



WAYNE STATE  
UNIVERSITY

# FY2023-2027 Five-Year Capital Outlay Plan

Prepared for the State of Michigan Department of Technology,  
Budget and Management



**WARRIOR STRONG**



# WAYNE STATE UNIVERSITY

FY2023-2027: 5-Year Capital Outlay Plan

Submitted to the Office of the State Budget

October 31, 2021

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## **I. Mission Statement**

Wayne State University's mission, as stated in the *Distinctively Wayne State University Strategic Plan 2016-2021*, is the creation and advancement of knowledge that results from preparing a diverse student body to thrive and positively impact local and global communities. To achieve this vitally important mission, it is critical that we modernize and improve our physical infrastructure environment to support our strategic focus on student success and teaching excellence, two of the key focus areas in our Strategic Plan.

### Diversity and Inclusion

#### Diversity and Inclusion

Diversity and inclusion are integral to the mission, vision, values, and strategic focus areas of Wayne State's strategic plan. This commitment was actualized with the establishment of the Office of Diversity and Inclusion and the Office of Multicultural Student Engagement in winter of 2015. Wayne State offers an immersive educational experience where students work alongside people from different countries, cultures and socioeconomic backgrounds reflective of the city of Detroit, the region and state, and the world. With the most diverse student body in Michigan, Wayne State students gain a distinct advantage as they prepare to build successful careers in the complex global marketplace.

The Wayne State Office of Diversity and Inclusion is a unique resource dedicated to supporting students,

faculty and the entire university community. Led by the Associate Provost for Diversity and Inclusion/Chief Diversity Officer and home to the Office of Multicultural Student Engagement, this committed group of individuals is focused on sustaining Wayne State's inclusive campus and can aid on a number of issues. In 2018, under the leadership of the Chief Diversity Officer, the first ever diversity campus climate study was initiated to learn more from the campus community about how they experience the climate for diversity and inclusion-related issues.

In July of 2020, Wayne State's President M. Roy Wilson established and charged the Social Justice Action Committee (SJAC)—seven working groups created to address implicit bias and systemic racism through examination of policies, procedures, and practices throughout the campus. The groups include: the hiring and retention of diverse faculty and staff, student access and success, policing, and other critical areas of focus. Each SJAC working group offered recommendations to the university leadership on how to make changes in various systems and structures to enhance diversity, equity, and inclusion across the

university. Among these recommendations was the establishment of a university-wide Diversity Equity and Inclusion (DEI) Council. The DEI Council was established in summer, 2021 and is charged with developing strategies for moving forward with many of the recommendations of the SJAC.

The Wayne State Office of Diversity and Inclusion and the Office of Multicultural Student Engagement continue to provide leadership and support to the campus through initiatives designed to build and sustain a more inclusive and equitable campus community.

## II. Instructional Programming

### Existing Academic Programs

Wayne State University is a comprehensive research university with thirteen schools and colleges administering approximately 350 academic programs including bachelor's, master's and doctoral degrees, as well as professional programs and postbaccalaureate, graduate and specialist certificates, many of which rank in the top tier nationally. The university currently enrolls 24,931 students. Six extension centers across southeastern Michigan provide access for residents to a wide selection of off-campus courses. The university is a significant and influential force in metropolitan Detroit's educational and cultural landscape, and TechTown, the 43-acre research and technology park that the university supports, has made it a major player in Michigan's economic turnaround.

The university educates significant number of Michigan's youth and prepares them for productive careers in the state. In fall 2021, 87% of our undergraduates are from the tri-county (Wayne, Oakland, and Macomb) area (14,618 out of 16,851 undergraduates), and 65% of graduate students and 60% of professional students are from the tri-county area. Overall, 79.2% of our fall 2021 student body are from the tri-county area, while 91% of the overall student body are from Michigan. Approximately 76.6 percent of Wayne State graduates reside in Michigan to provide the highly educated workforce necessary to transform and power Michigan's economy in the twenty-first century.

Wayne State University graduates serving the citizens of Michigan have advanced professional training in business; engineering; education; law; pharmacy and health sciences; medicine; nursing; social work; fine, performing and communication arts; liberal arts; and the basic sciences. Every day, our graduates play a critical role in Michigan life, from local physicians, teachers and attorneys to scientists and engineers working in the latest high-tech spin-off companies.

**Figure 1** illustrates the University's fall 2020 and 2021 enrollment by headcount and degrees awarded from July 1, 2019 to June 30, 2020. These Figures, and all subsequent Figures, exclude graduate medical education students.

Figure 1: Degrees Awarded and Enrollment by College

School/College	Degrees Awarded		Enrollment	
	2018-2019	2019-2020	Fall 2020	Fall 2021
School of Business	1,151	1,173	4,290	3,960
College of Education	645	646	2,279	2,133
College of Engineering	913	895	3,368	3,198
College of Fine, Performing, & Comm. Arts	420	423	1,855	1,745
Graduate School	-	-	-	-
Law School	132	151	404	420
Liberal Arts & Sciences	1,646	1,750	9,253	8,891
School of Information Sciences	185	165	404	389
School of Medicine	414	411	1,584	1,549
College of Nursing	246	244	883	854
Pharmacy and Health Sciences	456	419	977	966
School of Social Work	492	459	954	826
<b>TOTAL</b>	<b>6,700</b>	<b>6,736</b>	<b>26,251</b>	<b>24,931</b>

Source: Office of Institutional Research and Analysis

Unique Characteristics of Wayne State’s Academic Mission

Wayne State University prides itself on its excellent faculty who reach students through their classroom and online teaching, practical training, and mentoring, engage in pioneering research, and participate in numerous activities within the broader community. Academic excellence and innovative research are central to our mission and a primary reason why graduate and undergraduate students alike choose to attend the university. We are one of the 50 largest public universities in the nation, and we have received the Carnegie Foundation's highest classifications for research and community engagement, with annual research expenditures of more than \$244.2 million. With the University of Michigan and Michigan State University, we participate in the University Research Corridor, that generates 95 percent of research in the state and supports economic growth throughout Michigan. Wayne State is also one of Detroit's largest employers: with a nearly \$2.4 billion economic impact in the metro Detroit area, the university is a driving force behind the city's resurgence.

From medicine and mechanical engineering to graphic design and geology, the university’s faculty members are renowned for innovation and expertise in their fields, crafting hands-on curricula to take students out of the classroom and into the real world. Wayne State University is increasingly known for interdisciplinary research in areas such as urban health sciences and disparities, the

environment, entrepreneurship and data analytics, human services and education, manufacturing, public policy and the law, language and the arts. Whether in the lab or on the stage, the faculty has a measurable impact locally in our own neighborhood, regionally and within the state, and around the world.

University Program Rankings:

- Top 1.4 percent of universities worldwide — *Center for World University Rankings*
- Best business school — *Princeton Review*
- No. 2 medical institution for research in Michigan — *U.S. News and World Report*
- Top 100 law school, second in Michigan — *U.S. News and World Report*
- One of the nation's best law schools for bar prep – *The National Jurist*
- Top-ranked physician assistant program in Michigan — *U.S. News and World Report*
- Social work program in the country's top 20 percent — *U.S. News and World Report*
- Nursing-anesthesia program ranked in the country's top 20 percent — *U.S. News and World Report*
- College of Nursing's bachelor of science program ranked in top 7% - *U.S. News and World Report*
- College of Nursing's doctorate of nursing practice program and nursing master's program remain the second-highest ranked MSN and DNP programs in Michigan – *U.S. News and World Report*
- Mike Ilitch School of Business global supply chain management program ranked in top 12% worldwide – *2020 SCM Journal List*
- More than 20 graduate programs ranked in the top 100 of U.S. News's 2022 Best Graduate Schools – *U.S. News and World Report*
- Ranked #66 out of 391 national universities in Top Performers on Social Mobility – *U.S. News and World Report*

Facilities and projects that provide community impact:

- IBio, a \$90 million facility dedicated to eliminating health disparities in Detroit
- TechTown, Detroit's most established business accelerator and incubator
- Hilberry Theatre, the nation's first graduate repertory company
- Technology assistance, helping launch 800 student and faculty innovators' patent applications since 2009
- Wayne Law pro-bono legal services, assisting 100+ clients annually
- Blackstone Launchpad business assistance, helping more than 150 student ventures

Research Accomplishments

Wayne State University is a preeminent public research university in an urban setting with faculty who conduct innovative research resulting in groundbreaking discoveries that impact lives around the world. Through a multidisciplinary approach to research and education, and ongoing collaboration with government, industry and other institutions including our University Research Corridor partners – the University of Michigan and Michigan State University – and the TechTown research and technology park, the university seeks to expand knowledge, enhance economic growth and improve the quality of life in the city of Detroit, state of Michigan, and throughout the world.

Research at Wayne State University continues to gain momentum including an increase in total extramural research funding from \$188 million in FY2015 to \$304.8 million in FY2020, and nearly a 24% increase in federal extramural research funding. Research expenditures have followed this upward trend with an increase of nearly 10% since 2016 with a total of \$243.2 million in FY2020.

According to the NSF's 2019 Higher Education Research and Development Survey (the most recent published ranking) Wayne State University ranked 67<sup>th</sup> among 400 public universities and 102<sup>nd</sup> out of more than 3,500 U.S. colleges and universities.

The innovative research conducted by our faculty and research staff illustrate Wayne State's successful research enterprise. The following highlight a sampling of the important work our faculty are doing in the research arena.

Dr. Kezhong Zhang, professor of Molecular Medicine and Genetics, and of Biochemistry, Microbiology and Immunology in the School of Medicine was awarded a \$2.3 million grant by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, to support research in circadian RNA modification in metabolic disease. He will use the grant, Regulation of Rhythmic m6A RNA Modification by ER-associated Degradation, to explore the mechanism by which circadian stress regulates RNA modification associated with the development of non-alcoholic fatty liver disease and hyperlipidemia. Irregular circadian rhythm is one of major causes of human metabolic disease, cardiovascular disease and cancer, and his work will not only contribute to the understanding of the molecular basis governing energy metabolism, but also shed new light on developing therapeutics for lipid-associated metabolic disease

Dr. Charles Chung, assistant professor of physiology, was awarded a \$1.9 million grant from the National Heart, Lung, and Blood Institute of the National Institutes of Health to address the critical need for new drug targets and diagnostic indexes for diastolic dysfunction using novel biomechanical tests that ultimately can be translated into clinical practice. After the left ventricle of the heart contracts, it must relax efficiently to prepare to refill and supply the body with blood on the next beat. An increasing number of patients — including nearly all patients with heart failure — suffer from impaired relaxation, which is part of a clinical syndrome known as diastolic dysfunction. Currently, treatments for impaired relaxation do not exist. The project will use unique experiments and imaging techniques to link mechanical properties of the heart with models of heart failure that occur in patients.

Dr. Sidhartha Tan, professor and co-division chief of Neonatology in the Department of Pediatrics, received two new five-year R01 grants worth a collective \$5.59 million from the National Institutes of Health aimed at preventing and treating cerebral. Dr. Tan's first grant for \$2.4 million, "Potent Neuronal Nitric Oxide Synthase Inhibition for Prevention of Cerebral Palsy," test new, promising drugs aimed at a preventive cure for the condition. His second \$3.2 million award, "Probing Role of Tetrahydrobiopterin in Cerebral Palsy by Using Transgenic Rabbits," will explore whether an essential enzyme co-factor is involved in brain injury before birth. The cellular and genetic basis of brain regional injury will be investigated using an animal

model in which genes have been altered by genetic engineering methods, as well as advanced methods of magnetic resonance imaging.

Dr. Phillip Levy, the Edward S. Thomas Endowed Professor and Associate Chair for Research in the Department of Emergency Medicine, and assistant vice president for Translational Science and Clinical Research Innovation, will lead a Wayne State team on a number of comprehensive population health initiatives funded by a \$1.5 million grant from the Michigan Department of Health and Human Services, that will focus on undiagnosed or poorly controlled hypertension and hyperlipidemia through a program called Bring it Down, which will utilize community health workers as a conduit to link patients to accessible primary care providers. Levy and his team also will explore and test innovative ways to promote the adoption of evidence-based quality measurements at the health care provider level. The team will also implement systems to facilitate bi-directional referrals to community programs and resources and health care systems, ultimately aiming to improve lives. The team will explore and test innovative ways to expand the use of telehealth smartphone applications to promote better management of hypertension and high blood cholesterol. The team will also implement systems to facilitate bi-directional referrals to community programs and resources and health care systems, ultimately aiming to improve lives.

In addition to the MDHHS-funded project, Dr. Levy will lead Wayne State's nearly \$2.64 million, four-year project, Linkage, Empowerment, and Access to Prevent Hypertension (LEAP-HTN), funded by the American Heart Association. LEAP-HTN will deploy Wayne Health mobile health units to provide direct, personalized health care and coaching to Black people with high blood pressure living in select under-resourced neighborhoods in Detroit. Community health workers will help people in the study develop and follow a personalized, flexible health plan. Throughout the year, researchers will regularly compare hypertension and other health factors of people in the program to those of people in the community who also have high blood pressure but didn't take part in the personalized health plan. They anticipate people receiving care from the community health workers will have lower or better control of their blood pressure compared to those who are not in the program.

Dr. Zhengping Yi, professor of pharmaceutical sciences, and Dr. Jiemei Wang, assistant professor of pharmaceutical sciences in the Eugene Applebaum College of Pharmacy and Health Sciences, received a four-year, \$1.5 million grant from the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health for the project, "Mechanistic study of small-molecular therapy in diabetic wound healing." The team will explore the molecular mechanisms of an FDA-approved oral formula of the small molecules trans-resveratrol (tRES) and hesperetin (HESP) to assess its effect on diabetic wound healing in cell culture and animal models. The goal of their project is to find a breakthrough in wound care protocols to aid the large number of diabetic patients who end up with foot ulcers that lead to amputations.

A multi-institutional study led by Wayne State University physicists and computer scientists will continue with a \$4 million renewal grant from the National Science Foundation. The collaboration known as JETSCAPE will study critical elements of high energy nuclear physics. The collaboration consists of a multi-disciplinary team of physicists, computer scientists and

statisticians from 13 institutions (UC Berkeley, Brookhaven National Lab, Duke, Kent State, Lawrence Berkeley National Lab, Lawrence Livermore National Lab, MIT, McGill, Oak Ridge National Lab., Ohio State, Tennessee, Texas A&M, and Wayne State). This elite team will create an open-source statistical and computational software to help scientists better understand high energy nuclear collisions. Wayne State physics professor and lead investigator Dr. Abhijit Majumder is one of the top experts in the development of theoretical techniques for understanding the dynamics of high-energy nuclear collisions.

In 2021, the U.S. Department of Energy (DOE) announced \$73 million in funding to advance quantum information science research to aid in better understanding the physical world and harness nature to benefit people and society. Dr. Aaron Rury, assistant professor of chemistry in the College of Liberal Arts and Science, is the recipient of one of 29 projects funded by the DOE. Dr. Rury's \$3.3 million award — in collaboration with researchers at the University of California-Irvine, the University of California-San Diego, Los Alamos National Laboratory, and Argonne National Laboratory — “Multi-component Cavity Polaritons for Tunable Intermolecular Entanglement and Controlled Photo-to-Electron Quantum Transduction,” will aim to understand how the entanglement of quantum excitations appears and evolves temporally in complex chemical systems.

Repela Tech LLC, a Detroit-based sustainability tech startup from Wayne State University, was awarded a National Science Foundation (NSF) Small Business Technology Transfer (STTR) Phase II grant totaling \$993,788 for research and development on a patent-pending (WSU Tech ID 20-1601), first-of-a-kind, safe antifouling marine coating. The project, “STTR Phase II: The Next Generation of Environmentally Friendly Coatings for Marine Antifouling,” will further develop a novel non-toxic antifoulant that keeps the hulls of marine vessels clear of biofouling without the environmental harm imposed by current antifoulant products. The company was co-founded by Zhiqiang Cao, Ph.D., professor of chemical engineering and materials science in Wayne State University's College of Engineering, and Edward Kim, a former mentor-in-residence at the university and an angel investor.

Researchers at Wayne State University recently received a nearly \$1.97 million grant from the National Institute of General Medical Sciences of the National Institutes of Health for the T34 program, Maximizing Access to Research Careers (MARC). This five-year program will continue Wayne State's successful and long-standing undergraduate training program in the biomedical sciences, which was led by Joseph C. Dunbar, Ph.D., professor of physiology and director of medical student research and innovation in Wayne State's School of Medicine. The program will support approximately 20 undergraduate students each year in a structured academic community that will provide additional career development activities and individualized mentoring to cultivate highly sought-after skills and prepare students to enter into Ph.D. and M.D./Ph.D. programs and careers in the biomedical sciences. The project is led by Dr. Matt Allen, chair of chemistry and Dr. Lori Pile, associate professor of biological sciences.

In addition to the T34 award, Wayne State University received an Initiative for Maximizing Student Development (IMSD) T32 training program grant from the National Institute of General Medical Sciences of the National Institutes of Health. This \$2.5 million grant will aid in growing Wayne State's successful IMSD R25 graduate training program in biomedical sciences and

behavioral research, which existed for many years and was led by Joseph C. Dunbar, Ph.D., professor of physiology and director of medical student research and innovation in Wayne State's School of Medicine, along with Rasheeda Zafar, Ph.D., IMSD program administrator. The IMSD T32 program will provide 10 graduate students a year with a structured academic community, additional career-development activities and individualized mentoring, allowing the diverse trainees to cultivate highly sought-after skills that will lead to successful careers in the biomedical sciences. The program will be led by Dr. Christine Chow, professor of chemistry, Dr. Michele Cote, professor of oncology and Dr. Stephen Lanier, vice president for research and professor of pharmacology.

### *Economic Development Impact of Current/Future Programs*

Wayne State University's impact on Southeast Michigan is substantial, estimated by the Anderson Economic Group to be over \$2.5 billion per year. The large numbers of alumni who remain in the area after graduation contribute significantly to the region's well-being through their professional and personal accomplishments, community activities and financial resources. Additionally, the University is among the largest employers in the City of Detroit with more than 7,000 full- and part-time faculty and staff.

In fiscal year 2020, the university spent more than \$602 million for compensation, wages, and fringe benefits. The university awarded nearly \$360 million in financial aid (federal, institutional, private, outside and state) to 33,080 undergraduate and graduate students, which translates to an average of \$10,877 per award. Expenditures on supplies and services in FY18 exceeded \$198 million, with 71.4% of all invoices paid to Michigan-based companies.

The university spent over \$244 million in research and development during fiscal year 2020. In fiscal year 2020, 76 new patent applications were filed, and 35 total patents were issued (U.S. and foreign). Furthermore, the university spent nearly \$1.2 million to file and maintain all of its patent applications and issued patents and received \$817,203 in revenue from license and startup companies.

Through fiscal year 2020, the university's portfolio contained over 600 technologies, including more than 450 pending and issued patents. More than 150 of those technologies were licensed, with 35 licensed to Michigan-based companies. The university has assisted in the start-up of more than 40 companies based on university intellectual property with the majority of those startups located in Michigan.

Wayne State University is committed to encouraging an entrepreneurial culture and establishing infrastructure that supports the creation of new companies. The Wayne State University Innovation Studio powered by TechTown helped launch nearly 200 businesses that have generated revenue or hired employees since 2011, while the Goldman Sachs 10,000 Small Businesses program has graduated 575 second-stage small businesses from across Michigan, which employ more than 8,700 people and have generated more than \$900 million in revenue. Approximately 70% of these businesses increased revenues after completing the program, and 45% created new jobs. TechTown Detroit has served more than 4,500 companies, which leveraged more than \$172 million in start-up capital and contributed 1,600 jobs to the local economy from 2007 to 2020.

Transformations in the Wayne State neighborhood include (data current as of September 2020):

- 178 businesses have opened or expanded in the Midtown, TechTown and New Center districts since 2014; another 77 were scheduled to open or expand by the end of 2020.
- The Live Midtown program attracted 1,202 new residents to the area and retained 913. The financial impact of the program is estimated at over \$22 million.
- The Stay Midtown incentive, designed to help cost-burdened households currently residing Midtown remain in the area, has aided 128 households since 2016.
- Residential occupancy for rental housing has been at or above 98% since 2014.
- 2,078 residential units were recently completed (\$787 million invested); 1,606 are under construction (\$720 million invested); and another 2,051 are in the construction pipeline (\$1.1 billion soon-to-be invested).
- Midtown has seen a 55% decline in major crime since 2009, due in large part to Wayne State University's Police Department and its community policing activities. Wayne State University is committed to be a catalyst for economic growth in the city. Initiatives include:
  - The university completed a comprehensive space utilization analysis and adopted a new campus master plan with a 10-year planning horizon, the Wayne Framework.
  - The university is one of 12 institutions partnering in an international design competition and planning process that asks students to consider how technologies can be used to further the missions of cultural institutions and help them better coordinate, cooperate, and collaborate with each other to enhance the experiences of visitors to their institutions and to the wider cultural district.
  - Construction was completed on the Anthony Wayne Drive apartments in 2019, a \$111 million mixed-use building with 840 new dorm beds and 86,500 square feet of retail space.
  - The university acquired the NextEnergy building in 2018 for \$6.6 million. The Industry Innovation Center (I2C) will be a space where university and industry partners collaborate.
  - Woodward | Warren Park features landscaping, seating, a welcome kiosk, solar panels and marketplace lighting.
  - The university continues to promote and make investments in transportation and mobility solutions -- including the QLINE, MoGo, DDOT and SMART – and in August 2021 announced a university-wide transit pass to support student, staff and faculty use of multiple local transit systems.

*Wayne State University Research and Technology Park (TechTown)*

TechTown is Detroit's entrepreneurship hub. As the city's most established business accelerator and incubator, TechTown provides a powerful connection to a broad network of resources, catalyzing entire communities of entrepreneurs to energize the local economy. It offers both tech and place-based economic development programs, as well as coworking, office, meeting and event space.

TechTown is a 501(c)(3) nonprofit and is located within the Woodward Technology Corridor SmartZone, on the northern edge the university's main campus. The TechTown building is located one block from Wayne State University's Integrative Biosciences (IBio) Center and across the street from the NextEnergy building, which the university acquired in 2018. Wayne State University is partnering with TechTown to transform the NextEnergy building into the Wayne State Industry Innovation Center (I2C), a facility for university and industry collaboration and research, with a focus on cyber physical systems including cyber security, connected and autonomous vehicles, and smart city technologies.

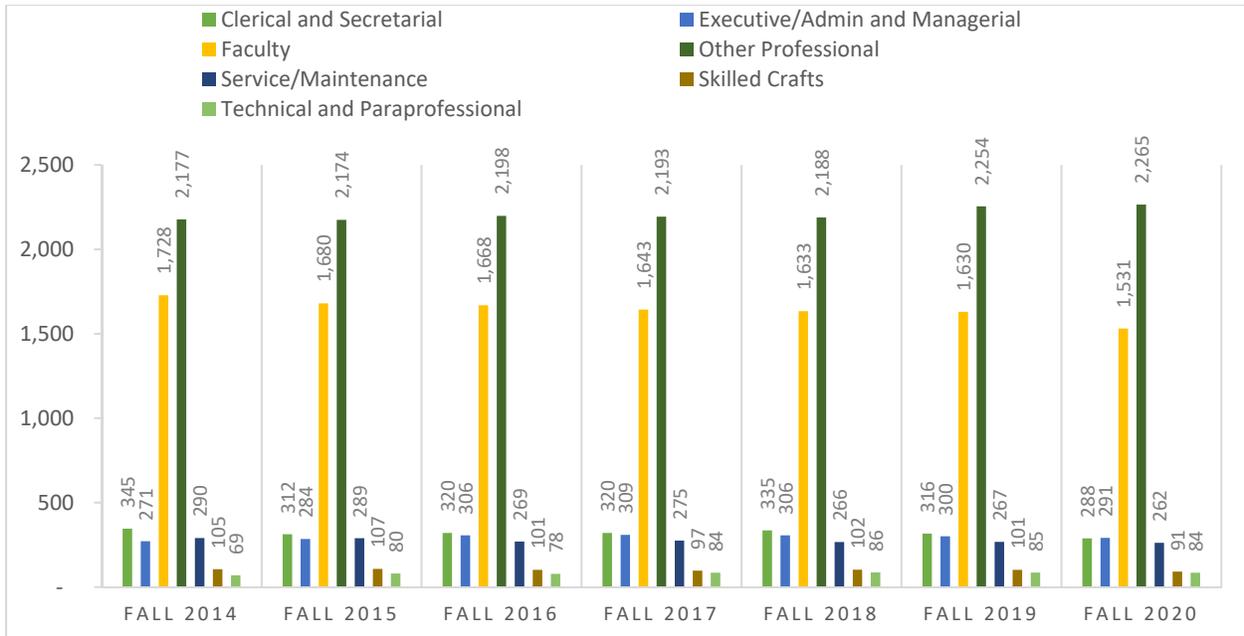
In this growing neighborhood, Wayne State University's students and faculty work alongside entrepreneurs at TechTown to refine new generations of businesses. TechTown not only contributes significantly to the university's research capital but also strengthens and diversifies the region's economy. The relationship with TechTown highlights one of Wayne State University's greatest strengths, its ability to partner with industry and government for the good of the populations the university serves.

TechTown fosters a community of engaged, connected, and better served entrepreneurs, who will accelerate the region's transition into an innovation-based economy.

### III. Staffing and Enrollment

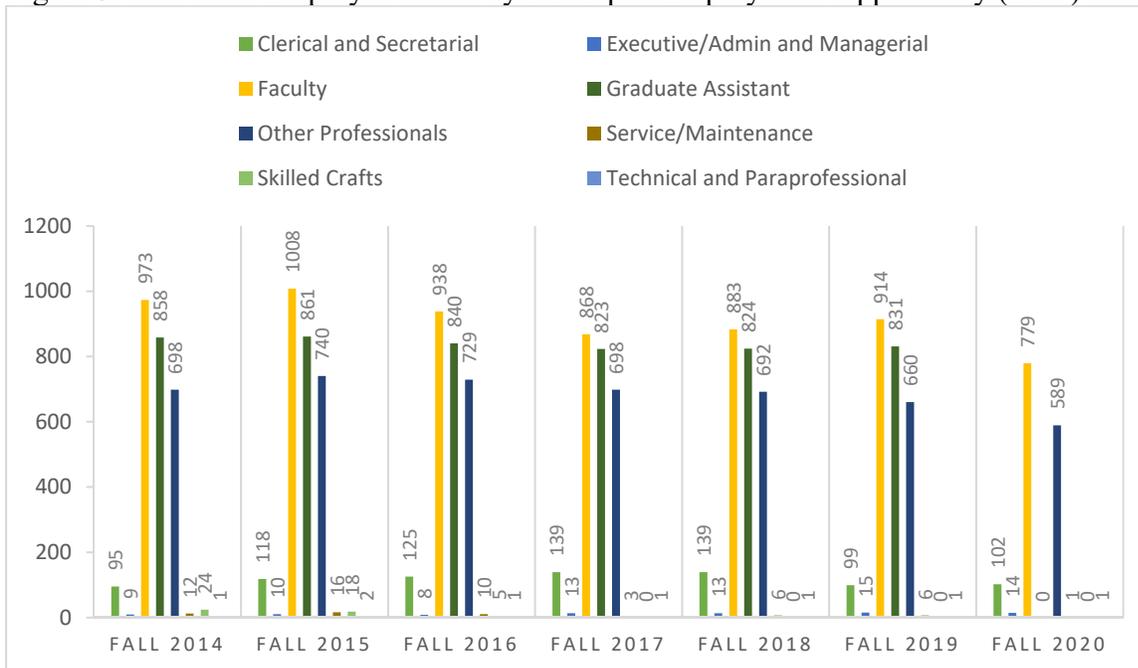
#### Staffing

Figure 2: Full Time Employee Count by HR Equal Employment Opportunity (EEO) Categories



Source: Office of Institutional Research and Analysis

Figure 3: Part Time Employee Count by HR Equal Employment Opportunity (EEO) Categories



*Source: Office of Institutional Research and Analysis*

### Enrollment

Despite the global COVID-19 pandemic, WSU is demonstrating strong enrollment and student success outcomes, particularly for undergraduate students. Total enrollment for undergraduates is down 0.7%, in part because of the university's improved graduation rates, described below. Decreases in transfer students, observed nationally also contributed to this slight decline. Total graduate and professional enrollment are down 5.0%, reflecting in large part barriers to international student enrollment; nonetheless, the decline here is less than many of the university's peers. Wayne State University's overall Fall 2020 enrollment was down 2.2%, from 26,844 to 26,251; but total credit hours are up 0.1%, indicating a stronger revenue projection as well as reflecting stronger student success outcomes.

The **Student Success Initiative** has overhauled the student experience and is drawing national attention for our positive results over the past decade. As a result of this effort, our 6-year graduation rate roughly doubled from 26% in 2011 to 52% in 2020, the fastest rate of improvement in the nation for large public universities over much of this time. Our commitment to continued improvements in student success is an integral part of the university. Gains in student success have been achieved across the undergraduate population, with dramatic increases in the 6-year graduation rates for Black students (8% to 25%), Latinx students (18% to 35%), first-generation students (18% to 43%), and low-income students (16% to 45%). Similar improvements hold for 4-year and 5-year graduation rates; thus, we expect continued improvement over the coming years.

Concurrent gains in other measures of student success point to academic and learning gains. Students are completing 26 credits (on average) during their first two semesters, compared to 21 a decade ago. This trend holds for students of color, first generation students and low-income students as well, although at decreased levels. For example, Black students completed 16 credits on average during their first fall and winter in 2011, increasing to 23 on average today. (White students showed an increase of three credit hours earned over the same time period.)

Students are passing 92% of their courses during the first year, compared to 80% a decade ago, another pattern which holds for first-generation students, low-income students, and students of color. The gains in the percentage of courses passed and the number of credits earned during the first year for these groups exceeds that of majority/non-first generation/non-low-income students. Thus, gaps are narrowing on these metrics. For example, in 2011, Black students passed 68% of their first-year courses on average; today it is 84%. (White students improved from 91% to 93% over the same time period.)

When the COVID-19 pandemic began to affect colleges and universities in March 2020, Wayne State University made strong commitments to our students' learning and to their health, as well as the health of our entire campus community and the city. Our transition to remote and online instruction was smooth; we were particularly pro-active in our outreach to students at that time to ensure that they were able to participate successfully in the new forms of delivery.

Our restart planning process was more proactive and conservative than many other universities. Thus, we have not had the abrupt reversals of course that some colleges and universities have had,

and we have very few COVID cases among students. The global pandemic has not appeared to have stalled our student success improvements. First to second year retention from 2019 to 2020 was 82%, the largest since we began recording and reporting retention numbers. Retention numbers are also up across very nearly every sub-population as well.

Nonetheless, educational disparities remain for Black and Latinx students, first generation students, and low-income students when compared to the overall undergraduate population. WSU has committed (together with more than 130 public institutions participating in the Association for Public and Land Grant Universities Powered by Public Initiative) to halve educational disparities by 2025. In its first year, Black students who participated in the Warrior Vision and Impact Program (VIP) and who took WSU's innovative First Year Experience Course performed as well as honors students on average. We are now scaling that program. Educational disparities between historically excluded populations and the overall student body have narrowed in our four-year and five-year graduation rates and we are optimistic about sustaining progress over the next five years in closing educational disparities and boosting student success outcomes for all Wayne State University undergraduate students.

### Admissions Initiatives

Wayne State University has undertaken a number of initiatives to increase admission and ensure student success. Two of these programs are further detailed below. Together, we believe that these programs, helped to increase our overall "First Time In any College" (FTIAC) enrollment and our full-time FTIAC enrollment. The University undertook these and other initiatives in the face of a sharp decline in the number of high school graduates going on to college in Michigan and in a year when many state-funded institutions were expending considerable effort to attract more in-state students.

- **Heart of Detroit Tuition Pledge:** The Heart of Detroit Tuition Pledge offers free tuition for graduates of Detroit high schools or Detroit residents earning a high school diploma in 2021. Heart of Detroit (HOD) builds on programs such as Detroit Promise, Wayne Access and Warrior Way Back to expand opportunities to Detroit youth. The University launched the pledge in fall 2020.
- **Kick Start College:** Wayne State University's Kick Start College program available to approximately 500 incoming first-time, full-time freshmen is intended to ease the transition from high school to college. This program offered tuition-free, online general education course to eligible students during the upcoming summer semester, which ran for seven weeks, beginning at the end of June. In its inaugural session, 597 students participated in the Kick Start College program, taking a free English or Communications class over the summer.

### Student-to-Faculty Ratios

The published student to faculty ratio is based on 19,233 full-time equivalent students (full time plus 1/3 part time) and 1,183 full-time equivalent instructional faculty (full time plus 1/3 part time)

and excluding students and faculty in stand-alone graduate programs. The fall 2020 student to faculty ratio is 16 to 1, which is on par with the national average.

Current Class Size

Class size varies depending on the program and class level. Of all undergraduate classes (excluding sub-sections), 27% have fewer than 20 students. Classes with 20 to 49 students make up 59%. Of the 2,098 class sections, 86% have fewer than 50 students. Additionally, of 351 class sub-sections, 100% have fewer than 100 students.

Figure 4: Number of Class Sections with Undergraduates Enrolled (Class Sections)

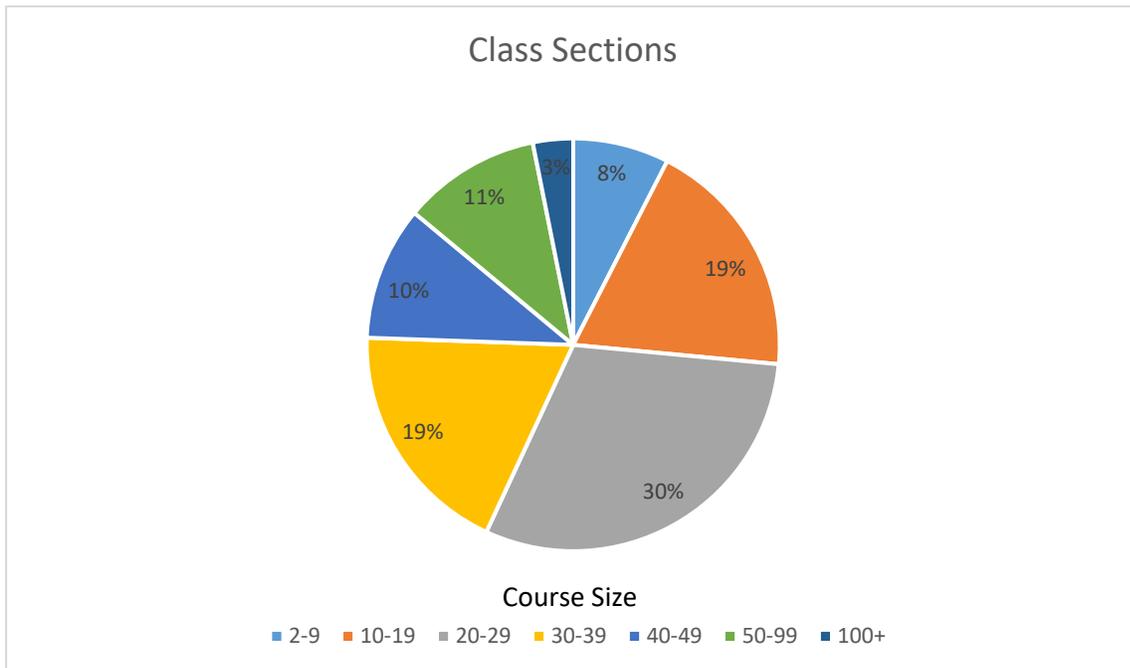
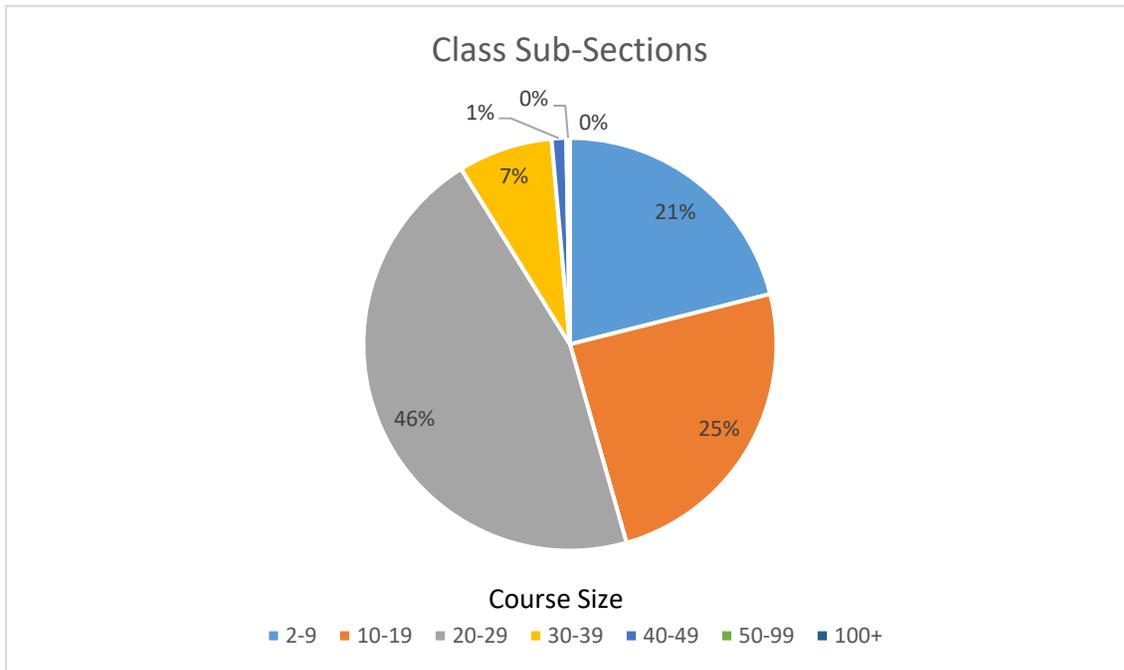


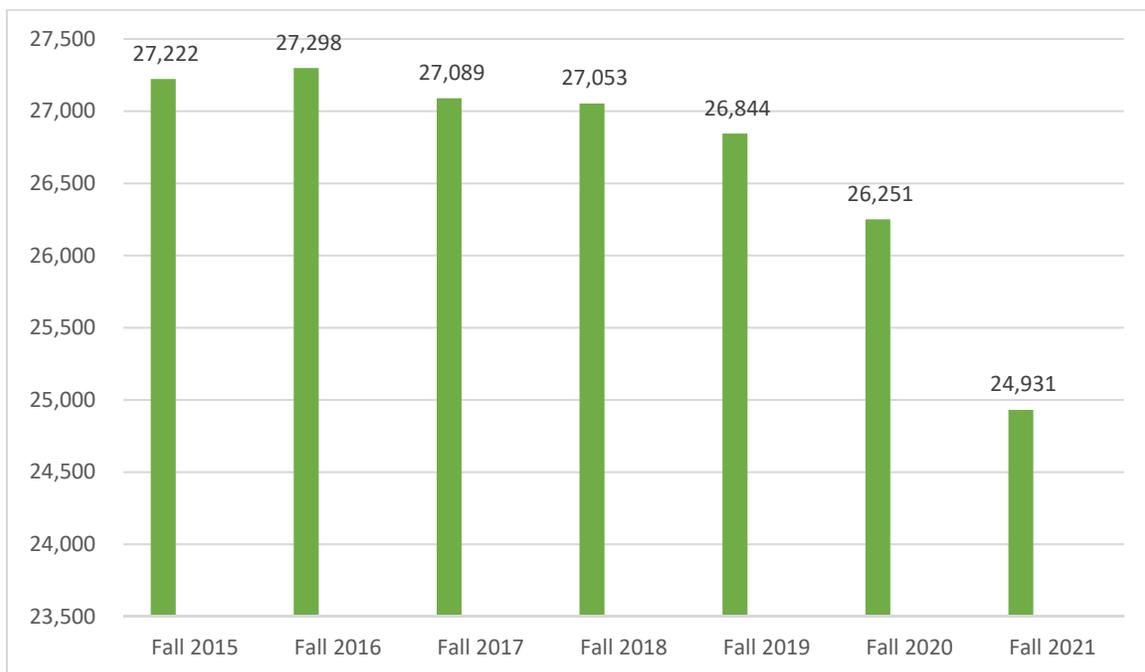
Figure 5: Number of Class Sections with Undergraduates Enrolled (Class Sub-Sections)



Source: Office of Institutional Research and Analysis

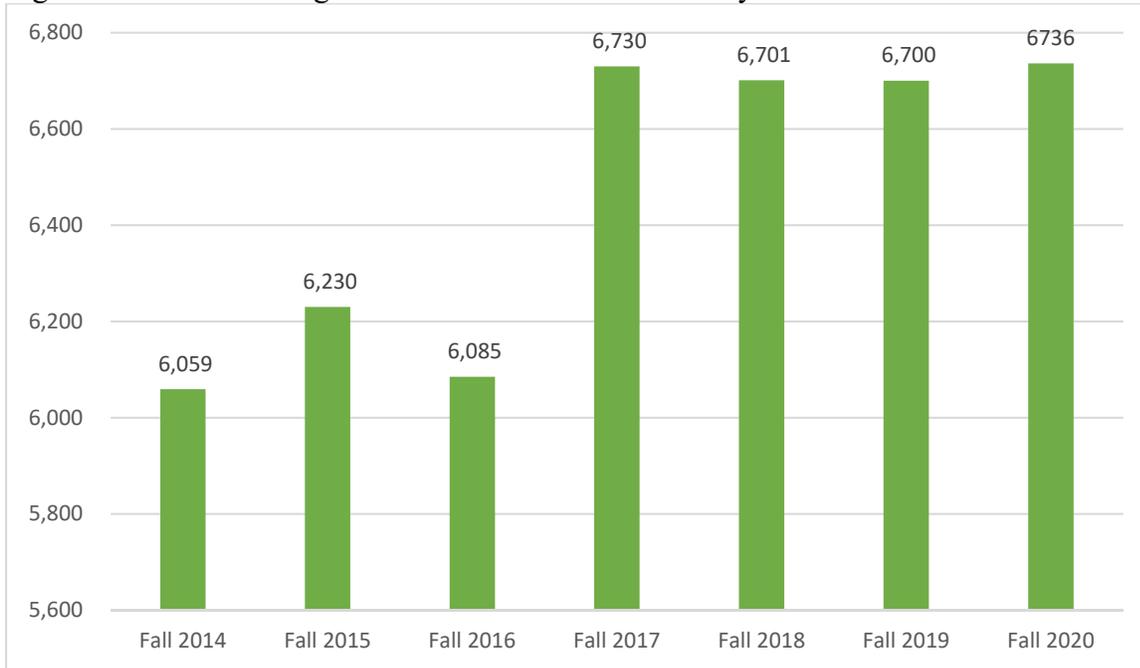
Enrollment and Graduation Patterns over the Past Six Years

Figure 6: Total Headcount Enrollment by Year



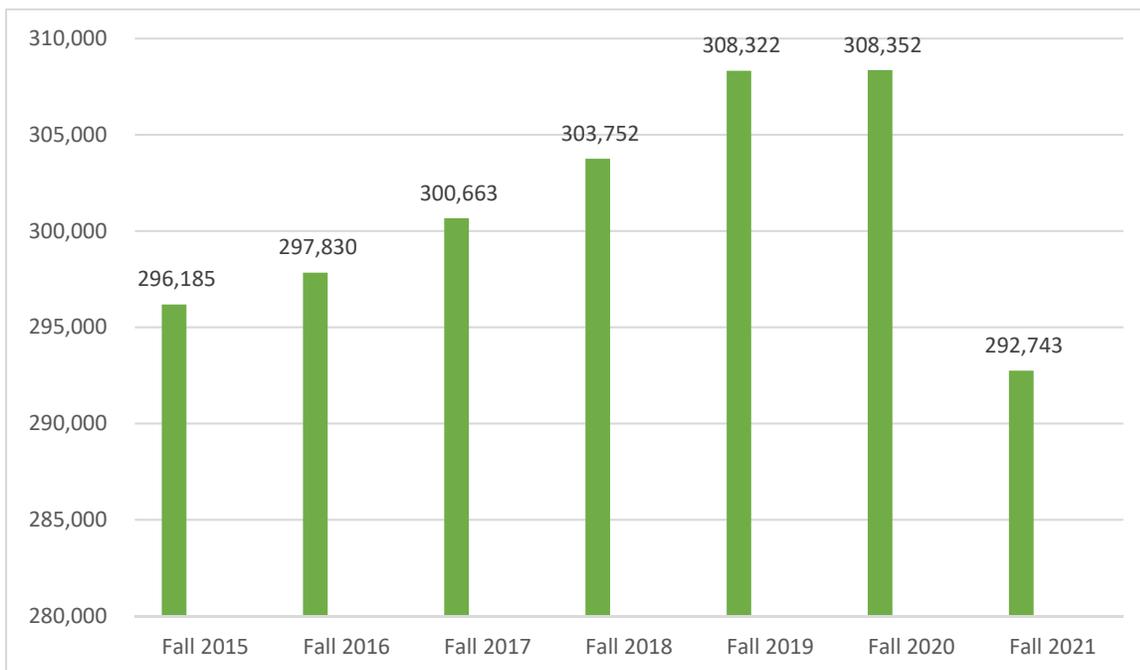
Source: Office of Institutional Research and Analysis

Figure 7: Number of Degrees and Certificates Awarded by Year



Source: Office of Institutional Research and Analysis

Figure 8: Credit Hours by Year (includes dual credit hours)



Source: Office of Institutional Research and Analysis

Extension Center Summary & Web Class Report

Figure 9: Extension Center Enrollment 2020:2021

	Section Count		Section Enrollment		AVG Section Enrollment	
	2020	2021	2020	2021	2020	2021
<b>All Extension Centers TOTAL</b>	0	79	0	1,251	0	16

Student Headcount & Credit Hours	Headcount		Credit Hours		Average Credit Hours	
<b>Undergraduate Totals</b>	0	865	0	3,454	0.0	4.0
<b>Graduate Totals</b>	0	10	0	30	0.0	3.0
<b>Professional Totals</b>	0	0	0	0	0.0	0.0
<b>TOTAL</b>	<b>0</b>	<b>875</b>	<b>0</b>	<b>3,484</b>	<b>0.0</b>	<b>7.0</b>

Figure 10: Web Class 2020:2021 Comparison

Class Section	Section Count		Section Enrollment		AVG Section Enrollment	
	2020	2021	2020	2021	2020	2021
<b>TOTAL</b>	3,493	958	89,617	29,345	26	31

Student Headcount & Credit Hours	Headcount		Credit Hours		Average Credit Hours	
Student Level	2020	2021	2020	2021	2020	2021
<b>Undergraduate</b>	19,217	12,100	212,613	71,446	11	5.9
<b>Graduate</b>	6,173	2,792	35,919	12,205	6	4.4
<b>Professional</b>	755	127	6,732	361	9	2.8
<b>TOTAL</b>	<b>9,219</b>	<b>15,019</b>	<b>255,264</b>	<b>84,012</b>	<b>9</b>	<b>4.4</b>

Source: Office of Institutional Research and Analysis

#### IV. Facilities Assessment

##### Campus Housing Demand

Demand for on-campus housing by university students continues to be strong. Wayne State University’s 40-year partnership with Corvias, LLC, a novel implementation of a Public-Private Partnership (P3) began on December 1, 2017. The partnership incorporates the Housing Facilities Master Plan 2016-2026, with the following projects now complete: Fall 2017 opening of The Thompson, a 55-bed living/learning community for the College of Fine, Performing and Communication Arts; Fall 2018 opening of the 400-bed Phase I of the new Anthony Wayne Drive Apartments; Summer

and Fall 2018 exterior renovation of Chatsworth Apartments; July 2019 opening of the 443-bed Phase II of the Anthony Wayne Drive Apartments; Summer 2019 demolition of the Helen L. DeRoy Apartments; Fall 2021 opening of the Chatsworth Suites after an interior “gut and rebuild” of the Chatsworth Apartments. A related project, the expansion of the Towers Residential Suites cafeteria dining room to support more students living and dining on campus was completed in October 2020. Activities to address deferred maintenance in other existing housing facilities will continue annually. A major renovation of Keast Commons, the campus green space in the residential precinct of campus, is in planning to occur in 2021-26 time period.

### *Functionality of Existing Structures, Deferred Maintenance and Facilities Condition*

Wayne State University owns and operates 111 buildings and leases space in another 14. The university delivers its programs and conducts research from over 12.7 million gross square feet of space.

The bulk of the university’s physical infrastructure was constructed prior to 1980, with the majority constructed in the post-WWII era of 1951-1975. Even after renovation, 47% of the campus is considered to be over 50 years old which places a significant risk of failure on the university’s operations. Since 2012, an average of \$90 million has been spent on capital investment annually, 50% of which was spent on renovation of existing space and 3% spent on standalone infrastructure improvements. Recently, the university retained the services of Gordian, a nationally renowned company that works with institutional members to benchmark data, identify opportunities to optimize capital resources and quantify campus sustainability performance. For the past year, Gordian has worked with the university to collect and verify facilities data in order to collect asset data, conduct a condition assessment of each asset, catalogue assets and prepare the data for a transfer into the university’s CMMS tool. When Gordian’s work is complete, we will have an FCI score and a comprehensive 5-year capital plan. This five-year capital plan will be inclusive of mechanical, electrical and plumbing (MEP) infrastructures, as well as building envelope and furniture fixtures and equipment (FF&E).

### *Utilities and Energy Management*

The Department of Utilities and Energy Management is responsible for undertaking numerous gas, electricity and water saving initiatives. This is in addition to significant electrical utility service upgrade/conversion projects in many buildings. We now have three energy engineers and a consulting group of three persons actively engaged in various aspects of energy optimization. These groups are entirely funded by DTE as a result of our dedicated participation in the DTE Energy Challenge. We secured additional support by our demonstrated ongoing commitment to progressive energy management efforts. DTE funding is also being provided to support paid student interns to aid in ongoing efforts.

The Energy Challenge, was an energy reduction study involving a five-building survey process. The goal achieved was to document energy saving opportunities and create a payback analysis book containing the various options. Wayne State Engineering graduate students were involved

in the efforts along with a professor from the College of Engineering. This effort was combined with a class in energy management to provide field experience for the students. All participating students received scholarships for their participation. The three energy engineers are currently involved in conducting a study of energy saving opportunities in an additional 12 buildings using the format from the original five buildings.

Additional energy management efforts involve:

- Review and ongoing modifications to the building automation systems in seven buildings resulting in significantly reduced energy waste.
- Opportunities for additional savings led to the solicitation and approval of DTE funding to expand current efforts to 14 buildings using the consulting group in concert with our in-house automation personnel. The resulting energy savings have qualified us for additional DTE rebates.
- Wayne State has undertaken equipment upgrades including the replacement of older motors with high efficiency units. Additionally, we have added variable speed drives to older air handlers to replace inefficient vane damper controls. DTE rebates were realized for these efforts.
- Numerous lighting upgrades were completed by converting outdated lighting configurations to LED fixtures which also allowed for rebates from DTE.
- Our group participates in various ancillary efforts like supporting the upcoming acquisition of a large number of electric vehicle (EV) chargers for the numerous parking areas. Significant DTE rebates are available for this effort.
- This office provides support to the Wayne State Office of Sustainability as needed to promote their efforts and our common goals toward improving the environment and implementing sustainable practices for the university. This includes the reestablishment of the Energy Curtailment Committee.
- Other successful efforts are in natural gas purchasing and management where, with facility and finance approval, we have hedged 80% of our historical gas consumption at a fixed cost substantially below the market prices.
- This office is responsible for EPA emission reporting and compliance related to all campus boilers and emergency generators.
- This office led the initiative to create the indoor air quality guidelines used in the campus restart manual related to the COVID-19 pandemic.

### *Sustainability Path*

The Office of Campus Sustainability, located within Facilities Planning and Management, works to reduce the environmental impacts created by the university's operation while also engaging the entire campus community in sustainable actions, initiatives, and opportunities that lead to enhancing sustainability-related outcomes within the learning environment. A five-year sustainability plan has been developed to guide campus sustainability efforts in academics, research, operations, and campus life. The sustainability plan also aligns with Wayne State University's Strategic Plan to help ensure organizational objectives are being met within an environmental framework. This cascading focus has helped bolster sustainability efforts throughout the university, as the Office of Campus Sustainability works in collaboration with

various departments and colleges, to initiate academic projects that will train current and next-generation sustainability students who will move environmental theory into practical application while addressing urban sustainability issues. The university is currently developing the third edition of the five-year sustainability plan that will guide the institution's environmental efforts from 2022-2027.

An additional focus of the Office of Campus Sustainability is to advance environmental education throughout the campus community by increasing awareness of social, global, economic, and cultural sustainability that will have lasting societal impacts. The Office has conducted an annual Greenhouse Gas Inventory examining Scope 1, Scope 2, and Scope 3 emissions that has helped further understanding across the campus community of environmental impacts through various segments of the university function. The Office of Campus Sustainability has collaborated across campus to plan, install, and conduct subsequent research on bioswales across campus to mitigate stormwater runoff in targeted areas across campus to monitor water flows, channel stormwater, and ultimately achieve cost savings by reducing drainage charges from the local water utility. Through these types of efforts, the Office of Campus Sustainability seeks to achieve sustainability by reaching the intersection of the triple bottom line of environmental, economic, and social sustainability.

Established in 2011, the Office of Campus Sustainability has either implemented and/or assisted with numerous other operational and green building initiatives, including:

- Development of an organics collection program in campus dining hall kitchens, catering, and campus retail establishments in collaboration with a local urban farm which manages the compost process. This program reduces food waste while demonstrating the circular economic cycle as the finished compost is returned for use at the university.
- Installation of water bottle filling stations around campus to help divert over 3.2 million plastic bottles from the waste stream;
- Certification awarded for four LEED Silver buildings;
- Certification for two LEED Gold buildings;
- Implementation of the Green Ride (sustainability bike tour, held annually) to allow the campus community to explore city sustainability sites;
- Implementation of a Toner Cartridge Recycling to allow departments to recycle used printer cartridges for remanufacturing;
- Establishment of a green tote office supply program that reduces the amount of cardboard used for office supply delivery by utilizing reusable containers for delivery;
- Establishment of a green cleaning policy and guidelines to encourage environmentally friendly products and reduce the use of cleaning products with toxins on campus; and
- Creation of a scrap metal recycling program that has captured over 148,000 lbs. of ferrous and non-ferrous metals from the traditional campus waste stream.

Dedicated Wayne State University faculty, staff and student leaders have launched various initiatives designed to advance knowledge, raise awareness and change behavior as it relates to the university's impact on the environment. Guided by the Sustainability Plan, Wayne State University

will continue to be a good environmental steward and through its actions will develop leaders and a talent pool that will help ensure the world's resources are sustainable for generations to come.

### Facilities and Land Use

The overall distribution of academic and research space is expected to continue changing during the next several years. Currently, approximately 8% of the assignable square feet of space<sup>1</sup> is dedicated to classroom facilities (FICM 100 – 329,000 ASF) and 15% is dedicated to research laboratory facilities (FICM 200 – 1,050,000 ASF). Increases in technology and distance learning, as well as changes to pedagogy in response to the coronavirus pandemic, will further redefine and shape future classroom space allocations and development. As the university begins implementation of the master planning framework, areas of optimization will include both classroom and office utilization (the latter encompasses 33% of the assignable square feet (FICM 300 – 1,346,000 ASF)).

Along with facility optimization opportunities, the master planning process also considered land use. Of the approximately 118 acres of the core-campus land coverage<sup>2</sup>, over 75% consists of impervious surfaces including buildings, surface parking, streets, driveways and sidewalks. This not only poses a significant impact to stormwater retention and drainage, but it also reduces the availability for high-quality civic space available to the university and community at large. As an urban campus, Wayne State University has an opportunity to be a leader in both sustainable water management practices and multi-functional and innovative public spaces. These themes will be further investigated as the university begins to implement the master plan.

### Building and Classroom Utilization Rates

As part of the university's master planning process, space utilization data sets were closely analyzed. The space utilization analysis showed significant softness in the university's use of existing space.

Prior to the shift to primarily online and hybrid learning models due to the coronavirus pandemic, classroom use for scheduled instruction had an evening peak, but even at peak usage only approximately 60% of all classrooms were in use. The university's overall classroom metric (the ratio of classroom demand to classroom supply assuming a minimum target of 40 hours of weekly room use for scheduled instruction) is 0.259, whereas the state systems that have officially adopted this classroom metric typically target scores of 0.400 to 0.700. There is therefore significant capacity either to increase the number of sections delivered, or to decrease the available classroom space. This analysis is a factor in our decision to prioritize the renovation of State Hall, our primary teaching facility. That renovation will allow the university to better utilize the building and demolish or repurpose less important classroom structures. Teaching laboratories show a

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<sup>1</sup> For the purposes of this analysis, assignable square foot totals exclude residential (FICM 900 – 1,017,000 ASF), parking (FICM 700 – 2,640,000 ASF) and unclassified space.

<sup>2</sup> Excludes athletics campus, health affairs campus, TechTown, IBio and Mike Ilitch School of Business

somewhat soft utilization profile, except for core science courses in biology, chemistry, and physics.

Research space use, as measured by sponsored expenditures, is currently dominated by the School of Medicine, although even for the School of Medicine utilization is not equally strong across all research-intensive buildings. Scott Hall is particularly under-utilized from a sponsored expenditures perspective.

Office space utilization is likely also soft. While the best available calculation of the vacancy rate is ~9.3% (i.e. reasonable), an investigation of office configurations suggests significant inequities and likely wasted space. The average size for private offices varies widely across colleges and administrative units, from approximately 85 square feet per person to almost 180 square feet per person, with 20 of the 36 units surveyed having an average above 120 square feet (typical targets are between 100 and 120 square feet). The available data for shared workspaces is even starker. Unit averages vary from ~25 square feet per person to ~175 square feet, with 12 of 31 units surveyed averaging above 85 square feet per person (targets go from 60 to 85 square feet).

As a result of the changes in work habits due to the coronavirus pandemic, the university anticipates significant shifts in office and administrative space utilization. Over the next several years, the Planning and Space Management group within Facilities Planning and Management will undertake a comprehensive analysis of the current and future administrative space needs in order to better align utilization with the campus master plan strategy of consolidation.

The university has over 400,000 assignable square feet of library and study space which represents a significant percentage of its academic portfolio.

As a result of opportunistic program moves, several colleges (e.g., Liberal Arts and Science, Engineering, Fine and Performing Arts, Medicine, and others), and even individual departments within these colleges, are widely distributed across campus. This distribution limits opportunities for formal and informal collaboration and creates logistical issues for students and faculty, resulting in an inefficient distribution of resources.

The analysis suggests that the only way for the university to both achieve its academic goals and successfully negotiate its deferred maintenance backlog is through a careful sequence of moves that create better academic adjacencies that concentrate investment in a selected subset of buildings, allowing these buildings to become world-class examples of active and engaged learning methods and interdisciplinary research, and through these moves and consolidations, empty out a different subset of buildings that can be demolished. The two key ideas are therefore to optimize program locations and consolidate dispersed colleges while strategically eliminating underperforming square footage. The university, through the master planning process, has identified an implementation plan to accomplish these goals over the next ten to fifteen or more years.

#### Mandatory Facilities Standards

As a “Carnegie Research University, Very High Activity” institution, Wayne State University complies with required facilities standards.

- Animal research facilities are distributed throughout the main and medical campus buildings. Facility standards for laboratory research animals are rigorous and regulated by the national accrediting agency, the Assessment and Accrediting of Laboratory Animal Care.
- The university's offices of Environmental Health and Safety and Health Physics and Radiation Control are responsible for the collection, short-term storage and disposition of hazardous waste materials. These activities are regulated nationally by the Environmental Protection Agency, Nuclear Regulatory Commission, and locally by the State Department of Environmental Quality.
- Chemical and biological laboratories that contain fume hoods and store chemicals and/or reagents are spread throughout the main and medical campuses. These facilities are regulated by Occupational Safety and Health Administration standards (OSHA).
- Specialized facilities such as laser laboratories, large testing equipment and laboratories, and biohazard laboratories exist in the colleges of Liberal Arts and Sciences, Engineering, the Eugene Applebaum College of Pharmacy and Health Sciences, and the School of Medicine. These laboratories have special OSHA regulations and requirements and often need significant modification to the buildings and utility systems.
- The clinical behavioral science laboratories used for conducting research on human subjects are regulated by the National Institutes of Health. The university's Institutional Review Board is responsible for implementing these regulations.

Bond Status

Wayne State University has five completed building projects with obligations to the State Building Authority.

<u>Project</u>	<u>Lease Commencement</u>	<u>Lease Expiration</u>
Pharmacy and Health Sciences	September 2002	2037
Welcome Center	December 2002	2037
Engineering Development Center	December 2009	2044
Integrative Biosciences Center	August 2015	2050
STEM Innovation Learning Center	November 2021	2056

## V. Implementation Plan

### Capital Planning and Priorities

The Wayne Framework, Wayne State's 2030 campus master plan, provided a guide for decision-making consisting of three primary components:

- Important data sets and resulting analytics, most importantly on the use of existing space and the current condition of university buildings, and web-based mapping tools that promote data visualization and communication;
- Physical strategies and principles that better organize the campus; prioritize and direct capital investment; suggest near-term demolitions, renovations, and site improvements; make the campus more welcoming and inclusive for students, faculty, staff, and the community; and maximize future flexibility by providing options for long-term on-campus development; and
- Organizational structures that promote integrated decision-making within the university and better connect the university with its external community so as to allow for meaningful and sustained engagement.

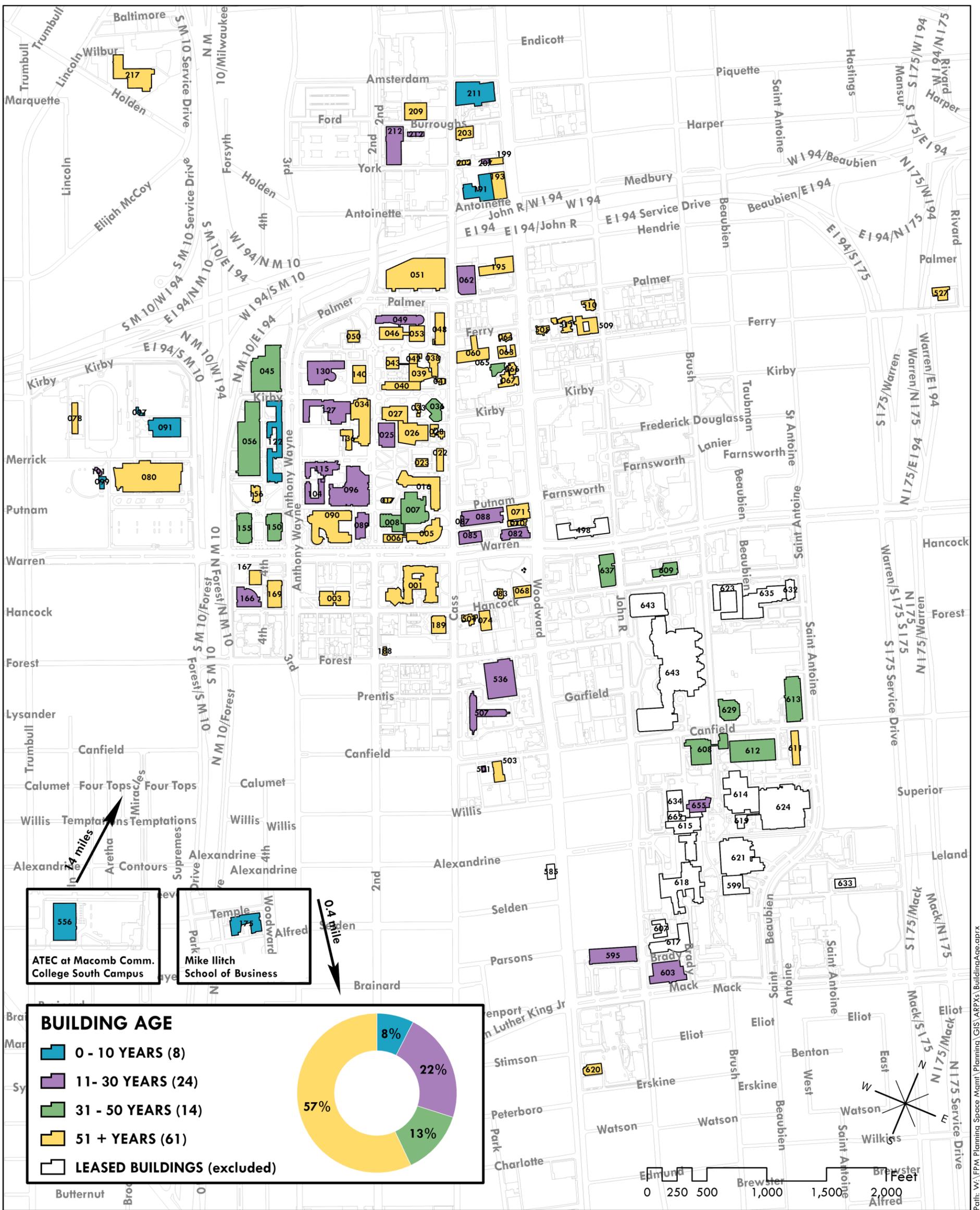
Guiding principles for capital planning include alignment with the campus master plan and prioritizing projects that address the university's current and future operational maintenance and liability. Strategic priorities are considered, including evaluating how projects address the student experience, teaching and learning, research, community engagement and return on investment. Further, projects must address health and safety, regulatory and reputation through operational performance and risk management. The university has developed a scoring methodology for capital projects that addresses these priorities and sets forth a five-year plan that provides guidance on State of Michigan Capital Appropriation submissions and Campus Master Plan implementation.

The university continues to develop and refine its capital planning processes, building upon the Wayne Framework's 2030 Campus Master Plan recommendations. **Appendix A** represents the current and future capital planning efforts across campus. Projects include renovations, additions, new construction, major systems maintenance, and utilities. As a note, projects shown are above a \$750,000 threshold to better align with State Capital Outlay guidelines

## **APPENDICES**

**Appendix A: Capital Projects**

<b>Section I: WSU Capital Outlay FY23 Request and Five-Year Planning</b>	
	Est Budget
<b>WSU FY23 Capital Outlay Request</b>	
No Capital Outlay Request for FY23	
<b>WSU Capital Outlay in Progress</b>	
No Capital Outlay Project in Progress for FY23	
<b>WSU Five-Year Capital Planning</b>	
<b>Renovations and Additions</b>	
State Hall Renovation - Renovation of most used classroom building	\$ 70,000,000
Scott Hall Vivarium - Comprehensive renovation of mechanical, plumbing, electrical and architectural systems	\$ 3,035,000
Matthaei Office Addition - Construct 1,300 sf addition for athletic administration offices	\$ 925,000
Gateway Performance Complex - Renovate existing Hilberry Theatre & build new theatre complex	\$ 69,500,000
<b>New Construction - New Building</b>	
Basketball Arena - New, 3,000 seat arena to support WSU teams and partnership with Detroit Pistons	\$ 28,800,000
Hilberry Gateway Performance Complex - New 350-seat theatre, 150-seat performance space and production supp	\$ 65,000,000
<b>Major Systems Maintenance and Utilities</b>	
Art Building HVAC Upgrade - Add air conditioning and new AHU system	\$ 3,000,000
Beecher House Central Air Conditioning - Add new central air management system	\$ 800,000
Applebaum Boiler Improvements - Addresses in-house steam generation and scaleable solution for low demand pe	\$ 950,000
Old Main Chiller Plant - Replace chillers beyond useful life	\$ 1,500,000
110 E. Warren - Building demolition	\$ 4,400,000
Biological Sciences Controls Upgrades - Building Automation System currently beyond useful life	\$ 2,200,000
Chemistry Cluster Retro Commissioning - Building Automation System retro commissioning	\$ 2,200,000
Faculty/Administration Building - VAV and controls upgrades	\$ 975,000
Mortuary Science - Address water intrusion issues	\$ 750,000
Life Sciences - Building demolition	\$ 2,200,000
Manoogian - Building demolition (master plan implementation)	\$ 7,400,000
General Lecture - Building demolition (master plan implementation)	\$ 1,200,000
Campus Wide Card Access - Consolidate multiple building access control systems	\$ 10,000,000
Multi-Year Parking Structure and Related Improvements (\$13.4M)	
Parking Structure #1 - Structure restoration	\$ 475,000
Parking Structure #2 - Structure restoration	\$ 883,000
Parking Structure #4 - Structure restoration	\$ 1,200,000
Parking Structure #5 - Structure restoration	\$ 1,896,000
Parking Structure #6 - Structure restoration	\$ 348,000
Parking Structure #7 - Structure restoration	\$ 1,463,000
Parking Structure #8 - Structure restoration	\$ 1,647,000
Parking Facilities Equipment Replacement - Consolidate four systems into one	\$ 5,500,000
Multi-Year Campus Elevator Improvements (\$10.9M)	
Scott Hall Elevator Upgrades - Refurbish five existing elevators with new machinery and controls	\$ 2,500,000
McGregor Conference Center - Elevator modernization	\$ 440,000
Science Hall Service Elevator - Upgrade existing service elevator at loading dock	\$ 480,000
Computing Services Center - Elevator modernization to machine room-less system	\$ 325,000
5057 Woodward Freight Elevator - Modernization to legacy motor bearings, shaft repair, & controls	\$ 200,000
Parking Structure #1 Elevator Modernization - modernize three elevators	\$ 1,200,000
Faculty/Administration Building - Elevator modernization to machine room-less system	\$ 975,000
Freer House - Chair lift modernization	\$ 80,000
Science Hall Passenger Elevator - Modernization of existing passenger elevator	\$ 625,000
Parking Structure #5 Elevators - Modernization of two elevators	\$ 900,000
Parking Structure #6 Elevators - Replace two elevators and enclose all lobbies	\$ 1,000,000
Biological Engineering - Modernization of passenger elevator	\$ 1,250,000
Mortuary Science - Modernization of passenger elevator	\$ 600,000
Tierney House - Modernization of passenger elevator	\$ 325,000
Biological Sciences Building Infrastructure - Replace existing domestic hot water boiler and steam boiler	\$ 1,850,000
Legionella Mitigation Repairs - Industrial cleaning and repairs of cooling towers across campus to mitigate legionell	\$ 1,030,000
Old Main HVAC Controls - Replace pneumatic fan controls with digital devices	\$ 2,200,000
<b>TOTAL BUDGET FOR PROJECTS IN SECTION I</b>	<b>\$ 304,227,000</b>
<b>Section II: Projects in Active Planning and Not Yet Approved by the Board of Governors</b>	
Keast Commons - Renovate existing green space to create new civic space in midst of residential district	\$ 3,580,000
DeRoy Reflecting Pool Restoration - Address water intrusion issues and restore pool	\$ 1,500,000
Art Gallery - Build out space to house University Art Collection	\$ 2,400,000
Simons Building - Renovation to incorporate WDET and University Press	\$ 3,000,000
Health Sciences Building	\$ 300,000,000
<b>TOTAL BUDGET FOR PROJECTS IN SECTION II</b>	<b>\$ 310,480,000</b>
<b>Section III: Projects Recently Completed (November 1, 2020 through October 31, 2021)</b>	
Towers Residential Suites and Café Dining Addition - 5,500sf addition to Towers Café adding 300 seats	\$ 2,830,000
Arena - Construct new basketball arena	\$ 28,800,000
Football Stadium Elevator - Construct elevator to provide access to press box	\$ 2,000,000
I2C Building MRI Installation - Remodel lab to support the installation of an MRI	\$ 1,000,000
Science Hall Roof Replacement - Replace failing roof on central core area of building	\$ 850,000
Prentis Heating Pipe Replacement - Replace balance of hot water piping in historic Yamasaki building	\$ 1,300,000
Electrical Utility Conversion - Provide new electrical service to all former Detroit Public Lighting buildings	\$ 6,000,000
University Towers Deferred Maintenance Improvements - HVAC, plumbing, glazing and site repairs	\$ 1,100,000
<b>WSU Capital Outlay Recently Completed</b>	
STEM Innovation Learning Center - Renovate former library to support and expand STEM education	\$ 49,500,000
<b>TOTAL EXPENDITURE FOR PROJECTS IN SECTION III</b>	<b>\$ 93,380,000</b>



# WAYNE STATE UNIVERSITY FACILITIES

- |   |  |   |   |   |
|---|--|---|---|---|
| 001 - Old Main                                  | 049 - Law School Building                    | 096 - Adamany Undergraduate Library           | 207 - 5957 Woodward                                     | 611 - Lande Building                              |
| 003 - Physics Building                          | 050 - Shapero Hall                           | 097 - Harwell Field                           | 209 - TechOne   | 612 - Scott Hall                                  |
| 005 - Science Hall                              | 051 - Parking Structure #1                   | 099 - Women's Softball Locker Room            | 211 - Integrative Bioscience Center                     | 613 - Parking Structure #4                        |
| 006 - Life Science Building                     | 053 - Law Classroom                          | 101 - Women's Softball Stadium                | 212 - Industry Innovation Center (I2C)                  | 614 - University Health Center                    |
| 007 - A. Paul Schaap Chemistry Building         | 056 - Parking Structure #2                   | 104 - Atchison Hall                           | 217 - University Storage Warehouse                      | 615 - Wertz Center                                |
| 008 - SEL                                       | 060 - University Services                    | 115 - Ghafari Hall                            | 498 - Parking Structure 3                               | 617 - Rehabilitation Institute                    |
| 016 - State Hall                                | 062 - AAB                                    | 122 - Anthony Wayne Drive Apts.               | 501 - WDET Transmitter                                  | 618 - Harper University Hospital                  |
| 017 - Linsell House                             | 063 - 5447 Woodward                          | 127 - Towers Residence Hall                   | 503 - CIT Building                                      | 619 - Gershenson Center                           |
| 022 - Prentis                                   | 064 - Beecher Home                           | 130 - FAB                                     | 504 - Mary Thompson Home                                | 620 - Bonstelle Theatre                           |
| 023 - DeRoy                                     | 065 - Mortuary Science Building              | 136 - Chatsworth Tower Apts.                  | 505 - Tierney Alumni House                              | 621 - Children's Hospital of Michigan             |
| 025 - Mort Harris Recreation and Fitness Center | 066 - 5435 Woodward                          | 140 - Education Building                      | 507 - University Tower                                  | 623 - Hutzel Hospital                             |
| 026 - Purdy Library                             | 067 - 5425 Woodward                          | 150 - General Lectures                        | 509 - Knapp Building                                    | 624 - Detroit Receiving Hospital                  |
| 027 - Kresge Library                            | 068 - Simons Bldg.                           | 155 - Manoogian Hall                          | 510 - Skillman Building                                 | 629 - Elliman Building                            |
| 028 - Rands House                               | 070 - 5033 Woodward                          | 156 - St. Andrew's Hall                       | 511 - Freer House                                       | 632 - Hutzel Hospital Prof. Building              |
| 033 - Jacob House                               | 071 - 5057 Woodward                          | 166 - Manufacturing Engineering Building      | 527 - 1011 East Ferry                                   | 633 - Tolan Park                                  |
| 034 - Student Center Building                   | 074 - 95 West Hancock                        | 167 - Engineering Technology Building         | 536 - Parking Structure #8                              | 634 - Harper Hospital Prof. Building              |
| 036 - Reuther Library                           | 078 - Stadium Auxiliary Building             | 169 - BioEngineering Building                 | 556 - Advanced Technology Education Center              | 635 - Kresge Eye                                  |
| 038 - Music Building                            | 080 - Matthaai Physical Education Center     | 175 - Mike Ilitch School of Business          | 565 - Schoolcraft Wayne State University Livonia Campus | 637 - 110 East Warren (Karmanos Cancer Institute) |
| 039 - Community Arts Center                     | 082 - Welcome Center                         | 188 - Mackenzie House                         | 585 - Woodward Gardens                                  | 643 - John D. Dingell VA Medical Center           |
| 040 - Art Building                              | 083 - 60 West Hancock                        | 189 - Hilberry Theatre                        | 591 - Macomb Education Center                           | 655 - Hudson Webber Cancer Research Center        |
| 041 - 5415 Cass                                 | 085 - Wayne State Bookstore                  | 191 - 100 Antoinette                          | 595 - Parking Structure #7                              | 662 - Walt Center                                 |
| 042 - Alumni House                              | 087 - 5050 Cass                              | 193 - Computing Services Center               | 599 - Carl's Building                                   | 719 - Dan Zowada Memorial Observatory             |
| 043 - McGregor                                  | 088 - Parking Structure #6                   | 195 - University Custodial / Grounds Building | 603 - Applebaum College of Pharmacy and Health Sciences | 992 - The Block at Cass Park (BACP)               |
| 045 - Parking Structure #5                      | 089 - Biological Sciences                    | 199 - 5959 Woodward                           | 607 - McLaughlin Hall                                   |   |
| 046 - Law Library Building                      | 090 - Engineering Building                   | 202 - Data Center                             | 608 - Mazurek Medical Educ. Commons                     |   |
| 048 - Cohn Building                             | 091 - Athletic Multi-Purpose Indoor Facility | 203 - WSU Police Dept.                        | 609 - C. S. Mott Center for Human Growth & Dvlpmt       |   |