

One University Plaza, Youngstown, Ohio 44555

Board of Trustees 330.941.3101 Fax 330.941.7169 www.ysu.edu

June 17, 2016

John Carey Chancellor Ohio Department of Higher Education 25 South Front Street Columbus, OH 43215

Dear Chancellor Carey:

As required in the biennial budget bill, the YSU Board of Trustees approved a "Resolution to Approve Campus Completion Plan for Youngstown State University" (see attached) at the June 15, 2016 meeting. Our Provost, Martin Abraham, convened a committee to update the original Campus Completion Plan submitted June, 2014, and the following report is the culmination of the work of the committee.

Please let me know if you have any questions about this report, or if we can provide any additional information.

Sincerely yours,

Carole S. Shemer

Carole S. Weimer Chair, YSU Board of Trustees

Attachment



Youngstown State University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, gender identity and/or expression, disability, age, religion, or veteran/military status in its programs or activities. Please visit www.ysu.edu/ada-accessibility for contact information for persons designated to handle questions about this policy.



## RESOLUTION TO APPROVE CAMPUS COMPLETION PLAN FOR YOUNGSTOWN STATE UNIVERSITY

**WHEREAS**, Youngstown State University is a state-funded university within the state of Ohio; and

**WHEREAS**, the FY 14-15 state operating budget bill (HB59) included language requiring state universities and community colleges to prepare strategic completion plans designed to increase the number of degrees and certificates awarded to students; and

**WHEREAS**, the plan must be consistent with the mission and strategic priorities of the institution, including measurable student completion goals, and align with the state's workforce development priorities; and

**WHEREAS**, Youngstown State University's original completion plan was submitted to the Chancellor of the Ohio Department of Higher Education by the June 30, 2014, deadline; and

**WHEREAS**, current legislation calls for each institution to update and submit completion plans to the Chancellor by June 30, 2016; and

**WHEREAS**, many of the goals of the Campus Completion Plan are consistent with the Student Success cornerstone of Youngstown State University's 2020 Strategic Plan; and

**WHEREAS**, Youngstown State University formed a committee to update its Campus Completion Plan, and through the work of this committee, presents the Plan as attached herewith;

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Trustees of Youngstown State University does hereby approve Youngstown State University's Campus Completion Plan and authorizes that it be submitted as required to the Chancellor of the Ohio Department of Higher Education.

Board of Trustees Meeting June 15, 2016 YR 2016Agenda Item F.1.k.

CAMPUS COMPLETION PLAN

OF

# YOUNGSTOWN STATE UNIVERSITY

Approved by the YSU Board of Trustees

June 15, 2016

#### **Executive Summary**

Youngstown State University—an urban research university—emphasizes a creative, integrated approach to education, scholarship, and service. Enrollment at YSU rose from just under 11,800 in the fall of 1997 to a peak of just under 15,200 in the fall semester of 2010. Enrollments then drifted downward, in the fall semester of 2015 12,471 students were enrolled at YSU. Because of our open access policy, the student body of the University includes students with a wide variety of backgrounds and academic preparation. A substantial portion of the students belong to groups who, according to national statistics, have a lower probability of successfully completing a degree in a timely manner.

Overall, the University made great strides in achieving the goals established in the 2014 plan. Many of the original strategies have been completed, while several more have been deemed effective and will be continuing. Several new strategies have been developed and will be utilized to enhance our efforts over the next several years.

Youngstown State University provides significant value to the Youngstown-Warren metropolitan area, northeast Ohio, the state and the nation through research, scholarship, innovation, creative/scholarly activities, and service and workforce development. Our academic and workforce development priorities include those "in-demand" industries identified by JobsOhio which are poised to transform Ohio. In support of Workforce Development, YSU is committed to cultivating and sustaining appropriate bilateral and multilateral engagements amongst faculty, staff, students, and regional business, technological enterprises, industry, and non-profit organizations.

## 1. University Mission

The Youngstown State University mission statement reads as follows:

Youngstown State University—an urban research university—emphasizes a creative, integrated approach to education, scholarship, and service. The University places students at its center; leads in the discovery, dissemination, and application of knowledge; advances civic, scientific, and technological development; and fosters collaboration to enrich the region and the world.

The University:

- Creates diverse educational experiences that develop ethical, intellectually curious students who are invested in their communities;
- Provides access to a broad range of undergraduate programs;
- Offers graduate programs in selected areas of excellence, including those that meet the needs of the region;
- Supports economic development through applied learning and research;
- Integrates teaching and learning, scholarship, and civic engagement;
- Fosters understanding of diversity, sustainability, and global perspectives; and
- Advances the intellectual and cultural life of the city, region, and world.

YSU, which became a state assisted institution in 1967, is currently organized into six academic colleges: the Williamson College of Business Administration; the Beeghly College of Education; the College of Creative Arts and Communications; the Bitonte College of Health and Human Services; the College of Liberal Arts and Social Sciences; and the College of Science, Technology, Engineering, and Mathematics. In addition, there is an overarching College of Graduate Studies that administers all graduate programs on campus, and an Honors College that provides enrichment experiences for students enrolled in our honors program. The University offers over 100 undergraduate majors, 35 master's programs, doctorates in educational leadership (Ed.D.) and physical therapy (DPT), and a PhD in Materials Science and Engineering. In the 2015-16 academic year YSU awarded 191 associates degrees, 1689 bachelor's degrees, 382 master's degrees, and 48 doctoral and educational specialist degrees, including the first every PhD in YSU history.

Enrollment at YSU rose from just under 11,800 in the fall of 1997 to a peak of just under 15,200 in the fall semester of 2010. Enrollments then drifted downward, in the fall semester of 2015 12,471 students were enrolled at YSU. Approximately 10 percent of the students are enrolled in graduate programs. About 65% percent of new students are residents of Mahoning, Trumbull, or Columbiana county, Mahoning county residents alone account for 38% of the freshmen class. Approximately 17 percent of new students come from outside Ohio, most are residents of

adjacent counties in western Pennsylvania. Women account for 54 percent of YSU students. Roughly 90 percent of YSU students live off campus.

## 2. Barriers to Persistence and Completion

According to the 2015-16 Undergraduate Bulletin: "Applicants who have graduated from a public or chartered high school or successfully completed the General Education Development (GED) test are eligible for admission to the University." Because of this open access policy, the student body of the University includes students with a wide variety of backgrounds and academic preparation. A substantial portion of the students belong to groups who, according to national statistics, have a lower probability of successfully completing a degree in a timely manner. The following table describes the proportion of students with those risk factors:

Lower socioeconomic class	87% of YSU students receive financial aid			
Being academically underprepared	45% of entering YSU students take			
	developmental classes			
Having a disability	Approximately 700 (5.2%) students are			
	registered with YSU Disability Services			
Working more than halftime	Over 33% of YSU students work			
Being a commuter student	90% of YSU students commute			
Going to school part time	25% of YSU students attend part time			
Being a first-generation college student	35% of YSU students are first-generation			
Receive Pell Grant	42% of YSU students receive a Pell Grant			
Coming from an underrepresented	17% of YSU students are from			
population	underrepresented populations			
Conditionally admitted	More than 10% of our new students are			
	conditional admits (ACT<17 or HS gpa < 2.0)			
Adult learners	26% of YSU students are older than 24			

## Persistence Risk Factors As Applied to YSU Students

All of these risk factors represent continuing concerns as we endeavor to increase the educational attainment of the citizens of our region. Although overall educational attainment continues to lag behind state averages (this trend is largely due to the area's blue-collar history), we have seen positive increases in educational attainment over the past three years, according to the Chamber of Commerce.

To best serve its region, Youngstown State University has established programs and services that are data-driven and based on persistence and completion research and best practice.

## 3. Progress towards goals established in the initial completion plans

Overall, as can be seen by the chart below, the University made great strides in achieving the goals established in the 2014 plan. Many of the concepts established in the plan were good concepts and ones that will be utilized again in the 2016 plan with different measurable outcomes associated with them. A more detailed description of the progress on each of these completion goals is included following the summary chart.

	COMPLETION STRATEGY FROM 2014 REPORT	Not Met	Moderately Met			Met
					,	
1	Adoption of "Student Success" as a quality initiative proposal					
2	Implement a first year experience/orientation course					
3	Develop programs for faculty advisors to keep them informed					
4	Align systems of advising					
5	Improve orientation					
6	Examine and revise admission/retention requirements					
7	Tighten enforcement of conditional admissions					
8	Implement dual enrollment with Eastern Gateway (EGCC)					
9	Coordinate academic programming with EGCC					
10	Develop collaborative partnerships with PK-12					
11	Create Early Warning processes					
12	Improve course completion rates					
13	Increase % of students meeting with advisor re: graduation au	d <mark>it</mark>				
14	Enhance learning assessment endeavors					
15	Support faculty development in teaching and learning					
16	Formalize exit interviews					
17	Improve affordability; raise more money for scholarships					
18	Ensure that courses are available when needed					
19	Improve time to completion of degree					
20	Streamline academic experiences (3-year-degrees, etc.).					
21	Offer flexibly scheduled, altern. delivery and distance ed. Cours	ses				
22	Increase College in High School (CHS) and SB 140 opportunities					
23	Peer mentoring for all 1st time and transfer students					
24	Increase tutoring services, including e-Tutoring					
25	Increase supplemental instruction					

1. The University has adopted "Student Success" as a quality initiative proposal as part of the Higher Learning Commission's "Open Pathway" re-accreditation process. Accordingly, student success/completion has become the "tough challenge" that we aspire to.

## **Current Status:**

Student Success Division has been formed and Institutional Emphasis on Student Success is becoming engrained in the culture.

#### **Moving Forward**

No further action is planned.

## Completion Strategy from 2014:

2. Implement a first year experience/orientation course in each college. Most completion research indicates that an effective First year experience course enhances persistence. According to Noel-Levitz, more than 95% of universities nationally provide a first year experience course.

## **Current Status:**

A 1st Year Course has been established in each college. Each course has also been streamlined to contain basic core curriculum designed to enhance student success

## **Moving Forward**

A 1st year course will be required for all students starting in FA17. Specific population sections will also be explored (i.e. Conditional Admits).

## Completion Strategy from 2014:

3. Develop programs for faculty advisors to keep them informed about changes in graduation requirements and explore a certification system for faculty advisors.

#### **Current Status:**

Each college has successfully created avenues to assist faculty advisors in staying current with graduation requirements.

#### **Moving Forward**

No further action is planned.

#### Completion Strategy from 2014:

4. Align systems of advising across the colleges. At YSU, advising strategies have varied from college to college. We are working to align advising as well as provide more information to students regarding degree completion and requirements. Our new E-Bulletin will provide the University community with clear and accurate information regarding all curriculum and program requirements.

#### **Current Status:**

E-Bulletin is in progress. This will be operational by Fall 2016. Aligning systems of advising is underway with the hiring of a Director of Career and Academic Advising, as well as an organizational restructure to create a ladder of progression for Academic Advisors.

#### **Moving Forward**

We will continue to look at policies and practices that better streamline what all advisors are doing. In 2016-17 we will implement the course management system of the e-bulletin. For Fall 2017 the new degree audit system will be in place.

#### Completion Strategy from 2014:

5. Improve orientation. We have added program dates to create smaller groups for a more personalized experience, reformatted sessions to facilitate active student learning and involved more faculty.

#### **Current Status:**

Orientation has been improved with the items outlined in the strategies.

#### **Moving Forward**

We will create learning outcomes for both parents and guests, providing greater assessment of our programs.

6. Examine and revise admission/retention requirements. We revised our admissions standards to refuse some students whose preparation indicates little hope of success. We continue to review our standards to ensure that we are providing a supportive opportunity for all students who have a reasonable chance of being successful.

## **Current Status:**

Since October 2013 when then-President Randy Dunn transitioned YSU from open admission to selective admission, the academic quality of the freshmen classes has increased substantially in three consecutive years. The quality gains have been made both by an increase at the top end of the applicant pool (through strategic use of scholarship dollars), and at the bottom end of the applicant pool (by limiting access for students with less than a 15 ACT). For the foreseeable future that will continue to be our approach, that is, modest adjustments upwards for what it takes to earn admission, and an annual increase in the very best academic students enrolling.

#### **Moving Forward**

No further action is planned.

## Completion Strategy from 2014:

7. Tighten enforcement of conditional admissions. We implemented a new conditional admission policy which provides "best practices" structure and support for underprepared students.

#### **Current Status:**

The conditional admission policy was updated to include:

- Mandatory weekly visits with an academic coach
- Student must end the semester in good academic standing.

If the student failed to meet the requirements, the policy called for dismissal. Because of these consequences, students were much more diligent in attending coaching sessions and were therefore more successful. We have seen an increase in GPA and percentage of courses completed since the policy changes for this at-risk population.

#### **Moving Forward**

No further action is planned.

8. Implement dual enrollment with Eastern Gateway Community College (EGCC). We continue to develop our relationship with EGCC, our partner in increasing the educational attainment of our citizens. Our goal is that our students will be able to avail themselves of the benefits of both institutions relatively seamlessly.

#### **Current Status:**

We have assembled a committee of faculty and staff from both YSU and EGCC to examine opportunities for better alignment. However, there has been little progress in this area at this time.

#### **Moving Forward**

The committee will continue to look at ways to better collaborate with EGCC.

#### Completion Strategy from 2014:

*9.* Coordinate academic programming with Eastern Gateway Community College. Each college is working with EGCC to provide clear, simple pathways for students to progress from EGCC to YSU.

#### **Current Status:**

Each college has established (where appropriate and feasible) 2+2 agreements for many of their programs.

#### **Moving Forward**

No further action is planned.

## Completion Strategy from 2014:

10. Develop collaborative partnerships with PK-12. We plan to significantly enhance our relationships and dialogue with our educational partners in PK-12.

#### **Current Status:**

We continue to partner with local schools as appropriate.

Continue at similar levels.

#### Completion Strategy from 2014:

11. Create Early Warning processes to improve student success. We implemented the Starfish Early warning system, which enables faculty and staff to flag students for kudos or for intervention. This program has shown good initial success.

#### **Current Status:**

Results have been good since the 2011 implementation of the Starfish Early-Alert program. Undergraduate course completion rates have increased from 78% in 2011 to 86.8% in 2015. We have also seen significant increases in course completions by first-year students. In 2011 the yield of credit hours earned vs. credit hours attempted for first- year students was 77.34% vs. 83% for the F14 cohort of first year students. Another positive indicator of the success of the early-alert program is the decrease in the number of students earning either an NAF or NC for a course from 4.41% for F11 cohort to .82% for the F14 cohort.

#### **Moving Forward**

We will be evaluating the Starfish system to see if it meets the current needs of the institution. We will also be looking at ways to increase the percentage of faculty that are utilizing the system.

#### Completion Strategy from 2014:

12. Improve course completion rates. The lowest common denominator to enhance completion is to improve the course completion rates for each course. Accordingly we have a group working now to find ways to improve course completion rates without detracting from academic rigor.

#### **Current Status:**

Minimal success was seen in advancing the course completion rate.

#### **Moving Forward**

We will be looking closer at the top 10 courses which have the highest D/F/W rate in order to better understand the characteristics of both the successful and unsuccessful students in order to create solutions that will positively impact these courses.

13. To improve timely degree completion we will develop additional procedures to increase the percentage of students who meet with an advisor after they submit a graduation audit request.

## **Current Status:**

YSU is in the process of making communication and contact time between advisor and student more convenient and more frequent. Through assessing the completion of the general education model for each graduating class beginning May 2015, we discovered that the process to clear a student for graduation is very non-systematic. Each college not only has their own style of senior sheet, but they have their own process of clearing the potential graduate prior to the term they intend to graduate.

A committee has convened to remedy this situation and we intend to implement a more systematic way of clearing students for graduation by the fall of 2016. In addition, other measures are being put into place to insure that the student's degree audit is accurate and complete by the time they graduate so it correctly reflects what the student has completed toward their intended degree.

Furthermore, the implementation of new degree audit software in the fiscal year 2016/2017 will allow the advisor to interact with their students in real time via the new U.Achieve system. It will give advisors greater control over the student's course choices and allow the student as well as the advisor to see where the student is in terms of making progress toward completing their 4-year plan and toward successfully completing the courses in which they enroll each semester.

The new degree audit software will also give the university the ability to clear students electronically for graduation through a batch audit process.

## **Moving Forward**

Implementation of the new degree audit software system.

## Completion Strategy from 2014:

14. Enhance learning assessment endeavors. We are making numerous enhancements to the manner in which we measure learning.

#### **Current Status:**

Since 2014, "enhance learning assessment endeavors" as a support to completion has focused in two main areas. First, the university has strengthened the structures supporting student learning assessment. To strengthen structures, assessment has worked with programs to focus on closing the loop through use of assessment data to improve learning; partnered with general education to articulate the intersection of general education outcomes within the majors through curriculum mapping; and integrated program assessment into the newly developed program review processes.

Second, the university has fostered a vital campus community with faculty and staff engaged in meaningful student learning assessment activities. Building a positive culture is advanced by programs to build capacity in assessment and increase knowledge and skills of faculty and staff in this area. Two major programs supporting this work include the Best Practices in Student Learning Assessment Poster Competition, an opportunity for faculty and staff to share the good work being done to support student learning, and the Assessment Innovation Mini-Grant Program, small grants provided to seed sustainable student learning assessment activities.

## **Moving Forward**

Moving forward, assessment endeavors can be advanced through implementation of long term assessment cycle planning, currently in the planning phase as a part of program review implementation. Assessment would also benefit from expanding professional development and consultation, to advance practitioner knowledge and skills. Finally, expanding programs to foster assessment innovation, perhaps with a focus on currently under-represented groups (such as part-time faculty) could further integrate assessment activities and benefits.

## Completion Strategy from 2014:

15. Support faculty development in teaching and learning. We've implemented a comprehensive program of internal faculty professional development designed to help faculty be more effective.

## **Current Status:**

The faculty development program is more robust than ever. Key activities include: (1) Orientation programs for new full and part time faculty and department chairs, (2) A "new faculty mentorship" program, (3) Six active faculty learning communities (another was just added on distance education), (4) The opportunity for individual faculty consultation on teaching strategies, and (5) two series of workshops, one for new faculty and one for all faculty (this included a two day seminar in January). The budget has been increased for 2015-2016, so more resources have been committed to faculty development.

## **Moving Forward**

Next year, we will continue these activities, and plan to add even more, especially with regard to online development opportunities.

16. Formalize exit interviews. We contact all students who are leaving the University in order to provide them with any assistance that might be needed in order to help them continue their education rather than leave, as well as receive any feedback we can regarding the issues that caused them to leave.

## **Current Status:**

The online exit interview was established in Spring 2015 and the process has worked well. Students must complete the interview before they can completely withdraw. The survey is short and concise. Our referral process allows the Student One Stop to reach back out to these students and provide personal assistance they otherwise would not have received. The referral process also provides the related departments the opportunity to also reach out to assist the student. Notable results from the surveys:

Primary reasons for withdrawal were: family/relationship concerns, work schedule changes, financial concerns, and health reasons. Only a very small number noted Instruction/advisement, lack of social connections, or lack of campus services as reasons for withdrawal. In addition, 85% of the respondents indicated that there was nothing specifically the university could have done to help them stay at YSU.

## **Moving Forward**

We will continue to utilize the results of the study in the allocation of retention resources.

## Completion Strategy from 2014:

## 17. Improve affordability; raise more money for scholarships.

#### **Current Status:**

Significant changes have been made over the past 18 months in the way that merit based scholarship awards have been distributed. A reduction in the number of "full ride" Cochran Scholarships, and the redistribution of those savings, has allowed us to provide significant awards (\$1,000-3,000 annually in addition to whatever they were already receiving) to all students accepted to the Honors College. The creation of housing awards (primarily for those outside of our local region) for Honors College admits (\$1,000-3,000), Living Learning Communities in each college (\$1,000-3,000) and a new Trailblazer Award (first generation, low income, ethnic minority or Appalachian county resident) in the amount of \$2,000 have all added to the affordability of a YSU education for many, many more students. In addition to all of the above, YSU has frozen <u>both</u> tuition (by state mandate) <u>and</u> housing (by choice) for the following year. This will continue to be our strategy in the coming 2-3 years.

YSU Foundation Gifts, Payments and Pledges/Planned Giving to Scholarships and Endowments								
<u>Gifts, Payme</u>	nts and Ple	dges/Planned	Giving to Sc	holarships and	Endowmen	ts		
	FY14		F	Y15	FY16 to Mar. 18, 2016 (8.5 Mos.)			
	<u>Number</u> of Gifts	Amount	<u>Number</u> of Gifts	Amount	<u>Number</u> of Gifts	Amount		
Cash Gifts	1,763	\$2,677,692	1,975	\$3,236,696	1,376	\$2,422,621		
Payments	921	\$560,519	649	\$1,415,299	359	\$2,127,099		
Total Cash/Payments	2,684	3,238,211	2,624	4,651,995	1,735	4,549,720		
Pledges/Planned Giving	74	\$2,940,410	65	\$3,471,081	85	\$5,022,204		

#### **Moving Forward**

No further action is planned.

#### Completion Strategy from 2014:

18. Ensure that courses are available when needed.

#### **Current Status:**

The creation and updating of curriculum sheets and 4 year "road maps" has enabled students to better track their degree completion. In turn, the University is better able to track the need for specific courses by students.

#### **Moving Forward**

The new e-bulletin software provides a mechanism for updating, maintaining and distributing information at the programmatic level. Further work is needed in this area.

#### Completion Strategy from 2014:

19. Improve time to completion of degree.

#### **Current Status:**

Since 2014, we have increased the number of transfer articulation agreements with other institutions. As of February 2014, we had approximately 12 active agreements with other schools in Ohio and Western Pennsylvania. Today, we have 52 active agreements and each semester add additional agreements. In addition to articulations, YSU is one of the leading institutions in the Northeast region for Prior Learning Assessment and Military Credit initiatives. In fact, YSU serves as a case study for Prior Learning Assessment because we have made significant progress in this initiative in one year's time.

YSU also participates in the American Council on Education Alternative Credit Project which allows nontraditional students to transfer credits from non-traditional sources to YSU to get a jump on their college careers.

#### **Moving Forward**

No further action is planned.

## Completion Strategy from 2014:

20. Streamline academic experiences (3-year-degrees, etc.). We continue to identify and publicize pathways for students to accelerate their degree completion.

## **Current Status:**

We have worked with each of our academic programs to identify the quickest routes to degrees. Furthermore, we have continued to grow the College Credit Plus program, thus recruiting more students who come to us with transferrable hours.

## **Moving Forward**

No further action is planned.

## Completion Strategy from 2014:

21. Offer flexibly scheduled, alternative delivery and distance education courses and programs.

## **Current Status:**

We have a successful distance education program and continue to assess the needs of students.

## **Moving Forward**

No further action is planned.

22. Increase College in High School (CHS) and SB 140 opportunities for students. New research indicates that students who receive college credit during high school are much more likely to persist to graduation. We are working to improve our SB 140, CHS and Early College programs.

## **Current Status:**

Change and growth have been a constant in YSU's dual enrollment programs. The SB 140 program came together with the high school based "College in High School" dual enrollment, resulting in a 100% increase in on-campus enrollment. Growth was boosted when the Ohio Department of Higher Education enacted the College Credit Plus (CCP) legislation expanding access to students by standardizing admission criteria and making the program no-cost to students. YSU's CCP program continued to increase the numbers of districts served and the menu of courses being offered in the high school. YSU faculty provide robust professional development opportunities in content specific workshops for the high school based faculty. YSU began an on-campus orientation and advisement program, as well as an interactive text-messaging platform that enables "just in time" assistance to students with questions or in need of help. Followers of the CCP program's social media increased from a handful to over 800.

2013-14 to 2015-16

#### Program Growth

- Students enrolled: 770 to 1,404
- Credit hours enrolled: 5005 to @ 10,000
- District partnerships: 44 to 65
- Courses offered: 18 to 23

Student Success

- Average ACT Composite 25
- Course completion rate (D or higher): 99 %

#### Professional Development

YSU faculty offer two professional development workshops in each subject area to CCP instructors each year (total of 69 hours of PD/year).

#### **Moving Forward**

We will continue to support the students in this program and attempt to recruit them to be full time YSU students upon graduation.

(82% increase) (100% increase) (47% increase) (28% increase)

23. Peer mentoring for all first-time and transfer students throughout the first year. This retention best practice has been in place for years but retention enhancements such as Starfish continue to improve the effectiveness of this practice.

## **Current Status:**

Peer Mentoring program was evaluated and it was determined that we could do it more effectively and efficiently by attaching Peer Leaders to the newly created First Year Course.

## **Moving Forward**

Peer leaders will be hired for each First Year Course this year, and plans will be made to triple that number for next year when the course becomes mandatory.

## Completion Strategy from 2014:

24. Increase tutoring services, including e-Tutoring. Our research indicates that our students who use tutoring services are much more successful than those who don't. We have aggressively taken advantage of the statewide E-tutoring initiative.

## **Current Status:**

Outcomes for students that utilize tutorial services continue to demonstrate a positive effect of 1:1 tutoring. 86% of students that used tutoring F15 passed their courses. The benefits also extend to the tutors as they receive extensive training and development of skills that will be used professionally. Usage of tutoring services continues to increase even though enrollment has not increased. E-tutoring usage however, has not increased. YSU students most often use e-tutoring for submitting papers for proof-reading although we have heavily promoted and marketed the E-tutoring service across campus.

## **Moving Forward**

We will expand the number of tutors on staff. For S16, we have a 20% increase of pending requests from students that we have not been able to fill.

## Completion Strategy from 2014:

25. Increase supplemental instruction opportunities. Numerous studies have concluded that supplemental instruction is a very effective tool for enhancing success, particularly in the most difficult classes. We were an early adopter of this practice and continue to expand it.

## **Current Status:**

We have expanded our supplemental program each of the last couple years. We now have 23 courses covered by SI leaders (+21%) and have expanded into the math department by covering two developmental math courses and Calculus 2. Grades are higher for every course covered by SI for those students that attend.

## **Moving Forward**

We will continue to work with faculty to identify courses that could be well served with an SI component.

## 4. Updated Completion Goals for 2016 - 18

- Implement a required first year experience course
- We will hire a new First Year Program Director
- Create Learning Outcomes for Guests and Students
- Reduce the case load for individual peer leaders from 120 to 25.
- Increase use of tutoring services especially in high D/F/W Courses
- Increase opportunities for supplemental instruction.
- Align systems of advising across the colleges.
- Invest in a program that has shown results with Underrepresented populations
- Each college is working with EGCC to provide clear, simple pathways for students to progress from EGCC to YSU.
- Establish co-requisite remediation in math.
- Implement dual enrollment with Eastern Gateway Community College (EGCC).
- Administer Senior Survey to capture data designed to enhance programs
- Ensure that courses are available when needed.
- Incentive program for faculty to use free open sources in the classroom
- Needs based employment
- Increase number of hours students take to set them on a path to graduation

# 5. Completion Strategies:

Focus Area	Strategy	Leadership	Involvement	Outcome	Measure	Timeline
What are we focused on?	What will we DO?	Who's responsible	Other Constituencies	How do we know if we're successful?	How do we measure Success?	What is our Timeline?
FIRST YEAR EXPERIENCE - Course	Implement a required first year experience course	New Director	Student Success, First Year Programs, Gen Ed Committee	All students will take this class	100% of Students are enrolled in a FY class.	Aug. 2017
FIRST YEAR EXPERIENCE - Staffing	We will hire a new First Year Programs Director	Provost/Associate Provost	Student Success, First Year Programs, Gen Ed Committee	Director starts by 8/1/2016	Director is hired	Aug. 2016
FIRST YEAR EXPERIENCE - New Student Orientation	Create Learning Outcomes for Guests and Students	Leslie Page	Student Success, Academic Advisors, First year Course	Guests are more	90% of participants will evaluate the outcomes positively	Aug. 2017
FIRST YEAR EXPERIENCE - Peer Mentoring	Reduce the case load for individual peer leaders from 120 to 25.	Karen Graves	FY course director, Faculty	higher significant contacts	Each Leader will meet with each student a minimum of 3 times	Jan. 2018
ACADEMIC ASSISTANCE - Tutoring	Increase use of tutoring services especially in high D/F/W Courses	Robin Sakonyi	Faculty, Deans/ CSP,	Less D/F/Ws	Total # of students utilizing tutoring in specific courses	Aug. 2017
ACADEMIC ASSISTANCE - Supplemental Instruction	Increase opportunities for supplemental instruction.	Sue Mark-Sracic	Faculty, Deans/ CSP,	Less D/F/Ws	Total # of students enrolled in S/I courses	Aug. 2017
ACADEMIC ASSISTANCE - Student Advising	Align systems of advising across the colleges.	Director of Career and Academic Advising	Student Success, Academic Advisors, Deans	Better advising for students	Unified Note taking and communication system	Jan. 2017
ACADEMIC ASSISTANCE - Summer Bridge & Beyond	Invest in a program that has shown results with Underrepresented populations	Mike Beverly	Student Success, Center for Student Progress, High Schools	Triple the size of the current program	100 students will participate in the program in the summer of 2018	July 2018
ACADEMIC PROGRESS - Matriculation Agreements	Each college is working with EGCC to provide clear, simple pathways for students to progress from EGCC to YSU.	Kevin Ball	Deans	Students will successfully matriculate	Initial cohort of 25 students in each college	Aug. 2017
ACADEMIC PROGRESS - Co- Requisite remediation	Establish co-requisite remediation in math.	Angela Spalsbury	Deans, faculty	Students will successfully matriculate	D/F/W rates will be reduced in these select courses	Aug. 2017
ACADEMIC PROGRESS - Dual Enrollment	Implement dual enrollment with Eastern Gateway Community College (EGCC).	Kevin Ball	Provost's Office, Deans?	Students will enroll in the best location	Initial cohort of 50 students	Aug. 2017
ACADEMIC PROGRESS - Senior Survey	Administer Senior Survey to capture data designed to enhance programs	College Deans	Chairs, Faculty	Enhance academic programs	Senior Survey is administered in all program areas	Aug. 2017
ACADEMIC PROGRESS - Course Availability	Ensure that courses are available when needed.	Kevin Ball	Dean, Chairs, Faculty	More students graduating in 6 yrs or less	Graduation Rates	Aug. 2018
INCREASED AFFORDABILITY	Incentive program for faculty to use free open sources in the classroom	Provost	Provost, Academic Senate	Less cost to students	Number of faculty involved in the program	Aug. 2017
INCREASED AFFORDABILITY	Needs based employment	Mike Reagle	Financial Aid, Enrollment Mgmt	Utilize student work funds for financially at risk students	25% of student Work allocaitons will be distributed to students with high financial need	Aug. 2017
	Increase number of hours students take to set them on a path to graduation	Mike Reagle	College Deans, Student Success	More students graduating in 6 yrs or less	Graduation Rates	Aug. 2018

## 6. Workforce Development Priorities

Youngstown State University provides significant value to the Youngstown-Warren metropolitan area, northeast Ohio, the state and the nation through research, scholarship, innovation, creative/scholarly activities, and service and workforce development. YSU views economic impact as a symbiotic relationship amongst businesses, industries, technological enterprises, government, and non-profit organizations. Regional Engagement isone of the four cornerstones of the YSU 2020 Strategic Plan and within that cornerstone, a featured theme is *providing value to business, industry, and non-profit organizations*.

## **Priorities**

Our academic and workforce development priorities include those "in-demand" industries identified by JobsOhio which are poised to transform Ohio:

- 1. Advanced Manufacturing
- 2. Aerospace & Aviation
- 3. Food Processing
- 4. Automotive
- 5. BioHealth
- 6. Shale Energy and Petrochemical
- 7. Financial Services
- 8. Information Technology
- 9. Logistics and Distribution

In support of Workforce Development, YSU is committed to cultivating and sustaining appropriate bilateral and multilateral engagements amongst faculty, staff, students, and regional business, technological enterprises, industry, and non-profit organizations. The University has focused building strong relationships with University faculty and the respective organizations' professional staff, leading to a broad and deep relationship amongst a variety of partners.

These partnerships result in significant and meaningful Workforce Development opportunities for YSU students, including frequent exposure to business and industry personnel, student internships, coops, clinical externships, entrepreneurial opportunities, and collaborative research.

#### Internships

In 2012 YSU was awarded a \$573,300 Ohio Means Internships and Co-ops grant from the Ohio Board of Regents. The grant program was part of Gov. John Kasich's workforce development strategy to align Ohio's higher education curriculum with skills that are in demand by Ohio businesses. YSU used the grant to establish the Program for Internships and Co-ops in Advanced Manufacturing and Related Industries, or PICAM. PICAM funded 45 full-time and 62 part-time paid internships for students in the College of Science, Technology, Engineering and Mathematics and the Williamson College of Business. The program also called for YSU's STEM and Business colleges to jointly design and implement new courses in professional practice preparation and to host new, semiannual co-op and internship recruiting events on campus.

The program also calls for restructuring curricula in accounting, business, finance, industrial systems engineering, management, marketing, mechanical engineering and other disciplines to provide for more professional practice opportunities. One of the goals is that increasing internship and co-op opportunities will lead to higher completion rates because it will help students better realize their long-term career objectives and motivate them to finish their degree so that they can reach those objectives.

In 2014 YSU received an additional \$661,013 grant from the Ohio Board of Regents to allow YSU to continue this work of increasing and expanding paid internship and co-op experiences for its students. The grant will also allow YSU to create a self-sustaining professional development suite to be used by students and businesses providing training in soft and hard skills and to enhance the coordination of infrastructure programs in the region.

In addition to these grant-funded internship opportunities, nearly every YSU student has the opportunity to pursue a credit bearing internship as part of their major. The Office of Career Services helps to place students in internships.

## Workforce Related Initiatives:

 YSU's Center for Innovation in Additive Manufacturing (CIAM) was created to advance research, education, workforce development, and industry partnerships in this emerging field. CIAM is the focal point for additive manufacturing activities, providing a resource for the College of Science, Technology, Engineering, and Mathematics (STEM) but also for other academic divisions, including the arts and health sciences.

This Center offers the following services:

- Materials characterization
- Process development for materials
- Precision post-processing of printed parts
- Innovative business strategies
- Digital manufacturing thread for Additive Manufacturing
- Design for Additive Manufacturing

Current assets within the CIAM:

- ExOne M-Flex and X1-Lab binder jetting printers capable of printing metal and ceramic parts. The M-Flex is a production system with a build volume of 400 x 250 x 250 mm (15.7 x 9.8 x 9.8 in.).
- 3-D printing kiosk in the lobby of Moser Hall with two MakerGear M2 printers available for use by the campus community.
- MakerBot Replicator 2X dual extruder printer capable of either printing two colors or printing a part material and a dissolvable support filament.
- A Hyrel 3-D printer with high resolution and thin wall capability.
- Siemens NX PLM software including the full suite of drawing, analysis, automation, manufacturing and production modules.
- Sintering furnace, enabling the sintering of high-temperature metals and advanced ceramics made with the lab's two high-end 3D printers. It allows final processing of 3D printed parts made from advanced materials for uses in aerospace, automotive, industrial, energy and medical applications.

The center features two high-end 3D printers available for research by both undergraduate- and graduate-level students, as well as students enrolled in the university's PhD program in materials science and engineering (First YSU PhD will be awarded in May, 2016). The lab supports education and workforce development in additive manufacturing.

The university played a central role in the federal government's decision in August, 2012 to select downtown Youngstown as the site of the first National Additive Manufacturing Innovation Institute, America Makes. YSU students and faculty are regularly engaged in America Makes activities.

- The YSU *Natural Gas and Water Resources Institute* provides undergraduate degree level courses in science and engineering that will lead to an academic minor in gas technologies and also will provide research opportunities for industry focusing on analysis of water used in the shale gas extraction process. Because of YSU's location in the Utica shale region of Ohio, this Institute meets the educational and research needs of a new and growing industry. A recent study showed that more than 200,000 jobs, including nearly 9,000 in professional and technical services, will be created or supported by 2025 due to exploration, leasing, drilling, and pipeline construction for the Utica shale reserve.
- The *Bitonte College of Health and Human Services* provides students with the opportunity to gain important clinical education experiences in hospitals, clinics, physician offices, and at community and special events. Clinical experiences are offered in all of the Health and Human Services programs, including Nursing, Respiratory Care, Dental Hygiene, Healthcare Management, Social Work, Dietetics, and Physical Therapy. A recently signed "Affinity Agreement" with Mercy Health, Ohio's largest healthcare provider with institutions located throughout the Mahoning Valley, will provide expanded opportunities for clinical experiences for students.
- Clinical and field experiences offered by *Youngstown State University's Beeghly College of Education* (BCOE) are well planned, numerous and diverse. The nature and duration of field based activities vary in the amount of observation and participation according to the specific course and program requirements. All BCOE professional education courses have some field or clinical component(s). The progression of field experience culminates in Student Teaching, considered to be he capstone clinical experience for all teacher education program majors.
- ConneX is Youngstown State University's corporate communication consulting and training center. Housed in the College of Creative Arts and Communication's Department of Communication, ConneX offers some of the best (and inexpensive) communication consulting, training and services in the world. Students provide

communication and training consulting to local businesses while gaining valuable 21st Century communication skills. ConneX offers specialized training and consulting based on the expertise of experienced faculty at Youngstown State University. With the introduction of our new graduate degree program in Interdisciplinary Communication, faculty experts are able to assemble teams to assist in training, consulting, and research that fits corporate and industry needs. ConneX training areas:

- Public speaking and presentation skills
- Public and Media Relations
- Leadership and Team Building Skills
- Workplace Diversity
- Social Media Management
- Internal/External Communication Assessment
- Conflict Management and Negotiation
- Corporate Video Development, Web Video, Video Storytelling
- Business Research Methods (e.g., designing online surveys, qualitative and quantitative analysis)
- The YSU History Department, in the College of Liberal Arts and Social Sciences, provides internship opportunities to its students through the *Youngstown Historical Center of Industry and Labor*. The museum features hundreds of photographs representing labor, immigration and urban history. Objects on display range from workers' tools and clothing to hundreds of photographs. In addition to exhibits, the center offers educational programs and an archives/library. Part of the Ohio Network of American History Research Centers, the archives/library serves as a repository for local government records, as well as manuscripts collected from workers, companies and labor organizations. YSU student interns are learning curation, conservation, and archival practices.
- The YSU Center for Nonprofit Leadership, housed in the Williamson College of Business Administration, provides academic programming and professional development experiences for students interested in pursuing a career in nonprofit management and/or serving the community. This Center places students in academically-focused and forcredit career- related internships at regional nonprofit organizations.

## **Emerging Workforce Development Initiatives**

The Mahoning Valley Innovation & Commercialization Center (MVICC), with initial capital funding support from the Ohio Legislature, will be an entrepreneurial hub connecting creative minds with the modern equipment of advanced manufacturing (including 3D printing) and the knowledge of the regional business community. By integrating innovation, technology development, entrepreneurial support, and partnerships with the business and local communities, the center will accelerate the development from concept to product, creating products and jobs that promote the quality of life throughout the region.

By working collaboratively with the business community, Eastern Gateway Community College, the cities of Youngstown and Warren, area incubators, and county K-12 educational providers, this multi-stakeholder center will become a driving force for economic growth and prosperity in the region. The center brings together essential elements in one cohesive location, combining educational and research space with a 21st century manufacturing laboratory, and the innovation and project space required for multidisciplinary collaboration, creating a unique environment in which innovation and entrepreneurship can thrive.

This 100,000 square foot facility will be located on the Youngstown State University Campus, and will be owned and operated by Youngstown State University, on behalf of partnering organizations. Collaboration will be ensured through memoranda of understanding with other entities, such as Eastern Gateway Community College, the City of Youngstown, area incubators, and K-12 educational providers for the efficient and effective use of the facility and the equipment contained therein.

The partners on this project have a long history of successful collaboration and job creation. Memoranda of understanding and collaborative agreements already exist between partner entities that support workforce development initiatives for co-op/internship programs, small business development programs, and other entrepreneurship initiatives.

We have recently demonstrated the creation and retention of 500 jobs through State IRDCP funding provided in support of the America Makes project. Support of small manufacturing businesses through integrated research, development, and education networks has been a critical component of our regional success. This project creates the collaborative space that embodies our integrative approach, leading to cost-saving efficiencies as partnering entities expand on prior successful activities and continue to create and retain jobs for our region and throughout the state.

## Measurement and Assessment- Workforce Development

In monitoring those variables that contribute to Completeness, Youngstown State University College of Science, Technology, Engineering, and Mathematics and YSU's Williamson College of Business Administration track activity related to Registered Internships and Coop Programs, especially with respect to the "In-Demand Industries" identified by the State.

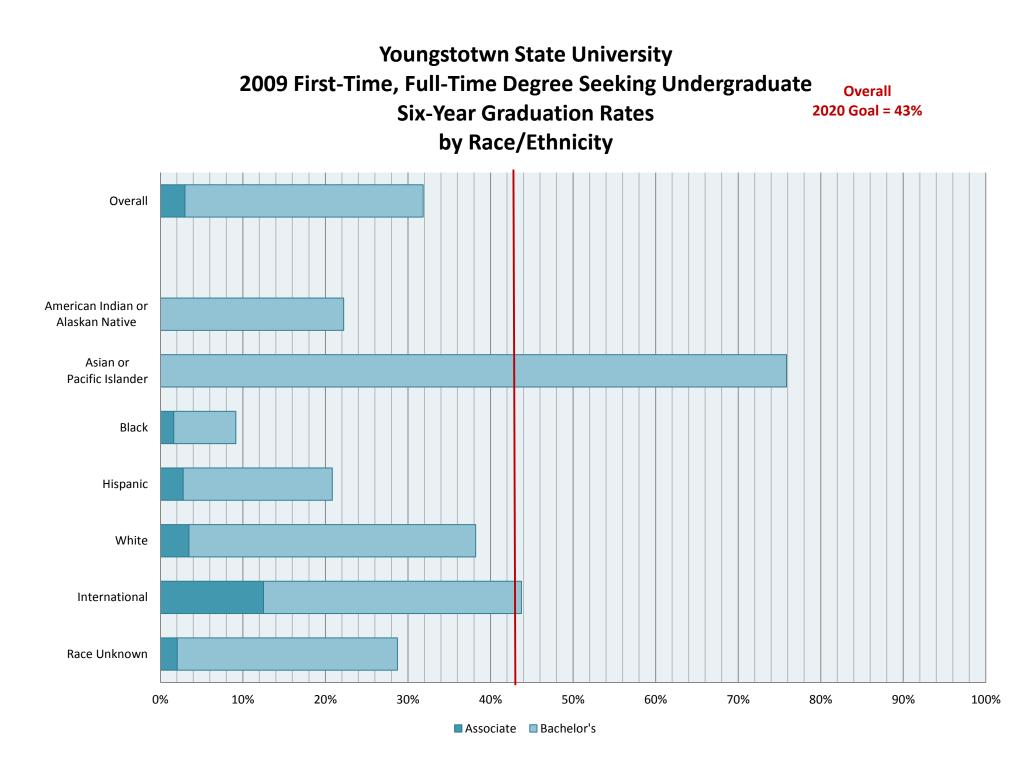
Following are several attachments depicting the types of metrics being captured on number and type of internships, wages, and impact from each academic program. While additional details are monitored, the following charts indicate representative metrics.

Attachment A depicts several of the student coop and internship experiences from the College of Science, Technology, Engineering, and Mathematics (STEM) over the past two years, with emphasis on "in demand" jobs. Student Major, Industry NAICS Code, "In Demand Industry", Employer Name, and number of hours worked are presented for several of the past semesters.

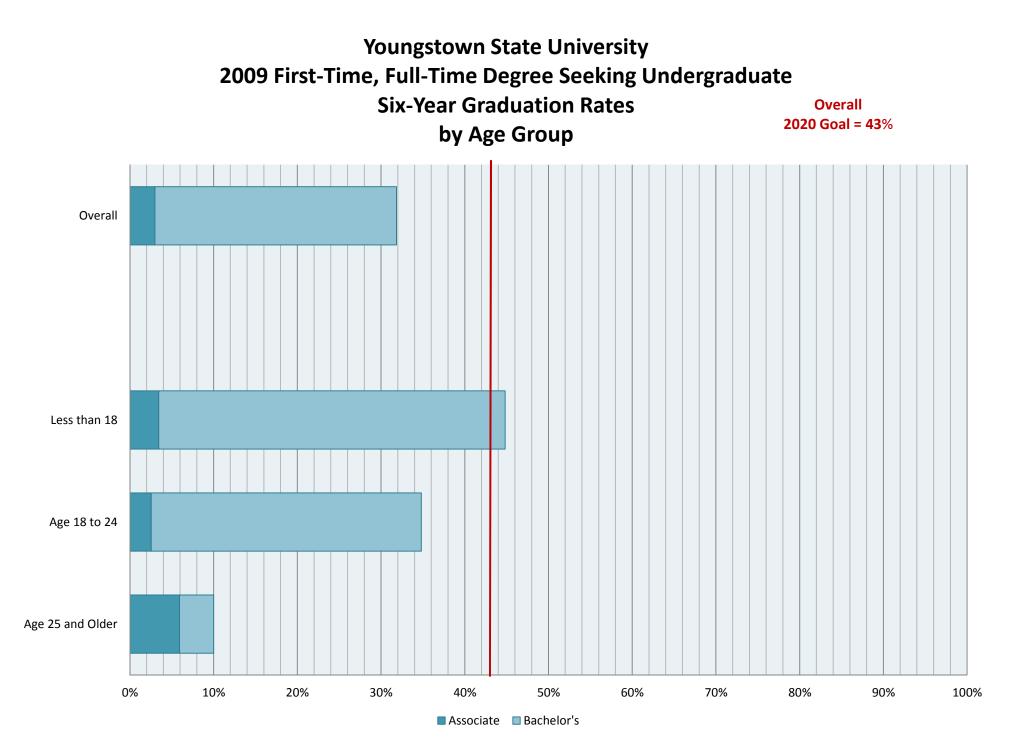
Attachment B is the STEM College Experiential Learning Report for 2015-16. It provides relevant data from internships, including wages, industries, and companies.

Attachment C summarizes coops and internships completed by students from the Williamson College of Business Administration, including

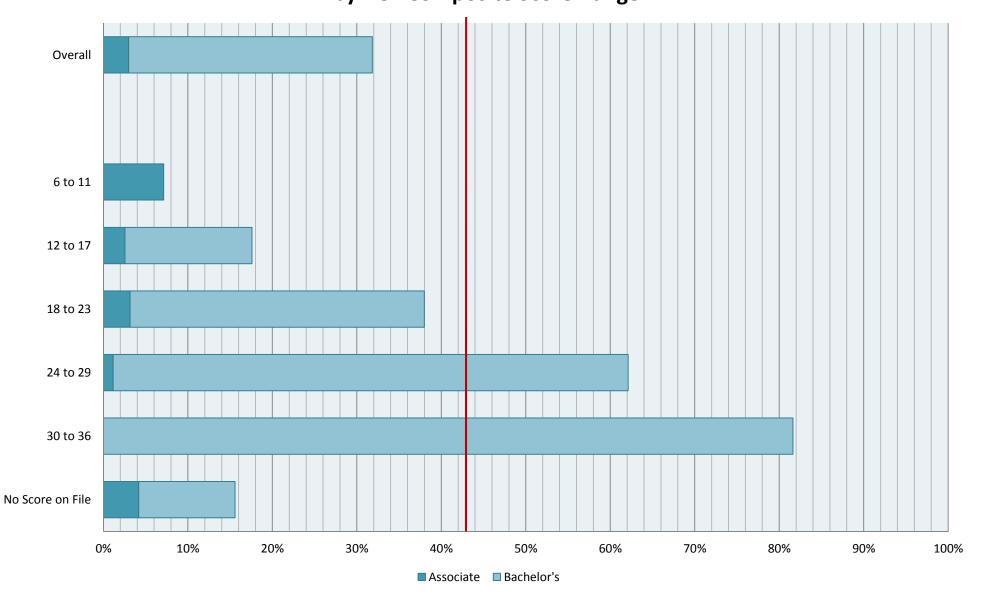
As an added metric of campus completeness, each year Youngstown State University Office of Career Services surveys graduating seniors to assess near term employment, graduate school attendance, or other status within one year of graduation. Additionally, undergraduates are asked to report starting salary, and location of employment. Attachment D depicts a portion of the more relevant data from 2014-2015, the most recently completed survey.



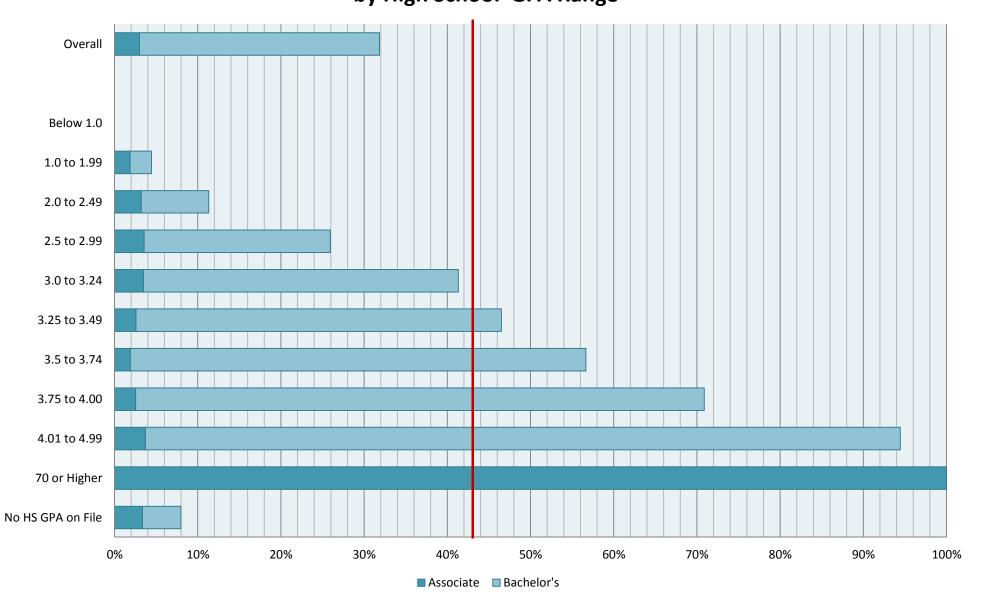
Prepared by: Becky Geltz, Institutional Research, 4/20/2016



# Youngstown State University 2009 First-Time, Full-Time Degree Seeking Undergraduate Six-Year Graduation Rates by ACT Composite Score Range

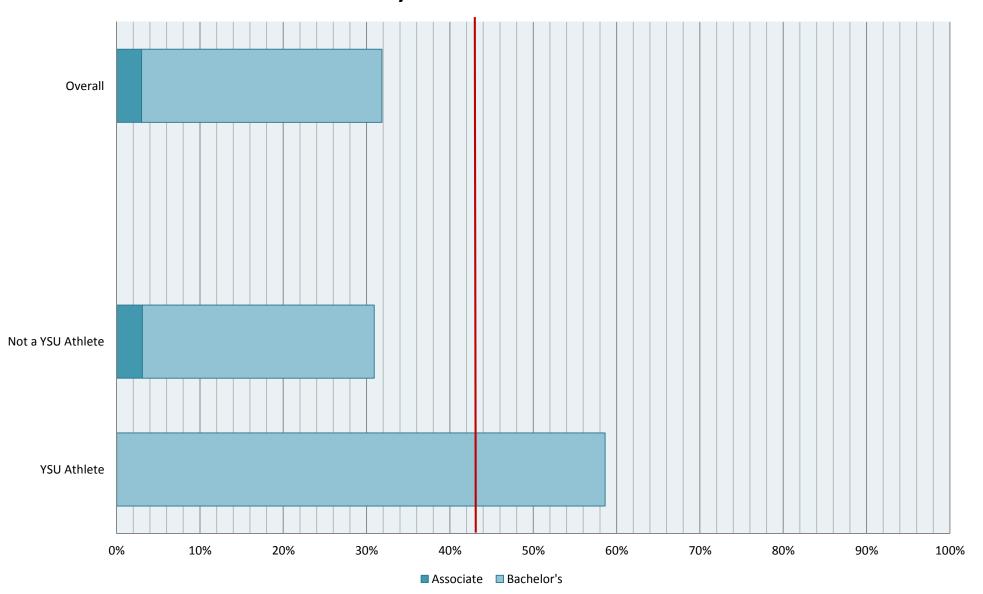


# Youngstown State University 2009 First-Time, Full-Time Degree Seeking Undergraduate Six-Year Graduation Rates by High School GPA Range

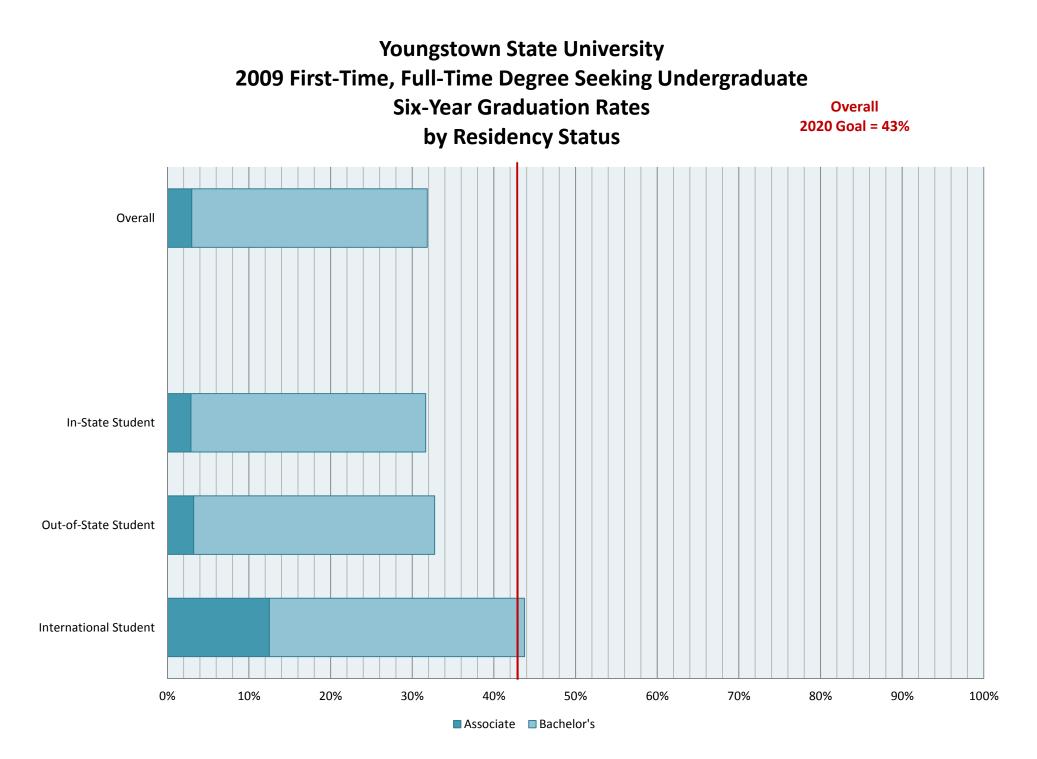


Prepared by: Becky Geltz, Institutional Research, 4/20/2016

# Youngstown State University 2009 First-Time, Full-Time Degree Seeking Undergraduate Six-Year Graduation Rates by YSU Athlete Status 2009-10

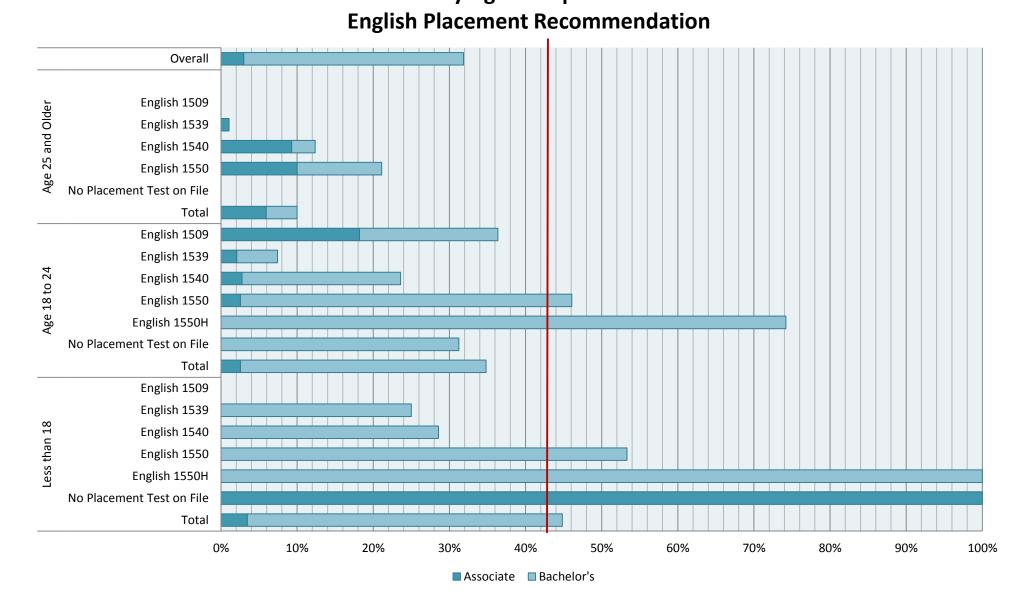


Prepared by: Becky Geltz, Institutional Research, 4/20/2016



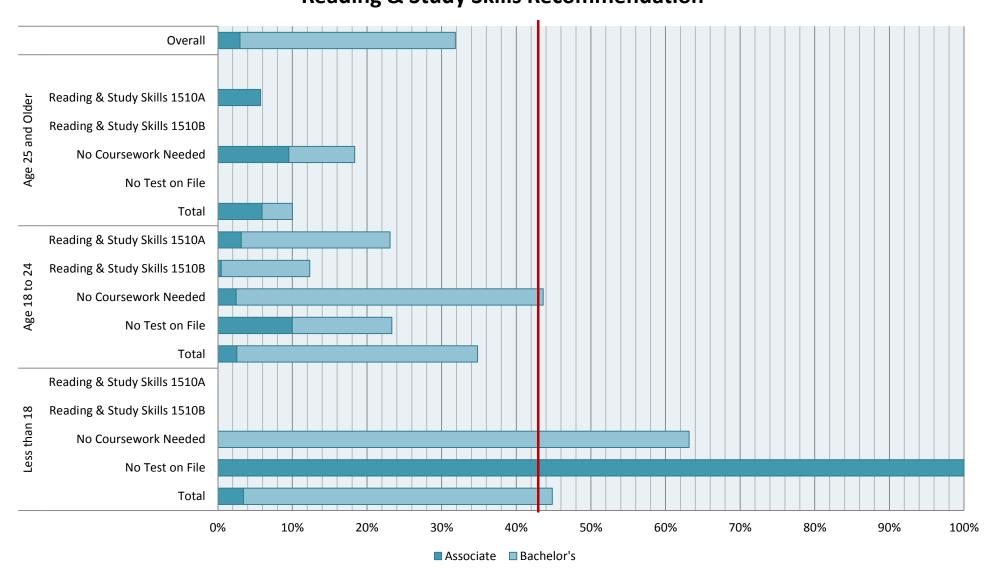
# **Youngstown State University** 2009 First-Time, Full-Time Degree Seeking Undergraduate **Six-Year Graduation Rates** by Age Group and

**Overall** 2020 Goal = 43%

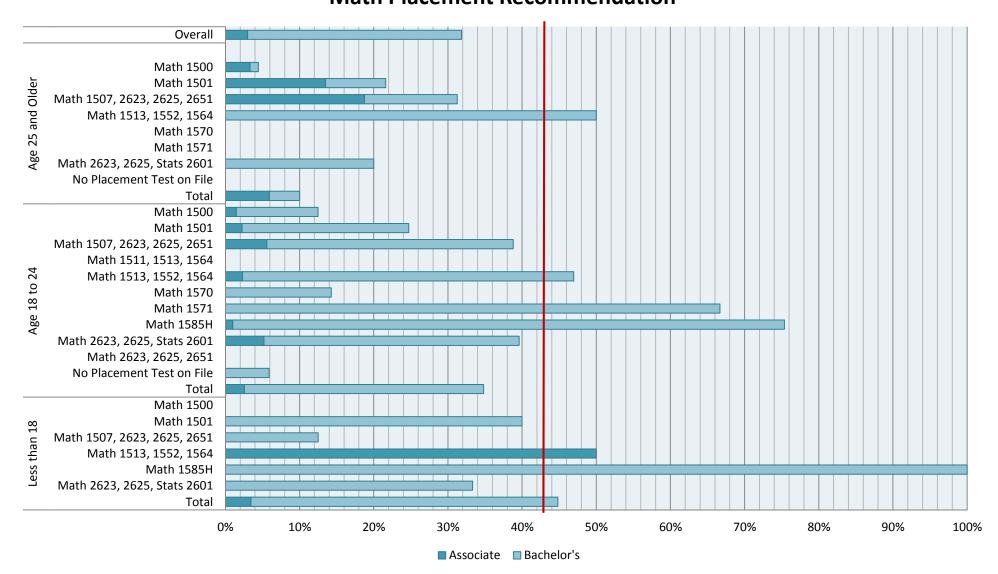


Prepared by: Becky Geltz, Institutional Research, 4/20/2016

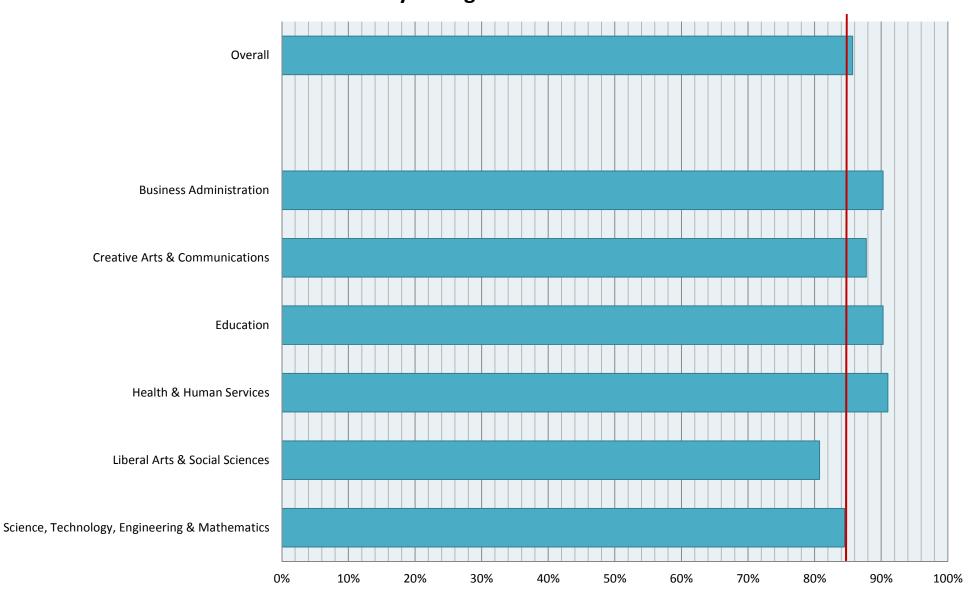
# Youngstown State University 2009 First-Time, Full-Time Degree Seeking Undergraduate Six-Year Graduation Rates by Age Group and Reading & Study Skills Recommendation



# Youngstown State University 2009 First-Time, Full-Time Degree Seeking Undergraduate Six-Year Graduation Rates by Age Group and Math Placement Recommendation

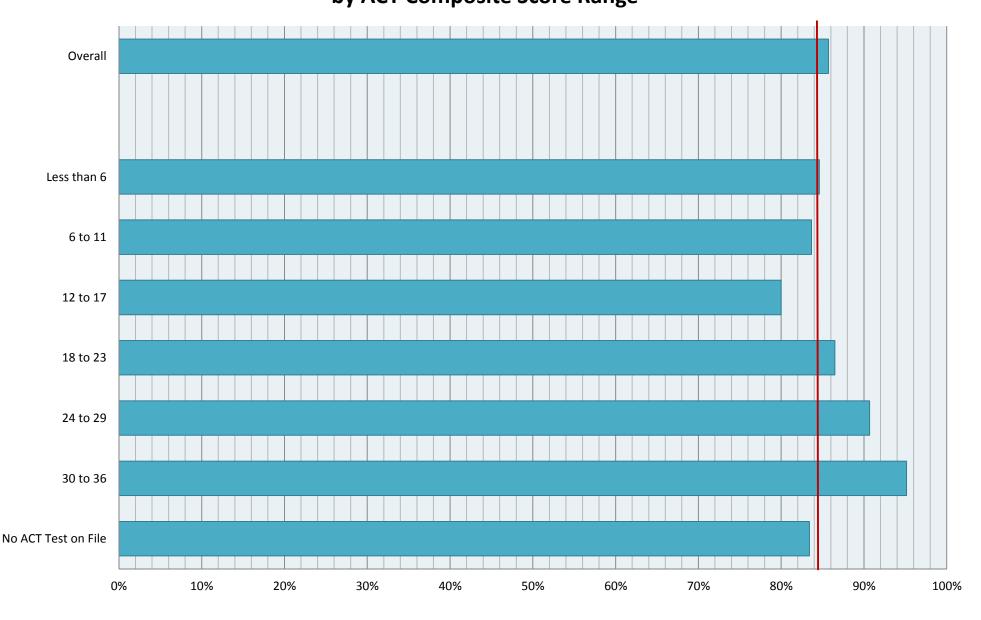


Youngstown State University Fall 2014 Undergraduate Course Completion Rates by College of Course



Youngstown State University Fall 2014 Undergraduate Course Completion Rates by ACT Composite Score Range

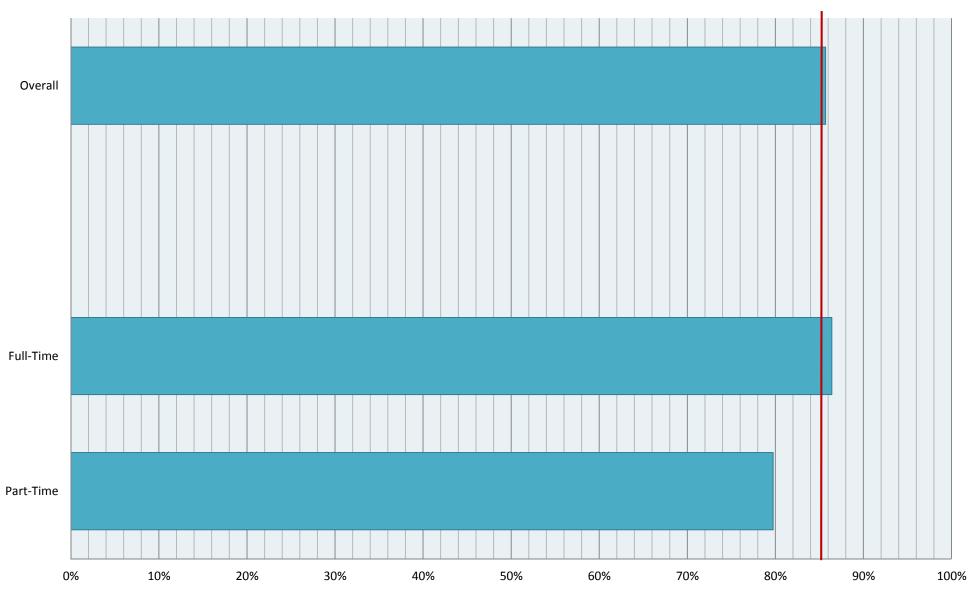
Overall 2020 Goal = 85%



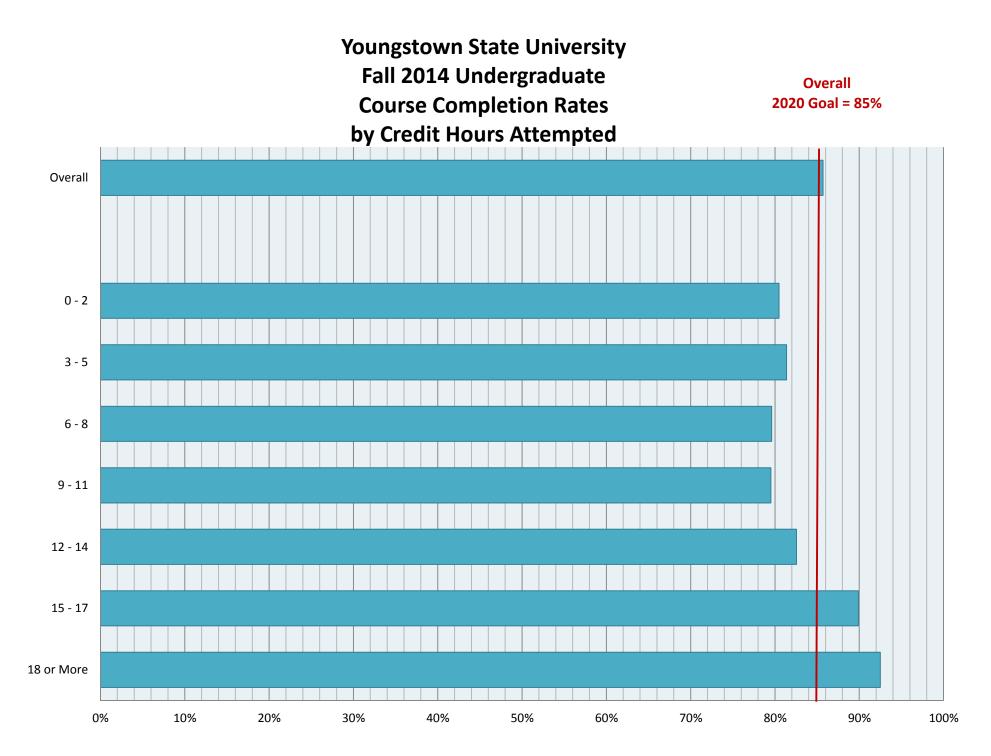
Prepared by: Becky Geltz, Institutional Research, 4/20/2016

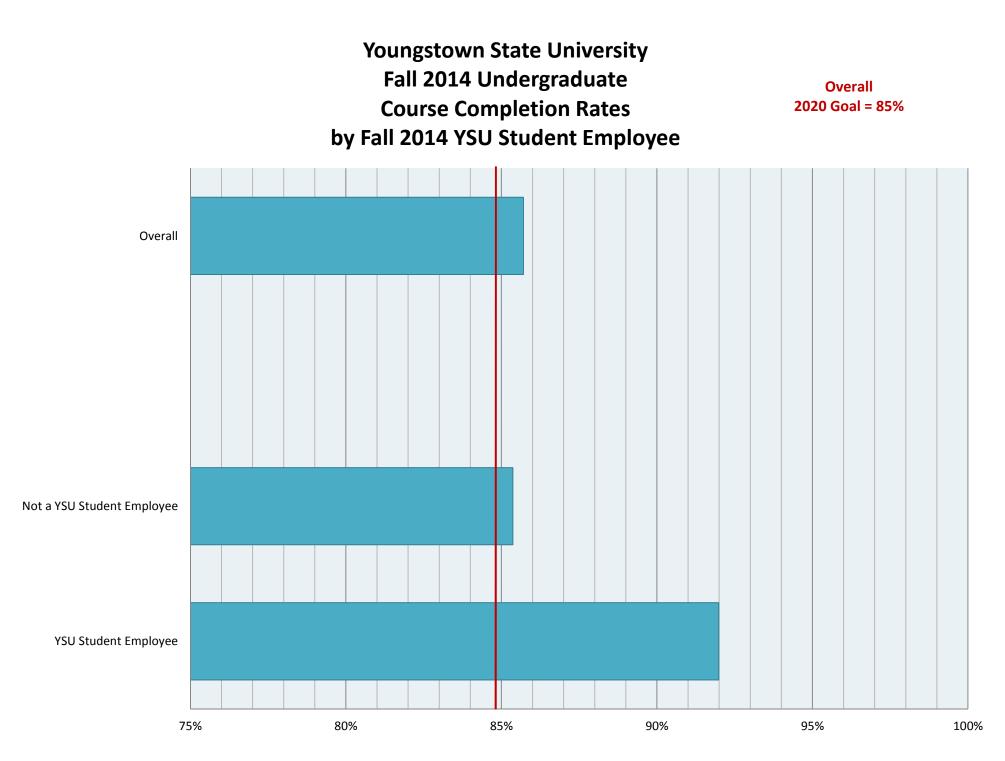
Youngstown State University Fall 2014 Undergraduate Course Completion Rates by Academic Load

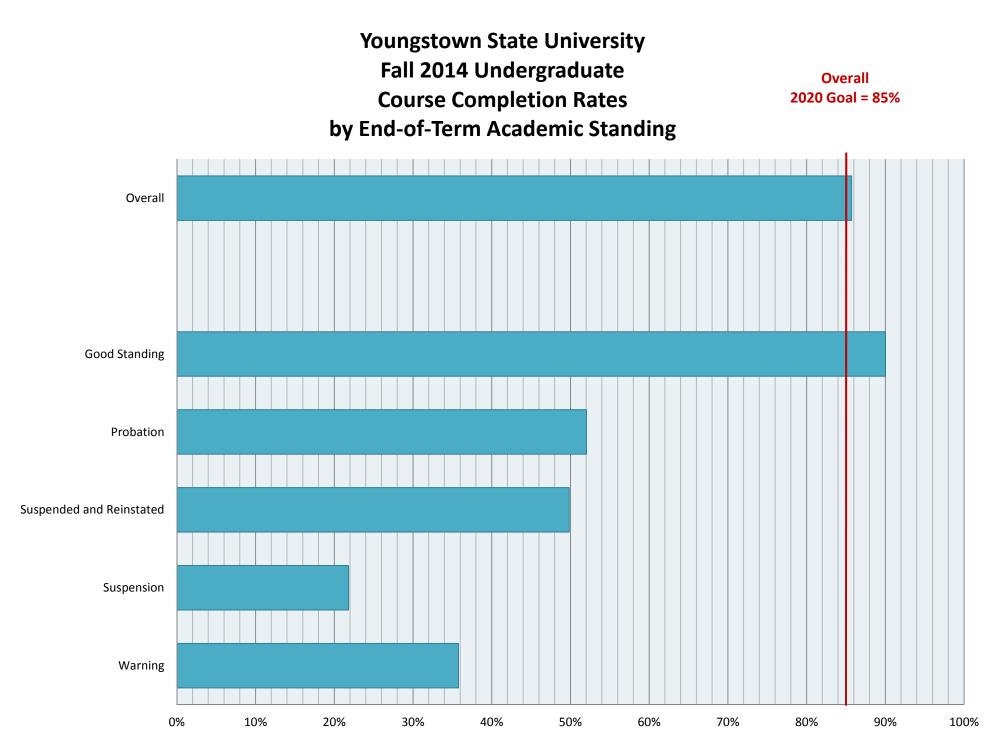
Overall 2020 Goal = 85%



Prepared by: Becky Geltz, Institutional Research, 4/20/2016

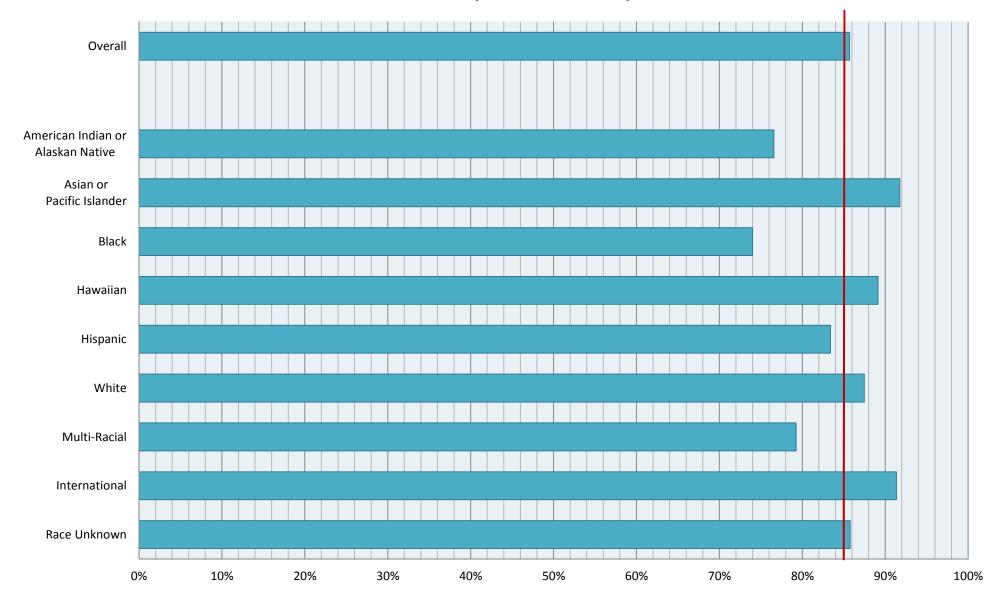






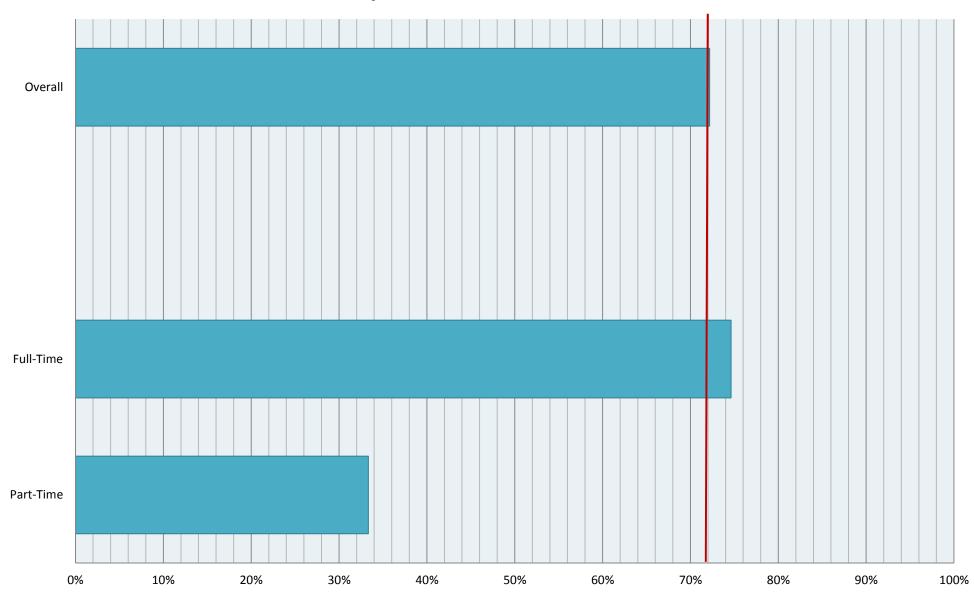
Prepared by: Becky Geltz, Institutional Research, 4/20/2016

Youngstown State University Fall 2014 Undergraduate Course Completion Rates by Race/Ethnicity



Youngstown State University 2014 First-Time Undergraduate Degree Seeking Fall-to-Fall Persistence Rates by Fall 2014 Academic Load

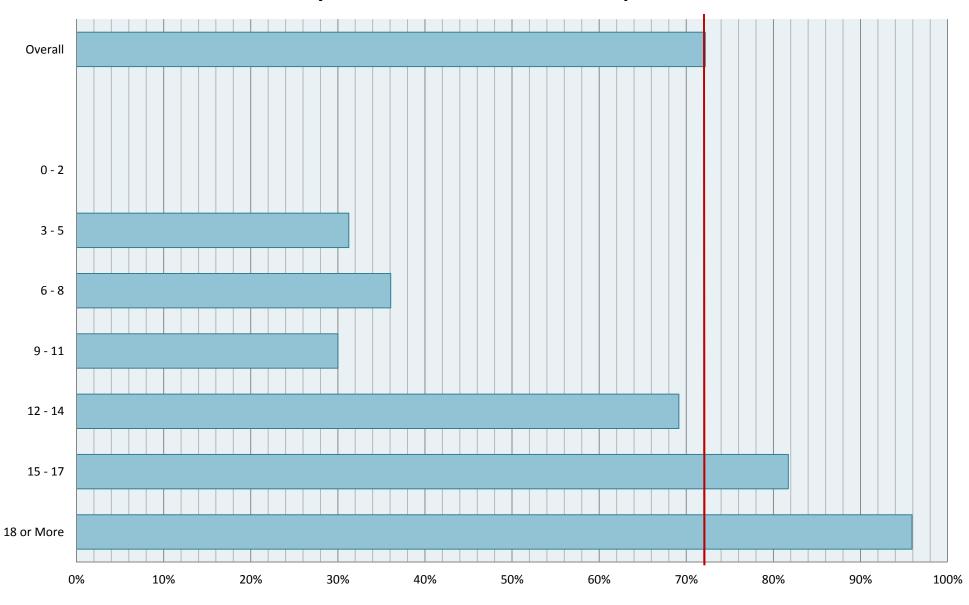
Overall 2020 Goal = 72%



Prepared by: Becky Geltz, Institutional Research, 4/19/2016

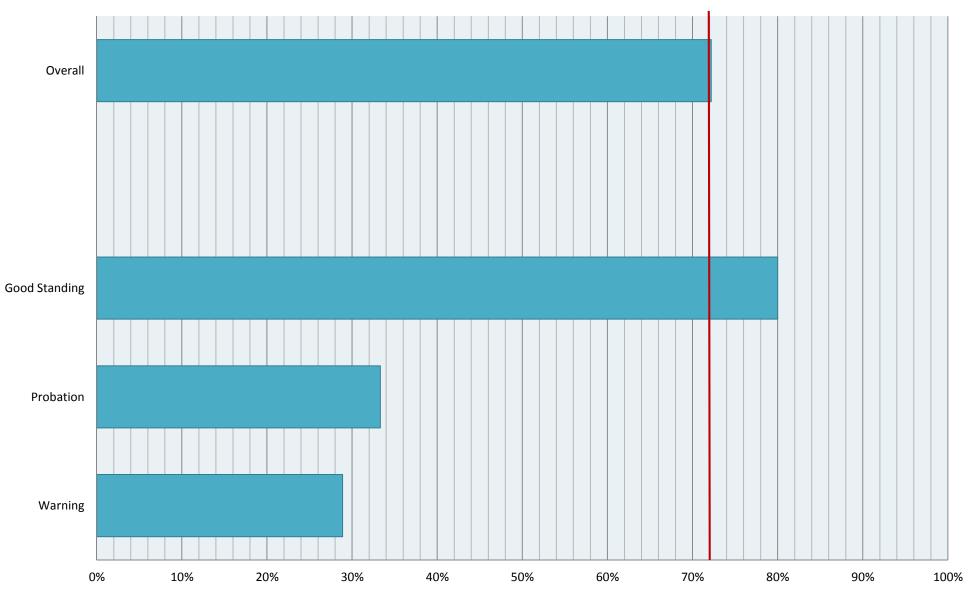
# Youngstown State University 2014 First-Time Undergraduate Degree Seeking Fall-to-Fall Persistence Rates by Fall 2014 Credit Hours Attempted

Overall 2020 Goal = 72%



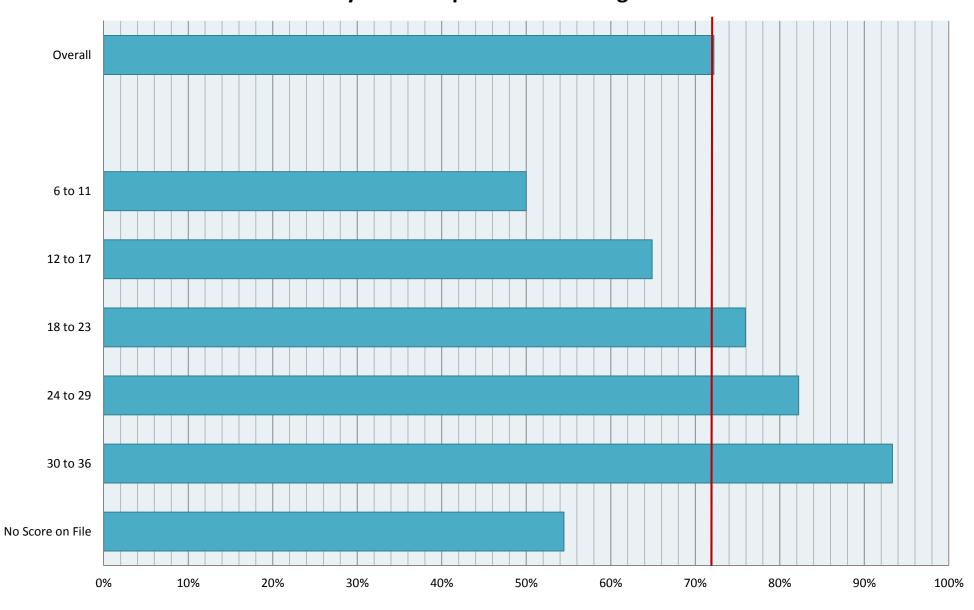
Prepared by: Becky Geltz, Institutional Research, 4/19/2016

# Youngstown State University 2014 First-Time Undergraduate Degree Seeking Fall-to-Fall Persistence Rates by Fall 2014 End-of-Term Academic Standing



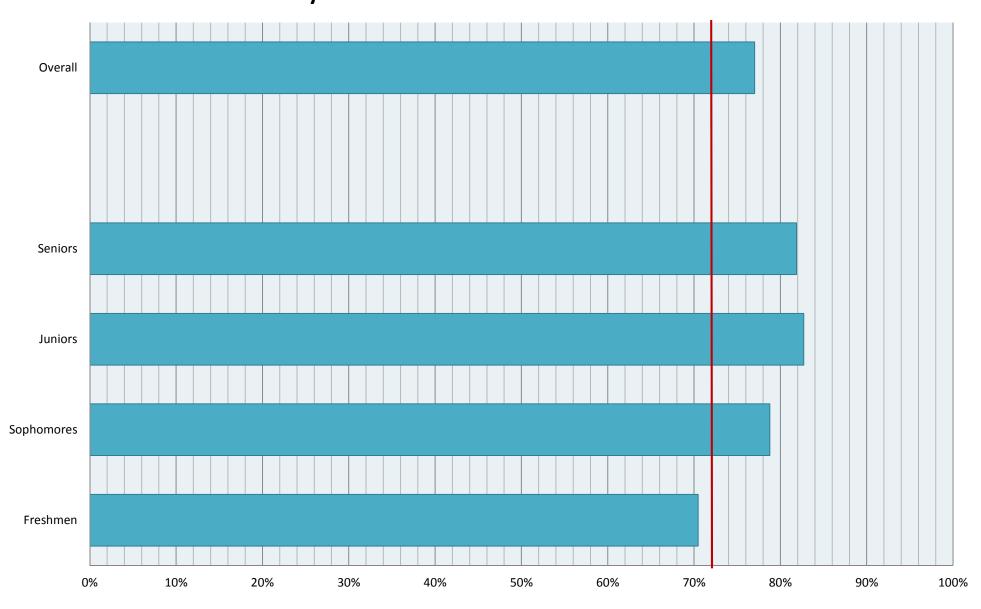
Youngstown State University 2014 First-Time Undergraduate Degree Seeking Fall-to-Fall Persistence Rates by ACT Composite Score Range

Overall 2020 Goal = 72%

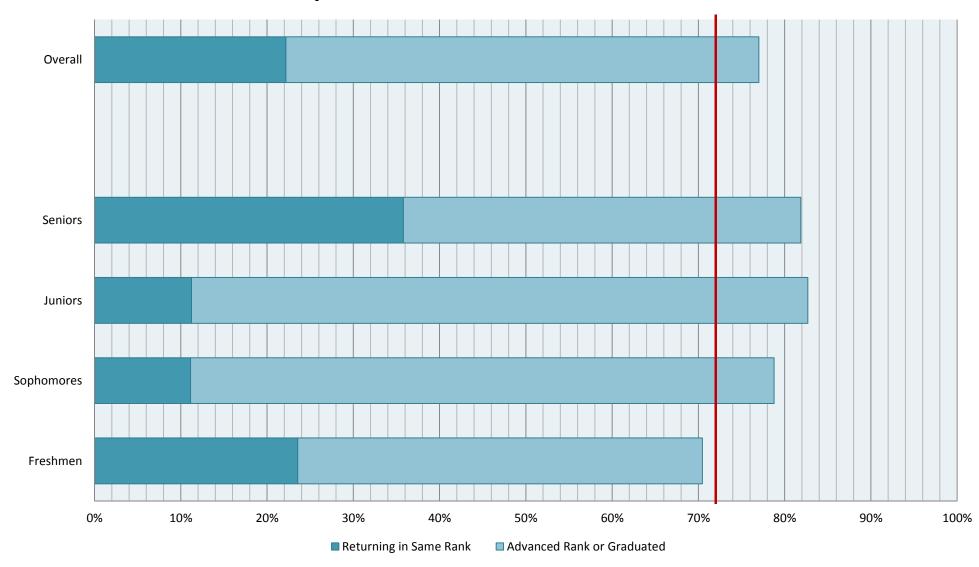


Prepared by: Becky Geltz, Institutional Research, 4/19/2016

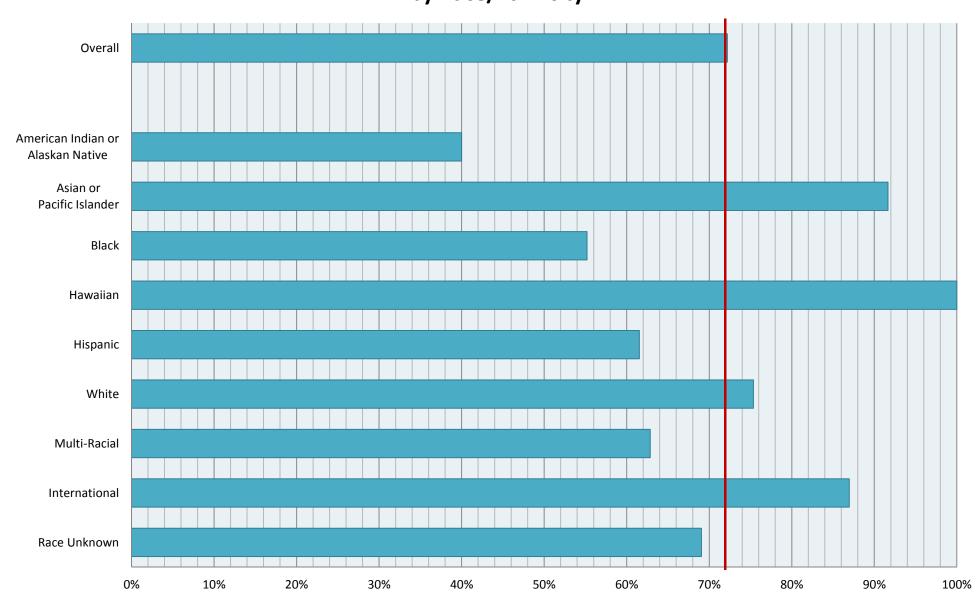
# Youngstown State University 2014 All Undergraduate Degree Seeking Students Fall-to-Fall Persistence Rates by Fall 2014 Student Rank Classification

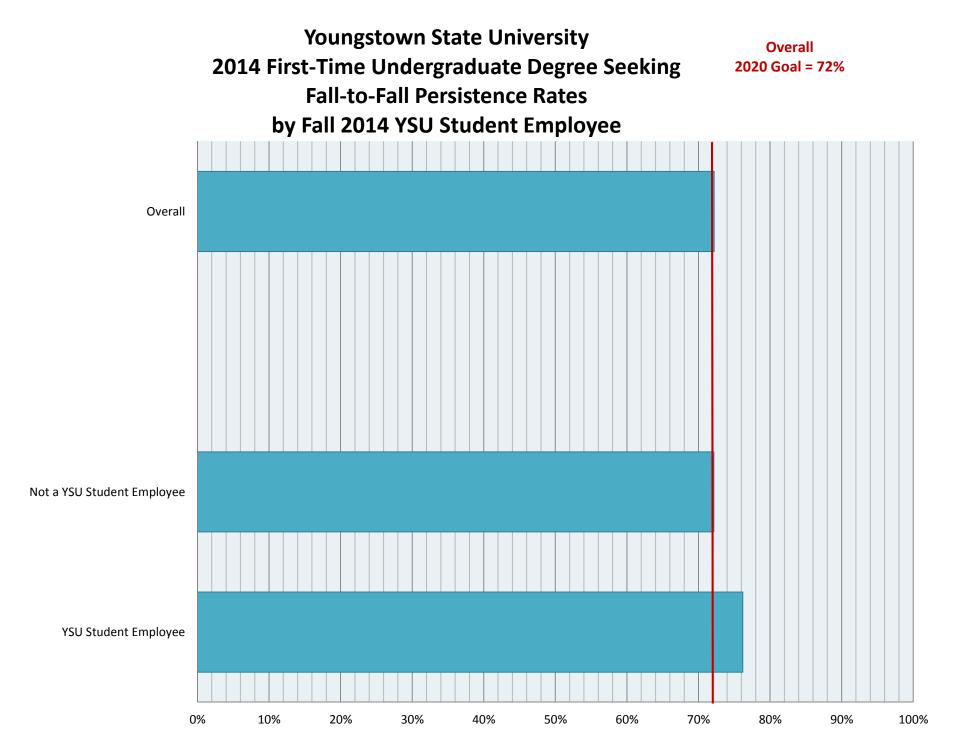


# Youngstown State University 2014 All Undergraduate Degree Seeking Student Gross Progression Fall-to-Fall Persistence Rates by Fall 2014 Student Rank Classification



# Youngstown State University 2014 First-Time Undergraduate Degree Seeking Fall-to-Fall Persistence Rates by Race/Ethnicity





## Attachment A

# College of STEM - In Demand Jobs: Internships- Fall, 2014:

Major	NAICS	JobsOhio Industry	Employers	Hours worked
		Advanced		
Industrial Engineering	3329	Manufacturing	Taylor - Winfield Technologies	345.0
Information		Advanced		
Technology	3329	Manufacturing	Brilex Industries Inc.	325.8
		Advanced		
Mechanical Engineering	3329	Manufacturing	Taylor - Winfield Technologies	210.0
		Advanced		
MET	3311	Manufacturing	Vallourec, Inc.	536.6
		Advanced		
MET	3329	Manufacturing	Taylor - Winfield Technologies	487.8
		Advanced		
MET	3329	Manufacturing	Taylor - Winfield Technologies	596.3
Chemical Engineering	3345	Aerospace & Aviation	ABB Inc.	656.0
		Advanced		
Industrial Engineering	5417	Manufacturing	America Makes	328.0
Industrial Engineering	2371	Energy	Valley Electrical Consolidated	137.0
Information				
Technology	3118	Food Processing	Schwebel's Baking Company	459.6
Information				
Technology	3119	Food Processing	John Zidian	398.1
		Information		
Computer Science	5415	Technology	Empyra	276.0
Information		Information		
Technology	5182	Technology	DRS LLC	383.8
Information		Information		
Technology	5415	Technology	Intellitech Corporation	401.5

Major	NAICS	JobsOhio Industry	Employers	Hours worked
Mechanical Engineering	3339	Advanced Manufacturing	Simmers Crane	377.0
Mechanical Engineering	3339	Advanced Manufacturing	Simmers Crane	639.8
Chemical Engineering	3351	Advanced Manufacturing	GE Lighting	429.0
Electrical Engineering	3351	Advanced Manufacturing	GE Lighting	617.0
Industrial Engineering	3321	Advanced Manufacturing	Commercial Metal Forming	474.0
Mechanical Engineering	3322	Advanced Manufacturing	The M.K. Morse Company	472.0
Electrical Engineering	3345	Aerospace & Aviation	ABB Inc.	447.0
Electrical Engineering	3345	Aerospace & Aviation	ABB Inc.	539.0
Mechanical Engineering	2211	Energy	Bruce and Merrilees	540.5
Mechanical Engineering	2211	Energy	Bruce and Merrilees	449.5
Electrical Engineering	2211	Energy	FirstEnergy Corporation	496.0
Mechanical Engineering	2211	Energy	FirstEnergy Corporation	428.0
Information Technology	5112	Information Technology	Turning Technologies	308.3
Civil Engineering	5112	Information Technology	Learning Egg LLC	457.3
CSIS	5112	Information Technology	Infinite Synergy	392.0
Information Technology	5191	Information Technology	GBS Corp	413.0
Environmental Studies	3252	Shale Energy and Petrochemical	Goodyear Tire	593.0
Chemistry	3259	Shale Energy and Petrochemical	Lubrizol	458.5

# College of STEM - In Demand Jobs: Internships, Spring, 2014:

Major	NAICS	JobsOhio Industry	Employers	Hours worked
Computer & Information System	3339	Advanced Manufacturing	Brilex Tech industries	653.7
Industrial and Systems Engineering	3354	Advanced Manufacturing	Extrudex Aluminum	192.3
Electrical Engineering	333992	Advanced Manufacturing	Taylor - Winfield Technologies	320.0
Mechanical Engineering	333992	Advanced Manufacturing	Taylor - Winfield Technologies	351.0
Industrial & System Engineering	333992	Advanced Manufacturing	Taylor - Winfield Technologies	597.0
Industrial & Systems Engineering	333992	Advanced Manufacturing	Taylor - Winfield Technologies	190.0
Industrial Engineering	3352	Advanced Manufacturing	Whirlpool	720.0
Electrical Engineering	541512- 13	Advanced Manufacturing	Rovisys Building Technologies	N/A
Electrical Engineering	3345	Aerospace	ABB	651.0
Chemical Engineering	3363	Automotive	Delphi	232.0
Mechanical Engineering	336212	Automotive	MAC Trailer	217.2
Mechanical Engineering Technology	3362121	Automotive	MAC Trailer	459.1
Mechanical Engineering	332722	Automotive	PSM International	400.0
Chemical Engineering	5416	Business	Applied Systems & Technology Transfer	186.0
Information Technology	5191	Information Technology	GBS Corp	595.0

# College of STEM - In Demand Jobs: Internships, Fall, 2015

## College of STEM - In Demand Jobs: Internships, Fall, 2015

#### Continued

Major	NAICS	JobsOhio Industry	Employers	Hours worked
Computer Information Systems	5112	Information Technology	Turning Technologies	231.8
Information Technology	5112	Information Technology	Turning Technologies	161.3
Computer Information Systems	5191	Information Technology	GBS Corp	426.4
Chemical Engineering	3262	Shale Energy and Petrochemical	Gold Key Processing Inc.	675.8
Chemical Engineering	3262	Shale Energy and Petrochemical	Gold Key Processing Inc.	670.8
Mechanical Engineering	32612101	Shale Energy and Petrochemical	Mercury Plastic Inc.	N/A

# College of STEM - In Demand Jobs: Internships, Spring, 2015

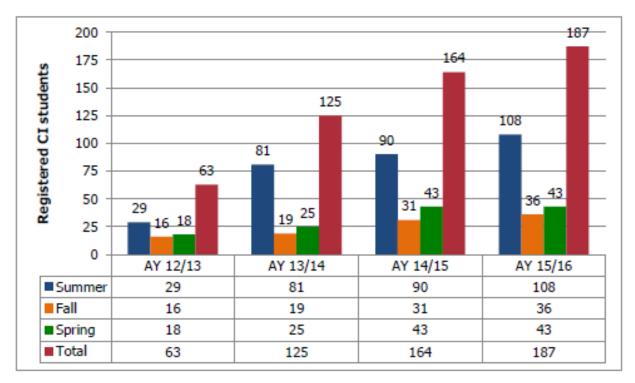
Major NAICS		JobsOhio Industry	Employers	Hours worked
Electrical	IIAICS	Jobsonio maastry		worked
Engineering	3372	Advanced Manufacturing	Gasser Chair Company Inc.	128.0
Electrical	5572			12010
Engineering	3351	Advanced Manufacturing	GE Lighting	548.0
CSIS	3353	Advanced Manufacturing	Laird Technologies	504.7
Information	0000			
Technology	3311	Advanced Manufacturing	Liberty Steel	450.0
Electrical		<b>5</b>		
Engineering	3353	Advanced Manufacturing	Rockwell Automation	480.0
Electrical				
Engineering	3329	Advanced Manufacturing	Roth Bros.	394.5
Mechanical				
Engineering	3328	Advanced Manufacturing	Treemen Industries	505.3
Electrical				
Engineering	3345	Aerospace & Aviation	ABB Inc.	563.0
Chemical				
Engineering	3345	Aerospace & Aviation	ABB Inc.	474.5
Electrical				
Engineering	3361	Automotive	General Motors Lordstown	358.5
Mechanical				
Engineering	3362	Automotive	MAC Trailer	453.4
Civil Engineering	5413	Business	ACA Engineering	388.0
Civil Engineering	5413	Business	Kohli & Kaliher Associates, Inc.	425.5
Environmental			Lennon, Smith, Souleret	
Studies	5416	Business	Engineering, Inc.	408.0
CIS	5416	Business	SenSource, Inc.	381.0
Civil Engineering	5416	Business	GPD Group	277.0
Information				
Technology	2211	Energy	FirstEnergy Corporation	504.0
Information		Shale Energy and		
Technology	2371	Petrochemical	Valley Electrical Consolidated	296.0
CIS	2371	Energy	Youngstown Computer	231.5
CIS	5191	Information Technology	GBS Corp	496.0
Mathematics	5415	Information Technology	Intellitech Corporation	392.5
Information				
Technology	5182	Information Technology	Involta	420.0
Computer Science	5112	Information Technology	Turning Technologies	356.8
Mechanical		Shale Energy and		
Engineering	3261	Petrochemical	Molded Fiber Glass Company	560.2
Chemical	0201	Shale Energy and		
Engineering	3261	Petrochemical	PlastiPak	431.7

# STEM Experiential Learning Report, Summer 2015 through Spring 2016

# History

The College of STEM began formally tracking registered interns and co-ops (CI) since Summe 2012. Though there was experiential learning activity before that time, it was not adequately tracked.

Since the formal launch of STEM Professional Services, the number of registered CIs per academic year has nearly tripled.



# Majors

Undergraduate CIs

Major <sup>1</sup>	AY 15/16	X12-S16
Science	15	56
Biology	2	4
Chemistry	0	4
Environmental Studies	11	44
Geology	2	4
Technology	47	154
Computer Information Systems	8	18
Computer Science	11	25
Information Technology	28	111
Engineering	101	266
Chemical Engineering	26	61
Civil Engineering	8	25
Electrical Engineering	28	61
Industrial & Systems Engineering	8	37
Mechanical Engineering	31	82
Engineering Technology	5	25
Civil & Construction Engineering Technology	1	6
Drafting & Design Technology	1	1
Electrical Engineering Technology	0	1
Mechanical Engineering Technology	3	17
Mathematics	3	6

## Graduate CIs

Major	AY 15/16	X12-S16
Science	0	4
Environmental Studies	0	3
Materials Science	0	1
Technology	15	23
Computing & Information Systems	15	23
Engineering	0	4
Electrical Engineering	0	1
Industrial & Systems Engineering	0	2
Mechanical Engineering	0	1
Mathematics	1	1

<sup>&</sup>lt;sup>1</sup> Students with more than one major were counted within the major of their CI transcription course

# Wages

#### **Unpaid Interns**

During AY 15/16, seven interns received no wages. Of these, only two were at for-profit employers. This represents a significant decline from the following year, which had 16 unpaid CIs, four of whom were at for-profit employers.

#### Wages of Paid CIs

Please note that for some programs the average wage is distorted due to too few students in a program.

Major	AY 15/16	X12-S16
Science	10.74	11.03
Biology	9.50	11.50
Chemistry	-	15.86
Environmental Studies	11.14	10.51
Geology	9.75	11.38
Technology	12.37	11.79
Computer Information Systems	14.75	13.06
Computer Science	12.36	13.06
Information Technology	11.69	11.30
Engineering	15.86	16.22
Chemical Engineering	16.61	17.29
Civil Engineering	14.00	13.47
Electrical Engineering	18.20	17.45
Industrial & Systems Engineering	15.00	15.94
Mechanical Engineering	13.82	15.46
Engineering Technology	13.60	14.42
Civil & Construction Engineering Technology	14.00	14.67
Drafting & Design Technology	10.00	10.00
Electrical Engineering Technology	-	15.00
Mechanical Engineering Technology	14.67	14.59
Mathematics	13.00	12.83
All Majors	14.46	14.44

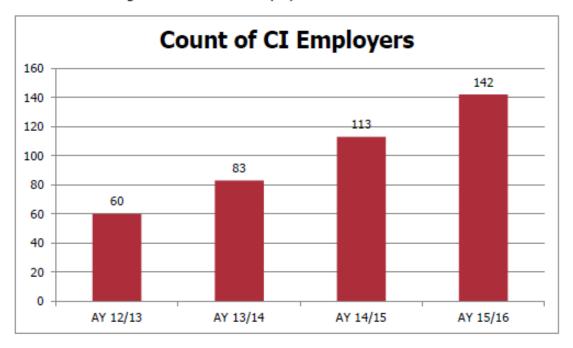
## Undergraduate, Average Hourly Wage

#### Graduate, Average Hourly Wage

Major	AY 15/16	X12-S16
Science	-	27.21
Environmental Studies	-	25.88
Materials Science	-	31.20
Technology	16.75	18.10
Computing & Information Systems	16.75	18.10
Engineering	-	14.33
Electrical Engineering	-	14.00
Industrial & Systems Engineering	-	14.50
Mechanical Engineering	-	missing
Mathematics	20.00	20.00
All Majors	16.98	18.79

## Employers

As the number of CIs has grown, so has the number of employer hiring. The below chart demonstrates the growth of individual employers<sup>2</sup> over time.



<sup>&</sup>lt;sup>2</sup> This chart counts two departments at the same location as 1 employer, whereas the below list specifies varying departments, if possible. This mostly effects interns at YSU.

During AY 15/16, registered CIs were employed at the following sites.

ABB Inc. ACA Engineering Ajax Tocco Magnethermic Applied Systems and Technology Transfer AVCO Consulting, Inc. Boardman Local Schools Boardman Steel Inc. Brilex Group; Brilex Tech Services, Inc. Brilex Group; Taylor-Winfield Technologies Butler Technologies Cafaro Company Catullo Prime Meats Columbia Gas Commercial Metal Forming Cuyahoga County Board of Health Day Environmental Delphi Digital Ninjas IT Solutions Dimension Consulting Drund Environmental Design Group Erie Insurance Extrudex Aluminum, Inc. FirstEnergy Corporation Flashstarts, Inc. Flowline Gasser Chair Company Inc. GBS Corp GE Lighting GE Transportation General Motors Gerhart Engineering GLI Pool Products Gold Key Processing, Inc. GPD Group Great Basin Institute Greenwood Chevrolet Harley-Davidson Motor Company Ibeam Technologies IDMI.NET

Innovar Systems Intellitech Corporation Involta TT America Inc JMC Steel Group; Sharon Tube Johnson Matthey Process Tech, Inc. Kohli & Kaliher Associates, Inc. Laird Technologies Lennon, Smith, Souleret Engineering, Inc. Liberty Steel Products, Inc. M.K. Morse MAC Manufacturing, Inc. Magical Computing Mahoning County Sanitary Engineers Mercury Plastics MGI Computers Miller Industries Towing Equipment, Inc. Molded Fiber Glass Company Morgan Engineering National Park Service Naval Sea Systems Command Nellcom Technologies NEOMed Northwestern Mutual Novelis Nucor Corporation; American Buildings Group Nucor Corporation; Nucor Building Systems Oak Hill Collaborative Ohio Department of Natural Resources Ohio Department of Transportation; D4 Ohio EPA; Dayton Ohio EPA; Twinsburg PlastiPak Poland Local Schools Power Tool and Supply Printing 3D Parts, Inc Professional Software Consulting Services PSM International Quaker City Castings

Raccoon Creek State Park Raytheon Missile Systems Red Hat, Inc. Resco Products Inc Richardson Cooling Packages Rockwell Automation Roth Bros. Rovisys Building Technologies Saint Gobain Schedulytics SenSource, Inc. Simon Roofing and Sheet Metal Steelcon Texas Water Utilities Department The Counseling Center of Lisbon Goodyear Tire & Rubber Company Reserves Network Youngstown Vindicator Printing Co. Treemen Industries Turner Construction Company Turning Technologies Union Metal Corporation Valley Office Solutions VEC, Inc. via680, LLC. Vintech Solutions VMH International Wallace & Pancher Walt Disney Company Whirlpool Winner Aviation Xerox Youngstown Computer Youngstown State University; MAC Youngstown State University; EOHS Youngstown State University; Math & Stats Department yourSBA.com

#### Attachment C

# Williamson College of Business Administration students enrolled in Internship Courses (by Major)

	Accounting	Fin/Econ	Management	Marketing	ICP	Total
2014-15 Totals	Accounting		management	Marketing		Total
Internships	31	11	15	26	1	84
Graduates	77	25	79	51	6	238
% of graduates with at least on internship	40.3%	44%	19.0%	51.0%	16.7%	35.3%
2013-14 Totals		_				
Internships Graduates	26 65	5 26	18 62	26 53	1 5	76 211
% of graduates with at least on internship	40.0%	19.2%	29.0%	49.1%	20.0%	36.0%
2012-2013 Totals	40.0%	19.2%	29.0%	45.1%	20.0%	30.0%
Internships	22	5	15	14	2	58
Graduates	78	29	69	43	2	221
% of graduates with at least on internship course	28.8%	17.2%	21.7%	32.6%	100.0%	26.2%
2011-2012 Totals						
Internships	19	3	17	19	1	59
Graduates	66	24	86	50	3	226
% of graduates with at least on internship course 2010-2011 Totals	28.8%	14.3%	19.8%	38.0%	33.3%	26.1%
Internships	30	3	17	28	0	78
Graduates	81	23	82	61	1	248
% of graduates with at least on internship course	37.0%	13.0%	20.7%	45.9%	0	31.5%
2009-2010 Totals						
Internships	23	3	23	19	0	68
Graduates	88	21	83	53	0	247
% of graduates with at least on internship course	26.1%	14.3%	27.7%	35.9%	0	27.5%
2008-2009 Totals	22	5	15	14	2	F0
Internships Graduates	22 78	29	15 69	14 43	2	58 221
% of graduates with at least on internship course	28.8%	17.2%	21.7%	32.6%	100.0%	26.2%
2007-2008 Totals	2010/0			01.070		
Internships	16	10	15	27	1	69
Graduates	53	28	62	63	9	215
% of graduates with at least on internship course	30.2%	35.7%	24.9%	42.9%	11.0%	32.1%
2006-2007 Totals	10				-	
Internships Graduates	18 60	8 36	8 70	32 68	0	66 239
% of graduates with at least on internship course	30.0%	22.2%	11.4%	47.1%	0%	239
2005-2006 Totals	30.078	22.270	11.470	47.170	0/0	27.0/0
Internships	30	9	14	30	0	83
Graduates	71	28	74	79	1	253
% of graduates with at least on internship course	42.2%	32.1%	18.9%	37.97%	0%	32.8%
2004-2005 Totals						
Internships	30	7	18	40	0	95
Graduates	65	33	80	93	4	276
% of graduates with at least on internship course	46.2%	21.2%	22.5%	43.0%	0%	34.4%
2003-2004 Totals Internships	41	10	7	35	0	93
Graduates	58	42	74	82	1	257
% of graduates with at least on internship course	70.7%	23.8%	9.5%	42.7%	0%	36.2%
2002-2003 Totals						
Internships	33	11	24	26	0	94
Graduates	56	43	99	67	6	271
% of graduates with at least on internship course	58.9%	25.6%	24.2%	38.8%	0%	34.7%
2001-2002 Totals Internships	58	10	17	28	0	113
Graduates	83	34	76	28 68	4	265
% of graduates with at least on internship course	70%	29%	22%	41%	0%	42.6%
2000-2001 Totals				/•		
Internships	19	10	18	26	1	74
Graduates	57	35	57	56	3	208
% of graduates with at least on internship course	33%	29%	32%	46%	33%	36%
1999-2000 Totals		_				
Internships Graduates	25 79	5 30	16	45	0	91
	/u	30	75	69	0	253

## Williamson College of Business Administration Internships

Internship Type	# of Students	Average Hourly Wage	Minimum Rate	Maximum Rate	Unpaid	Stipend	Bonus/Comm
Accounting	14	\$10.70	\$7.95	\$17.00	0	0	-
Business	5	\$10.40	\$8.00	\$13.00	0	0	-
Administration/Managemen							
Economics*	1	-	-	-	-	-	-
Entrepreneurship	0	-	-	-	-	-	-
Finance	3	\$8.97	\$7.95	\$10.00	0	1	-
Human Resource Management	4	\$11.00	\$10.00	\$14.00	0	0	-
Management	1	\$22.00	\$22.00	\$22.00	0	0	-
Information Systems							
Marketing/Sales/Advertising/PR	19	\$10.69	\$7.95	\$16.50	0	3	-
Non-Profit Leadership	0	-	-	-	-	-	-
MBA*							
Overall Total	46	\$10.88	\$7.95	\$22.00	0	4	-

#### Summer 2014 WCBA Business Internships

\*Wage data was not reported for Economics and MBA internships

#### Fall 2014 WCBA Business Internships

Internship Type	# of Students	Average Hourly Wage	Minimum Rate	Maximum Rate	Unpaid	Stipend	Bonus/Comm
Accounting	6	\$11.08	\$10.00	\$15.75	0	0	-
Business	1	\$12.00	\$12.00	\$12.00	0	0	-
Administration/Managemen							
Economics*	1	-	-	-	-	-	-
Entrepreneurship	2	\$10.00	\$10.00	\$10.00	0	0	-
Finance	4	\$10.50	\$9.00	\$12.00	0	2	-
Human Resource Management	2	\$14.87	\$14.00	\$15.75	0	0	-
Management	0	-	-	-	-	-	-
Information Systems							
Marketing/Sales/Advertising/PR	19	\$11.09	\$7.95	\$17.50	0	2	-
Non-Profit Leadership	0	-	-	-	-	-	-
MBA*	1	-	-	-	-	-	-
Overall Total	33	\$11.35	\$7.95	\$17.50	0	4	-

\* Wage data was not reported for Economics and MBA internships

# Spring 2015 WCBA Business Internships

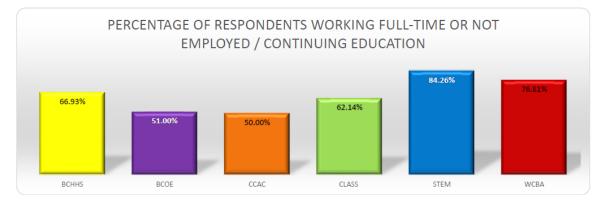
Internship Type	# of	Average	Minimum	Maximum	Unpaid	Stipend	Bonus/Comm
	Students	Hourly Wage	Rate	Rate		-	
Accounting	25	\$15.21	\$8.25	\$22.00	0	0	-
Business	0	-	-	-	-	-	-
Administration/Managemen							
Economics*	0						
Entrepreneurship	2	\$10.00	\$10.00	\$10.00	0	0	-
Finance	4	\$11.50	\$8.00	\$15.00	0	1	-
Human Resource Management	1	\$10.00	\$10.00	\$10.00	0	0	-
Management	0	-	-	-	-	-	-
Information Systems							
Marketing/Sales/Advertising/PR	29	\$9.57	\$7.95	\$10.00	0	1	-
Non-Profit Leadership w/o	1	\$10.00	\$10.00	\$10.00	0	0	-
Marketing							
Non-Profit Leadership**	10	\$10.00	\$10.00	\$10.00	0	0	-
MBA*	2	-	-	-	-	-	-
Overall Total	63	\$11.71	\$7.95	\$22.00	0	2	-

\* Wage data was not reported for Economics and MBA internships

#### Attachment D:

#### Highlights of the 2014-2015 University Outcome Report

#### UNDERGRADUATES EMPLOYED FULL-TIME OR NOT EMPLOYED / CONTINUING EDUCATION



COLLEGE	TOTAL NUMBER OF RESPONDENTS PER COLLEGE	TOTAL # OF RESPONDENTS WORKING FULL-TIME OR NOT EMPLOYED / CONTINUING EDUCATION	% OF RESPONDENTS WORKING FULL- TIME OR NOT EMPLOYED / CONTINUING EDUCATION
BCHHS	254	170	66.93%
BCOE	100	51	51.00%
CCAC	54	27	50.00%
CLASS	140	87	62.14%
STEM	235	198	84.26%
WCBA	138	106	76.81%
TOTAL	921	639	69.46%

#### SALARIES OF YSU UNDERGRADUATES EMPLOYED FULL-TIME:

- 35.7% reported annual salaries of over \$50,000
- 13.473% reported salaries of \$40,000 \$49,000
- 15.078% reported salaries of \$30,000 \$39,999
- 16.1% reported salaries of \$20,000 \$29,999
- 4.1% reported salaries of less than \$20,000
- 32.8% of the respondents employed full-time did not provide salary information

#### **GRADUATES PURSUING ADDITIONAL EDUCATION:**

• A total of 172 undergraduate respondents, (18.6%) reported that they were pursuing additional education at 45 different academic institutions.

#### **References for Student Characteristics**

**Pell Grants:** YSU Office of Financial Aid and Scholarships, Dashboard <u>http://web.ysu.edu/gen/ysu\_generated\_bin/documents/basic\_module/Financial\_Aid\_Dashboa</u> <u>rd\_07\_23\_13.pdf</u>. The value was for the 2012-13 academic year

**Remedial Coursework:** Ohio Board of Regents, "Percent of First-Year Students Taking Remedial Coursework FY 2010", July 2011 <u>https://www.ohiohighered.org/files/uploads/data/statistical-profiles/preparation/rem\_by\_age\_FY10\_rev\_07-29-11.pdf</u>

Attending Part-Time: Calculated from data on the Institutional Research website for Fall 2013, http://web.ysu.edu/gen/ysu generated bin/documents/basic module/Fall 2013 Credit Hour Load Residency.pdf

**First Generation:** Ohio Board of Regents, "Undergraduate and Graduate Student Diversity, Fall 2012", <u>https://www.ohiohighered.org/files/uploads/data/statistical-</u> profiles/enrollment/Diversity%20Report%20Fall%202010.pdf

ACT Composite Score: Fall 2013, calculated by Institutional Research

High School GPA: Fall 2013, calculated by Institutional Research

GED Recipients: Institutional Research, Fall 2013

http://web.ysu.edu/gen/ysu generated bin/documents/basic module/20092013 University Total Feeder HS.pdf