

The Ohio State University

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APPROVAL OF THE 2022-2024 COMPLETION PLAN

Resolution No. 2022-126

Synopsis: Approval of the 2022-2024 Completion Plan is proposed.

WHEREAS Ohio Revised Code 3345.81 requires the Board of Trustees of each Ohio institution of higher education every two years to adopt a strategic completion plan designed to increase the number of degrees and certificates awarded to students; and

WHEREAS The Ohio State University Board of Trustees approved the 2020-2022 completion plan on August 27, 2020; and

WHEREAS the university has updated the completion plan through 2024:

NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby approves the 2022-2024 Completion Plan.

CERTIFIED

This is to certify that the foregoing is a true and accurate excerpt from the minutes of the Board of Trustees meeting held May 19, 2022.

Jessica (lul

Jessica A. Eveland Secretary



Completion Plan Updated May 2022

Provided to the Chancellor of the Ohio Department of Higher Education in accordance with Ohio Revised Code 3345.81

Prepared by the Student Success Research Lab SSRL@osu.edu

The Ohio State University Completion Plan Updated May 2022

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EXECUTIVE SUMMARY

The Ohio State University is a comprehensive public university founded in 1870. It consists of a selective-admission campus in Columbus; four open-access regional campuses in Marion, Newark, Lima and Mansfield; and a research campus in Wooster, which houses the Agricultural Technical Institute. *U.S. News & World Report* has ranked Ohio State as one of the nation's top public institutions for more than a decade.

Over the past seven years, the university has made substantial investments in strategies designed to further improve its already-strong retention and graduation rates, including: dramatically expanding the provision of need-based financial aid; creating at-scale data-driven supports for first-year students; implementing at-scale enrichment opportunities for second-year students; building a data-driven "coordinated care" model of advising; coordinating, highlighting, and scaling teaching improvement efforts across the university; focusing more strongly on the success of identified groups of traditionally underserved students, including those from underrepresented racial/ethnic groups as well as first-generation, Pell-eligible, campus-change, and community college transfer students; and creating infrastructures to promote evidence-based practices for student success. During the COVID-19 pandemic, the university strengthened and extended these efforts in order to retain students as they struggled with multiple challenges at home and school. As a result, in autumn 2021 the Columbus campus showed very strong rates of retention and graduation (94.0% first-year retention rates and 88.0% six-year graduation rates).

This report first provides an **Overview** of the university's mission and profile, barriers to persistence and completion faced by the student population we serve, progress toward our goals since the 2020 Completion Plan, and our updated completion goals for 2022 – 2024. The report then lays out the university's **Current and Ongoing Completion Strategies and Activities**, including new strategies launched since August 2020. Next the report summarizes **Planned Strategies**, which include major initiatives planned for launch in 2022-23. Finally, the report describes how the university is responding to the state's **Workforce Development Priorities**.

UNIVERSITY MISSION AND PROFILE

Mission

Ohio State is a comprehensive public university founded in 1870. Its largest campus, 1,693 acres, is in Columbus, with regional campuses in Marion, Newark, Lima and Mansfield. It also has a research campus in Wooster — home to the Agricultural Technical Institute (ATI)¹ — for a total of 16,147 acres. 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, and provides accessible, high quality, undergraduate, graduate and professional education for academically qualified students who can 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 university's total autumn 2021 enrollment² included 67,772 undergraduate, graduate, and professional students, with 61,677 on the Columbus campus. Across campuses, the student body was a balanced mix of male and female (51.9% female); 74.4% were residents of Ohio and 8.3% were international students; 63.4% were (non-international) white/non-Hispanic; 25.1% were (non-international) students from traditionally underrepresented racial/ethnic groups, including 7.7% who identified as African American/Black, 5.4% Hispanic, 7.7% Asian, and 4.1% who identified as multiracial. The student body included 639 students who were active duty military or veterans, with an additional 397 in the Reserve Officers' Training Corps (ROTC).

Among Columbus campus students in autumn 2021, 47,106 were undergraduates, and their average age was 21 (with 94% under age 25). Most new students entering the Columbus campus were new first-year students (or "NFYS") with no prior college experience outside of high school dual enrollment (8,350 students). These students' average ACT score was 28.6, with 94% in the top quartile of their graduating class and 64% in the top 10%. Most (79%) arrived with accepted credit: 62% arrived with test credit (such as Advanced Placement, International Baccalaureate, College Level Examination Program, or language proficiency), and 44% arrived with dual enrollment

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

² All data from 2021 Enrollment Services reports; see Appendix for details.

credit. Overall, 29% of NFYS earned 30 or more college credits while still in high school. In addition to NFYS, the Columbus campus also welcomed 2,070 new transfer students from other two- and four-year colleges, as well as 1,286 "campus-change" students who moved from Ohio State regional campuses to the Columbus campus.

Ohio State's regional campus profile differs from that of the Columbus campus. The four regional campuses and ATI have an open enrollment policy and serve many students who prefer to start their college experience at a smaller university campus. Several degrees can be completed on the regional campuses (including both associate and bachelor's degrees), but most bachelor's degrees require students to change to the Columbus campus to complete advanced coursework. Ohio residents who apply but are not admitted to the Columbus campus have the option to start at a regional campus and are eligible to change to Columbus after the successful completion of 30 credit hours (one year of full-time study). In autumn 2021, Ohio State's regional campus enrollment was 6,083, of which 2,574 were new first-year students. Regional campus students were more likely than Columbus students to be non-traditional: 17.4% were part time; 84.2% were 18 to 24 years old; and the majority commuted to campus. Regional NFYS students were also more likely to be Pell-eligible³ (31.2%, compared to 17.6% on the Columbus campus). The average ACT score for NFYS regional students was 22.1, and 42.8% needed remediation in math or English or both (compared to 3.1% on the Columbus campus).⁴

For the 2020-21 academic year, Ohio State awarded 17,807 degrees, including 1,067 associate degrees at the regional campuses, 11,919 bachelor's degrees, 2,828 master's degrees, 900 doctoral degrees and 823 advanced professional degrees. The average time to a bachelor's degree was 4.13 years.

Ohio State has earned national recognition for the quality of its programs and teaching. *U.S. News & World Report* has ranked Ohio State as one of the nation's top public institutions for more than a decade; in 2022, Ohio State was ranked 17th among public universities nationwide, and was recognized in the Best Undergraduate Teaching, Most Innovative Schools, Best Colleges for Veterans, and First-Year Experiences categories.

³ Students eligible for Pell Grants meet federal guidelines for low and moderate incomes. Pell eligibility is used to measure financial need in student populations.

⁴ Although the Columbus campus 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, the Columbus campus still has students who are in need of extra support through remedial intervention, particularly in math and English composition. Of the 8,350 NFYS entering Columbus in Autumn 2021, 262 students were recommended for remedial courses through the university placement exams administered during orientation (252 of whom were referred for remediation in math, 3 in English, and 7 in both subjects).

BARRIERS TO PERSISTENCE AND COMPLETION

The autumn 2021 report showed high rates of retention and graduation for Columbus NFYS students, with first-year retention at 94.0% and 88.0% graduating in six years with a bachelor's degree. Success rates were lower on the regional campuses (collectively, excluding ATI); first-year retention was 70.8% and the six-year graduation rate was 44.7%.

Students with lower rates of retention and graduation have typically come from one or more of the following underserved populations: Pell-eligible, first-generation, traditionally underrepresented racial/ethnic group, or transfer/campus-change. Male students also experience extended time-to-degree compared to female students. The most recent success metrics for these students are included below.

For Pell-eligible Columbus NFYS, first-year retention was 92.2% and six-year graduation was 81.5%; for Pell-eligible regional campus NFYS, the respective rates were 67.8% and 32.5%. For first-generation Columbus NFYS, first-year retention was 89.5% and six-year graduation was 80.8%; for first-generation regional campus NFYS, the respective rates were 64.3% and 36.1%. For Columbus NFYS who identify with a traditionally underrepresented racial/ethnic group, first-year retention was 91.4% and six-year graduation was 80.6%.

Success rates for transfer and campus-change students are calculated based on student "rank" (credit accrual at the point of entry into the Columbus campus). For example, students who transfer with fewer than 30 credits are Rank 1, and those who transfer with more than 90 credits are Rank 4. Transfer and campus-change students typically enter Columbus at Rank 2 or 3, and the pattern of outcomes among Rank 2 transfer students are representative of the broader group. According to autumn 2021 reports, among Rank 2 transfer students, 73.5% graduated within four years and 76.1% graduated within six years. These rates were similar to those of regional campus students who changed to Columbus within their first two years; they had a six-year graduation rate of 76.3%.

Although male students were retained at a similar rate to female students, they had lower four-year graduation rates, which may be due to extended time-to-degree. Among Columbus NFYS, autumn 2021 reports showed one-year retention rates of 94.2% for men and 93.8% for women. A wide gender gap appeared at four-year graduation, with a 64.4% four-year graduation rate for men and a 76.8% rate for women; however, the gap narrowed at six-year graduation, with an 85.5% six-year graduation rate for men and a 90.5% rate for women. The four-year graduation rate for males may be influenced by the higher proportion of males in engineering, a degree that tends to take longer to complete because of its accreditation requirements.

PROGRESS TOWARD GOALS FROM 2020-2022 COMPLETION PLAN

When setting its goals for the 2020 Completion Plan, the university focused on maintaining student retention and completion rates in the face of critical challenges posed by the COVID-19 pandemic. Below, progress for each 2020 goal is provided.

• Goal 1: Maintain NFYS Columbus retention at 2019–20 levels.

Progress: NFYS Columbus first-year retention was 94.1% in 2019 (i.e., students who entered in autumn 2018 and returned in autumn 2019). It remained relatively stable across the next two years, at 93.9% in 2020 (i.e., students who entered in autumn 2019, weathered the transition to emergency remote learning in spring 2020, and returned in autumn 2020), and at 94.0% in 2021 (i.e., students who began during the pandemic in autumn 2020).

• **Goal 2**: Maintain NFYS Columbus four-year and six-year graduation rates at 2019-20 levels.

Progress: The four-year graduation rate on Columbus campus was 67.0% in 2019, and improved across the course of the pandemic to 68.7% in 2020 and 70.8% in 2021. Similarly, six-year graduation rates improved from 85.8% in 2019 to 87.0% in 2020 and 88.0% in 2021.

• **Goal 3**: Maintain 2019-20 levels of completion and retention for traditionally underserved populations, including first-generation, Pell-eligible, transfer/campus-change, and African-American/Black students.

Progress: As the table on the following page shows, retention rates for traditionally underserved populations remained relatively stable from 2019 to 2021, while completion rates increased.

• **Goal 4**: Continue to enhance and build college-to-career and post-graduate pathways, with a focus on Ohio workforce development priorities.

Progress: Ohio State is strengthening existing strategies and has launched new strategies related to this goal, as detailed later in the report.

Retention and Graduation Rates - Columbus Campus*

	2019	2021
All NFYS		
First Year Retention	94.1%	94.0%
Four-Year Graduation	67.0%	70.8%
Six-Year Graduation	85.8%	88.0%
NFYS First-Generation		
First Year Retention	91.4%	89.5%
Four-Year Graduation	59.9%	61.0%
Six-Year Graduation	79.8%	80.8%
NFYS Pell-Eligible		
First Year Retention	91.5%	92.2%
Four-Year Graduation	58.1%	61.8%
Six-Year Graduation	78.3%	81.5%
NFYS African American/Black		
First Year Retention	93.0%	92.7%
Four-Year Graduation	49.5%	57.3%
Six-Year Graduation	73.8%	79.2%
Transfer Rank 2		
First Year Retention	86.8%	88.3%
Four-Year Graduation	70.9%	73.5%
Six-Year Graduation	76.4%	76.1%

* First year retention rates are based on 2018 and 2020 entrants. Four-year graduation rates are based on 2015 and 2017 entrants. Six-year graduation rates are based on 2013 and 2015 entrants.

UPDATED COMPLETION GOALS

The following goals are based upon the university's Strategic Enrollment Plan for 2022 – 2024.

Goal 1: Increase NFYS Columbus first-year retention rates to 95%

Goal 2: Increase NFYS Columbus four-year graduation rates to 71% and six-year graduation rates to 90%

Goal 3: Improve retention and graduation rates for the university's regional campuses, as well as for traditionally underserved populations on the Columbus campus, including first-generation, Pell-eligible, transfer/campus-change, and African-American/Black students.

Goal 4: Continue to enhance and build college-to-career and post-graduate pathways, with a focus on Ohio workforce development priorities.

CURRENT AND ONGOING COMPLETION STRATEGIES AND ACTIVITIES

The university's completion strategies are implemented in partnership among Strategic Enrollment Management, the Office of Undergraduate Education, the Office of Student Life, the Office of Diversity and Inclusion (ODI), the Drake Institute for Teaching and Learning, the Office of Technology and Digital Innovation (OTDI), University Libraries, and the university's academic colleges and campuses. Below, the university's ongoing completion activities are organized by function, with most representing a collaboration across multiple units. Such collaborations are coordinated through key strategic initiatives and infrastructures (such as the rollout of the new framework for General Education, discussed later in this report).

Undergraduate Admissions

Undergraduate Admissions provides robust outreach to historically underrepresented students of color, first-generation, and limited-income students through proactive outreach, partnerships and individual engagement. Working closely with community based organizations, such as I Know I Can, the Cincinnati Youth Collaborative, College Now Greater Cleveland, KIPP Columbus, Strive for College, and Chicago Scholars, admissions staff work with high school counselors throughout the state, especially in urban and rural areas, to educate counselors on the Ohio State admissions process. Ohio State's unique Buckeye Student Leadership Academy helps to prepare selected rising seniors from underrepresented backgrounds in Ohio for the application process, free to participants. Student telecounselors, faculty, and staff conduct outreach through phone call and email campaigns to build individual relationships with prospective students.

After admission, Undergraduate Admissions provides travel grants for targeted admitted students to help defray the cost of coming to campus for admitted student programs. Specialized programming to help build community for underrepresented students takes place at off-campus programs in Cincinnati and Cleveland, as well as during admitted student visits on campus.

Need-Based Financial Aid

Over the past several years Ohio State has significantly expanded its portfolio of institutional need-based aid in order to remove financial barriers to student success and completion. In 2015, Ohio State launched the President's Affordability Grant Program to provide new need-based aid to low- and middle-income students on the Columbus campus; the program was expanded to the regional campuses in 2016–17. In autumn 2018, the university launched the Buckeye Opportunity Program on the Columbus campus, which supports students from Ohio who qualify for a Federal Pell Grant; each

recipient receives enough student financial aid to cover the full cost of undergraduate tuition and mandatory fees. The program was expanded to the regional campuses in spring 2019. The university plans to further expand financial aid under the forthcoming Scarlet & Gray Advantage program (described in more detail later in the report).

Orientation and First Year Experience

A comprehensive orientation for NFYS, transfer students and special populations (for example, veterans) is important for students (and families) so they can begin to focus on college and start the transition to life as an Ohio State student. In addition to managing logistical tasks such as placement testing, course scheduling and financial aid consultation, Ohio State's student orientation sessions contribute to first-year retention by ensuring that students:

- Learn about resources and expectations both inside and outside of the classroom.
- Engage with their Peer Leader, who provides support during orientation and throughout the first year.
- Meet one-on-one with academic advisors to learn about academic areas of study.

After arriving at Ohio State, all new first-year students participate in university First Year Experience (FYE) programs designed to help students become acclimated to campus, connect with resources and the university community, and to start to think of Ohio State as their second home. On the Columbus campus, every new first-year student is assigned a specific Peer Leader, an upper-class student who leads the new student's two-day summer orientation, maintains connections with that student through the entirety of the first year, and helps provide or coordinate more intensive or sustained support for students who need it most.

Across all campuses, every new first-year student enrolls in the **University Survey course**, a one-credit hour course taught by academic advisors in their own major or college, in which students are encouraged to set goals, complete two- and four-year curricular plans, and delineate courses that must be taken sequentially to complete the degree on time. The course is designed as an extended introduction to the university. It covers majors and colleges, how to schedule classes, intentional degree planning, how to conduct other Ohio State business, and using resources such as the library system and other academic and personal services. As part of Survey course requirements, students attend **First Year Success Series** sessions, which reinforce content provided in the survey course and focus on helping students overcome common challenges during the transition to college. Through a data-informed approach and network of referrals from Peer Leaders, advisors, and others who work closely with students, first-year students may also be invited to participate in programs such as **Buckeyes First**, **Buckeye START**, or **SpringForward**. Buckeyes First offers a network of support for students who are the first in their family to attend college, including an online summer program, an in-person post-orientation session, and organized social mixers. Buckeye START sessions help students recognize and normalize the transition to college, connect them to campus resources that can most appropriately support their success, and foster peer connections among other new students and with FYE Peer Leaders. SpringForward works with students who fall into academic difficulty during their first year. Participants enroll in an academic skill and self-efficacy building course, and engage in academic coaching and advising. For students who benefit from extended support, there is an option to continue components of the program through the summer and into the second year as part of a close-knit community.

Learning Communities

All first- and second-year Columbus NFYS are required to live on campus unless they are granted a waiver. This residential requirement allows the university to integrate a variety of supportive programming across the first two years of the student experience. For interested students, Ohio State's residential Learning Communities offer an integrated and holistic approach to student support and/or enhanced experience. Students in a particular Learning Community 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.

Ohio State has a wide variety of learning communities, including 17 programs coordinated with Student Life⁵ and 16 affiliated with the university Honors and Scholars Center.⁶

Collegian, Future Health Professionals, Global Business, and Nursing and Wellness Innovations.

⁵ Examples include: Engineering House, Exploration, First Year

⁶ 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.

Diversity and Inclusion

Ohio State's Office of Diversity and Inclusion (ODI) supports the recruitment, retention and success of students, faculty and staff who enhance the diversity of The Ohio State University. ODI oversees a wide range of access, scholarship, mentoring and retention programs. ODI has long provided generous scholarships that have need-based requirements, like the Young Scholars Program scholarship, as well as merit-based programs like the Morrill Scholars Program. ODI offers several different early arrival programs for admitted students from targeted populations, including the Bell National Resource Center Early Arrival program (focused on supporting students who identify as African-American men), the NSF LSAMP three-week bridge program (for underrepresented minority students in STEM), the Morrill Scholars Early Arrival program, the Latinx Early Arrival Program, and the Young Scholars Early Arrival Program. To assist with student pathway decisions, many ODI programs include success coaching where students meet one-on-one with staff to do education and career planning. ODI's Scholarship and Supplemental Academic Services encourages the growth, success and excellence of ODI scholars by providing targeted scholarship, financial aid and academic services.

ODI supports non-traditional student-parents through the ACCESS program and CCAMPIS childcare grants. In autumn 2019, ODI launched the Dr. James L. Moore III Scholars Program, which supports students transferring from Columbus State Community College (CSCC) to Ohio State. The Women's Place also serves as the administrative home for the Critical Difference Scholarship Program, which provides grants to students who have disrupted their education due to unforeseen circumstances; most of the students receiving this grant are over the age of 25, but it also serves other non-traditional student populations including veterans and parents.

Campus-Change and Transfer

In 2018-19 the university kicked off an initiative to improve campus-change and transfer processes. Since that time, university advisors have created a more consistent and streamlined process for campus-change approval; the Dr. James L. Moore III Scholars Program was launched to provide wrap-around support for selected CSCC transfers; the Dennis Learning Center implemented targeted outreach to help incoming transfer and campus change students develop strong study skills to help them succeed at Ohio State; the university's central advising office launched a partnership with Social Work in which graduate student social work interns engage in proactive outreach and support to campus-change and transfer students; and the Registrar's office worked with partners in academic units to update the university's Transfer Credit Policy and streamline departmental credit evaluation into a more centralized system. In addition, centralized

staff positions are now charged with coordinating transition supports for campus-change and transfer students. These staff serve as a key point of contact for change/transfer students; coordinate the orientation and welcome programs for these students; connect students to appropriate resources; collaborate with academic units and regional campuses to develop programming and resources for change/transfer students; and assist transfer students with issues or concerns regarding evaluation of transfer credit. The university is also an active partner in the statewide Ohio Guaranteed Transfer Pathways initiative and is partnering with Columbus State Community College to further strengthen transfer pathways in high-demand Health and IT areas.

Second Year Engagement

Ohio State's Second-year Transformational Experience Program (STEP) is integrated into the experience of second-year residential students on the Columbus campus as well as second-year students on the regional campuses, with 2,354 students participating during the 2021-2022 academic year. STEP faculty mentors are assigned up to 18 students, whom they meet with regularly throughout the academic year. STEP creates intensive interactions with faculty outside of the classroom, combined with 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, and mandates completion of a financial wellness component.

During the spring semester, each student works closely with his or her STEP faculty member to create a written proposal for a STEP Signature Project, which falls into one of six categories: undergraduate research, education abroad, service learning and community service, leadership, internships, or creative and artistic endeavors. Students who complete all STEP requirements are eligible to receive a fellowship of up to \$2,000 to use towards a STEP Signature Project they might otherwise not be able to do. STEP is designed to focus on students' success and development and allows them the opportunity to participate in activities that are pointed to their individual interests and academic needs. Through their interaction with faculty, students can develop tools for life and build essential network connections.

Advising Community

Ohio State's academic advisors are embedded within each academic college or regional campus, supported by a central advising office which provides frameworks, training and tools for the advising community. Among other tools, the central Advising office manages OnCourse, a student success platform that integrates predictive analytics to support advising. Advisors use OnCourse to schedule appointments, document meetings, add notes in the student record or reach out to students regarding

progress, special events and other opportunities. Students can easily self-schedule appointments in OnCourse; 94% of undergraduates had an advising appointment in OnCourse during 2020-2021, for a total of over 110,000 advising appointments. The platform seamlessly integrates scheduling of remote appointments, which were essential during 2020 and have remained a highly popular option for students through the most recent semester.

Advisors also use OnCourse predictive analytics and reporting to assist with targeted student outreach. In 2020, the OnCourse team piloted a unified progress report mechanism which nudged faculty early in the semester to indicate whether students were achieving at a level consistent with success in the course. Following the success of the pilot, the comprehensive progress report process was expanded to all regional campus students as well as to Columbus campus students in key programs that incorporate wrap-around support. The early alert system allows support staff and advisors to align outreach to students in a "coordinated care" model, and students are encouraged to work with staff and faculty to improve their grades in their courses. In academic year 2021-22, over 14,000 undergraduate students received progress reports from over 2,500 faculty.

In general across the past two years, the OnCourse team has invested heavily in training advisors and support staff to use the system with an eye to retention and graduation. The Ambassadors Program, which trains users on the platform's robust student outreach, reporting and analytics features, has trained over 50 OnCourse Ambassadors, many of whom have gone on to promote and create projects supporting targeted populations. Four Ambassador projects were highlighted at a national conference this year for their ingenuity and focus on student success. Finally, the Advising office helps coordinate the Complete Ohio State program, which identifies and reaches out to students who have stopped-out within a few credits of on-time graduation, in order to provide tailored advising support, including personalized degree plans and assistance with enrollment and financial aid issues.

Teaching and Learning

The university's Michael V. Drake Institute for Teaching and Learning works with multiple campus partners to advance at-scale professional learning, evidence-based instructional strategies, and research and policy that elevate the work of all who teach at Ohio State. Key partners include the Office of Technology and Digital Innovation (OTDI), University Libraries, Undergraduate Education, and the Center for the Study and Teaching of Writing (CSTW). Each partner provides student-facing resources that are integrated into many of the student supports already discussed. For example, University Libraries provides programming related to library resources and information

literacy as part of New Student Orientation, University Survey, First Year Success Series, STEP and the Young Scholars Program. Overall, these partners work together with support and coordination from the Drake Institute to strengthen the quality of instruction within and outside physical and virtual classrooms.

This section reviews three key areas of teaching and learning at Ohio State: instructor professional development, textbook affordability and online education. In addition, the Planned Strategies section of the report provides an overview of how teaching and learning will evolve as part of a wholescale re-imagining of the university's General Education experience.

First, in terms of instructor development, the Drake Institute designs, coordinates, delivers and scales teaching improvement efforts across all campuses of the university. To provide a foundation for quality teaching, the institute offers Teaching@OhioState, a five-module online introduction to evidence-based pedagogy. Between 2018 and 2020, all instructors were encouraged to participate in the program, and over 3,529 did so. Each year, newly hired faculty also engage in an in-depth New Faculty Orientation, which included 135 new faculty in August 2020 and 121 in August 2021. Graduate teaching associates also participate in instructional development through the Graduate Teaching Orientation, which included 579 graduate teaching associates in August 2020 and 570 in August 2021. These programs encourage participants to take a customized "health and wellness" approach to professional learning to promote career-long cultivation of expertise and achieve success in teaching and learning. In addition, across 2020-2022, 110 new faculty participated in a formal year-long mentoring program led by 30 senior faculty.

To support instructors as they build on this foundation across time, the Drake Institute offers 19 different Teaching Endorsements: credentials earned by faculty, graduate students and staff who participate in in-depth, extended professional learning experiences in a specific area, such as inclusive teaching, digital humanities, teaching with technology, course design, meaningful inquiry, or teaching ethics and human values. Across the past two years, 218 endorsements were awarded to Ohio State faculty, graduate students and staff. In addition, the Drake Institute's Instructional Redesign program supports and incentivizes instructors in redesigning and assessing instruction in their courses to improve student learning outcomes and enhance the student experience. As of April 2022, 143 instructors have completed the Instructional Redesign program, and over 300 are currently participating.

Second, the university's textbook affordability initiative (the **Affordable Learning Exchange**, or ALX) continues to create and expand digital resources to offset textbook

prices for students. Over the past seven years, ALX has worked with more than 143 faculty across all the university's campuses to replace traditional commercial textbooks with high-quality affordable options, saving students a total of \$14.5 million. In 2018 ALX also launched a pilot of CarmenBooks, a program to provide digital textbooks at approximately 80% off list price. The program expanded in the following year and has now reached more than 1,175 courses and saved students \$16.1 million. ALX has also helped lead the statewide Ohio Open Ed Collaborative; savings to date for the statewide project, as self-reported by partner institutions, total over \$6 million.

Third, the university has continued to grow its high-quality **online offerings**, thus offering flexibility and affordability to students who need it.⁷ In 2021-2022, the university grew its offerings to 57 approved online programs, with many of the newest programs in alignment with the state's workforce development priorities. Ohio State also connected expert faculty with online instructional designers in order to design or redesign 135 courses within those programs for the online context. To ensure quality, these online courses are designed to meet internal standards that not only include Quality Matters standards (a widely used course design rubric geared to continuous improvement in student learning for online offerings), but also captures university policies, scholarship on student success, feedback from Ohio State faculty collaborators and regulatory requirements to ensure quality design for online and hybrid courses. Ohio State's support for online quality consistently results in multiple top rankings in *U.S. News & World Report* for online education.

Learning Support Services

Ohio State offers a suite of learning support services to all students, including the **Dennis Learning Center**, the **Mathematics and Statistics Learning Center** and the **Center for the Study of Teaching and Writing**. As noted earlier in the report, the Office of Diversity and Inclusion provides specialized learning support for students in its programs. In addition, the university offers specialized learning support services for athletes (SASSO), military and veteran students (MVS), and disabled students (SLDS).

The **Dennis Learning Center** was established to provide academic learning services that support Ohio State students from entry through graduation. Services include courses, workshops, individual academic coaching and online learning resources. The center's college-success courses provide elective credit toward students' degrees and are offered on multiple Ohio State campuses. Through group workshops and individual academic coaching, center affiliates work directly with students to develop strategies for effective studying, time management, learning from text, note taking, test taking and

⁷ All fully online program students pay in-state tuition and do not pay campus-based associated fees, thus reducing the total cost-to-credential.

self-regulation. They collaborate with Ohio State academic departments, other institutions, and the scholarly community on research and practice that promote postsecondary student success. In addition to offering all services both face-to-face and online, the center provides an online resource with videos and materials related to note taking, test taking, procrastination, motivation and cognitive learning.

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. The center provides trained tutors available to help students with difficulties they are experiencing in class or with homework. In addition, it provides 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 aid students, faculty and staff in becoming more effective writers in a variety of contexts and media. Two programs in CSTW, the Writing Center and Writing Across the Curriculum Initiative, provide assistance to writers of all abilities and levels. The Writing Center offers face-to-face and online tutorials to students to assist with writing in progress; 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. A third program, the Writing Associates, invites faculty to embed an undergraduate tutor into their writing courses to provide additional support for those students. Each of these programs favorably impacts student success, retention and degree completion. Undergraduate and graduate students employed by these programs also gain valuable experience and transferable skills.

The **Student Athlete Support Services Office (SASSO)** serves more than 1,000 student-athletes on 36 NCAA teams, providing Ohio State student-athletes with assistance in academic support including academic counseling, instructional support services, tutorial services, student-athlete engagement, and many other skill-building services and units. Academic counselors work in conjunction with academic advisors within each college to provide accurate academic information and planning related to a student-athlete's college progress and degree program. SASSO's learning specialists provide academic skill-building and monitoring of student progress, while mentors and professional tutorial support staff offer subject-specific assistance as well as time management, organizational strategies and techniques. SASSO's Student-Athlete

Engagement unit provides student-athletes opportunities to engage in experiential learning, high-impact practices, community service, student leadership initiatives, educational internship opportunities and other programming. Together they help foster growth in decision-making and academic planning, so that they may fulfill their academic, degree completion, and personal and professional development goals.

Ohio State's **Military and Veterans Services (MVS)** provides full-spectrum assistance for all military-connected students. The office focuses on building trust and guiding these students through the transition to higher education, academic success, and graduation. The office provides VA education benefit navigation; military, veteran and ROTC orientations; focused academic advising, counseling and tutoring; peer mentoring; tailored support services; and faculty/staff education on military student issues. The office also provides long-term continuity for the Tri-Service ROTC Departments and collaborates with the Office of Government Affairs on local, state or federal legislation and policies concerning this cohort. Other Ohio State resources include a housing option for student veterans; 14 military-connected student organizations; and comprehensive services that assist the Buckeye Military Family in securing internships and post-graduation employment. Since the office's inception, Military and Veterans Services has consistently been rated one of the nation's top programs for veterans in higher education.

Student Life Disability Services (SLDS) partners with students, faculty and staff to design accessible and inclusive instruction and environments, and to provide academic and co-curricular accommodations and services. The office recognizes that "disability" is a broad term that includes, but is not limited to, mental health conditions, chronic health conditions, temporary injuries, physical/learning disabilities and ADHD. For example, for the past two years the office has coordinated with colleges and units across the university to issue accommodations related to the COVID-19 pandemic. Students register with SLDS to be approved for accommodations that students can then request from faculty and university units. All materials pertaining to a student's disability are confidential. Students work with an access specialist to discuss academic barriers to success and accommodations. Students notify their instructors about accommodations only if they want to use them in that instructor's course. SLDS provides services for more than 5,500 students, including accommodations, accessible media, assistive technology, Braille, captioning, live transcription, exam services and career resources. The office serves undergraduate, graduate, professional, Program 60 and College Credit Plus students. SLDS also provides consultation services and disability awareness training to the campus community, including workshops on inclusive instruction and disability access for university instructors, staff and students. SLDS collaborates with the Americans with Disabilities Act (ADA) Coordinator's office within

the Office of Institutional Equity in order to ensure legal and policy compliance, and collaborates with a College 2 Careers vocational rehabilitation counselor from the state agency Opportunities for Ohioans with Disabilities (OOD), who works with students to provide career resources and advising support for students seeking internships and employment.

Student Wellness Services

The university provides a comprehensive array of services to support student wellness, which in turn promotes academic success and persistence, including the **Student Wellness Center**, the **Counseling and Consultation Service** and the university's **Wellness app**.

The Student Life Student Wellness Center (SWC) serves as a resource for information on various wellness topics, provides online and in-person programs and services to individuals and groups, and contributes to the development of a more healthy and supportive campus community. All services are provided free to currently enrolled Ohio State students. Examples of activities in the SWC that contribute to retention and completion include: alcohol, tobacco and other drug prevention services; the Collegiate Recovery Community; financial education; nutrition education; and safer sex initiatives. The SWC also provides overall wellness coaching, which takes a positive approach to personal development, focusing on strengths and enhancing capacities for resilience and self-acceptance while promoting happiness, health and success. Each of SWC's services engages in educational outreach to students and includes options for one-onone coaching and group education. Wellness Ambassadors are a key component of SWC's outreach strategy. These are undergraduate student volunteers who commit three hours per week to developing and implementing wellness programs. As Wellness Ambassadors, students have the opportunity to specialize in one of the following topic areas: alcohol education, nutrition, safer sex, other drugs, stress, sleep and career wellness.

For students in need of mental health services, the Student Life **Counseling and Consultation Service (CCS)** provides individual counseling, group counseling, psychological testing, crisis debriefing, psychoeducation, consultation and other services to students to promote personal well-being and academic success. Their culturally diverse professional staff of licensed psychologists, social workers, counselors and psychiatrists can help students with stress management, anxiety, depression and many other mental health issues that could otherwise derail student success.

To help connect students to wellness services from any location, in 2020 the university rolled out its free **Wellness app**, which connects students to help in a crisis, and

provides tools and support avenues to help navigate stress management, relationships, anxiety, depression, alcoholism and more. During the development process with Apple in 2019, Ohio State students were involved in the design from start to finish, and their user experiences were incorporated to ensure that student needs were met, from design to ease of use to quality of content. By April 2022, the Wellness app had more than 35,000 unique users with more than 450,000 screen views.

Promoting Evidence-Based Practice

The university's ongoing improvements in student success, persistence and graduation are rooted in evidence-based practice. In order to learn more from other institutions about effective practices, implement those practices at Ohio State and contribute new research on these practices to the field, the university is engaged in several research initiatives and external partnerships.

First, to engage research faculty in the conversation around and research on student success, generate new evidence about student success and incubate related practice on campus, the university maintains two faculty research grant programs. The Drake Institute's **Research and Implementation Grant** program provides grants of up to \$7,500 to support classroom-based research, in which faculty either: (1) implement and assess research-based instructional methods and materials for undergraduate students, or (2) conduct new research on student learning or instructional best practices. The **Student Academic Success Research** grant program provides seed funding (\$10,000 to \$25,000) to support research that focuses on improving, expanding or revising student success programs and services, with a special emphasis on historically underrepresented racial and ethnic groups and other underserved student groups (for example, low-income, first-generation, regional campus or community college transfer students).

Second, in 2014 Ohio State joined with 10 other large public universities to found the **University Innovation Alliance (UIA)**, which works to accelerate and coordinate efforts across universities, in order to improve the educational attainment and economic prospects of students who have traditionally struggled to complete their degrees, particularly limited-income students, first generation students and students of color. UIA members have developed new models for scaling innovations from one campus to others, breaking down barriers that often prevent good ideas from being implemented more broadly. Founding UIA members officially exceeded the original goal of 68,000 additional degrees, set at the White House College Opportunity Summit in 2014. As of autumn 2021, UIA institutions have produced over 97,000 additional degrees above baseline projections and are on track to double their 68,000 degree goal by 2025. Ohio State's membership in UIA has helped launch several of the student success strategies

discussed throughout this report, including the use of predictive analytics within OnCourse and the FGEN college-to-career program.

Third, in 2016 Ohio State was a founding member of the **American Talent Initiative**, a collaborative effort to enroll and graduate an additional 50,000 highly talented, limited-income students at top colleges and universities across the United States by 2025. The initiative is a partnership between Bloomberg Philanthropies, the Aspen Institute, Ithaka S+R, and a diverse array of public and private member institutions working to enhance access and support, share innovative best practices, and contribute to research that will help expand opportunity. Ohio State's membership in the initiative has helped increase the graduation rates of the university's Pell-eligible students by focusing attention and strategic planning around the success of this population, including the rollouts of the President's Affordability Grant and Buckeye Opportunity Program.

PLANNED STRATEGIES

The previous section discussed the university's ongoing completion strategies and activities. This section provides an overview of two major initiatives planned for launch in 2022–23: a redesign of the General Education experience, and a pilot of the Scarlet and Gray Advantage program.

General Education Redesign

In Spring 2019, all of the university's undergraduate-serving colleges approved a plan to dramatically revise the undergraduate General Education (GE) curriculum. The GE redesign plan was developed by a team of faculty, staff and students from across the university. It was approved by the Board of Trustees in summer 2019 and goes into effect for all incoming students in autumn 2022. The university will offer support and flexibility for students who enter in the 2022 – 2023 as transfer students, or who have otherwise completed a substantial portion of the prior GE's coursework, by allowing them to complete their Ohio State degree under that "legacy" GE.

To help smooth the pathway for students who change majors while at the university, and to provide a common foundation for success for all students, the redesigned GE will provide a set of curricular requirements that are congruent with the statewide Ohio Transfer 36 initiative and incorporate Higher Learning Commission recommendations regarding explicit and assessable program goals. Under the new GE, students will gain awareness of the major academic disciplines and approaches through the Foundations component (for example, Social and Behavioral Sciences, Mathematical and Quantitative Reasoning). The seven universal categories within Foundations integrate these disciplinary approaches in the context of topical Themes (for example, Sustainability). The Theme topics are broad and interdisciplinary; they respond to questions and concerns reflecting the 21st century context, and inform these issues from historical, current, and futuristic approaches. A major goal of the Themes is to provide students with the opportunity to examine a complex topic through multiple perspectives and disciplinary lenses. A pair of Bookend seminars support students in navigating and understanding their experiences in the Foundations and Themes.

Highlights of the new GE include an ePortfolio requirement embedded within the Bookends, which will showcase academic and co-curricular achievements; advanced writing, data analysis, and technology relevant to the discipline embedded within the major ("Embedded Literacies"); and intentional integration of high-impact practices such as study abroad and undergraduate research. High-impact practices are made accessible by being part of the GE and are incentivized by allowing students to satisfy each Theme requirement through a single 4-credit "Integrative Practice" course rather than through a pair of 3-credit courses. Integrative Practice courses are designed to meet specific pedagogical goals and integrate one of the following additional modes of learning: integrative team teaching, community-based learning, study away, engagement in active research or creative practice, or instruction in a world language other than English.

Scarlet & Gray Advantage Pilot Program

Ohio State recognizes that student debt presents a significant burden for young people, greatly limiting their life prospects. The newly developed Scarlet & Gray Advantage program will create pathways for students to graduate debt-free in four-years, through a partnership that involves family contributions, financial, academic and extracurricular support.

Ohio State will bring Scarlet & Gray Advantage to scale over the next decade by focusing on making an Ohio State education affordable. The Scarlet & Gray Advantage program will provide "wraparound" services needed to achieve educational attainment without accumulating massive debt. Students in the Scarlet & Gray Advantage program will have access to:

- Knowledge and information regarding finances
- Coaching and mentoring regarding finances, education and careers
- Paid summer work experiences (internships, co-ops, research experiences)
- A financial package that covers the cost of tuition, room and board, books, travel, and day-to-day living expenses

For the 2022–2023 school year, Ohio State will start the program with a small pilot of first-year, full-time students from across Ohio State's campuses. This pilot cohort will enable the university to plan the program, study outcomes and iteratively improve the program as it expands to more students.

Pilot program students will join a non-residential learning community, which will provide robust education and support through a structured curriculum focused on financial education and literacy, accessing student employment and internship opportunities, and navigating university resources. Scarlet & Gray Advantage students will also commit to completing the FAFSA, applying for university scholarships, and participating in a combination of programs such as campus employment, coaching and mentoring, and summer internships. In addition, coaching will be used for students as need arises to help identify alternatives to seeking loans. If there is a gap between a student's financial package (including expected family contribution) and the estimated cost of attendance, a last-dollar financial award will be added to the student's package, alleviating the need for federal or private loans. The expected family contribution will be assessed using the FAFSA (or an equivalent mechanism) and will guide the amount that the student and family will contribute.

To achieve the goals of Scarlet & Gray Advantage, Ohio State processes and systems will require optimization to create a positive student experience as they navigate programs for financial aid, financial literacy, academic advising, internships and on-campus work.

WORKFORCE DEVELOPMENT PRIORITIES

According to Ohio State's 2020-2021 Graduation Survey, 65% of last year's graduating seniors planned to move to a job either full- or part-time, 1.5% planned for military or volunteer service, and 28% planned to go to graduate school. Of those who reported they were employed, 80% said their job was related to their chosen major (and/or minor) and 66% reported they would be employed in the state of Ohio.

The 2020-21 Graduation Survey was fielded in late April 2021 as students continued to experience uncertainty from the COVID-19 pandemic. Students still believed the university had prepared them very well or generally well for the job market (72%). However, 53% reported that their job situation (including job searches, job offers or internship plans) had changed due to the COVID-19 pandemic, and 21% said their graduate or professional school plans had changed due to the pandemic. Among those who reported that their job situation had changed, 37% said they had to restart or alter a job search, 18% lost a previously-held job, and 11% had lost a job offer.⁸ Among those who reported that their graduate/professional school plans had changed, 51% said they were postponing attendance and 23% had to restart or alter their school search.⁹ As the State of Ohio recovers from the economic fallout of the COVID-19 crisis, the university will continue to build and strengthen the workforce development strategies discussed below.

Below, this report first describes the **Choose Ohio First** and **Ohio Means Science** programs, which aim to attract students into academic programs associated with highdemand fields and support their success in those majors; next, it describes the university's creation, expansion and strengthening of academic programs and curricula that build high-demand skills and career opportunities (including the new **BS in Engineering Technology**, the university's growing list of **Certificate Programs**, and the **Center for Design and Manufacturing Excellence**); next, it describes **Student Career Resources**, which connects students to internships and jobs; next, it describes Ohio State's participation and leadership in regional and statewide partnerships to further strengthen state and local employment and economic health, the **Ohio Means Internships and Co-Ops** and the **Central Ohio Compact**; and finally, it describes the university's infrastructure for incubating entrepreneurship, industry innovation and

⁸ Students could select multiple options from a list of 9.

⁹ Students could select multiple options from a list of 7.

economic growth through its Office of Innovation and Economic Development.

Ohio State Choose Ohio First Scholarship Programs

Led and funded by the Ohio Department of Higher Education, the Choose Ohio First Scholarship Program is part of Ohio's strategic effort to bolster the state in the global marketplace of Science, Technology, Engineering, Mathematics and Medicine (STEMM). Choose Ohio First scholarship opportunities at Ohio State are offered through various departments, programs and campuses. Eligible students currently include those majoring in Biology, Biochemistry, Chemistry, Computer and Information Science, Computer Science and Engineering, Data Analytics, Engineering Technology, Molecular Biology, Mathematics, Nursing, Pharmacy, and Statistics. State-identified economic needs drive Ohio State's Choose Ohio First program, and the university's programming reinforces this alignment through internships with local employers and engagement with those employers in student mentoring activities. The program builds a strong sense of community for Choose Ohio First scholars in their first year to support them academically, professionally and socially through activities such as mentoring, tutoring and outreach, and to strengthen their connection with faculty, staff and other students. This foundation supports them as they progress into their academic experience and disciplines to their sophomore and junior years, when scholars are encouraged to take service and communication roles along with focusing on their professional careers through research and internship experiences. During their senior year, scholars participate in leadership programs to share current and previous experiences with other students about their co-curricular and extracurricular activities and at the same time develop networking with potential recruiters from further education college degrees (e.g., graduate school, medical school) and full-time employers.

Ohio Means Science (OHMS) Scholars Program

Made possible by a Scholarships in STEM award from the National Science Foundation (awarded December 2021), the newly initiated OHMS Scholars Program will help meet Ohio's need for well-educated scientists, mathematicians, engineers, and technicians by supporting the retention and graduation of high-achieving, low-income students with demonstrated financial need who start their higher education journey at The Ohio State University at Newark. The OHMS Scholars Program will welcome its initial cohort in autumn 2022, provide scholarships of up to \$10,000/year for two years to three cohorts of 15 first-year students, and include STEM enrichment activities and support services. Program activities and services will include: a short immersive retreat at an active research station to launch the new cohort each August; an academic year learning community with weekly meetings and extra- and co-curricular opportunities in diverse STEM fields; and optional summer internships providing professional and career experience and connections in the summer after each year in the program. The program was designed by adapting evidence-based practices and strategies from more

traditional college and university settings to the environment of a smaller regional campus. Crucial outcomes include successful transition from the first to the second year, successful transition between Ohio State Newark and the Columbus campus, and eventual degree completion. More broadly, OHMS will provide a better understanding of the campus-transition experience for regional students in STEM majors and lead to the adoption of successful program components by other Ohio State regional campuses to further reduce attrition of campus-change students.

Bachelor of Science in Engineering Technology

In autumn 2020, Ohio State launched a new four-year Bachelor of Science in Engineering Technology (BSET) degree program. The BSET program was developed in response to the growing needs of Ohio manufacturers for highly skilled, broadly trained manufacturing engineering graduates who will excel in leadership roles. This groundbreaking interdisciplinary program incorporates recommendations and direct involvement from regional industries to develop the skills required to produce a diverse and prepared workforce. A collaborative approach between higher education and industry allowed Ohio State to create a program designed to emphasize project-based coursework, hands-on skills and technological know-how in mechanical and electrical processes, industrial robotics and project and change management. The BSET program is offered at three of the Ohio State regional campuses – Mansfield, Marion and Lima – with the Newark campus offering the program beginning in 2023. The new degree program seeks to provide access to an engineering-based degree that was previously unavailable to traditionally underserved and underrepresented students. Enrollment numbers for autumn 2021 totaled 61 students across three campuses.

Academic Certificates at Ohio State

The Ohio State University offers a variety of academic certificate programs that allow students to pursue specific topics in order to supplement their current degree program, gain knowledge in a chosen field of employment, earn credit or continuing education units (CEUs) for workforce development, prepare for exams for professional certification, or to acquire professional licensure. Certificate programs may be offered as credit or non-credit, and may be stand-alone (they do not require a student to be enrolled in an undergraduate or graduate degree program in order to complete the certificate) or embedded (they require a student to be enrolled in an undergraduate or graduate degree program to complete the certificate). Over the past two years, the university has worked to identify, develop and approve certificate programs in a variety of high-demand skill areas.

Ohio State's for-credit certificates include the following categories:

 Post-secondary Undergraduate Academic Certificate programs (category 1a or 1b). Intended for post-high school students seeking to earn a credential in a select topic area. These programs are either stand-alone (1a) or embedded in an undergraduate degree program (1b).

- Post-baccalaureate Undergraduate Academic Certificate programs (category 2). Intended for post-bachelor's degree students seeking to earn a credential in a select topic area to supplement their undergraduate degree program. These are stand-alone programs.
- Graduate Academic Certificate programs (category 3a or 3b). Intended for postbaccalaureate students seeking to earn a graduate credential in a select topic area. These programs are either stand-alone (3a) or embedded in a graduate degree program (3b).
- Professional Certification programs (category 5b). Intended for individuals seeking to meet requirements and/or eligibility for licensure or certification in a specific technical or professional area. These are stand-alone programs.

As of April 2022, the university offers 96 for-credit certificates, of which 33% are postsecondary undergraduate academic certificates, 4% are post-baccalaureate undergraduate academic certificates, and 63% are graduate academic certificates. The majority (85%) are stand-alone programs.

The university's non-credit certificates include the following categories:

- Workforce Development programs (category 4). Intended for individuals seeking to earn a workforce development Certificate of Completion in a specific area. These are stand-alone programs.
- Technician/Professional Certification programs (category 5a). Intended for individuals seeking to meet requirements and/or eligibility for licensure or certification in a specific technical or professional area. These are stand-alone programs.

Center for Design and Manufacturing Excellence

Established in 2014 and launched in late 2015, the Center for Design and Manufacturing Excellence (CDME) operates within the College of Engineering and the Office of Research. CDME was established to provide the manufacturing industry access to the resources of the university by establishing an applied engineering collaborative working space staffed by industry-experienced leadership and support staff. Since its launch, CDME has partnered with more than 150 companies and has completed over 520 applied engineering projects. Projects are executed in a 37,600 square-foot ITAR compliant manufacturing facility on The Ohio State University's West Campus. CDME's facilities and equipment support rapid prototyping capabilities for electrical and mechanical systems, including integrated power systems, electronic controllers, systems, packaging, circuit board design, board fabrication, stamping, injection molding, casting, additive manufacturing, milling, welding and other relevant manufacturing capabilities. CDME also has the latest digital mechanical and electrical design and simulation software packages to seamlessly hand off designs to prototyping and manufacturing teams.

At CDME, student employees work on real customer projects in an industrial environment that matches their experience after graduation: They program robotic systems, develop medical devices, leverage 3D printing techniques, and more. Students are mentored by staff with industry experience, work approximately 15 hours per week, and are paid an hourly wage. Accordingly, they accrue significantly more experience than typical interns or co-op participants: a CDME student worker can have as much as 4,000 hours of experience before being permanently hired. More than 200 undergraduate students have participated in CDME's student employee program to date, representing a diverse selection of academic concentrations, including not only engineering majors, but also majors such as marketing, accounting or data analytics.

Student Career Resources

Ohio State uses a comprehensive, decentralized career services model in that each of its colleges and campuses provides a career services office for its students. These efforts are supported and coordinated through Student Life's **Buckeye Careers**, a university-wide initiative designed to help all students explore their career path and develop professional skills through personalized career coaching, internship planning and creating connections and networks to elevate their post-college career success. Buckeye Careers connects students with employers for internships and co-op positions and helps hiring organizations craft rewarding internship experiences for students.

Buckeye Careers provides two key online tools for students: Buckeye OnPACE and Handshake. **Buckeye OnPACE** is a series of self-guided online career modules covering topics such as choosing a major or career, applying to graduate school, and preparing for entry into the workforce. These modules assist students in learning more about themselves. **Handshake** is a unified career management and job posting system for all Ohio State students, including regional campus, graduate and professional students. Handshake uses an algorithm to help students find jobs specific to their skills and interests. Students can explore job opportunities across the nation and world, and read reviews of other students' experiences on internships, co-ops and jobs to help decide if an opportunity is a good fit. Handshake grows with students throughout their time at Ohio State: they can use Handshake to find a job on campus during their first year, explore internships and co-ops as they gain more experience in their major, and find their first job after graduation. For students in need of career-focused coaching and education, Buckeye Careers provides career exploration, job search preparation (including customized attention to resumes, vitas, job search letters and interviewing skills), and other forms of career coaching and support (for example, listening and helping with personal concerns that relate to career decisions, or helping students plan for graduate or professional school). Services are provided through individual appointments, walk ins/drop ins, programming/workshops, targeted outreach programs to particular groups (for example, first-generation, international, transfer or ethnically diverse students). Buckeye Careers also launched **Career Week** in 2021, which includes the university-wide Fall Career and Internship Fair. Career Week consist of a variety of programs, workshops and networking events to help students in their own personal career development journey, with focus on career wellness, identity, inclusion and advocacy, career exploration and connections and skill preparation.

Buckeye Careers also leads the university's **First Generation Envisioning Network** (FGEN) college-to-career program. FGEN grew from a pilot program conducted in partnership with the University Innovation Alliance, which aimed to reimagine how graduates communicate marketable job skills; capture best practices for building and maintaining strategic university-employer partnerships; and enhance campus career services to meet the unique needs of first-generation students, students of color, and students from low socio-economic backgrounds. The six-week pilot program was launched in a virtual format in summer 2020 and included a series of online and virtual workshops and webinars that introduced students to a variety of career exploration and development topics and resources, as well as financial wellness and peer networking activities. Students also interacted with employers from a range of fields and industries. Based on the success of the pilot, the program was expanded to a virtual eight-week experience in summer 2021, and plans are underway for the 2022 program.

Lastly, the **Student Employment Experience** (SEE) program was moved into Buckeye Careers in 2021. SEE was developed to recognize that everything a student does on campus should be intentional and focused on learning – and that includes employment. All 4,800 student employees in Student Life participate in SEE and the program continues to expand to other departments across Ohio State. SEE is a three-pronged model where students engage in an employment position on campus and learn job-specific skills. They also have access to paid professional development opportunities throughout the semester. Supervisors of student employees are trained to conduct guided reflections with students on how their work is connected to their academics and future careers. Students who are in SEE are 2.5 times more likely to report their supervisor helped them make connections between their work and their classes than non-SEE students.

Ohio Means Internships and Co-ops JobReady Program

Since 2012, Ohio State has held a leading role with the state's Ohio Means Internships and Co-ops (OMIC) program, including the original OMIC (2012-14), OMIC 2 (2014-16), OMIC 2.5 (2015-18), OMIC 3 (2016-19), and OMIC 4, with funding from the Ohio Department of Higher Education. Under the original OMIC, Ohio State collaborated with Columbus State Community College and North Central State College to attract 54 Ohio employers in energy, automotive, food processing and financial services, creating approximately 150 new, meaningful internships/co-ops for students. Under subsequent iterations of OMIC, Ohio State continued to ensure the relevance and sustainability of past efforts; widen its academic, industry, and technology partnerships; and expand the number and types of internships and co-ops for key JobsOhio areas, including indemand manufacturing technologies. As with OMIC 2.5 and 3, the Central Ohio OMIC 4 internships and co-ops program focuses directly on JobsOhio priorities in advanced manufacturing, including aviation/aerospace, automotive, logistics, information technology and transportation industries.

The institutions participating in OMIC 4 agreed to contribute to a fourth hub, the Institute for Materials Research Innovation Lab Externship Program, known as Innovate-O-Thons, at Ohio State. The Materials Innovation Lab expanded an externship pilot to engage more community college and undergraduate students in real-world challenges provided by regional industry partners. Students gained real-world, experiential learning experiences though weekend and weeklong externships and became more experienced in interdisciplinary collaborations and innovation methods while receiving professional mentoring from industry.

Overall, 75 students have been placed in co-ops and internships under the OMIC 4 grant; 10 of those students participated in the Innovate-O-Thon before the program was discontinued due to COVID-19 restrictions. The total number of business partners engaged in OMIC 4 co-ops and internships is 38 employers (two from the Innovate-O-Thon). The company cost share from student salaries and direct costs total more than \$357K.

Central Ohio Compact

Ohio State participates, 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. (Ohio State also is involved in the Higher Education Compact of Greater Cleveland, which has similar goals for that region of the state.)

Office of Innovation and Economic Development

Ohio State's Office of Innovation and Economic Development helps the university make the right connections with businesses and organizations by forming mutually beneficial relationships that positively impact society by advancing innovation, developing talent and driving economic success. The office works closely with inventors, companies, entrepreneurs, investors and other organizations by connecting the right people and resources to fill gaps and solve complex problems.

Through corporate business development, the office facilitates mutually beneficial relationships to help advance the objectives of both the university and businesses. Though each relationship is unique, there are five key avenues for engagement:

- Access to talent, including students, staff and faculty
- Opportunities for sponsored research partnerships
- Licensing university intellectual property
- Opportunities for philanthropic support
- Access to continuing education

The office helps advance the university's research to impact lives by translating Ohio State innovations into business opportunities in the global marketplace through technology commercialization, including engaging faculty and staff to help evaluate, protect and ultimately find the right market for intellectual property—through licensing or creating a start-up company.

The office collaborates with economic development partners such as Columbus 2020 and JobsOhio to grow the economy by helping local companies expand, bringing new companies to the state and helping businesses increase their value and create new jobs. The office also houses the Tim and Kathleen Keenan Center for Entrepreneurship, which works to grow and foster a culture of entrepreneurship for the Ohio State community through the creation and support of new ventures and the education and encouragement of their founders. The Keenan Center provides a campus-wide hub for collaboration and engagement with early-stage capital, startup talent and robust programming resources to maximize opportunities for social and economic impact. Through active engagement in the region's economic development, the Office of Innovation and Economic Development helps to create a growing and thriving economy that drives more opportunities to the university's faculty, staff and students.

Appendix: University Undergraduate Student Profiles

Data are for undergraduate students as of Autumn 2021 fifteen-day count. NR – Not reported. Average ACT is only relevant for NFYS. Remedial Education Needs includes students who scored a six on the English placement test or S or T on the Math placement test.

Columbus Campus

Autumn 2021

	Entering		Retur	ning	Transfer		Total
Student Demographic	#	% of Total	#	% of Total	#	% of Total	#
Total	8350	18.2	35561	77.3	2070	4.5	45981
Enrolled Part Time	25	0.8	2882	93.7	170	5.5	3077
Not Degree/Certificate							1125
Financial Need – Pell-Eligible	1471	16.4	7000	78.0	508	5.7	8979
Remedial Education Needs	262	10.5	2112	84.3	131	5.2	2505
Female	4505	19.7	17397	76.0	982	4.3	22884
Male	3845	16.6	18164	78.6	1088	4.7	23097
Age 18-24	7683	18.0	33143	77.7	1815	4.3	42641
Age 25 and Older	6	0.2	2403	90.4	250	9.4	2659
Ohio Resident	5773	16.6	27344	78.7	1607	4.6	34724
				Н	igh School-	-to-Colleg	e Factors
Average High School GPA		NR		NR		NR	
Average ACT or SAT		28.6					
						Race /	['] Ethnicity
Hispanic	458	19.2	1815	76.1	111	4.7	2384
American Indian / Alaskan	4	13.3	24	80.0	2	6.7	30
Asian	835	21.4	2939	75.4	122	3.1	3896
African American /Black	516	14.7	2804	79.9	188	5.4	3508
Native Hawaiian or Other Pacific Islander	7	28.0	16	64.0	2	8.0	25
Two or More Races	376	18.9	1505	75.6	109	5.5	1990
White	5174	17.4	23239	78.3	1285	4.3	29698
International	693	22.2	2219	71.2	203	6.5	3115
Unknown	287	21.5	1000	74.9	48	3.6	1335

Regional Campuses (excluding ATI Wooster)

Autumn 2021

	Entering		Retu	rning	Transfer		Total
Student Demographic	#	% of Total	#	% of Total	#	% of Total	#
Total	2367	45.7	2574	49.7	239	4.6	5180
Enrolled Part Time	85	13.3	504	79.1	48	7.5	637
Not Degree/Certificate							413
Financial Need – Pell-Eligible	749	44.3	862	51.0	79	4.7	1690
Remedial Education Needs	730	42.8	931	54.6	45	2.6	1706
Female	1107	41.5	1425	53.4	137	5.1	2669
Male	1260	50.2	1149	45.8	102	4.1	2511
Age 18-24	2208	47.7	2230	48.2	192	4.1	4630
Age 25 and Older	12	3.0	341	85.3	47	11.8	400
Ohio Resident	2358	45.8	2559	49.7	235	4.6	5152
Average High School GPA		NR		NR		NR	
Average ACT or SAT		22.1					
Hispanic	116	45.1	132	51.4	9	3.5	257
American Indian / Alaskan	2	40.0	3	60.0	0	0.0	5
Asian	145	58.9	93	37.8	8	3.3	246
African American /Black	361	51.4	316	45.0	25	3.6	702
Native Hawaiian or Other Pacific Islander	2	50.0	2	50.0	0	0.0	4
Two or More Races	126	49.6	110	43.3	18	7.1	254
White	1546	43.2	1862	52.1	169	4.7	3577
International	6	54.5	5	45.5	0	0.0	11
Unknown	63	50.8	51	41.1	10	8.1	124

Agricultural Technical Institute (ATI) – Wooster Campus Autumn 2021

	Entering		Retu	rning	Transfer		Total
Student Demographic	#	% of Total	#	% of Total	#	% of Total	#
Total	207	45.1	233	50.8	19	4.1	459
Enrolled Part Time	6	12.5	39	81.3	3	6.3	48
Not Degree/Certificate							31
Financial Need – Pell-Eligible	55	47.8	54	47.0	6	5.2	115
Remedial Education Needs	87	42.4	114	55.6	4	2.0	205
Female	123	47.9	126	49.0	8	3.1	257
Male	84	41.6	107	53.0	11	5.4	202
Age 18-24	200	46.1	219	50.5	15	3.5	434
Age 25 and Older	2	10.5	13	68.4	4	21.1	19
Ohio Resident	204	45.1	229	50.7	19	4.2	452
				Hi	gh School–	to-College	e Factors
Average High School GPA		NR		NR		NR	
Average ACT or SAT		20.6					
						Race /	Ethnicity
Hispanic	6	54.5	4	36.4	1	9.1	11
American Indian / Alaskan	1	100.0	0	0.0	0	0.0	1
Asian	0	0.0	0	0.0	0	0.0	0
African American /Black	2	50.0	1	25.0	1	25.0	4
Native Hawaiian or Other Pacific Islander	0	0.0	0	0.0	0	0.0	0
Two or More Races	6	42.9	8	57.1	0	0.0	14
White	188	44.8	216	51.4	16	3.8	420
International	0	0.0	0	0.0	0	0.0	0