knows that too much choice can be a detriment, costing students time and money that they cannot afford. Streamlining the pathway toward a degree will enhance the student experience, and the support services for students for both their academic and nonacademic challenges will continue to be provided.

### *Institutional Assessment*

The retirement of the Associate Dean of Academic and Institutional Effectiveness will have a deep impact short-term on both the institutional assessment and program-level assessments and program review processes. Additionally, the Dean of Institutional Research will also soon be retiring. The current plan is to hire a Dean of Institutional Research, Effectiveness, and Strategic Planning supplemented by a new, enlarged outcomes assessment committee with much more involvement of deans, coordinators, and faculty.

Apart from the personnel changes, in appraising the Institution Level Outcomes Assessment of the six Core Academic Skills, the college staff and faculty have painstakingly done a laudable job of putting together and executing the assessments, but it also must be acknowledged that the validity of the assessments as measures that may be extrapolated to all graduating students' skill levels is weak due to the sampling method. The sampling was not random; faculty who had the identified students in their classes were asked to participate in the assessment but only a fraction of the willing faculty members actually followed through, thereby reducing the number of students and consequently student products, that could be rated. For example, in the first assessment in 2010 of Communication (Writing) Skills, of a pool of 189 potential identified students, only 68 unduplicated samples were available for final analyses. Only 20% of faculty with identified students actually submitted samples for those students, and just over one third (36%) of the identified students had samples submitted. Also, without baseline data of how students would have performed against the rubric when they first entered Northern Essex, there is no comparative data to match the current rubric ratings against. These limitations are acknowledged in the final report of the assessment. The trend of low faculty participation rates and therefore small numbers of students whose products were evaluated continued in the later assessments.

It will be a topic of discussion among the leadership as to how to address the weaknesses of the assessment process. The process is not dissimilar to that in the statewide pilot to measure students' skills against the VALUE (Valid Assessment of Learning in Undergraduate Education) rubric. Any institutional level assessment of student products as representative of the student body at-large will require high faculty participation and extensive personnel hours to rate the products. This level of assessment is untenable at most institutions. Northern Essex will continue to work with its state partners in assessing student skills in these critical areas of learning.

#### *Program Review and Outcomes Assessment*

Due to the dedicated work of the former Associate Dean of Academic and Institutional Effectiveness, 43 programs have Curriculum Maps posted on the college's website that were designed as part of the program review process. The maps detail program objectives and associated learning outcomes. Course outcomes in lock-step and criteria-based programs are tight and sequential, as required by outside accreditors or due to the nature of the transfer program. It is not as clear in some other programs if the course outcomes build sequentially, nor if all sections of a course within a program possess the same learning objectives.

Each year, the Associate Dean would encourage programs to conduct an annual assessment related to selected outcomes and develop action plans. Many programs were, and continue to be, proactive about this activity, realizing that adjustments should be made over time as their field grows and changes. Not all programs perform an annual assessment, and it is possible that Curriculum Maps are not reviewed on a regular basis. Most programs have an advisory board composed of professionals from that field or discipline and many of them are active participants in these assessment processes, assuring that students graduating are prepared adequately for jobs in that field. Without a position that is primarily concerned with academic program review and assessment, there will need to be higher profile involvement from advisory board members and department chairs and coordinators, led by their deans, to encourage annual assessment of selected outcomes, to assure common learning objectives across all sections of a given course, and that course outcomes build sequentially within their program. Northern Essex is starting from a strong base of regular program review and assessment experience, upon which

new teams within programs can build a framework to continue the work. Program reviews at Northern Essex in the past have led to improvements and changes in programs that have benefited students while at the college and in their transferring to four-year colleges and universities. Faculty has had a stake and active role in these reviews. Key elements as to why program reviews have gone so well, have been a sound structure and broadly shared results, not to mention the Associate Dean herself. She served as a guide to faculty, urged them to ask the tough questions of their program, and because she was not supervising them, she offered a sense of objectivity—there was a willingness on the part of the faculty that may not have been otherwise. This dynamic has changed and the college will need to adjust and move forward.

Program reviews continue to be scheduled on a rotating basis, and the Vice President of Academic and Student Affairs, via division deans, will reinforce the need to continue high quality assessment within programs across the college, and to promote the sharing of results and changes college-wide to acknowledge the work being done and to encourage continuous improvement.

As Northern Essex Community College moves forward, looking at students' educational journey from pre-admission through graduation or transfer in a holistic and more connected fashion, the college can transform how academic and student affairs collaborate, measure and improve the student journey. This transformation will occur more rapidly as higher numbers of faculty, both full-time and adjunct, become engaged, working alongside those in academic and non-academic support services. The conscious efforts and leadership commitment to create an environment where this can take place, in many cases with grant support, will guide its progress. Taken together, Northern Essex views all of its efforts as a strong step forward in continuing to meet and exceed the standards required for NEASC accreditation.