

**STRATEGIC COMPLETION PLAN FOR THE OHIO STATE UNIVERSITY**

Resolution No. 2016-115

Synopsis: Endorsement of the update to the Strategic Completion Plan for The Ohio State University, is proposed.

WHEREAS the 130th Ohio General Assembly added Ohio Revised Code 3345.81 (Strategic Completion Plan), effective September 29, 2013, amended September 29, 2015; and

WHEREAS ORC 3345.81 requires the Board of Trustees at each Ohio institution of higher education adopt an institution-specific strategic completion plan designed to increase the number of degrees and certificates awarded to students, and to update its plan at least once every two years; and

WHEREAS ORC 3345.81 states the plan shall be consistent with the mission and strategic priorities of the institution, include measureable student completion goals, and align with the state's workforce development priorities; and

WHEREAS the updated plan be forwarded to the chancellor of the Ohio Board of Regents no later than June 30, 2016:

NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby endorses the update to the Strategic Completion Plan for The Ohio State University; and

BE IT FURTHER RESOLVED, That a copy of this plan be forwarded to the chancellor of the Ohio Board of Regents; and

BE IT FURTHER RESOLVED, That this plan be reviewed and updated at least once every two years, and that a copy of the updated plan be provided to the chancellor upon endorsement.

CERTIFIED

This is to certify that the foregoing is a true and accurate excerpt from the minutes of the Board of Trustees meeting held June 3, 2016.

  
Blake Thompson  
Secretary



# THE OHIO STATE UNIVERSITY

The Ohio State University enrolls nearly 65,000 students, with about 58,600 located on the Columbus campus, with the others on four regional campuses and ATI in Wooster. Approximately 45,200 of these students on the main campus are undergraduates. The first year retention rate is 93.8% with an 83.1% six-year graduation rate (64.8% and 36.7% respectively on our regional campuses.)

## COMPLETION GOALS

Increase overall year-1 to year-2 retention from 93.8% to 95.0% by 2020

Increase the overall number of degrees completed in four years by 1% each year

Continue implementation of the ODHE recommendations and requirements for three-year degree pathways, Prior Learning Assessment and College Credit Plus

## STRATEGIES

- Raise awareness of all constituencies to the **barriers to completion**
- Continue to nurture a **culture of student success**
- Continue to improve **institutional completion outcomes**
- Implement recommendations of the Success and Retention Committee, including **peer mentor programs**, review of **University Survey course content, bridge programs**, and establishment of the **Student Success Intervention Team**
- Develop special completion programs, such as the **Summer Recovery Program** for academically dismissed students
- **Analyze current policies, procedures and faculty rules** that may inhibit completion, and identify and implement effective policies and best practices
- Provide a **comprehensive orientation** for NFYS, transfer students, and special populations (eg, veterans)
- Put a special **emphasis on the FYE program**, including effective use of the University Survey courses and the Success Series events
- Capitalize on the partnerships provided through our proven **learning communities**
- Participate in efforts of the **Teaching and Learning Institute** to impact student completion
- Expand and develop effective **advising practices**, and focus on training and professional development opportunities for advisors
- Orient students to the existence and access to existing **support services** offices, such as the Dennis Learning Center, Counseling and Consultation Services, the Mathematics and Statistics Learning Center, and the Center for the Study and Teaching of Writing
- Emphasize **student wellness services**
- Expand external partnerships with access and completion organizations, such as the **University Innovation Alliance**
- Identify and address **curricular hurdles**, including “stumbling-block” courses
- Continue development and expansion of the **STEP program**
- Implement **student analytics** approaches (including EAB-SSC) to enhance advising and influence curriculum reform
- **Expand technology usage**, including the update of the degree audit system and increased availability of distance learning courses



# THE OHIO STATE UNIVERSITY

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## The Ohio State University Completion Plan Updated - 2016

### UNIVERSITY MISSION and PROFILE

#### Mission

The Ohio State University, founded in 1870, is a public, comprehensive university. Its 3,390-acre main campus is located in Columbus, and includes regional campuses in Marion, Newark, Lima and Mansfield, with a research campus (ATI<sup>1</sup>) located in Wooster. Ohio State has as its mission the attainment of international distinction in education, scholarship and public service. As the state's leading university focused on teaching and research, Ohio State combines a responsibility for the advancement and dissemination of knowledge with a land-grant heritage of public service. It offers an extensive range of academic programs in the liberal arts, sciences, and the professions. Ohio State provides accessible, high quality, undergraduate and graduate education for qualified students who are able to benefit from a scholarly environment in which research inspires and informs teaching.

Ohio State celebrates and learns from diversity and values individual differences. Academic freedom is defended within a community of civility, tolerance, and mutual respect. In the area of teaching and learning, the goal is to provide an unsurpassed, student-centered learning experience led by engaged, world-class faculty and enhanced by a globally diverse student body.

#### Profile

The **autumn 2015 enrollment**<sup>2</sup> in the University was 65,184 students, with 58,663 located on the Columbus campus. 45,289 of these students on the main campus were undergraduates. The **average age** of an (undergraduate) Ohio State student is 21, with 92% of students under the age of 25 years. The number of **new first year students** (NFYS) enrolled in 2015 was 6,978, 95% of whom were in the top quartile of their graduating class. Another 1,677 students of Rank 1 or 2 (2,721 total **transfer students**) transferred to the University from two and four year colleges.

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<sup>1</sup> ATI is the associate-degree-granting unit of The Ohio State University College of Food, Agricultural, and Environmental Sciences.

<sup>2</sup> All data from 2015 Enrollment Services reports; some program descriptions are compiled from unit websites and/or promotional material.

1,346 students, called **campus-change students**, moved from the regional campuses to the Columbus campus. The overall student body (all campuses) was nearly an equal mix of **male and female** (562 more males); 76% were **residents** of Ohio, and 9.4% were **international** students; 69% were white/non-Hispanic; 18% were **minority** students, with 5.6% African American/Black, 3.8% Hispanic, 6.0% Asian, and 2.8% identified as multi-racial. 1,828 students were active duty **military or veterans** (additionally, just over 400 students were engaged in ROTC.)

Of the Columbus campus students, the **average ACT score** is currently 28.9, and 62% of the NFYS cohort graduated in the top 10% of their high school class. 85% of NFYS **arrive with accepted credit** (76% was from test credit, such as AP, IB, CLEP, or language proficiency); 28% arrive with **dual enrollment credit**; 22% of NFYS arrived with 30 or more college credits earned while still in high school, and this percentage has increased over the past few years (up from 13% in 2011.) The September 2015 report from Enrollment Services shows an overall first to second year **retention rate** of 93.8%, and a second year to third year rate of 89.7%.

For the 2014-15 academic year, Ohio State awarded 16,030 **degrees and certificates**: 836 associate degrees (at the ATI and regional campuses), 832 doctorate degrees, 2,707 master's degrees, and 10,788 bachelor's degrees. The average time to a bachelor's degree was 4.19 years. The four-year **graduation rate** for the bachelor's degree recipients was 58.5%, and 83.1% completed a degree in six years (2.8% completed a degree in 3 years or fewer.)

Ohio State's regional campus profile is quite different from that of the Columbus campus. The four regional campuses (and ATI) serve students who wish to start their college experience at a smaller Ohio State campus and then change to the Columbus campus or transfer to another institution of higher learning. Some students receive their two-year Associate degree and enter the workforce, while others choose to complete their entire bachelor's degree on the smaller campuses. The regional campuses also serve those who are returning to college to prepare for another career or who are seeking advancement in their present career.

While the Columbus campus is a selective enrollment campus, each **regional campus** has an open enrollment policy. Ohio residents who apply to the Columbus campus and are not admissible may be "optioned" to a regional campus, per their application form. They can start at the regional location and campus change to Columbus after the successful completion of 30 credit hours (one year of full-time study.) The total combined academic year 2015-16 undergraduate enrollment at the regional campuses was 6,470, of which, 2,817 were entering students. 16.6% were part time; 52.8% were female; 82.8% were between 18 and 24 years of age; and the majority of these students commuted to their campus. The average ACT score for NFYS on the regional campuses was 22. Approximately 43% of the incoming regional campus students were Pell eligible (compared with approximately 21% on the Columbus campus) and 36% of the students were in need of remediation in Math and/or English. The year-1 to year-2 retention rate on the regional campuses

(collectively<sup>3</sup>) was 64.8% and the six-year graduation rate for those pursuing a baccalaureate was 36.7%. For Pell eligible and 1<sup>st</sup> generation students, the retention numbers were slightly lower: for Pell eligible students, 1<sup>st</sup> year retention was 58.4% and 6-year graduation rate was 58.4% (compared to 90.1% and 74.3% respectively for the Columbus campus.) For 1<sup>st</sup> generation students, the rates were 61% and 39.6%, respectively (compared to 90.1% and 74.6% on the Columbus campus.) As mentioned above, 1,346 students moved from a regional campus to the Columbus campus. The six-year graduation rate for those changing to Columbus within the first two years was 68.3%.

The September 2015 *U.S. News & World Report* named The Ohio State University the state's best public university, and one of the nation's top public institutions. The University ranked #16 among the top 50 public national universities (#52 overall) in the magazine's special edition on America's Best Colleges. The publication has considered Ohio State the best public university in Ohio for more than a decade. Ohio State's Fisher College of Business was ranked 21<sup>st</sup>, and its logistics program was ranked third nationally. The College of Engineering was ranked #27 among colleges whose highest degree is a Ph.D.

Ohio State's performance in the predicted versus actual 2014 undergraduate graduation rate was seen as one of the best in the nation. The measure, which uses characteristics of the incoming class to predict a six-year graduation rate, gives credit to schools that have a higher-than-expected rate. Ohio State's 2015 six-year graduation rate of 83 percent exceeded the predicted rate of 77 percent.

Washington Monthly ranked Ohio State 18<sup>th</sup> in the country, based on measures that include the percentage of students receiving Pell Grants and a comparison of the predicted graduation rate to the actual graduation rate. In addition, Ohio State was ranked #1 in the country in the 2016 USA Today/College Factual publication "Best Colleges for Veterans." Their rankings take into account the quality of the college, the value of the education students receive, the quality of veteran support services and programs, flexibility, affordability, and the success of graduates from the institution.

## **BARRIERS TO PERSISTENCE AND COMPLETION**

**First generation** students are retained (from year 1 to year 2) at a lower rate than other NFYS. Of the 1,465 first generation students enrolled in autumn 2014, 1,320 (or 90.1%) returned for their second year. Of the 1,363 first generation students enrolled in autumn 2013, 1,152 (or 84.5%) returned for the third year. This is just slightly lower than Ohio State's 87.9% average for the past nine years. The four-year and six-year graduation rates for this group are approximately 50% and 75% respectively.

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<sup>3</sup> Excluding ATI

Many **lower income** students (they are categorized for data purposes as Pell grant recipients) are in our NFYS cohort at Ohio State. These students are retained at lower rates - 90.1% from first to second year, 83.7% from second to third year - than the broader category of students. They also take longer to complete their degree - 48.9% complete in four years and 74.3% complete in six years.

Students transfer to the OSU Columbus campus from various sources, including other four-year institutions, community and junior colleges, campus change from our regional campuses, or from ATI. Each brings a different perspective on his or her college experience. Often, **transfer students** are not as prepared as students that started as NFYS. Of the 1181 students who transferred to the Columbus campus in 2011 as rank 2 students, 68.2% completed in 2015 (four-year rate), and of the 1044 transfer students in 2009, 77.3% completed in 2015 (six-year rate). Students who transfer to the Columbus campus as rank 3 students also take longer to complete their degree - 659 students transferred in 2013 and only 69% completed in 2015 (four-year rate), and of the 489 that transferred in 2011 only 77.9% completed in 2015 (six-year rate).

**Completion rates vary by gender.** Male NFYS students are retained at a slightly lower rate than females - 93.3% vs 94.4% for year 1 to year 2, and 88.6% vs 90.9% for year 2 to year 3 - and take longer to graduate - 48.3% vs. 68.8% complete in four years and 80.2% vs. 86.3% complete in six years. (The four-year graduation rate for males may be influenced by a large number of males in engineering, a degree that tends to take longer to complete because of its accreditation requirements.)

Although the Columbus campus of Ohio State has been deemed remediation-free by the Ohio Department of Higher Education (ODHE), acting according to Section 3345-061(H) of the Ohio Revised Code, OSU still has students who are in need of extra support through **remedial intervention**, particularly in Math and English Composition. Of the 6,978 NFYS enrolled on campus in 2015, 98 (1.4%) students were recommended for remedial courses through the University placement exams administered during orientation (26 students needed remediation in Composition, and 88 in Math).

**PROGRESS TOWARD GOALS FOR 2014-2016 COMPLETION PLAN**

The following were stated goals for the 2014 plan. Progress for each is listed after.

- Goal 1: Increase overall year-1 to year-2 retention by .5% each year.*  
 Progress: OSU moved the first year retention rate from 92.4% to 93.8%, for a 1.4% increase over the two-year period, achieving our goal of a 1% increase for the period.
- Goal 2: Increase the overall number of degrees completed in four years by 1% each year.*  
 Progress: The four-year graduation rate for the Columbus campus held steady at 58.5% for the two-year period. The rates were slightly higher for the regional campuses.
- Goal 3: Continue implementation of the OBOR recommendations and requirements for three-year degree pathways, reverse-transfer initiative, Prior Learning Assessment and College Credit Plus.*  
 Progress: All of the activities related to this goal continue.

<b>Retention and Graduation Rates - Columbus Campus *</b>		
	<b>2015</b>	<b>2013</b>
First Year Retention - All Students	93.8%	92.4%
Second Year Retention - All Students	89.7%	87.2%
Four-Year Graduation - All Students	58.5%	58.5%
Six-Year Graduation - All Students	83.1%	83.2%
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First Year Retention - 1st Generation	90.1%	88.2%
Second Year Retention - 1st Generation	84.5%	81.3%
Four-Year Graduation - 1st Generation	49.2%	49.4%
Six-Year Graduation - 1st Generation	74.6%	75.8%
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First Year Retention - Pell Eligible	90.1%	87.6%
Second Year Retention - Pell Eligible	83.7%	81.3%
Four-Year Graduation - Pell Eligible	48.9%	48.3%
Six-Year Graduation - Pell Eligible	74.3%	74.3%

*\* First year retention rates are based on 2012 and 2014 NFYS. Second year retention rates are based on 2011 and 2013 NFYS. Four-year graduation rates are based on 2009 and 2011 NFYS. Six-year graduation rates are based on 2007 and 2009 NFYS respectively.*

## UPDATED COMPLETION GOALS

Ohio State will concentrate on several focus areas to have a positive impact on our completion and retention strategies in order to achieve our goals. OSU will capitalize on effective current completion strategies, while enhancing these strategies to:

- Raise awareness of all constituencies of the barriers to completion;
- Continue to nurture a culture of student success;
- Continue to improve institutional completion outcomes;
- Analyze current policies, procedures and faculty rules that may inhibit completion, and identify and implement effective policies and best practices.

**Goal 1:** Increase overall year-1 to year-2 retention from 93.8 to 95% by 2020.

**Goal 2:** Increase the overall number of degrees completed in four years by 1% each year.

**Goal 3:** Continue implementation of the ODHE recommendations and requirements for three-year degree pathways, Prior Learning Assessment and College Credit Plus.

## CURRENT AND ONGOING COMPLETION STRATEGIES AND ACTIVITIES

### *Orientation Activities*

A **comprehensive orientation** for NFYS, transfer students, and special populations (for example, veterans) is important for students (and families) so that they can begin to focus on college life and experiences and to start the transition to life as an OSU student. OSU's student orientation sessions have proven to provide an effective transition, and contribute to a good first year retention rate, by providing an opportunity for students to:

- Learn about resources and expectations both inside and outside of the classroom;
- Meet their assigned FYE Peer Leader – the upper-class student who is assigned to each new student for the entirety of their first year, engaging in success coaching and ongoing support;
- Meet one-on-one with academic advisors to learn about academic areas of study
- Schedule classes;
- Complete university business (e.g., consult with financial aid);
- Complete any necessary placement testing.

### *First Year Experience (FYE)*

Ohio State places special emphasis on each student's first year on campus. Through research as well as observations and experiences, OSU knows that foundations built during this year are key to a student's success. To that end, the University's **First Year Experience (FYE)** programs are designed to help students get acclimated to

campus, connect with resources and the University community, and to start to think of Ohio State as their second home.

A particularly effective complement to the FYE program is the required **University Survey course** taught within the colleges by academic advising staff. This one-credit hour course is designed as an extended introduction to the University, different majors and/or colleges, resources such as the library system or other academic and personal services, how to schedule classes, intentional degree planning, and how to conduct other University business. All students also attend innovative FYE Success Series<sup>4</sup> events as a requirement for their survey course. These Success Series events focus on helping students overcome common challenges during the transition to college.

### ***Second Year Engagement***

Ohio State's **Second-year Transformational Experience Program (STEP)** targets more intensive interactions with faculty outside of the classroom, and a living experience that integrates academic achievement, self-awareness, and the development of life and leadership skills. The program offers individual development modules with applications for career growth and global citizenry, increased faculty engagement and mentorship, and a stipend program to increase student participation in experiential education opportunities. Additionally, the program contains a financial wellness mandate, addressing both the need for financial education and financial planning during a student's experience.

STEP is designed to focus on student success and development and allows students the opportunity to participate in activities that are pointed to their individual interests and academic needs. Through the interaction with faculty, students are able to develop tools for life and build essential network connections.

### ***Learning Communities***

A learning community is a group of students who live together on a residence hall floor with common major, career and/or personal interests. Through partnerships with a variety of academic departments, faculty and staff, students have exclusive access to activities that tie directly into their academic success at Ohio State. Each **Learning Community** is unique in the goals and events offered, but all have:

- A direct connection to the classroom experience;
- Intentional events and opportunities for participants;
- Dedicated staff members to ensure the success of the students within the community.

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<sup>4</sup> Categories of Success Series courses include: Academic Engagement and Career Exploration, Diversity and Global Awareness, Finances, Health and Wellness, and Leadership and Civic Engagement.

OSU has a wide variety of learning communities, including sixteen programs coordinated with Student Life<sup>5</sup> and seventeen that are affiliated with the University Honors and Scholars Center<sup>6</sup>.

### ***Advising Community***

**Undergraduate academic advising** at Ohio State's Columbus campus is provided by the colleges and/or the departments that offer the pathway to the degree, the major, and/or the minor a student is pursuing. Where a student goes to seek academic advice will vary by student and by academic program. The Columbus campus does not have a central academic advising office for students to seek advice (this centralization exists on the regional campuses). Through the Office of Undergraduate Education (OUE), these distributed advising activities are coordinated and there is an active community of advising professionals for purposes of training and information sharing.

The academic advisors also coordinate and teach the University Survey course described above, during which the first year students are encouraged to do goal-setting and to complete two- and four-year curricular plans, so as to delineate the courses that are necessary to be completed sequentially in order to complete the degree on time. One of the most important tools students and advisors use in this degree planning process is the **Degree Audit Reporting System (DARS)**, which also includes the Transfer Credit Report. A student can use the Student Information System to initiate and evaluate a DARS report that shows the requirements a student has completed and the requirements they still need to complete to graduate.

An advisory committee comprised of academic advisors from across the University, including the regional campuses and non-academic support services, meet regularly to provide input to the Undergraduate Dean and to coordinate the advising processes. Other new support groups will also be taking on the issues that support adequate academic advising, including the Advising Administrators Group, the University Survey Committee, the Student Retention and Success Committee, and a group looking at research and applications of analytics in advising. Additionally, a professional advisor will work in the OUE to oversee the development and deployment of emerging technology to be used to advance the advising process and reach.

One of the most recent technology-centered tools, called *AdvisingConnect*, allows **documentation of student/advisor sessions** to be communicated to advisors across different academic programs and campuses, serves as a communication tool

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<sup>5</sup> Examples include: Business Honors, Engineering House, Exploration, First Year Collegian, Future Health Professionals, Global Business, Nursing and Wellness Innovations, Visual and Performing Arts, and Women in Engineering.

<sup>6</sup> Examples include: Arts, Biological Sciences, Sport and Wellness, Environment and Natural Resources, Green Engineering, Humanitarian Engineering International Affairs, Health Sciences, and Innovation, Creativity and Entrepreneurship.

for advisor-advisor and advisor-student interactions, provides input for University business functions (eg, financial aid, registrar, student advocacy), and serves as a portal for scheduling sessions. This tool will be expanded (through the EAB-SSC system described below) to: increase the use of and display of student-data to help advisors efficiently prepare for intentional conversations during individual student-appointments; add self-service reporting for advising administrators which will help inform decisions on student-services, staffing needs and student-programs; add self-service reporting for academic advisors so they will have a pulse on who they are serving, when, and for what reason(s); and increase filtering and functionality for student rosters so advisors can enhance proactive outreach. For example, advisors will be able to reach out to students who are starting to display a negative academic pattern before they get to a critical point that can impact their progress (intentional or engaged advising.)

The OUE is also expanding **advising training** for academic advisors on campus. The goals of this effort are to:

- Provide general training topics that complement specific college/department training programs for all academic advisors;
- Provide an introduction to the advising profession and advising at Ohio State, for new advisors;
- Provide experiences for advisors who wish to participate in professional development opportunities;
- Give opportunities for increased collaboration and exchange of information between advisors, students (and staff), and support offices across campus;
- Outline and create connections to other training and professional development opportunities being offered across campus

### ***External University Partnerships***

The **University Innovation Alliance** (UIA) is a partnership program involving eleven major public universities with similar student enrollment profiles and missions to develop and share innovative ideas to help make college more affordable and to help college students succeed. The Alliance includes Ohio State, Kansas, the University of Texas at Austin, University of Central Florida, University of California Riverside, Iowa State, Michigan State, Arizona State, Georgia State, Oregon State and Purdue.

The UIA will accelerate and coordinate a first-of-its-kind effort by these large public research universities to improve the educational attainment and the economic prospects of students who have traditionally struggled to complete, particularly minorities and low-income Americans. Members of the UIA will work together to develop innovative approaches to help low income students stay in college, advance at an appropriate pace, and graduate on time. UIA members will also develop new models for scaling innovations from one campus to others, breaking down barriers that often prevent good ideas from being implemented more broadly.

In addition to the UIA common goal of improving outcomes for low-income students, each institution will set goals appropriate to its state and region. Ohio State will focus on identifying pre-college or bridge programs that can have a positive impact on retention and completion for our regional campus change students, focusing on issues of retention and graduation.

### ***FITW – First in the World***

“First in the World” (FITW) is a Federal grant program funded by the U.S. Department of Education, Fund for the Improvement of Postsecondary Education. The FITW program is designed to support the development, replication, and dissemination of innovative solutions and evidence for what works in addressing persistent and widespread challenges in postsecondary education for students who are at risk for not persisting in and completing postsecondary programs, including, but not limited to, adult learners, working students, part-time students, students from low-income backgrounds, students of color, students with disabilities, and first-generation students. The program is designed to “validate” interventions that have been shown by previous research to be effective in helping these at-risk student populations succeed in college. Both the study proposed for the grant and the study on which it is based must meet Federal “What Works Clearinghouse” standards, meaning that the study must be conducted using a Randomized Control Trial and meet other standards for research rigor.

Ohio State is a partner in this funded research endeavor, which our collaborative research team calls ***MAAPS: Monitoring Advising Analytics to Promote Success*** and is the FITW project of the University Innovation Alliance. Funded at \$8.9M, the project will track the impact of a series of analytics-informed proactive interventions on 10,000 low-income and/or first-generation students across the eleven UIA universities over the next three years. For our part, the focus at Ohio State will be looking at a longitudinal study to monitor the success of predictive analytics in the success and completion of students who start at a regional campus, but eventually campus-change to the Columbus campus.

### ***Curriculum Reform***

The University has invested in the **redesign of several key STEM courses** that have proven to be historically difficult courses for undergraduates. OSU is in the process of modifying five of these “stumbling block” courses offered in the general education curriculum and adding resources that will reduce the need for not-for-credit remediation. After completing these revisions, similar problems will be addressed with four other high-enrollment courses.

The Department of Mathematics is redesigning the calculus sequence Math 1151–1152 in order to increase the quality of learning, the success rate of students, and STEM retention. Their approach includes a) enhanced training of instructional staff, b) developing a data analysis plan, and c) incorporating methods of active learning.

The Department of Chemistry is redesigning the 1210 and 1220 courses, to address the concerns by both a) providing professional development for an initial cohort of instructors centered on active-learning strategies, and b) preparing specific lessons and resources for use in general chemistry courses. Assessment of the department's entire undergraduate curriculum is currently underway, and the careful evaluation of classes promoting active-learning will be a priority as such information can assist with adoption. Quantitative data pertaining to content knowledge will be collected, along with data from validated instruments probing the affective domain (such as the SDQIII) that may inform student persistence in STEM courses.

The Center for Life Sciences Education (CLSE) is engaged in the redesign of Biology 1113, Biological Sciences: Energy Transfer and Development. This is an introductory course for students majoring in the natural sciences and fulfills a general education requirement in the Natural Sciences category. They also will look at a) flipped classrooms, b) active learning strategies, c) instructor training, and d) the use of Peer-Led Team Learning (PLTL), which has long been used to support student learning, especially among underrepresented minorities.

### ***Expanded Use of Emerging Technology***

The Office of Distance Education and eLearning in the Office of the CIO has several strategic emerging technology initiatives that may contribute to successful completion. The initiatives cross all teams in ODEE, but are primarily with Learning Technology and Digital Scholarship teams. Some examples of these efforts are:

- The Carmen Courses **learning management system (LMS)** has been powered by Desire2Learn software for 10 years. LMS's have been evolving rapidly, and OSU intends to take advantage of this to provide instructors and students with the best possible design, performance, support, mobile access, and data analytics. As a result, the decision has been made to power Carmen with a new LMS engine, Canvas. Canvas offers instructors an opportunity to re-evaluate their courses, incorporating best practices in teaching. It has a straightforward, simple architecture that makes content the focus. It is easy to navigate, and new tools enable instructors to give students more thorough and efficient feedback. Canvas is available on a mobile app, and the calendar tool will help students stay organized by displaying assignments and due dates across all active courses.
- **Distance Education** is developing as a critical part of student progress for some students. ODEE's role is to manage the five-year enrollment plan initiative, while respective partners and stakeholders are expected to meet the goals identified in the plan. Much of the FY16 work will be supporting academic units and student support units to meet their FY16 goals and be set-up for FY17 and FY18 success.

- A number of university courses have been selected for Ohio State's **General Education Online initiative**. Multiple university departments assembled to collaborate on the initiative, orchestrating both a group of skilled instructors as well as a support team of instructional designers. The first 10 courses for the GE Online project include:
  - Biology 1102
  - Communication 1100
  - Economics 2001.01
  - English 1110.01
  - History 2201
  - Math 1116
  - Math 1151 & 1152
  - Political Science 1100
  - Psychology 1100
  - Statistics 1450

### ***Teaching and Learning Institute***

In his March 2015 Presidential Investiture Address, Pres. Michael Drake asked that the Ohio State University "be as highly regarded for world-class teaching and learning as we already are for world-class research." This goal aligns clearly with the national-level conversation on student learning outcomes, retention, persistence, and timely graduation. In May, the **President and Provost's Teaching and Learning Summit**, led by the Office of Academic Affairs, brought together a group of faculty members from across the institution to discuss ideas for improving the quality of teaching and learning at the University. The discussion at the Summit clearly demonstrated that OSU has many outstanding and highly committed teachers, who have a desire to:

- regularly engage in productive conversations about teaching and learning;
- learn about and share effective, innovative, evidence-based pedagogy;
- improve their teaching practices;
- support students in achieving academic success; and
- develop and implement a research agenda on the characteristics and effectiveness of teaching.

Participants in the Summit helped shape the formation of an **Institute for Teaching and Learning** as a way to help achieve the President's goal. The Institute will help coordinate and lead efforts to improve the learning experience for students and help position the University for leadership on a topic central to the ongoing national dialogue on accountability.

The Institute will focus its initial activities on four key areas.

- **Faculty Support:** The Institute will seek to raise the profile of, and enhance collaboration among, current teaching enhancement efforts; leverage the expertise of existing program staff to most efficiently provide appropriate assistance to faculty; help establish new initiatives where gaps exist; and broaden and deepen their impact across the institution.

- **Inquiry and Scholarship:** The Institute will help lead a more comprehensive approach to the teaching/learning mission, through the use of data analytics and robust qualitative analysis. It will help the University move to new levels of research impact. In partnership with the Office of Institutional Research and Planning and the Center for Higher Education Enterprise, it will help identify and analyze a set of research questions about how students progress through courses and programs, with the goal of enhancing student success – a form of scholarship that will, in part, apply student-centered analytics to identify and broaden use of those practices that will improve learning outcomes. In addition, it will support faculty members' innovations in pedagogical methods, and sponsor structured inquiry and scholarship that tests the efficacy of these new practices.
- **Policy Development:** The Institute will help foster and lead an institution-wide discussion on the role of efforts at teaching and learning in the faculty review and reward processes. In order to promote initiatives in teaching and learning in a highly decentralized institution, the University will need to adopt coherent, effective policies that recognize and reward such activities by faculty members. The Institute and its members will advocate for such policies, and provide leadership in developing models that academic units can adapt to their local needs. Such policy changes are needed for this overall teaching/learning initiative to be broad-based and sustainable.
- **Communication:** The Institute will coordinate communication about teaching and learning excellence both within the University, and to stakeholders, in a more detailed and consistent manner. Teaching students is at the core of the academic enterprise, and OSU has an excellent story about the teaching mission that needs and deserves to be shared. Regardless of academic discipline, the faculty share a commitment to challenge students to achieve academic success. The Institute will play a convening role, throughout each academic year, to promote a continuing institutional conversation. Similarly, the Institute will better inform public stakeholders – parents, alumni, educational partners, policy makers – of ongoing efforts, and the commitment to enhancing this aspect of the University mission.

### ***Learning Support Services***

The **Dennis Learning Center**, located in the Younkin Success Center, was established to provide academic learning services and support to Ohio State students through courses, workshops, appointments, and online student resources. They assist in the development of study skills, time management, test-taking strategies, learning from texts, note-taking, and self-regulation strategies. Additionally, they collaborate with Ohio State academic departments, other institutions, and the scholarly community on research and practice that promote postsecondary student success. They provide an online resource with videos and materials related to note taking, test taking, procrastination, cognitive learning, and self-assessment resources for students.

Also in the Younkin Success Center are the OSU Counseling and Consultation Service (CCS), Student-Athlete Support Services Office (SASSO), and the University Center for the Advancement of Teaching (UCAT). The **CCS** provides comprehensive mental health services to students to promote personal well-being and academic success, with a culturally diverse professional staff of licensed psychologists, social workers, counselors, and psychiatrists available for students. **SASSO** serves over 1,000 student-athletes on 37 NCAA teams, providing OSU student-athletes with assistance in academic, athletic, personal and professional development, such as advising, tutoring, and study tables. Counselors and other staff help foster growth in decision-making, planning and the fulfillment of academic, career and life goals for all student-athletes, so that they can meet their individual degree completion goals. **UCAT** exists to assist all those who teach at Ohio State to excel in teaching and to support student learning and progress. They promote a university culture that puts student success first by valuing a scholarly approach to teaching and learning, and focuses on faculty success by providing information, consultation, and events related to successful teaching strategies.

The **Mathematics and Statistics Learning Center (MSLC)** is a resource center for students and instructors in mathematics and statistics courses at Ohio State. The center's goal is to create and implement an efficient and effective model of support services for student learning in mathematics and statistics and to provide training and support to tutors and instructors of lower-division mathematics and statistics courses. They provide trained tutors available to help students with difficulties they are experiencing in class or with homework. In addition, they provide online resources, practice exams and workshops to help a student progress through the challenging quantitative courses, which often are "stumbling block" courses, that impact student completion.

The **Center for the Study and Teaching of Writing (CSTW)** is an interdisciplinary support and research unit in Ohio State's College of Arts and Sciences. CSTW was established to provide resources to students and faculty who might have needs related to negotiating the complex rhetorical demands of writing in a variety of settings and media. Two programs in CSTW that have an impact on student completion by providing assistance to students with writing related issues are the **Writing Center**, and **Writing Across the Curriculum**. The Writing Center offers free student support, including face-to-face and online tutorials, to help with writing at any stage of the writing process, including research papers and lab reports. The Writing Across the Curriculum program works with instructors to develop and assess writing activities, and to design and develop these activities to meet student and curricular needs.

The **Office for Disability Services (ODS)** collaborates with and empowers students who have disabilities in order to coordinate support services and programs that enable equal access to classes, labs or other academic activities so that these students can make progress to completion. ODS offers a wide variety of legally mandated services to students who have documented disabilities. After reviewing

documentation, an ODS counselor works with the student to determine appropriate academic services and accommodations, depending on the functional limitations in the academic setting. The counselor at ODS trains students in accessing the accommodations for which they are eligible. The student is responsible for requesting most accommodations from his or her faculty member in a timely manner and must follow ODS policies and procedures for accessing accommodations.

### ***Office of Military and Veterans Services***

Ohio State's Office of Military and Veteran Services provides assistance for military veteran and active duty students with educational and academic resources. Part of the OUE, the office provides military and veteran orientations, focused academic advising and counseling, tailored support services and the education of faculty and staff on military student issues. Other Ohio State resources include a Veterans House (a housing option for students who are veterans, active-duty, reserves or National Guard), a student-veterans organization and a program to support veterans by helping them gain job readiness experiences.

### ***Access and Success Initiatives: Admissions and First Year Experience***

Undergraduate Admissions works to bring college preparation information to low-income and first-generation college students (this effort was formerly referred to as the Economic Access Initiative.) Admissions staff and a team of student Diversity Ambassadors engage faculty, staff and students in outreach to college-bound students in order to provide awareness and directions to resources that might result in a smoother pathway to college for low-income and underserved groups. The office of First Year Experience then provides targeted support to first-generation and low income students through opportunities like early arrival and pre-enrollment programs, Peer Leader outreach and success coaching, and First Year Success Series seminars tailored to meet their unique needs.

### ***Student Wellness Services***

The mission of the Student Wellness Center is "to empower students to strive for balance and wellness, which is defined to be an active, ongoing process which involves becoming aware of and taking steps toward a healthier, happier, more successful life". The Center uses the *9 Dimensions of Wellness*<sup>7</sup> model as a framework for exploring optimal lifestyles. Three examples of activities in the Wellness Services office that contribute to retention and completion are as follows:

- **Wellness Coaching** is a service that provides opportunities for students to better understand the life that students want to be living, both now and in the future. Typical coaching topics include relationship difficulties, adjustment to college, academic concerns, grief and bereavement, stress management, goal setting, decision-making, test anxiety, and questions related to career and identity.

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<sup>7</sup> The *9 Dimensions of Wellness* model encompasses the following categories: Emotional, Career, Social, Spiritual, Physical, Financial, Intellectual, Creative, and Environmental.

- **Scarlet and Gray Financial Coaching** is a nationally recognized financial education program that uses a peer-to-peer approach – working with students on topics related to reducing debt and shaping positive attitudes towards finances. This program also works with students in financial emergencies, including offering emergency loans, to prevent the need to drop out of school.
- The **Collegiate Recovery Community (CRC)** and Recovery House at Penn Place serve students in active recovery from drug and alcohol addiction. The CRC enables students to have an authentic college experience while maintaining their recovery and helping them move toward their degree completion goals.

## UPDATED COMPLETION STRATEGIES

### *Academic Advising*

In March, OSU held a **summit focused on academic advising**. High-quality academic advising is key to student success, persistence, and optimal time to degree. Although Ohio State has excellent advisors who provide outstanding advising, they themselves would agree that the advising they can provide, hindered by factors they cannot control, is often inadequate to the needs of their students. To support the university's goals of access and affordability, the summit was convened in order to identify and suggest remedies to the institutional barriers that impede effective advising.

- Increased awareness of advising—how students should engage with it, the value it will add to their time at the institution, and how it contributes to degree completion;
- Competing demands on advisors' time and changing expectations for advisors: recruitment; other duties within home offices (for example, teaching University Survey course, performing departmental course scheduling, assisting with recruitment and admissions);
- Increasing students to advisor ratios, and how this might result in appointment delays and impact the quality of advising sessions
- Changes in student demographics and in expanding expectations among students and families (for example, increased pursuit of two majors or two degrees, multiple minors and personalized study programs);
- Significant increases in hours of college credit (which may or may not translate to improved preparation for college-level work) as students arrive, requiring more intensive advising interventions.

University administrators, faculty, students, advisors, and other stakeholders spent a day in focused discussion sessions, resulting in observations and recommendations for impacting advising and its important role in student success and completion. These recommendations have been presented to University leadership.

### ***Predictive analytics***

Ohio State is implementing an enterprise level predictive analytics system, called the **EAB Student Success Collaborative Campus system** (EAB-SSC). This approach will provide a way to mine the large stores of data that exist related to student learning and to use it to impact student success.

The EAB-SSC system provides tools and dashboards that allow advisors and instructors to

- Use class performance or profile data to predict "at-risk" students, for the purposes of providing proactive advising or coaching engagement to improve retention, student performance and success;
- Use data from these large data stores to make evidence-based modifications to teaching/learning techniques, policies, curriculum, etc.;
- Determine how often students log into our learning management system (planned EAB-SSC system extension) or other University course management and resource environments to see which resources students' get access to or take advantage of;
- Assess whether these accesses and related downloads might correlate with course performance;
- Determine, given those correlations, which resources are effective or effectively used.

We have also established the **Student Analytics Network**, which consists of approximately fifty data professionals, innovative faculty, eLearning personnel, teaching/learning experts, and University administrators to evaluate OSU's status with regards to the integration of this promising technology advancement, and to oversee implementation of relevant toolsets. A smaller group, the Analytics in Advising group will look at how we might take advantage of rich data to impact the advising process. Part of the goal of this group is to conduct **student analytics and retention research**, which will look at a student retention analytics initiative to create a predictive model of a student risk profile, supported by research and assessment. Approaches to the use of analytics will be shared with advisors and faculty in order to track students more closely.

Ohio State has convened a **standing committee on Success and Retention** to identify strategies and tactics for addressing the objectives related to student progress toward completion. The committee is made up of representatives from the Office of Undergraduate Education, the Office of Student Life, the Office of Diversity and Inclusion, University Orientation and First Year Experience, Enrollment Services, Office of Distance Education and eLearning, Student Financial Aid, and various support units, such as advising, wellness, marketing and communications, and the Dennis Learning Center. Faculty, students, and administrators representing the colleges will also be involved.

In addition, a **Student Success Intervention Team** (SSIT) has been proposed that will be comprised of front-line staff who will coordinate the outreach and

intervention efforts for supporting at-risk students, who are identified and contacted through the newly installed EAB-SSC system. Centrally trained and coordinated **peer mentors** will then engage in sustained outreach, coaching and referral through the University Survey Course and Supplemental Instruction (see below). A **strategic communication plan** for student success, especially early in first year will be mounted, focusing on pre-enrollment messaging to at-risk students and campus marketing campaigns to promote successful behaviors/programs related to this effort.

To follow up on this extended communication, additional **pre-enrollment and early arrival programs** are being created to increase participation of at-risk students in pre-enrollment and residential early arrival programs in the Office of Student Life's Residential Learning Communities. OSU will waive normal pre-enrollment program and early arrival fees and offer travel grants for Pell-eligible out-of-state students. In addition, OSU will create **summer bridge programs** focused on this population of students.

### ***Academic intervention efforts***

Supplemental Instruction (SI) is defined to be an academic assistance program that utilizes regularly scheduled, informal review sessions in which students compare notes, discuss readings, develop organizational tools, and predict test items. We are looking to having these sessions conducted by peer mentors, students who have previously done well in the course and who attend all class lectures, take notes, and then work with the at-risk students. Other intervention efforts that we are proposing as part of this success and retention effort include:

- **Early-semester grade initiative:** Conduct early-graded assessments in select “stumbling block” or historically difficult courses.
- **Coordinated Enrollment Window Outreach:** Contact (first-year) students who have missed their course enrollment window, determine the cause, and remedy it if possible.
- **Coordinated Course Availability:** Ensure that courses are available for enrollment so that first-year students are on track in course sequencing requirements, especially in STEM areas. We will use data-driven reasoning to increase course availability.
- Identify **registration blocks**, such as block for non-payment (bursar holds), to intervene with resources that can keep a student progressing on path to complete their degrees.

### ***Academically dismissed students***

One population of students that will be targeted for intervention consists of students on University Probation or Special Action Probation at the end of their first year. These are students who, unless changes are made with their success, could be dismissed at the end of academic year. One first action that will be taken is to require the student to meet with an academic advisor before they schedule for

courses. In the event the student is dismissed, they will be engaged with a **summer recovery program for academically dismissed students**. This will require students to meet with an advisor at end of spring semester, complete a summer study skills course, and develop a plan with the student to monitor academic progress and meet with their advisor throughout the second year.

We also plan to implement several other efforts as part of our Success and Retention team activities.

- Use peer mentors to engage in targeted outreach to commuter students
- Continually review the effects of policies and policy changes that might impact first-year retention, and coordinate messaging about these policy changes using relevant channels and outreach
- Review University Survey course content, instruction, and delivery methods, in order to more effectively inform first-year students of policies, procedures, study skills advice, curriculum planning, selection of a major, etc.

## **WORKFORCE DEVELOPMENT PRIORITIES**

According to data reported for the College Portrait, 69% of last year's graduating seniors plan to move to a job either full- or part-time, 2% plan for military or volunteer service, and 26% plan to go on to graduate school. The Center for the Study of Student Life annually administers a survey to OSU students who are graduating with a baccalaureate degree. The survey asks about career goals and about how their experience at Ohio State may contribute to those goals. The population included all students who received an undergraduate degree summer, autumn or spring 2014-15.

In the survey results, 94.6% of respondents reported that they were either employed or accepted to graduate/professional school. Compared with previous graduates, a lower percentage of 2014-15 graduates reported that they were enrolled in graduate/professional school (26% compared to 32%). In contrast, a higher percentage of 2014-15 graduates were employed (69.9% compared to 64%). Of those who reported that they were employed, 72.2% said that their current position was related to the chosen major (and/or minor) and 66.1% said that they were currently employed in Ohio.

The top five occupation categories that the respondents said best described their current position were business and financial/accounting, health-care/medical, architecture and engineering, education, training and library, and marketing and sales. 76% of respondents reported that they were satisfied with the direction of their career, compared with 66% of previous respondents. 83% said they would use the services of an alumni career services offices. When asked, "How well do you think The Ohio State University prepared you for the job market?" 73.1% of the respondents responded "Generally well" or "Very Well."

Based on results from the 2015 Ohio State University Alumni Survey in partnership with Gallup, fully 90% of recent Ohio State graduates – those who received their bachelor's degrees between 2010 and 2014 – who aim to work full time are doing so. Of these graduates who were seeking employment immediately upon graduation, 77% report that they obtained not just a job, but a "good job" within six months, including 49% who say this job was waiting for them.

Over 61% of respondents agreed that they had an internship or job that allowed them to apply what they learned in the classroom while attending OSU, and 72% agreed that Ohio State had provided them with the necessary skills and training to obtain a good job after completing their undergraduate education. Just over 67% of recent Ohio State graduates reported that they held an executive, professional, or managerial position. Another 11% are office workers, and 8% work in sales and services. 92% said that they were satisfied with their personal lives, and 82% see their career as a way to contribute to society.

### ***Lightweight Innovations For Tomorrow (LIFT)***

Lightweight Innovations For Tomorrow (LIFT) is a public-private partnership that began in 2014 that will develop and deploy advanced lightweight materials manufacturing technologies and programs to prepare the workforce. The LIFT region includes 5 states: Michigan, Ohio, Indiana, Kentucky and Tennessee. LIFT is operated by the American Lightweight Materials Manufacturing Innovation Institute (ALMMII) and was selected through a competitive process led by the U.S. Department of Defense under the Lightweight and Modern Metals Manufacturing Innovation (LM3I) solicitation issued by the U.S. Navy's Office of Naval Research. ALMMII was founded by Ohio-based manufacturing technology non-profit EWI, the University of Michigan, and The Ohio State University. LIFT is one of the founding institutes in the National Network for Manufacturing Innovation, a federal initiative to create regional hubs to accelerate the development and adoption of cutting-edge manufacturing technologies.

### ***Ohio Means Internships and Co-ops JobReady Program***

#### **OMIC**

Ohio State partnered with several other institutions in a program sponsored by the Ohio Department of Higher Education under the Ohio Means Internships and Co-ops (OMIC) program to offer paid internships to students to work with local and regional companies in key employment areas defined by state needs. The first round of the program, which began in 2012, was a two-year program, called *JobReady Internships and Co-Ops for Ohio Industry (JobReady)*. It was a multi-institution collaboration of The Ohio State University (Columbus, Lima, Mansfield, Newark, and Wooster campuses), Columbus State Community College, and North Central State College. The consortium worked to attract 54 Ohio employers in four Ohio workforce development industry areas of key importance to the state: energy, automotive, food processing, and financial services. Approximately 150 new, meaningful internships/co-ops for students in academic programs at varied levels (certificate, two-year, and four-year degrees) were created. Benefits included stronger workplace preparation for students, and the ability to earn stipends while attending school – both of which are documented as contributing to higher rates of college completion. For industry, the internships result in higher engagement in achieving a *JobReady* workforce in JobsOhio areas. (In-demand jobs connected with the OMIC program can be found at [http://omj.ohio.gov/OMJResources/MasterList\\_Education.stm](http://omj.ohio.gov/OMJResources/MasterList_Education.stm) ) Internships/co-ops were paid positions that were transcribed for zero credit, or for a varied number of academic credit hours, dependent on academic program requirements and student choice.

#### **OMIC 2**

The two-year OMIC *JobReady* program was extended under a new program, OMIC 2, for an additional two years, ending in June, 2016. Under the new program, OSU and its partners worked to institutionalize the internship program in order to sustain the progress started under OMIC. In addition to more internships and co-ops in key JobsOhio areas, the extended program:

- Ensures relevance through delivery of *JobReady* online education modules to students and employers. In the previous OMIC funded program, the team worked with employers, faculty, and Moresteam, Inc. to identify necessary skills and to develop and deliver a collection of online modules (to match these skills) from which employers could choose, depending on the background of the intern. A key element in ensuring relevance across all industries, these modules address a central concern of employers — the skills gap between what is learned in the classroom and what is required in the workplace. These modules included:
  - Soft skills, such as communication, problem solving, leadership through influence (some developed by Columbus State’s Twenty-First Century Skills program funded by OBOR);
  - Industry-specific skills, such as project management, design of experiments, and voice-of-the-customer analysis (Yellow Belt Six Sigma).
- Ensures relevance by supporting and expanding faculty/industry partnerships and relationships.
  - Provides academic input to industry activities;
  - In addition to our campuses’ existing industry/academic partnerships (ex: CSCC’s partnership with Central Ohio Regional Logistics Council, ATI’s Key Advisory Committee, Ohio State’s Data Analytics partnership), we encouraged faculty/employer partnerships that influence academic curricular decisions.
- Ensures sustainability by expanding/creating “a culture of internships” (34.5% of all students currently participate in an internship or co-op) on our campuses through
  - Expanding Ohio State’s Buckeye Careers Network to all regional campuses;
  - Working with students, staff and faculty to educate them on the value of student internships, through messaging and events;
  - Partnering with units across our campuses (Orientation, First-Year Experience, Second-Year Transformational Experience Program, Office of Diversity and Inclusion, Office of Military and Veterans Services, etc.) to create and deliver messages about the value of internships from the first day a student steps on campus to when they leave for their first internship.

(In-demand jobs connected with the OMIC program can be found at [http://omj.ohio.gov/OMJResources/MasterList\\_Education.stm](http://omj.ohio.gov/OMJResources/MasterList_Education.stm) )

## **OMIC 2.5**

Manufacturing is the largest sector of Ohio’s economy at 18% GDP, producing more than \$52 billion in products sent to 216 countries. Approximately 97% of Ohio manufacturing firms employ fewer than 500 workers, and almost 50% of firms only have 1-4 employees. At the same time, demand for workers in manufacturing is at record levels. Manufacturing employers posted over 275,000

online ads for workers in Ohio during 2014 alone. The need for skilled workers in advanced and lightweight manufacturing is expected to grow exponentially. In response to the need for more on-the-job and work-based learning, the Ohio Department of Higher Education funded OMIC 2.5, the LIFT Ohio Means Internships & Co-ops 2.5 Program (LIFT OMIC).

OMIC 2.5 is a partnership between The Ohio State University (OSU) and its academic and industry partners to build a co-located internship program that trains students for in-demand lightweight manufacturing technologies. The goal is to bolster a workforce proficient in the application of advanced lightweight metal alloys, manufacturing technologies, and design methods important to advanced manufacturing. LIFT and OSU assembled a team to develop this novel educational approach to manufacturing education involving real-world industry projects with close involvement by academic faculty and students. LIFT OMIC runs through December, 2016, and is headed up by Ohio State University. Other academic, industry, and technology partners include: Columbus State Community College, Tolles Career and Technical Center, C-TEC Career & Technology Education Centers of Licking County, Tri-Rivers Career Center, Marion Technical College, Metro High School, Columbus School for Girls, Honda, and Whirlpool, JobsOhio, Ohio Manufacturers' Association, and EWI.

### ***OSU Choose Ohio First Scholarship Programs***

Choose Ohio First is a program of the University System of Ohio (USO). Choose Ohio First scholarships are awarded to students studying in the fields of science, technology, engineering, math and medicine (STEMM) with the objective of increasing graduates in these fields and retaining them within the Buckeye state.

Choose Ohio First scholarship opportunities at OSU are offered through various departments, programs and campuses. Eligible applicants include students majoring in Middle Childhood STEM Education at Ohio State's regional campuses in Lima, Mansfield, Marion and Newark and active participants in Ohio's STEM Ability Alliance (OSAA). The Future Scientists of Ohio (FSO) COF Scholarship is particularly designed to encourage community college students to transfer to Ohio State to complete their four-year STEM degrees. The Ohio House of Science and Engineering (OHSE) COF Scholarship is open to STEM majors on the OSU-Columbus campus. The COF for Bioinformatics scholarship supports students interested in the application of computation to biological, chemical, environmental, mathematical, and health sciences, biomedical engineering, and science education. The Bachelor of Science in Pharmaceutical Science (BSPS) COF program supports students interested in a career in pharmacy or any of the areas in the health sciences.

### ***Center for Design and Manufacturing Excellence***

The U.S. Department of Commerce and the Department of Defense chose the Ohio State University Center for Design and Manufacturing Excellence (CDME) to create a new model for manufacturing and commercialization support for regional businesses. Funded by a three-year \$6.8 million grant from the U.S. Department of

Commerce's Economic Development Administration (EDA) and the Department of Defense's Office of Economic Adjustment (DoD/OEA), CDME will work to foster economic stability and growth in central and north central Ohio by advancing the global competitiveness of existing defense and commercial manufacturing companies. They will focus on coupling multi-industry collaboration, technology commercialization and workforce development into one unified program that will maximize the impact for businesses striving to get new technologies from the laboratory to the marketplace and ready the local workforce to compete for jobs in emerging technologies.

CDME's three-pronged approach to enhance economic vitality begins with facilitating multi-industry collaboration to address critical manufacturing challenges and market opportunities. Technological solutions from startup companies and university-based researchers will then be commercialized. Workforce development is the third major component, ensuring that workers are trained on emerging manufacturing technologies. The approximately \$2.2 million worth of specialized equipment procured through the grant will enable CDME's researchers, engineers and project managers to move technology from concept through the product development process and on to deployment in a manufacturing environment. The grant also supports CDME's execution of at least two multi-industry research projects in areas of critical need to Ohio's overlapping commercial and defense manufacturing marketplace. One targeted focus area is multi-material joining for structural systems, a critical concern to the design and manufacturing of next-generation vehicles and components.

Established in 2014, CDME is a center within the College of Engineering and the Office of Research that provides industry partners with tightly integrated design, commercialization and manufacturing solutions by utilizing the technical talents and experience of the Ohio State University's world-class faculty and centers. In conjunction with Ohio State, project collaborators Columbus State Community College and North Central State College will implement a workforce training program to instruct both current and future workers on the latest technologies and production methods as they are being developed.

### ***The Office of Economic and Corporate Engagement and the Technology Commercialization Office***

Ohio State is streamlining its economic development and corporate relations functions to make the process simpler for corporate partners and university researchers to work together to create jobs, make discoveries and commercialize innovations. The university established the Office of Economic and Corporate Engagement to better coordinate the many parts of Ohio State's economic engine — including industry-sponsored research, technology commercialization, and internships. Reflecting the need to support both faculty research and economic development, the office will report jointly to the Provost and the CFO. It will help to connect researchers, entrepreneurs, financiers, corporate partners and others, and

will coordinate work with affiliated organizations and economic development groups throughout central Ohio and the state.

In 2011, Ohio State undertook a major effort toward building a new model that efficiently translates its research into emerging products and industries, with local, regional and global impact. To achieve this goal, the university created a new office of Technology Commercialization and Knowledge Transfer (TCO). The objectives of TCO are:

- Build a culture of innovation, service, responsiveness, creativity, and accountability within the University;
- Create customized initiatives that enhance the research colleges;
- Develop a robust start-up culture that drives economic development;
- Increase industry-sponsored research and long term partnerships;
- Engage students in every aspect of the commercialization process to enhance their learning experience in support of Ohio State's mission and to increase their opportunity to complete their degrees in a timely fashion;
- Make Ohio State a top-five research institution in commercialization productivity.

### ***Central Ohio Compact***

Ohio State is participating, along with other regional postsecondary institutions, in the Central Ohio Compact. The Compact is a partnership comprised of school districts, adult career-technical centers, colleges and universities, and area business and civic leaders “who are united in their support for developing the region’s enormous talent pool into a globally competitive workforce – one that will position Central Ohio for future growth and prosperity.” The Compact partners are working together on issues related to public policy and affordability of higher education, community awareness and communications, and workforce alignment and employment placement strategies. (OSU also is involved in the Higher Education Compact of Greater Cleveland, which has similar goals for that region of the state.)

### ***Discovery Themes***

The Discovery Themes were launched in 2012 to leverage Ohio State’s special strengths to address the technological, social, and environmental stresses that define today’s global world. As the nation’s largest and most comprehensive public university, Ohio State can focus an unmatched breadth of expertise on the issues of Health and Wellness, Energy and Environment, and Food Production and Security. Over the next ten years, OSU’s investment in the Discovery Themes will provide the basis for attracting about 500 research- and teaching-active, tenured/tenure-track faculty working in Discovery Themes areas. These will be individual scholars, as well as groups or clusters of faculty in critical areas. Their work will complement the research, teaching, and outreach of our existing faculty. Thus, they will spur transformational breakthroughs in our contributions to problem solutions critical to Ohio and the world.

In late 2013, the Discovery Themes inaugural request for proposals generated a number of Big Ideas that leveraged data analytics in addressing the compelling challenges of today and tomorrow. A review of these Big Ideas identified areas of strength that would lead to a notable focus in data analytics at Ohio State. A framework was developed to serve as the basis for creating that singular focus, and the Data Analytics Collaborative is the result of that framework.

New undergraduate degrees and programs will result from the Discovery Themes emphases. For example, a critical need clearly exists in the employment marketplace for graduates with both quantitative computational and modeling skills, and behavioral psychology and critical thinking skills. Ohio State will help fill that need with its new interdisciplinary undergraduate major in data analytics. The new major is structured in three parts: core subject matter (mathematical, statistical, and computing foundations), discipline-specific specializations (visual analytics and sense-making, system modeling, pattern recognition, and machine learning), and an integrative experiential education component. Ohio State is the first university in the country to offer this undergraduate degree in data analytics.

### ***Buckeye Careers***

Career services at Ohio State are decentralized, which means each college hosts its own career services office with its own set of recruiting policies and procedures. However, OSU centrally shares a job or internship posting system called **Buckeye Careers Network** that serves as Ohio State's university-wide online resource to connect Ohio State students with employers for jobs, internships, co-ops, and career opportunities. It connects the posting services of Engineering (ECS CareerEngine), Arts and Sciences (FutureLink), FAES (Hireabuckeye), and Fisher College of Business (FisherConnect), as well as systems used in other colleges and the regional campuses.

The Buckeye Careers program at Ohio State offers career development assistance, support, and resources - from selecting a major to starting a career - for all Ohio State students. It also is home for the **Buckeye Internships** program, Ohio State's university-wide resource connecting Ohio State students with employers for internships and co-op positions. Buckeye Careers utilizes Buckeye **OnPACE**, a series of self-guided career modules that can assist students in learning more about themselves and choosing a major or career, applying to graduate school, and preparing to enter the workforce.

### ***Career Counseling and Support Services***

The services provided by Career Counseling and Support Services (formerly Career Connection) are focused on the career development needs of all OSU students by providing high quality and diversity-sensitive services through counseling, consultation and lasting partnerships, designed to facilitate learning and advance well-being, purpose, identity development, and citizenship. In particular, the services include:

- Connecting students' interests, values, skills and personality with the world of employment;
- Aiding development of students' interests by exploring various majors and careers;
- Encouraging students to test their ideas with internships, informational interviews, volunteering, and extracurricular activities;
- Providing customized attention to resumes, vitas, job search letters, and interviewing skills;
- Listening and helping with personal concerns that relate to career decisions;
- Assisting students' implementation of decisions by learning how to conduct a job search or plan for graduate or professional school;
- Informing students about the University's employment assistance services, distributed throughout the colleges.

### ***Industry Liaison Office***

The Industry Liaison Office (ILO), currently led by Dan Kramer, was launched in 2008 to foster economic development opportunities in Ohio and beyond by connecting business and industry to Ohio State discoveries, its ground breaking research, and experts in targeted research areas. Ohio State has achieved world-class status in such areas as global climate change, materials research, electromagnetics, medical imaging, cancer, infectious and cardiovascular diseases, environmental sciences, and agricultural bio-products that feed and fuel the world.

Innovation is the key to continued economic growth for Ohio and beyond. Linking the university's immense assets to industry needs can lead to new products, improved processes, and expanded services. The Industry Liaison Office is well positioned to help industry collaborators build mutually beneficial relationships with Ohio State researchers. The ILO knows what Ohio State researchers are working on and has up-to-the-minute information about new breakthroughs and discoveries on campus.

The outcome of continuous growth and expanding collaborations has been the establishment of several ILO satellite offices including the Engineering ILO, dedicated exclusively to OSU's College of Engineering; the College of Food, Agricultural and Environmental Sciences ILO; and the Life Sciences ILO.

**Appendix: University Student Profile**  
***Columbus Campus***  
***Autumn 2015***

Student Demographic	Entering		Returning		Transfer		Total	
	#	% of Total	#	% of Total	#	% of Total	#	% of Total
Total	6978	15.81	34432	78.02	2721	6.17	44131	100
Enrolled Part Time	9	0.28	2997	92.70	227	7.02	3233	100
Not Degree/Certificate Seeking	--	--	--	--	--	--	1158	100
Financial Need - Pell Eligible	1191	12.48	7494	78.53	858	8.99	9543	100
Remedial Education Needs	319	6.06	4475	85.0	471	8.95	5265	100
Female	3553	16.9	16140	76.75	1335	6.35	21028	100
Male	3425	14.82	18292	79.18	1386	6.0	23103	100
Age 18-24	6414	15.88	31583	78.19	2398	5.94	40395	100
Age 25 and Older	8	0.25	2835	89.6	321	10.15	3164	100
Ohio Resident	4883	14.23	27297	79.53	2143	6.24	34323	100
<b>High School-to-College Factors</b>								
Average High School GPA	NR		NR		NR		NR	
Average ACT or SAT	28.9		--		--		--	
<b>Race / Ethnicity</b>								
<i>American Indian / Alaskan Native</i>	9	16.36	36	65.45	10	18.18	55	100
<i>Asian</i>	478	18.06	2060	77.82	109	4.12	2647	100
<i>African American /Black</i>	294	12.08	1914	78.67	225	9.25	2433	100
<i>Hispanic</i>	301	18.17	1228	74.11	128	7.72	1657	100
<i>International</i>	380	12.01	2535	80.12	249	7.87	3164	100
<i>Native Hawaiian or other Pacific Islander</i>	3	9.68	23	74.19	5	16.13	31	100
<i>Multi-racial</i>	216	15.79	1066	77.92	86	6.29	1368	100
<i>White</i>	4979	15.88	24573	78.37	1804	5.75	31356	100
<i>Race/ethnicity not reported</i>	318	22.39	997	70.21	105	7.39	1420	100

**Appendix: University Student Profile**  
**Regional Campuses (excluding ATI - Wooster)**  
**Autumn 2015**

Student Demographic	Entering		Returning		Transfer		Total	
	#	% of Total	#	% of Total	#	% of Total	#	% of Total
Total	2486	45.86	2641	48.72	294	5.42	5421	100
Enrolled Part Time	73	9.96	594	81.04	66	9.0	733	100
Not Degree/Certificate Seeking	--	--	--	--	--	--	298	100
Financial Need - Pell Eligible	1032	43.54	1189	50.17	149	6.29	2370	100
Remedial Education Needs	1415	46.93	1511	50.12	89	2.95	3015	100
Female	1156	40.73	1511	53.24	171	6.03	2838	100
Male	1330	51.49	1130	43.75	123	4.76	2583	100
Age 18-24	2331	50.49	2062	44.66	224	4.85	4617	100
Age 25 and Older	20	3.01	575	86.47	70	10.53	665	100
Ohio Resident	2480	45.87	2634	48.72	292	5.4	5406	100
<b>High School-to-College Factors</b>								
Average High School GPA	NR		NR		NR		NR	
Average ACT or SAT	22.3		--		--		--	
<b>Race / Ethnicity</b>								
<i>American Indian / Alaskan Native</i>	7	43.75	8	50.0	1	6.25	16	100
<i>Asian</i>	110	62.86	60	34.29	5	2.86	175	100
<i>African American /Black</i>	289	55.79	201	38.8	28	5.41	518	100
<i>Hispanic</i>	99	52.66	82	43.62	7	3.72	188	100
<i>International</i>	3	75.0	1	25.0	0	0.0	4	100
<i>Native Hawaiian or other Pacific Islander</i>	3	50.0	3	50.0	0	0.0	6	100
<i>Multi-racial</i>	108	59.34	65	35.71	9	4.95	182	100
<i>White</i>	1810	43.11	2158	51.39	231	5.5	4199	100
<i>Race/ethnicity not reported</i>	57	42.86	63	47.37	13	9.77	133	100

**Appendix: University Student Profile**  
**ATI - Wooster**  
**Autumn 2015**

Student Demographic	Entering		Returning		Transfer		Total	
	#	% of Total	#	% of Total	#	% of Total	#	% of Total
Total	331	45.84	361	50.0	30	4.16	722	100
Enrolled Part Time	1	1.61	56	90.32	5	8.06	62	100
Not Degree/Certificate Seeking	--	--	--	--	--	--	29	100
Financial Need - Pell Eligible	117	48.75	113	47.08	10	4.17	240	100
Remedial Education Needs	232	47.06	241	48.88	20	4.06	493	100
Female	167	47.58	168	47.86	16	4.56	351	100
Male	164	44.2	193	52.02	14	3.77	371	100
Age 18-24	321	47.49	332	49.11	23	3.4	676	100
Age 25 and Older	3	7.69	29	74.36	7	17.95	39	100
Ohio Resident	321	45.4	356	50.35	30	4.24	707	100
<b>High School-to-College Factors</b>								
Average High School GPA	NR		NR		NR		NR	
Average ACT or SAT	20.6		--		--		--	
<b>Race / Ethnicity</b>								
<i>American Indian / Alaskan Native</i>	0	0.0	0	0.0	0	0.0	0	
<i>Asian</i>	2	50.0	2	50.0	0	0.0	4	100
<i>African American /Black</i>	2	66.67	1	33.3	0	0.0	3	100
<i>Hispanic</i>	1	14.29	4	57.14	2	28.57	7	100
<i>International</i>	1	100.0	0	0.0	0	0.0	1	100
<i>Native Hawaiian or other Pacific Islander</i>	0	0.0	0	0.0	0	0.0	0	100
<i>Multi-racial</i>	5	55.56	3	33.3	1	11.11	9	100
<i>White</i>	308	45.56	342	50.59	26	3.85	676	100
<i>Race/ethnicity not reported</i>	12	54.55	9	40.91	1	4.55	22	100

**Data Definitions for above tables**

**Note** All data is for undergraduate students as of Fall 2015 15th day count.

NR – Not reported

Average ACT is only relevant for NFYS

## References and web links:

OSU College Portrait Report	<a href="http://oaa.osu.edu/irp/vsa.php">http://oaa.osu.edu/irp/vsa.php</a>
Enrollment Services – Analysis and Reporting	<a href="http://oesar.osu.edu">http://oesar.osu.edu</a>
Undergraduate Admissions Quick Facts	<a href="http://undergrad.osu.edu/admissions/quick-facts.html">http://undergrad.osu.edu/admissions/quick-facts.html</a>
First Year Experience Summer Bridge Programs	<a href="http://fye.osu.edu/programs/index.html">http://fye.osu.edu/programs/index.html</a>
Institutional Research and Planning	<a href="http://oaa.osu.edu/irp/home.php">http://oaa.osu.edu/irp/home.php</a>
NFYS Enrollment Trend Data	<a href="http://oesar.osu.edu/pdf/admissions/NFQF_Au_15thday_web.pdf">http://oesar.osu.edu/pdf/admissions/NFQF_Au_15thday_web.pdf</a>
NFYS Graduation and Retention Rates Data	<a href="http://oesar.osu.edu/grad_rates.html">http://oesar.osu.edu/grad_rates.html</a>
Counseling and Consultation Service	<a href="http://www.ccs.ohio-state.edu">http://www.ccs.ohio-state.edu</a>
Student Athlete Support Services Office	<a href="http://www.ohiostatebuckeyes.com/sports/sasso/osu-sasso-body.html">http://www.ohiostatebuckeyes.com/sports/sasso/osu-sasso-body.html</a>
University Center for the Advancement of Teaching	<a href="http://ucat.osu.edu">http://ucat.osu.edu</a>
Mathematics and Statistics Learning Center	<a href="http://mslc.osu.edu">http://mslc.osu.edu</a>

Center for the Study of Teaching and Writing	<a href="https://cstw.osu.edu">https://cstw.osu.edu</a>
Office for Disability Services	<a href="http://ods.osu.edu">http://ods.osu.edu</a>
The Office for Military and Veterans Services	<a href="http://veterans.osu.edu">http://veterans.osu.edu</a>
Dennis Learning Center	<a href="http://dennislearningcenter.osu.edu">http://dennislearningcenter.osu.edu</a>
Academic Advising at OSU	<a href="http://advising.osu.edu/welcome.shtml">http://advising.osu.edu/welcome.shtml</a>
Office of Undergraduate Education	<a href="http://ugeducation.osu.edu/welcome.shtml">http://ugeducation.osu.edu/welcome.shtml</a>
Second Year Transformational Experience Program (STEP)	<a href="https://step.osu.edu">https://step.osu.edu</a>
Office of Distance Education and eLearning	<a href="http://odee.osu.edu">http://odee.osu.edu</a>
FITW	<a href="http://www2.ed.gov/programs/fitw/index.html">http://www2.ed.gov/programs/fitw/index.html</a>
ASC STEM Initiatives	<a href="http://artsandsciences.osu.edu/about/administration/stem-initiatives">http://artsandsciences.osu.edu/about/administration/stem-initiatives</a>
Discovery Themes	<a href="http://discovery.osu.edu">http://discovery.osu.edu</a>
OSU's Choose Ohio First Programs	<a href="http://ugeducation.osu.edu/chooseohiofirst.shtml">http://ugeducation.osu.edu/chooseohiofirst.shtml</a>
Career Connection	<a href="http://careerconnection.osu.edu">http://careerconnection.osu.edu</a>
Industry Liaison Office	<a href="http://ilo.osu.edu">http://ilo.osu.edu</a>
Central Ohio Compact	<a href="http://www.cscce.edu/centralohiocompact/">http://www.cscce.edu/centralohiocompact/</a>
JobReady Ohio (OSU's OMIC program)	<a href="http://careers.osu.edu/students/jobready/">http://careers.osu.edu/students/jobready/</a>