

Macomb
Community College

Education • Enrichment • Economic Development

Discover. Connect. *Advance.*℠

Five-Year Capital Outlay Plan
2025 - 2029

Macomb Community College
Education • Enrichment • Economic Development
Discover. Connect. *Advance.*℠

STRATEGIC PLAN 2025

Mission

Transform lives and communities through the power of education, enrichment and economic development.

Vision

Macomb Community College will be a leader in higher education, improving society through innovative learning experiences that create pathways for personal advancement and drive economic vitality.

Values

Accountability
We take personal and collective responsibility for our actions in order to provide excellent services and experiences.

Collaboration
We rely on partnerships with students, employees and the community to achieve our common goals.

Inclusion
We embrace diversity and individuals' experiences to create a sense of belonging and empowerment for all students and employees.

Innovation
We foster creativity and agility to succeed in a constantly changing environment.

Integrity
We demonstrate high levels of professionalism, honesty and ethical behavior throughout the institution.

Respect
We value all people and treat everyone with dignity.

GRAP16459

Macomb Community College
Education • Enrichment • Economic Development
Discover. Connect. *Advance.*℠

STRATEGIC PLAN 2025

Strategies

Success & Equity	Promote success and equitable outcomes for all students through innovative academic experiences, relevant programs and strategic partnerships.
Student Experience	Provide an inclusive and supportive student experience through accessible technology and personalized service.
Organizational Effectiveness	Strengthen organizational effectiveness, efficiency and agility by improving college-wide communication, collaboration and processes.
Employee Engagement	Cultivate employee engagement, fulfillment and retention through meaningful recruitment, onboarding and professional development opportunities.
Awareness & Value	Enhance community awareness of Macomb's value as a source of education, enrichment and economic development.
Inclusion, Diversity, Equity & Access	Create an inclusive and equitable culture that values diversity, ensures accessibility, cultivates belonging throughout the college community, and commits to the continuous re-evaluation and action needed for positive change.

Student Experience Statement

Macomb Community College strives to provide a relevant and valuable education characterized by an empowering student experience that will include:

- quality academic and career programs with real-world applications that foster lifelong learning and prepare students for the future;
- personalized and helpful services that are easy to navigate and accessible in person and online;
- meaningful connections with knowledgeable and engaged faculty and staff; and
- clear pathways to completion, transfer and employment.

Macomb Community College faculty, staff and administration will promote this experience with:

- academic programs, class schedules and service hours designed to meet students' varying needs and goals;
- a new student orientation that helps students navigate college processes, identify available resources and select an educational program;
- reliable and welcoming service providing timely support for students; and
- an inclusive environment that embraces diverse identities and perspectives, fostering a sense of belonging among all students and employees.

GRAP16459



Macomb
Community College

Education • Enrichment • Economic Development

Discover. Connect. *Advance.*℠

Instructional Programming

Instructional Programming

Macomb Community College (www.macomb.edu) is about transforming lives and communities through the power of education, enrichment, and economic development. Macomb grants the largest number of associate degrees in Michigan and is the largest community college in the state. The college provides programming for youth through seniors, including early college for high school students, university transfer and career preparation programs, workforce education, continuing education and certification, and a wide range of enrichment opportunities encompassing arts, culture and lifelong learning.

a. Describe existing academic programs and projected programming changes during the next 5 years, in so far as academic programs are affected by specific structural considerations (i.e., laboratories, classrooms, current and future distance learning initiatives, etc.)

For nearly 70 years, Macomb has earned the reputation of being on the leading edge in program development and course delivery. As a result, Macomb has been able to meet the changing needs of the community and workforce it serves.

Macomb students have the option to take classes 7 days a week, day or night; on campus, online, via hybrid (i.e., online and on ground), and in 8-week, 12-week or 16-week blocks of time. The college has also developed fast-track and accelerated programs and online-facilitated programs. Over 2,700 classes are offered each term at the college's campuses and throughout the county at community education centers. Today's students require greater flexibility and independence for their education and training, which obviously impacts the design and utilization of the college's instructional space and programming.

As with any institution, it is important for Macomb Community College to understand the educational needs in the community and anticipate changes in programming that will be necessary to meet those needs. In Michigan today there is a growing need for a highly skilled trades workers and a fundamental industry shift in manufacturing creating an abundance of current and near future job openings in the Southeast Michigan region. It is because of the increasing demand of our employer partners that Macomb will focus on the renovation and expansion of the Mobility and Sustainability Education Center (M building). In this facility, Macomb trains students for positions in industries such as climate control, marine technology and construction and architecture. Through the planned expansion of programs and space, Macomb will also train for new jobs such as electric vehicle technicians and a variety of other mobility industry positions.

The center is the capital outlay project request and top priority for fiscal year 2025. It is imperative students are learning on state-of-the-art equipment giving them real experiences that will make them viable candidates to hit the ground running for the employer. The renovation of this center is necessary to meet the labor market demands in these areas, assist in closing the skills gap, and to provide the highest quality education to students in the pipeline and beyond.

b. Identify the unique characteristics of each institution's mission. For Community Colleges: Two-year degree and certified technical/vocational training, workforce development activities, adult education focus, continuing or lifelong educational programming, partnerships with intermediate school districts, community activities, geographic service delivery area (s), articulation agreements or partnerships with four-year institutions.

Certified Technical/Vocational Training/Workforce Development Activities

Dental Sciences

Macomb Community College continues its commitment to filling a void in dental services and training in Macomb County. A non-credit workforce certificate in Dental Assisting was started in Fall 2021 and credit Dental Hygiene program started Fall 2022. These programs have already positively impacted the industry. In the dental assisting program has had 52 completers and are already working in the field. The dental hygiene program had 103 students apply in 2022 and 70 in 2023. From these applications, 36 are in the first year of the program and 34 are in the second year.

A community dental clinic opened in Winter 2023. The clinic is utilized by the dental community in Macomb County as a training facility for continuing education needs. The clinic also serves the community by offering no or low-cost dental services to the general public with additional discounts for seniors, military veterans and Macomb students. Since the clinic has opened they have seen nearly 800 patients and continue to see fully booked clinic days regularly.

Public Service Institute

Macomb Community College's Public Service Institute (PSI) offers advanced training and career and technical training for law enforcement agencies, fire and Emergency Medical Services (EMS) agencies and private industry. These programs are offered at East Campus, containing classroom facilities as well as an indoor firearms range; simulation rooms; MILO range theater to assist with critical decision making; live fire burn building and tower; confined space training capability; search and rescue trailer; gymnasium; computer lab; and configurable training structure. Training equipment includes a fire engine; several police vehicles; a fire prevention system training trailer; fire extinguisher training simulator and vehicle fire simulator.

These facilities and equipment are used for conducting training in many areas. Law enforcement training includes a corrections academy for training corrections officers for the Macomb County Sheriff's Office; evidence technician; mountain bike patrol; SWAT school; radar operator; as well as firearms qualification.

Fire Departments utilize the training facility for advanced courses such as Rapid Intervention Team Training; as well as utilizing the training tower and live fire training.

Private industry utilizes the MIOSHA Training Institute at the PSI. MIOSHA courses are offered year-round to serve the needs of local industry.

Human Patient Simulator Lab

Simulation laboratory at Macomb Community College support various Health and Public service Program students' success outcomes and provides a platform for interdisciplinary activities with Michigan State School of Osteopathic Medicine and training ground for many regional hospital systems. The laboratory is equipped with eight high fidelity simulation mannequins, virtual reality

and immersive experience that is complemented with a 3D printer capability to meet physiologic precision modeling need.

Emergency Medical Services (EMS) simulation lab
Macomb's EMS Lab contains an Ambulance Simulator to replicate treating patients in the back of a rig. The simulator is equipped with multiple cameras to allow students to do peer to peer evaluations. The EMS lab is also equipped with high-fidelity human patient simulators that vary in age and condition. Macomb's EMS lab includes state of the art cardiac simulators to replicate cardiac patient care in a controlled setting.

Pharmacy Technician
The Pharmacy Technician Program provides students with a web-based virtual reality clean room simulator to practice sterile compounding.

Apprentice Program in Health Care
Macomb began developing an apprenticeship program in the health care area in 2022. These apprenticeships will be registered with the Department of Labor and at this point includes over 10 employer partners. The apprenticeship opportunities are being developed to meet workforce needs in Certified Nursing Assisting, Pharmacy Technician, Medical Assisting, Medical Coding and Billing, Dental Assisting, Phlebotomist, and other health care professions. These partnerships through new apprenticeships will l develop a pipeline of talent into entry level (non-credit) health care careers in less than four months to address the immediate for entry level workers in allied health. It will allow us to develop an apprenticeship model in health care that establishes work-based learning opportunities allowing students to earn while they learn, and it will help us develop career pathways from non-credit programs (designed to move students quickly into employment) that allow student to increase their level of educational attainment and advance in their careers in the health care industry sector.

Cybersecurity Degree
Having met the rigorous standards of the National Security Agency (NSA) and the Department of Homeland Security (DHS), Macomb has received their jointly awarded designation as one of the National Centers for Academic Excellence in Cyber Defense Education Program (CAE-CDE) Associate Level, through 2024. This designation signifies that Macomb's academic programs are mapped to NSA/DHS-approved curriculum and contribute to the security of the nation's information infrastructure by preparing students to be highly capable cybersecurity experts.

Macomb Community College is offering a 12-week cybersecurity bootcamp that will help individuals boost their information technology skills and advance into a career in cybersecurity. Offered through the Workforce and Continuing Education area of the College, the objective of this course is to teach the fundamentals of cybersecurity and prepare students for the industry recognized CompTIA Security+ certification exam. Cybersecurity Center:
https://www.macomb.edu/community/cybersecurity-center.html

New Cloud Computing
Macomb's IT-Cloud Computing Program equips students with the IT skills that are increasingly in demand as more and more companies move data and software applications from in-house to a

more accessible cloud platform on the internet. Students can earn a Certificate or an Associate of Applied Science Degree from Macomb, while preparing for vendor-specific certifications.

Global Impact with General Motors and Supply Chain
We've expanded our contributions by offering General Motors (GM) education and certification in seven different skill sets, serving not only GM proper but its extensive global supply chain. This enhancement reinforces our commitment to equipping individuals with skills that have a profound impact on the automotive industry, both locally and on a global scale.

Department of Defense Partnership - Macomb actively partners with the Department of Defense, specifically through organizations like TACOM (Tank-automotive and Armaments Command) and GVSC (Ground Vehicle Systems Center). These partnerships focus on training related to Industry 4.0 technologies and leadership development, benefiting not only our local community but also contributing to defense initiatives throughout the United States.

Building Performance and Energy Management (BPEM)
The BPEM program is a cutting-edge program designed to meet the needs of a new and coming trade. The program focused on energy and building automation to increase efficiently, comfort and savings within the workplace. For the first time with in the Engineering and Advanced Technology department we have designed a truly cross discipline program by embedding in a large portion of Information Technology (IT) classes as required courses within the program. Some of these IT classes are Cyber Security and Programing. With the large advancements in IT technology and the digital push the Construction/ Climate Control industries have been forced to evolve into not only using hand tools but also fully understanding digital controls. Building Automation is a new and growing industry, and we are proud to say that Macomb is the first School in Michigan to offer a program that meets today's industry needs.

Automotive Technology
As one of the largest Automotive Technology programs in the state, Macomb strongly supports the automotive industry and the aftermarket in developing technicians for service and development careers. The general Automotive Technology program enables students to pursue certificates and associate degrees aligned with the National Institute for Automotive Service Excellence (ASE) criteria. The college also has a corporate Automotive Technology program. The General Motors ASEP program is a cohort-based co-op type program that alternates school and work periods for three years leading to degree completion.

Electric Vehicle Safety Training
In response to the evolving needs of the automotive industry, Macomb has formed strategic partnerships with the State of Michigan's Talent Action Team, leading mobility companies, and the Regional Center for Advanced Automotive Technology. These collaborations have enabled us to develop and deploy specialized electric vehicle safety training programs. These programs cater to emerging professionals, empower the existing workforce with essential electric vehicle expertise, and offer community outreach to raise awareness about electric vehicle safety.

Digital Sculptor Program
Macomb Community College created a digital sculptor program to address the specialized needs of the automotive industry at the request of industry leaders and developed with industry experts. This program combines the traditional hand sculpting skills (aka clay modeling) with computer-based software to create and manipulate 3-D virtual models. The certificate and associate degree

programs officially began in fall of 2015 and continues to see steady enrollment. A formal digital sculptor / clay modeling co-op program with General Motors is in the final approval stages.

Automated Systems Technology - Mechatronics
The mechatronics program integrates multiple disciplines including mechanical, electronic, hydraulic, pneumatic, and computer-controlled logic processing with robotics applications to streamline the manufacturing processes and improve quality and expense of production. Mechatronics is one of the fastest growing fields in manufacturing. In the next five years the Mechatronics program is planning to expand its offerings with additional equipment representative of current manufacturing trends and the continued integration of Industry 4.0 concepts throughout the curriculum.

Michigan Technical Education Center (M-TEC)
Macomb Community College's M-TEC is a 40,600 square foot, $7.5 million facility on the site of the former Warren Tank Plant. This dynamic learning environment is distinguished by its design, which includes robotic training cells, integrated CAD/CAM and a large flexible high-bay space that can be rapidly adapted to meet any business training requirements.

M-TEC also houses a resource center, computer labs and classrooms offering the most advanced training technologies in automated systems, computer aided drafting and quality management processes. The programs offered are industry-driven, flexible, accessible and designed to address the challenges of today's marketplace. Students are enrolled in pathways that are short-term, fast paced and we have embedded stackable national industry certifications.

The robotic training cells at Macomb's M-TEC are ideal for training a variety of students from maintenance technicians to engineers. These instructional labs offer students the opportunity to learn current, real-world industry applications for robotic handling of materials in fully functional manufacturing cells. Here the student is given the opportunity to apply theoretical knowledge to the robotics and systems involved in advanced manufacturing processes, rather than only on desktop trainers or simulators. An investment of over $2.6 Million in new and upgraded state-of-the-art equipment was installed with funding provided through the Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant, the State of Michigan Community College Skilled Trades Equipment Program, the Make It in America DOL grant and the college itself.

The $2.6 million investment has advanced its capabilities in advanced integrated manufacturing, automated systems and robotics. M-TEC offers training on the latest industry-specific equipment in body-shop, paint, general assembly, stamping and powertrain. In addition, we offer automated systems training that includes FANUC and ABB robots, laser alignment, CMM, RFID, FANUC CNC Robodrill, robot load/unload and vision system, VFD training stations, AB and Siemens PLC training stations, and more. With over 400,000 robots installed, FANUC is the largest supplier of robots worldwide and Macomb's M-TEC is the only community college training center in Michigan scheduled for a FAST designation. In addition, the college provides the industry-recognized FANUC CERT.

This update allows for our students to learn on equipment exactly like that which they will find in the workplace. Our employer partners express the exceptional positive impact this has on their

companies. The students are entering the workplace ready to hit the floor running reducing the amount of training time employers must allow for.

In 2020, equipment was added in multiple stages to increase capacity for the long-term and address the need for a greater student to trainer ratio due to COVID social distancing and capacity limits. In combination with funding from the college and the CARES Act, five FANUC training carts, three electric motors learning systems, three AC motor drive training systems, four AC motor controls training systems, and four variable frequency AC drive learning systems were added to the existing automated systems equipment portfolio to create a functioning replica of a manufacturing facility. This environment and equipment provide students with real-life experiences to prepare them for high-tech manufacturing marketplace further.

One of the critical components to the modern manufacturing workplace is the integration of once-independent sectors; many have coined as the elements to the fourth industrial revolution or Industry 4.0. In concert with industry's need for a skilled workforce with the knowledge of how and why these sectors such as engineering, advanced technology, internet of things (IoT), industrial internet of things (IIoT), artificial intelligence (AI), big data, cloud computing, and cybersecurity, integrate, the response to COVID-19 forced the associated programs to utilize augmented and virtual reality technologies. Combined, they are considered XR technologies. These XR technologies are not only used in the manufacturing environment, but they also bolster virtual learning. As such, the college partnership with capital access available through the CARES Act purchased thirty-two augmented reality devices with accompanied software to promote the use, knowledge, experience, and virtual learning opportunities.

Michigan New Jobs Training Program (MNJTP)
Designed as an economic development tool, the Michigan New Jobs Training Program allows community colleges to provide free training for employers that are creating new jobs and/or expanding operations in Michigan. The training for the newly hired workers is paid by capturing the state income tax associated with the new employees' wages. This is a local program - individual community colleges work directly with employers and local economic development to support job creation. There are no restrictions by industry or employer size. Macomb has increased its approved applications from 16 to 23 and 3 waitlisted companies and 10 under review by company authorized agents.

Apprenticeship
For more than 60 years, Macomb Community College has provided local industry members with cutting-edge instruction designed for registered apprenticeship and other sponsored employee educational programs. Our trend-setting pre-apprenticeship program, the Michigan Apprenticeship Program Plus (MAP+) Industrial Readiness Program, was originally developed under our USDOL American Apprenticeship Initiative grant (2015-2021) in response to the growing concern of a labor shortage from employers and a looming workforce skills gap. The MAP+ Industrial Readiness Program was designed to build a consistent pipeline of students ready for employment opportunities in advanced manufacturing and construction by conducting career awareness outreach and removing financial barriers to training preparation. This pre-apprenticeship program includes four foundational courses and student success seminars preparing students with skills to enter an apprenticeship or work-based learning opportunity.

The Macomb MAP+ program received new funding through the USDOL that has provided the development for separate pathways for manufacturing and construction each with a hands-on training component. Successful students earn the nine-credit Industrial Readiness Certificate and participate in an exclusive interview event with local hiring employers. Creating this steady pool of quality candidates has been helpful for our employer partners.

The college is a member of the Registered Apprenticeship College Consortium (RACC), a national network of colleges and registered apprenticeship programs working together to provide college-to-career opportunities. In addition, the college also has specific articulation agreements with five construction union groups. Under the agreement, union organizations provide credit to apprentice workers for training received by any of the five partners.

The following union organizations are participating:

- Detroit Carpenter Joint Apprenticeship Training Committee
- Local 80 Sheet Metal Training Center
- Michigan Laborers Training & Apprenticeship Institute
- Millwright Local 1102 Apprenticeship Program
- Greater Detroit Cement Masons Joint Apprenticeship Committee

A graduate apprentice can receive up to 32 credit hours at Macomb for completion of the apprenticeship training. The credits apply to an associate of applied science degree. Those who complete engineering and advanced technology courses at Macomb and then enter an apprenticeship program with one of the partners can receive credit of up to one year of related training instruction.

Adult Education Focus, Continuing or Lifelong Educational Programming

Center for Teaching and Learning (CTL)

The major technology enhancements in teaching have significantly improved the ability of the college's faculty to deliver curriculum in a variety of modes reflective of the learning preferences of their students. To support teaching and learning in the classroom, the college created the Center for Teaching and Learning (CTL) which is designed to serve as a "one-stop shop" and professional development training center for full-time and adjunct faculty members. The mission of the Center for Teaching and Learning is to make a positive impact on student success by fostering and promoting a culture of teaching and learning. The CTL provides pedagogically sound and creative support to the faculty through individual consultations, professional development programs, technology support, and curriculum design and assessment expertise. The CTL offers assistance with a wide variety of instructional and professional development topics such as teaching methods, web development, distance learning, curriculum development, instructional technology and assessment. Training and the sharing of best practices, as facilitated by the CTL, allow the faculty to optimize their utilization of the college's technology resources while enhancing their classroom content deliveries.

Workforce and Continuing Education (WCE)

Macomb's Career Academic departments extend the college's tradition of education and service by providing job skills and lifelong learning opportunities that measurably improve the quality of life for

individuals in the Macomb County region. Workforce and Continuing Education can be categorized into the following:

- Career Training: Assists individuals seeking immediate employment, new career opportunities, retraining and skill upgrades for the workplace.

- Corporate Training: For businesses seeking to upgrade employee proficiency in technical and professional areas and those seeking to find and train new employees.

- Workforce Assessment: Assessment and test preparation courses that address the workforce development needs of local and regional employers, trade and labor organizations, economic and workforce development organizations and educational systems and institutions.

- Entrepreneurial Training: Geared to small business owners, entrepreneurs and those agencies and individuals involved in economic and job development in the community.

- Personal Enrichment: Opportunities for individuals to pursue special interests in art, language, culture and wellness.

- Professional Development: Provided for those individuals interested in advancing their current career, need training to retain a certification or are ready to enter a new field, Macomb offers many convenient options for professional and career development through both its academic and *Workforce and Continuing Education programs.*

- College 4 Kids – Provides educational opportunities and a college campus connection for students ages 3 to 17. Through fun activities and enriching, memorable experiences, students learn and succeed through personal achievement.

Workforce and Continuing Education programs directly align with academic career programs to enhance non-credit to credit career pathways in Engineering & Advanced Technology, Business & Information Technology and Health & Public Service. This innovation allows Macomb students to advance through progressive levels of training more efficiently and attain labor market payoffs sooner.

Michigan Reconnect
Michigan Reconnect is a scholarship program for students who are at least 25 years of age and have not yet completed a college degree. The program provides a scholarship to attend in-district community college and offers a tuition discount if attending an out-of-district community college. To date Macomb Community College has registered over 9,000 students in this program scholarship for since Spring/Summer semester in 2021.

Adult Learner Support
Macomb's efforts support successful transitions to college for new and reentering adult students. Examples include Participation in the Futures for Frontliners and Michigan Reconnect programs, orientation that is designed to help students discover essential information, transition to Macomb campus life and prepare for a quality learning experience.

Academic advising is designed to assist students who have identified an educational/career goal. Through walk-in, virtual and on ground appointments, phone calls and email inquiries, academic advisors provide general college information to prospective, new and current students. In addition, Academic Advisors assist students with the registration process, transfer information, and assistance with the placement process that support taking appropriate courses based on the results.

Macomb is identified as a partner by the Lumina Foundation as part of their Talent Hub for the Detroit metropolitan area and is working under the Detroit Drives Degrees initiative with its partners.

Partnerships with Intermediate School Districts

High School Course Transfer (Articulation)

Macomb has a positive working relationship with all the county's high schools and technical centers, from which approximately 68% college-bound seniors attend Macomb Community College within five years of their high school graduation; Macomb currently has approximately 185 formal articulations agreements with the local school districts. These agreements create one avenue of earning college credit while in high school, and effectively provide students with the opportunity to "jump start" their college career in the various career and technical fields of study.

Early College of Macomb and Dual Enrollment

In the 2022-23 academic year, the total unduplicated Dual Enrollment count was 957. For Fall 2023 alone, the enrollment is at 903 students, an increase of 49% year-over-year.

Early College of Macomb had 585 students participate in Fall '22, and 576 students continued on in the Winter '23 semester. The graduating cohort had 194 students, and 130 earned an associate degree. Of the 64 not earning a degree, over half (35) did compile at least 60 credits.

In addition to the Early College of Macomb, 59 students participated in Early College Partnerships with Lapeer ISD, Oxford, and Dryden.

Additional Partner Activities with ISD

In March of 2023, Macomb hosted Discover Macomb: Find Your Path, which brought students from across Macomb County to explore Macomb's different academic offerings, learn about transfer opportunities, and gave students admissions information.

The College offered 4 Career Academies in Summer 2023: Camp Scrubs, a unique Public Service/Dental combo academy, an Architecture and Construction "Design and Build" academy, and a Culinary Arts academy.

Science Olympiad events ran as scheduled this year. The 2023 middle/high school event took place on March 18, 2023, and the elementary school competition ran on May 11, 2023. Ten scholarships were awarded to participating high school students. As in past years, these scholarships were sponsored by ZF.

Partnerships with Four Year Partners

Macomb's University Center houses ten university partners, offering bachelor's, master's, and doctoral degrees in nearly 50 programs including the Michigan State University College of Osteopathic Medicine. In addition to maintaining over a hundred articulation agreements, Macomb Community College currently has ten reverse transfer agreements in place with universities and colleges across Michigan.

As of the 2022-2023 academic year, the number of students being serviced at the Macomb University Center was over 1,980. This number is lower than it has been in recent years due to post-pandemic circumstances. As of Fall 2023, several university partners have scheduled on-ground classes at the University Center, signaling an upward enrollment trend. Agreements with partners within Macomb's University Center (UC) and the programs they offer can be found here: www.macomb.edu/uc

Macomb's recent articulation agreements with UC partners and other four-year institutions:

2022 – NEW ARTICULATIONS

Eastern Michigan University - BS in Mechanical Engineering/AS in Pre-Engineering (74 credits); **Madona University** – BSBA in Global Supply Chain Management/ABA in Global Supply Chain Management (90 credits); **Northwood University** – BBA Cybersecurity/ABA General Business (90 credits), BBA Hospitality Management/ABA General Business (90 credits), BBA Management Information Systems /ABA General Business (90 credits), BBA Marketing/ABA Marketing (90 credits); **University of Michigan - Dearborn** – BS in Public Health/AAS in Health & Wellness Promotion (72 credits); **Western Michigan University** – BS Public Health/AAS in Health & Wellness Promotion (62 credits)

2022 – RENEWED ARTICULATIONS

Eastern Michigan University – BS in Nursing/AAS in Nursing (94 credits); **Grand Canyon University** – BS in Nursing/MS Nursing / AAS in Nursing (84 credits); **Northwood University** – BBA in Accounting/ABA in Accounting (90 credits), BBA in Automotive Marketing Management / ABA in General Business (84 credits), BBA in Entrepreneurship/ABA in General Business (87 credits), BBA in International Business / ABA General Business (90 credits), BBA in Management / ABA in Business Management (90 credits), BBA in Sports Management / AGS (78 credits); **Oakland University** – BS in Human Resource Development/Associate of General Studies (64 credits), BSW Social Work/AA in Pre-Social Work (72 credits); **University of Michigan-Flint** – BBA in Business Administration / ABA Any (86 credits)

Macomb established a landmark on the higher education landscape when it built its University Center (UC), one of the first community college-driven initiatives in the nation, to provide access to bachelor's degree completion and master's degree programs. At the UC, there are 10 "partner" institutions that offer students an opportunity to complete a bachelor's or master's degree in nearly 50 programs. Students can earn a doctoral degree in osteopathic medicine through Michigan State University's medical school which is located in the UC on Macomb's Center Campus.

Additional UC partners are Central Michigan University, Ferris State University, Madonna University, Northwood University, Oakland University, Rochester University, University of Detroit Mercy, Walsh, and Wayne State University. Through the UC partner schools, students can pursue bachelor's or master's degrees in fields of business, computer science, engineering, health services

administration, hospitality, cyber security, industrial technology, automotive management, criminal justice, human resources, education, psychology, social work, and more.

Community Activities

Student Options for Success (SOS)

The SOS program connects students with a variety of community and public benefit organizations to help them with living expenses while pursuing higher education. Academic success is a priority, but many students still struggle with basic needs such as food, housing, utilities, childcare, internet access, mental health supports, and healthcare while in school. SOS connects students with local organizations and campus resources, providing tools for ongoing financial stability and long-term self-sufficiency. These connections help to address barriers and support students in persisting in their educational goals.

Community Enrichment

The college launched the Cultural Advisory Committee composed of arts and culture leaders from the college and throughout the region. This committee was formed to foster collaborations, support diversity initiatives, identify cultural needs within the community and foster engagement with both internal and external constituents.

Annually, the college co-produces a Musical Theatre Workshop for students in grades 5-12 in collaboration with All the World's a Stage and provides summer workshops in music and drama for K-12. The college also offers show choirs for middle school (Garfield Singers), high school (Magic Company) and for the college students, the Macombers. These activities were reinstated at full capacity following the COVID pandemic. All the education workshops were at or near capacity for 2022.

Macomb routinely offers children's chorus for grades 2-9; supports an art gallery dedicated to student work, along with that of the community. In 2022-23 we collaborated with the Stratford Festival, All the World's a Stage and Macomb Intermediate School District to present educational workshops and digital presentations.

The Macomb Center offers a series of performances that promote learning and connect with curriculum. Each show has a study guide for educators to be able to extend the experience of the performance with activities and lessons in the classroom. This season there are shows that promote literature, cultural diversity, and history. One of the performances is also being presented as a sensory friendly event for individuals and families dealing with autism and other sensory challenges. A partnership with the Detroit History Museum will feature an exhibit and program series exploring Abraham Lincoln, the evolution of emancipation and Michigan during the Civil War.

The Macomb Center for the Performing Arts and the Lorenzo Cultural Center have partnerships with many local and regional organizations to host and co-produce events. These include the Detroit Concert Choir, Macomb Symphony, All the World's a Stage, Detroit Institute for the Arts, Macomb Ballet Company, PRISM Men's Chorus and the Warren Symphony.

In 2022-23, through the Lorenzo Cultural Center, the college offered a broad array of enrichment, cultural and historical programs, including an exhibit on different cultural foods, Day of the Dead Celebration; an exhibit and programs of "Creative Michigan: Making the Mitten Modern". For

2023-24 there will be an exhibit and program series “Freedom Confirmed” in collaboration with the Detroit Historical Museum and the exhibit “Front Row Center” featuring iconic photography of popular music performers and performances.

The Macomb Center for the Performing Arts typically offers 30+ professional main stage touring performances annually. Collaborations with community partners and local arts group result in an additional 50+ performances each year. These along with college events, lectures and rentals result in 200+ events each year that are open to the public with an additional 125+ exhibits, community, and college events at the Albert Lorenzo Cultural Center.

The Sports and Expo Center is Macomb County’s largest conference and expo center that boasts 61,000 square feet of space. Families, community, athletic and special events hosted by the college are held in this spacious venue.

Lastly, for the last seven years the college has partnered with One Macomb/Macomb County Executive Office, the Macomb Intermediate School District, all the school districts in the county and others to host a Macomb County Diversity Summit for students in grades 8 – 11. This is an effort to increase awareness and understanding of the many cultures in our county and provide ways for our students to be leaders in these efforts. During COVID, the diversity summit was held virtually and in 2022 the organizations were pleased to again hold the summit in person at the Macomb Intermediate School District. The 2022 event had nearly 600 students participating.

In addition to these and the many more community events hosted on Macomb’s campuses, the college also partners and supports the following organizations whose activities match our mission:

- ACCESS
- Advance Michigan
- Advancing Macomb
- Academies at Romeo High School
- American Center for Mobility
- Anchor Bay Chamber of Commerce
- Anton Art Center
- ASBE Foundation
- Automation Alley
- Center for Automotive Research
- Chaldean Chamber/ Community Foundation
- Clinton River Watershed Organization
- Connect Macomb
- Detroit Drives Degrees Community College Collaborative
- Detroit Institute of Arts
- Detroit Regional Chamber (including the Detroit Scholarship Fund)
- Detroit Symphony Orchestra
- Detroit Zoological Society
- Eastpointe-Roseville Chamber of Commerce
- Electric Vehicle Jobs Academy
- Families Against Narcotics/ Hope Not Handcuffs
- Interfaith Center for Racial Justice

- Judson Center Macomb
- Leadership Macomb
- LIFT
- Macomb County Chamber/Macomb Foundation
- Macomb County Planning and Economic Development
- Macomb County Water Resources Advisory Council
- Macomb County Veteran Services
- Macomb-Oakland University INCubator
- Macomb County Robotics Collaboration and Innovation Center
- Macomb Intermediate School District
- Macomb Pride
- Macomb Symphony
- Metropolitan Affairs Coalition
- Michigan Alliance for Greater Mobility Advancement
- Michigan Automotive and Defense Cyber Awareness Team
- MICHauto
- Michigan Opera Theatre
- Motor City Symphony
- NextEnergy
- Northern Macomb Regional Chamber of Commerce
- Selfridge Air National Guard Base Community Council
- Southeast Michigan Council of Governments
- Sterling Heights Community Foundation
- Turning Point
- United Way
- Workforce Intelligence Network for Southeast Michigan

c. Identify other initiatives which may impact facilities usage

All of the activities listed in the previous section impact facility usage at Macomb. In addition to those ongoing programs and community outreach events, an increase in workforce needs and the shift in manufacturing strain the current and future facility usage at South Campus specifically. This is the reason that approval of the renovation and expansion of the Mobility and Sustainability Education Center project is the highest priority for Macomb Community College.

d. Demonstrate economic development impact of current/future programs (i.e., technical training centers, Life Science Corridor and Tri-Technology Corridor initiatives, etc.)

<u>Economic Growth</u>

Macomb Community College provides significant economic value to Macomb County and the region. A study conducted in 2023 found that since the establishment of the college, students have studied at Macomb and entered the county workforce with greater knowledge and new skills. Today, hundreds of thousands of former Macomb students are employed in Macomb County. As a result of their education from Macomb, the students receive higher earnings and increase the productivity of

the businesses that employ them. In FY 2021-22, Macomb alumni generated $750.7 million in added income for the county economy, which is equivalent to supporting 9,804 jobs.

Macomb added $886.7 million in income to the Macomb County economy during the analysis year, equal to the sum of the operations and construction spending impacts, the student spending impact and the alumni impact. For context, the $886.7 million impact was equal to approximately 1.8% of the total gross regional product (GRP) of Macomb County. Macomb's total impact can also be expressed in terms of jobs supported. The $886.7 million impact supported 11,784 county jobs, using the jobs-to-sales ratios specific to each industry in the county. This means that one out of every 40 jobs in Macomb County is supported by the activities of Macomb and its students.

In addition, the $886.7 million, or 11,784 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of Macomb and its students and the activities of its alumni in the Retail Trade industry sector supported 2,002 jobs in FY 2021-22. If the college did not exist, these impacts would not have been generated in Macomb County.

The students' benefit-cost ratio is 6.1. In other words, for every dollar students invest in Macomb in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of $6.10 in higher future earnings. Annually, the students' investment in Macomb has an average annual internal rate of return of 22.1%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.6%.

From the taxpayer perspective, for every dollar of public money invested in Macomb in FY 2021-22, taxpayers will receive a cumulative present value of $2.60 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 6.6%, which compares favorably to other long-term investments in the public sector.

There is also an economic benefit to society and the social benefits of Macomb equal a present value of $2.6 billion. These benefits include $1.8 billion in added student income, $632.6 million in added business income, $151.3 million in added income from college activities, as well as $52.7 million in social savings related to health, the justice system, and income assistance in Mich-igan. People in Michigan invested a present value total of $222.1 million in Macomb in FY 2021-22. The cost includes all the college and student costs.

The benefit-cost ratio for society is 11.7, equal to the $2.6 billion in benefits divided by the $222.1 million in costs. In other words, for every dollar invested in Macomb, people in Michigan will receive a cumulative value of $11.70 in benefits. The benefits of this investment will occur for as long as Macomb's FY 2021-22 students remain employed in the state workforce.

Macomb Community College is fully committed to addressing the needs of area employers by providing a skilled workforce prepared for the new advanced technology job opportunities. In addition to that commitment and Macomb's many other credit programs, the college is also focused on economic development and has a significant role in these efforts. Macomb continues to be an institution that not only helps existing companies with their workforce needs by educating their current and future employees, but also seeks to be an institution that helps form new companies.

Macomb believes that innovation and entrepreneurship is a vital part of a thriving community. For that reason, the college continues to support the Macomb Center for Innovation and Entrepreneurship which offers educational opportunities to students, faculty and community members around exploring entrepreneurship and taking action on innovative ideas.



Macomb
Community College

Education • Enrichment • Economic Development

Discover. Connect. *Advance.*℠

Staffing & Enrollment

II. Staffing and Enrollment

Colleges and universities must include staffing and enrollment trends in the annual 5-year comprehensive master plans. This component should:

a. Describe current full and part-time student enrollment levels by academic program and define how the programs are accessed by the student (i.e., main or satellite campus instruction, collaboration efforts with other institutions, Internet, or distance learning, etc.)

As of fall 2022, 15,850 students were enrolled at Macomb. The majority (72%) attended part-time, or less than 12 credits per term. Only 28% attended full-time, or 12 or more credits per term.

Of fall 2022 enrolled students, 9,000 (57%) were pursuing Arts and Sciences programs, usually in preparation for transferring to four-year colleges and universities. The next largest group of students, 2,300 (15%), was concentrated in various business programs, including high demand programs such as Accounting, and high skill programs such as Global Supply Chain Management. Over 1,400 students (8%) were enrolled in health and education programs, including Nursing, Dental Hygiene, and others. Over 900 (6%) students were enrolled in engineering and graphic design programs. Approximately 600 (4%) students were preparing for various skilled trades in automotive, manufacturing, construction, and other applied technologies fields. More than 1,000 (7%) were studying information technology (programming, networking, and cybersecurity), and lastly, 500 (3%) were preparing for public services careers in law enforcement, homeland security, firefighting, emergency medicine and social services.

Of the 308,500 total credit hours students completed in the 2022-23 academic year, 57% of the credits were completed through distance learning. This includes course delivery formats in which the students and faculty met either synchronously or asynchronously, and either partially or fully online. Forty-three percent of the credits were completed on-campus. The campuses include the Center and East Campuses in Clinton Township, South Campus and Michigan Technology Center in Warren, and a temporary campus, the Advanced Technology Center (ATC), in Clinton Township, which served engineering and advanced technology students during major building renovations on the South Campus. Lastly, 1% of credits were completed at satellite locations.

To increase opportunities for all our students, Macomb Community College collaborates with many secondary and postsecondary educational institutions – high schools and four-year colleges and universities.

We collaborate with 40 high schools across Macomb, Wayne, Lapeer, Saint Clair, and Oakland County school districts, offering 200 transfer credit agreements for a wide array of career and technical education (CTE) fields. Through these agreements, high school graduates can receive college credits at Macomb for the CTE courses they completed in high school. This enables faster and lower cost completion of a college credential.

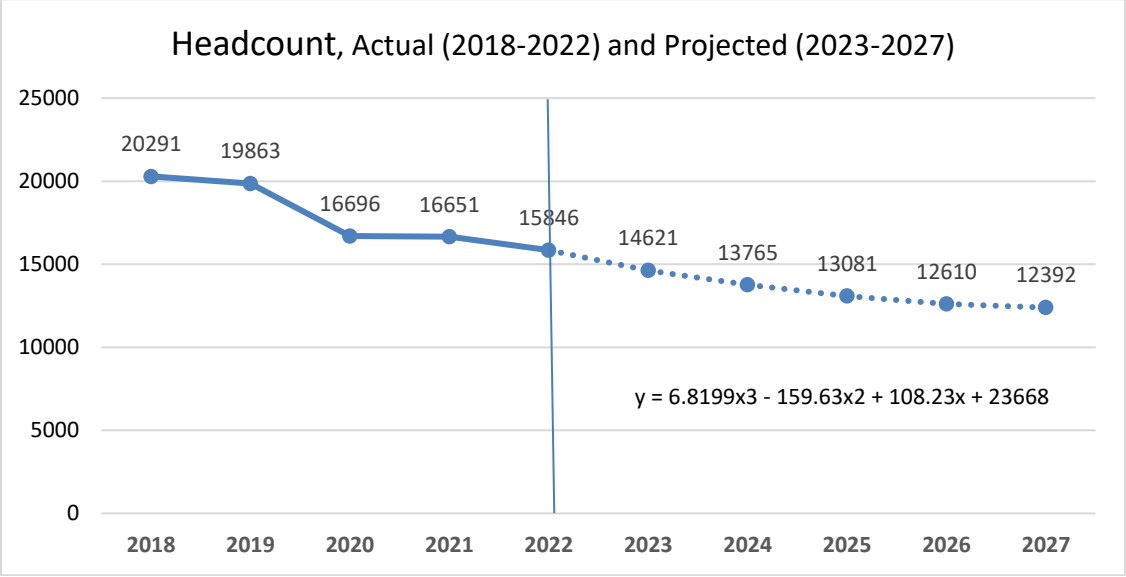
Additionally, Macomb Community College collaborates with multiple public and private Michigan colleges and universities through college-to-college transfer agreements. Such agreements enable the transfer of prescribed courses from Macomb to the student's selected transfer institution. The College also participates in the Michigan Transfer Agreement (MTA), through which college advisors assist students in selecting their general education credits that are guaranteed to be accepted at multiple participating Michigan universities.

Macomb has a close, productive partnership with Walsh College to streamline the transfer process and significantly lower the costs for Macomb students to earn business bachelor's degrees. And, we have a similar partnership with Wayne State University through a program called Wayne Advantage. Wayne Advantage provides concurrent enrollment opportunities through which students can take courses that will be accepted at both institutions, leading to additional, low cost associates and bachelor's degree opportunities.

Lastly, Macomb Community College increases opportunities for Macomb County residents to earn bachelor's degrees within commuting distance from their homes. This is accomplished at the Macomb Community College University Center on the Clinton Township campus. The University Center is comprised of ten Michigan colleges and universities offering close to 60 degree programs – some on-campus, some online.

b. Project enrollment patterns over the next five years (including distance learning initiatives)

Several predictive models were evaluated to discover the best fitting model for recent fall term headcounts, and to project the upcoming fall term headcounts from 2023 through 2027.



A polynomial model had the best fit for fall term headcount based on the ten most recent fall terms. It had an R^2 of .968, meaning the selected model accounted for approximately 97% of the variation in head count over the 2013 through 2022 period.

The point estimates for the projected fall head count suggest that the recent enrollment decline will slow over the period of 2023 through 2027. The headcount reduction for the upcoming five fall terms is projected to be an average of approximately 690 students each coming fall.

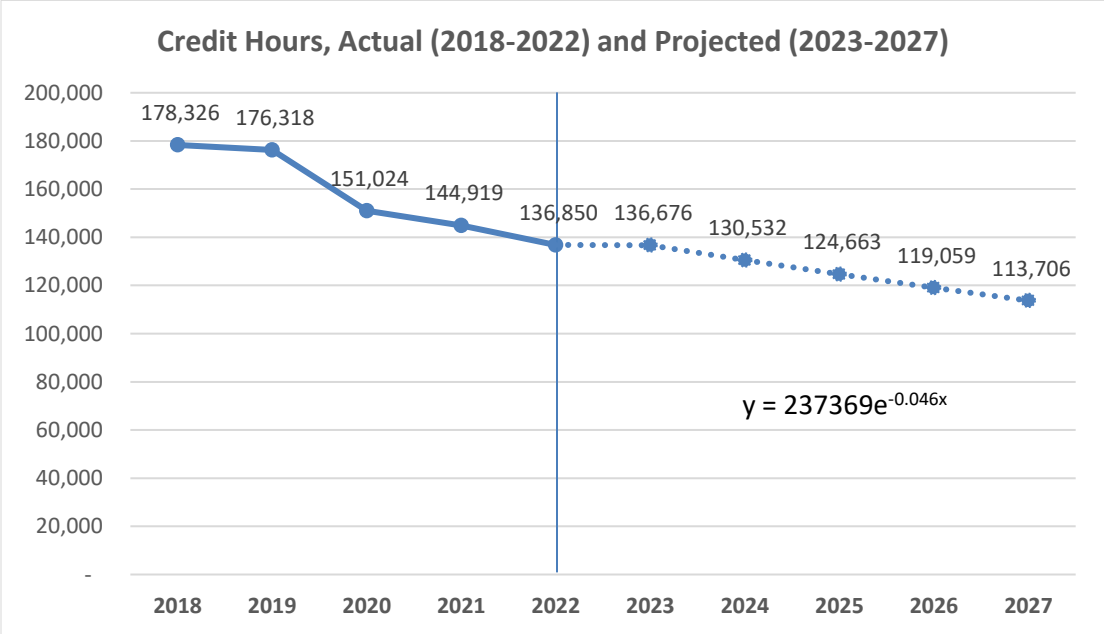
The Southeast Michigan Council of Governments (SEMCOG) projects a 1% decline in the Macomb County school districts population between the ages of 18-24 through 2025, and an overall 2% decline for this age group between 2025 and 2030. This age group's population decline is likely to negatively impact Macomb Community College enrollment, all else being equal. But there is a

countervailing demographic trend in the population of ages 25-34, which could positively impact college enrollment. The age group of 25-34 is expected to increase 4% through 2025 and 1% between 2025 and 2030. Although the increasing population of young adults, ages 25-34, will likely be good for enrollment, its effect may be mediated in the near term by a strong labor market, which typically reduces the proportion in this age group that choose college enrollment over full-time employment.

A new State of Michigan scholarship program is being offered to Michigan high school graduates beginning with the 2023-24 academic year. The Michigan Achievement Scholarship provides a grant of up to $2,750 per year to attend a Michigan community college (for up to three years), or a maximum of $5,500 per year to attend a Michigan public university (for up to 5 five years). The new scholarship program may affect Macomb's enrollment levels, but as yet we do not know by how much.

An additional new program starting in 2024, called the Michigan Assured Admissions Pact, is an agreement between 10 Michigan public universities to guarantee admission to all Michigan high school graduates with a cumulative GPA of 3.0 or above. The pact includes the two closest universities to Macomb county, Wayne State University and Oakland University. The proximity of these universities, and their participation in the Pact, in addition to the Michigan Achievement Scholarship, provide additional, low-cost enrollment alternatives that increase the level of uncertainty about Macomb's headcount and credit hour projections.

Projected Credit Hours



Several models were evaluated for best fit to project total credit hours for the fall 2023 through fall 2027 period. A non-linear, exponential model was chosen, as it predicted 93.5% of the variation in the period between 2013 and 2022. The model projects fall credit hours to decline over the 2023 to 2027 period at the rate of approximately 4.0 – 4.5% per year.

Several alternative models, logarithmic, power and polynomial, were evaluated and found to be less well-fit for the data than the exponential model. A linear model was also evaluated and found to be a good fit for the period between 2013 and 2022; but it appeared ill-suited for predicting the next five years. The sharp decline in headcount and credit hours experienced in 2020 as a result of the COVID-19 pandemic, is unlikely to repeat in the near future. A linear model, by design, assumes no change in the slope, but this assumption seems unlikely to well-represent the coming five years.

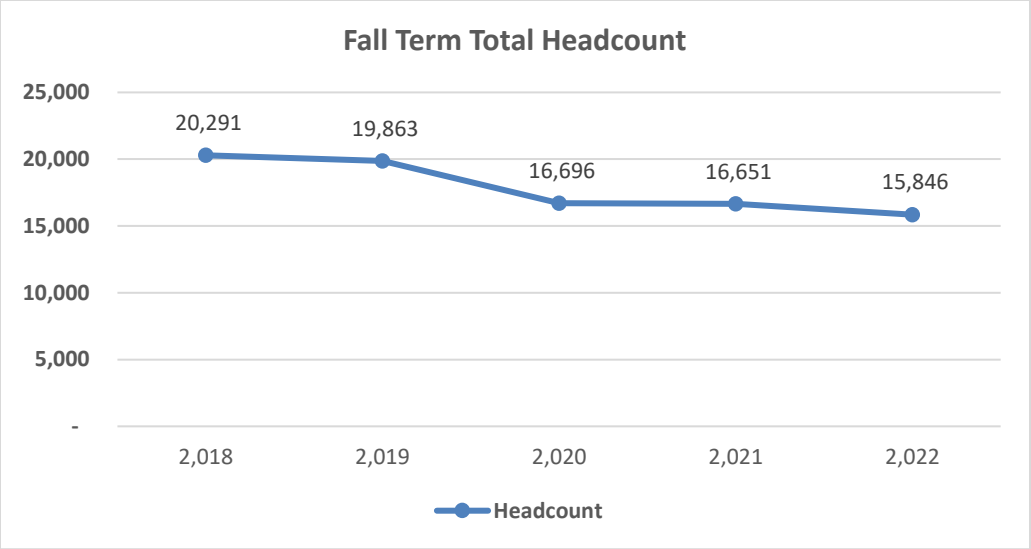
A *slowing* in the decline of enrollment and credit hours is likely in the near term, in part due to the recent community college tuition support program called Michigan Reconnect. The new program covers the cost of tuition and mandatory fees that exceed total federal financial aid support for students below a specified income threshold. The additional financial assistance that Michigan Reconnect provides eligible students gives them a strong incentive to enroll in college.

All models evaluated for fall term enrollment head count and credit hour projections were univariate models, using only past enrollment to predict the upcoming five years' head count and credit hours. Enrollment models can be fairly accurate if coming years follow the same pattern as prior years. In the recent 10-year period between 2013 and 2022, college enrollment was characterized by a fairly steady decline in head count of approximately 3.1% per year and in credit hours decline of about 3.3% per year. But in the fall of 2020, a shock to the system occurred as a direct result of the Covid-19 pandemic. There was a sharp decline in head count and credit hours (16% and 14%, respectively) as many students stopped attending college, at least temporarily. The pandemic shock altered the enrollment pattern, making predictions this year more challenging. It added to the considerable uncertainty with respect to college enrollment forecasting, since adult students' enrollment decisions are often heavily influenced by economic factors, particularly regional employment opportunities, which, in recent years, have been remarkably good.

c. Evaluate enrollment patterns over the last five years

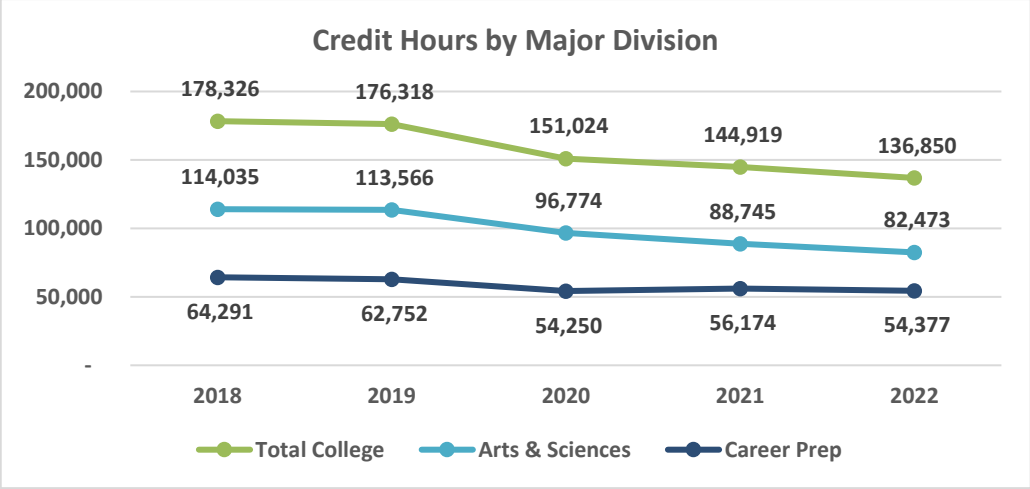
The trends over the past five years of declining headcount and credit hours reflect the impact of two broad trends: 1) a demographic trend toward decreasing numbers of high school graduating seniors, and 2) an economic trend of a strong labor market characterized by exceptionally good employment opportunities and entry-level wages in a wide array of occupational fields.

The demographic trend is expected to continue in the near future, as a smaller pool of youth mature to college-age, according to the Southeast Michigan Council of Government (SEMCOG) population analysis. Contrastingly, the economic trend is less certain to continue, as it is expected to take a downward turn sometime in the near future in keeping with normal business cycles, and in response to likely changes to federal monetary and fiscal policies. Unfortunately, we cannot predict when an economic downturn will occur.



Credit Hours by Academic Division

Since fall 2018, total credit hours in the Arts and Sciences and in career preparation courses have decreased by 28% and 15%, respectively. The overall decline in credit hours reflects, in part, the decline in headcount over the same period.

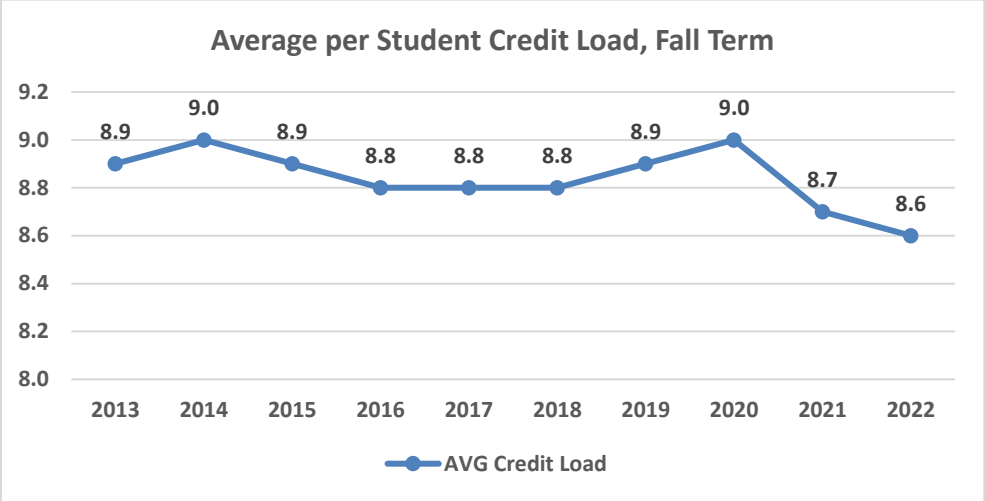


The proportion of total credit hours accounted for by Arts and Sciences courses has been declining in recent years from roughly 64% in fall 2018 to roughly 60% in fall 2022. Correspondingly, the proportion of career-related credit hours increased from roughly 36% to 40% for the same period.

The shifting percentage from Arts & Sciences to career preparation credit hours may be associated with an increasing percentage of high school graduates choosing to enter the labor market, rather than enrolling at a two-year college, at which many of them would normally complete their Arts and Sciences coursework in preparation for a transfer to a four-year institution.

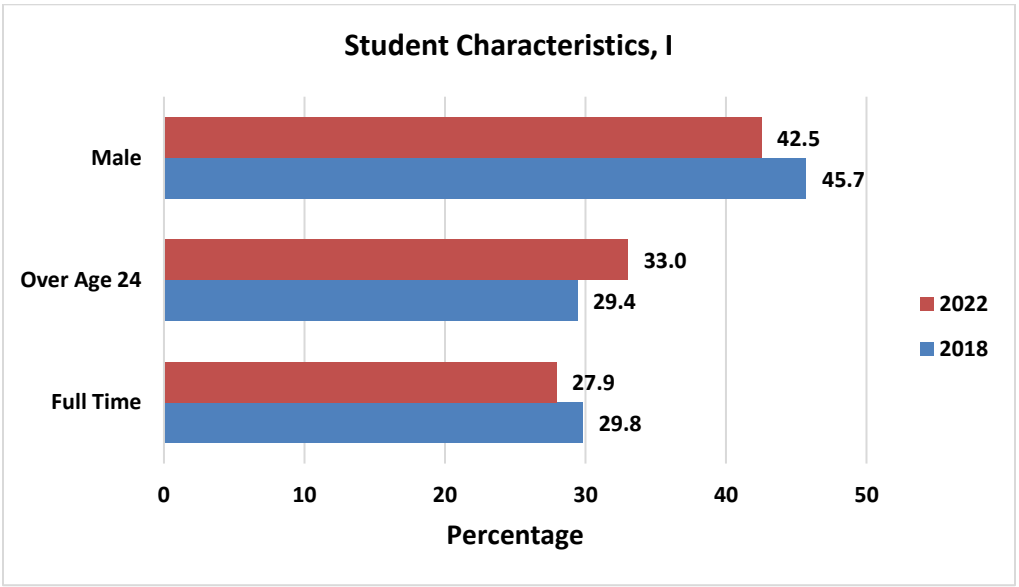
Average Credit Load per Student

The College may be entering a phase of decreasing credit hours per student. A decline in average per-student credit hours is notable in the two most-recent terms, fall 2021 and fall 2022. The average per-student credit-hour load dropped 3.4% from the 2013 average of 8.9% to the 2022 average of 8.6%.

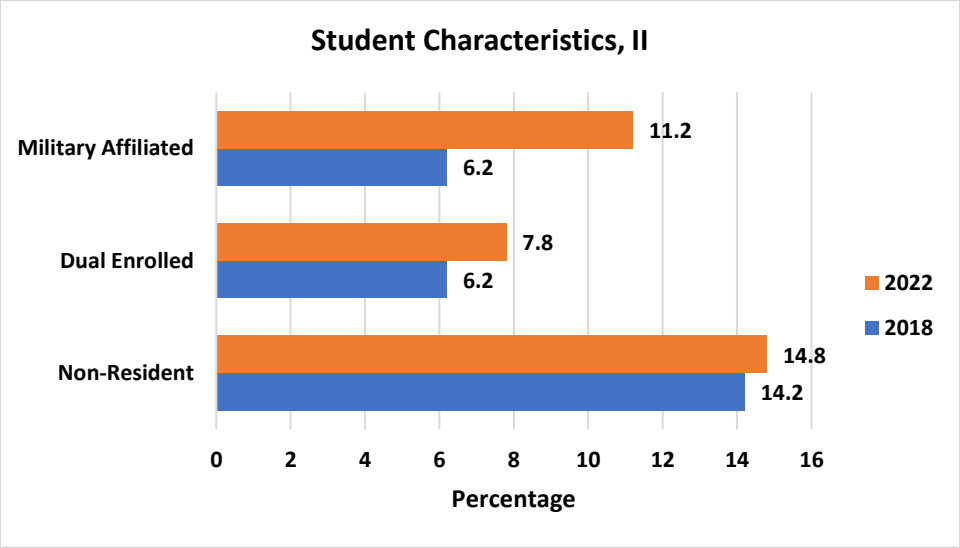


Student Characteristics

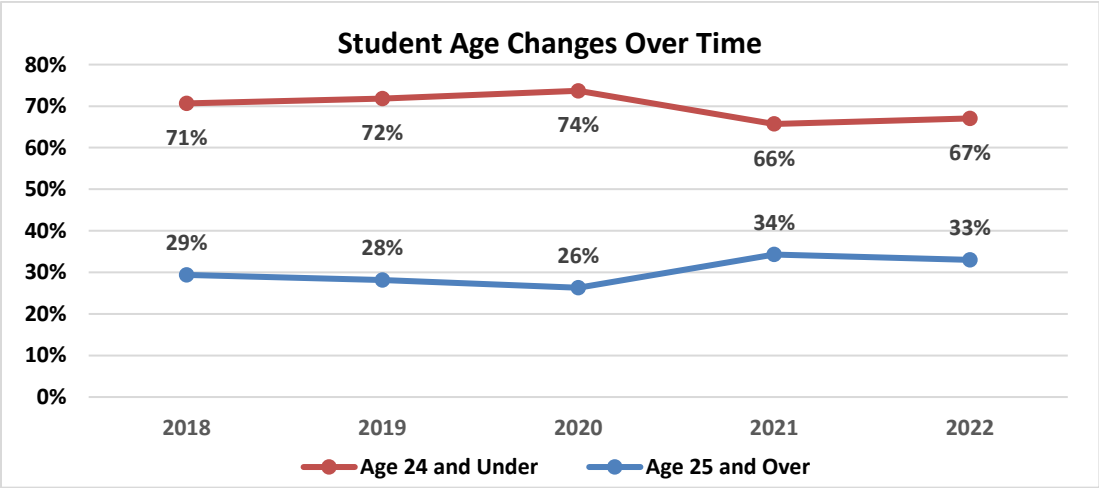
The proportion of students that attend full-time (12 or more credit hours) decreased from approximately 30% in fall 2018 to 28% in fall 2022. The proportion that is male decreased from approximately 46% in 2018 to 43% in 2022.



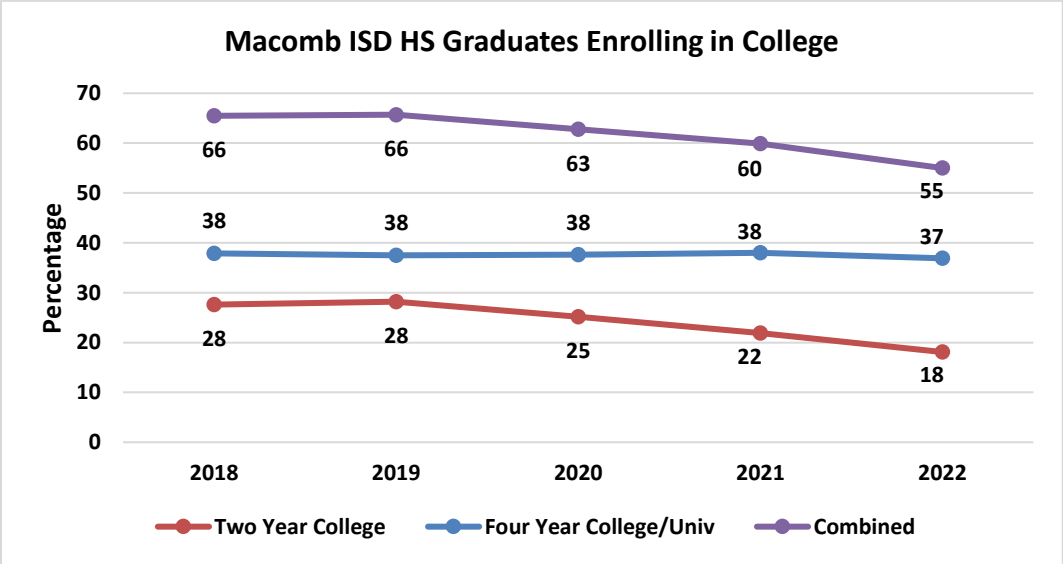
The proportion of students that were non-residents slightly increased over the period, from approximately 14% in 2018 to 15% in 2022. Military-affiliated students, particularly veterans, increased from roughly 6% in 2018 to 11% in 2022. And dual-enrolled students have increased from around 6% in 2018 to nearly 8% in 2022.



The recent trend toward an increasingly younger Macomb student body appears to have been halted, at least temporarily, beginning in fall 2021. The proportion of students that was older than 24 years of age has increased from 26% in fall 2020 to 33% in fall 2022. Correspondingly, there has been a decline in the percentage of students ages 18 or 19 years old. The large increase in the percentage of students over 24 years of age in fall 2021 and fall 2022 reflects, at least in part, the impact of the Michigan Reconnect grant program, which started in fall 2021. The Reconnect grant had an eligibility requirement of age 25 or above (for 2021 and 2022), which appears to have successfully impacted some individuals' decisions to enroll in college.



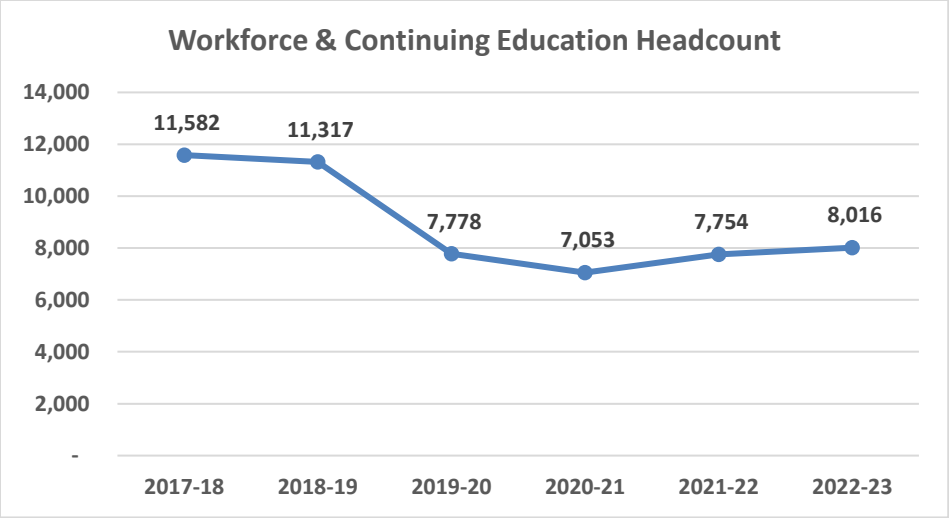
The changing demographics of Macomb's student population is, in part, associated with a trend toward fewer recent Macomb County high school graduates choosing to enroll at a community college, while roughly the same percentage each year of the high school graduates are choosing to enroll at a four-year institution. Data from the Michigan Center for Educational Performance and Information (CEPI) reveal this trend. The overall percentage of Macomb County high school graduates enrolling in college of any type (two-year or four-year) has declined by approximately 10 percentage points over the recent five year period. And this enrollment reduction has occurred almost entirely at the community college level. The trend might be associated with the strong labor market and increased entry-level wages in recent years, which appears to have incentivized high school graduates to enter the labor force rather than attend college.



Source: Center for Educational Performance and Information (CEPI). Mischooldata.org.

Workforce and Continuing Education

The College's Workforce and Continuing Education (WCE) division, which offers career-focused, non-credit courses and programs, had a fiscal year (FY) 2023 headcount increase of approximately 260 students (3%) over the prior year, and approximately 1,000 more students than in FY 2021.



The recent increase in WCE enrollment could be an indication of a shift in the portion of students who are choosing to develop occupation specific skills through non-credit, not for-credit, courses and programs. It may also reflect an increasing effort by college faculty and administrators to develop new non-credit workforce programs that meet current labor market needs and emerging occupations. For example, the college has recently developed a Data Analytics program in response to an emerging need in the labor market for this skillset.

Other recent additions to the array of non-credit workforce programs designed to prepare students for immediate employment, include Certified Dental Assistant, Pharmacy Technician, Marine Maintenance Technician, Industrial Maintenance Technician, Certified Nursing Assistant, and Phlebotomy.

Workforce & Continuing Education Percent Change Over Time

Fiscal Year	Headcount	Change from Prior Year
2022-23	8,016	3%
2021-22	7,754	10%
2020-21	7,053	-9%
2019-20	7,778	-31%
2018-19	11,317	-2%
2017-18	11,582	-2%

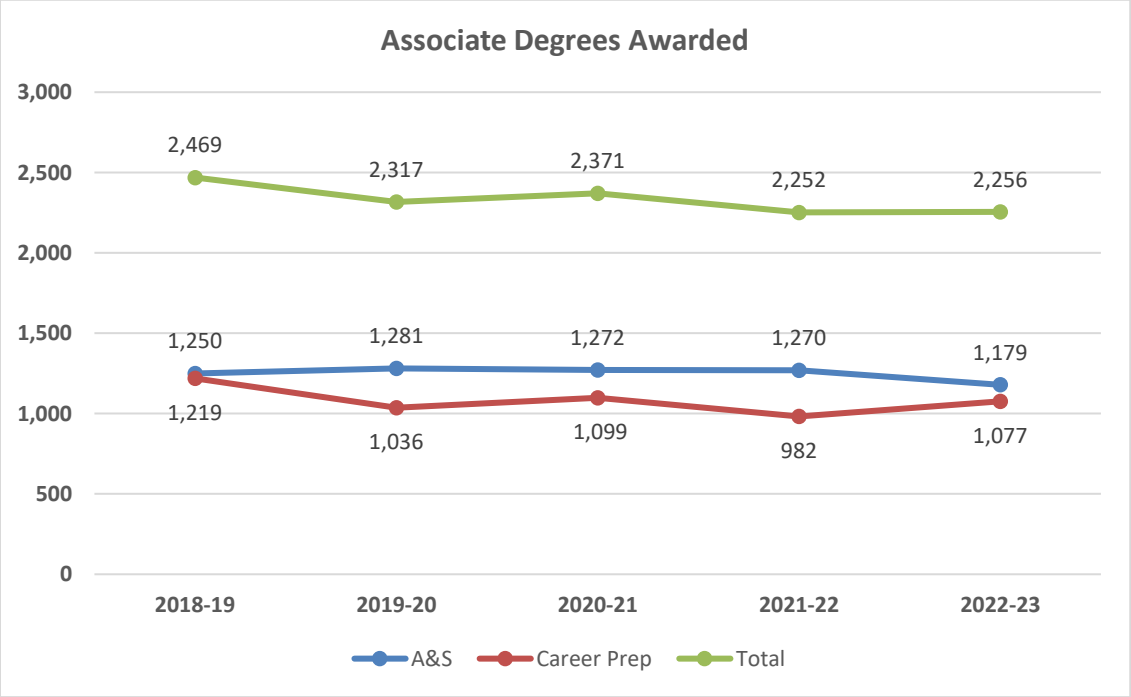
Degrees Awarded

The total number of degrees awarded in the 2022-23 academic year, 2,256, is roughly the same as the number awarded in the prior year, 2,252. However, the number of degrees awarded in the Arts and Sciences (1,179) decreased by approximately 7%, while the number of Career and Technical education degrees (1,077) increased by nearly 10% from the prior year.

Over the five year period from 2018-19 to 2022-23, the total number of degrees awarded has decreased by nearly 9%. In the Career and Technical education area, the overall decrease in degrees awarded (12%) was greater than in the Arts and Sciences area (6%).

The decline in the total number of degrees awarded from the 2018-19 academic year reflects, at least in part, the consistent decline in head count since 2010. The slightly larger decline in the number of degrees awarded in the 2019-20 year from the 2018-19 year, compared with the previous year-on-year decreases, is an artifact of the Covid-19 pandemic.

Toward the end of the 2019-20 academic year (spring 2020), public sector education institutions suspended in-person instruction in response to the COVID-19 pandemic. To re-establish instruction, the college shifted nearly all classes to online format. In a few career programs with specialized, hands-on lab courses, the labs could not be successfully administered online. This led to a delay in graduation for students in those programs for which such courses were a graduation requirement. These students were able to complete their lab courses and graduate in the following summer or fall term (2020) when labs had been successfully modified to accommodate the personal distancing requirements that enabled safe, in-person learning. One effect of the delayed graduations in some career programs was a shift from one academic year (2019-20) to the next (2020-21) in the total counts of associates degrees awarded.



d. Provide instructional staff/student and administrative staff/student ratios for major academic programs or colleges

Staffing

In fall 2022, Macomb had 194 full-time and 483 part-time faculty members teaching credit courses and 72 full-time administrators. In fall 2021, Macomb had 193 full-time and 474 part-time faculty members teaching credit courses and full-time 65 administrators. Compared with fall 2021 instructional staffing, fall 2022 full-time instructional staffing was largely unchanged, while part-time faculty and full-time administrative staffing increased by 2% and 11%, respectively. The ratio of full-time instructional staff to students was unchanged, although it increased slightly for part-time instructional staff and full-time administrative staff.

Staffing	Fall 2021		Fall 2022		Percent Change
	Staff Count	Staff to Student Ratio	Staff Count	Staff to Student Ratio	
Full-time Instructional	193	0.012	194	0.012	0.5%
Part-time Instructional	474	0.028	483	0.030	1.9%
Full-time Administrative Staff	65	0.004	72	0.005	10.8%

Source: Integrated Postsecondary Education Data System

e. Project future staffing needs based on 5-year enrollment estimates and future programming changes

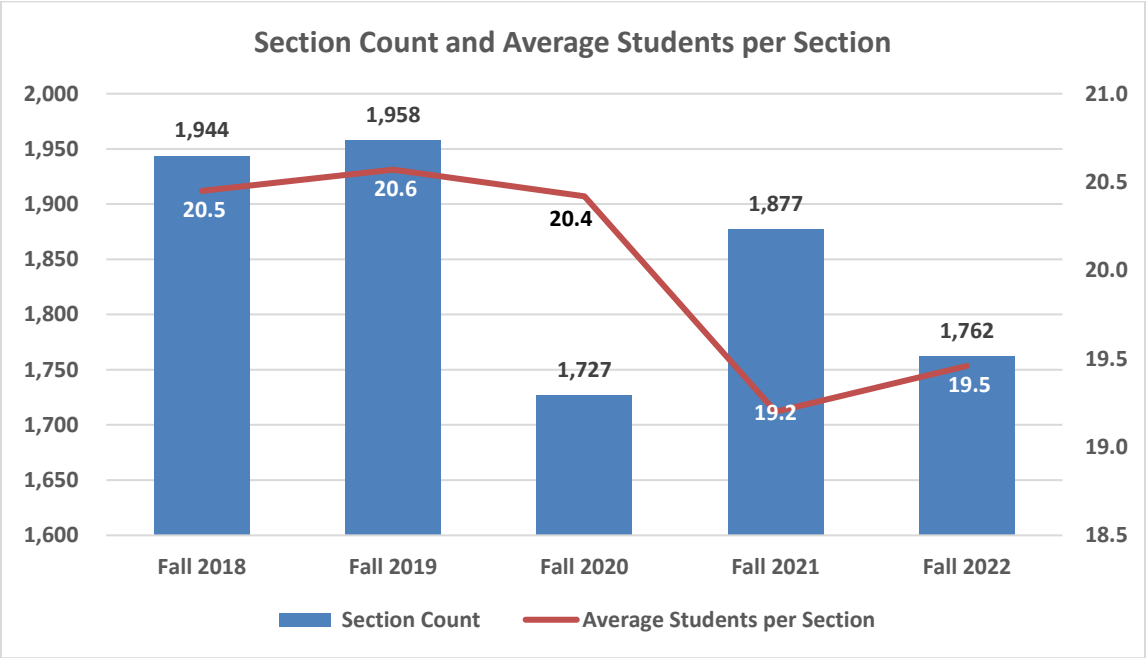
Population projections from SEMCOG suggest that the demographic shift toward fewer high school seniors coming of age is not likely to change in the near future. And while the local economy remains strong and employment levels remain remarkably high, it is likely that the college will continue to experience the trend toward decreasing enrollment counts of adult students (ages 24 and above). Yet, considerable uncertainty exists regarding key economic factors that are likely to impact future college enrollment. Most notably, we cannot predict when the regional economy will experience a substantive shift in employment levels. While acknowledging the uncertainty regarding near-future enrollment, staffing levels over the next five years are likely to decline if the current downward trend in enrollment continues.

The college is likely to reduce the array of programs it offers if enrollment continues its downward slide. Any reduction in program offerings, if deemed necessary, would be based on the program's enrollment level, the program's importance to the local economy in preparing skilled graduates to enter the workforce, and other factors. While some under-enrolled programs might be phased out, the college will continue to develop new programs that meet emerging labor market needs. Two such programs are currently under development: Licensed Practical Nurse (LPN) Certificate and Digital Marketing Associate of Business Administration.

f. Identify current average class size and projected average class size based on the institution's mission and planned programming changes

There are many factors that affect the average class size, including student head count, average credit hour load, and the number and type of sections offered, as well as the availability of faculty to teach the sections. Each of these factors is estimated with uncertainty; therefore, projections of average class size will also be uncertain.

The fairly consistent, decreasing trend in the number of sections, that ran in the most recent five-year period, reflects the largely consistent, decreasing enrollment trend over the same period. The average section-level enrollment fluctuated from a high of 20.6 to a low of 19.2, with larger change occurring between 2020 through 2022.



In 2021 and 2022 faculty tested new course delivery formats in response to student requests for additional course attendance options. And now two new delivery formats are being offered, alongside the standard on-campus option and asynchronous online option. They include a new remote format (synchronous virtual course) and new flexible format (students attend in-class or online at will). The new course delivery options may affect the average student count per section, adding to the difficulty of precisely estimating future enrollment per section.

There is uncertainty concerning future student enrollment counts, their instructional delivery preferences, and their responses to the new course delivery options. Projections for average section enrollment are subject to additional uncertainty relating to economic uncertainty and other exogenous factors. Keeping this in mind, the average of the average section size over the 2018 through 2022 period, 20.02, will be used as the best estimate for fall 2023 through 2027.



Macomb
Community College

Education • Enrichment • Economic Development

Discover. Connect. *Advance.*℠

Facility Assessment

Facility Assessment

A professionally developed comprehensive facilities assessment is required. The assessment must identify and evaluate the overall condition of capital facilities under college control. The description must include facility age, use patterns, and an assessment of general physical condition. The assessment must specifically identify:

a. Summary description of each facility (administrative, classroom, biology, hospital and etc.) according to categories outlined in "net-to-gross ratio guidelines for various building types," DTMB-Office of Design and Construction Major Project Design Manual, appendix 8. If facility is of more than one "type", please identify the percentage of each type within a given facility.

Macomb Community College hired the services of Integrated Design Solutions in 2023 to update existing facility condition assessments of the college's South and Center campuses. We anticipate publishing these reports in November 2023.

The facility condition assessments are available on the college's public website at links provided below in this section. The assessments include summary descriptions of each facility, functionality of existing structures and space allocation, utility system condition, facility infrastructure condition and adequacy of existing utilities and infrastructure systems in their current state.

b. Building and /or classroom utilization rates (Percentage of rooms used, and percent capacity). Identify building/classroom usage rates for peak (M-F, 10-3), off-peak (M-F, 8-10 am, 3-5 pm) evening and weekend periods.

At this time, Macomb Community College does not have an effective way of reporting building and classroom utilization rates from the software currently used to plan for and schedule classes. However, in preparing the schedule of classes each semester, the college is at capacity during certain days and times when classrooms are not available for additional sections. In these instances, online sections may offer additional options.

c. Mandated facility standards for specific programs, were applicable (i.e., federal/industry standards for laboratory, animal, or agricultural research facilities, hospitals, use of industrial machinery, etc.)

All of Macomb Community College's programs fully comply with all applicable laws, general industry safety and health standards, construction safety and health standards, and administrative standards authorized by Public Acts and promulgated by OSHA, MIOSHA and other regulatory agencies.

d. Functionality of existing structures and space allocation to program areas served.

See facility condition assessment in the links below:
South Center Campus Facility Condition Assessment
Campus Facility Condition Assessment

e. Replacement value of existing facilities (insured value of structure to the extent available).

The replacement value of the college's facilities is posted to the college website as the Policy Property List Report as prepared by the Michigan Community College Risk Management Authority.

f. Utility system condition (i.e., heating, ventilation, and air conditioning [HVAC], water and sewage, electrical, etc.).

See facility condition assessment in the links below:
South Center Campus Facility Condition Assessment
Campus Facility Condition Assessment

g. Facility infrastructure condition (i.e., roads, bridges, parking structures, lots, etc.).

See facility condition assessment in the links below:
South Center Campus Facility Condition Assessment
Campus Facility Condition Assessment

h. Adequacy of existing utilities and infrastructure systems to current and 5-year projected programmatic needs.

See facility condition assessment in the links below:
South Center Campus Facility Condition Assessment
Campus Facility Condition Assessment

i. Does the institution have an enterprise-wide energy plan? What are its goals? Have energy audits been completed on all facilities, if not, what is the plan/timetable for completing such audits?

Macomb Community College plans to reduce energy consumption and costs through the renovation of aged facilities as prioritized through the facility condition assessments. Energy audits have not been completed on the facilities as the buildings are not individually metered to track consumption and the cost to do so is significant. The college has researched grant funding for this purpose, but thus far has not found any viable funding sources to assist in this endeavor.

j. Land owned by the institution and include a determination of whether capacity exits for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose.

At this time, the land owned by the college is considered to be sufficient for capacity.

k. What portions of existing buildings, if any, are currently obligated to the State building Authority and when these State Building Authority leases are set to expire.

The following buildings are currently obligated to the State Building Authority through the following lease expiration dates:
University Center II; 2036
Emergency Training Center; 2043
Health Science and Technology; 2043
South Campus C Building; 2051
Skilled Trades and Advanced Technology Center; To Be Determined upon project close-out



Macomb Community College

Education • Enrichment • Economic Development

Discover. Connect. *Advance.*℠

Implementation Plan

Implementation Plan

The 5-year comprehensive master plan should identify the schedule, by which the institution proposes to address major capital deficiencies, and:

a. Prioritize major capital projects requested from the State, including a brief project description and estimated cost, in the format provided. (Adjust previously developed or prior year's figures utilizing industry standard CPI indexes where appropriate).

As indicated in this 5-year capital outlay plan, the highest priority is the Mobility and Sustainability Education Center at the college's South Campus. Due to the current workforce needs and those anticipated in the mobility sector, this project is Macomb's highest priority. The project budget has been reviewed and adjusted by CPI and for anticipated market conditions.

b. If applicable, provide an estimate relative to the institution's current deferred maintenance backlog. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impact, immediately versus over the next five years.

The college's current deferred maintenance backlog (DMB) is in the facility condition assessment reports posted to the college website. The facility condition assessment will serve as an aid in determining the DMB priority projects. These priority projects will be planned and implemented in a phased-in approach as it is impossible to address all the needs immediately while serving the needs of students and the community.

Renovations are scheduled as follows and will be funded from the capital projects fund, technology fund and general fund as appropriate. Below are the renovation plans by building through 2023-24.

2023: HVAC renovation of East Campus. Project will replace two existing hot water heating & DX cooling rooftop units and update building automation system controls. Anticipated Board of Trustee approval for design in November 2023. Anticipated construction to start in May 2025 pending Board of Trustee approval to award construction contracts.

2023: HVAC renovation of University Center 4. Project will replace one existing hot water heating & DX cooling rooftop unit and update building automation system controls. Anticipate Board of Trustee approval for design in November 2023. Anticipated construction to start in May 2025 pending Board of Trustee approval to award construction contracts.

2023: Reconstruct approximately 340,000 Sq. Ft. of South Campus parking lots 2 & 3 including new LED sight lighting and stormwater drainage improvements. Anticipated Board of Trustee approval for design in November 2023. Anticipated construction to start in May 2025 pending Board of Trustee approval to award construction contracts.

2023: Renovation of South Campus P building (FCI 30% deficient / poor condition); complete rehab of all HVAC, lighting, temperature controls and finishes. Safety/agency requirements, sitework and exterior work. Anticipated Board of Trustee approval for design in November 2023. Anticipated construction to start in May 2025 pending Board of Trustee approval to award construction contracts.

2024: HVAC Renovation of University Center 1 Professional Development Center Project will replace existing cooling tower, two roof top HVAC units, and update building automation system controls.

Board of Trustees approved this construction contract in May 2023. Anticipated construction completion is September 2024.

c. Include that status of on-going projects financed with State Building Authority resources and explain how completion coincides with the overall 5-year plan.

The Skilled Trades & Advanced Technology Center was approved for construction authorization in 2019 and the Center re-opened to students in August 2023. The Mobility and Sustainability Education Center located at South Campus Building M (FCI 46% Deficient / Poor Condition) is the College's current capital outlay project request.

d. Identify to the extent possible, a rate of return on planned expenditures. This could be expressed as operational "savings" that a planned capital expenditure would yield in future years.

The college estimates an operational savings of 5 – 10 percent on each renovated facility and updated infrastructure. In addition, deferred maintenance that is addressed in a timely and planned manner is much more cost effective than emergency repairs.

e. Where applicable, consider alternatives to new infrastructure, such as distance learning.

The college's long-term plans include renovations of facilities rather than new construction. Distance learning can augment the skilled trades programs but cannot replace hands-on training and experience offered through classes held in the Mobility and Sustainability Education Center.

f. Identify a maintenance schedule for major maintenance items in excess of $1,000,000 for fiscal year 2024 through fiscal year 2028.

See facility condition assessment on website and refer to b above. Administration is anticipating authorization from the Board of Trustees through 2025 as outlined above.

g. Identify the amount of non-routine maintenance the institution has budgeted for in its current fiscal year and relevant sources of financing.

Refer to "f" above.