WAYNE STATE
UNIVERSITY

FY2022-2026 Five-Year Capital Outlay Plan

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

WARRIOR STRONG

WAYNE STATE UNIVERSITY

FY2022-2026: 5-Year Capital Outlay Plan

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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 are woven through 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 provide assistance on a number of issues. In 2018, under the leadership of the Associate Provost, 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 will offer recommendations to the university leadership on how to make changes in various systems and structures to enhance diversity, equity, and inclusion across the university.

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 26,251 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 2020, 87% of our undergraduates are from the tri-county (Wayne, Oakland, and Macomb) area (15,224 out of 17,513 undergraduates), and 65% of graduate students and 62% of professional students are from the tri-county area. Overall, 79.4% of our Fall 2020 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 2019 and 2020 enrollment by headcount and degrees awarded from July 1, 2018 to June 30, 2019. These Figures, and all subsequent Figures, exclude graduate medical education students.

Figure 1: 2018-2019 Degrees Awarded and 2020 Enrollment by College

School or College	Fall 2019 Enrollment	2018-19 Degrees Awarded	Fall 2020 Enrollment
School of Business	4,346	1,151	4,290
College of Education	2,330	645	2,279
College of Engineering	3,493	913	3,368
College of Fine, Performing & Comm. Arts	1,951	420	1,855
Graduate School	0	0	0
Law School	434	132	404
Liberal Arts & Sciences	9,574	1,646	9,253
School of Information Sciences	433	185	404
School of Medicine	1,571	414	1,584
College of Nursing	818	246	883
Pharmacy and Health Sciences	976	456	977
School of Social Work	918	492	954
TOTAL	26,844	6,700	26,251

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 $238 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 $2.5 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*

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 yielding groundbreaking discoveries that impact everyday lives. 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 $150 million in FY2013 to $313 million in FY2019, and nearly a 21% increase in federal extramural research funding. Research expenditures have followed this upward trend. Expenditures under research grant and contract awards have increased by over 9% since 2016 with a total of $244 million in FY2019. According to the NSF's 2017 Higher Education Research and Development Survey (the most recent published ranking) Wayne State University ranked 69th among 400 public universities and 99th out of more than 3,500 U.S. colleges and universities.

The innovative research conducted by our faculty and research staff are illustrative. Dr. Kamran Avanaki in the College of Engineering conducts research funded by the National Institutes of Health to develop a novel point-of-care 3D neonatal photoacoustic tomography to improve the detection and measurement of hypoxic-ischemic in neonates without the need for sedation, radiation or radionuclides. This will allow for earlier treatment in infants that could circumvent neural complications and improve functional outcomes from cerebral palsy and cognitive impairments.

Dr. Weisong Shi, associate dean of research in the College of Engineering leads a team of researchers to design and implement a risk- prediction and update system so that individuals and various entities can be aware of the potential risk of infection (such as COVID-19) when individuals or groups are traveling locally,

nationally or abroad. The team seeks to derive a system that can assess infection risk at different levels, such as individually, at large-event or institutional levels. The project has been funded with a National Science Foundation RAPID grant and also a Google Cloud Platform grant.

The School of Medicine's Microscopy, Imaging and Cytometry Resources Core located at the Barbara Ann Karmanos Cancer Institute received a R50 grant from the National Cancer Institute that seeks to support and enhance peer-reviewed funded research activities at Wayne State and Karmanos through advanced cytometry, as well as cellular, tissue and animal imaging and analysis. Dr. Kamiar Moin from the Department of Pharmacology and his colleagues will provide expertise in analytical methods development, technology development and validation, and imaging and cytometry study design. Dr. Moin and his staff are internationally recognized experts in imaging and cytometry.

A partnership between Wayne State's School of Medicine, College of Engineering and the Perinatology Research Branch has secured a major grant from the National Institutes of Health to study biomarkers for spontaneous preterm delivery, the leading cause of infant mortality worldwide. The study, led by Dr. Mohammad Mehrmohammadi of Wayne State University's Department of Biomedical Engineering and of the Department of Obstetrics and Gynecology, plans to develop a clinically translatable technology to overcome the limitations of existing sonography procedures to identify patients at risk of preterm birth by combining three modalities (two-dimensional ultrasound, elastography and photoacoustic) into a single device to acquire a wide range of functional and molecular information about cervical ripening.

The School of Medicine is also exploring how a common piece of the immune system contributes to a variety of inflammatory diseases. With the help of a major grant from the National Institutes of Health, Dr. Yuan He of the Department of Biochemistry, Microbiology and Immunology will study a critical component of the innate immune system that controls the secretion of pro-inflammatory cytokines interleukin in response to infection and tissue damage. The goal of the project is to better understand how the NLRP3 inflammasome is activated so that it might guide the development of novel therapies for treatment of several inflammatory disorders including gout, diabetes and Alzheimer's disease.

The Eugene Applebaum College of Pharmacy and Health Sciences is leading a team of researchers to understand the causal relationships between diabetes, obesity and nonalcoholic fatty liver disease – common diseases that can lead to inflammatory and fibrotic liver, called nonalcoholic steatohepatitis, as well as liver cirrhosis. The team led by Dr. Wanqing Liu of the Department of Pharmaceutical Sciences, have done the largest-to-date data analysis, with their study having important implications for disease classification, diagnosis and drug development. It also highlighted the importance of the development of precision medicine for both prevention and treatment of these diseases. It also found that many type-2 diabetes patients may be misdiagnosed, and their treatment should be altered accordingly.

The Department of Physics in the College of Liberal Arts and Sciences received a major grant renewal from the National Science Foundation for their JETSCAPE collaboration – a multidisciplinary team of physicists, computer scientists and statisticians from 13 institutions that is creating an open-source statistical and computational software to help scientists better understand high energy nuclear collisions. Dr. Abhijit Majumder of the Department of Physics is leading the Wayne State team and believes that the research will broaden and evolve into a much more elaborate simulator that could be applied to a variety of future experiments, bringing high-energy nuclear experiments under a single simulation umbrella, that allows for a cross-pollination of ideas between different experiments.

A team of Wayne State social scientists in the College of Liberal Arts and Sciences received a National Science Foundation RAPID grant to examine how work, family and health among dual-income couples have changed within the context of COVID-19. Led by Krista Brumley of the Department of Sociology, the team will examine work-family conflict under unprecedented circumstances to examine how couples manage the competing demands of work and family. It will also illuminate the effects of work on family conflict and could encourage employers to reconsider their restrictive work policies to offer more options to their workers.

The College of Nursing is playing a critical role in providing improved care and comfort in patients with dyspnea – or shortness of breath – that can cause discomfort in people approaching the end of life. The study led by Dr. Margaret Campell of the College of Nursing, is dedicated to research that furthers the ability of physicians and nurses to better assess respiratory distress in patients who can no longer self-report dyspnea by further developing the Respiratory Distress Observation Scale which is now used by clinicians around the world. Dr. Campbell and her team's goal is to develop a global standard for addressing treatment of dyspnea during ventilator withdrawal. The study is funded by the National Institutes of Health.

These groundbreaking research projects and many more are just examples of the great impact our faculty and research staff have on improving the quality of life around the globe.

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 nearly 7,500 full- and part-time faculty and staff.

In fiscal year 2019, the university spent nearly $594 million for compensation, wages, and fringe benefits. The university awarded more than $351 million in financial aid (federal, institutional, private, outside and state) to 33,680 undergraduate and graduate students, which translates to an average of $10,429 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 $224 million in research and development during fiscal year 2019. In fiscal year 2019, 62 new patent applications were filed, and 43 total patents were issued (U.S. and foreign). Furthermore, the university spent $787 million to file and maintain all of its patent applications and issued patents and received $715,247 in revenue from license and startup companies.

Through fiscal year 2018, the university's portfolio contained over 550 technologies, including more than 400 pending and issued patents. More than 130 of those technologies were licensed, with 32 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 has 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 2,325 companies, which leveraged nearly $145 million in start-up capital and contributed 1,546 jobs to the local economy from 2007 to 2018.

Transformations in the Wayne State neighborhood include:

- 178 businesses have opened or expanded in the Midtown, TechTown and New Center districts since 2014; another 77 are scheduled to open or expand in 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 provided assistance to 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 new 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.

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.

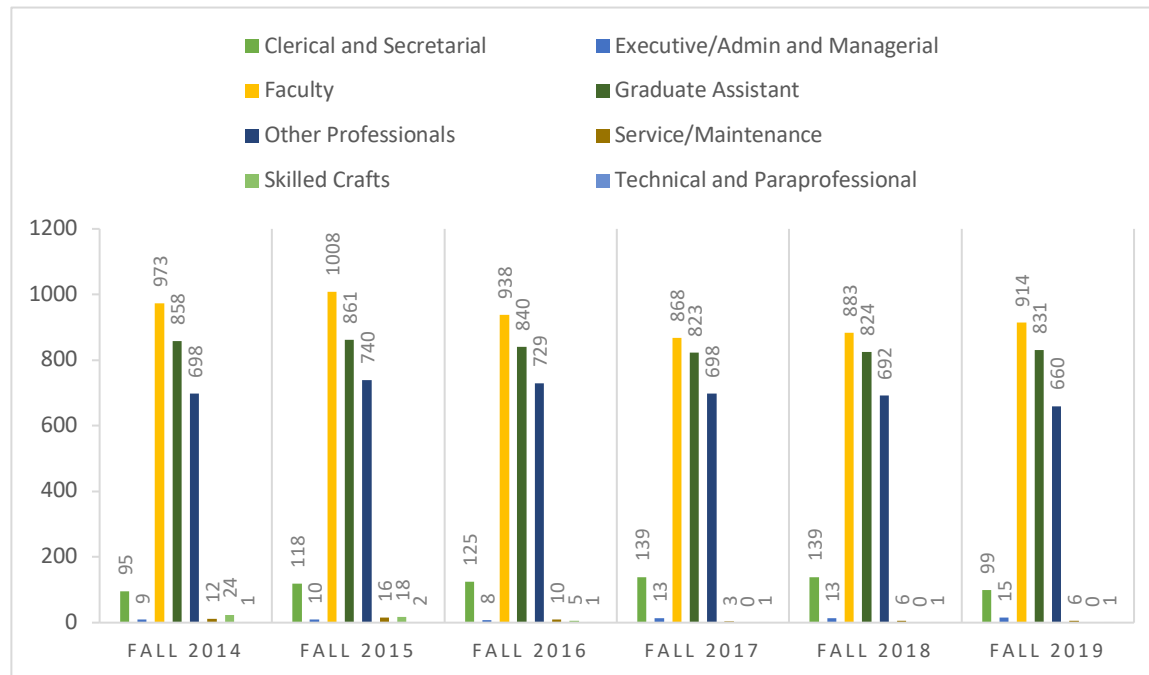## III. Staffing and Enrollment

Staffing

Figure 2: Full Time Employee Count by HR Equal Employment Opportunity (EEO) Categories
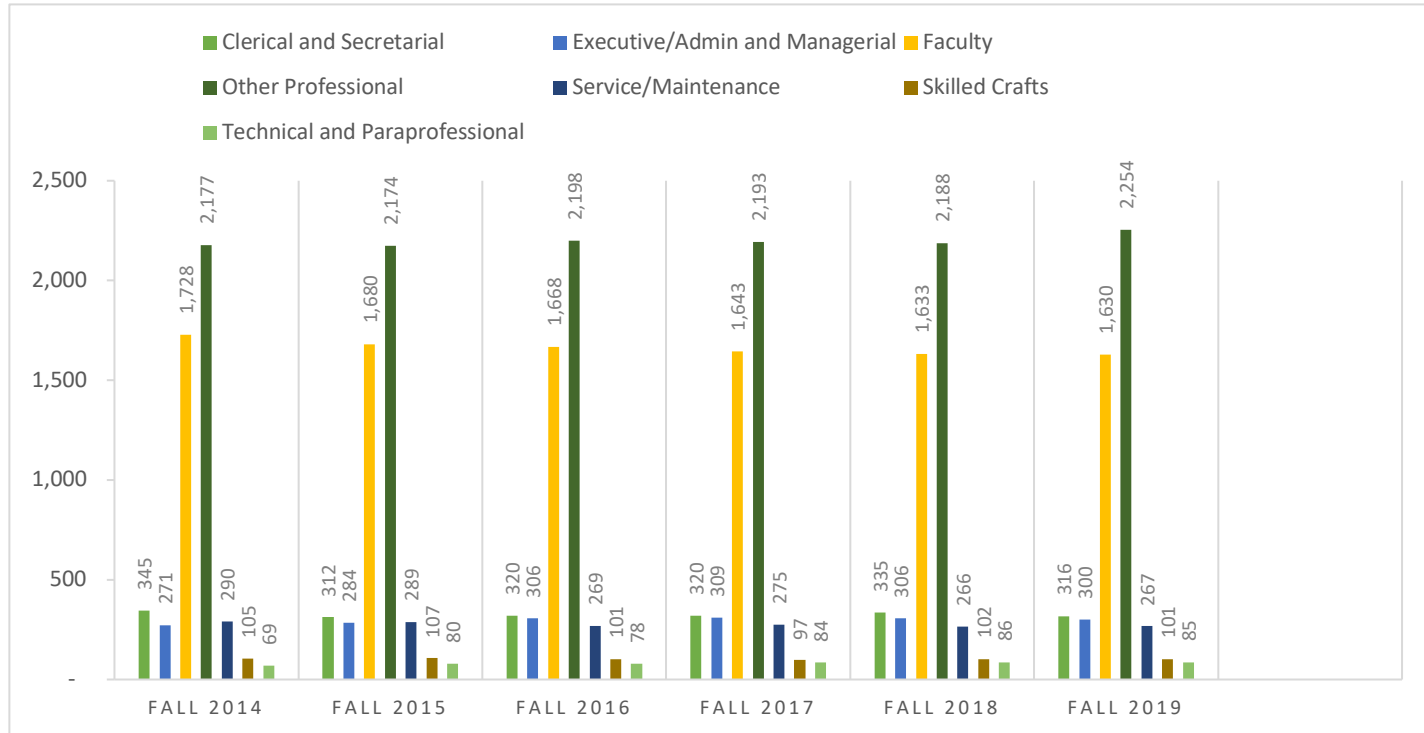
Source: Office of Institutional Research and Analysis

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. Our entering class of 3,039 full-time freshman is the largest in WSU history, surpassing the previous record set in 2018. 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 is 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 to 3,120 students and our full-time FTIAC enrollment to 3,019. 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. Early numbers indicate that the three R-1 universities may be the only three schools in the state with increased FTIAC numbers.

These achievements were realized at the same time that the university lowered its discount rate from 41.1% to 40.5% thereby increasing the net tuition revenue from the freshmen class. Our Hispanic cohort showed an 17.8% increase and is the largest ever in our freshmen class. Fall 2020 also saw an increase of 55% in our Black student cohort of freshmen as we drew more students from the local area. This led to a slight increase in our undergraduate credit hour production which helps offset the decline in international graduate students due to immigration and COVID restrictions.

- **Heart of Detroit Tuition Pledge**: The Hearth of Detroit Tuition Pledge offers free tuition for 2020 graduates of Detroit high schools or Detroit residents earning a high school diploma in 2020. 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 for fall 2020, with a resulting enrollment of 569 HOD students.

- **Kick Start College:** Wayne State University's new 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 this summer. Of those students, 589 are enrolled full time this fall.

Student-to-Faculty Ratios

The published student to faculty ratio is based on 19,288 full-time equivalent students (full time plus 1/3 part time) and 1,221 full-time equivalent instructional faculty (full time plus 1/3 part time) and excluding students and faculty in stand-alone graduate programs. The fall 2019 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), 31% have fewer than 20 students. Classes with 20 to 49 students make up 57%. Of the 2,151 class sections, 88% have fewer than 50 students. Additionally, of 374 class sub-sections, 100% have fewer than 50 students.

Figure 4: Number of Class Sections with Undergraduates Enrolled (Class Sections)
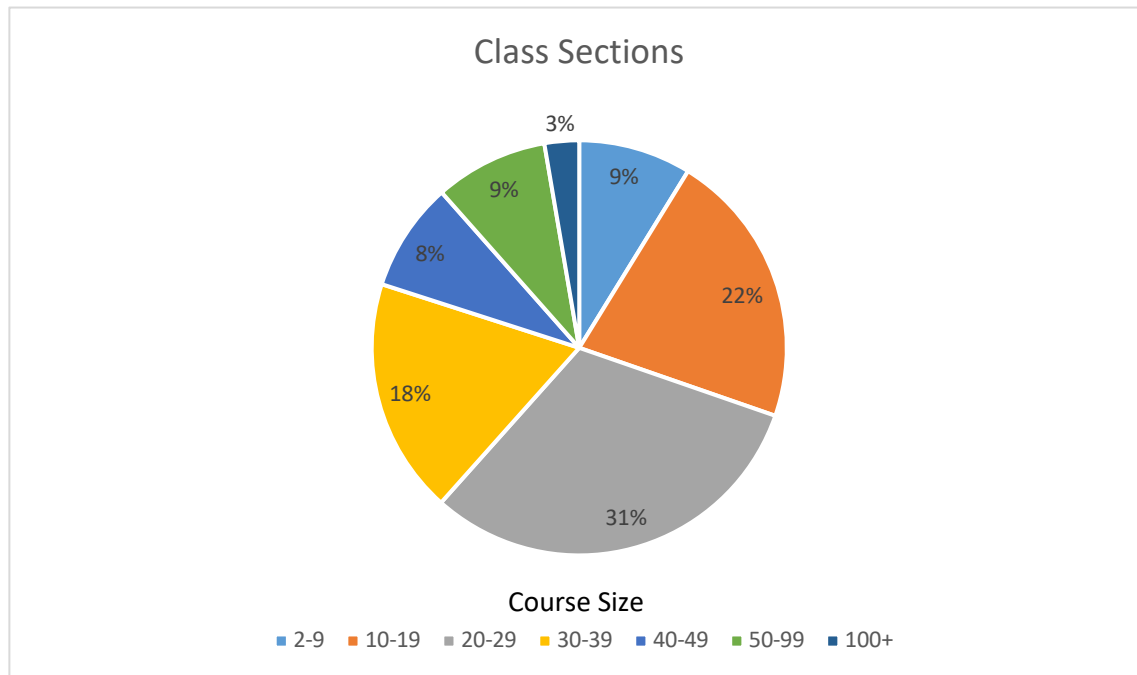
Source: *Office of Institutional Research and Analysis*

Figure 5: Number of Class Sections with Undergraduates Enrolled (Class Sub-Sections)
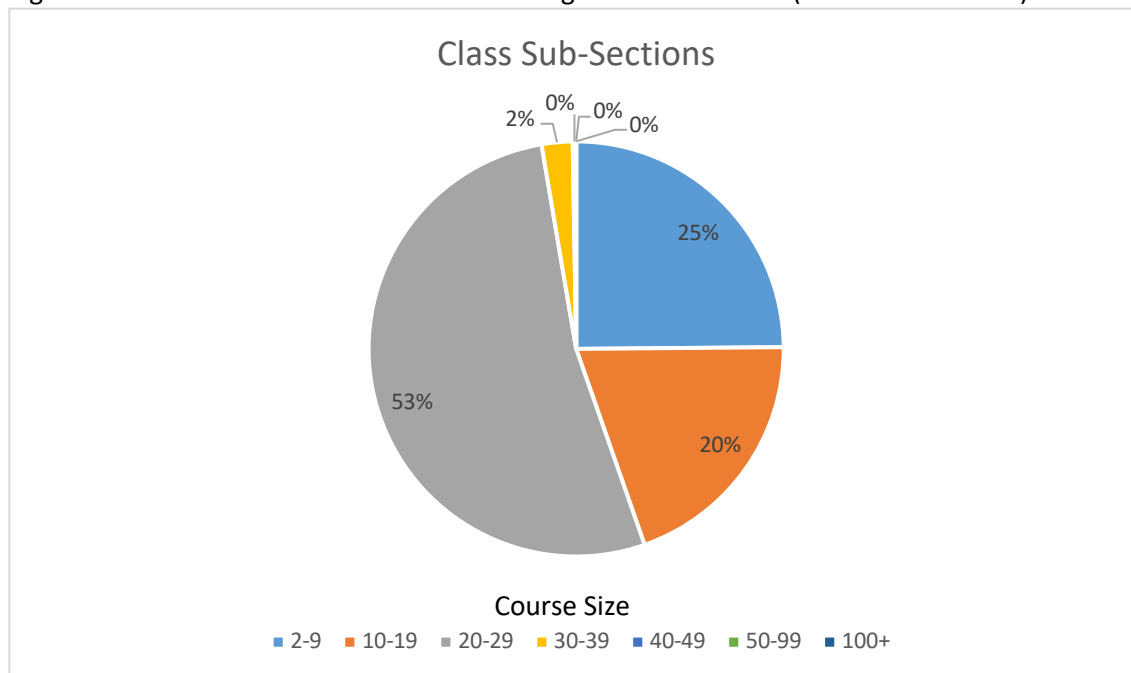
Source: *Office of Institutional Research and Analysis*

Enrollment and Graduation Patterns over the Past Six Years

Figure 6: Total Headcount Enrollment by Year
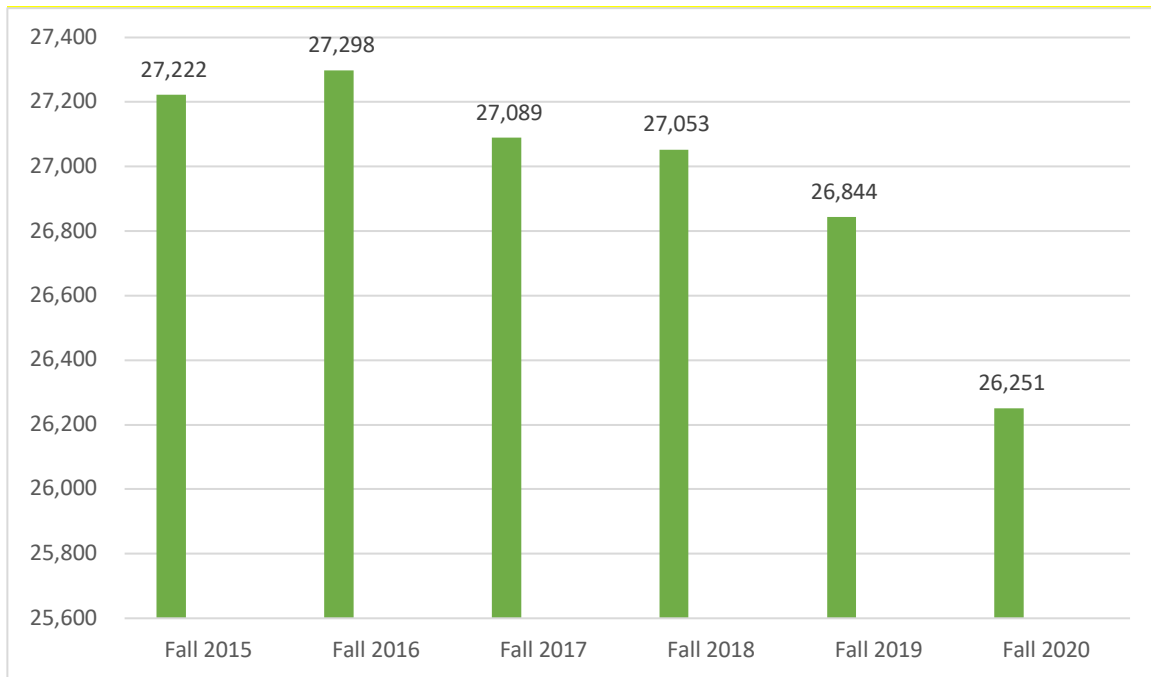
Source: Office of Institutional Research and Analysis

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

Due to the coronavirus pandemic, all sections previously taught in person at Extension Centers were changed to be web courses for Fall 2020 as Figures 9 and 10 demonstrate below.

Figure 9: Extension Center Enrollment 2019:2020 Comparison

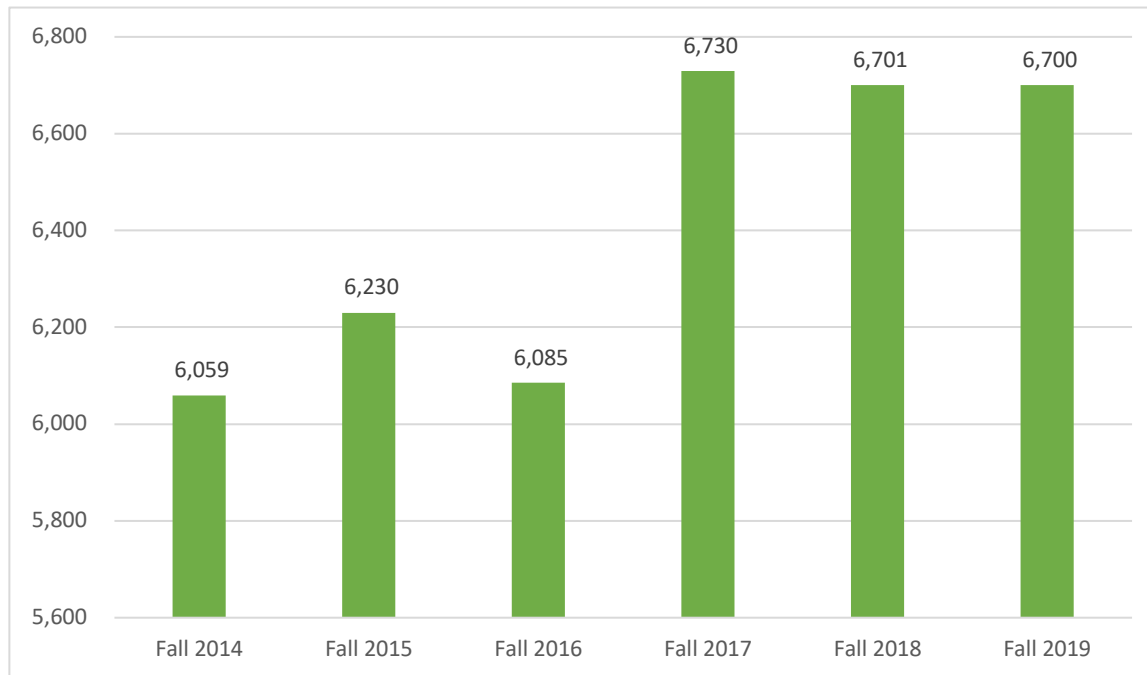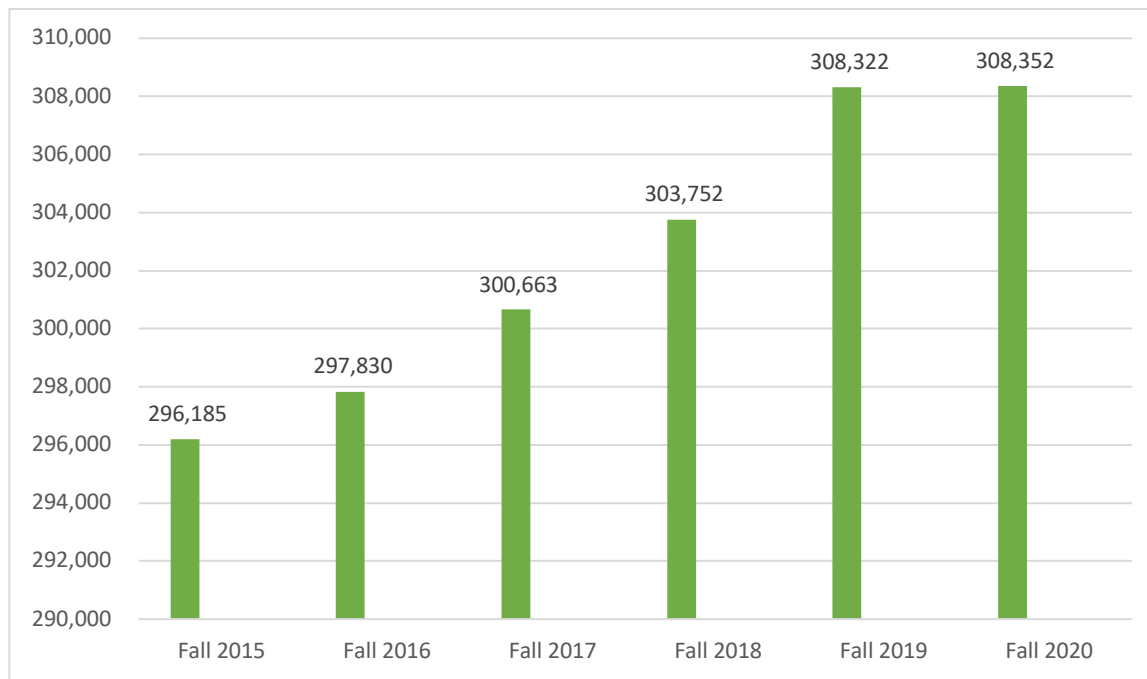|	Section Count		Section Enrollment		Average Section Enrollment	
Class Section Enrollment	*2019*	*2020*	*2019*	*2020*	*2019*	*2020*
All Extension Centers TOTAL	94	0	1,559	0	17	0
Student Headcount and Credit Hours	Headcount		Credit Hours		Average Credit Hours	
Student Level	*2019*	*2020*	*2019*	*2020*	*2019*	*2020*
Undergraduate Totals	937	0	3,953	0	4.2	0
Graduate Totals	114	0	484	0	4.2	0
Professional Totals	0	0	0	0	0	0
TOTAL	**1,051**	**0**	**4,437**	**0**	**4.2**	**0**

Source: Office of Institutional Research and Analysis

Figure 10: Web Class 2019:2020 Comparison

	Section Count		Section Enrollment		Average Section Enrollment	
Class Section	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**
TOTAL	486	3,493	13,692	89,617	28	26

Student Headcount & Credit Hours	Headcount		Credit Hours		Average Credit Hours	
Student Level	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**
Undergraduate	6,744	19,217	30,760	212,613	4.6	11
Graduate	2,457	6,173	10,920	35,919	4.5	6
Professional	18	755	64	6,732	3.6	9
TOTAL	**9,219**	**26,145**	**41,744**	**255,264**	**4.5**	**9**

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 in planning, completed or under current construction: 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; 2019-20 interior "gut and rebuild" of the Chatsworth Apartments interior with a scheduled re-opening as the Chatsworth Suites with 360 new suite-style beds in August 2020. Major activities to address deferred maintenance in University Tower Apartments are scheduled 2018-2021. A major renovation of Keast Commons, the campus green space in the residential precinct of campus, is scheduled to occur in 2021-22. By fall 2020, the university's on-campus housing capacity has grown from 3,000 to 3,750 beds.

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. Over the years, the university has used several methods to estimate and quantify its deferred maintenance backlog.

When the university previously reported its current replacement value and deferred maintenance backlog, the data was from studies conducted over a decade ago, thus the data accuracy came into question. In 2017, the university retained the services of Sightlines, 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 three years, Sightlines has worked with the university to collect and verify facilities data in order to inform strategic decision-making related to deferred maintenance and facilities condition. Using measurements of annual stewardship, asset reinvestment, operational effectiveness and service, Sightlines has completed annual analyses through FY18 of the university's return on physical assets or ROPA.

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. Overall, 73% of the university's space is considered to be "high-risk" by Sightlines' standards. High-risk space has more costly mechanical life cycles coming due, which will create operational strain if not addressed. Based on this profile, Sightlines has estimated that the university's 10-year facilities need is $142 per gross square foot for an estimated $1.1 billion.

As a component of the campus master plan effort, 25 high-priority buildings were identified for more in-depth analysis. Over the course of three months, consultants conducted detailed walkthroughs of all 25 buildings and met with operations staff in order to develop a comprehensive understanding of the relative states of the plumbing, electrical, HVAC, and fire protection systems in each. Their findings were summarized using a four-variable rating scale from "excellent" to "adequate" to "poor" ("building systems should be upgraded with next major renovation") and "unreliable" ("the need to replace is immediate"). Their findings regarding the 25 priority buildings show that three were in adequate condition, 15 were poor, and the remaining seven were in unreliable condition.

Since the DumontJanks/Ghafari assessment conflicts with Sightlines (now Gordian) findings, we have decided to engage Gordian in a comprehensive assessment of our entire campus' built environment, to include asset condition assessments leading to a Facility Condition Index (FCI) score. While Gordian has just recently completed field, work associated with the asset condition assessment, we expect the initiative to be completed by the spring of 2021. When complete, we will have an FCI score and a comprehensive 5-year capital plan. This five-year capital plan with 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

Energy Curtailment

Facilities Planning and Management employees including directors, managers, engineers and trades participate in regular meetings to discuss the best way to conserve energy around campus for the General Fund accounts. Additionally, WSU participated in the DTE Energy Challenge. This provided funding and technical support to audit 5 diverse buildings for energy reduction opportunities. An Energy Management class was created by the Collage of Engineering along with support from Facilities to conduct the audit. The students received scholarship support from DTE for their efforts

- Potential savings of over $400,000 was documented with most items having ROIs below 2 years
- A power factor study was commissioned and yielded an annual savings potential of $160,000 in perpetuity. The estimated payback is less than 2 years.
- Equipment upgrades and replacements continue to reduce steam costs
- Additional high horsepower fans are being retrofitted with VFD's for energy and wear reduction

Facilities is investigating funding opportunities to initiate identified energy conservation measures.

LED Lighting Retrofits

The process of retrofitting older fixtures continues. We are working beyond the traditional fluorescent lighting upgrades to include areas illuminated with HID lamps. These areas include interior spaces and all exterior area and security lighting. Monetary incentives from DTE will contribute to affordability in reduced payback times. DTE is aiding with the survey process.

Building HVAC Analytics (Big Data)

Building analytics typically gather continuous data on HVAC systems. This is over and above data that the building automation systems (BAS) uses. This software overlays on the existing BAS to gather additional information and data. By analyzing this data with software, the analytics software can determine where there are inefficiencies in the HVAC systems and produce reports to identify them. Corrective measures can then be taken. Research facilities are a good candidate for this technology since the energy profile indicates it should be using less energy than what it is currently using. The university is currently analyzing appropriate facilities in which to pilot this technology.

P3 Energy Partnership

We continue to evaluate opportunities to utilize and benefit from collaboration with external parties to improve energy utilization and upgrade aged, inefficient equipment.

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.

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 also works with a multi-disciplinary group to research the effectiveness of a campus bioswale in mitigating stormwater runoff in a university parking lot in creating cost savings through a reduction in 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 on campus for a community collaborative compost pilot;
- Installation of water bottle filling stations around campus to help divert over 3 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 110,000 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 through 2022, 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[1] 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[2], 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.

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[1] 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.

[2] Excludes athletics campus, health affairs campus, TechTown, IBio and Mike Ilitch School of Business

Teaching laboratories show a 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 six completed building projects with obligations to the State Building Authority.

Project	Lease Commencement	Lease Expiration
Old Main Renovation	November 1997	2032
Undergraduate Library	February 1998	2033
Pharmacy and Health Sciences	September 2002	2037
Welcome Center	December 2002	2037
Engineering Development Center	December 2009	2044
Integrative Biosciences Center	August 2015	2050

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.

As a result of our master planning efforts, the University formed the Capital Planning and Priorities Committee (CPPC) to review, evaluate and prioritize capital improvement and investment projects, developing recommendations for annual capital budgets and long-term capital plans.
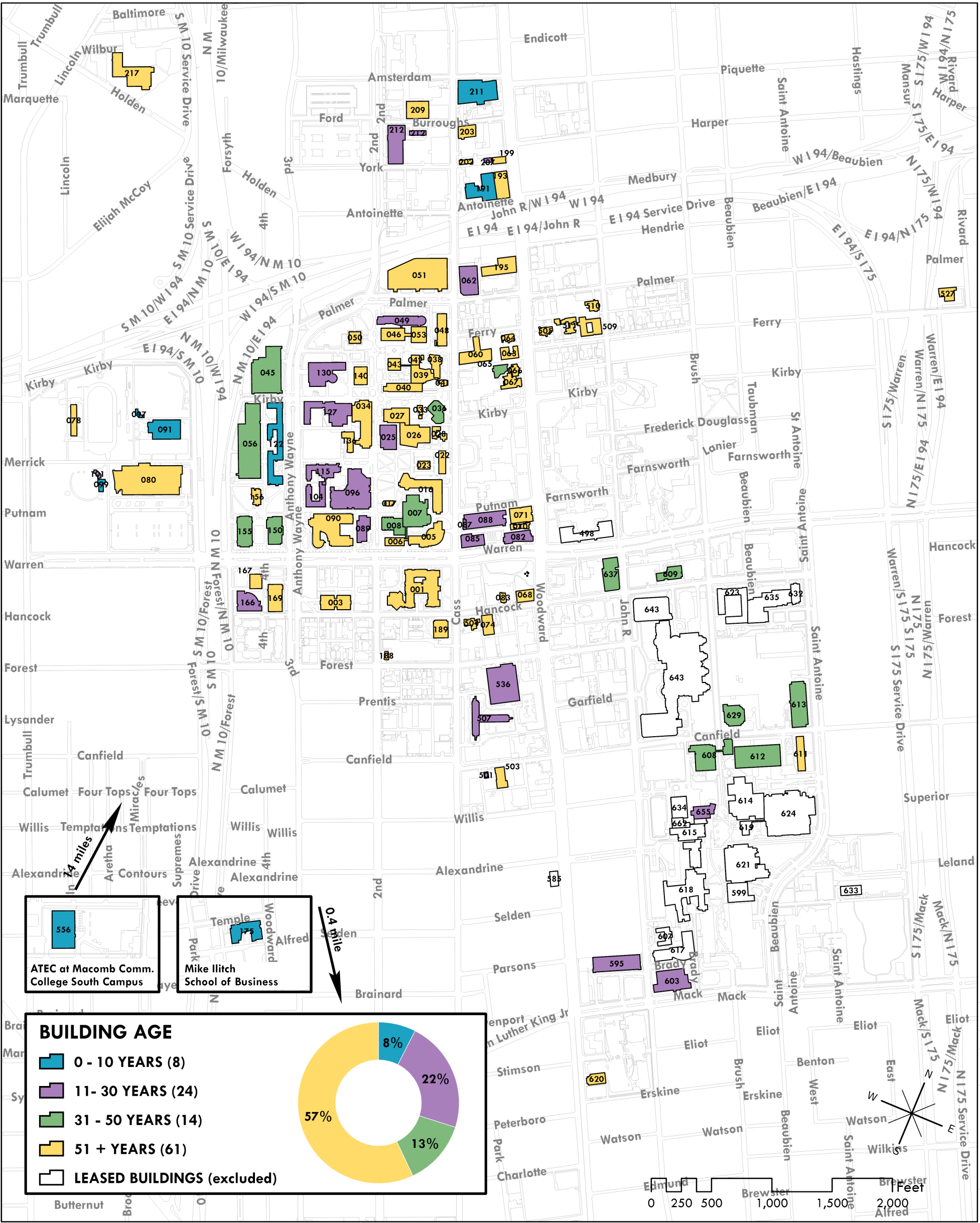
Guiding principles for capital planning include alignment with the campus master plan and prioritizing projects that address the university's current and future operational maintenance and liability. Strategic priorities are considered, including evaluating how projects address the student experience, 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 CPPC is developing 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 through facility assessment and the Capital Planning and Priorities Committee, 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

Section I: WSU Capital Outlay FY22 Request and Five-Year Planning		
		Est Budget
WSU FY22 Capital Outlay Request		
Concurrent with DTMB direction, there will be no submission for FY22 Capital Outlay appropriations		
WSU Capital Outlay in Progress		
STEM Innovation Learning Center - Renovate former library to support and expand STEM education	$	49,500,000
WSU Five-Year Capital Planning		
Renovations and Additions		
Multi-Year Parking Structure and Related Improvements ($10M total)		
Parking Structure #4 - structure restoration	$	937,000
Parking Structure #5 - structure restoration	$	930,000
Parking Structure #8 - structure restoration	$	762,000
Towers Residential Suites and Café Dining Addition - 5,500sf addition to Towers Café adding 300 seats	$	2,830,000
Scott Hall Vivarium - Comprehensive renovation of mechanical, plumbing, electrical and architectural systems	$	3,965,000
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
Matthaei Office Addition - Construct 1,300 sf addition for athletic administration offices	$	925,000
New Construction - New Building		
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 support	$	65,000,000
Major Systems Maintenance and Utilities		
Applebaum Boiler Improvements - Addresses in-house steam generation and scaleable solution for low demand periods	$	950,000
Electrical Utility Conversion - Provide new electrical service to all former Detroit Public Lighting buildings	$	6,000,000
Prentis Heating Pipe Replacement - Replace balance of hot water piping in historic Yamasaki building	$	1,300,000
University Towers Deferred Maintenance Improvements - HVAC, plumbing, glazing and site repairs	$	1,100,000
Science Hall Roof Replacement - Replace failing roof on central core area of building	$	850,000
Multi-Year Campus Elevator Improvements ($62.5M)		
Scott Hall Elevator Upgrades - Refurbish five existing elevators with new machinery and controls	$	2,500,000
Legionella Mitigation Repairs - Industrial cleaning and repairs of cooling towers across campus to mitigate legionella	$	1,030,000
Old Main HVAC Controls - Replace pneumatic fan controls with digital devices	$	2,200,000
TOTAL BUDGET FOR PROJECTS IN SECTION I	**$172,579,000**	
Section II: Projects in Active Planning		
Projects Authorized by the Board of Governors for Construction		
Biological Sciences Building Infrastructure - Replace existing domestic hot water boiler and steam boiler	$	1,850,000
Projects Authorized by the Board of Governors for Planning (In Design)		
Projects Planned but not yet approved by the Board of Governors		
State Hall Renovation - Renovation of most used classroom building	$	85,000,000
Keast Commons - Renovate existing green space to create new civic space in midst of residential district	$	3,580,000
TOTAL BUDGET FOR PROJECTS IN SECTION II	**$ 90,430,000**	
Section III: Projects Recently Completed (November 1, 2019 through October 31, 2020)		
State Hall Elevator Improvements - Fully modernize two existing elevators and add new, ADA-compliant elevator	$	4,500,000
School of Social Work Phase II - Complete building renovations to provide meeting space, classrooms, and offices	$	3,500,000
Cooling Tower Capital Repairs - Capital repairs and component replacement across campus to mitigate legionella	$	1,016,000
PRB HVAC Improvements - HVAC improvements and chiller replacement to support PRB freezer farm	$	1,980,000
Chatsworth Residence Hall - Renovate historic residential building to create 368 beds and upgrade building systems	$	28,000,000
Elliman Building AHU Improvements - Upgrade three existing AHUs, install new control system and modify ductwork	$	2,500,000
Cohn Student Commons - Convert two classrooms in the College of Nursing building to create a student commons	$	750,000
Intramural Field Renovation - Install artificial turf, fencing and lighting at existing intramural field	$	2,100,000
Multi-Year Campus Elevator Improvements ($62.5M)		
University Towers Elevators - Full modernization of four existing elevators incl. controls, machinery and machine room	$	1,000,000
TOTAL EXPENDITURE FOR PROJECTS IN SECTION III	**$ 45,346,000**	

WAYNE STATE UNIVERSITY FACILITIES

ATEC at Macomb Comm. College South Campus

Mike Ilitch School of Business

BUILDING AGE

- 0 - 10 YEARS (8)
- 11 - 30 YEARS (24)
- 31 - 50 YEARS (14)
- 51 + YEARS (61)
- LEASED BUILDINGS (excluded)

8%
22%
13%
57%

Feet
0   250   500   1,000   1,500   2,000

Path: W:\FPM Planning Space Mgmt\Planning\GIS\ARPx's\BuildingAge.aprx

001 - Old Main
003 - Physics Building
005 - Science Hall
006 - Life Science Building
007 - A. Paul Schaap Chemistry Building
008 - SEL
016 - State Hall
017 - Linsell House
022 - Prentis
023 - DeRoy
025 - Mort Harris Recreation and Fitness Center
026 - Purdy Library
027 - Kresge Library
028 - Rands House
033 - Jacob House
034 - Student Center Building
036 - Reuther Library
038 - Music Building
039 - Community Arts Center
040 - Art Building
041 - 5415 Cass
042 - Alumni House
043 - McGregor
045 - Parking Structure #5
046 - Law Library Building
048 - Cohn Building

049 - Law School Building
050 - Shapero Hall
051 - Parking Structure #1
053 - Law Classroom
056 - Parking Structure #2
060 - University Services
062 - AAB
063 - 5447 Woodward
064 - Beecher Home
065 - Mortuary Science Building
066 - 5435 Woodward
067 - 5425 Woodward
068 - Simons Bldg.
070 - 5033 Woodward
071 - 5057 Woodward
074 - 95 West Hancock
078 - Matthaei Auxiliary Building
080 - Matthaei Physical Education Center
082 - Welcome Center
083 - 60 West Hanock
085 - Wayne State Bookstore
087 - 5050 Cass
088 - Parking Structure #6
089 - Biological Sciences
090 - Engineering Building
091 - Athletic Multi-Purpose Indoor Facility

096 - Adamany Undergraduate Library
097 - Harwell Field
099 - Women's Softball Locker Room
101 - Women's Softball Stadium
104 - Atchison Hall
115 - Ghafari Hall
122 - Anthony Wayne Drive Apts.
127 - Towers Residence Hall
130 - FAB
136 - Chatsworth Tower Apts.
140 - Education Building
150 - General Lectures
155 - Manoogian Hall
156 - St. Andrew's Hall
166 - Manufacturing Engineering Building
167 - Engineering Technology Building
169 - BioEngineering Building
175 - Mike Illitch School of Business
188 - Mackenzie House
189 - Hilberry Theatre
191 - 100 Antoinette
193 - Computing Services Center
195 - University Custodial / Grounds Building
199 - 5959 Woodward
202 - Data Center
203 - WSU Police Dept.

207 - 5957 Woodward
209 - TechOne
211 - Integrative Bioscience Center
212 - Industry Innovation Center (I2C)
217 - University Storage Warehouse
498 - Parking Structure 3
501 - WDET Transmitter
503 - CIT Building
504 - Mary Thompson Home
505 - Tierney Alumni House
507 - University Tower
509 - Knapp Building
510 - Skillman Building
511 - Freer House
527 - 1011 East Ferry
536 - Parking Structure #8
565 - Schoolcraft Wayne State University Livonia Campus
585 - Woodward Gardens
591 - Macomb Education Center
595 - Parking Structure #7
599 - Carl's Building
603 - Applebaum College of Pharmacy and Health Sciences
607 - McLaughlin Hall
608 - Mazurek Medical Educ. Commons
609 - C. S. Mott Center for Human Growth & Dvlpmt

611 - Lande Building
612 - Scott Hall
613 - Parking Structure #4
614 - University Health Center
615 - Wertz Center
617 - Rehabilitation Institute
618 - Harper University Hospital
619 - Gershenson Center
620 - Bonstelle Theatre
621 - Children's Hospital of Michigan
623 - Hutzel Hospital
624 - Detroit Receiving Hospital
629 - Elliman Building
632 - Hutzel Hospital Prof. Building
633 - Tolan Park
634 - Harper Hospital Prof. Building
635 - Kresge Eye
637 - 110 East Warren (Karmanos Cancer Institute)
643 - John D. Dingell VA Medical Center
655 - Hudson Webber Cancer Research Center
662 - Walt Center
719 - Dan Zowada Memorial Observatory
992 - The Block at Cass Park (BACP)