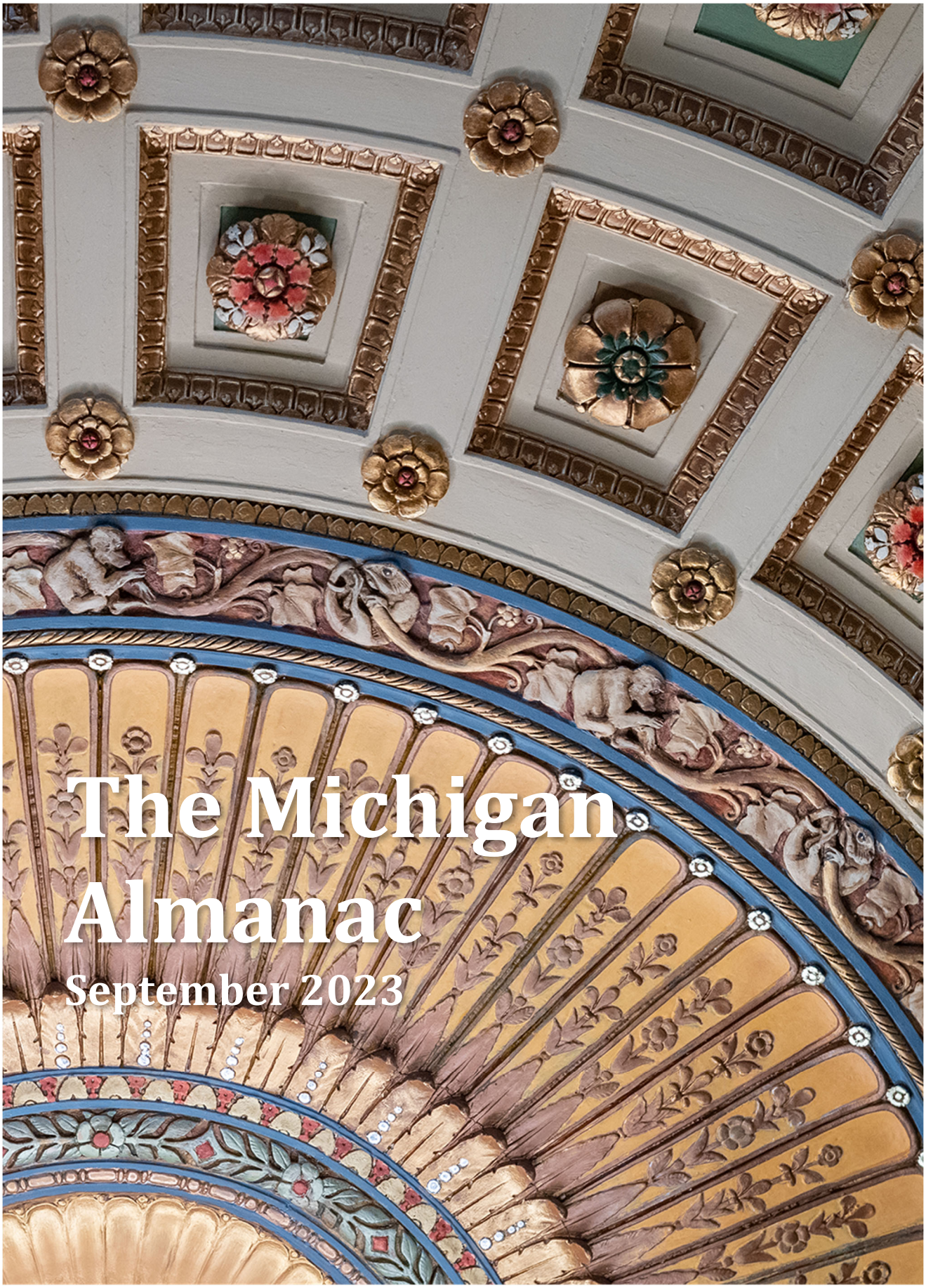

The Michigan Almanac

September 2023

The Michigan Almanac is a publication of the U-M Office of Budget and Planning, created with valuable assistance by staff members from many offices and units across campus.

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Table of Contents

Introduction

The Michigan Almanac provides a consolidated source of data and commentary as a window into the characteristics and operations of the University of Michigan-Ann Arbor campus. This document includes sections on student admissions and enrollment, costs of attendance, student achievement, faculty and staff statistics, diversity indicators for all populations of the campus community, teaching and learning activity data, research and technology transfer, budget, development, space, sustainability, and academic rankings.

The Almanac has been prepared with several audiences in mind. Members of the University administration, faculty, and staff who manage or monitor any of the institution's programs should find this a useful source of information. Others with interests in U-M, such as the state's legislators and government officials in Lansing and Washington, prospective and current students and their families, donors, other higher education institutions, and the media, will also find information of value in this document.

The Almanac aims to present a balanced and factual picture of all facets of the institution. It applauds the University's successes, but also tries to be objective about areas that need improvement. The data has been collected from public sources, and, when possible, from readily accessible reports, so that the charts and tables in the Almanac can be replicated.

The U-M Health System is excluded from Almanac data and charts, except in rare instances. Reporting on the U-M Flint and Dearborn campuses is also left out of this document. These organizations provide their own reporting.

When relevant data is available, the Almanac compares the U-M to its self-selected peer institutions, either as individual universities or as groups with similar characteristics. The membership of these comparison groups is listed in Appendix A.

Questions regarding the Almanac and its contents can be directed to michigan.almanac@umich.edu.

NOTE: The coronavirus pandemic has had detrimental effects on the University of Michigan, as it has on the rest of the world. Campus activity moved largely off campus last half of FY2020, throughout FY2021, with some lingering effects during FY2022. Please bear in mind that some indicators followed in the Almanac may still vary from their usual trends without indicating that permanent changes have occurred.

Chapter 1 Overview of the University

The University of Michigan is guided by "a larger sense of purpose," to borrow a phrase used by former U-M president, Harold Shapiro. His words referred to the University's commitment to provide the educational programs that society demands, generate new knowledge for the benefit of all, and serve as a thoughtful critic of society so that it may continually better itself.

The U-M mission statement reinforces these ideals, which are to "serve the people of Michigan and the world through preeminence in creating, communicating, preserving and applying knowledge, art, and academic values, and in developing leaders and citizens who will challenge the present and enrich the future."

Founded in 1817 as the Catholepistemiad or University of Michigania, it was officially renamed in 1821 as the University of Michigan. Originally located in Detroit, the institution's home moved to Ann Arbor in 1837. One of the original buildings on the Ann Arbor campus still stands and is the President's house.

The first Ann Arbor classes were taught in 1841, at which point the U-M had two professors and six students. The first commencement took place in 1845 to recognize the graduation of eleven men. Women were first admitted in 1870.

The University has grown to include nineteen schools and colleges (see table at right), covering the liberal arts and sciences as well as most professions. Student enrollment surpassed 1,000 by 1865, 10,000 in 1936, and 40,000 in 2006. The Fall 2022 enrollment of undergraduate, graduate, and professional students was 51,225. U-M provides campus housing to 8,892 undergraduate students across sixteen residence halls.

Based on the November 2022 count, the U-M has 3,156 tenured and tenure-track faculty. Lecturers, clinical faculty, research professors, librarians, and archivists add 4,798 to the total academic staff. All other staff total 17,340. (Another 4,400 students have paid appointments as graduate student instructors and research assistants, individuals counted as students in chart 1.3).

The FY2022 operating revenues from the state appropriation, tuition, research grants and contracts, gifts and other sources reached $5.39 billion. The U-M Health System revenues added $5.61 billion for a combined total of $11 billion. According to the latest national data, in FY2022 the U-M spent $1.71 billion on research – second highest of any U.S. public university.

1.1 School/College Origins

University of Michigan	Est. 1817
School/College	**First Dean Appointed**
Medical School	1850
Law School	1859
College of Literature, Science & the Arts	1875
School of Dentistry	1875
College of Pharmacy	1876
College of Engineering	1895
Horace H. Rackham School of Graduate Studies	1912
Marsal Family School of Education[1]	1921
Stephen M. Ross School of Business	1924
School of Music, Theatre & Dance	1927
School of Environment & Sustainability[2]	1927
Taubman College of Architecture & Urban Planning	1931
School of Nursing	1941
School of Public Health	1941
School of Social Work	1951
School of Information	1969
Penny W. Stamps School of Art & Design	1974
School of Kinesiology	1984
Gerald R. Ford School of Public Policy	1995

[1] School of Education renamed in February 2023.
[2] New name as of July 1, 2017. Previously called the School of Natural Resources & Environment.

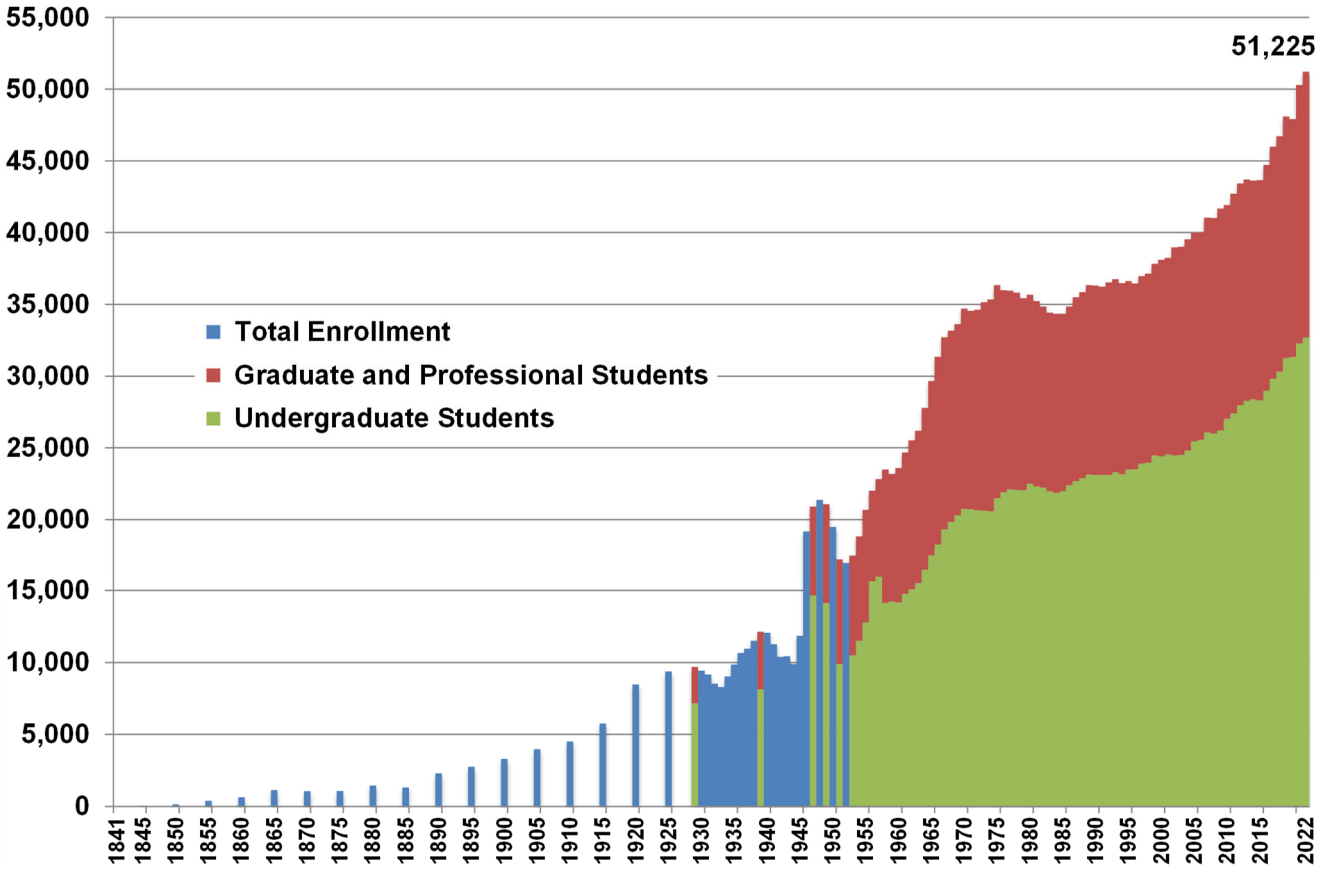
For More Information

History of U-M (historyofum.umich.edu)
Bentley Historical Library (bentley.umich.edu)
Office of Budget and Planning – Campus Statistics (obp.umich.edu/campus-statistics/)

Charts in Chapter 1

Since World War II ended, official enrollment has more than doubled, from 19,176 in 1946 to 51,225 in 2022.

1.2.1 Student Enrollment, Fall 1841-2022.



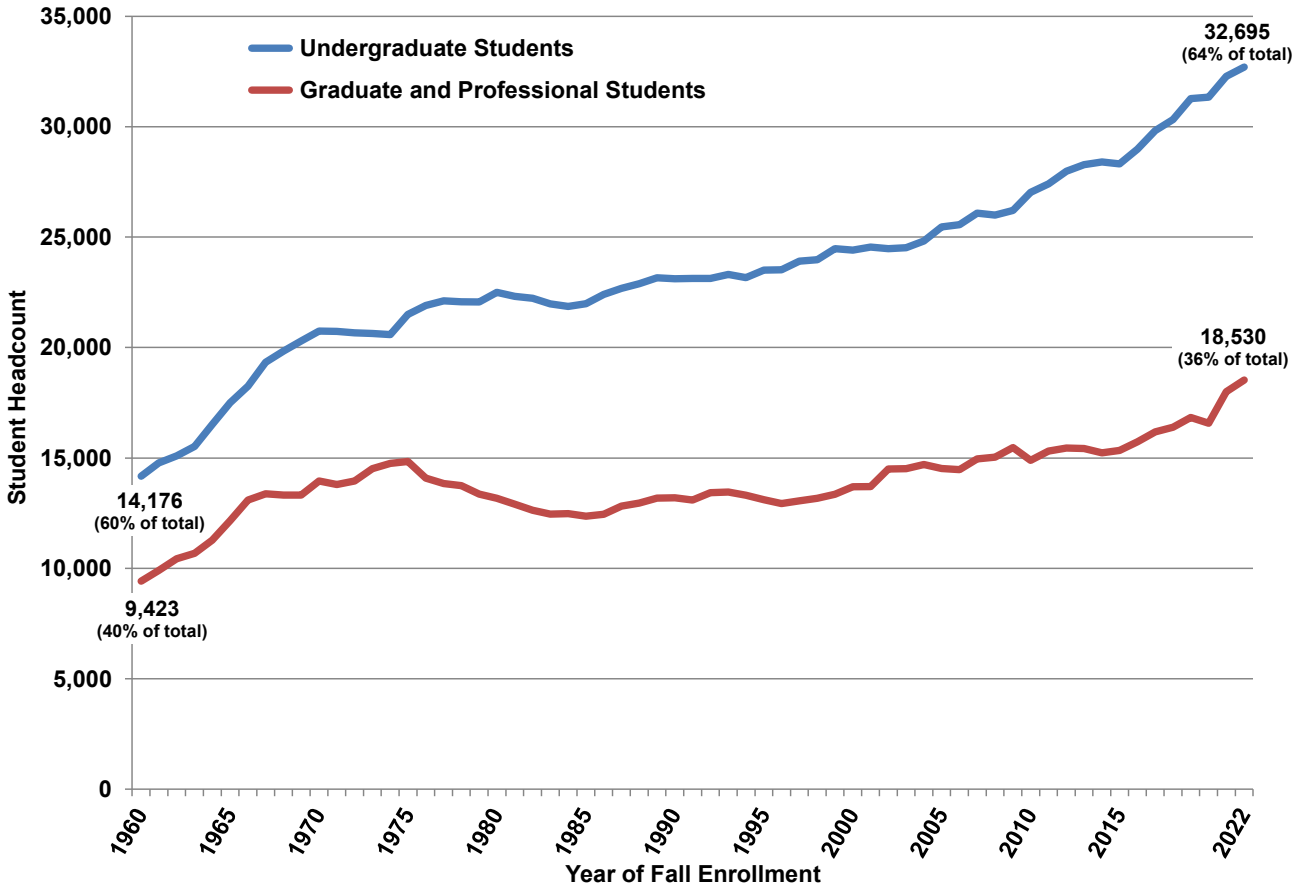
SOURCE: U-M Statistical Reference Book (1966); U-M Office of the Registrar

An enrollment headcount based on a fall census is available starting in 1841 and continuing about every five years to 1929. The first class in 1841 consisted of six undergraduates. Graduate student enrollment began during the 1840s, and the first graduate degree (a Master of Arts) was conferred in 1849, followed by the first M.D. degree in 1851. Total enrollment is reported unless records provide an accurate accounting of the separate undergraduate and graduate student population.

The enrollment valley in the early 1940s followed by a rapid rise and peak in the late 1940s parallels the U.S. involvement in World War II followed by the the war's end and the passage of the GI Bill. The subsequent enrollment valley – reaching its low point in 1985 – synchronizes fairly closely with the end of the post-World War II Baby Boom's prime college years.

Undergraduate enrollment has risen fairly steadily since 1960, with a few periods of decline. Graduate and professional enrollment reached an initial peak in 1975, underwent a period of decline through about 2000, and only returned to the 1975 level again in 2007.

1.2.2 Student Enrollment by Level, Fall 1960-2022.



SOURCE: U-M Office of the Registrar

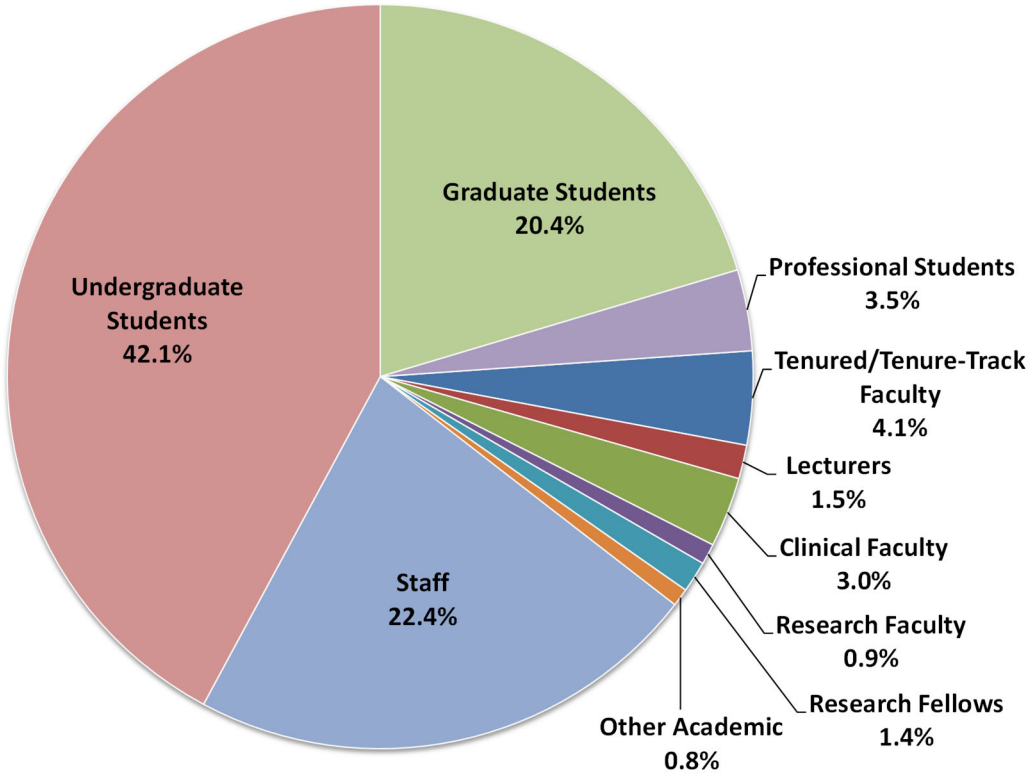
After the small increase in enrollment between Fall 2019 and Fall 2020 – overlapping the start of the COVID-19 pandemic – Fall 2021 saw a significant enrollment increase.

University of Michigan undergraduate student enrollment has risen nearly every year since 1960. The Fall 2022 enrollment is 2.3 times larger than the Fall 1960 enrollment. The undergraduate increase from Fall 2021 is 413 students (+1.3%).

Graduate student enrollment has not grown with the same consistenccy as that for undergraduates, although the current Fall enrollment is 1.9 times larger than for Fall 1960. Fall 2022 graduate enrollment grew by 534 students compared to a year ago (+3%).

The University community includes 51,225 students and 7,954 faculty members.

1.3 Composition of U-M Campus Community, Fall 2022.



SOURCE: U-M Office of the Registrar; U-M Human Resources Data Sets

Undergraduate Students	32,695
Graduate Students	15,798
Professional Students	2,732
Tenured/Tenure-Track Faculty	3,156
Lecturers	1,135
Clinical Faculty	2,364
Research Faculty	697
Other Academic	602
Research Fellows/Post-Doctoral Fellows	1,056
Staff	17,340
Campus Total[1]	77,575

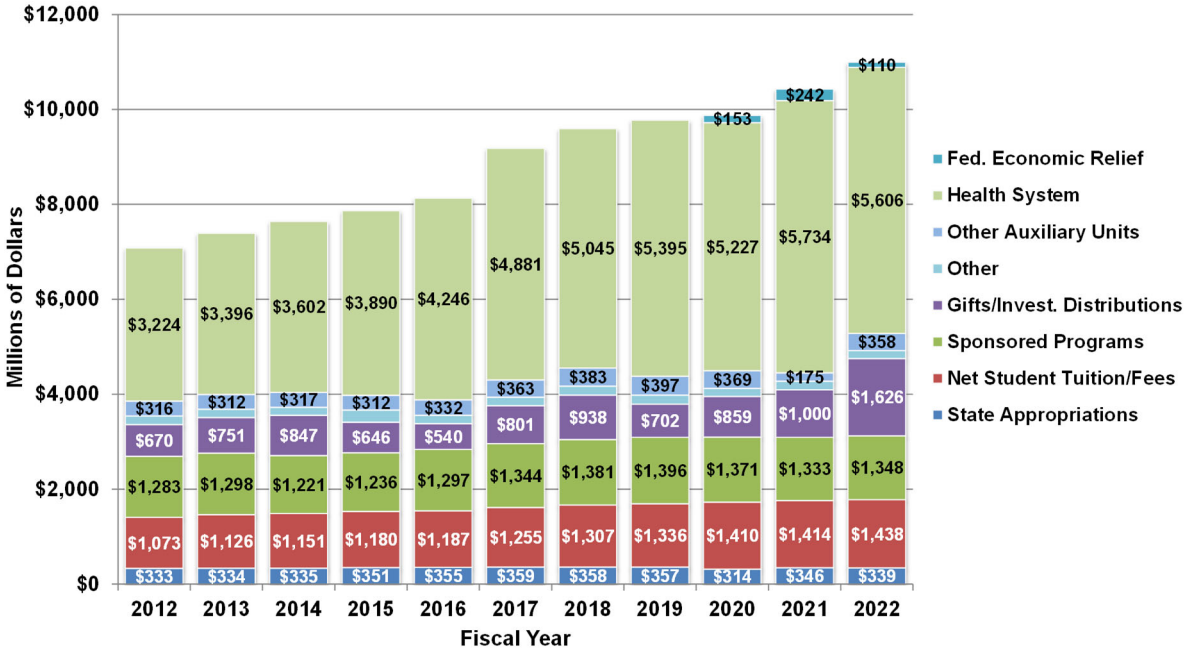
The total faculty count includes tenured & tenure-track faculty, lecturers, clinical faculty, research faculty and other academic appointments (not-on-track faculty, librarian, curator, archivist, adjunct and visiting faculty, adjunct and visiting research faculty, and emeritus faculty). In this chart, the staff count includes regular staff, clinical interns and professional specialists. Students who also have supplemental staff appointments as graduate student instructors, graduate student research assistants, and graduate student staff assistants are included in student counts.

The professional student count includes students enrolled in the MD, DDS, JD, PharmD and DNP programs. The graduate student count includes all other graduate students. See Appendix C for details.

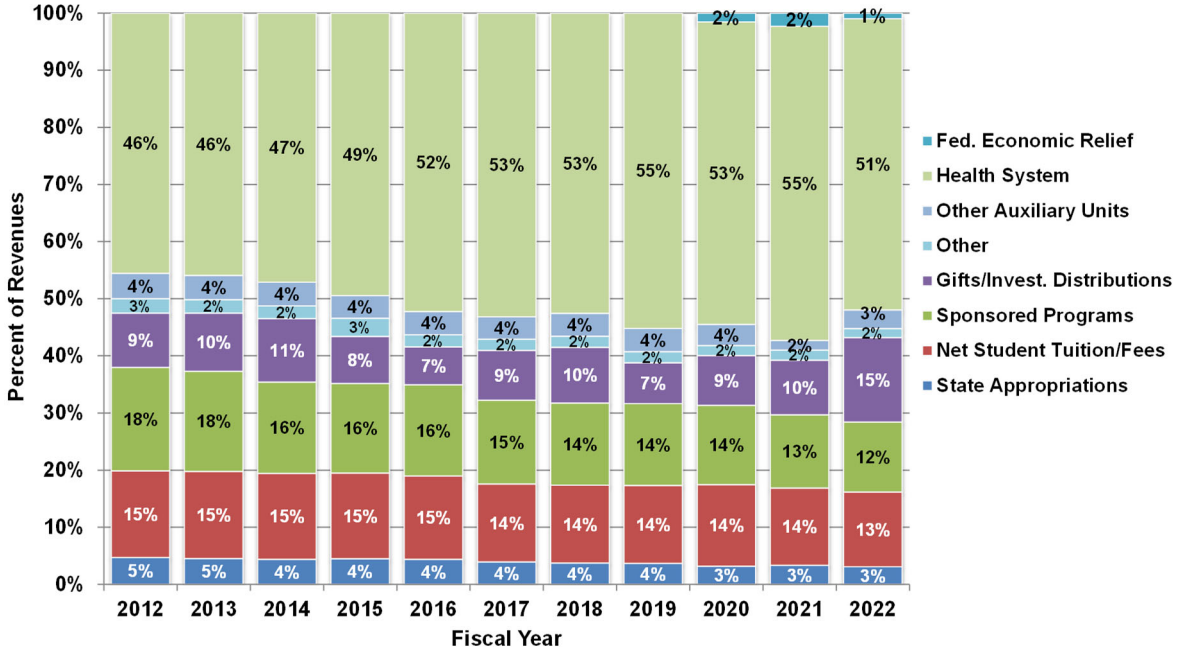
[1] Excludes the U-M Health System (see Appendix E for definition).

Revenues (adjusted for inflation[2]) for the U-M campus and U-M Health System combined increased from $7.08 billion in FY2012 to $11.0 billion in FY2022. The state appropriation in inflation-adjusted dollars increased 1.8% during the last decade, from $333 million in FY2012 to $339 million in FY2022.

1.4.1 Operating Revenues for the U-M Campus (including the U-M Health System), Adjusted for Inflation[2], FY2012-2022.



1.4.2 Operating Revenues for the U-M Campus (including the U-M Health System), by Percent, FY2012-2022.



SOURCE: University of Michigan Office of Financial Operations

"Net student tuition/fees" equals total tuition and fees minus student scholarships from the U-M for the fiscal year.

[2] Based on 2022 U.S. Consumer Price Index.

Chapter 2 Undergraduate Students: Admissions & Enrollment

Goals

Access is a central priority for the U-M admissions and enrollment process. A major goal is to assemble entering classes of highly qualified first-year undergraduate students. Academic success in high school is evaluated closely, but so are other qualities that applicants can bring to the campus community.

For instance, the application process provides the opportunity to describe aspects of their background, identify, interests and talents in an essay, or to reflect on people, ideas, or challenges that motivate them. These insights are combined with academic success in comprehensive evaluations that lead to admission offers, and, it's hoped, a student's decision to attend the U-M.

Financial aid is an important factor in attracting students and Chapter 3 provides details about aid affects recruitment and retention of students.

Overview

This chapter details application, admission, and enrollment trends for first-year undergraduates and new transfer students.

Student interest in the University continues to grow. Applications from prospective undergraduate students have doubled since 2012, although the 2022 application count was only slightly higher than for 2021. As a highly selective institution, U-M offers admission to fewer than half of those who apply. Of these the number of new first-year enrollment has been fairly level over the last decade; new enrollees have increased by a few hundred.

The U-M offers more than 280 academic programs for undergraduates, opportunities for international study, more than 1,600 student clubs to join, and 27 NCAA Division I teams to cheer on. And the cosmopolitan campus community and college town atmosphere make it one of the most interesting places in the country.

The University actively recruits and admits students from the state of Michigan, the nation and around the globe. In fall 2022, the U-M enrolled undergraduate students from all 83 Michigan counties, all 50 states, and 99 countries. Fifty-two percent of undergraduates are from the state of Michigan. The diverse origins, backgrounds and experiences found in every entering class contribute to the varied interests and characteristics of the student body.

For More Information

Office of Undergraduate Admissions (admissions.umich.edu)

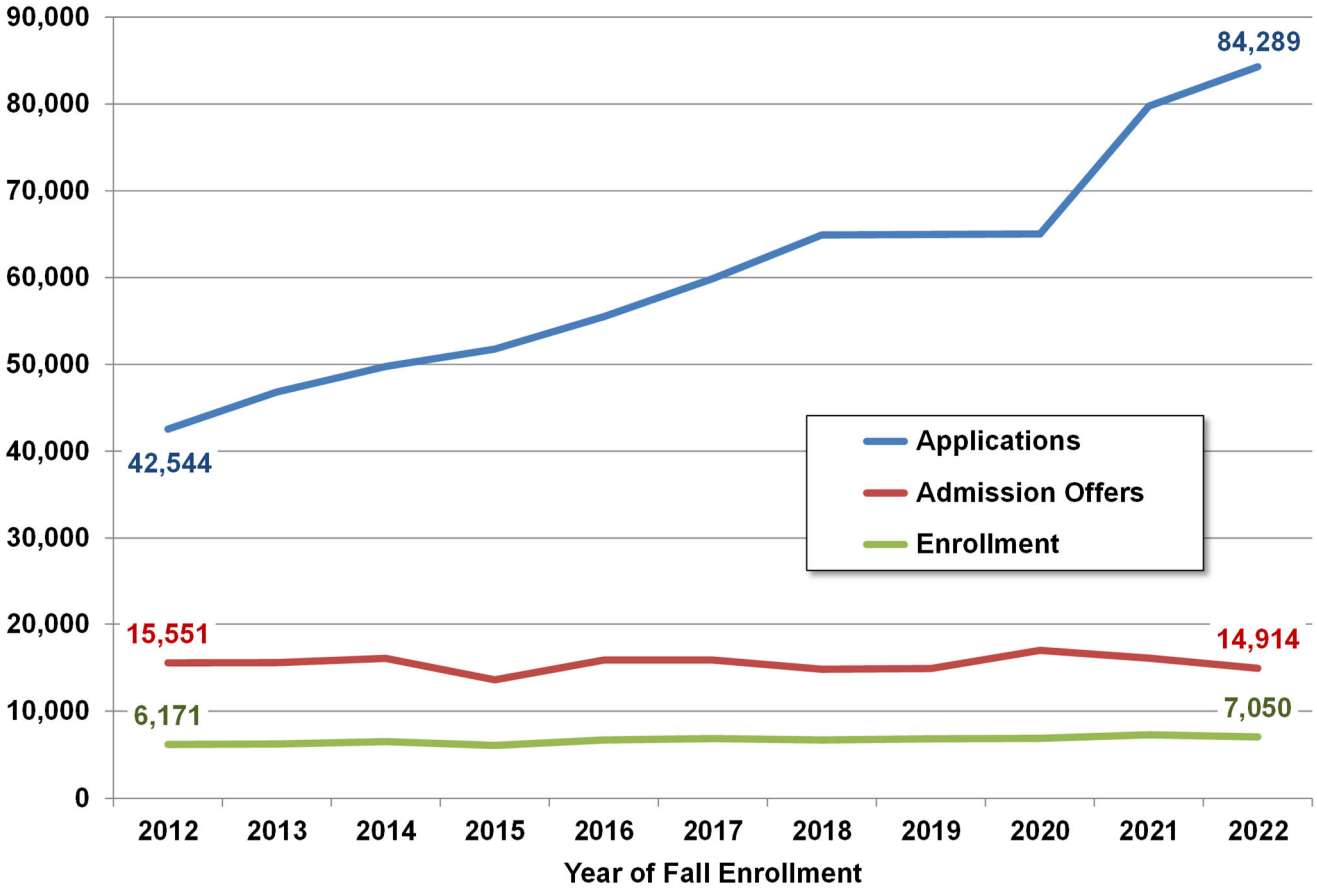
Enrollment and Degree Reports, Office of the Registrar (ro.umich.edu/reports)

Office of Budget and Planning (see Campus Statistics) (obp.umich.edu)

Charts in Chapter 2

U-M first-year undergraduate applications have doubled since 2012, resuming the growth trend that had been interrupted by the COVID-19 pandemic. Admission offers have remained fairly constant, and enrollment has increased at an average annual rate of 1.3 percent over the same time frame.

2.1 Applications, Admission Offers, and Enrollment for First-time, First-Year Undergraduate Students, Fall 2012-2022.



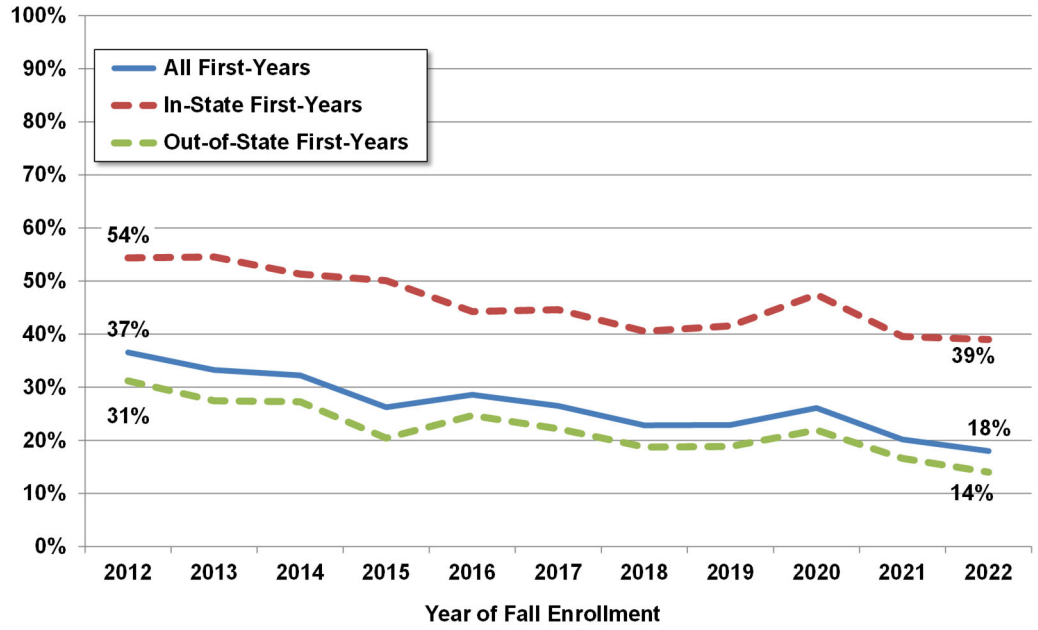
SOURCE: U-M Student Data Sets

Over the last decade, new first-year undergraduate application totals for the University of Michigan trended upward at a fairly rapid rate through the Fall 2018 enrollment period. This growth is largely attributed to the adoption of the Common Application, which makes it simpler for students to include the University of Michigan on the list of institutions they want to consider.

The trend flattened for Fall 2019 and Fall 2020 applications presumbly due to the uncertainties caused by the COVID-19 pandemic. The upward trend resumed for Fall 2021 and Fall 2022 as classes were once again offered in-person rather than largely online. In addition, the university adopted policies making submission of standardized test scores oprional, while encouraging appoicants to consider sending the score from any of several standardized tests available to high school students.

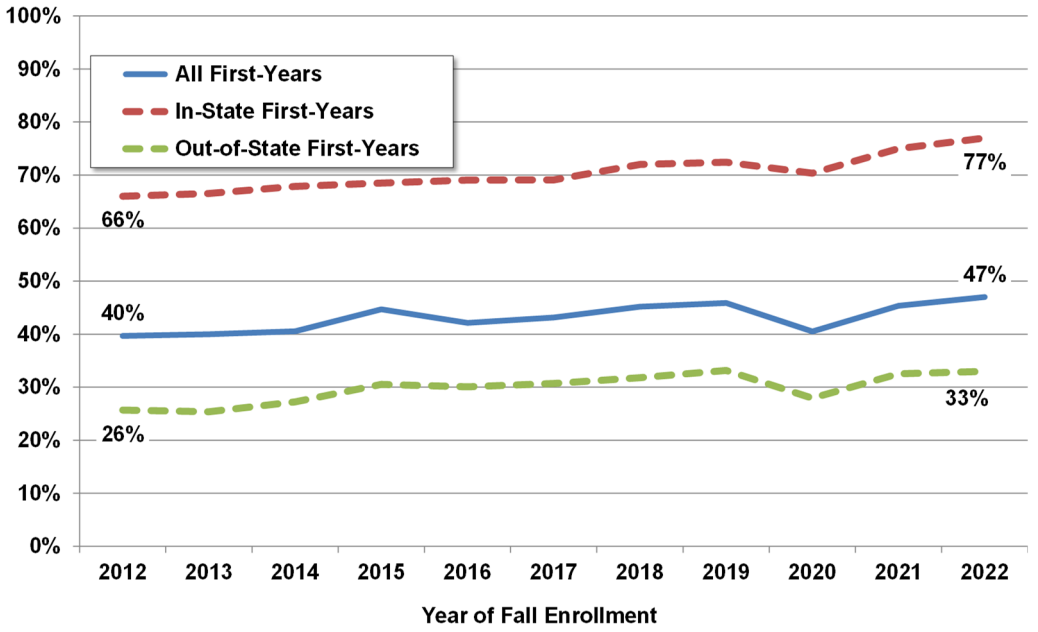
The trend in selectivity rates is mainly influenced by the growth in applicant numbers.

2.2.1 Selectivity Rates for First-time, First-Year Undergraduate Students, Fall 2012-2022.



Lower percentage means more selective in choosing among applicants.

2.2.2 Yield Rates for First-time, First-Year Undergraduate Students, Fall 2012-2022.



Higher percentage means greater success in attracting admitted applicants.

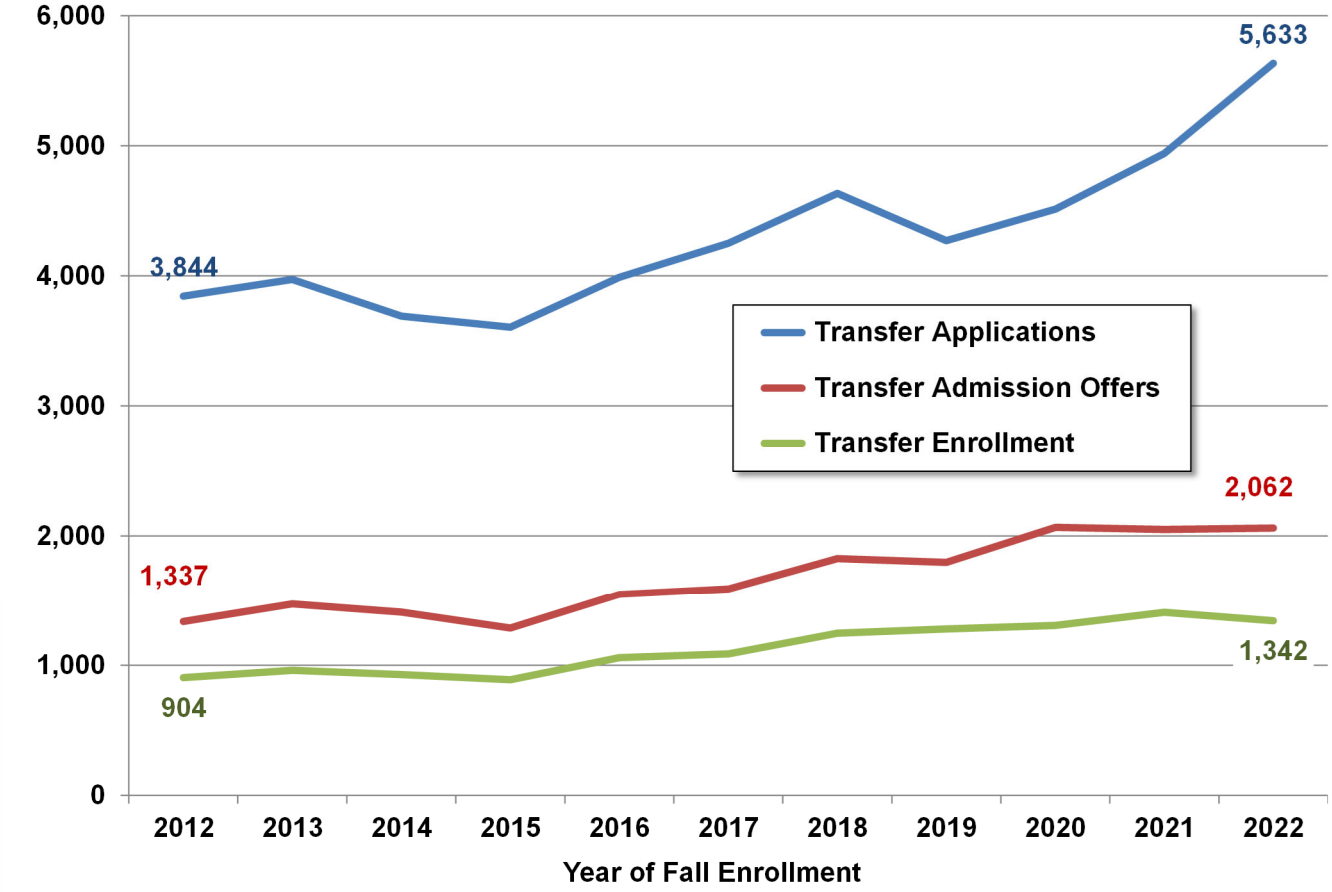
SOURCE: U-M Student Data Sets

Selectivity is the ratio of admissions offers to total applications. In chart 2.2.1, a lower percentage indicates is an indicator of student quality across a broad range of factors.

Yield is the ratio of enrollment numbers to admission offers. In chart 2.2.2, a higher percentage indicates the school is successful in convincing the sought-after students to enroll at U-M. Yield is lower for out-of-state students (dotted green curve) compared to in-state students (dotted red curve) likely due to the U-M commitment to providing financial aid to in-state students and relatively greater competition the university faces for out-of-state students.

U-M transfer applications and enrollment have increased compared to ten years ago.

2.3.1 Applications, Admission Offers, and Enrollment for New Undergraduate Transfer Students, Fall 2012-2022.

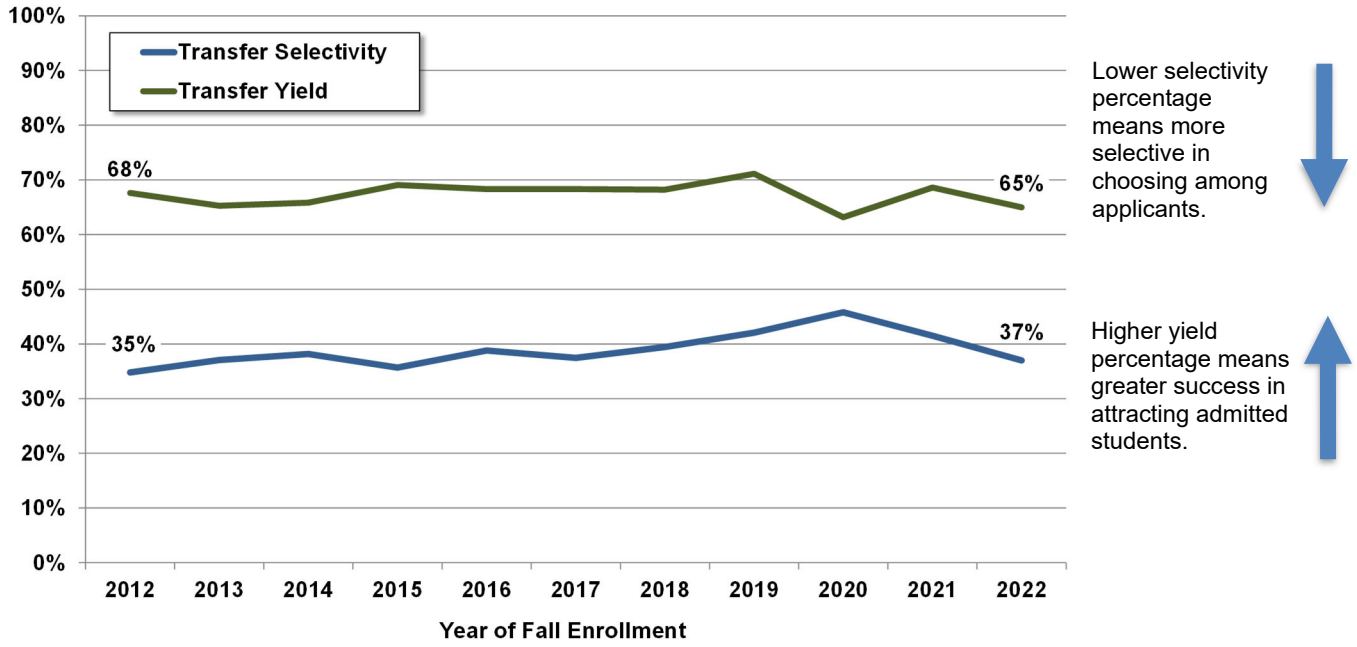


SOURCE: U-M Student Data Sets

Over the last decade, undergraduate transfer application totals for the University of Michigan have trended upward, although much more slowly than have new first-year applications (see 2.1 above). New transfer enrollment has increased at an average annual rate of 4.0 percent and is 49 percent larger than in 2012.

The trend in selectivity and yield for undergraduate transfer students has been relatively steady since 2012.

2.3.2 Selectivity and Yield Rates for New Undergraduate Transfer Students, Fall 2012-2022.

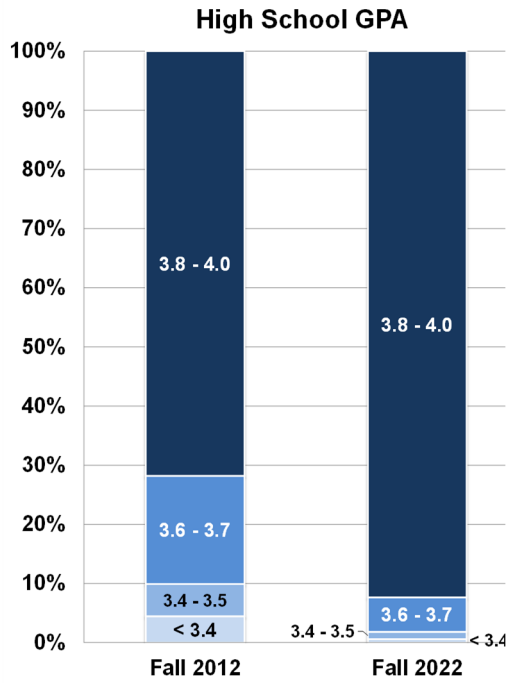


SOURCE: U-M Student Data Sets

Selectivity is the ratio of admission offers to total applications. Yield is the ratio of enrollment numbers to admission offers.

The increase over time in grade point averages of first-year undergraduate students entering the U-M shows higher grades for Fall 2022 first-years compared to their 2012 counterparts.

2.4.1 Grade Point Average[1] First-Year Undergraduate Students, Fall 2012 and Fall 2022.



SOURCE: U-M Office of Admissions reports, Student Admissions Data Set

Data on new U-M first-year undergraduates confirms that students who enroll in the U-M have achieved academic success in high school. Furthermore, the level of academic achievement of new first-years has increased, as indicated by comparing the percentages of students within grade point average ranges for Fall 2022 and Fall 2012.

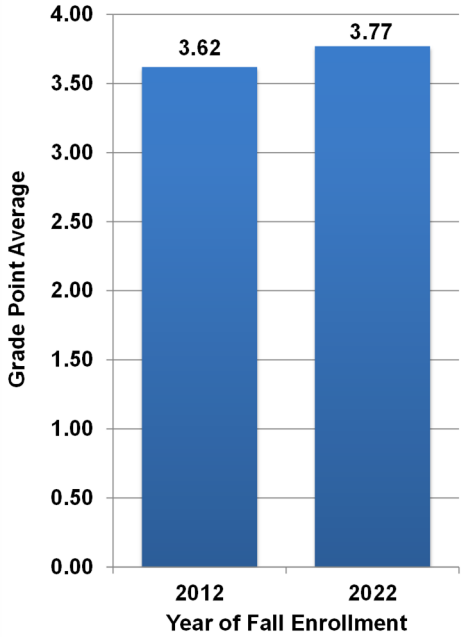
The University of Michigan calculates each student's high school GPA on a 4.0 scale after eliminating any weighting from the applicant's high school transcript.

Note: Past editions of the Michigan Almanac displayed similar comparisons for SAT and ACT standardized test scores. These charts have been removed for now because of a recent trend that de-emphasizes standardized test scores in evaluating applications. While the U-M recommends that applicants submit a standardized test score, this is currently optional at the U-M, as well as for most of its peer universities. If the emphasis changes in the future, the Michigan Almanac will adjust again.

[1] A high school grade point average was not recorded in admissions data for every newly enrolled first-year undergraduate.

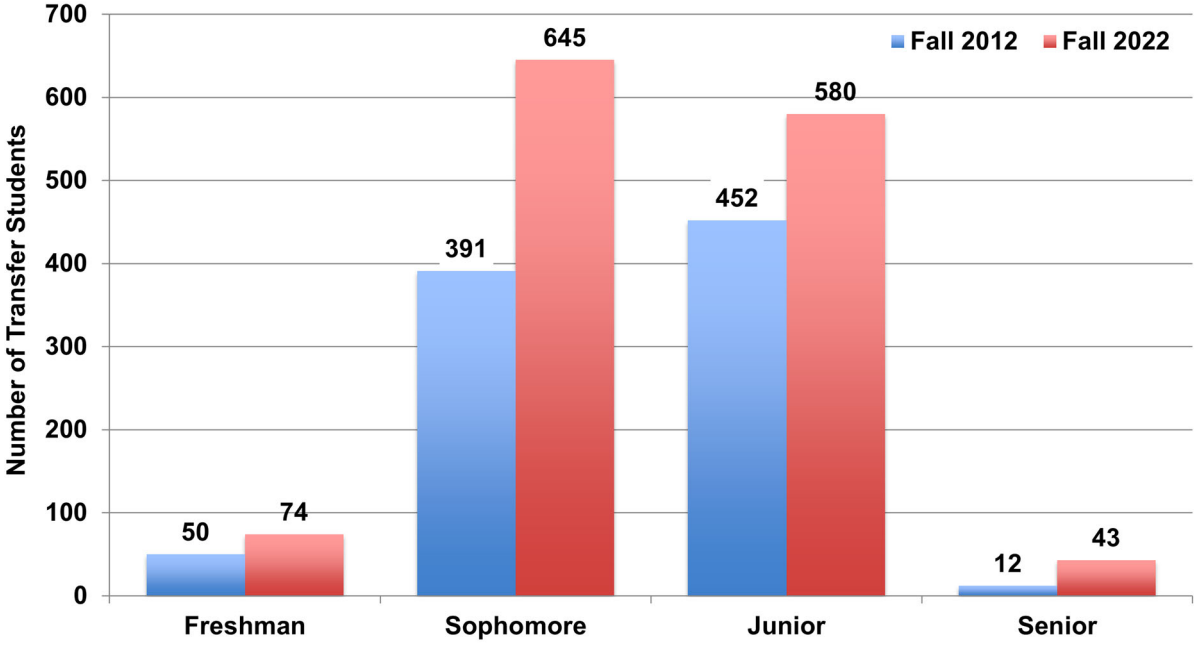
Undergraduate degree-seeking transfer students entered with slightly higher grade point averages in Fall 2022 than 10 years earlier.

2.4.2 Mean College Grade Point Averages from Prior College of New Undergraduate Transfer Students[3], Fall 2012 and Fall 2022.



[3] A grade point average from their previous college was not recorded in admissions data for every undergraduate transfer student.

2.4.3 New Undergraduate Degree-Seeking Transfer Students by Class Level at Enrollment, Fall 2012 and Fall 2022.

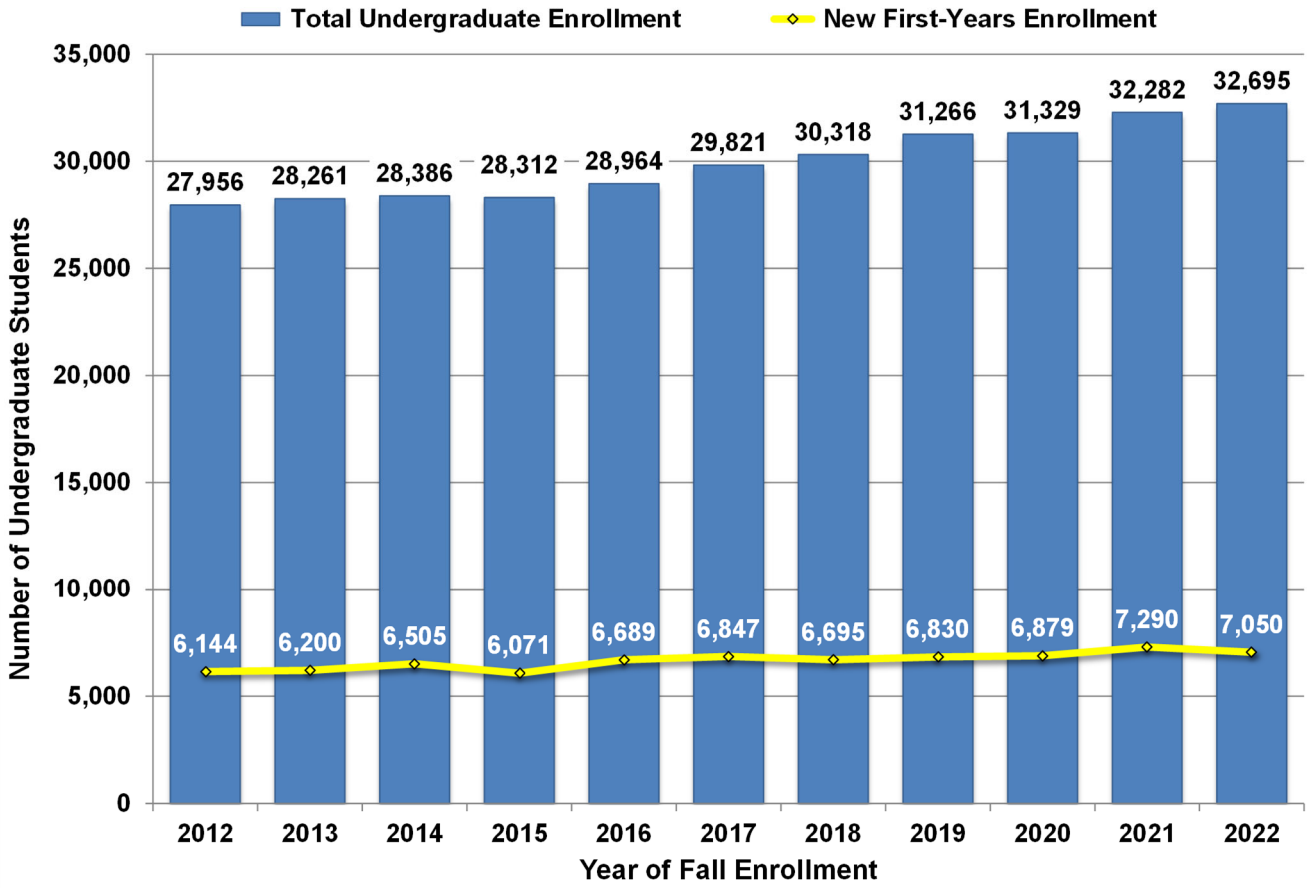


SOURCE: U-M Student Data Sets

About 91 percent of new transfer students starting in the Fall 2022 term entered with sophomore or junior academic standing, which is based on the credits transferred to their U-M degree programs.

Total undergraduate enrollment in 2022 was 17 percent higher than in 2012. The size of the 2022 class of first-year undergraduates was 15 percent higher than its 2012 counterpart.

2.5.1 Total and First-Year Undergraduate Student Enrollment, Fall 2012-2022.



SOURCE: U-M Student Data Sets

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Fifteen[4] of the 19 U-M Schools and Colleges administer undergraduate programs, which enrolled 32,695 students for Fall 2022.

2.5.2 Undergraduate Student Fall Enrollment Headcount by School and College, Fall 2018-22.

School/College	2018	2019	2020	2021	2022
Taubman College of Architecture & Urban Planning	184	184	177	208	232
Penny W. Stamps School of Art & Design	582	603	616	686	682
Stephen M. Ross School of Business	2,385	2,404	2,377	2,421	2,440
School of Dentistry (Dental Hygiene)	102	86	83	74	77
School of Education	130	139	126	114	88
College of Engineering	6,648	6,779	6,841	6,931	6,962
School for Environment & Sustainability [4]	-	-	1	-	-
School of Information	313	322	295	353	380
School of Kinesiology	965	997	1,003	1,066	1,098
College of Literature, Science and the Arts	17,149	17,837	17,796	18,322	18,656
Medical School [5]	28	25	34	36	26
School of Music, Theatre & Dance	808	834	837	869	851
School of Nursing	630	642	678	713	714
College of Pharmacy	56	74	91	104	102
School of Public Health [6]	172	170	204	207	213
Gerald R. Ford School of Public Policy	154	161	163	164	162
School of Art and Design / School of Music, Theatre and Dance Joint Program	12	9	7	14	12
Grand Total, Undergraduate Students	*30,318*	*31,266*	*31,329*	*32,282*	*32,695*

SOURCE: U-M Student Data Sets

Faculty from the School for Environment & Sustainability teach many of the courses for the Program in the Environment, although the students in the program are enrolled in the College of Literature, Science and the Arts.

The School of Social Work offers a minor in community action and social change open to undergraduate students from twelve of the university's schools and colleges. The School of Social Work does not have an undergraduate degree program.

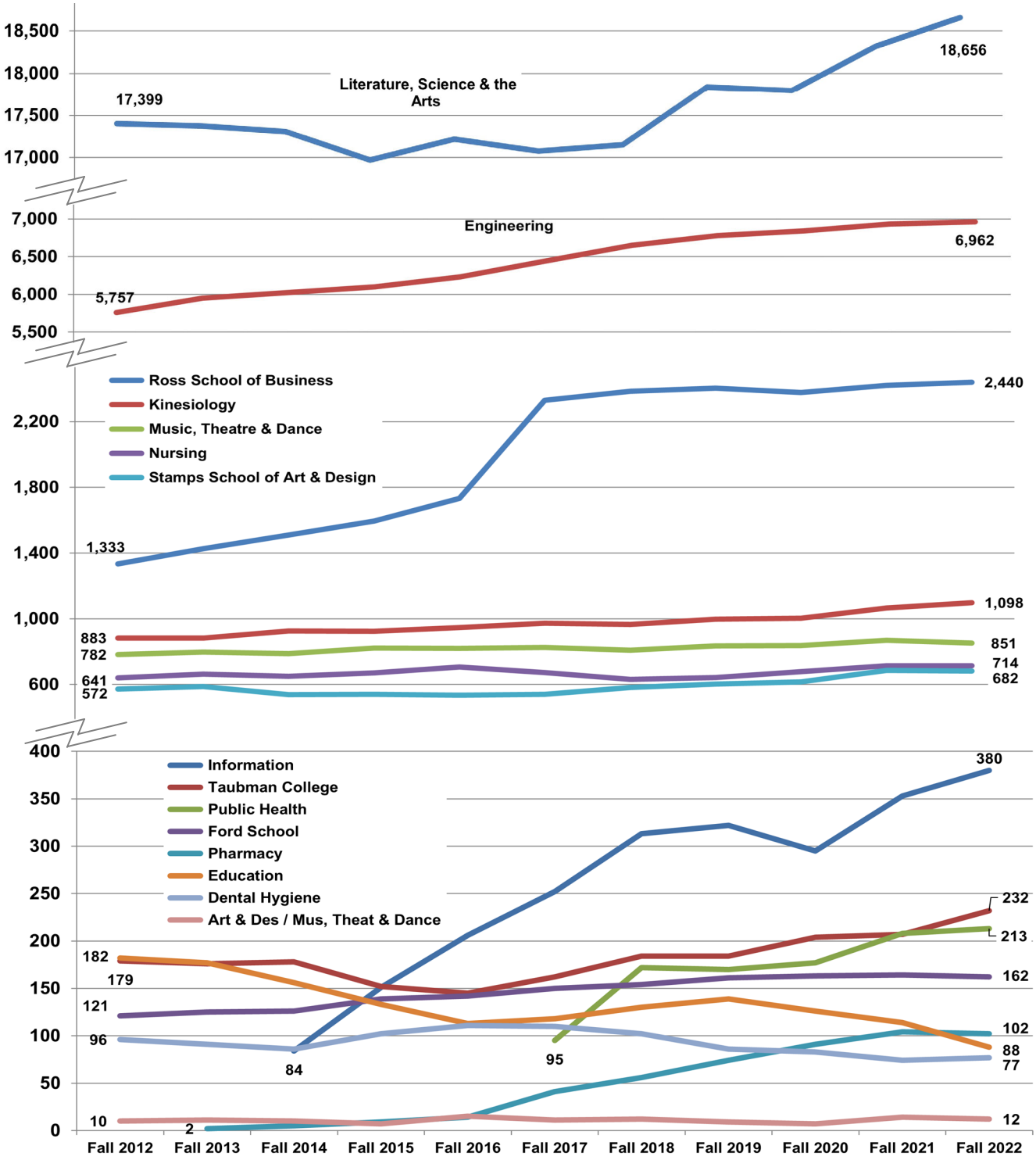
[4] The School for Environment & Sustainability does not accept new undergraduate students but allows students to return to an undergraduate program if enrolled in one in the past when the school offered such programs.

[5] The Medical School launched an undergraduate non-degree program in Fall 2015.

[6] The School of Public Health launched an undergraduate degree program in Fall 2017.

Growth in enrollment over the last 10 years has been largest in LSA, Engineering, Ross Business School and the School of Informaiton.

2.5.3 Undergraduate Student Fall Enrollment 10-Year Trend by School and College, Fall 2012-2022.

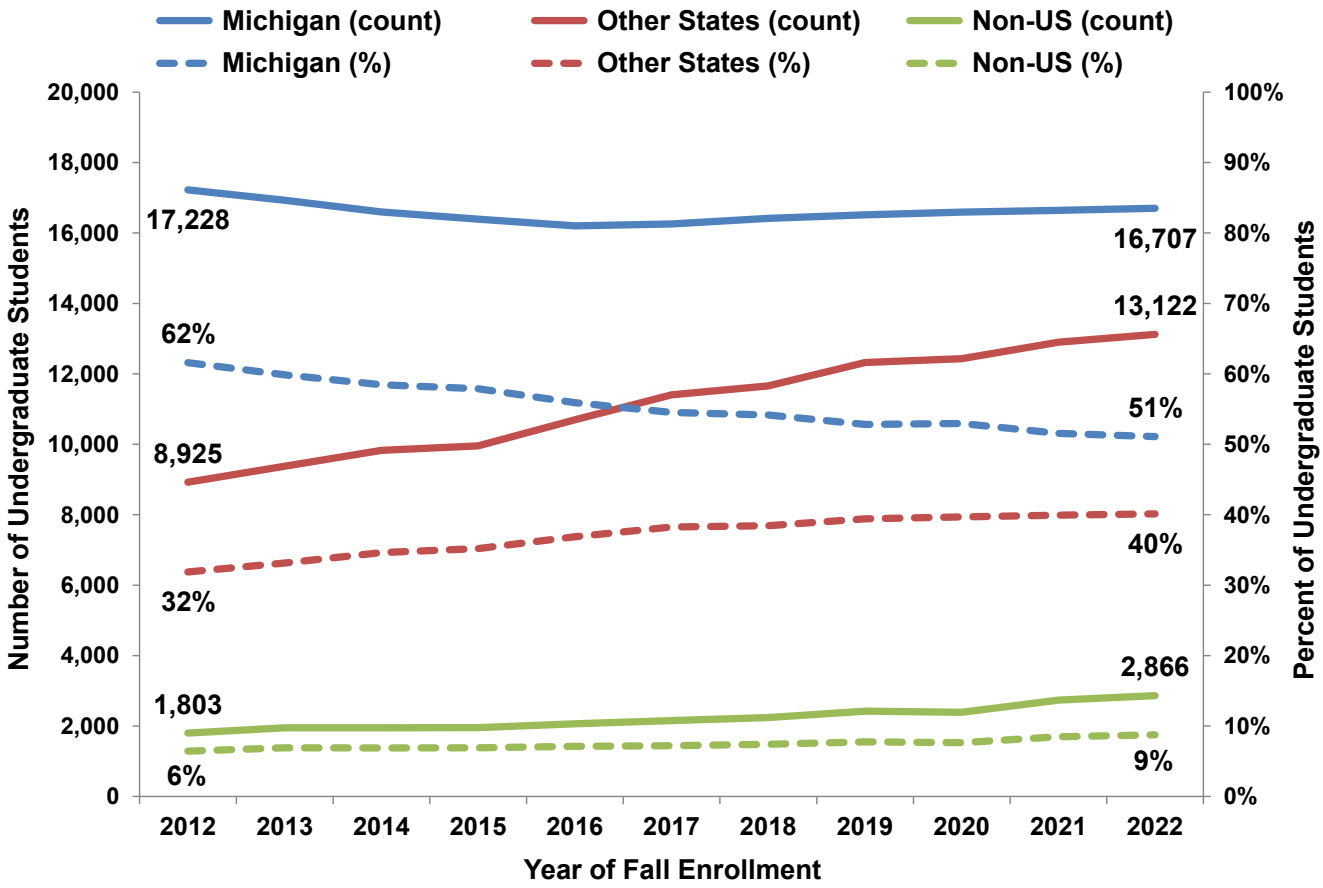


SOURCE: U-M Student Data Sets

Enrollment counts are excluded from this chart for students in the Medical School MedPrep non-degree program, readmitted students to the SEAS undergraduate program, and students who started the Pharm.D. program without holding a bachelor's degree.

More than half of U-M undergraduate students are from the state of Michigan.

2.6.1 Geographic Origin of Undergraduate Students by Headcount and Percent, Fall 2012-2022.



SOURCE: U-M Student Data Sets

A student's geographic origin is defined according to the address used in the application for admission and citizenship status. The geographic origin of a student is similar, but not identical, to residency status, which is used to determine tuition to be paid.

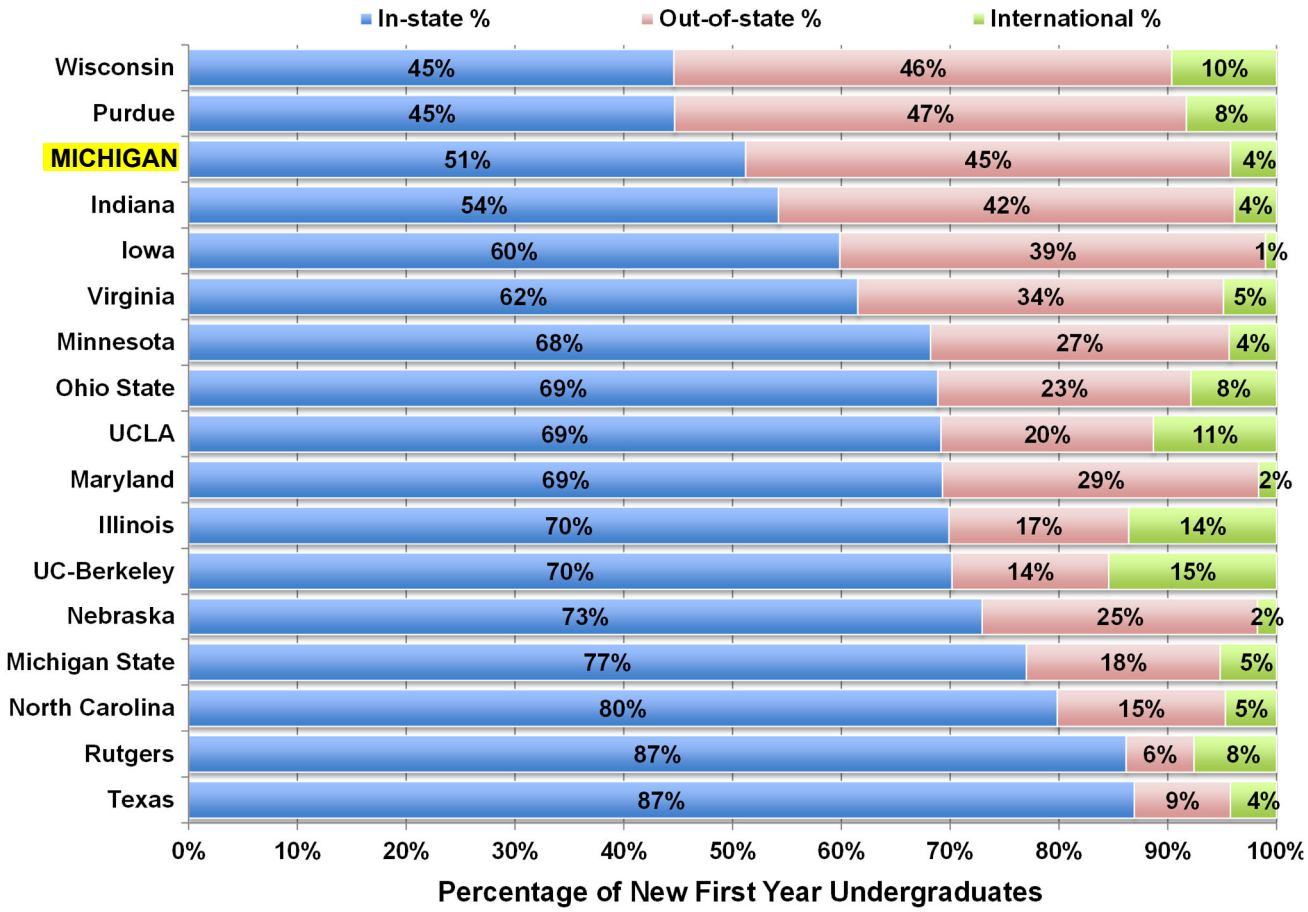
The distribution of in-state and out-of-state students among undergraduates is partially dependent on the size of each high school graduating class in Michigan, which is on the decline. In 2008, the number of Michigan public high school graduates peaked at 117,487[7]. By 2030, the total number of public high school graduates has been projected to drop to 100,430[8], about 17 percent below the 2008 peak.

[7] Student Pathways Aggregate for High Schools (HS Graduation Year 2010-11), Center for Educational Performance and Information, www.michigan.gov/cepi.

[8] Western Interstate Commission for Higher Education, Knocking at the College Door: Projections of High School Graduates, 2020, www.knocking.wiche.edu, Michigan Projection.

Michigan enrolls one of the highest fractions of out-of-state plus international new first-year undergraduate students compared to its public university peers, according to the most recently available data.

2.6.2 Geographic Origin of First-Year Undergraduates, U-M and Public Big Ten and other Peer Institutions[9], by Percent, Fall 2021.



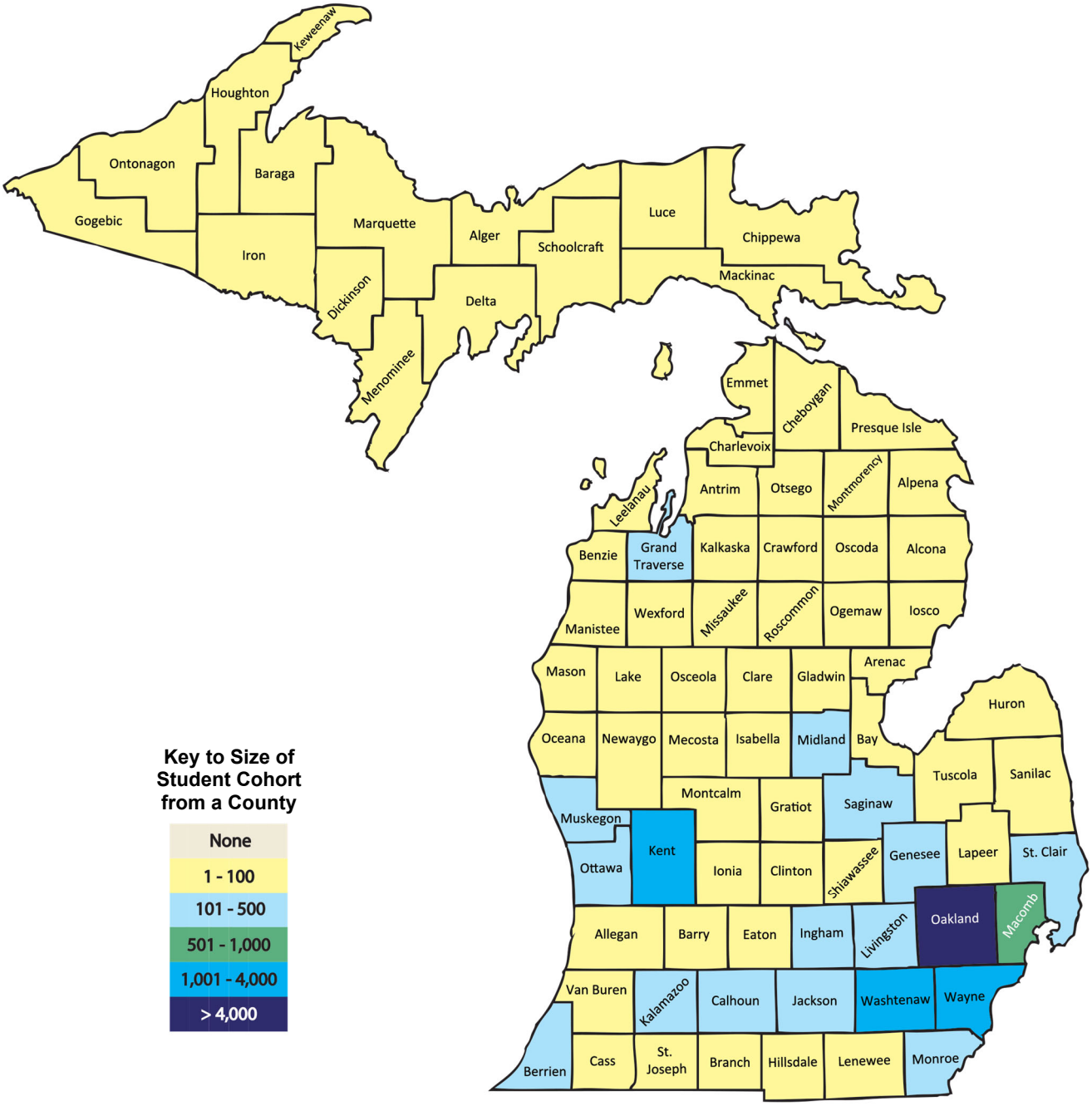
SOURCE: Integrated Postsecondary Education Data System (IPEDS), U-M student records

IPEDS collects geographic origin data only for new first-year undergraduate students. Reporting enrollment by geographic origin to IPEDS was optional for Fall 2021. Of U-M peers, University of Washington-Seattle and UCLA did not report undergraduate enrollment by geographic origin to IPEDS. Penn State reports student enrollment data to IPEDS for all campuses combined; enrollment for the University Park campus is not available.

[9] A list of the public peers used for comparison on this page is found in Appendix A.

The U-M enrolls undergraduate students from everey county in Michigan.

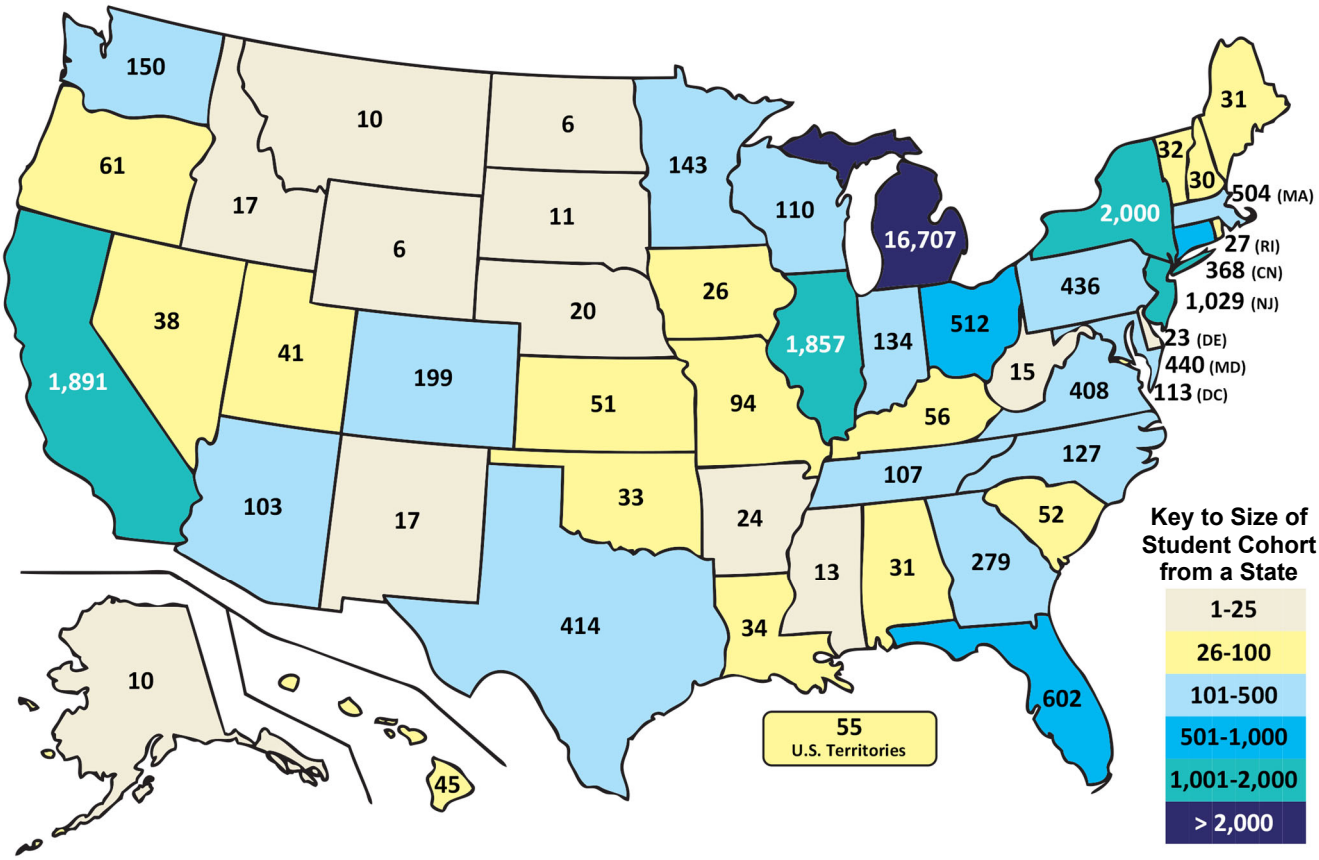
2.6.3 U-M Undergraduate Student Enrollment from the State of Michigan by County, Fall 2022.



SOURCE: U-M Student Data Sets

After Michigan, the states of New York, Illinois and California are home to the largest number of U-M undergraduate students.

2.6.4 U-M Undergraduate Student Enrollment by State, Fall 2022.



SOURCE: U-M Student Data Sets

Chapter 3 Undergraduate Students: Affordability

Goals

Access is a central priority for the University admissions and enrollment process. The goal is to enable qualified students to attend regardless of socioeconomic background.

For many years, the U-M has provided financial aid packages that meet the full cost of attendance for admitted in-state students with demonstrated need. In 2017 the University enhanced this commitment with the Go Blue Guarantee, a pledge to provide the full cost of tuition to all admitted, in-state students whose family income is less than $65,000 and family assets are less than $50,000. Starting with Fall 2023, qualifying family income is $75,000 with assets below $75,000.

Overview

The University has worked hard in recent years to minimize tuition increases. It has been able to reduce the net cost of attendance for undergraduate students with financial need (despite dramatic declines in state support) by making sizeable and growing investments in financial aid, funded through a combination of aggressive cost containment and generous philanthropic contributions. Furthermore, student support was the highest priority for the record-breaking Victors for Michigan fundraising campaign.

The University has increased the institutional funds allocated to financial aid over the last decade at a pace higher than tuition increases over the same period. Aid packages combine need- and merit-based grants and scholarships, loans, and work study employment. In acknowledgment of the real concern over the nation's rising student loan debt, the University has worked hard to provide students with more and larger grants, which do not need to be repaid, and to reduce their reliance on loans.

In 2021-22, U-M disbursed financial aid to 69.2 percent of in-state and 47.3 percent of out-of-state students. The average student loan debt for class pf 2022 in-state students was $23,883.

For More Information

Office of Financial Aid (finaid.umich.edu/)

Go Blue Guarantee (goblueguarantee.umich.edu/)

U-M Affordability Guide for In-State Students (admissions.umich.edu/costs-aid/michigan-residents/)

Charts in Chapter 3

Tuition and fees for in-state, first-year undergraduates started at $8,614 per semester in the College of Literature, Science & the Arts, Penny W. Stamps School of Art & Design, Taubman School of Architecture & Urban Planning, and the School of Nursing. The remaining undergraduate programs charge higher rates.

3.1.1 Undergraduate Tuition and Required Fees, per Semester, Academic Year 2023-24.

School/College	Per semester		
	Program	In-State	Out-of-State
Taubman College of Architecture & Urban Planning	Lower Division	$8,614	$29,036
	Upper Division	$9,695	$31,071
Penny W. Stamps School of Art & Design	Lower Division	$8,614	$29,036
	Upper Division	$9,695	$31,071
Stephen M. Ross School of Business	Lower Division	$9,129	$29,525
	Upper Division	$11,504	$33,032
School of Dentistry (Dental Hygiene)	Lower Division	$8,772	$29,206
	Upper Division	$9,860	$31,246
School of Education	Upper Division	$9,695	$31,071
College of Engineering	Lower Division	$9,209	$29,206
	Upper Division	$11,862	$32,768
School of Information	Upper Division	$9,695	$31,071
School of Kinesiology	Lower Division	$9,083	$30,863
	Upper Division	$10,407	$33,703
College of Literature, Science & the Arts[1]	Lower Division	$8,614	$29,036
	Upper Division	$9,695	$31,071
Medical School	Upper Division	$9,695	$31,071
School of Music, Theatre & Dance	Lower Division	$8,954	$29,421
	Upper Division	$10,031	$31,453
School of Nursing	Lower Division	$8,614	$29,036
	Upper Division	$9,695	$31,071
College of Pharmacy	Lower Division	$8,954	$29,421
	Upper Division	$9,695	$31,071
School of Public Health	Upper Division	$9,695	$31,071
Gerald R. Ford School of Public Policy	Upper Division	$9,695	$31,071

SOURCE: U-M Student Data Sets

Tuition and fees contribute to paying for the cost of instruction, financial aid, academic advising, libraries, computing centers, and other student support services. Tuition rates vary by school and college in part because the delivery costs for programs vary or because the demand for certain programs is greater than for others.

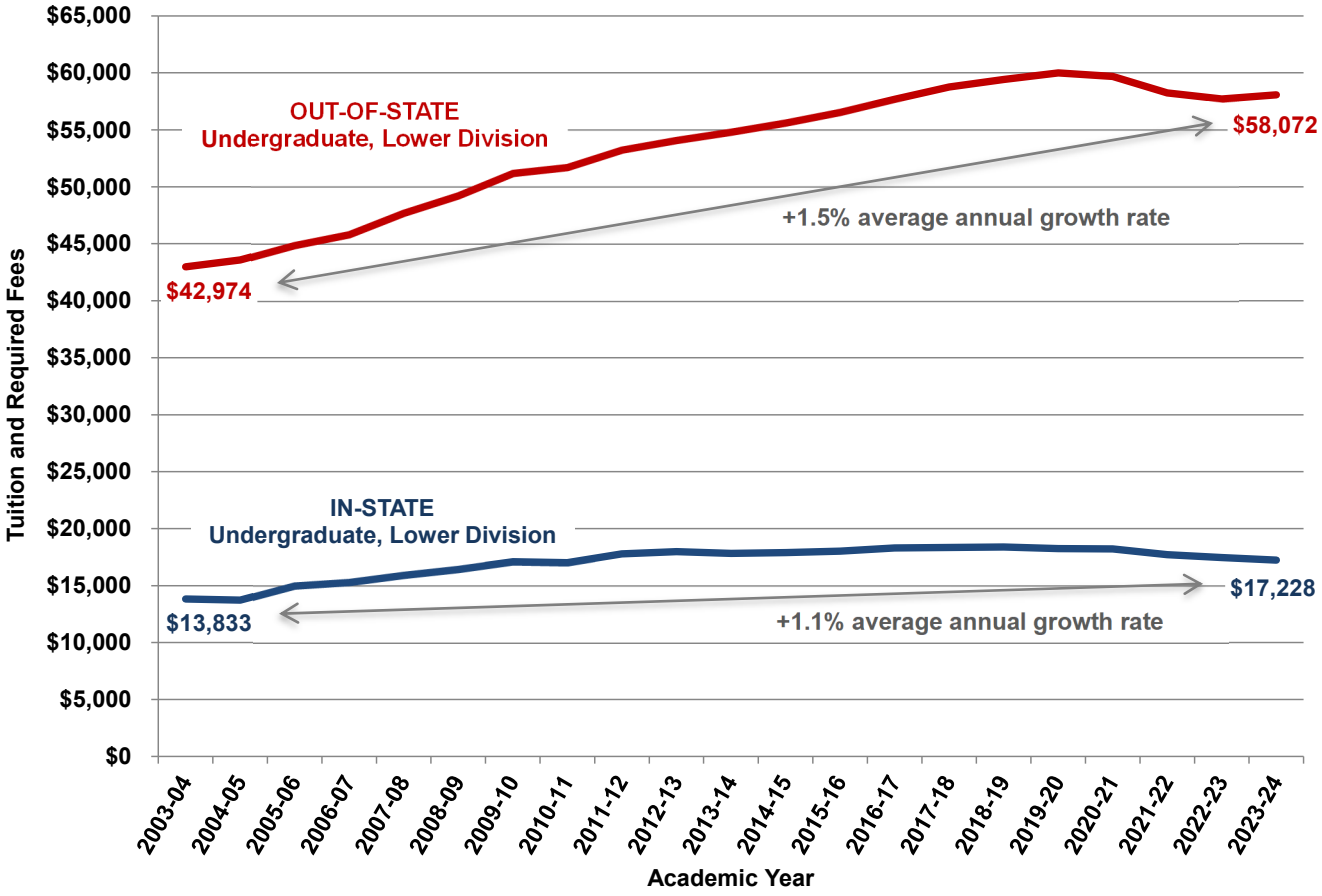
Tuition and required fees increased by 2.9 percent compared to 2022-23 for in-state undergraduate students. Out-of-state undergraduates saw increases of 4.9 percent over the previous year.

Students who have completed fewer than 55 credits toward program completion pay the Lower Division tuition rates. Those who have completed 55 credits or more pay Upper Division rates.

[1] College of Literature, Science & the Arts students majoring in computer science are assessed the College of Engineering tuition and fees rate.

Tuition and fees, adjusted for inflation, for in-state, first-year undergraduates have increased by $3,930 during the last 20 years, an annual growth rate of 1.3%. The analogous increase for out-of-state first-year undergraduates is $16,759, or 1.7%. Both of these rates are lower than the growth in the Consumer Price Index of 2.6%.

3.1.2 Inflation-Adjusted[2] Tuition and Required Fees for First-Year Undergraduates, Academic Year 2004-2024.



SOURCE: U-M Student Data Sets

Although the amount paid each year in tuition and required fees varies by school and college, the rates in the above chart are what about two-thirds of first-year undergraduate students pay (that is, those enrolled in the College of Literature, Science and the Arts, Taubman College of Architecture & Urban Planning, Stamps School of Art & Design, and School of Nursing).

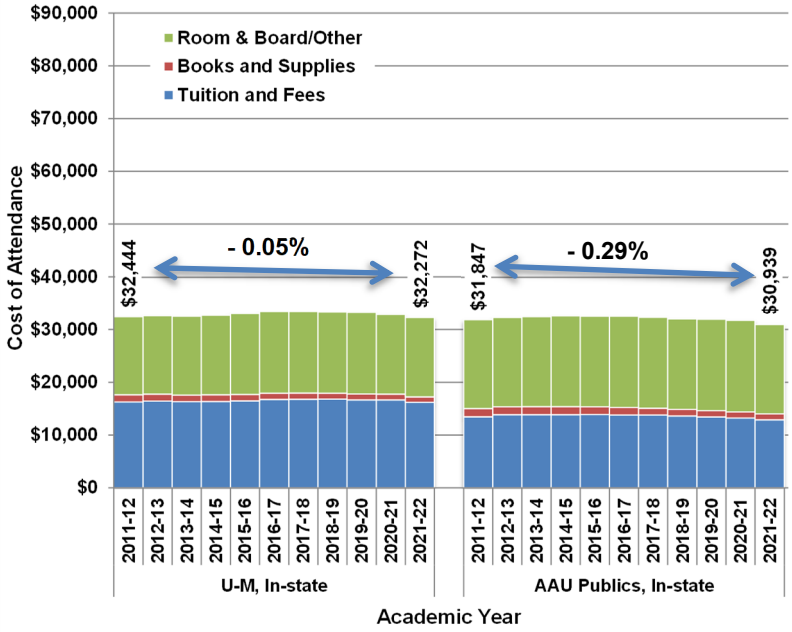
Students who have completed fewer than 55 credits toward program completion pay U-M "Lower Division" rates. Those who have completed 55 credits or more pay Upper Division rates (see detailed rates for the current year in Table 3.1.1).

Tuition and fees contribute an ever-growing fraction of the costs for instruction, financial aid, academic advising, libraries, computing centers, and related student support services (see chart 10.2).

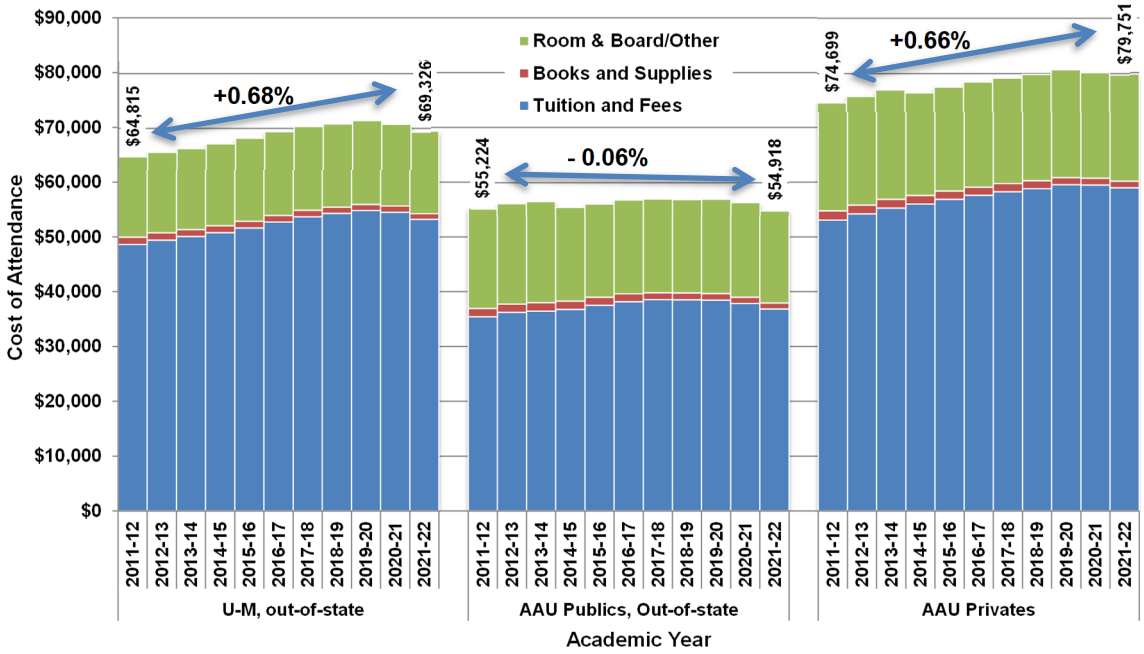
[2] Based on the FY2024 U.S. Employment Cost Index (as estimated by the U-M Research Seminar in Quantitative Economics)

Over the last decade, the average annual change in"sticker price" for in-state U-M first-year undergraduate students is relatively flat compared to a small decrease for in-state first-years at AAU public universities.

3.2.1 Total Cost of Attendance before Financial Aid for In-State Students at U-M and the Average of AAU Public Universities, Adjusted for Inflation[3], AY2012-2022.



3.2.2 Total Cost of Attendance before Financial Aid for Out-of-State Students at U-M and the Averages of AAU Public and of Private Universities, Adjusted for Inflation[3], AY2012-2022.



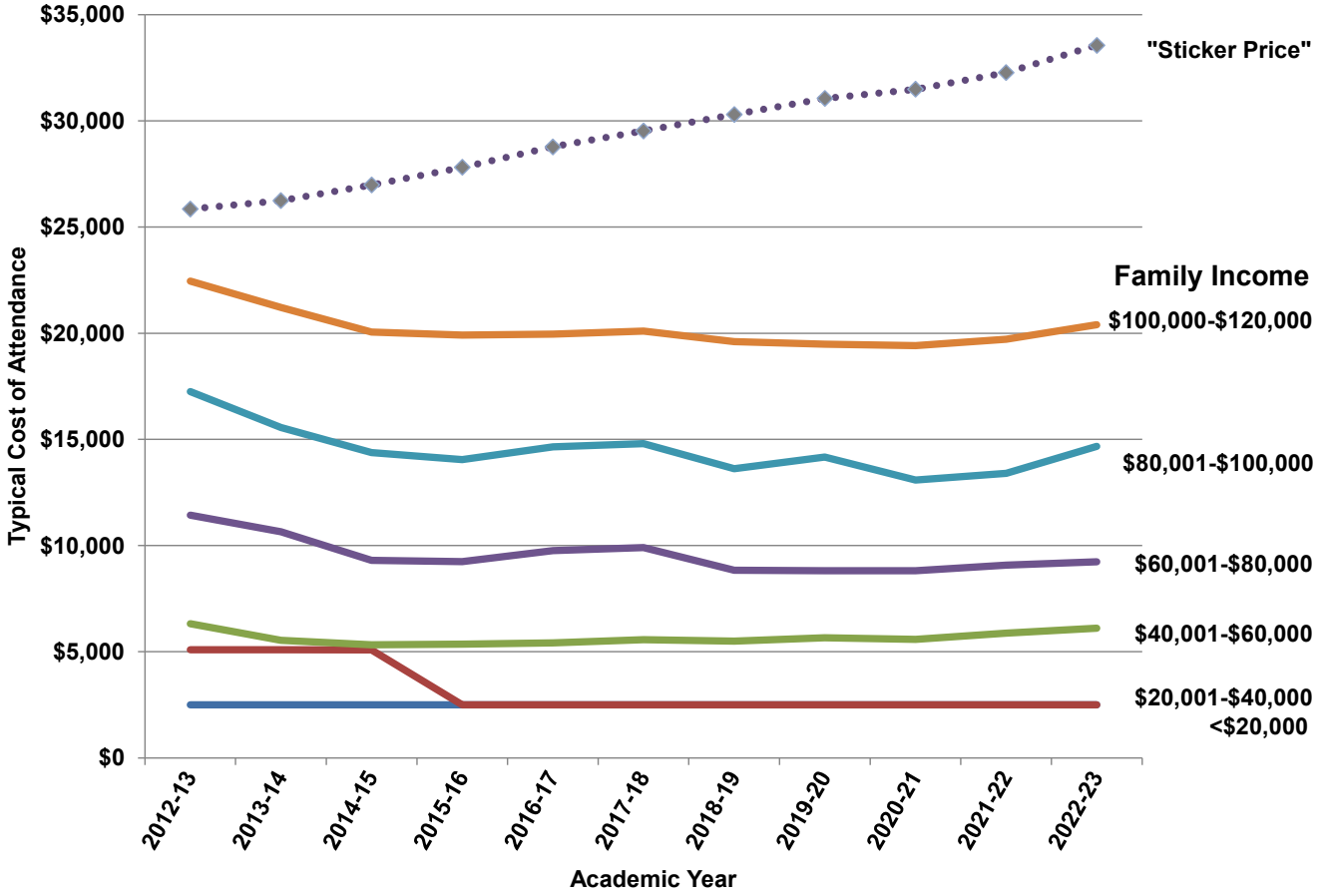
SOURCE (both charts): Integrated Postsecondary Education Data System (IPEDS)

The total cost of attendance (*excluding* financial aid contributions) for incoming first-years is a benchmark figure that includes Regentally-approved tuition and required fees and room and board, plus reasonable estimates for the costs of books and supplies, transportation, and miscellaneous expenses. The actual cost of attendance for individual students will vary depending on financial aid provided, transportation requirements and housing choices. The percentage above each double-headed arrow is the compound annual growth rate.

[3] Based on 2022 U.S. Employment Cost Index.

A typical in-state student with a family income up to $100,000 paid less to attend the U-M in 2022-23 than their counterparts did in 2012-13.

3.3.1 Typical Cost of Attendance[4] for U-M In-State First-Year Undergraduates by Family Income Level, Before Merit Aid, Adjusted for Inflation[5], Academic Year 2013-2023.



SOURCE: U-M Sample Financial Aid Packages, Office of Financial Aid

Students from in-state families in the lowest income brackets are not required to pay anything out-of-pocket to attend the University of Michigan. The $2,500 net cost for the under $40,000 group represents the cost not covered by grants or scholarships. This cost can be provided by the student/ student's family, through a student loan, or through a work-study job. In addition, work-study opportunities are offered now to all students whose family income is $120,000 or less.

The dotted line labeled "Sticker Price" is the cost of attendance before taking into account any grants, loans or scholarships that may be available to reduce the out-of-pocket costs.

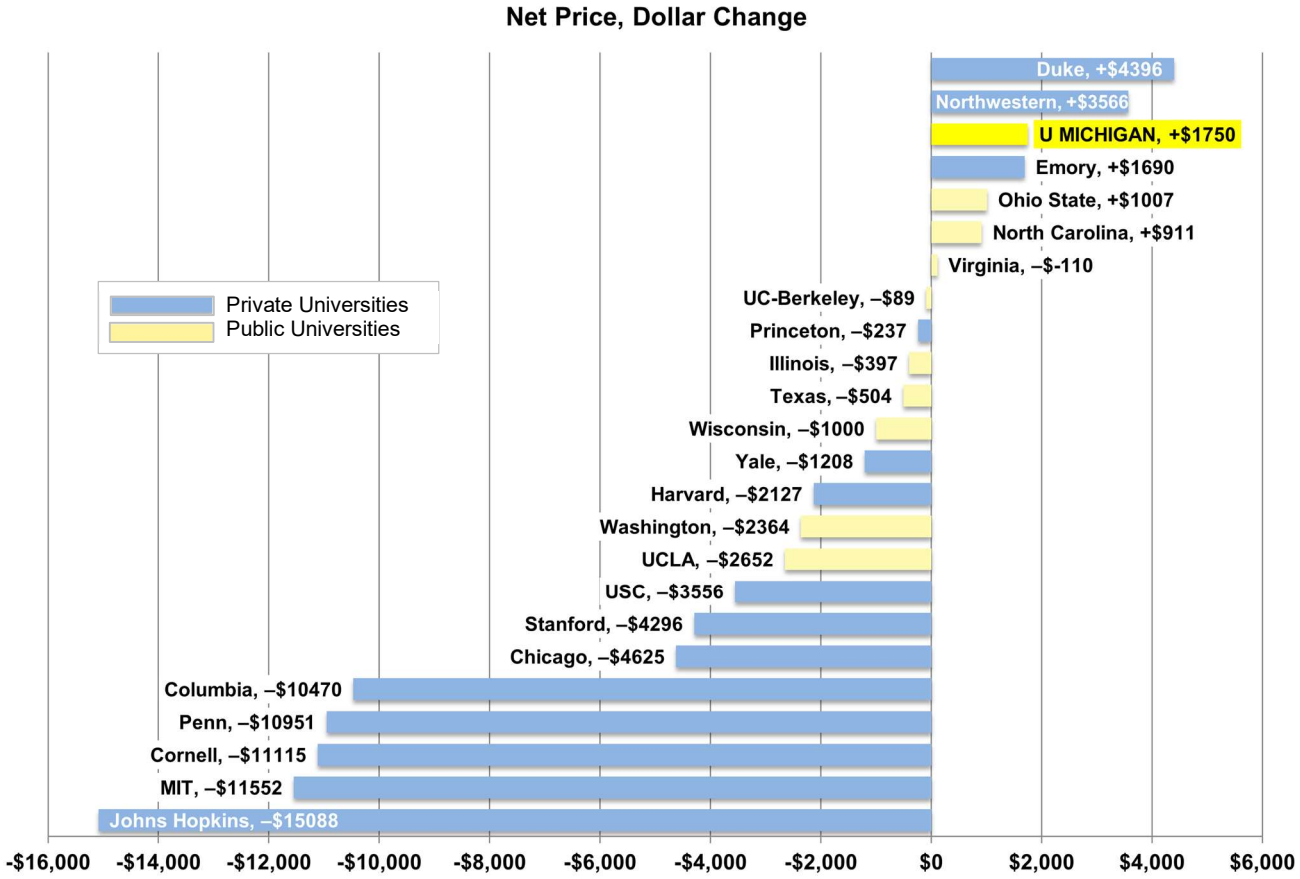
Merit-based scholarship aid is not reflected in the cost of attendance data presented here. Merit awards reduce the need to take loans or to participate in work-study as part of a student's "expected family contribution" as calculated by the Office of Financial Aid.

[4] The calculation of typical cost of attendance includes tax credits available to families with annual incomes in the $20,000 to $100,000 range.

[5] Inflation adjustment based on estimated Employment Cost Index for 2023.

The net price for U-M in-state, full-year undergraduate students who received federal financial aid increased $1,750 between 2019 and 2021, near the top of the range compared to its peer universities.

3.3.2 Dollar Change in Net Price for First-Year Undergraduates Receiving Federal Aid at U-M and Peers Between Academic Years 2019 and 2021.

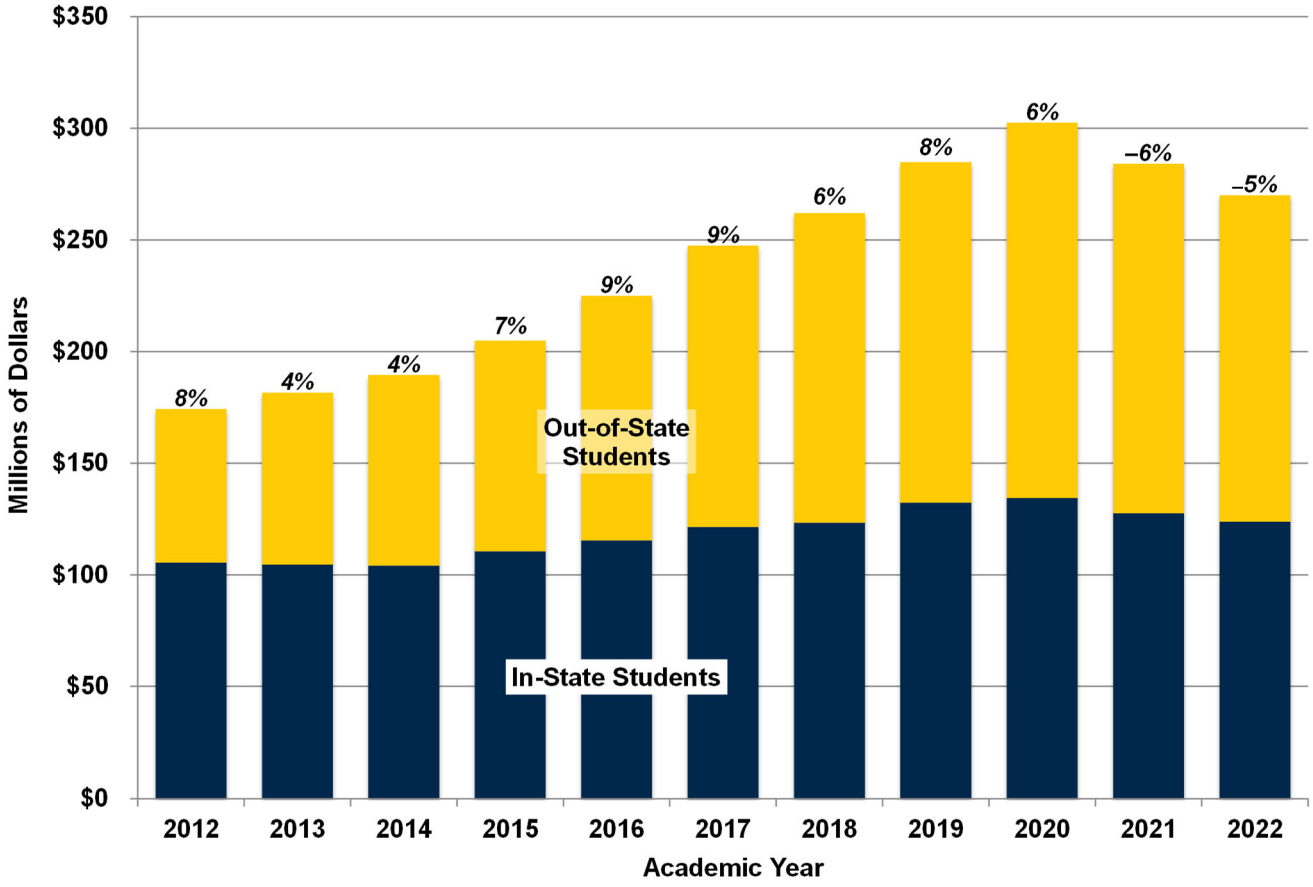


SOURCE: College Scorecard dataset, U.S. Department of Education

In AY2021, the typical net price (advertised cost minus financial aid) for U-M in-state first-year, full-time undergraduate students was $17,086, an increase of $1,750 compared to $15,336 in AY2019. Since the calculation looks at the subset of in-state students receiving federal aid, a school's typical cost rises or falls depending both on the published costs and on how its financial aid budget is spread over qualifying students.

In the 2021-22 academic year, U-M disbursed $340 million in grant and scholarship aid from university funds to undergraduate students, an inflation-adjusted decrease of $14.1 million from the previous year.

3.4 Total U-M Expenditures for Undergraduate Student Grant and Scholarship Aid, by In-State/Out-of-State Status, Adjusted for Inflation[5], Academic Year 2012-2022.



SOURCE: U-M Financial Aid Data

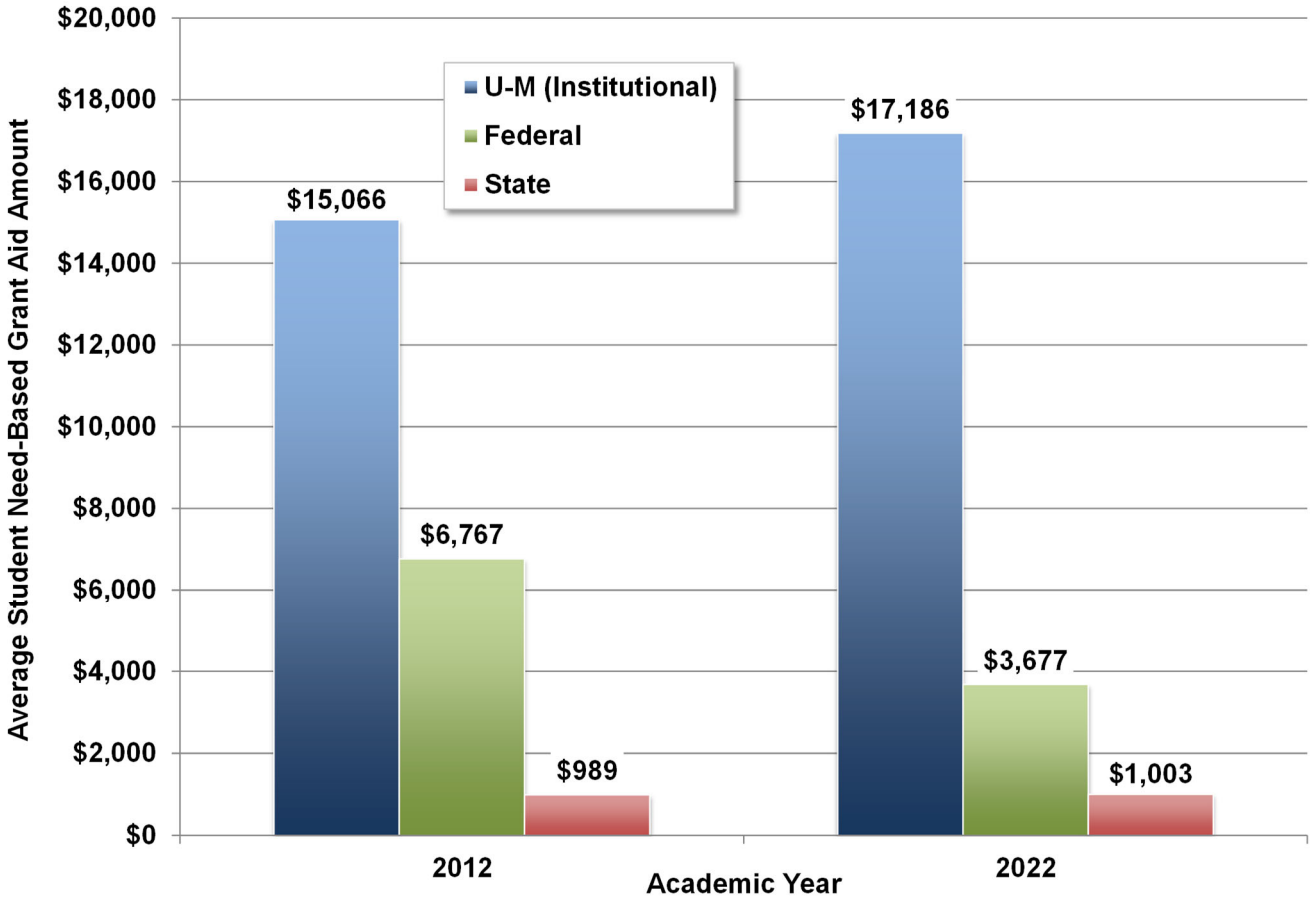
This chart shows the amount of financial aid paid to undergraduates from institutional funds as both need-based grants and merit-based scholarships. The value above each column is the percentage increase in expenditures for grant and scholarship aid from the previous year.

The decline in overall grants and scholarships provided over the past two years is attributable to the sunsetting of one U-M's undergraduate aid programs, a needed step because of declining overall revenues.

[5] Inflation based on 2022 U.S. Employment Cost Index.

Comparing academic years 2012 and 2022, U-M increased the inflation-adjusted average grant and scholarship aid to first-year undergraduate students by $2,120. At the same time, the adjusted average grant and scholarship aid from the federal government decreased by $3,090 and the average state grant and scholarship aid increased by $14.

3.5.1 Average Grant and Scholarship Award by Aid Source, Adjusted for Inflation[6], for U-M First-Year Undergraduate Students, Academic Years 2012 and 2022.



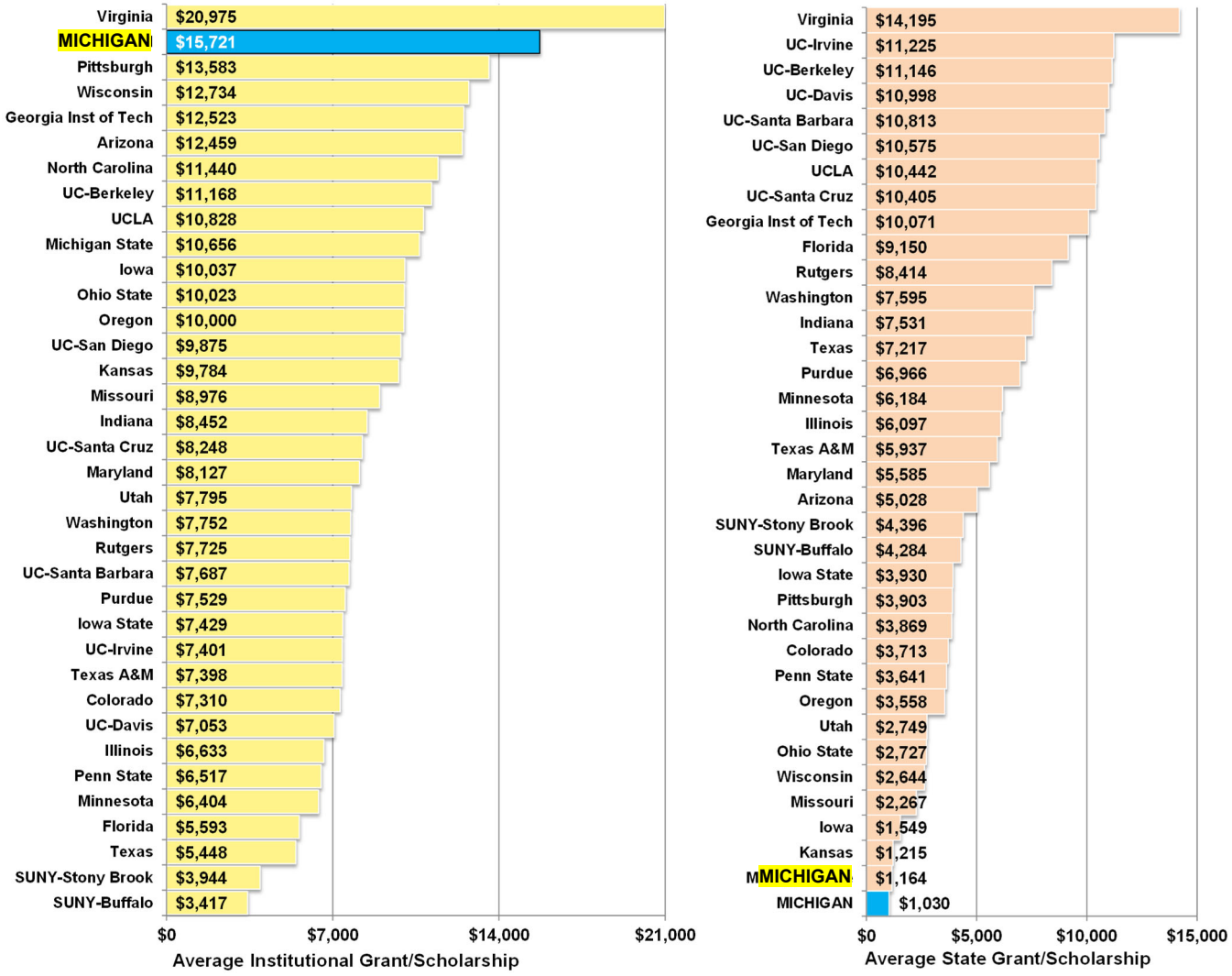
SOURCE: Integrated Postsecondary Education Data System (IPEDS)

On average, the inflation-adjusted, grant and scholarship aid from the U-M to a first-time, full-time undergraduate student was 14 percent higher in academic year 2022 than in 2012. Conversely, when adjusted for inflation, the average grant and scholarship aid from the State of Michigan was 1 percent larger now compared to a decade ago, and federal grant and scholarship aid, adjusted for inflation, was 46 percent smaller.

[6] Based on 2022 U.S. Employment Cost Index.

The University of Michigan provides the second-highest average grant/scholarship aid from INSTITUTIONAL funds of all AAU public institutions. U-M's aid is important because corresponding state aid is lowest of all AAU public universities.

3.5.2 Average Institutional Grant or Scholarship Award Compared to the Average State Grant and Scholarship Award for First-Year Undergraduates, U-M and AAU Public Universities, AY2021.



SOURCE: Integrated Postsecondary Education Data System (IPEDS)

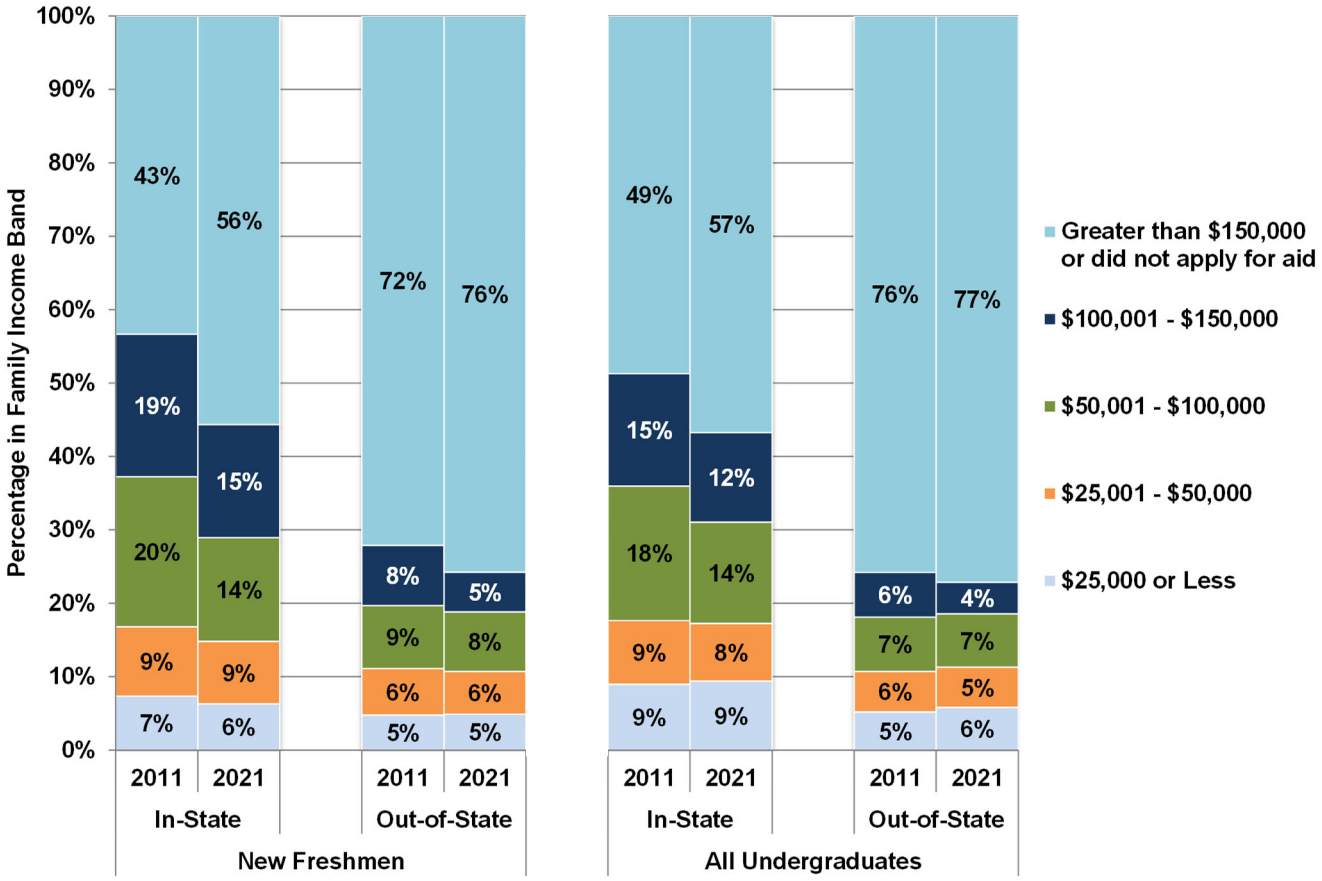
Only one AAU public university – the University of Virginia, at $20,975 per student – offered larger average institutional grant and scholarship aid to first-year undergraduate students during academic year 2021. U-M's average institutional grant/scholarship aid to first-years was $15,721.

The average State of Michigan grant/scholarship to U-M students is smaller than the comparable average state aid provided to any other AAU public university. The State of Michigan recently funded a new aid program, so any effect it has on the average state aid should begin to show up in future years.

[7] The average aid calculation includes only on students who receive such aid.

Overall, the fraction of first-year undergradaute students from families with high incomes has increased for 2021 compared to 2011.

3.6.1 Family Income Distribution for First-Year and All Undergraduate Students, by In-State/ Out-of-State Status, Fall 2011 and Fall 2021.



SOURCE: U.S. Department of Education

Family income is based on data reported by families on the Free Application for Federal Student Aid (FAFSA), an online form that college students must complete to be considered for financial aid.

In 2020-21 the U-M enrolled a lower percentage of students eligible for Pell Grants compared to many other AAU public universities, and similar to the levels at most private AAU universities.

3.6.2 Pell Grant Recipients as Percent of Undergraduate Student Body, U-M and AAU Institutions, 2020-21.

Public universities are shaded in yellow; private university data are shaded in blue

	Percent of undergraduates with Pell grants
AAU Privates (average)	17%
AAU Publics (average, excluding U-M)	23%
University of California-Irvine	38%
Stony Brook University (SUNY)	36%
University of California-Davis	34%
University of California-San Diego	33%
University of California-Santa Barbara	32%
University at Buffalo (SUNY)	32%
University of California-Santa Cruz	32%
Rutgers University-New Brunswick	29%
University of Arizona	29%
University of California-Los Angeles	28%
University of California-Berkeley	27%
University of Oregon	25%
University of Illinois at Urbana-Champaign	25%
The University of Texas at Austin	24%
Columbia University	23%
University of Florida	23%
University of North Carolina at Chapel Hill	23%
Michigan State University	22%
Princeton University	22%
University of Utah	22%
University of Missouri-Columbia	21%
University of Southern California	21%
Yale University	21%
Emory University	20%
Iowa State University	20%
Massachusetts Institute of Technology	20%
Ohio State University	20%
Texas A & M University-College Station	20%
University of Kansas	20%
University of Washington-Seattle Campus	20%
Northwestern University	19%

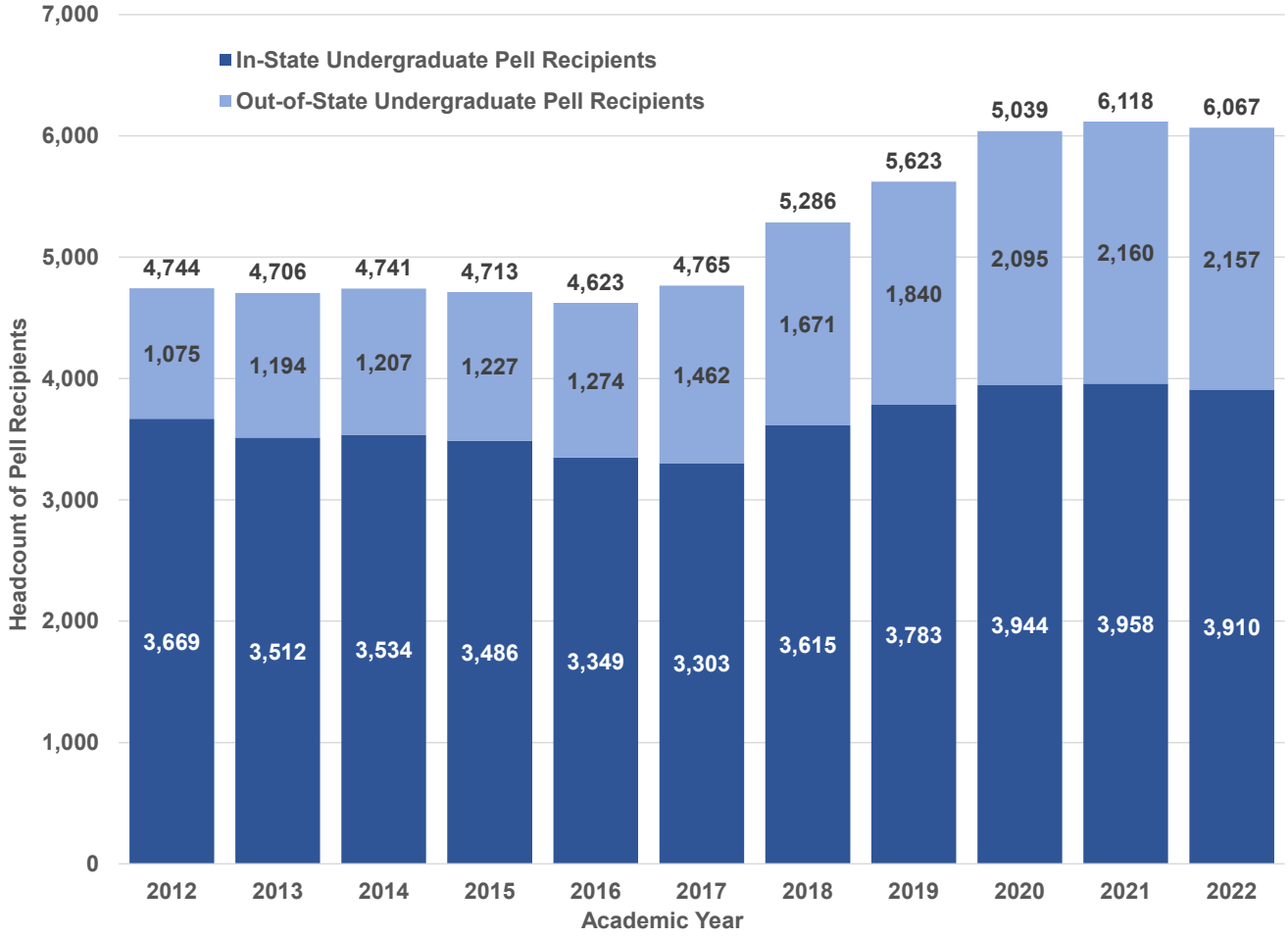
	Percent of undergraduates with Pell grants
(Continued from bottom of first column)	
Stanford University	19%
University of Iowa	19%
Indiana University-Bloomington	18%
New York University	18%
University of Maryland-College Park	18%
University of Michigan-Ann Arbor	18%
Boston University	17%
Cornell University	17%
Dartmouth College	17%
Johns Hopkins University	17%
University of Rochester	17%
Brandeis University	16%
Case Western Reserve University	16%
Rice University	16%
University of Minnesota-Twin Cities	16%
Vanderbilt University	16%
Carnegie Mellon University	15%
University of Colorado Boulder	15%
Purdue University	15%
University of Wisconsin-Madison	15%
Brown University	14%
University of Pennsylvania	14%
University of Virginia	14%
Washington University in St Louis	14%
Duke University	13%
Georgia Institute of Technology	13%
Harvard University	13%
University of Pittsburgh	13%
California Institute of Technology	12%
Tufts University	12%
University of Chicago	12%
Tulane University	10%

SOURCE: Integrated Postsecondary Education Data System (IPEDS)

The Federal Pell Grant Program provides need-based grants to low-income undergraduate students to promote access to a college education. Pell Grants, unlike loans, do not need to be repaid. The maximum Pell Grant for the 2020-21 academic year was $6,195, which then may be adjusted for each recipient according to financial need, cost to attend school, and status as a full-time/part-time and full-year/part-year student.

Many more U-M undergraduate students received Pell grants in 2021-22 compared to a decade prior.

3.6.3 Number of In-State/Out-of-State U-M Undergraduate Students Awarded Pell Grants, 2012-2022.



SOURCE: U-M Office of Financial Aid

Pell grants are need-based awards made to students based on the student's family income, as reported on the Free Application for Federal Student Aid (FAFSA), an online form that college students must complete to be considered for financial aid.

Sixty-nine percent of in-state undergraduate students received some kind of financial aid, and 40 percent of in-state undergraduates were provided with need-based grants.

3.6.4 Number and Percentage of Undergraduate Students Receiving Aid Payments, by Aid Type, 2021-22.

Aid Type	In-State[8] *(16,905)*[9]	Out-of-State[8] *(15,3772)*[9]
Need-based Grant Aid	**6,826 (40%)**	**3,870 (25%)**
Merit-based Scholarship Aid	**8,660 (51%)**	**4,363 (28%)**
Work-Study	**1,431 (8%)**	**820 (5%)**
Loans	**5,189 (31%)**	**3,749 (24%)**
Any Type of Aid	**11,697 (69%)**	**7,281 (47%)**

3.6.5 Total Financial Aid Expenditures and Average Expenditure per Student, 2020-21.

Aid Awarded	In-State[10]	Out-of-State[10]
Total Aid Expenditures from all Sources	**$214,546,715**	**$261,904,057**
Average Total Aid Expended per Student Receiving Any Type of Aid[10]	**$18,342**	**$35,971**

Source: U-M Office of Financial Aid

In reviewing these charts, please note: a) many students receive multiple types of aid, b) many merit-based scholarships also have a need-based component in their criteria, and, c) the loan data includes *all* student loans, whether included in a student's financial aid package or as a supplemental loan.

The values in both tables represent aid paid to the students.

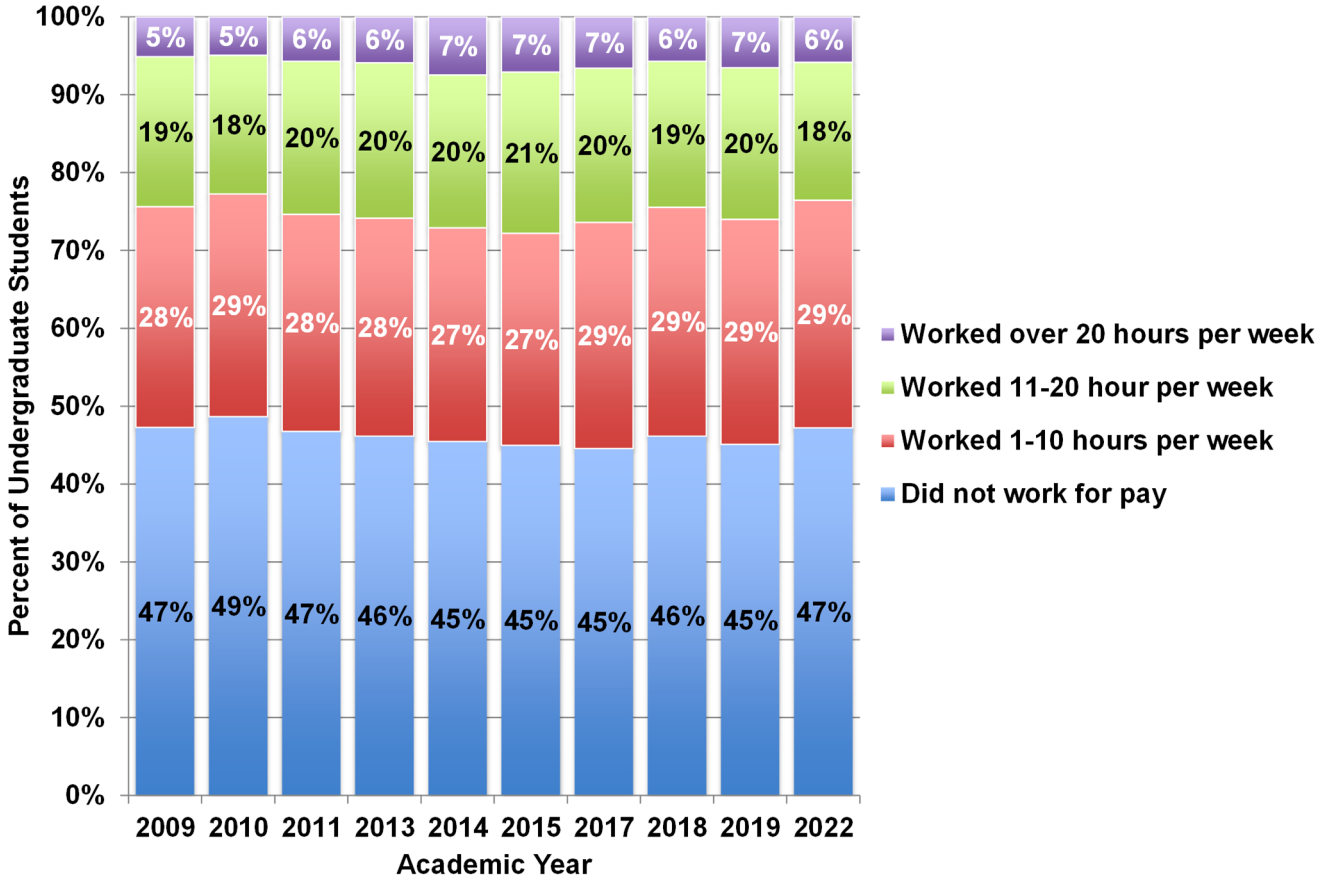
[8] Tuition residency status

[9] Fall 2021 enrollment

[10] Average based on students who receiv ed aid payments

Just over half of U-M undergraduate students who responded to a regular survey of undergraduates students worked for pay while in school; of those who did, most worked 10 hours a week or less during the academic year.

3.7 Weekly Hours of Paid Work by U-M Undergraduate Students[10], 2009-2022.



SOURCE: University of Michigan Asks You (UMAY) undergraduate survey

According to student survey results, the time devoted to work for pay has been fairly consistent over time

[10] Percentage distributions exclude students who did not respond to the surveys.

Nearly two-thirds of in-state undergraduate students in the 2022 graduating class completed their degrees without incurring student loan debt, and the number of in-state students graduating with debt declined this year.

3.8 Average U-M Student Loan Debt at Graduation for All, In-State, and Out-of-State Undergraduate Students, 2021-22.

	2021-22 Graduating Class *(7,967)*[12]	In-State[11] *(4,288)*[12]	Out-of-State[11] *(3,679)*[12]
Average Loan Burden	**$27,437**	**$23,883**	**$32,857**
Number of Graduates with Loans	**2,762**	**1,668**	**1,094**
Percent of Graduates with Loans	**35% of all undergraduates**	**39% of in-state graduates**	**30% of out-of-state graduates**

SOURCE: U-M Financial Aid Data

Thirty-five percent of the 2021-22 undergraduate class graduated with debt. The average loan burden for in-state student graduates was $23,883 and for out-of-state students was $32,857. Compared to the previous year's graduating class, the average debt burden at graduation increased by $1,132 for in-state students and by $1,361 for out-of-state students. The number and percentage of in-state students with loan debt at graduation declined by 183 (-2%) compared to the previous year.

In interpreting loan burden figures, it is important to distinguish between "packaged" loans and "supplemental" loans. Students who apply for financial aid at U-M are automatically considered for low-interest federal loans, which are awarded as part of financial aid packages. Supplemental loans, which are offered both by the federal government and private lenders, are available to all students, regardless of whether they are eligible for financial aid.

[11] Tuition residency status

[12] Headcounts from 2021-22 graduating class

Chapter 4 Undergraduate Student Success

Goals

The University of Michigan prepares its students to become leaders in the 21st century. The U-M's academic and extra-curricular programs have been developed and implemented so that each student can complete a meaningful degree program in a reasonable time, and thereby advance his or her career and personal goals.

Overview

The University takes a number of steps to facilitate students' timely progress to degree completion. This includes providing sufficient course offerings, excellent advising and mentoring, as well as ensuring that in-state students who demonstrate financial need receive sufficient financial aid. Out-of-state students also benefit from these resources, including access to limited financial assistance.

Each U-M undergraduate school or college has developed initiatives to help students address impediments to successful completion of a degree. The academic units monitor student performance in key courses and require additional academic advising for students who need more support. In addition, all students may take advantage of academic support services and programs, such as departmental tutoring, study skills workshops, mentoring, and programs offered by the Sweetland Writing Center and the Science Learning Center.

This chapter includes data on graduation rates by first-year undergraduate cohorts, retention rates (percentage of first-year students who return to continue school the following fall), and survey data related to student satisfaction with the U-M academic experience.

Ninety-seven percent of first-year undergraduates enroll the following fall. And more than three-quarters of Michigan undergraduate students complete their first degree within four years of enrolling as first-year undergraduates. About 93 percent of recent undergraduates earn a degree within six years of initial enrollment. University of Michigan students' six-year completion rates are now 10 percentage points higher than the average of public Association of American Universities (AAU) member institutions, and equal to the average of AAU private universities. These high rates reflect U-M's ability to recruit excellent, well-prepared students and deliver high-quality education in a supportive environment.

U-M undergraduates are surveyed regularly and report positive opinions of the University as a whole and of their individual academic programs.

In addition to graduate school or employment, University of Michigan students are increasingly interested in becoming entrepreneurs, with a growing number of students launching business ventures.

For more information

Additional data on undergraduate demographics can be found in Chapter 2 on admissions and enrollment and in Chapter 7 on diversity. Information about undergraduate costs and financial aid is in Chapter 3.

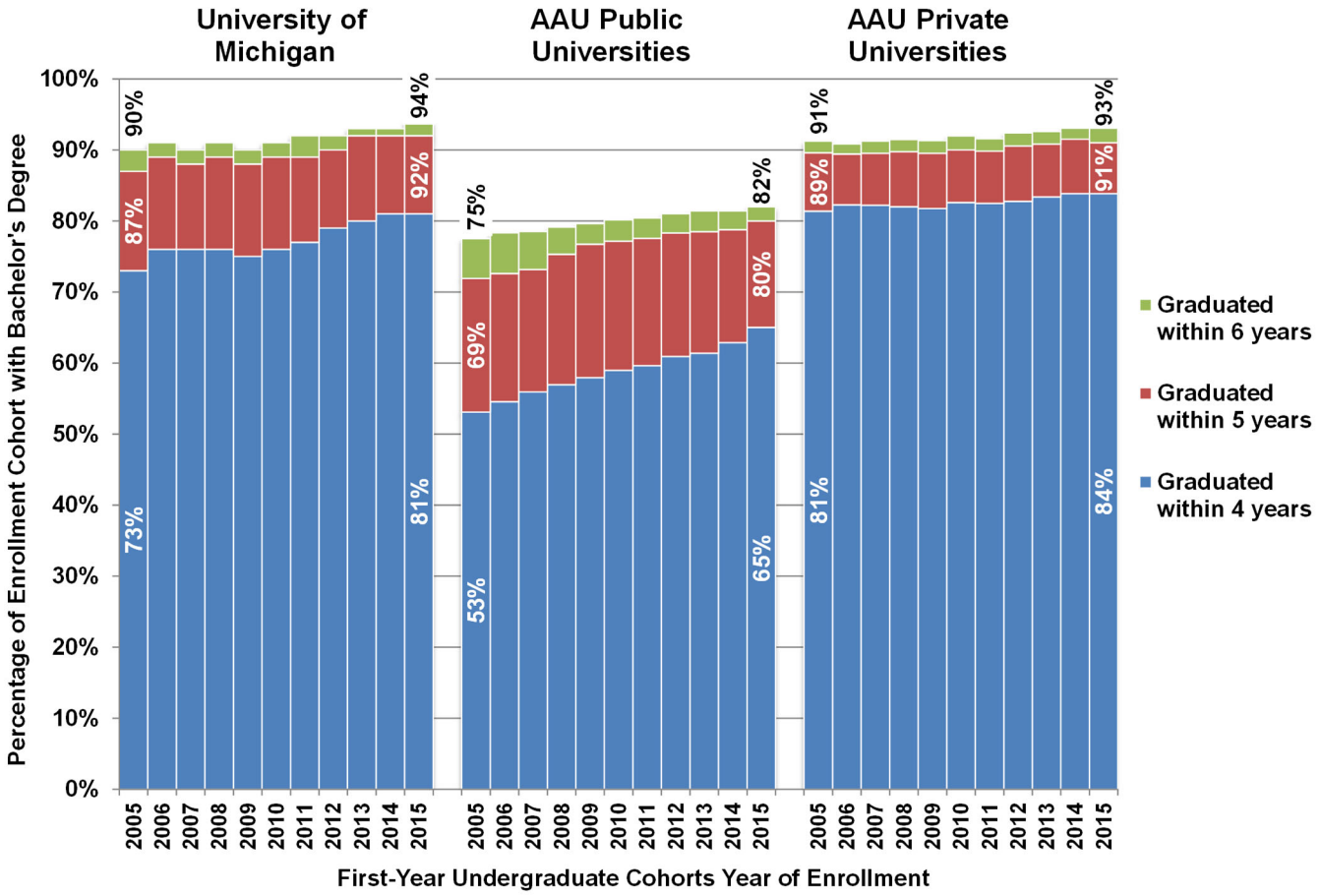
Most Popular Undergraduate Majors of 2021-22 Graduates

- **Computer Science** (11.8%)
- **Economics** (6.9%)
- **Business** (6.6%)
- **Psychology** (4.0%)
- **Biopsychology, Cognition and Neuroscience** (4.0%)

Charts in Chapter 4

U-M graduation rates are far higher than the average rates for AAU public universities and comparable to the average 6-year rates for AAU private universities. The most recent cohort of U-M undergraduates that started in 2015, graduated at a slightly higher rate than the average for AAU private universities.

4.1 Graduation Rates for U-M, AAU Public and AAU Private Universities[1] for First-Year Undergraduate Cohorts Starting Fall 2005-2015.



SOURCE: Integrated Postsecondary Education Data System (IPEDS).

This chart shows the percentages of first-year undergraduate cohorts that have graduated with a bachelor's degree in four, five and six years. The bottom axis represents the year each first-year cohort started college. Comparative data from Association of American Universities (AAU) institutions[2] is displayed for 2005 through 2015 cohorts. (AAU schools used to compute the averages based on student status six years since the cohort entered college.)

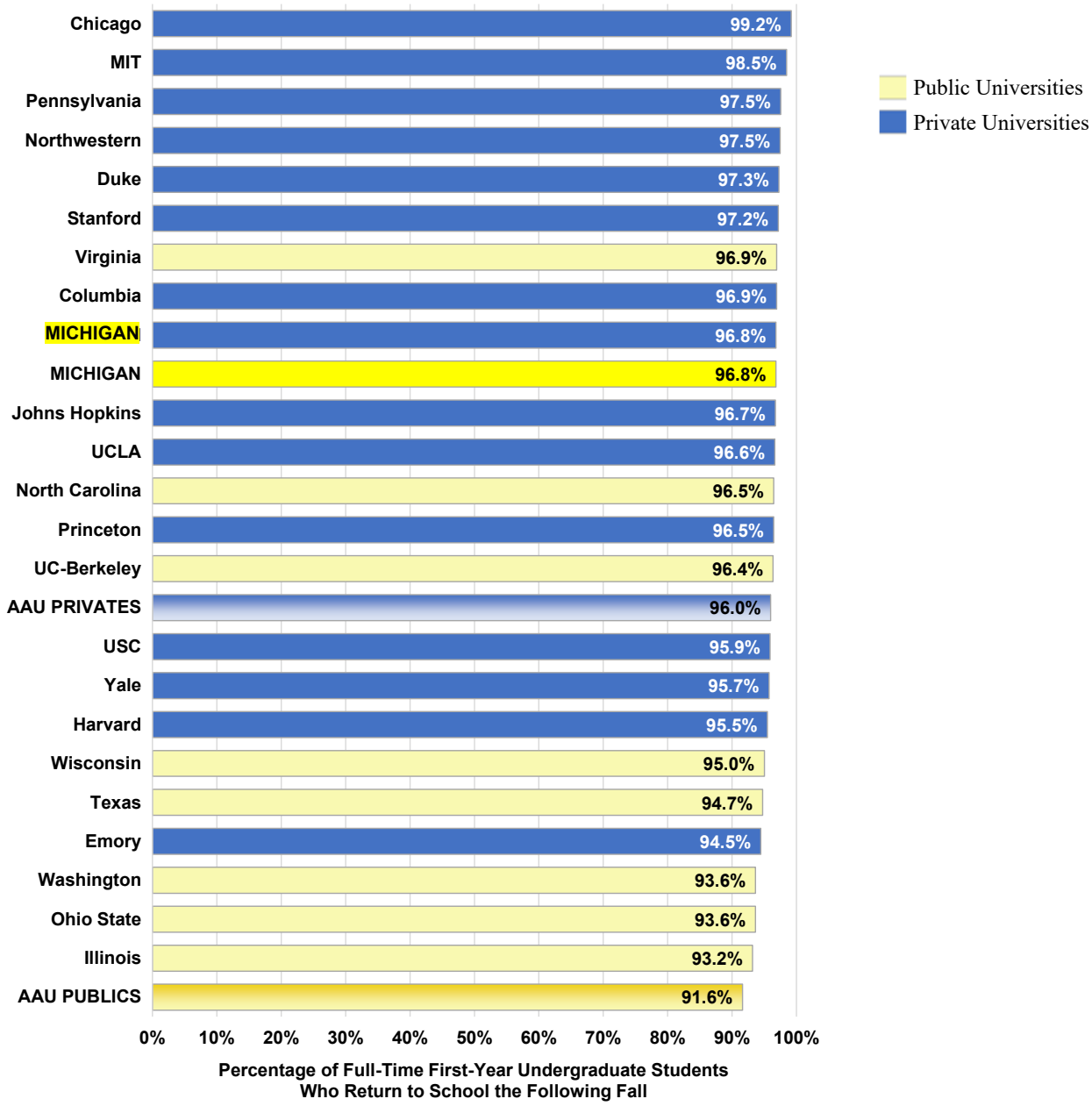
Graduation rates for U-M undergraduate students have increased over time. Please note that by presenting averages of graduation rates for the AAU institution groups smooths the year-to-year variation compared to U-M's single-school data trend.

[1] A list of current public and private Association of American Universities (AAU) member institutions is found in Appendix A.

[2] Penn State University graduation rates are not included because the school only reports aggregated data for all PSU campuses to IPEDS.

A high percentage of U-M's first-year undergraduates who enroll in the courses the following year, and at rates similar to peer institutions.

4.2 Average Retention Rates of First-Year Undergraduates at U-M and Peer Schools, Fall 2011-2021 Cohorts.



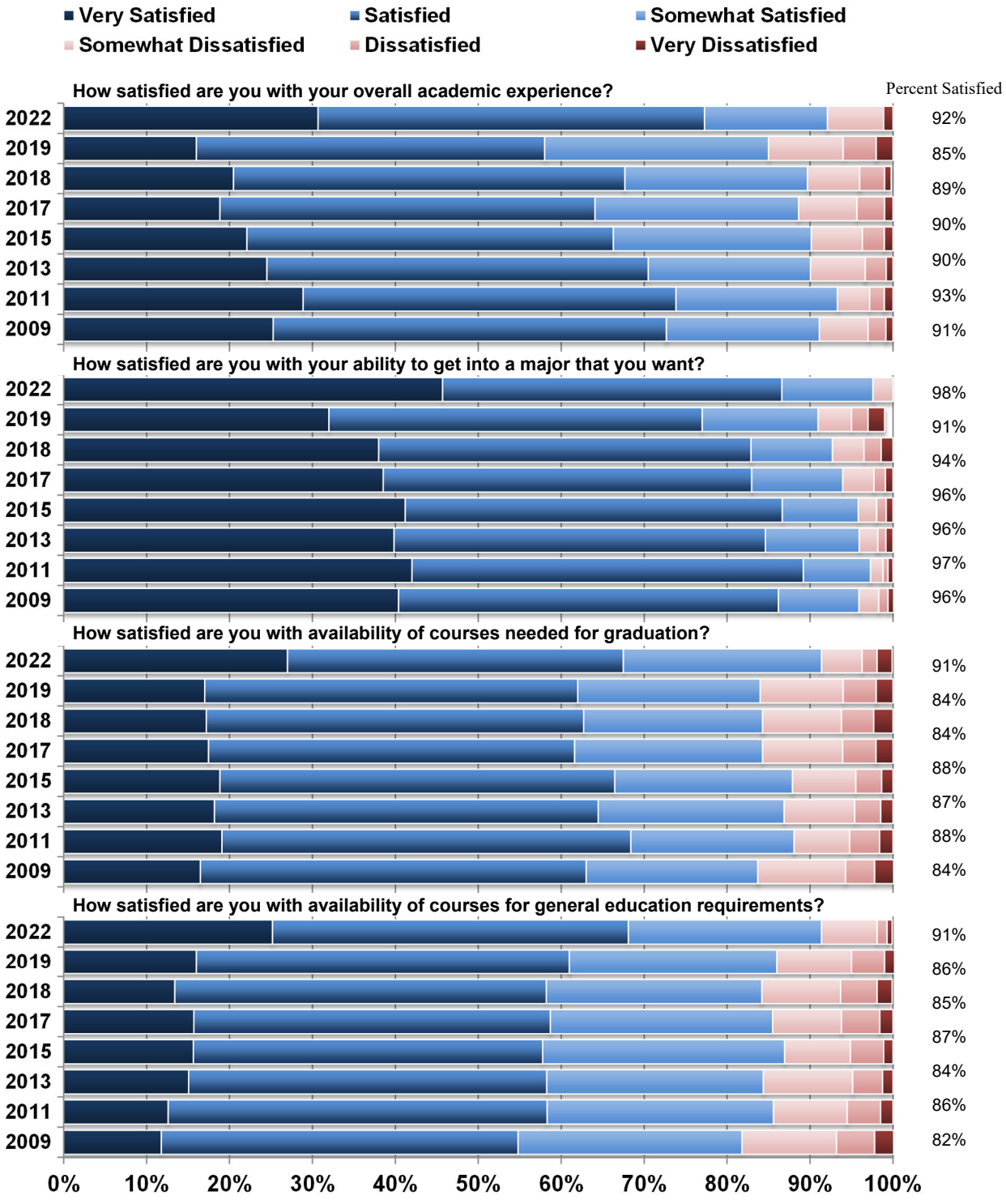
SOURCE: Integrated Postsecondary Education Data System (IPEDS)

First-years at the U-M and its peers return to enroll for a second year at high rates Average retention rates for public and private member schools of the Association of American Universities[2] (AAU) is shown for comparison. All of U-M peer schools are AAU members, although not all AAU members are considered peer schools.

[2] A list of current public and private Association of American Universities (AAU) member institutions is found in Appendix A.

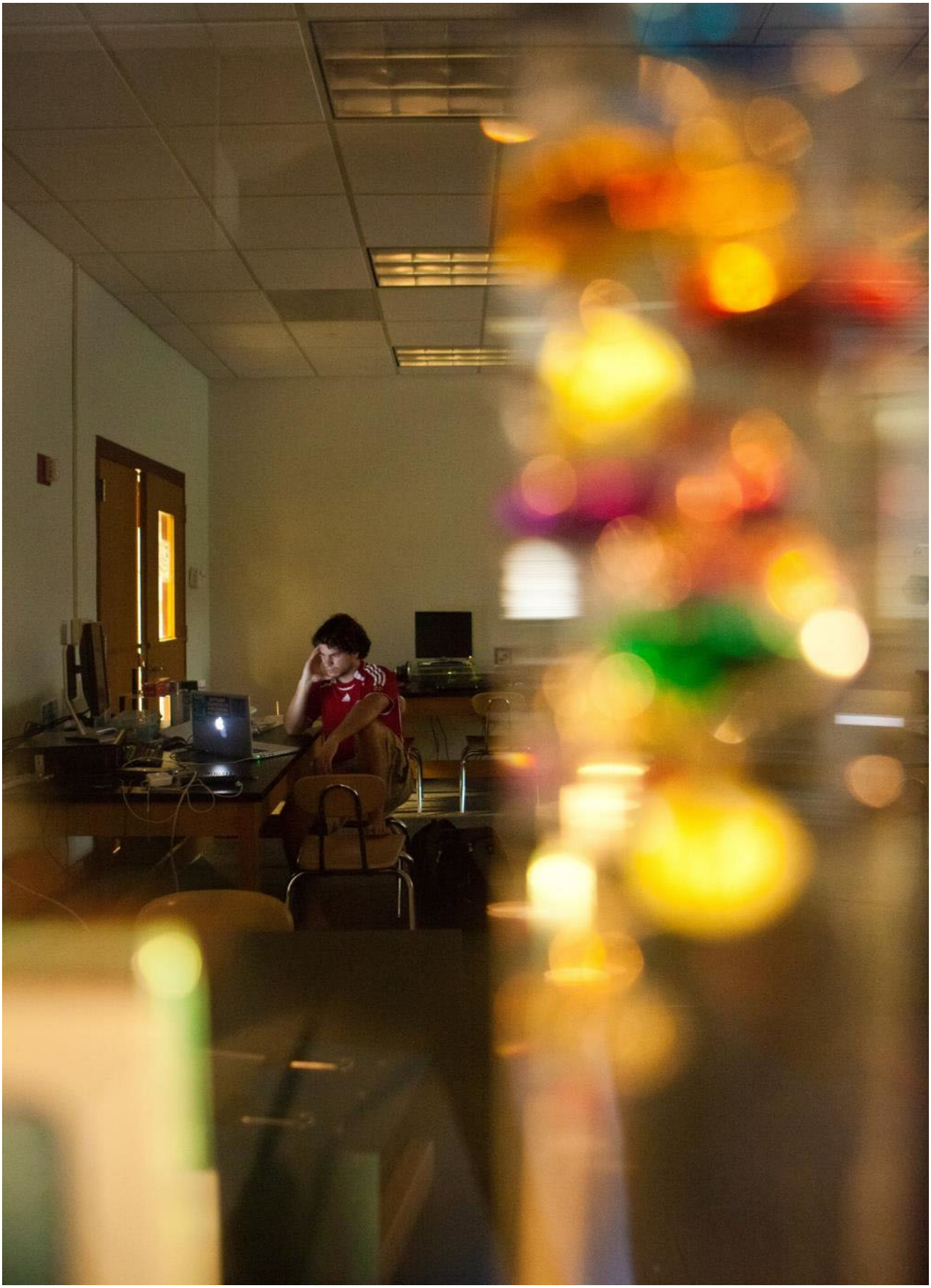
Seniors have expressed a high level of satisfaction with their U-M academic experience over several measures and have generally increased over time.

4.3 Responses of U-M Graduating Seniors to Survey Questions about Satisfaction with Academics, Course Availability, and Advising, 2009-2022.



SOURCE: U-M Asks You (UMAY) undergraduate survey

The percentage to the right of each bar is the fraction of students who replied "Very Satisfied," Satisfied," and "Somewhat Satisfied" (the segments shaded in blue) for the particular question and year.



Chapter 5 Graduate Academic & Professional Degree Students

Goals

The University of Michigan offers a rigorous and remarkably broad array of graduate and professional degree programs that stand among the best in the country. The University attracts outstanding students to graduate study and prepares them to make lasting contributions to society. Interdisciplinary study and joint degrees are a special strength of the University. The vibrant community of graduate and professional students on campus is highly diverse in citizenship, demographic background, and intellectual perspective.

Overview

The Horace H. Rackham School of Graduate Studies oversees graduate academic education in partnership with the schools and colleges. In the Fall 2022 term, the University enrolled 9,861 students in doctoral, master's, and graduate-level certificate programs offered by Rackham and the schools and colleges. In addition to earning degrees and certificates, graduate students contribute significantly to research, scholarship, and teaching activity on campus. The research enterprise at the U-M benefits enormously from the talent and intelligence of these students.

Another 8,669 students enrolled during the same term in professional and other (non-Rackham) graduate degree programs in medicine, law, business, public health, dentistry, pharmacy, nursing, information, engineering, social work and architecture and urban planning. The schools and colleges administer these degree programs in keeping with each profession's requirements and standards.

The tuition paid by graduate and professional students varies depending on the program. Most Ph.D. students and about half of academic master's students receive financial support.

Professional degree programs are usually more costly than other graduate programs. A large fraction of the students in professional degree programs complete their degrees with loans to repay.

The Rackham Graduate School collects data on the number of entering graduate students who complete Ph.D. programs. Overall, 80 percent of the students who enrolled in such programs between 2007 and 2016 received a Ph.D. The rates vary by discipline.

Post-graduation plans vary along disciplinary lines. Ph.D. graduates in the humanities and the arts often find academic positions soon after graduation. Graduates in the biological, physical, and social sciences frequently take a postdoctoral training position before moving to other employment. Industry positions attract graduates from engineering and the physical sciences. U-M's international students tend to remain in the U.S. after graduation, reflecting the types and number of opportunities available in this country for those holding advanced degrees.

In profession doctoral programs, prospective practitioners must pass one or more examinations before becoming a licensed member of his or her chosen field; U-M students in medicine, law, dentistry, and pharmacy have high pass rates.

For more information

Horace H. Rackham School of Graduate Studies (rackham.umich.edu)

U-M Graduate Program Information (rackham.umich.edu/programs-of-study)

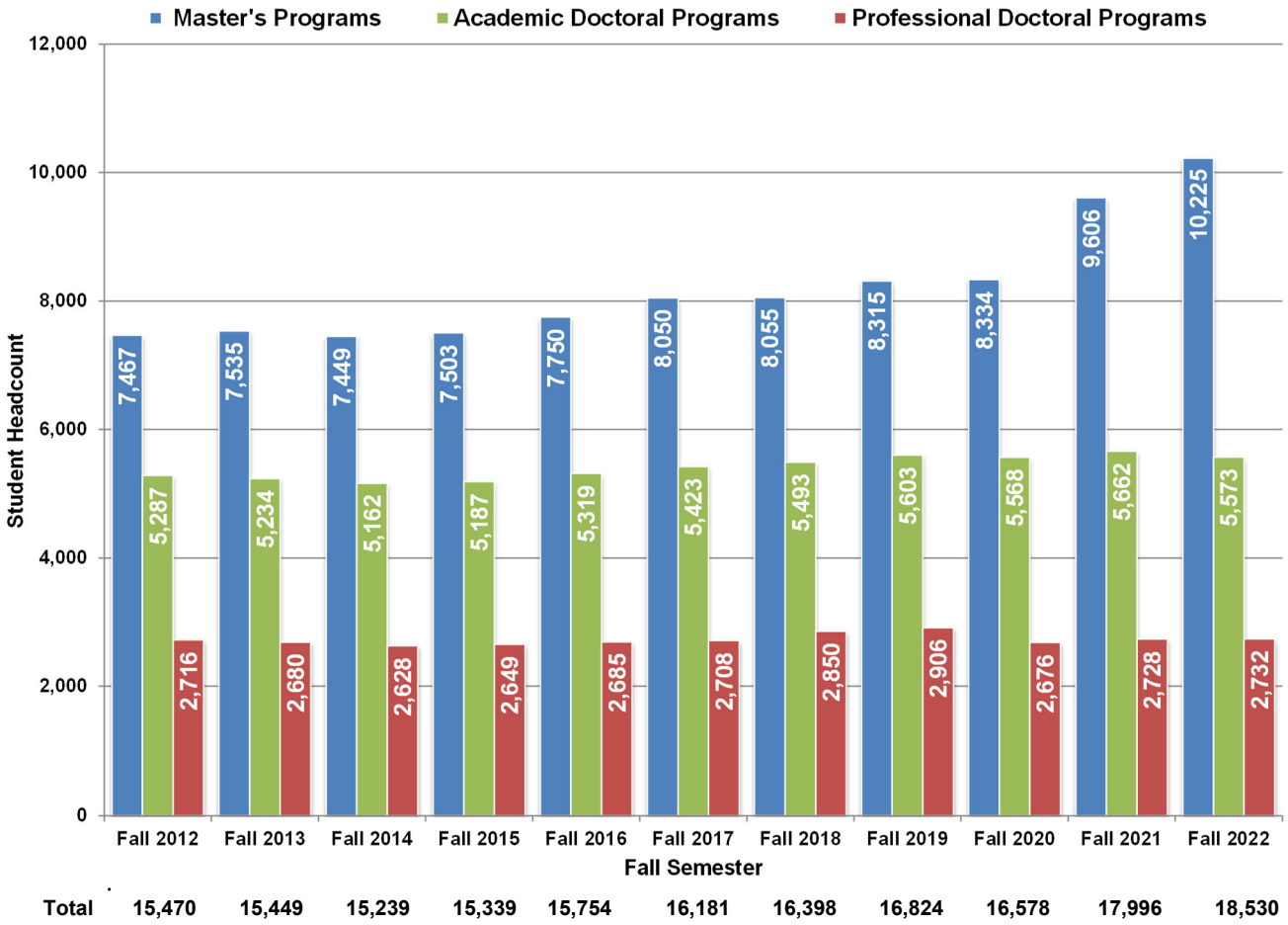
Office of Budget and Planning – Campus Statistics (obp.umich.edu)

Reports about the gender and racial/ethnic diversity of graduate students are in Chapter 8.

Charts in Chapter 5

Total graduate and professional student enrollment has grown at an average annual rate of 1.7 percent since 2022.

5.1.1 Graduate Academic and Professional[1] Student Enrollment by Level, Fall 2012-2022.



	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022
Total	15,470	15,449	15,239	15,339	15,754	16,181	16,398	16,824	16,578	17,996	18,530

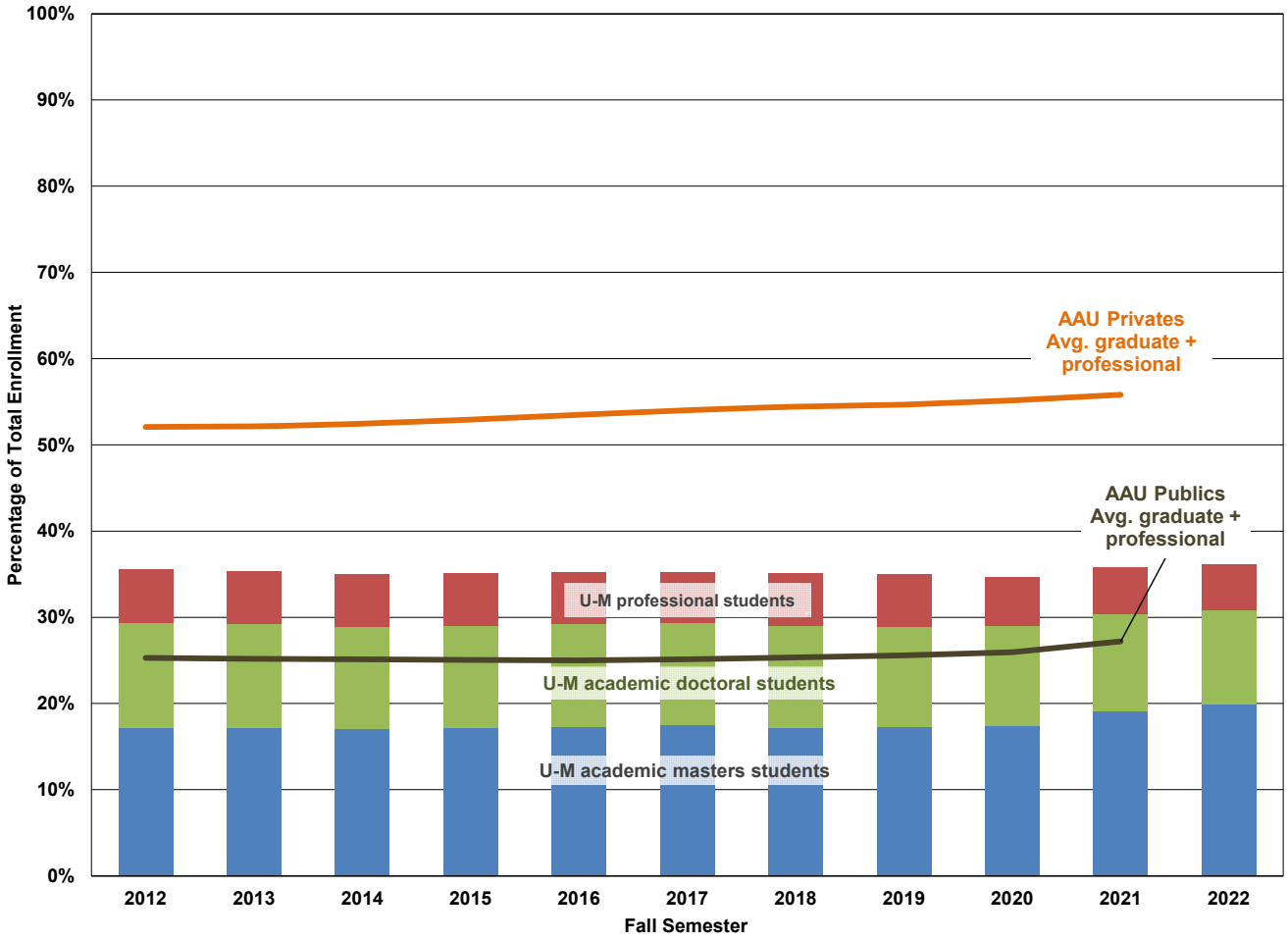
SOURCE: U-M Student Data Sets

Total University of Michigan graduate and professional student enrollment is 3,060 larger (+20%) in Fall 2022 compared to Fall 2012.

[1] A list of graduate academic and professional degree programs is in Appendix C.

Graduate and professional students comprise 36 percent of the total student enrollment, about ten percent more than the average enrollment at AAU public institutions and about 30 percent lower than the average at AAU private universities.

5.1.2 Graduate Academic and Professional[2] Student Enrollment by Percent of Total Enrollment for U-M and AAU Public and Private Universities[3], Fall 2012-2022.



SOURCE: U-M Student Data Sets; Integrated Postsecondary Education Data System (IPEDS)

Total University of Michigan student enrollment – undergraduate and graduate – has increased to 50,278 for fall 2021 from 43,426 in fall 2012, while the total graduate enrollment – academic and professional – increased to 17,996 from 15,470.

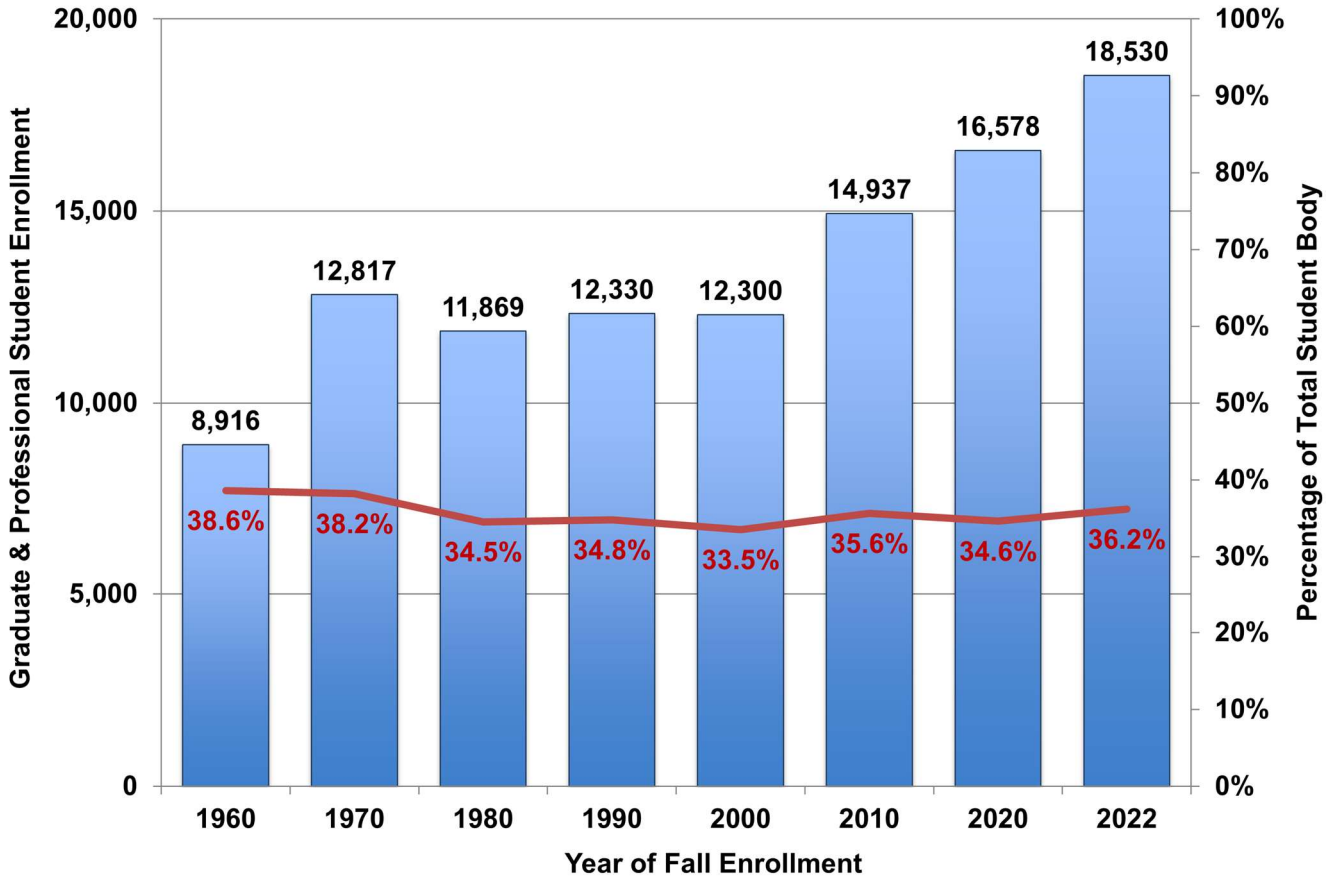
The average percentages reported for AAU Private and Public Universities are based on the combined enrollment of graduate academic and professional students compared to the total student enrollment at all levels – undergraduate, graduate, and professional. (Note: AAU school counts as reported to IPEDS are lagged by one-to-two years from U-M data.)

[2] A list of graduate academic and professional degrees is in Appendix C.

[3] A list of Association of American Universities (AAU) member institutions is published in Appendix A.

While the total number of graduate and professional students has grown from 8,916 in 1960 to 18,530 in 2022, the percentage of the total student body on the U-M campus that they represent has varied by less than five percent.

5.1.3 U-M Graduate Academic and Professional Student Enrollment Headcount, with Percent of Total Enrollment, for Selected Years from 1960 to 2022.



SOURCE: U-M Student Data Sets

In the chart, the number at the top of each column represents the total enrollment of graduate academic and professional students in the fall of that year. Over the last 50 years, enrollment increased by about one graduate student for every two additional undergraduates.

The largest academic doctoral enrollment at U-M is in the College of Literature, Science & the Arts. The most popular graduate degree is the M.B.A. in the Stephen M. Ross School of Business.

5.1.4 U-M Graduate Academic and Professional Student Enrollment by School/College and Degree Sought, Fall 2022.

College/School	Graduate Academic (Rackham)		Other Graduate (Non-Rackham)		Professional
	Masters	Doctors	Master'	Doctors	Doctors
Taubman College of Architecture & Urban Planning	99	41	314	-	-
Penny W. Stamps School of Art & Design	19	-	-	-	-
Stephen M. Ross School of Business	1	78	1,843	-	-
School of Dentistry	101	12	-	-	475
School of Education	213	87	-	-	-
College of Engineering	1,916	1,684	484	5	-
School for Environment & Sustainability	508	45	-	-	-
Horace H. Rackham School of Graduate Studies	95	232	-	-	-
School of Information	-	131	1,216	-	-
School of Kinesiology	95	35	-	-	-
Law School	-	-	31	4	972
College of Literature, Science & the Arts	624	2,104	-	-	-
Medical School	147	631	136	-	672
School of Music, Theatre & Dance	14	127	153	-	-
School of Nursing	-	17	299	-	159
College of Pharmacy	14	110	-	-	322
School of Public Health	221	230	616	-	-
Gerald R. Ford School of Public Policy	230	-	-	-	-
School of Social Work	-	-	892	-	-
Joint Programs by two Schools/Colleges	-	-	76	-	-
Grand Total, Graduate Students	***4,298***	***5,563***	***6,060***	***9***	***2,600***

SOURCE: U-M Student Data Sets

The professional doctor's degrees include M.D., J.D., D.D.S, Pharm.D., and D.N.P. (Doctor of Nursing Practice).

The School of Information and the School of Public Health offer the Joint Program listed in last row of table.

Students enrolled in a non-degree-seeking program are listed in either "Rackham-Masters" or "Other-Masters," depending on the nature of the non-degree program.

A complete list of graduate academic programs (Rackham programs), other graduate programs, and professional programs offered by the University of Michigan is found in Appendix C.

Graduate academic and professional tuition and required fees vary by program.

5.2.1 Graduate Academic and Professional Degree Tuition and Required Fees, per Semester, Academic Year 2022-23.

School/College	Graduate Academic (Rackham) per semester			Professional or Non-Rackham per semester		
	Program	In-State	Out-of-State	Program	In-State	Out-of-State
Taubman College of Architecture & Urban Planning	M.S./M.U.P. Ph.D. Candidate	$16,852 $6,994	$24,633 $6,994	M.Arch.	$16,852	$25,728
Penny W. Stamps School of Art & Design	M.F.A.	$13,196	$26,589			
Stephen M. Ross School of Business	M.A./Pre-candidate Ph.D. Candidate	$13,494 $7,309	$26,874 $7,309	M.B.A. M.Acc.	$34,098 $25,453	$36,589 $27,953
School of Dentistry [4]	M.S. Pre-candidate Ph.D. Candidate	$9,806 $14,594 $6,963	$16,660 $24,160 $6,963	D.D.S.	$17,811	$24,161
School of Education	M.A./Pre-candidate Ph.D. Candidate	$13,196 $7,060	$26,589 $7,060			
College of Engineering	M.S./Pre-candidate Ph.D. Candidate	$14,733 $8,394	$27,638 $8,394	M.Eng. D.Eng.	$15,137 $10,221	$28,094 $10,221
School of Environment & Sustainability	M.S./Pre-candidate Ph.D. Candidate	$12,776 $6,836	$25,234 $6,836			
School of Information	Pre-candidate Ph.D. Candidate	$12,947 $6,924	$26,062 $6,924	M.S.I.	$12,947	$26,062
School of Kinesiology	Pre-candidate Ph.D. Candidate	$14,051 $6,924	$28,489 $6,924			
Law School				J.D.	$33,193	$34,693
College of Literature, Science, & the Arts	M.A./M.S./ Pre-candidate Ph.D. Candidate	$12,947 $6,924	$26,062 $6,924			
Medical School [4]	M.S./Pre-candidate Ph.D. Candidate	$12,971 $7,060	$26,116 $7,060	M.H.P.E. M.D.	$9,485 $16,755	$10,356 $23,238
School of Music, Theatre & Dance	M.A./M.F.A./ Pre-candidate D.Mus.Arts Candidate Ph.D. Candidate	$13,196 $8,598 $7,060	$26,589 $8,598 $7,060	M.M./ Spec.M.	$13,540	$26,934
School of Nursing	M.S./Pre-candidate Ph.D. Candidate	$13,347 $7,060	$26,891 $7,60	D.N.P.	$13,347	$26,891
College of Pharmacy	M.S./Pre-candidate Ph.D. Candidate	$12,947 $6,924	$26,062 $6,924	Pharm.D.	$16,985	$19,77
School of Public Health	M.S./Pre-candidate Ph.D. Candidate	$16,091 $7,054	$26,542 $7,054	M.P.H.	$16,091	$26,542
Gerald R. Ford School of Public Policy	M.P.P./M.P.A.	$15,740	$26,827			
Rackham Interdepartmental Programs	M.A./M.S./ Pre-candidate Ph.D. Candidate	$12,947 $6,924	$26,062 $6,924			
School of Social Work				M.S.W.	$15,519	$24,820

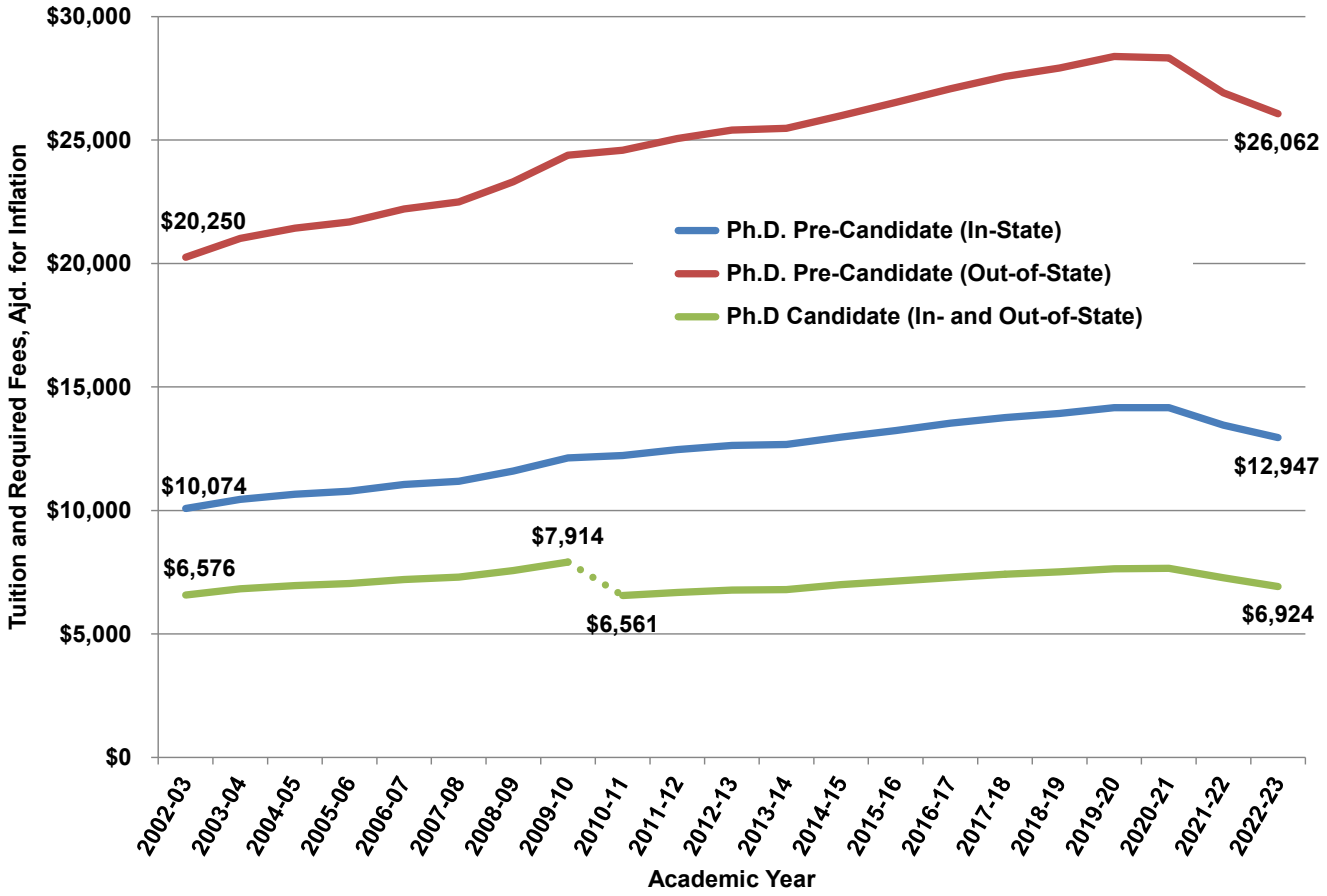
SOURCE: U-M Office of Budget and Planning

These are the published rates, which do not consider financial aid. Unless otherwise indicated, students usually attend school for two semesters per academic year. A few specialized degrees and joint degree programs are not listed above. The Registrar's Office posts tuition and fees for these programs: ro.umich.edu/tuition-residency/tuition-fees.

[4] For D.D.S. and M.D. students, an academic year consists of three semesters. Other programs consist of two academic semesters per year.

The inflation-adjusted tuition and required fees ("sticker price") increased at an average annual rate of 1.3 percent from academic years 2003 toY2023 for both in-state and out-of-state Ph.D. pre-candidacy students.

5.2.2 Graduate Academic (Rackham) Student Tuition and Required Fees, Adjusted for Inflation[5], per Semester, Academic Year 2003-2023.



SOURCE: UM Office of Budget and Planning

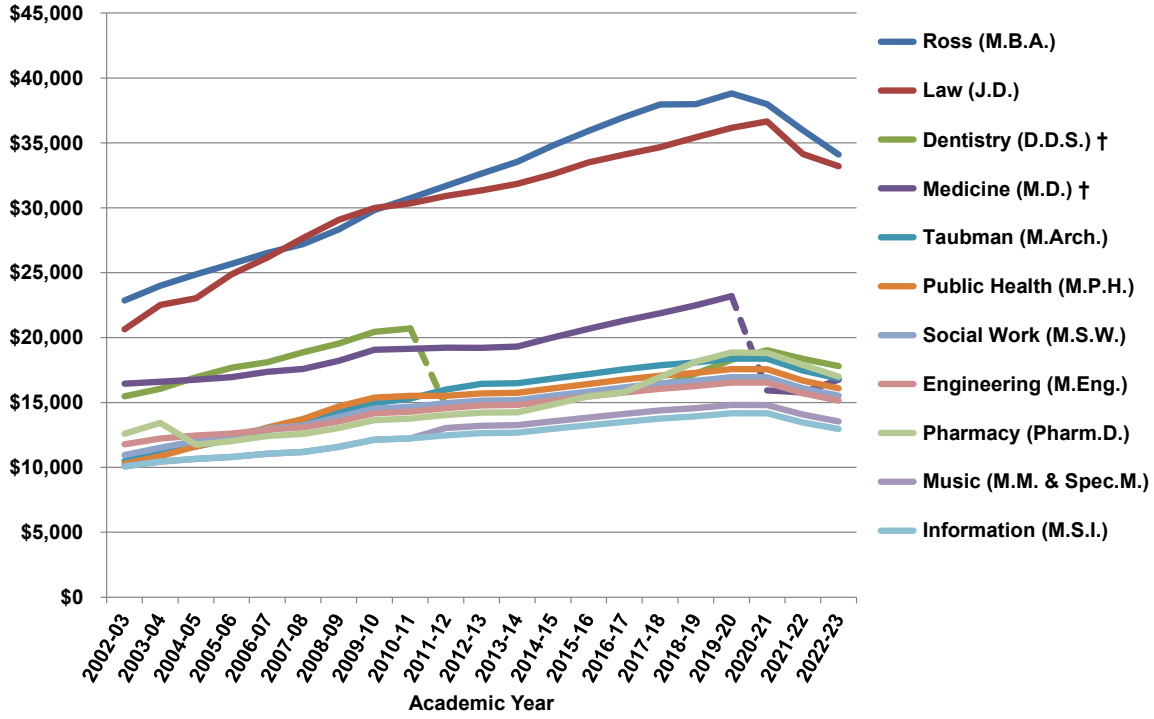
The chart represents tuition and required fees for the typical graduate academic (Rackham) student, as represented by those enrolled in the College of Literature, Science and the Arts. Rates can vary for students enrolled in other graduate academic programs. (See chart 5.2.1)

Effective for the Fall 2010 term, tuition and required fees paid by Ph.D. candidates declined by $1,165 per year, adjusted for inflation (dotted line). This reduction occurred while the U-M instituted a continuous enrollment policy for Ph.D. students. The policy calls for these students to register every fall and winter semester until they complete their degrees unless they are on approved leaves of absence. The policy is designed to improve the likelihood that students will complete their Ph.D. degrees, without imposing any new financial burden on students or graduate program budgets.

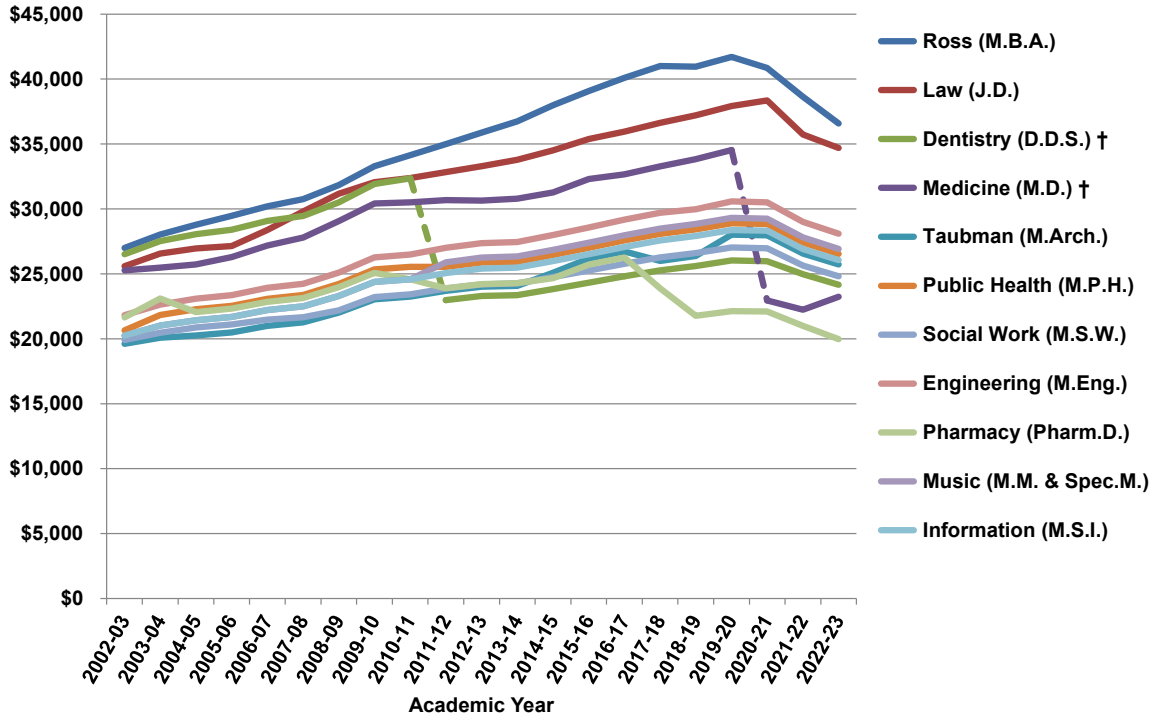
[5] Based on the FY2023 U.S. Consumer Price Index (as estimated by the U-M Research Seminar in Quantitative Economics)

When adjusted for inflation, tuition and required fees for the M.B.A. and J.D. programs declined slightly this year compared to last.

5.2.3 Graduate Professional and Non-Rackham Student Tuition and Required Fees, Adjusted for Inflation[6], In-State per Semester, Academic Year 2003-2023.



5.2.4 Graduate Professional and Non-Rackham Student Tuition and Required Fees, Adjusted for Inflation[6], Out-of-State per Semester, Academic Year 2002-2023.



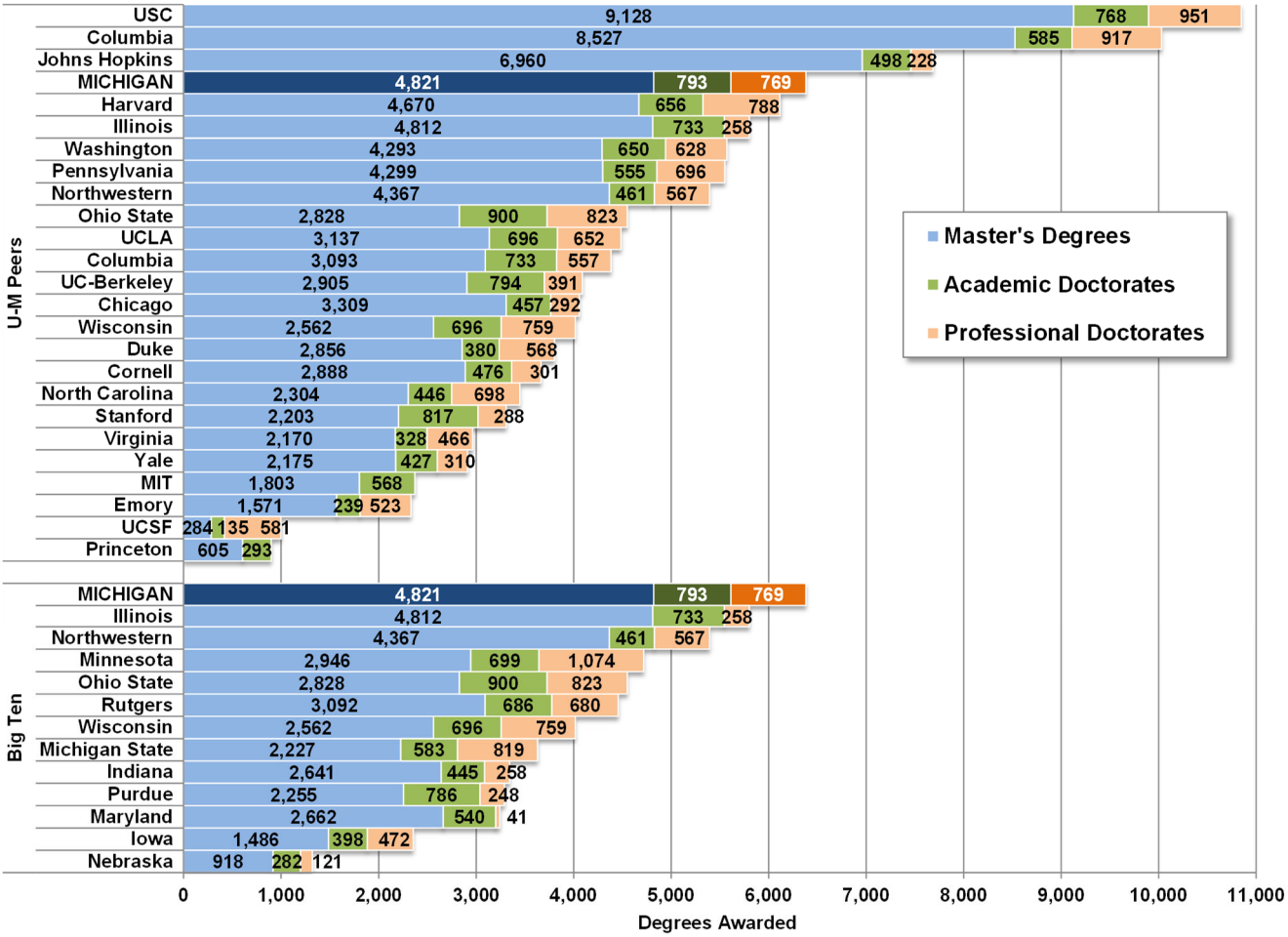
SOURCE: UM Office of Budget and Planning

† D.D.S. students, starting the Fall 2011 term, and M.D. students, starting the Fall 2020 term, pay tuition three times per year instead of two, with the per-semester rates adjusted downward to be comparable with previous annual totals.

[6] Based on FY 2023 U.S. Consumer Price Index (as estimated by the U-M Research Seminar in Quantitative Economics).

The U-M awards more graduate academic and professional degrees combined than any other Big Ten institution, and is among the top five of its peer universities.

5.3.1 Graduate Master's, Academic Doctoral and Professional Doctoral Degrees Awarded, Headcount for U-M, Peers and Big Ten Universities, 2020-21.

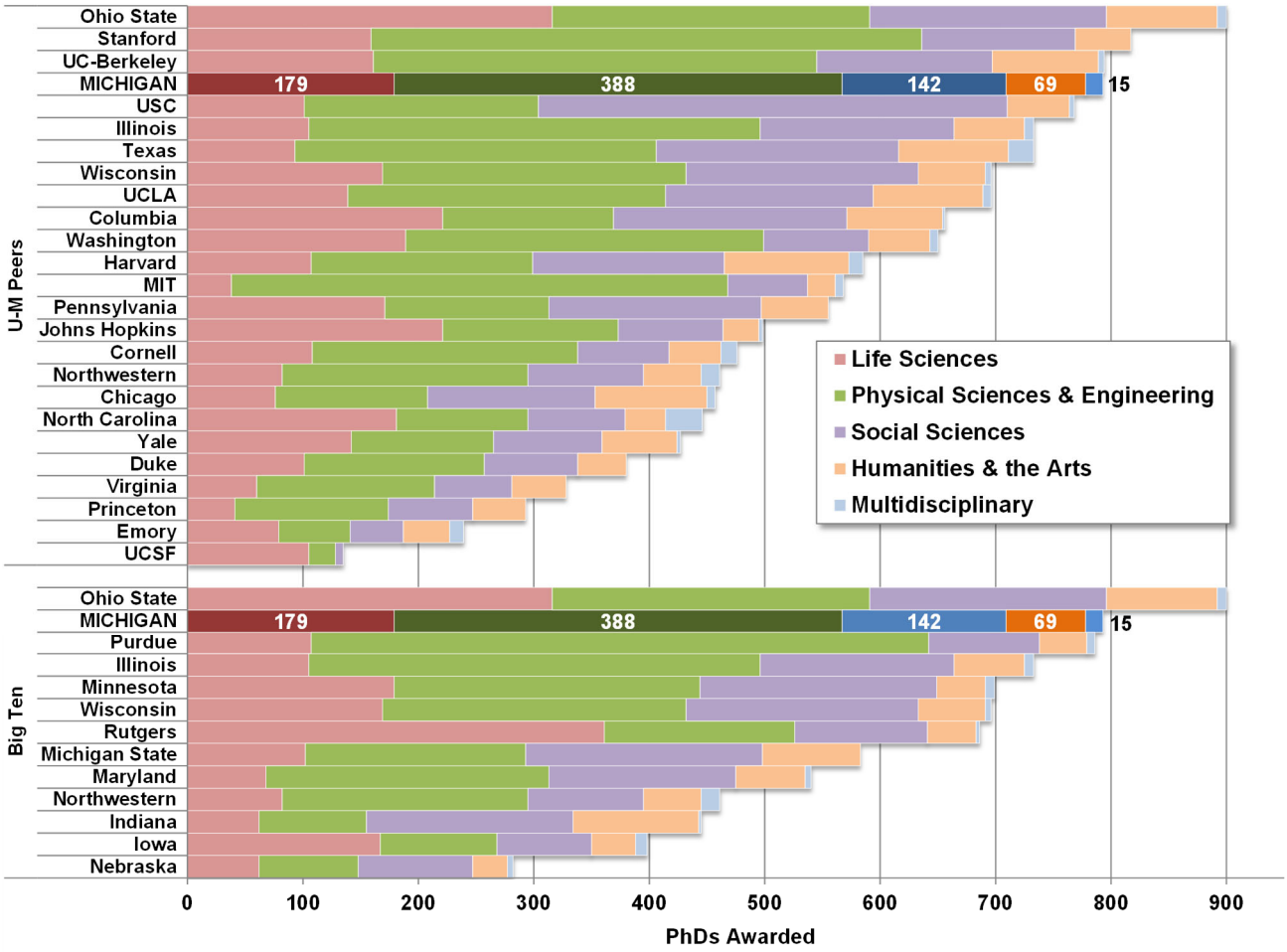


SOURCE: Integrated Postsecondary Education Data System (IPEDS)

The University of Michigan grants the academic doctorates of Ph.D. and D.Mus.Arts and the professional doctorates of M.D., J.D., D.D.S., Pharm.D., and D.N.P.

The U-M produces a large number of Ph.D. graduates in the sciences, technology, engineering and mathematics (STEM).

5.3.2 Ph.D. Degrees Awarded, Headcount, by Discipline Group[7] for U-M, Peers and Big Ten Universities, 2020-21.



SOURCE: Integrated Postsecondary Education Data System (IPEDS)

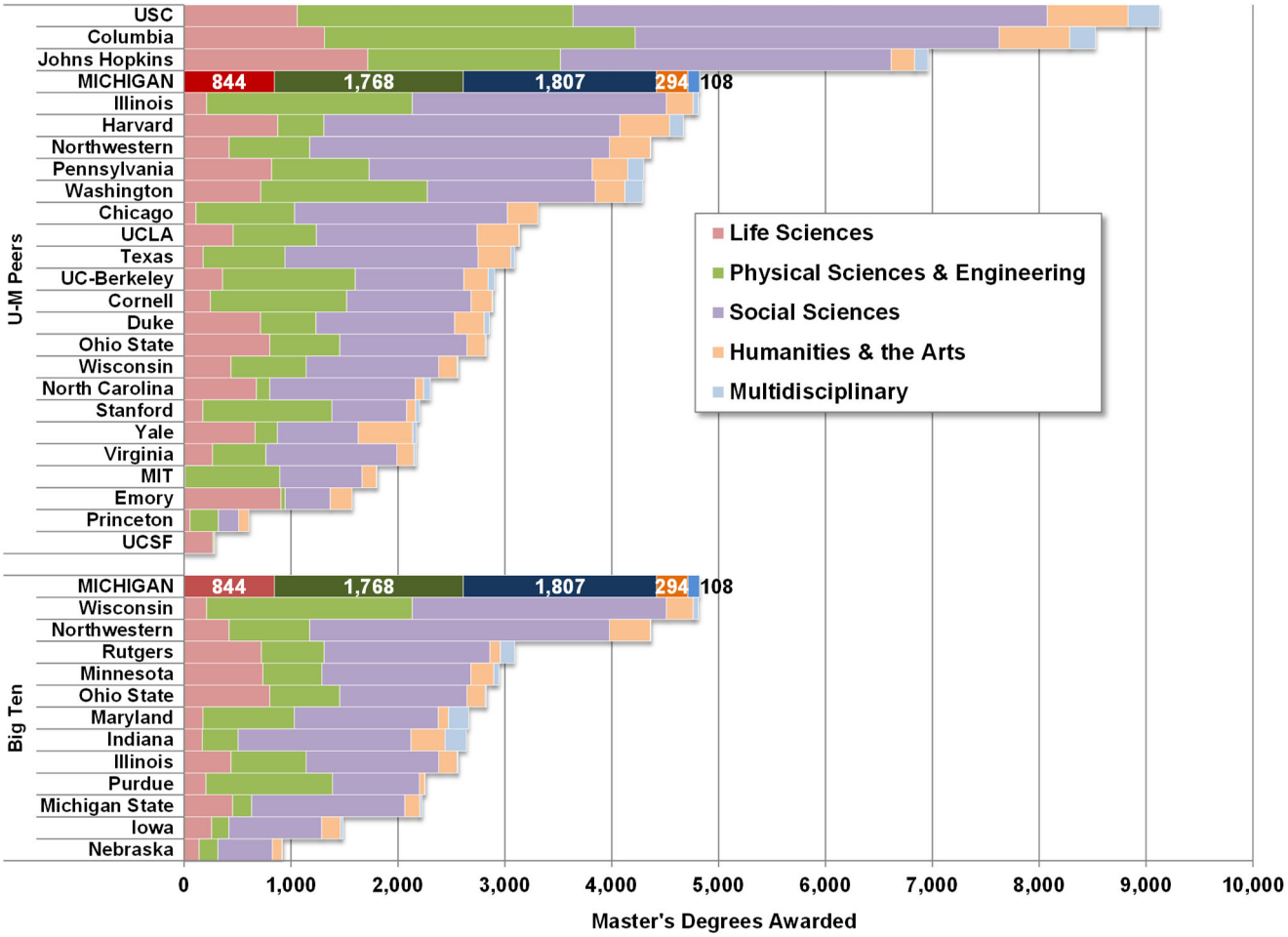
In the life sciences, physical sciences, and engineering – also known as STEM fields (science, technology, engineering, and mathematics) – U-M awarded 567 such Ph.D. degrees in 2020-21. The number of graduates in STEM fields is important because labor analyses often indicate that the American workforce needs to add more STEM professionals in the coming years.

To keep the comparisons consistent between U-M and the comparison schools, all degree awards for Charts 5.3.2, 5.3.3 and 5.3.4 at peer and Big Ten universities were categorized according to the same academic disciplines and professional categories the U-M uses.

[7] A list of disciplines assigned to each group is found in Appendix C.

U-M graduates a large number of Master's students in the social sciences and in the sciences, technology, engineering and mathematics fields.

5.3.3 Academic Master's Degrees Awarded, Headcount, by Discipline Group[8] for U-M, Peers and Big Ten Universities, 2020-21.



SOURCE: Integrated Postsecondary Education Data System (IPEDS)

U-M produces more master's students overall than any other Big Ten university. Within the Big Ten, only Illinois and Northwestern graduate more master's students in the social sciences than the U-M.

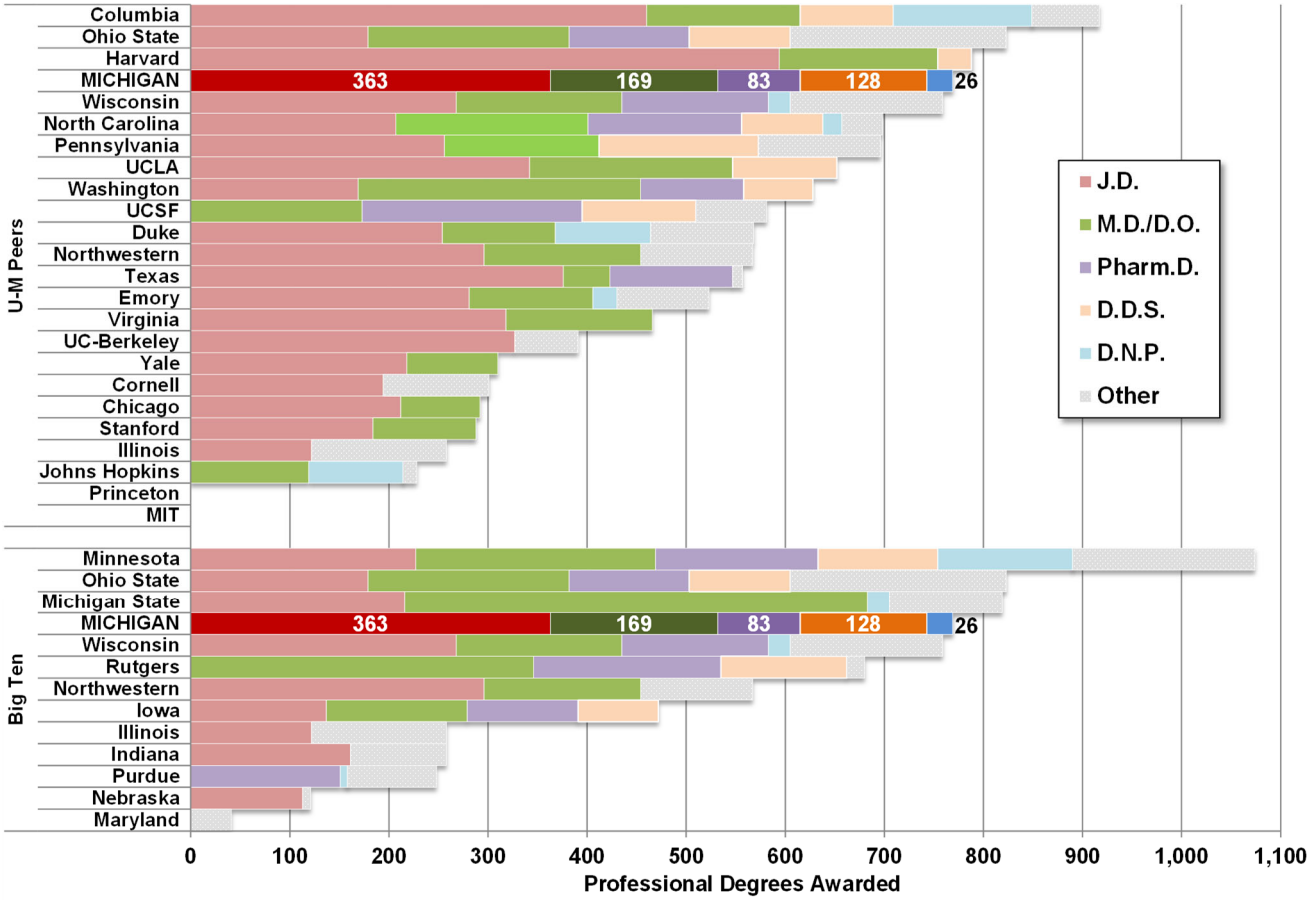
In the life sciences, physical sciences, and engineering – also known as STEM fields (science, technology, engineering, and mathematics) – 2,612 U-M students graduated with master's degrees during 2020-21.

To keep the comparisons consistent between U-M and the comparison schools, all degree awards for Charts 5.3.2, 5.3.3 and 5.3.4 at peer and Big Ten universities were categorized according to the same academic disciplines and professional categories the U-M uses.

[8] A list of disciplines assigned to each group is found in Appendix C.

The U-M grants a large number of professional degrees compared to many peer universities.

5.3.4 Professional Degrees Awarded by Program for U-M, Peers and Big Ten Universities, 2020-21.



SOURCE: Integrated Postsecondary Education Data System (IPEDS)

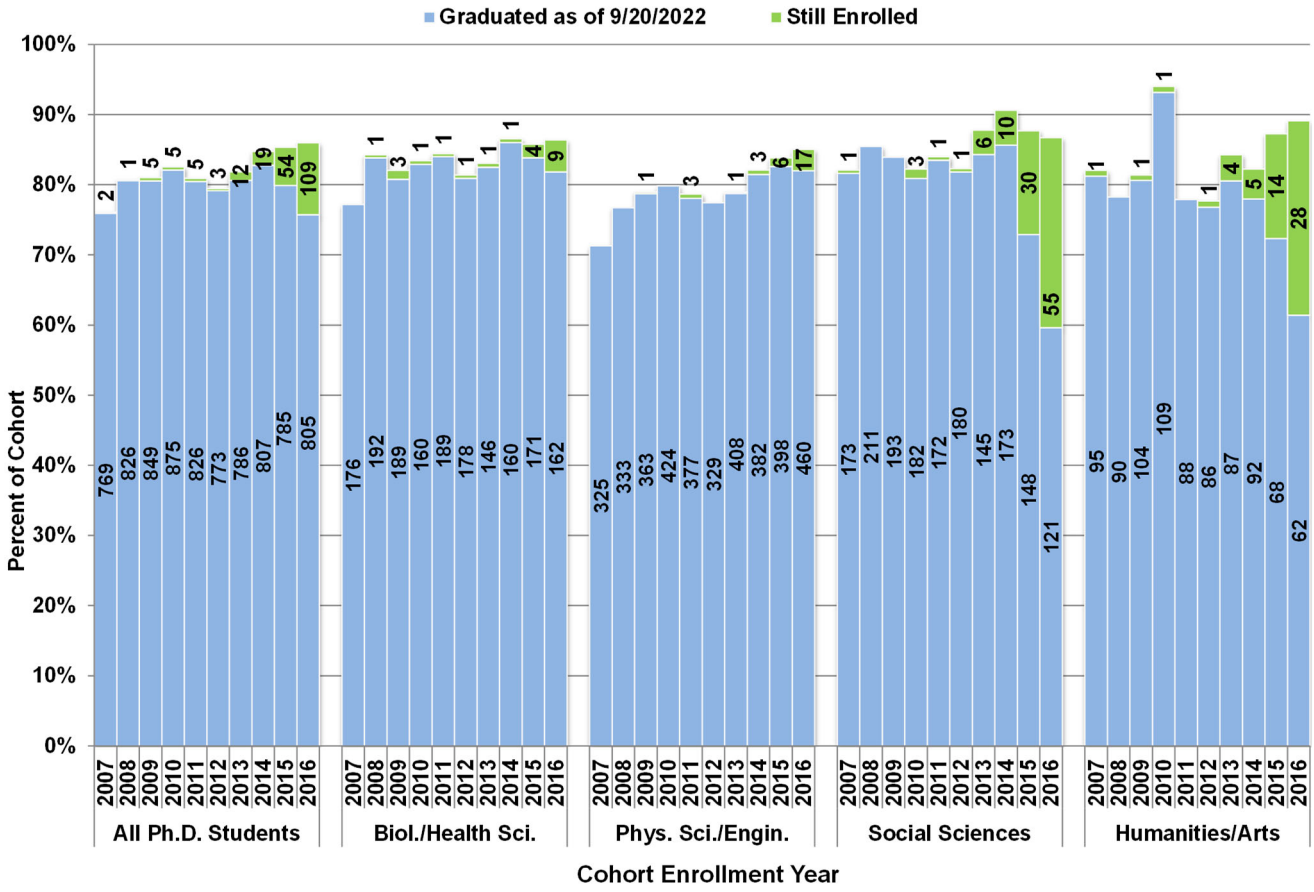
The U-M awards degrees in five professional programs: Law, Medicine, Dentistry, Pharmacy, and Nursing Practice (D.N.P.).

To keep the comparisons consistent between U-M and the comparison schools, all degree awards for Charts 5.3.2, 5.3.3 and 5.3.4 at peer and Big Ten universities were categorized according to the same academic disciplines and professional categories the U-M uses.

[9] Includes professional degrees U-M does not offer, such as in Veterinary Medicine, Optometry, and Communication Disorders.

The profile of U-M doctoral student graduation rates in recent years is fairly consistent across the disciplines. Overall, 80 percent of students who enrolled in a doctoral program between Spring term 2007 and Winter term 2017 have graduated with a Ph.D.

5.4.1 Academic Doctoral Completion Rates by Discipline Group[10], Enrollment Cohorts 2007-2017.



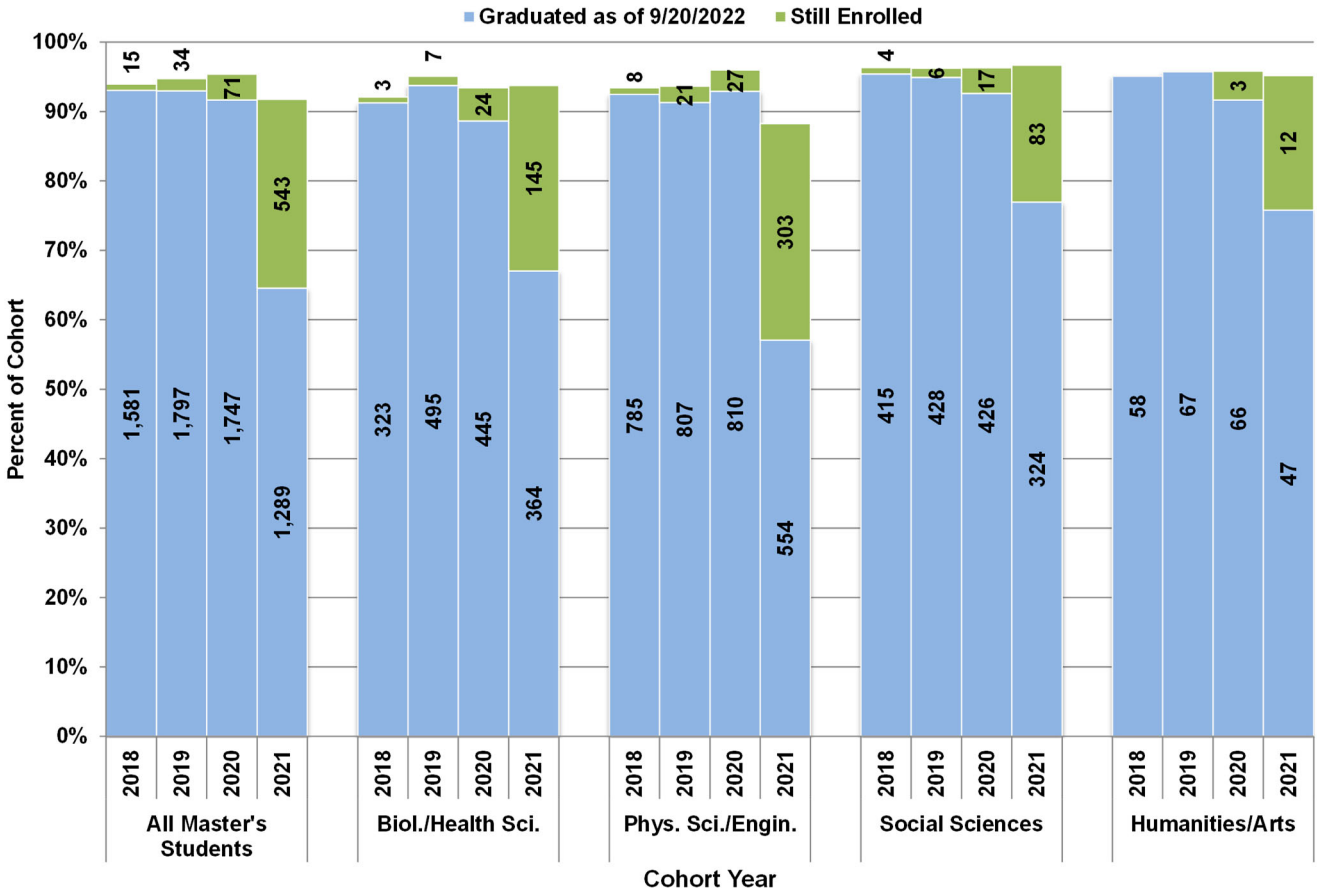
SOURCE: Horace H. Rackham School of Graduate Studies

This chart examines a range of doctoral entry cohorts and shows the counts and percentages of each cohort that have completed their degrees or are still enrolled as of September 2022.

[10] A list of disciplines assigned to each group is found in Appendix C.

Of students who enrolled in U-M academic Master's programs at least two years ago, 92.5% have completed their degrees.

5.4.2 Academic Master's Completion Rates by Discipline Group[11], Enrollment Cohorts 2018-21



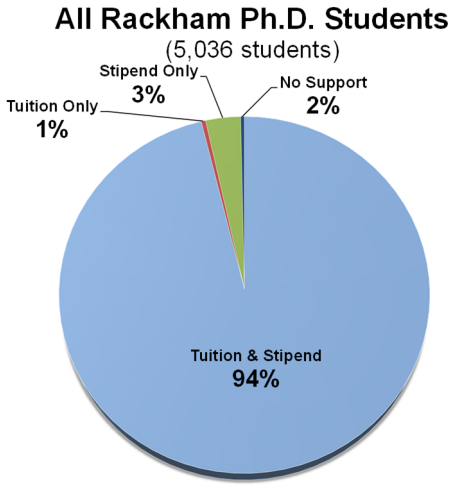
SOURCE: Horace H. Rackham School of Graduate Studies

U-M master's programs usually require about two years to complete, so the average in the headline does not consider the completion counts for the master's students who first enrolled in the Fall 2021 term.

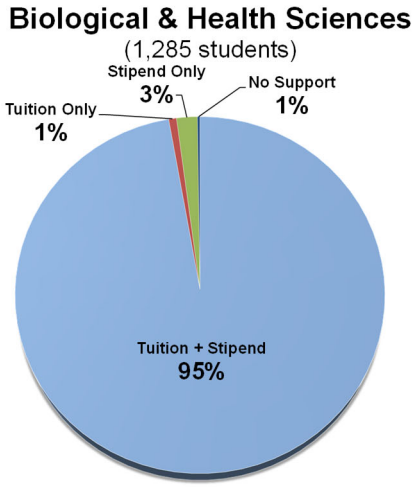
[11] A list of disciplines assigned to each group is found in Appendix C.

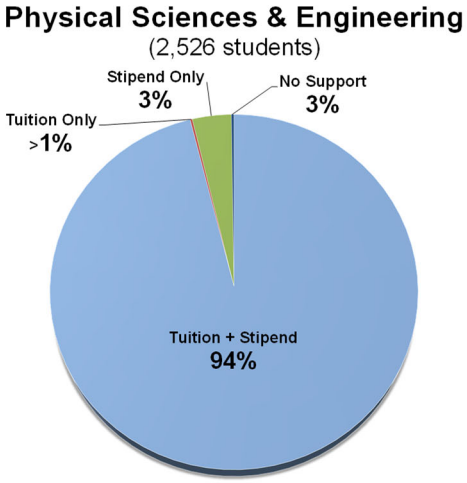
Ninety-eight percent of Rackham graduate students pursuing Ph.D. degrees receive financial support from the University with little variaiton among fields of study.

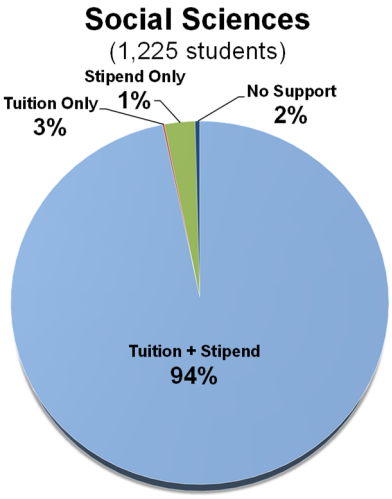
5.5.1 Funding Support for Rackham Ph.D. Students[12], 2021-22.

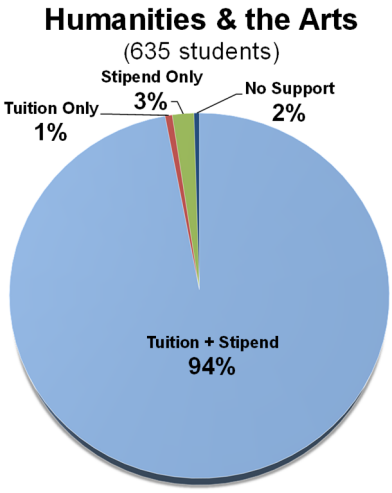


In all fields of study, a substantial percentage of academic Ph.D. students receives both tuition grants and a stipend to help cover living expenses. Students competed successfully for external funding and did not need additional financial support. Stipends may be paid as part of an appointment as a Graduate Student Instructor (GSI), Graduate Student Research Assistant (GSRA), Graduate Student Staff Assistant (GSSA), or as a fellowship.









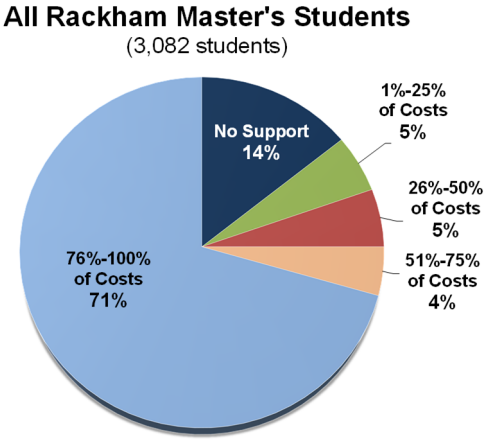
SOURCE: Horace H. Rackham School of Graduate Studies

Percentages might not sum to 100% due to rounding.

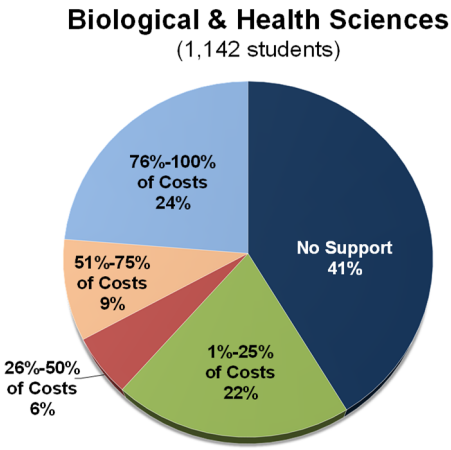
[12] A list of disciplines assigned to each group is found in Appendix C.

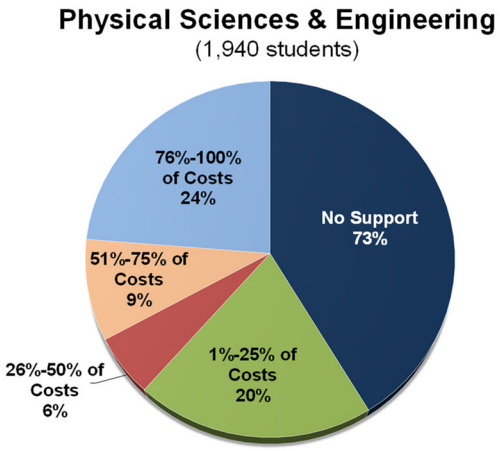
Financial support provided to Rackham students pursuing master's degrees varies by field of study.

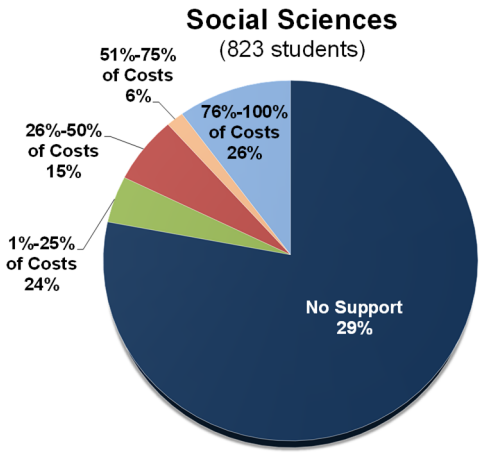
5.5.2 Funding Support for Rackham Master's Students[13], 2021-22.

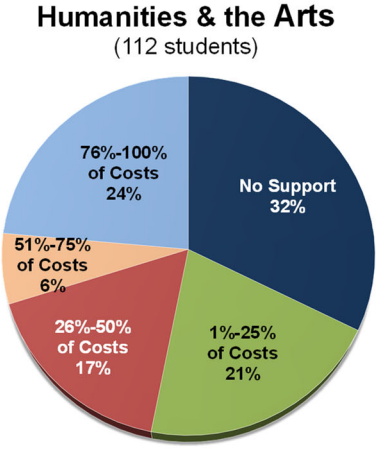


The five categories of support (No Support, and covering 1%-25%, 26%-50%, 51%-75%, 76%-100% of costs) represent the fraction of the total calculated cost of attendance provided as tuition grants and stipends to students enrolled in master's programs. Loans that master's students may acquire are not included in these calculations.









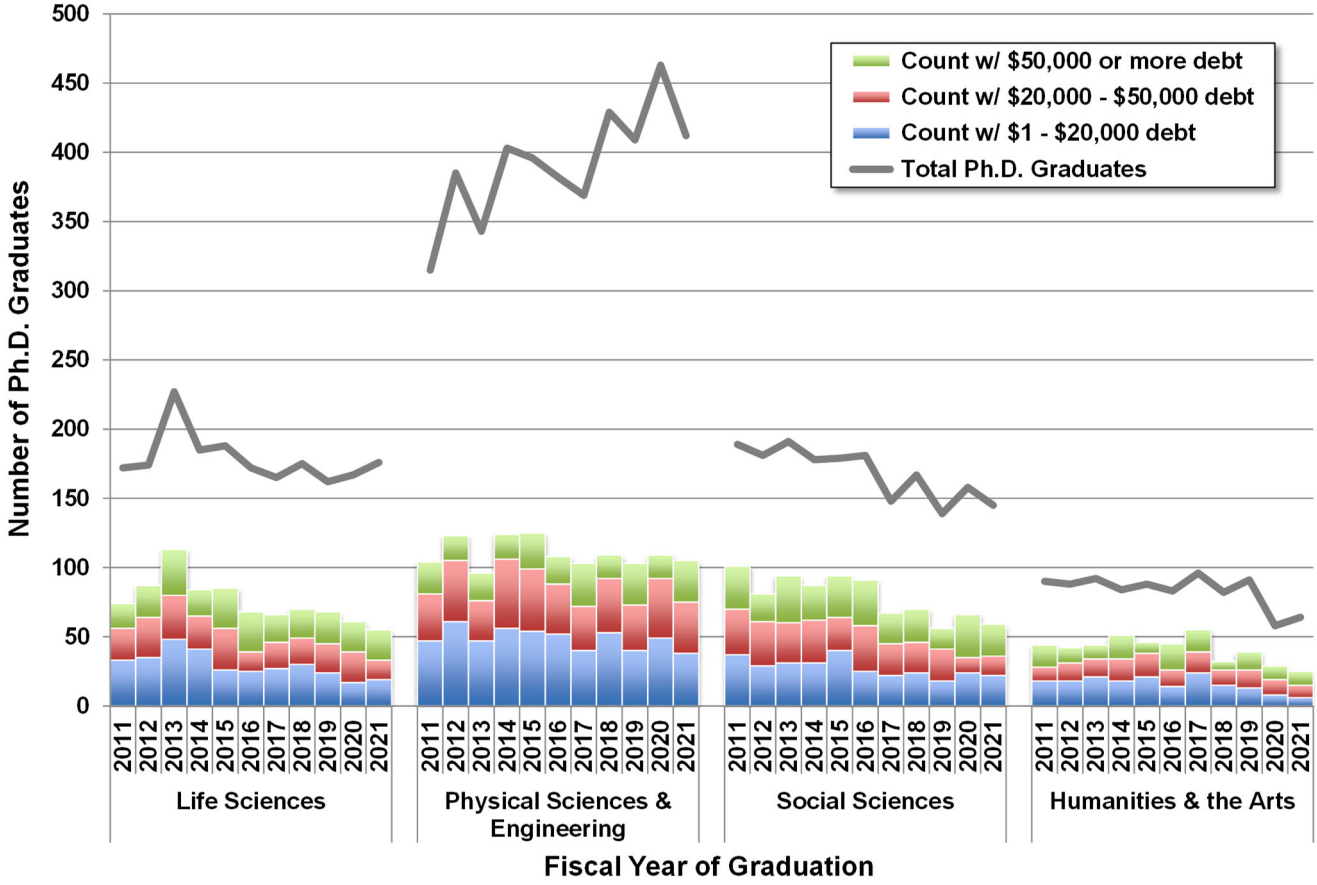
SOURCE: Horace H. Rackham School of Graduate Studies

Percentages might not sum to 100% due to rounding.

[13] A list of disciplines assigned to each group is found in Appendix C.

Sixty-three percent of U-M Ph.D. students graduate without *any* student loan debt.

5.6.1 Self-reported Cumulative Undergraduate and Graduate Debt at Graduation by U-M Ph.D. Students, by Discipline Group[14] for Domestic Students, FY2011-2021.



SOURCE: NSF/NIH/USED/USDA/NEH/NASA, Survey of Earned Doctorates

Fewer than half (39% over the period shown) of University of Michigan Ph.D. students graduate with student-loan debt that was acquired over the course of their undergraduate and graduate careers. The aggregate averages of Ph.D. graduates with debt by discipline groups vary: Life Sciences (42%), Physical Sciences & Engineering (28%), Social Sciences (47%), Humanities & the Arts (49%).

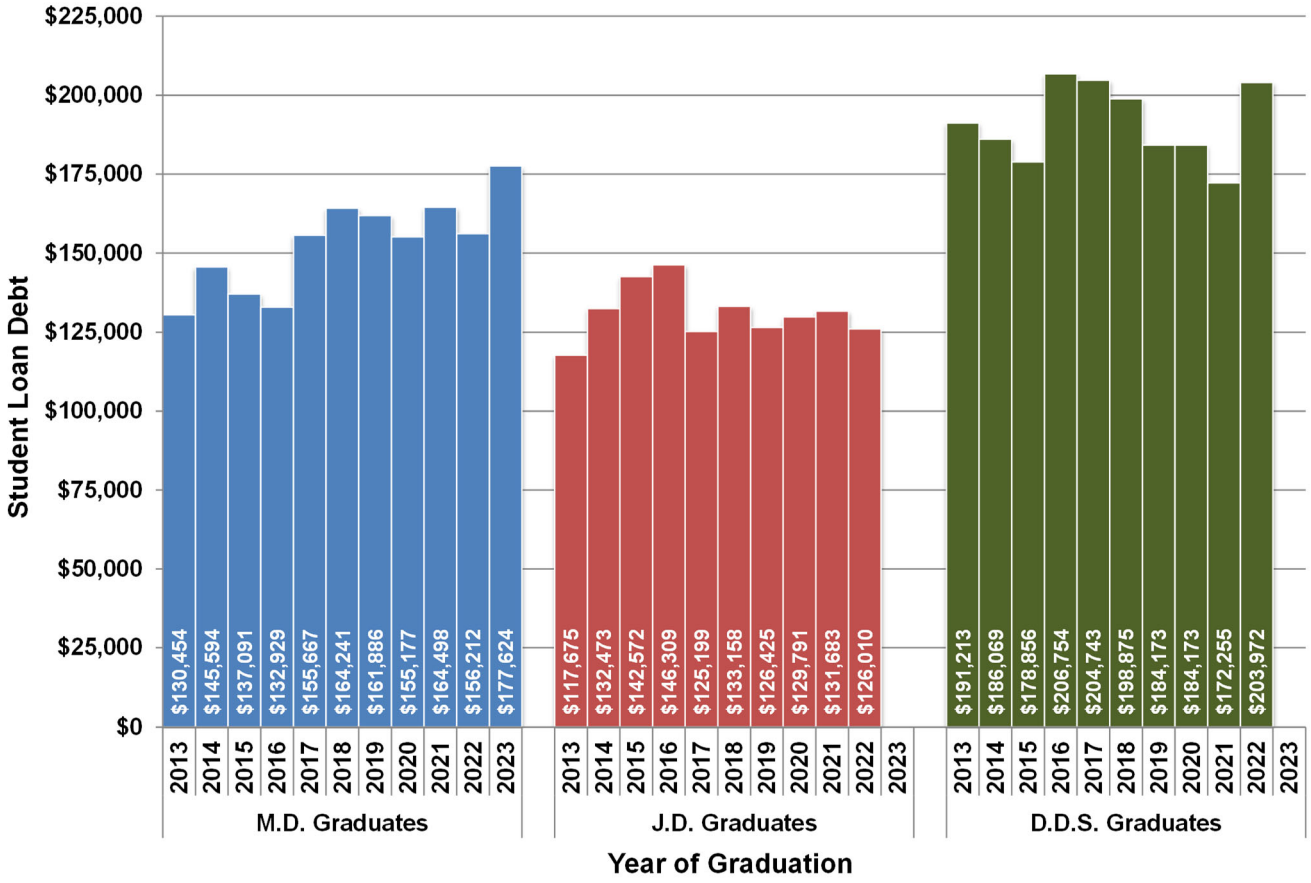
The issue of student debt remains important to the University of Michigan and higher education overall. Student loan debt presents a serious challenge to scholars just starting their careers, especially for the two percent of Ph.D. graduates who have accumulated student loan debt that exceeds $100,000.

Percent of Ph.D. Graduates without debt Ten-year average by Field of Study	
Life Sciences	**42%**
Physical Sciences & Engineering	**28%**
Social Sciences	**47%**
Humanities & the Arts	**49%**

[14] A list of the disciplines assigned to each category is in Appendix C.

The level of student loan debt is high for U-M graduates of professional doctorate programs in medicine, law, and dentistry.

5.6.2 Self-reported Debt at Graduation by Graduate Professional Students, by Program, 2011-2020.



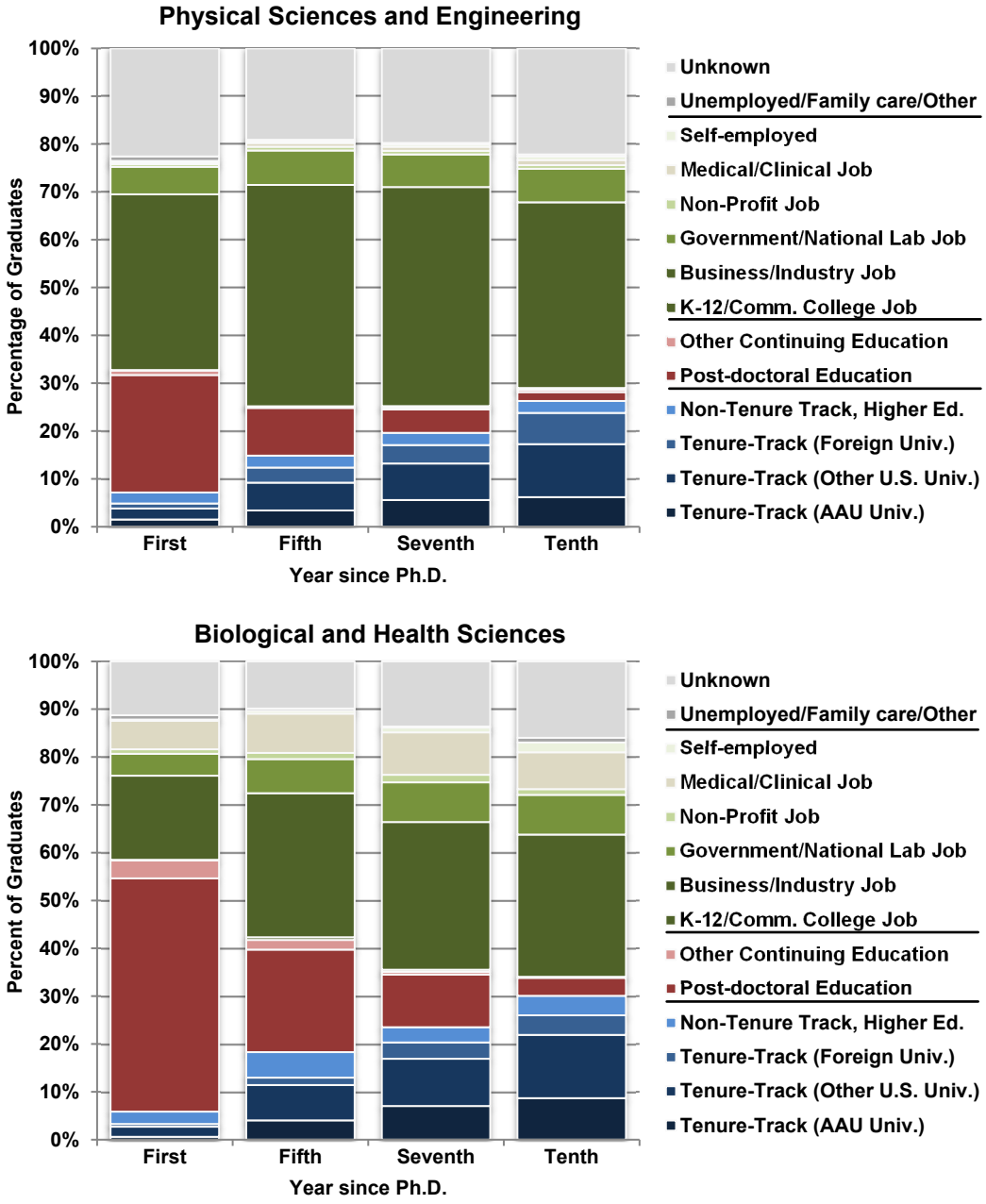
SOURCE: School's Dean or Financial Aid Office

The chart displays debt accumulated during undergraduate and graduate study. The averages are calculated based only on students with debt.

.

Career paths for Ph.D. studnets vary by field of study. For instance, a large fraction of Ph.D. graduates in the physical sciences and engineering go into private or non-profit sector jobs

5.7 Placement Outcomes for U-M Ph.D. students from 2008 through 2021 graduating classes, by Discipline Group[15].



About the same number of academic Ph.D. graduates in the physical sciences and engineering initially take a position outside of academia as enter post-doctoral training. At five or more years after graduation, graduates are more likely to be employed in industry, government, or the non-profit sector, or entering academic positions.

More than half of academic Ph.D. graduates in the biological and health sciences enter post-doctoral training during the first year following graduation. As time since graduation passes, more graduates move into academic positions in higher education or take jobs in industry, government, or the non-profit sector.

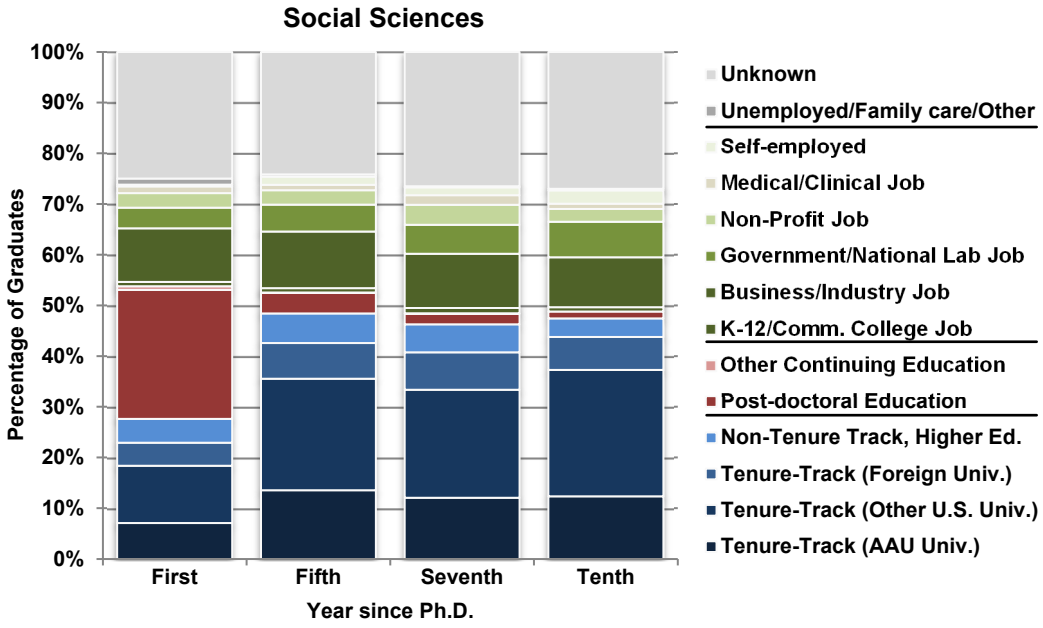
SOURCE: Survey of Academic Departments by Rackham Graduate School

Blue shades represent higher education positions, reds indicate post-doctoral or other post-graduate training, greens are positions outside of higher education, and the grays represent unknown activity or not currently employed.

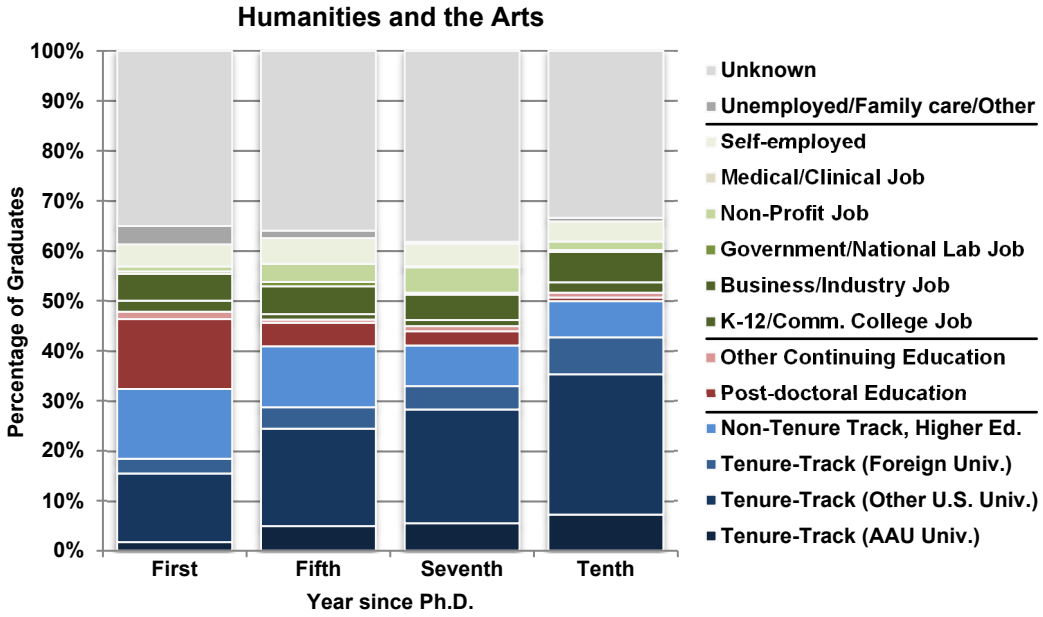
Note: These charts indicate a substantial percentage of graduates whose plans are unknown compared to past years. This is due in part to disruption of careers due to the coronavirus pandemic.

[15] A list of disciplines assigned to each group is found in Appendix C.

5.7 Placement Outcomes for U-M Ph.D. students from 2008 through 2021 graduating classes, by Discipline Group[15] (continued).



About a third of academic Ph.D. graduates in the social sciences enter a higher education position during the first year following graduation, with about two-thirds of these on the tenure-track. By five years after graduation, about 45 percent of U-M's social science Ph.D. graduates have tenure-track positions.



Ph.D. graduates in the humanities and arts are less likely to pursue postdoctoral training than their counterparts in other disciplines. About one-fifth of humanities and arts Ph.D. graduates are on the tenure track initially, and the fraction doubles by ten years post-graduation.

SOURCE: Survey of Academic Departments by Rackham Graduate School

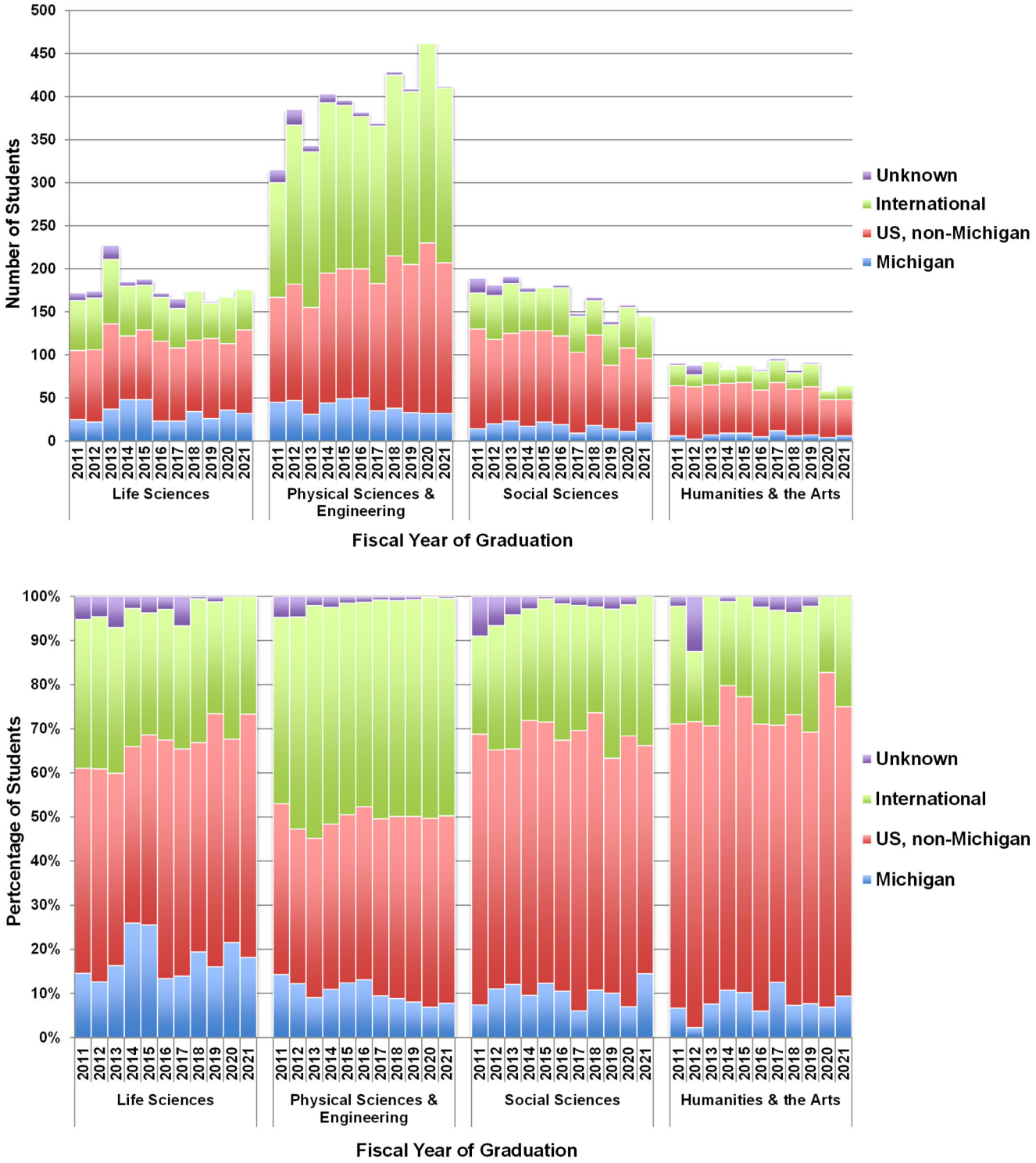
Blue shades represent higher education positions, reds indicate post-doctoral or other post-graduate training, greens are positions outside of higher education, and the grays represent unknown activity or not currently employed.

Note: These charts indicate a substantial percentage of graduates whose plans are unknown compared to past years. This is due in part to disruption of careers due to the coronavirus pandemic.

[15] A list of disciplines assigned to each group is found in Appendix C.

U-M Ph.D. programs are attractive to students from all geographic locales.

5.8.1 Geographic Origins of U-M Ph.D. Recipients, Headcount (top) and Percent (bottom) by Discipline Group[18], FY2011-2021.



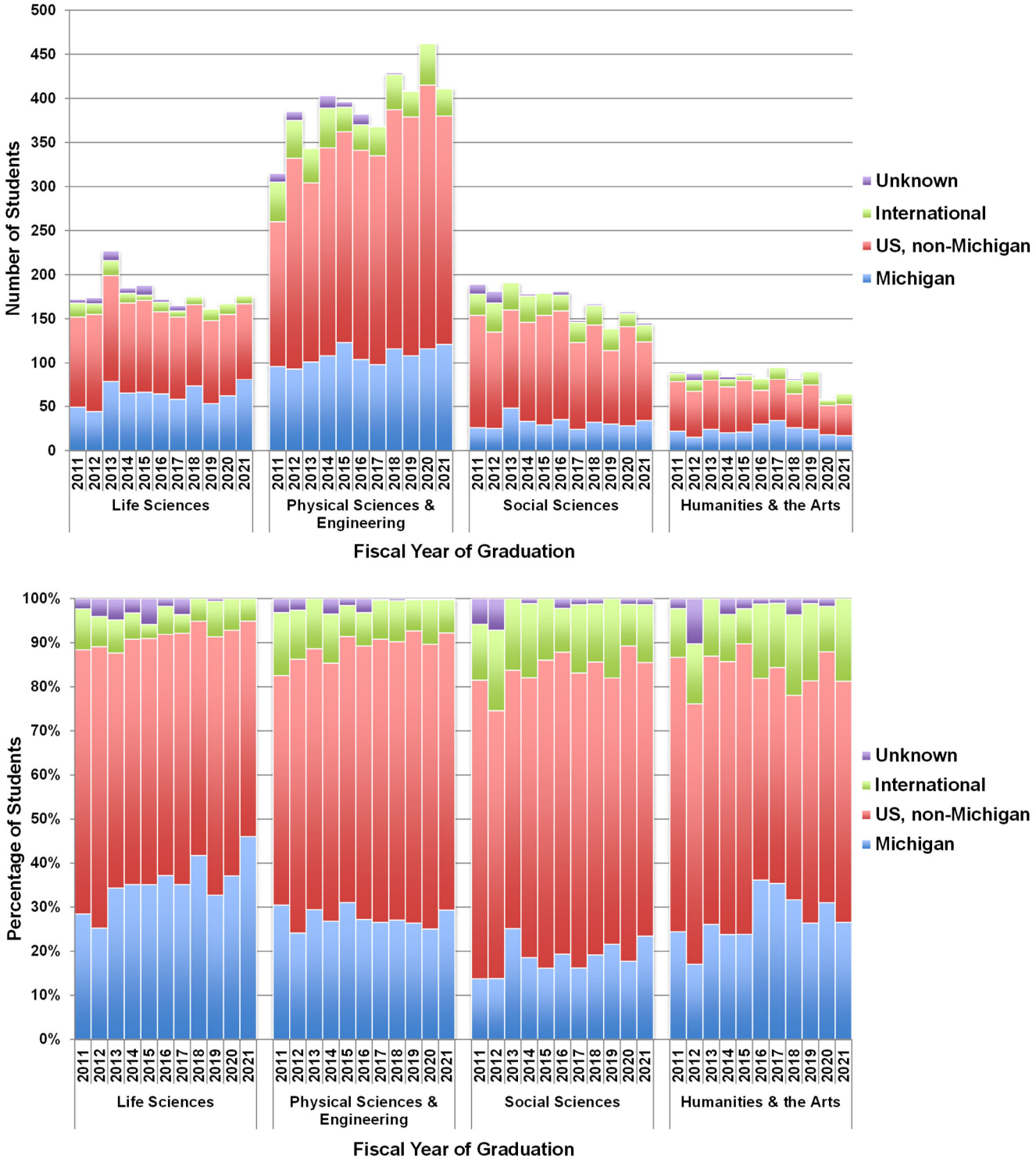
SOURCE: NSF/NIH/USED/USDA/NEH/NASA, Survey of Earned Doctorates

For the decade displayed here, international students make up 49 percent of enrollment in U-M physical science and engineering Ph.D. programs.

[18] A list of disciplines assigned to each group is found in Appendix C.

At least initially, more Ph.D. graduates remain in Michigan compared to the number and percentage from Michigan who enter a Ph.D. program.

5.8.2 Geographic Destinations of U-M Ph.D. Recipients, Headcount (top) and Percent (bottom) by Discipline Group[19], FY2011-2021.

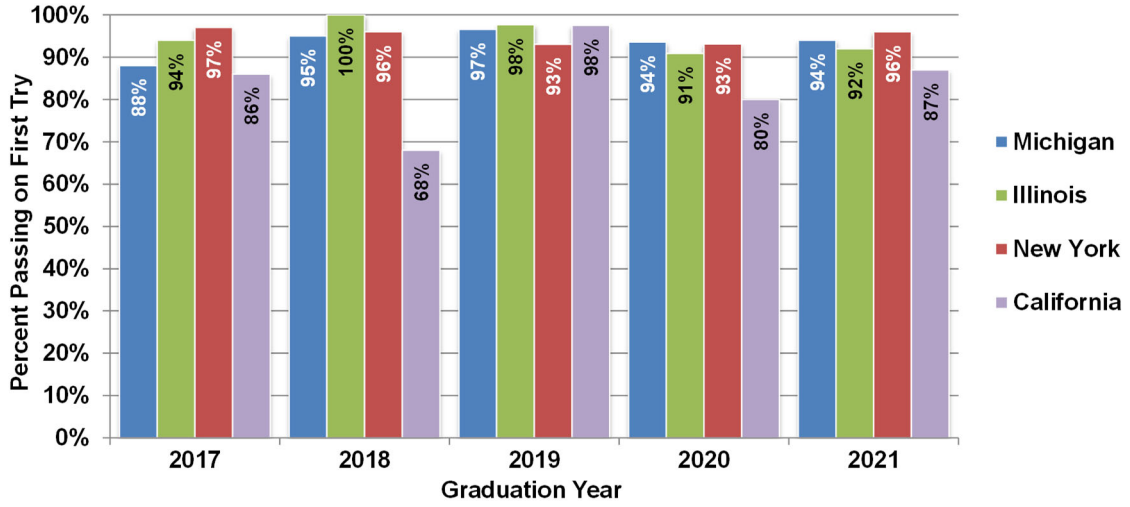


SOURCE: NSF/NIH/USED/USDA/NEH/NASA, Survey of Earned Doctorates

[19] A list of disciplines assigned to each group is found in Appendix C.

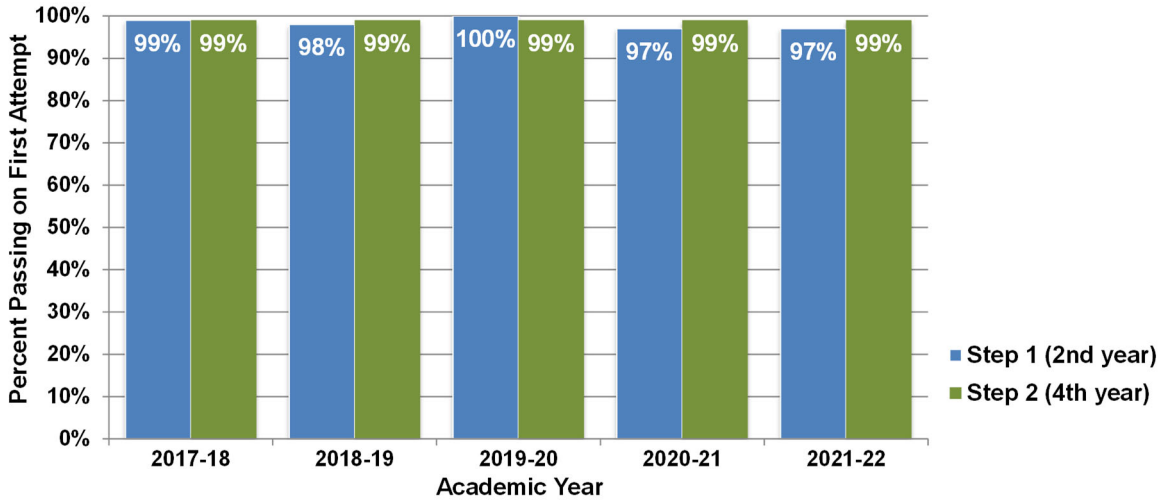
U-M law, medicine, dentistry and pharmacy professional students pass their licensing exams at very high rates.

5.9.1 Pass Rates for Four States' Bar (Law) Examinations by U-M Law School Graduates, 2017-2021.



SOURCE: Registrar, U-M Law School

5.9.2 Pass Rates for U.S. Medical Licensing Examination by U-M Medical Students, 2018-2022.

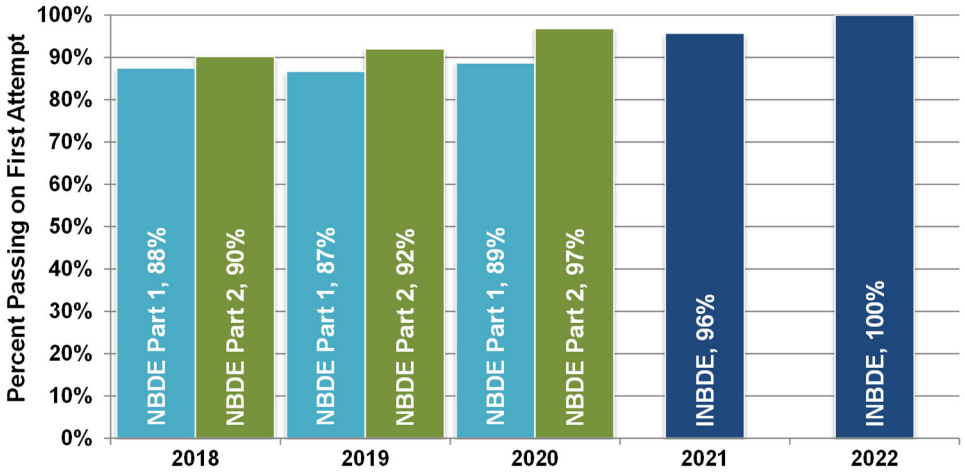


SOURCE: Registrar, U-M Medical School

The U.S. Medical Licensing Examination is administered by the National Board of Medical Examiners in two parts: Step I exam at the end of the second year of medical school, and Step 2 exam during the fourth year of medical school. The rates are computed based on the first-time students take each test. U-M medical students pass these exams at equal or higher rates than the national averages.

U-M law, medicine, dentistry and pharmacy professional students pass their licensing exams at very high rates. (cont.)

5.9.3 Pass Rates for National Board Dental Examinations by U-M D.D.S. Students, 2018-2022.

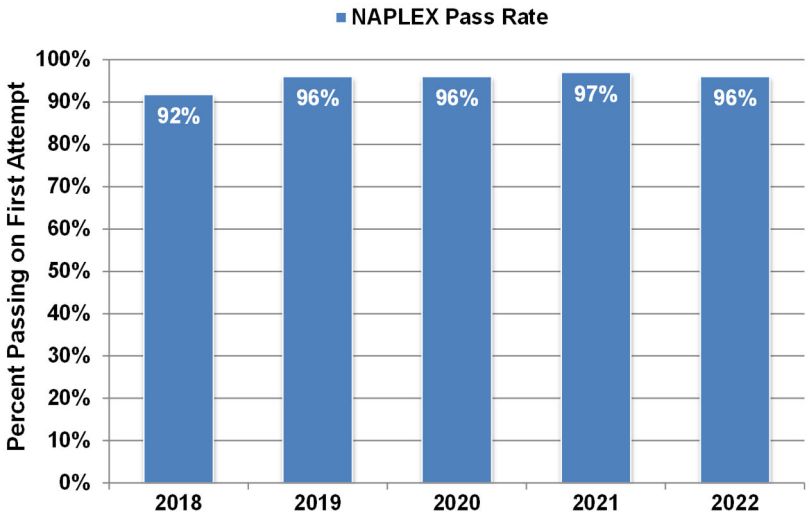


SOURCE: School of Dentistry

National Board Dental Examination is now administered as a single exam, the INDBE, compared to the two-part exam (NBDE, Parts 1 and 2) used in past years.

The rates are computed based on the first-time students take each test.

5.9.4 Pass Rates for North American Pharmacist Licensure Examination (NAPLEX) by U-M Doctor of Pharmacy Graduates, 2018-2022.



SOURCE: College of Pharmacy

The rates are computed based on the first-time students take each test.

Chapter 6 Faculty & Staff

Goals

A great university is defined in large part by its outstanding faculty. The University of Michigan attracts faculty members with commitments to both teaching and research excellence, as shown by the high quality of the graduating students and the superior research and scholarship by the faculty. Likewise, the University seeks the highest level of performance and productivity from its staff members in support of the institution's academics, research, and service.

Overview

The faculty headcount in fall 2022 at the University of Michigan was 7,954 and the full-time-equivalent (FTE) total was 6,752. Instructional appointments comprise 3,617 FTEs, and another 3,134 FTEs are individuals with clinical, research and other titles who are primarily involved in health care, research, and related scholarly activities.

Although statistics can hardly capture the full scope of the faculty's activities and accomplishments, a summary of awards and honors earned by faculty members provides a glimpse into their successes. The U-M is proud of the sizeable cadres of faculty who have been elected to the National Academy of Sciences, National Academy of Engineering, National Academy of Medicine and American Academy of Arts and Sciences. In addition, faculty members have been awarded a MacArthur Foundation Fellowship (aka "genius" awards), Emmy and Grammy awards, National Medal of Art, and countless other honors bestowed by scholarly and professional societies. In 2018, Gérard Mourou, emeritus professor in electrical engineering and computer science, received a Nobel Prize in Physics for "groundbreaking inventions in the field of laser physics."

U-M faculty members are primarily involved in teaching, research, and scholarship. Faculty also have service responsibilities to the university, broader academic community, and society at large, as well as administrative duties and in setting academic policies for admissions, the granting of degrees, and the content of the curriculum.

Staff members play key roles in the efficient and productive operation of all facets of the University. They participate in the conduct and administration of research; provide academic, housing, and other services for students; manage financial operations of the institution; manage the physical and digital infrastructure of the campus; and monitor federal, state, and professional compliance rules the institution must follow.

For More Information

HR Data Requests and Standard Reports (hr.umich.edu/working-u-m/management-administration/hr-reports-data-services/hr-data-requests-standard-reports)

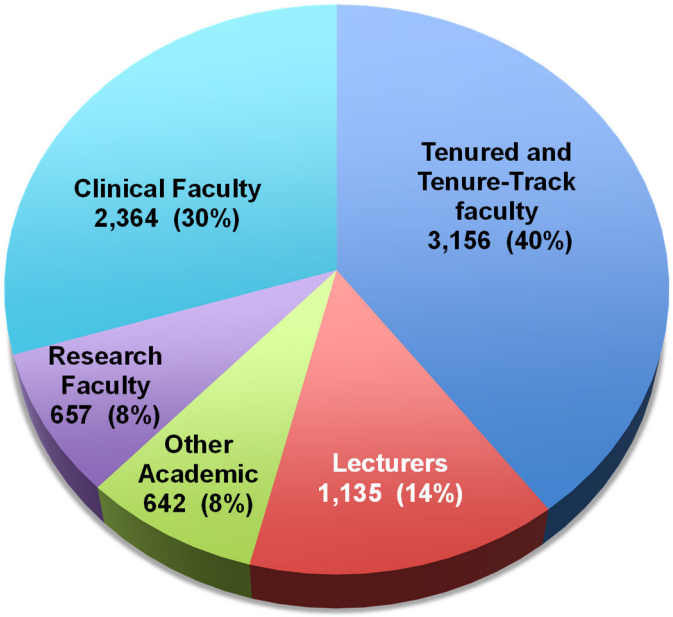
Office of Budget and Planning - Campus Statistics (obp.umich.edu/campus-statistics/)

Other chapters provide information related to faculty activity, including indicators of the teaching workload (Chapter 8) and research activity (Chapter 9). The quality of the faculty influences the U-M's placement in national and international rankings (Chapter 12). Diversity indicators for the faculty, staff and students are reported in Chapter 7.

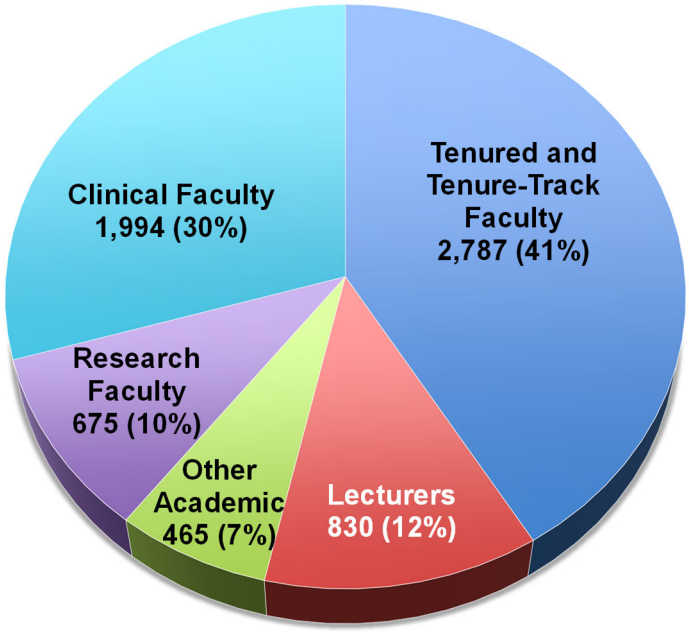
Charts in Chapter 6

More than half of the academic workforce (tenured/tenure-track faculty and lecturers) is involved in instruction, whether measured by headcount or full-time equivalents.

6.1.1 Academic Workforce, Headcount by Job Family, Fall 2022.



6.1.2 Academic Workforce, Full-Time Equivalents by Job Family, Fall 2022.



SOURCE: U-M Human Resources Data

The total academic workforce is 7,954 by headcount and 6,752 by full-time equivalents (FTEs), based on data collected on November 1 each year.

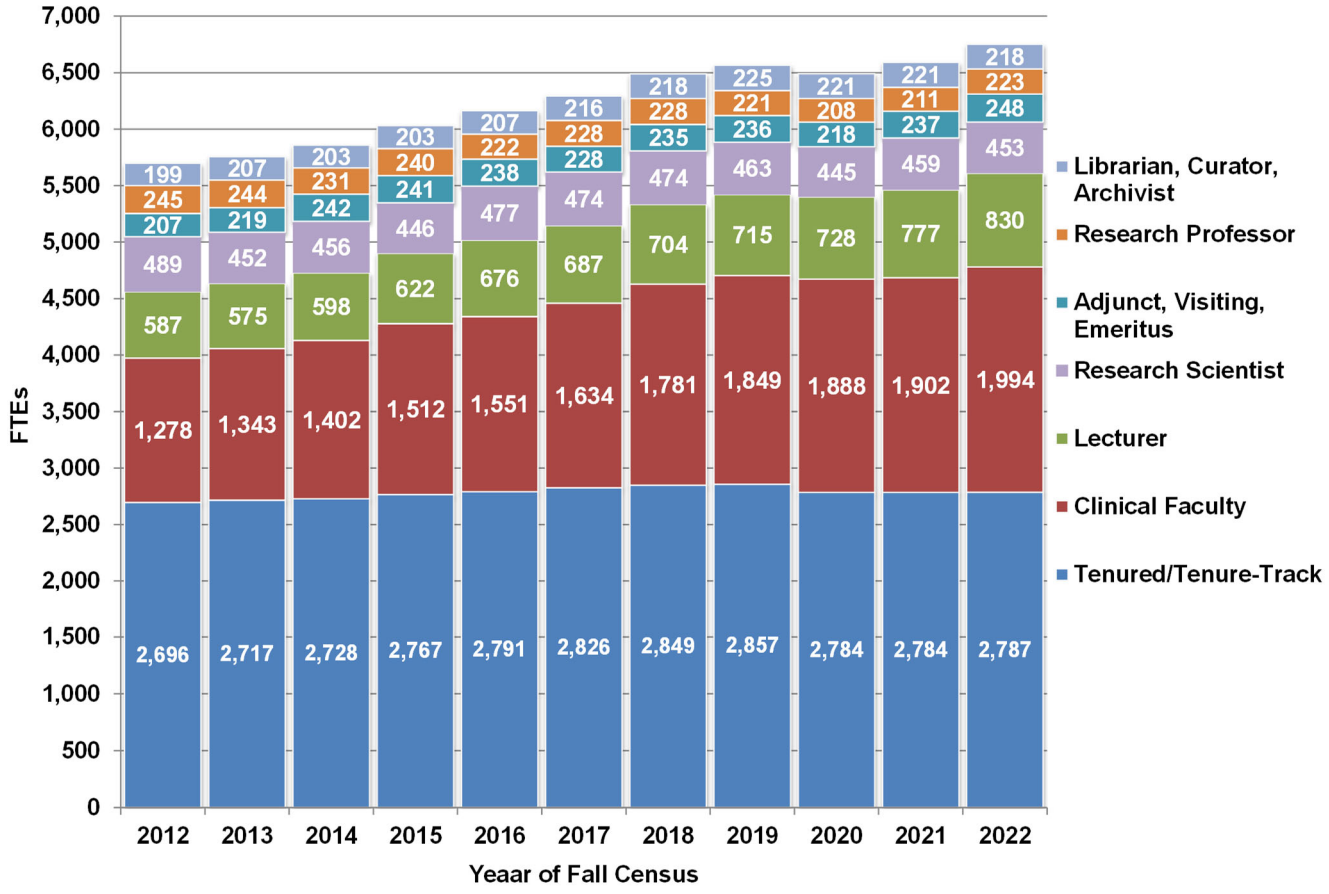
Tenured and tenure-track faculty members and lecturers manage most instructional activities. Clinical faculty members also play a role in instruction. Research faculty include individuals involved in research, mentoring of graduate students and research fellows.

"Other Academic" includes not-on-tenure-track faculty, librarians, curators, and archivists, supplemental instructional faculty (adjunct/visiting), supplemental research faculty (adjunct/visiting), and emeritus faculty.

Graduate students with supplemental appointments (GSI/GSRE/GSSA) who engage in instruction or research are not included in the above charts.

Tenured/tenure-track faculty numbers have grown by 91 FTE between 2012 and 2022, and the FTE of clinical faculty has increased by 716 over the same period.

6.1.3 Academic Workforce by Full-Time Equivalents, Fall 2012-Fall 2022.

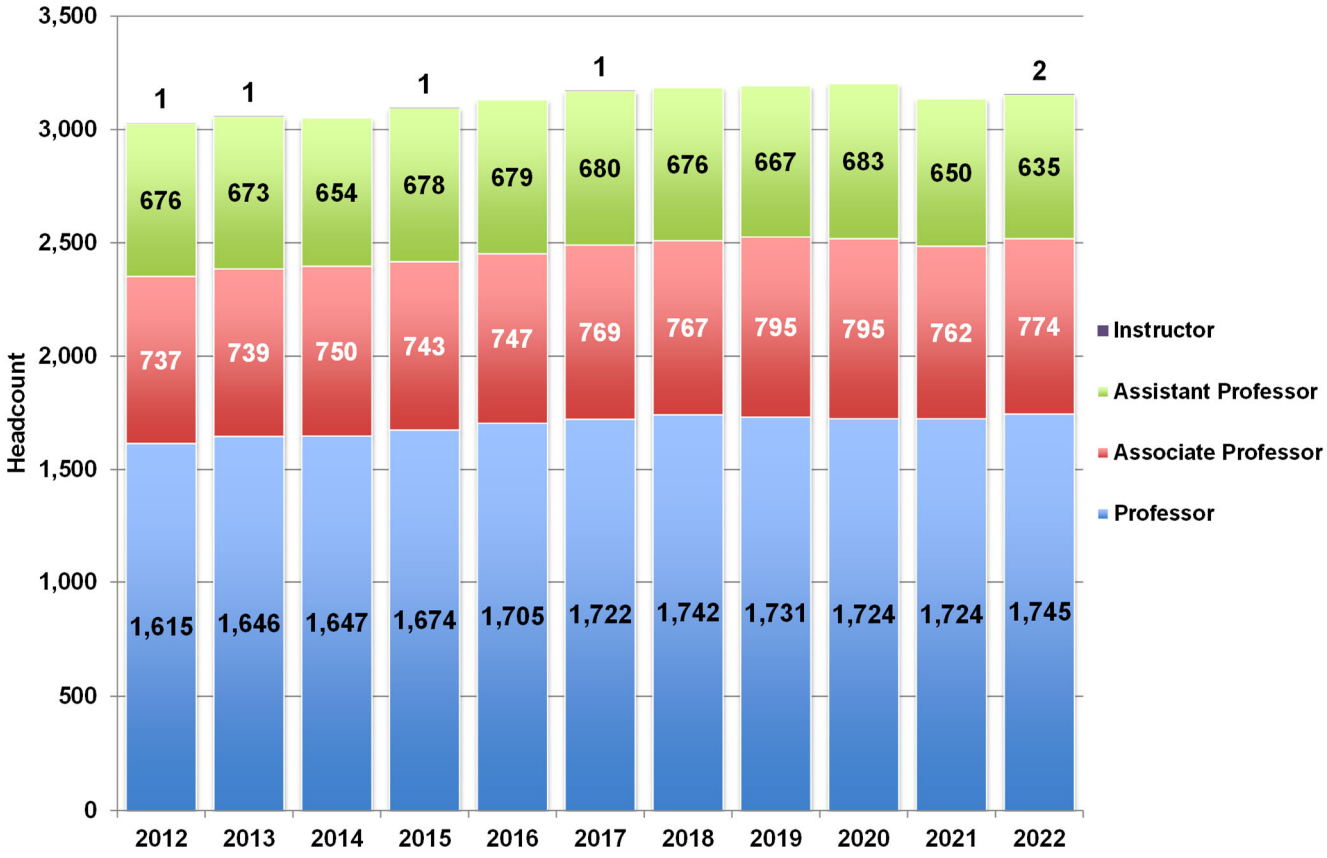


SOURCE: U-M Human Resources Data

The academic group growing most rapidly is clinical faculty. The bulk of this group is comprised of faculty-physicians who teach and provide clinical care throughout the U-M Health System. Counts are recorded as of November 1 of each year.

The total tenured and tenure-track faculty headcount has increased from 3,029 in Fall 2012 to 3,156 in Fall 2022, an increase of 127.

6.2.1 Tenured/Tenure-Track Faculty, Headcount by Title, Fall 2012-Fall 2022.

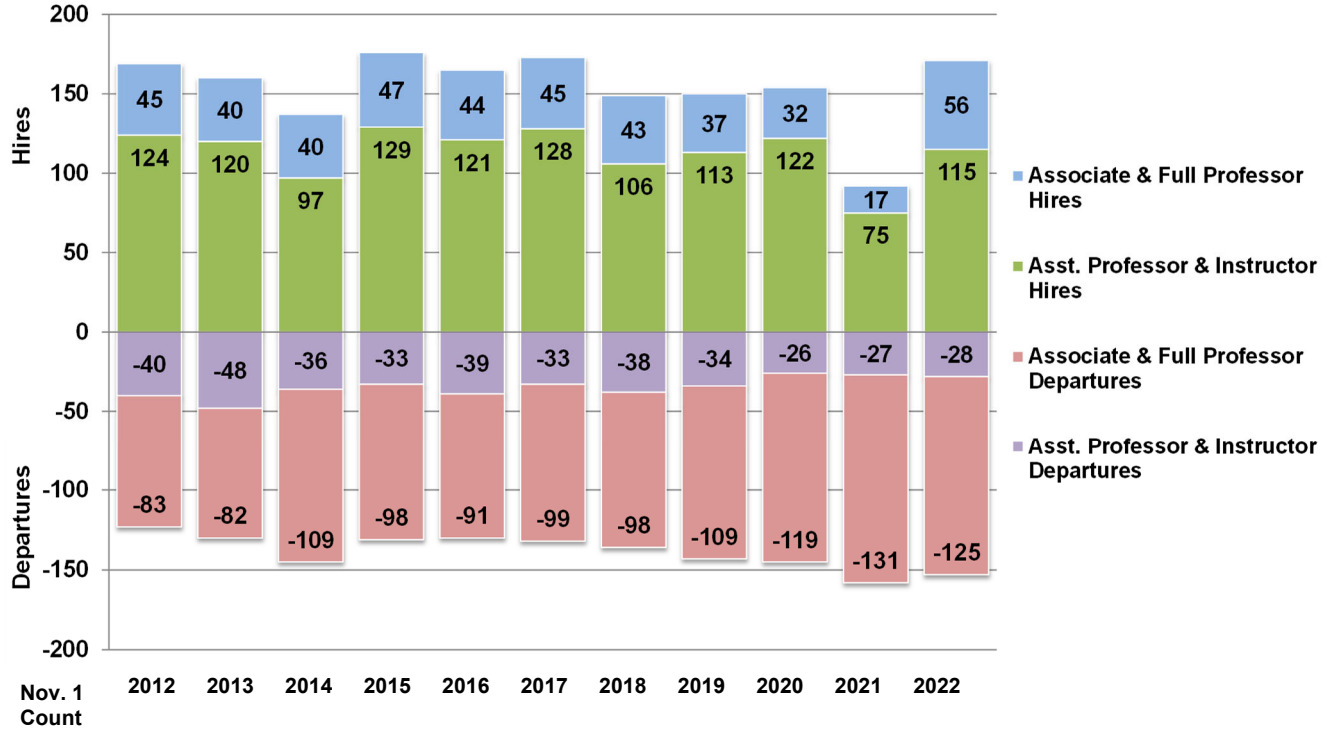


SOURCE: U-M Human Resources Data

Growing the faculty ranks has been a priority over the last decade in efforts to support emerging research opportunities, enhance the student learning experience and increase the proportion of small classes offered.

Tenured and tenure-track faculty have shown a year-to-year net increase in eight of the last ten years.

6.2.2 New Hires and Departures of Tenured/Tenure-Track Faculty; Annual Net Change and Cumulative Change, Fall 2012-Fall 2022.



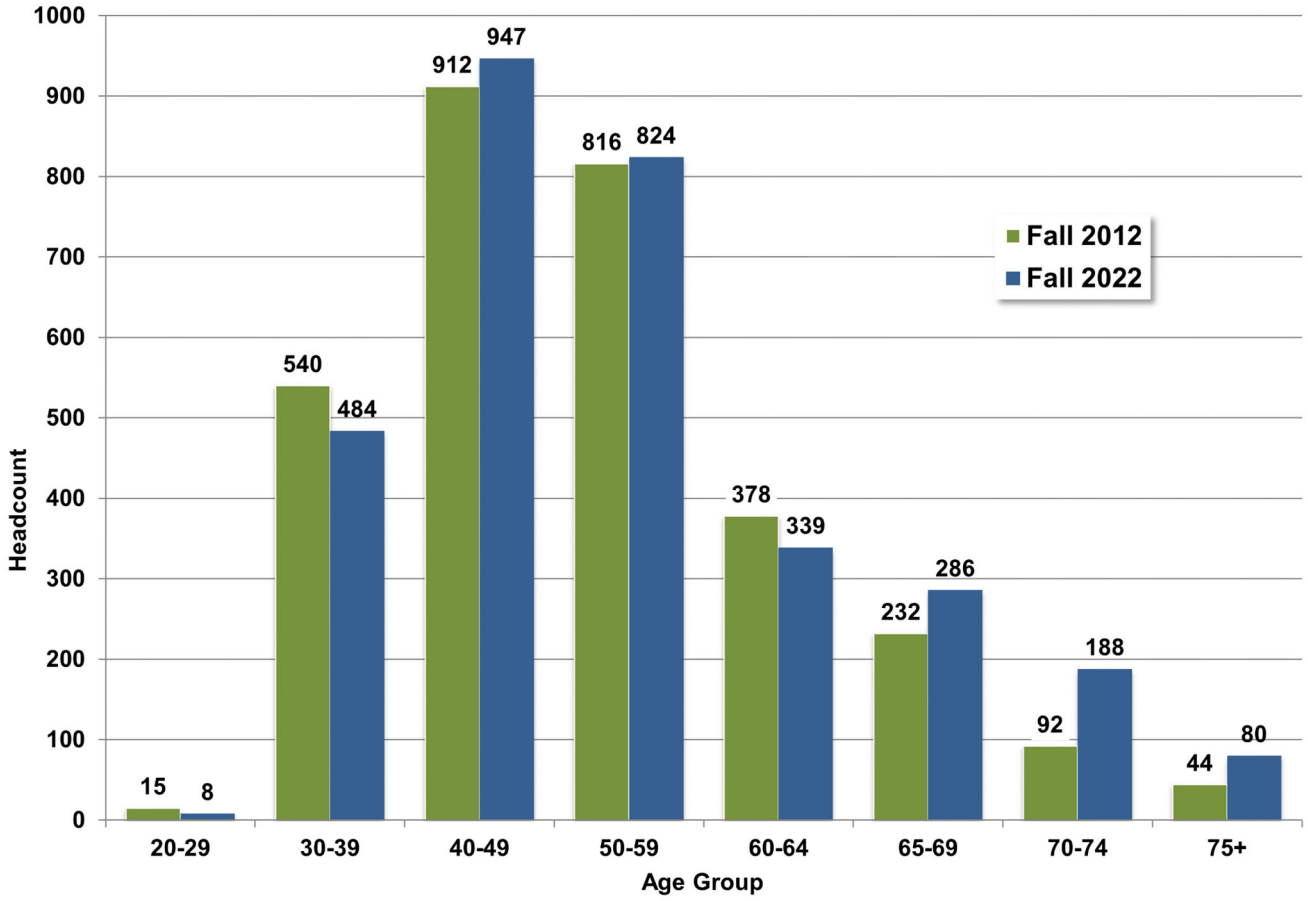
Nov. 1 Count	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Net Change from Previous Year		30	-8	45	35	41	13	7	9	-66	18

SOURCE: U-M Human Resources Data

The hiring and departure decisions reported above occurred during the academic year leading up to November 1 of the year on the chart. Departures include faculty members who retire, move into non-tenure-track assignments, or who leave the University for other positions.

In 2012, 25 percent of faculty members were age 60 and older; today the comparable fraction is 28 percent.

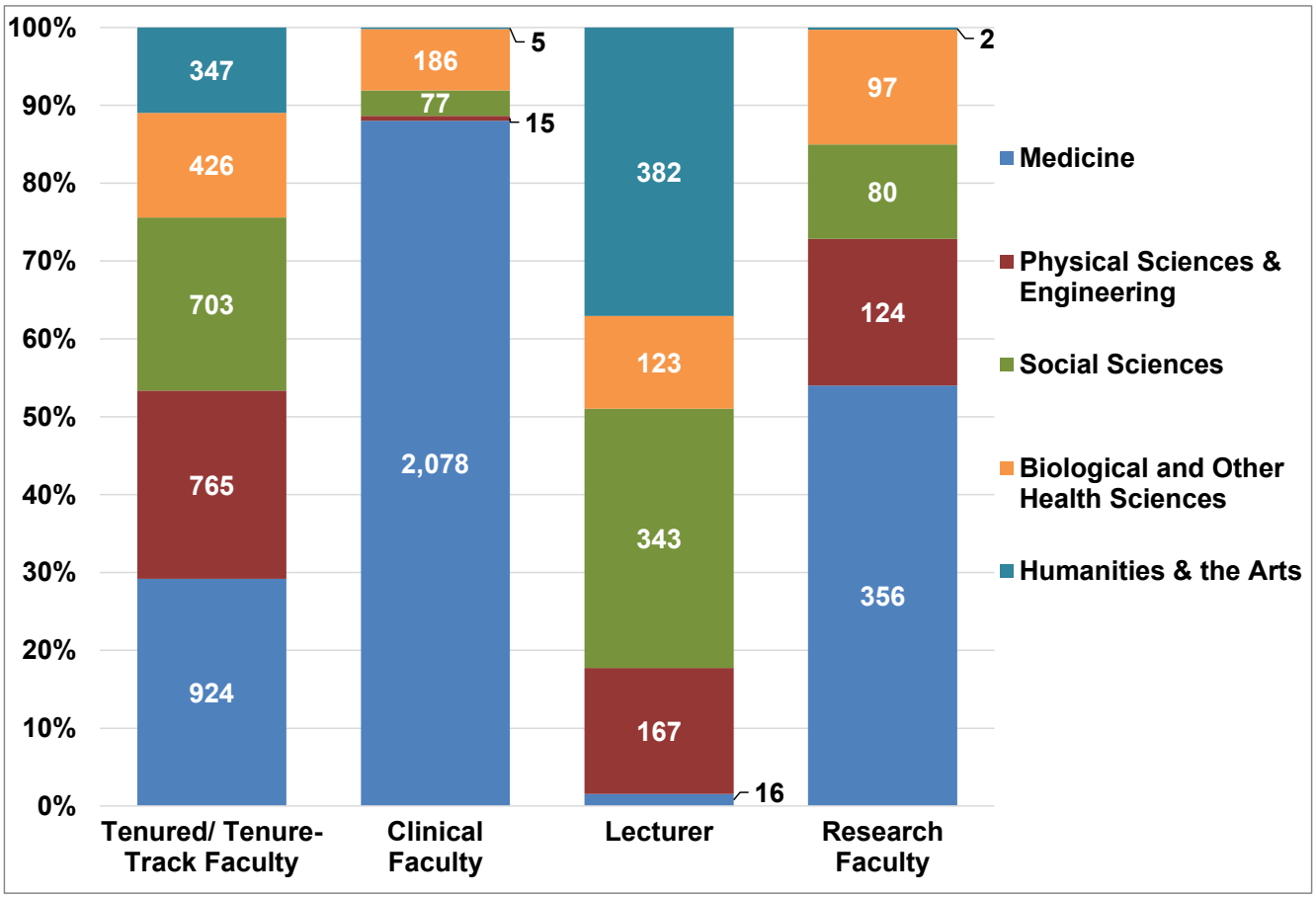
6.2.3 Age Distribution of Tenured/Tenure-Track Faculty, Fall 2012 and Fall 2022.



SOURCE: U-M Human Resources Data

The fields of study represented within each faculty category varies widely.

6.3.1 Faculty Distribution by Discipline Groups[1], Fall 2022.



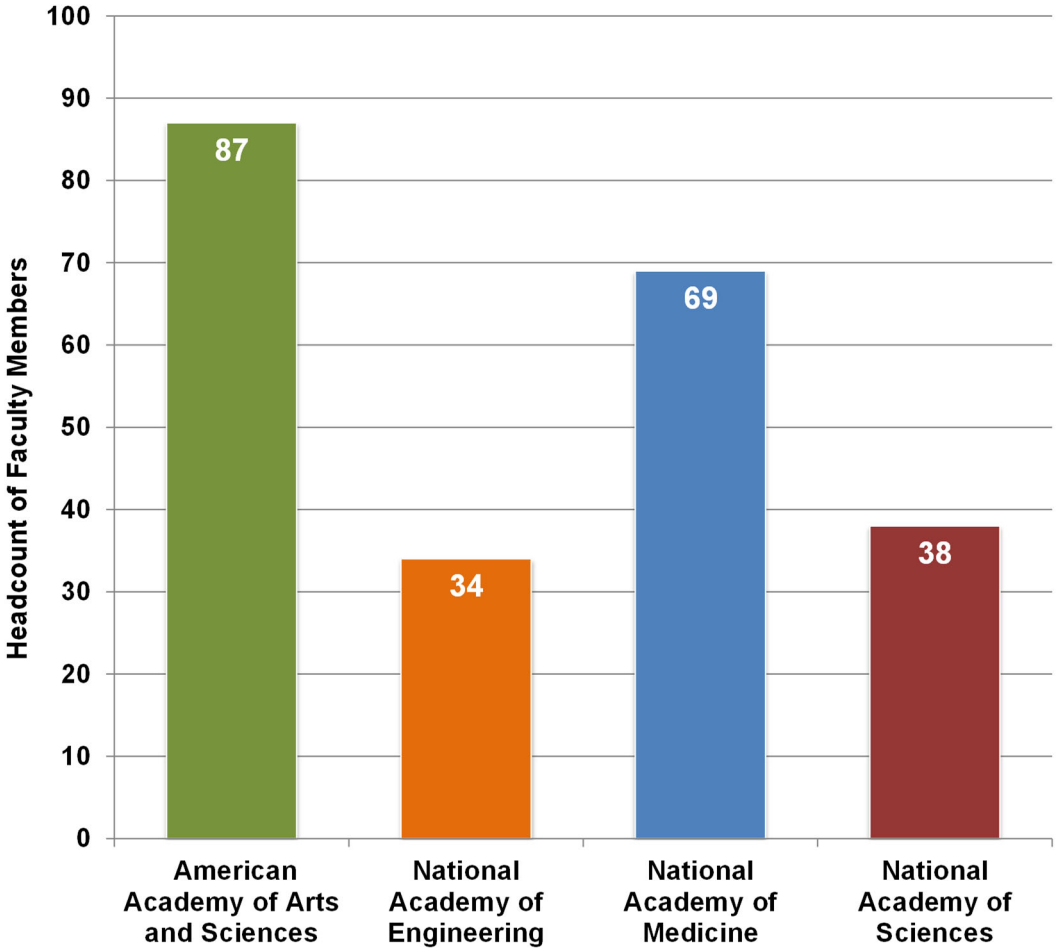
SOURCE: U-M Human Resources Data

In addition, 312 members of these faculty groups are not easily placed in a single discipline and do not appear in this chart.

[1] A list of disciplines assigned to each group is found in Appendix C.

185 U-M faculty members have been elected to one or more of the National Academies. Twelve members of the U-M faculty were elected to an academy during 2022.

6.3.2 Count of current U-M Faculty Members Elected to a National Academy as of January 2023.



Sources: National Academies of Sciences, National Academy of Engineering, National Academy of Medicine[2], American Academy of Arts and Sciences

Membership in a National Academy is one of the highest honors bestowed upon scientists, engineers, and scholars in recognition of their distinguished and continuing achievements in original scholarship and research.

Through the Academies, U-M faculty members serve as a source for independent, unbiased expertise on challenging issues facing the nation and the world. Their advice and insights help shape policies, inform public opinion, and advance the pursuit of science, engineering, and medicine.

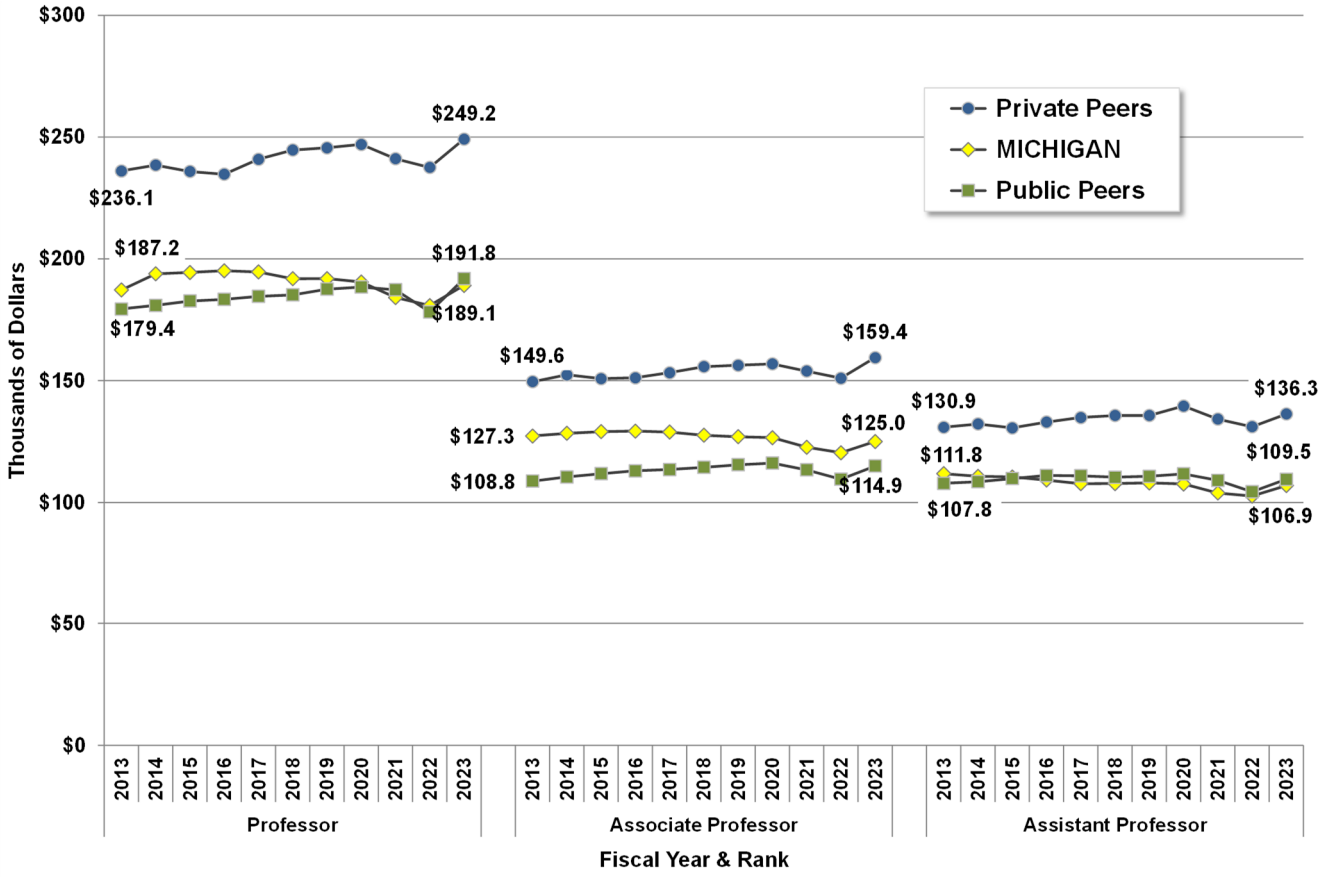
Election to these prestigious societies is through nomination and selection by existing members in recognition of extraordinary achievements and commitment to service.

Note: because some faculty members have been elected to more than one academy, the total count of U-M faculty who are academy members will be smaller than the sum of members by academy.

[2] In 2015, the Institute of Medicine was renamed the National Academy of Medicine.

The average salaries of faculty members[3] at U-M and its peers increased this year after two years of decline, when adjusted for inflation. U-M faculty members remain competitive with their public university peers, and lag their private university peers.

6.4 Average Faculty Salaries by Rank for U-M[3] and Peer Groups[4], Adjusted for Inflation[5], FY2013-FY2023.



SOURCE: American Association of University Professors

The current average annual salary of full professors at the University of Michigan is $60,100 *less* than the average of full professors at private peer institutions, and $2,700 *less* than the average of full professors at public peers. U-M associate professors currently earn $34,400 *less* than their private university counterparts and $10,100 more than associate professors at public peers. Assistant professors at the U-M currently earn $29,400 below those at private peer universities and $2,600 *less* than at public peers. All comparisons exclude medical school faculty.

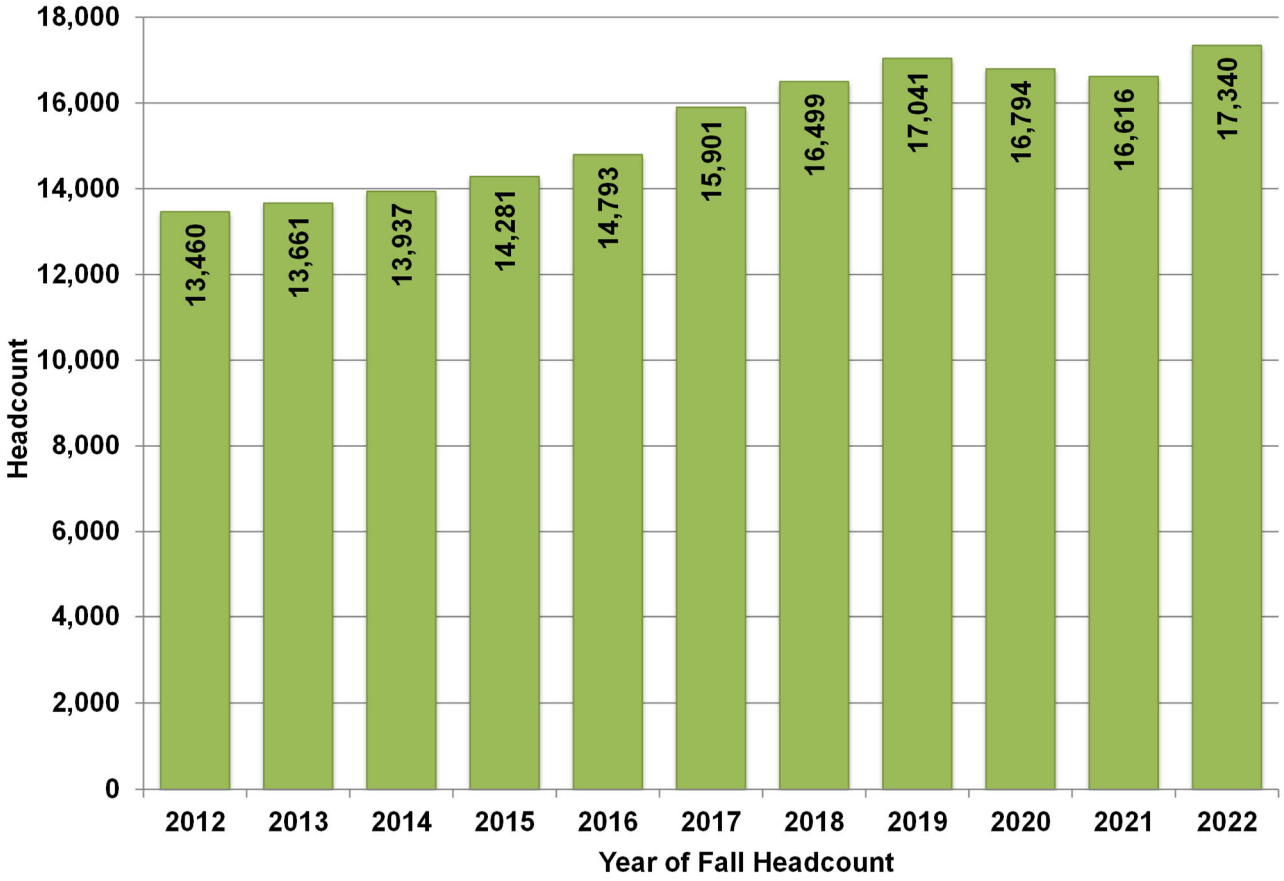
[3] Salaries of medical school faculty are excluded from these data.

[4] A list of the "official" peers used for comparison on this page is found in Appendix A.

[5] Based on FY2022 U.S. Employer Cost Index as of November 2021, estimated by the U-M Research Seminar on Quantitative Economics.

The total Ann Arbor campus staff[6] has increased at an average annual rate of 2.6% since 2012.

6.5.1 Headcount of Regular Staff, Fall 2012- Fall 2022.



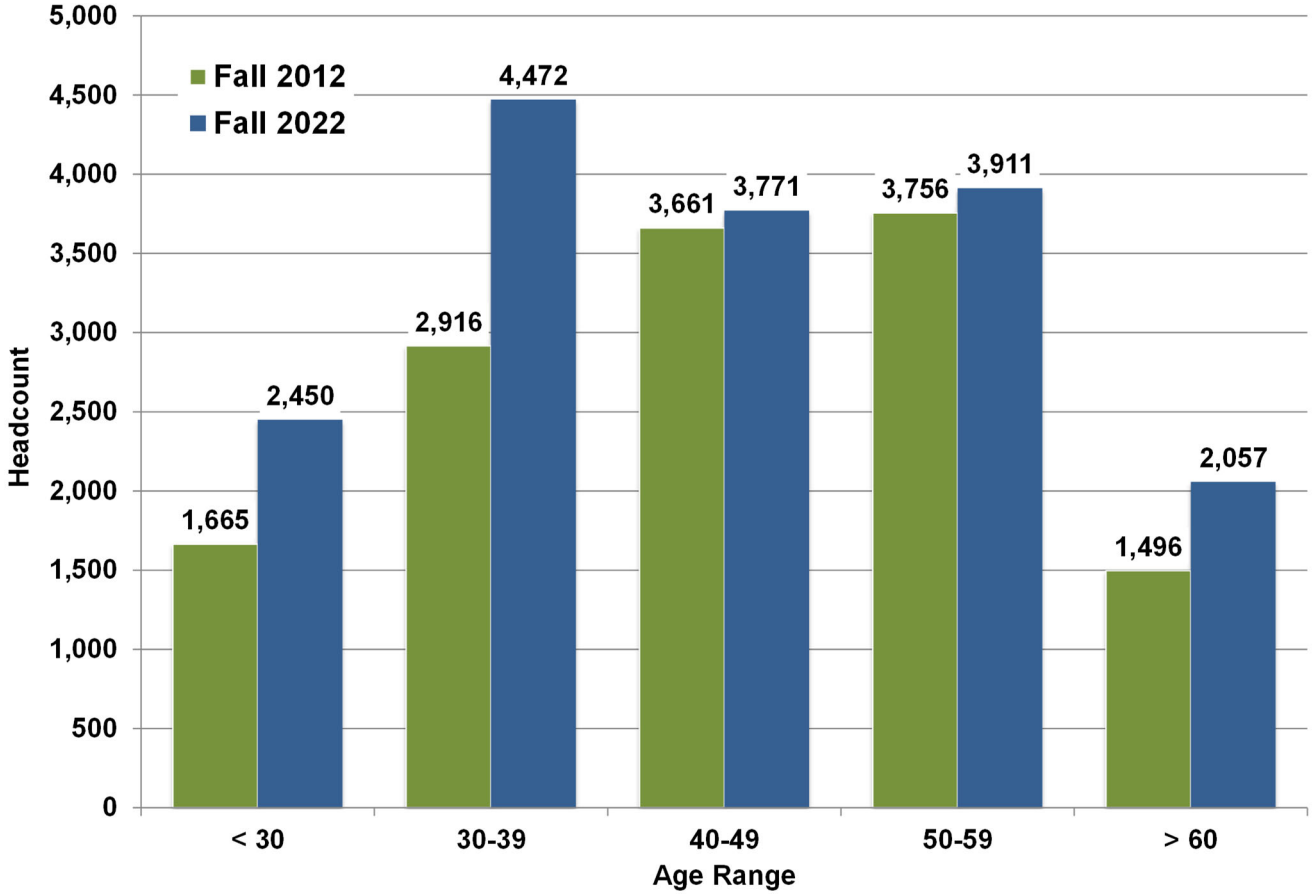
SOURCE: U-M Human Resources Data

Headcount for each fiscal year is based on appointment data as of November 1. "Regular Staff" primarily hold full-time appointments, but this headcount also includes individuals with part-time positions. Regular staff excludes those with appointments in the supplemental staff categories, as well as graduate student instructors, graduate student research assistants, graduate staff assistants, research fellows, and non-faculty staff from U-M Health System.

[6] Staff counts exclude individuals whose primary appointment is in a faculty position.

In 2012, 11 percent of the Ann Arbor campus non-Health System regular staff[8] was older than age 60. Today, that group represents 12 percent of the staff population.

6.5.2 Age Distribution of Staff, Fall 2012 and Fall 2022.



SOURCE: U-M Human Resources Data

[8] The regular staff category excludes individuals whose primary appointment is in a faculty position, or in a temporary staff position.

Chapter 7 Diversity

Goals

The University of Michigan is a firm proponent of the educational value provided by a diverse and inclusive campus community. Although the U.S. Supreme Court rulings on the affirmative action lawsuits in 2003[1] and 2023[2], and the approval of Proposal 2 in 2006 by State of Michigan voters limits the University's actions to promote diversity on campus, the U-M remains committed to fostering racial, ethnic, gender and socio-economic diversity at the institution by all possible legal means.

Overview

Most charts in this chapter show the changing demographic composition of the campus community over time. These charts offer a summary overview of each of our campus constituencies along several measures of diversity.

Starting in 2010, the federal requirements for reporting student race/ethnicity changed to provide a more complete profile of the higher education community. Universities are now required to ask whether non-Hispanic/non-Latino individuals have two or more race/ethnic affiliations. The U-M also collects data to further classify students who select two or more races. If at least one race selected is an under-represented minority (URM), the student is indicated as "Two or More URM." Otherwise, multi-race individuals are categorized as "Two or More Non-URM."

The University regularly administers a survey of undergraduate students known as UMAY (University of Michigan Asks You). One question asks students to report their "sense of belonging" on the Ann Arbor campus. Data from this question for past surveys are summarized in this chapter.

For more information

Diversity, Equity & Inclusion (DEI) (diversity.umich.edu)

Office of Budget and Planning - Diversity (obp.umich.edu/campus-statistics/diversity/)

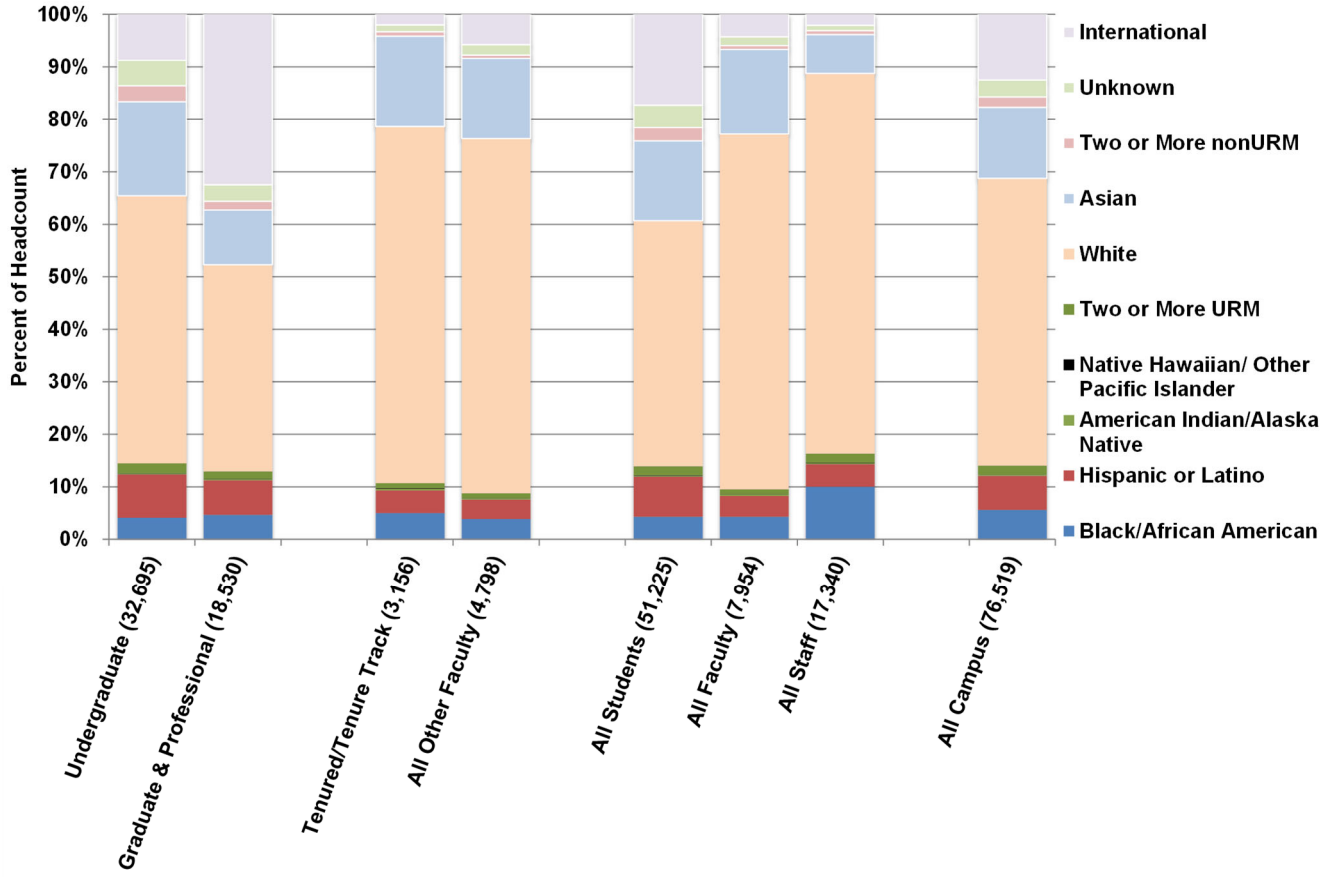
Charts in Chapter 7

[1] "U.S. Supreme Court rules on University of Michigan cases," Michigan News, Office of the Vice President for Communications June 23, 2003. (news.umich.edu/us-supreme-court-rules-on-university-of-michigan-cases/l)

[2] University Statement on Affirmative Action by Santa J. Ono, President, and Laurie K. McCauley, Provost and Executive Vice President for Academic Affairs, June 29, 2023. (publicaffairs.vpcomm.umich.edu/key-issues/affirmative-action/)

The race and ethnicity compostion of the Ann Arbor campus varies greatly when comparing the student, faculty and staff groups. Underpresented minority groups are displayed in the bottom five, dark-colored column slices.

7.1.1 Race and Ethnicity Distribution of the Ann Arbor Campus Community[3], Fall 2022.



SOURCE: U-M Student Data Sets; U-M Human Resources Data Sets (excludes U-M Health System)

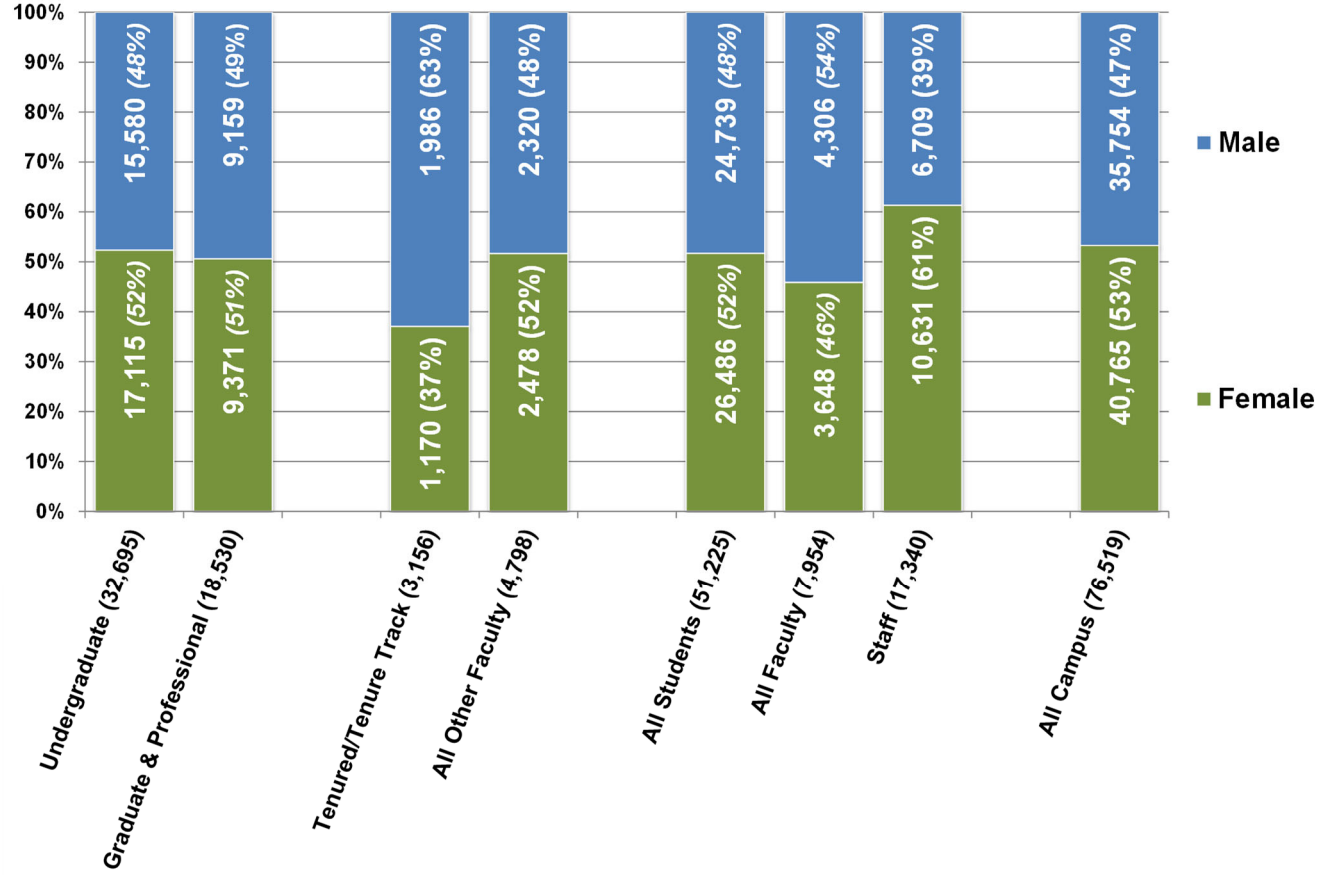
Headcounts for each campus population are included with the population label along the bottom axis. The breakdown by race/ethnic group is shown by population group in the stacked columns.

"All Other Faculty" includes clinical and research faculty, lecturers, librarian/archivist/curator positions, supplemental faculty, not on track faculty, and emeritus faculty.

[3] Counts exclude Michigan Medicine not employed by an Ann Arbor campus academic unit.

The student body is 52 percent female, the faculty is 46 percent female, and the staff is 61 percent female.

7.1.2 Sex Distribution of the Ann Arbor Campus Community[4], Fall 2022.



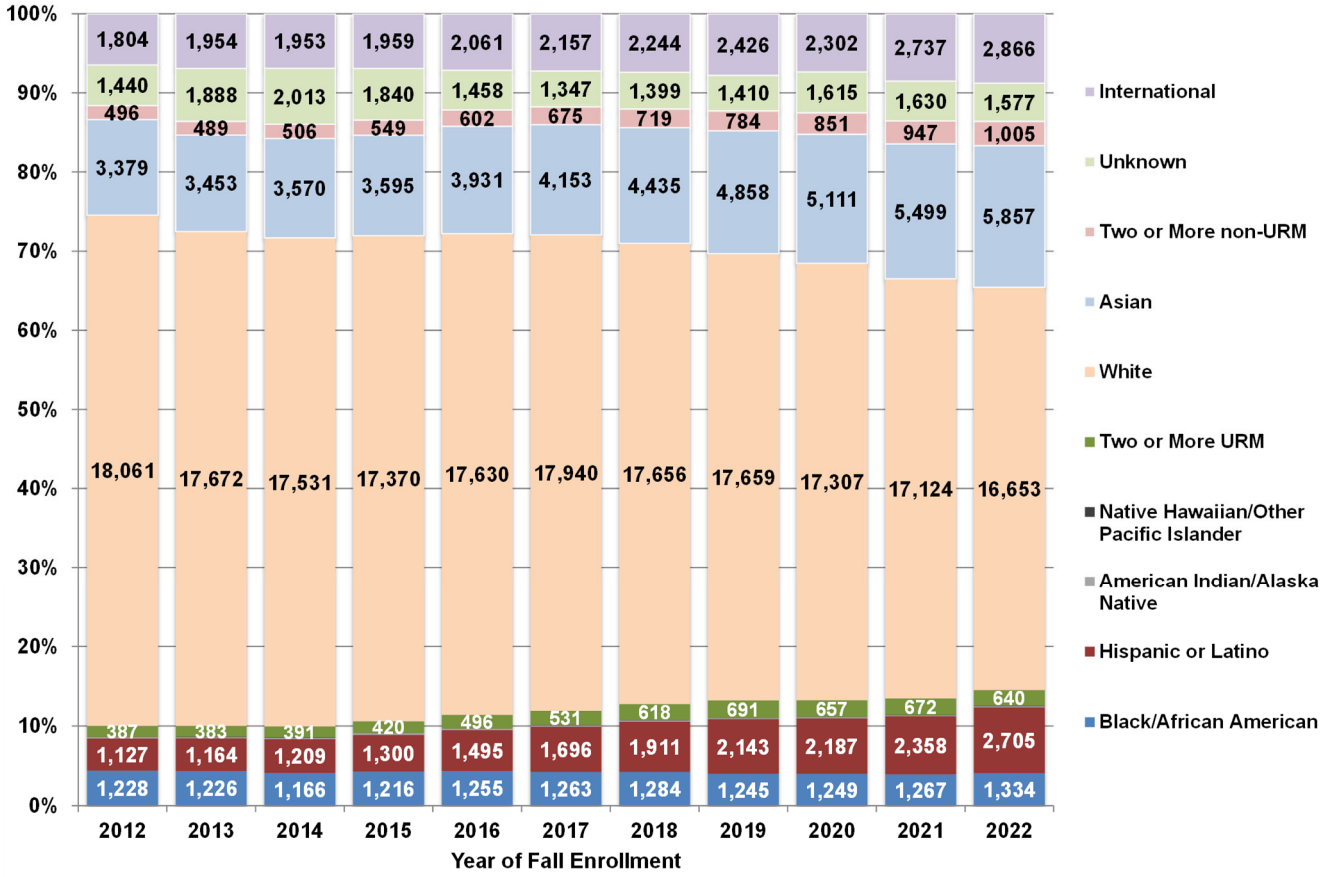
SOURCE: U-M Student Data Sets; U-M Human Resources Data Sets (excludes U-M Health System)

The headcount numbers followed by percentages in parentheses in each column show the breakdown by sex and community populations. “All Other Faculty” includes clinical and research faculty, lecturers, librarian/archivist/ curator positions, supplemental faculty, not on track faculty, and emeritus faculty.

[4] Counts exclude Michigan Medicine not employed by an Ann Arbor campus academic unit.

Total undergraduate enrollment has increased 17 percent since 2012. The composition of the race/ethnicity profile of undergraduate students has shifted to include more minority representation (bottom five, dark-colored column slices).

7.2.1 Race and Ethnicity Distribution of Undergraduate Students, Fall 2012-2022.



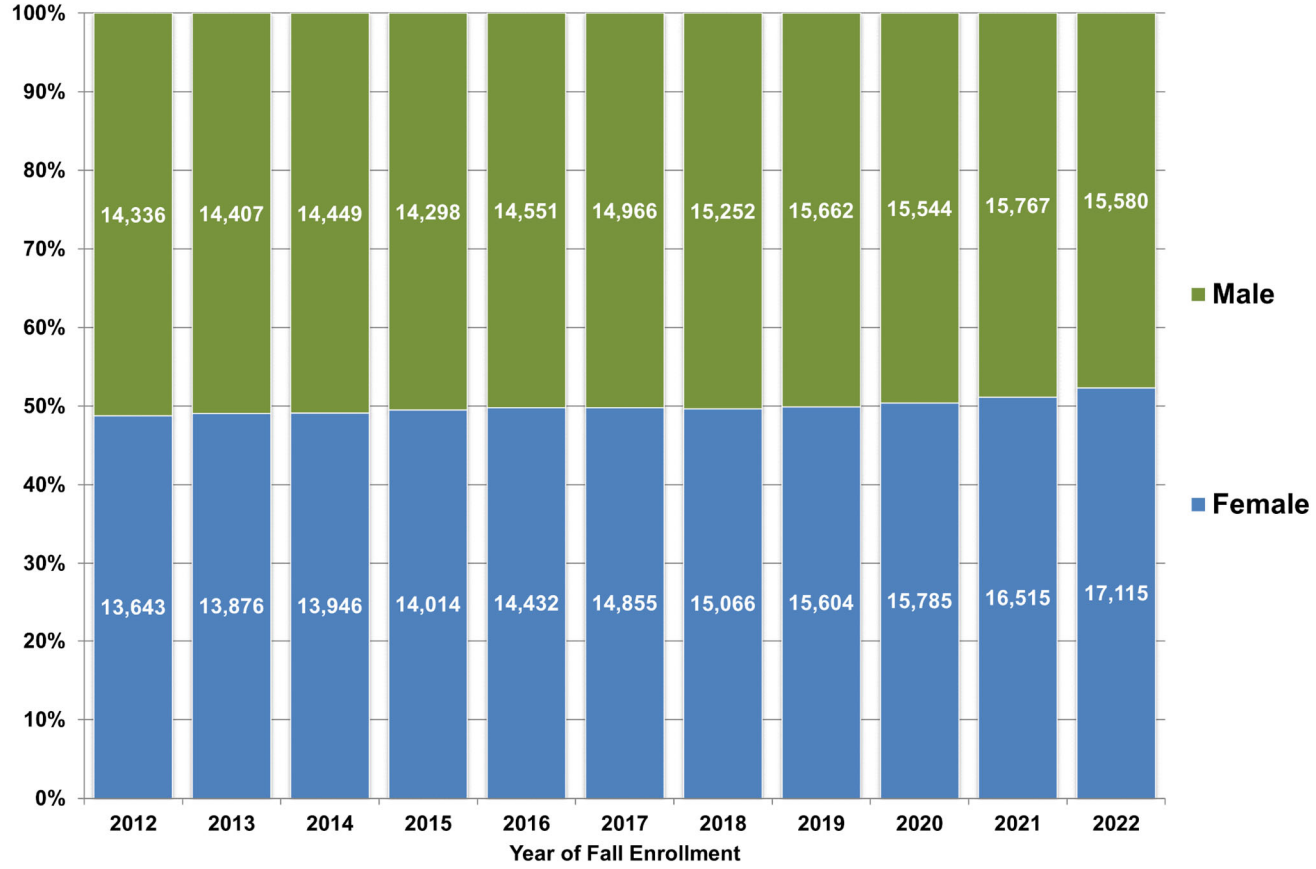
SOURCE: U-M Student Data Sets

Data for students who identify as Native Hawaiian or Other Pacific Islander, Two or More Under-Represented Minority (URM), or Two or More non-URM are only available for 2010 and later, following a change in federal requirements for collecting race and ethnicity data from students.

"Two or More URM" represents non-Hispanic/non-Latino students who identified two or more ethnicities and at least one of the ethnicities included Black or African American, Native Hawaiian or Other Pacific Islander, or American Indian or Alaska Native.

There is little change in the breakdown by sex of undergraduate students during the last decade, although in Fall 2022 the split has shifted slightly from 50-50 to 52-48 female to male students.

7.2.2 Sex Distribution of Undergraduate Students, Fall 2012-2022.



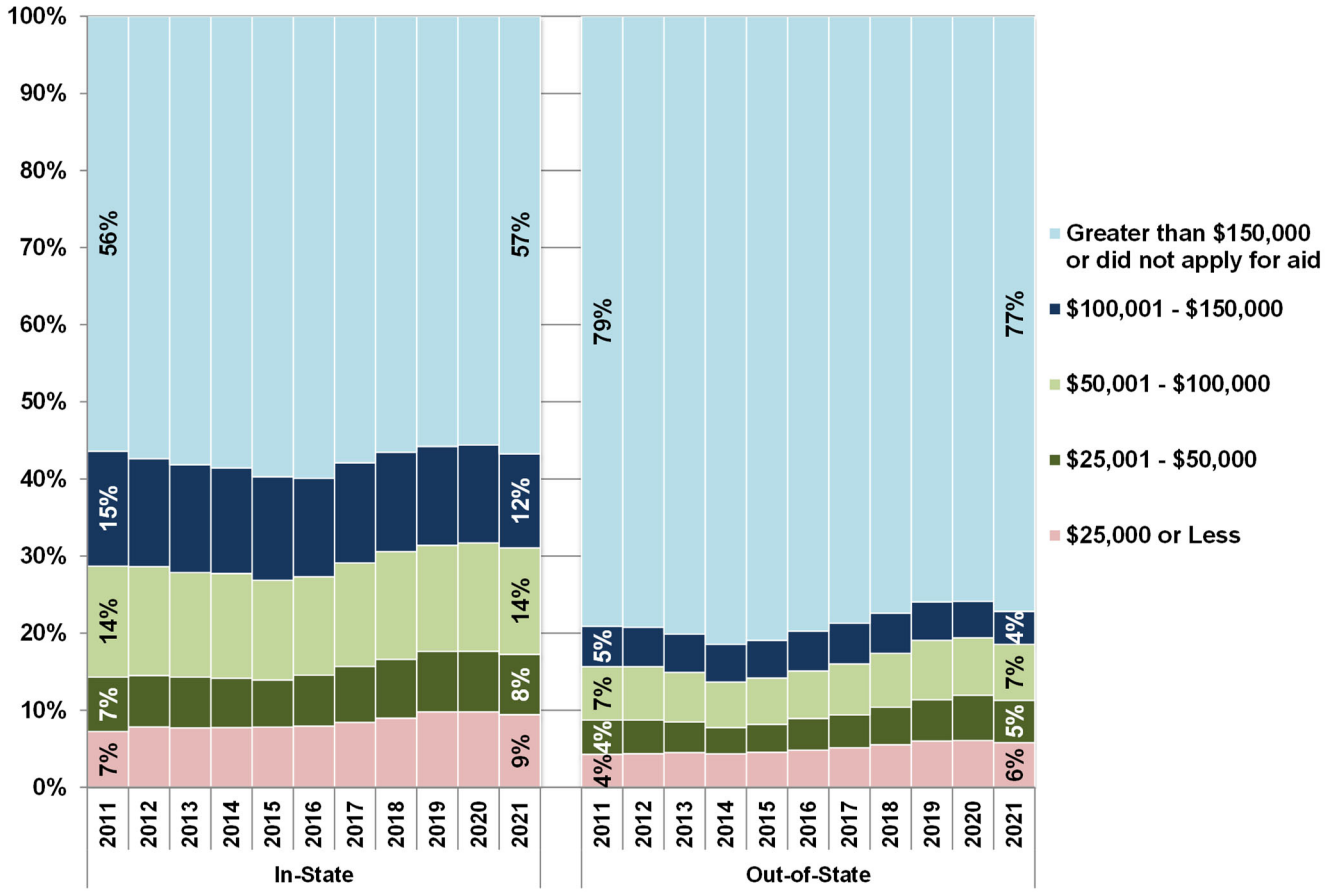
SOURCE: U-M Student Data Sets

During the last decade, the proportion of female undergraduates was highest in Fall 2022 at 52.35% and highest for males in Fall 2012 at 51.24%. Nationally, the gender split for undergraduate students at 4-year, degree-granting colleges and universities is about 55 percent female and 44 percent male.[5]

[5] Based on count of fall 2017 undergraduate enrollment at U.S. 4-year institutions, National Center for Education Statistics.

The fraction of U-M in-state undergraduates from low-income families is increasing compared to 10 years ago.

7.3 U-M Undergraduates by Inflation-adjusted[6] Family Income and In-State/Out-of-State Status, Fall 2011-2021.



SOURCE: U.S. Department of Education

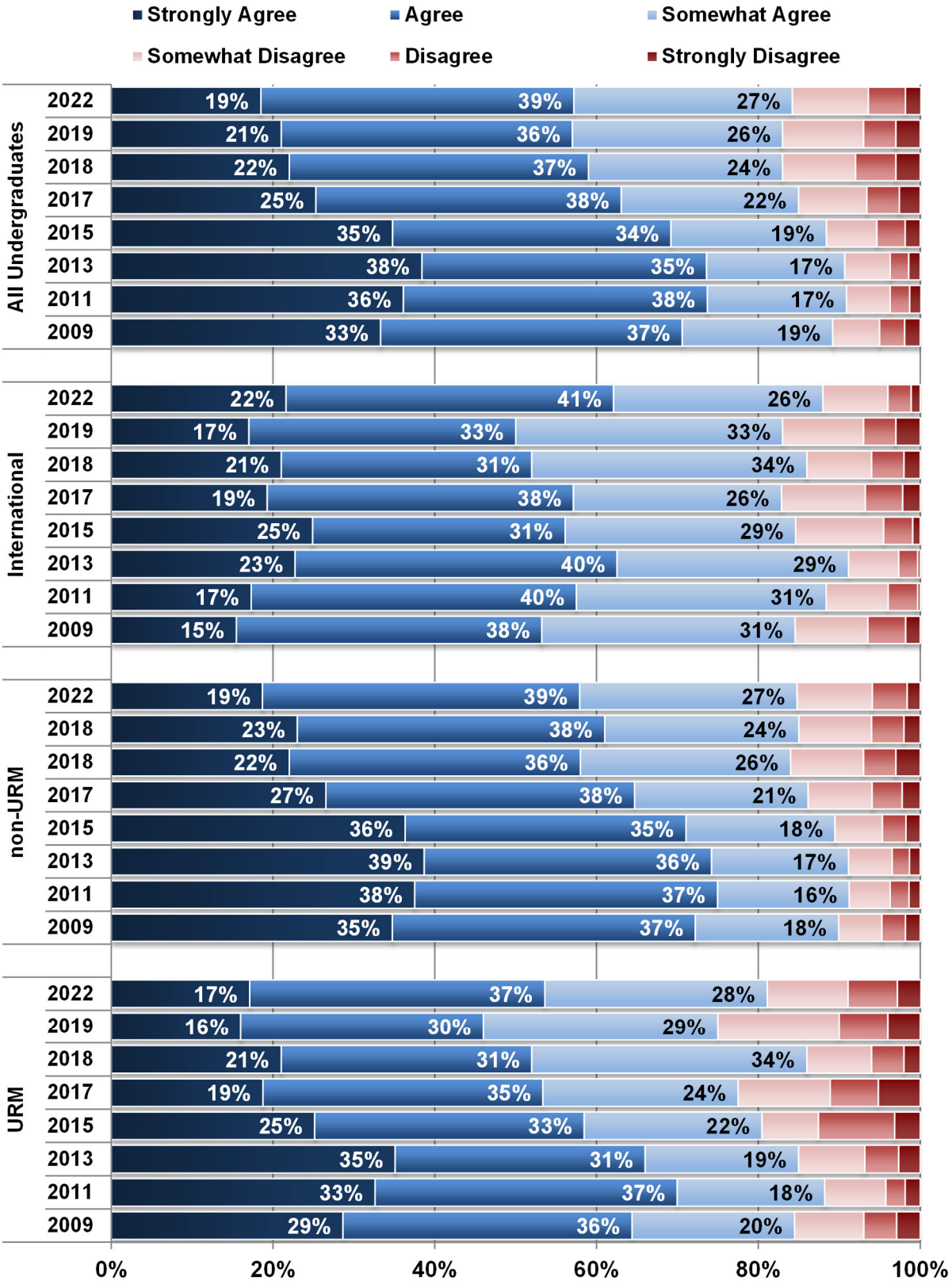
For many years, the U-M has provided financial aid packages that meet the full cost of attendance for admitted in-state students with demonstrated need. In 2017 the University enhanced this commitment with the Go Blue Guarantee, a pledge to provide the full cost of tuition to all admitted, in-state students whose family income is less than $65,000 and family assets are less than $50,000. Starting with Fall 2023, qualifying family income is $75,000 with assets below $75,000.

Family income is based on data reported on the Free Application for Federal Student Aid (FAFSA), the online form that college students must complete to be considered for financial aid.

[6] Based on Employment Cost Index (ECI) for fiscal year 2020-21.

A majority of undergraduate students, and the subgroups shown here, who responded to the 2022 UMAY survey said they felt a sense of belonging on the U-M campus.

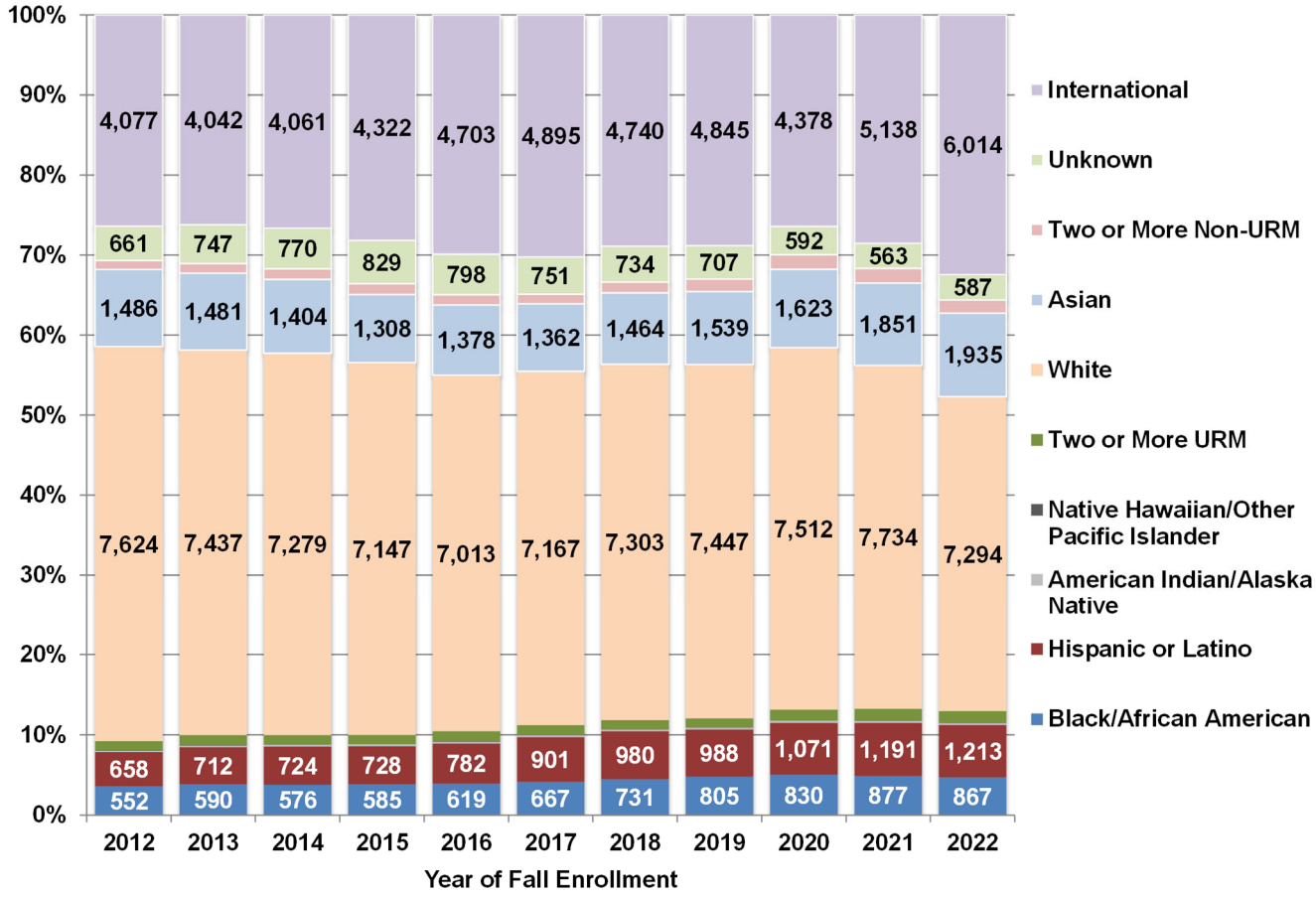
7.4 Undergraduate Student Responses to "I feel that I belong at this campus," 2009-2022.



SOURCE: U-M Asks You (UMAY) undergraduate survey

One-third of current graduate and professional students[7] are international. Underrepresented minority students in this population (bottom five, dark-colored column slices)have increased during the last decade.

7.5.1 Race and Ethnicity Distribution of All Graduate and Professional Students[7], Fall 2012-2022.



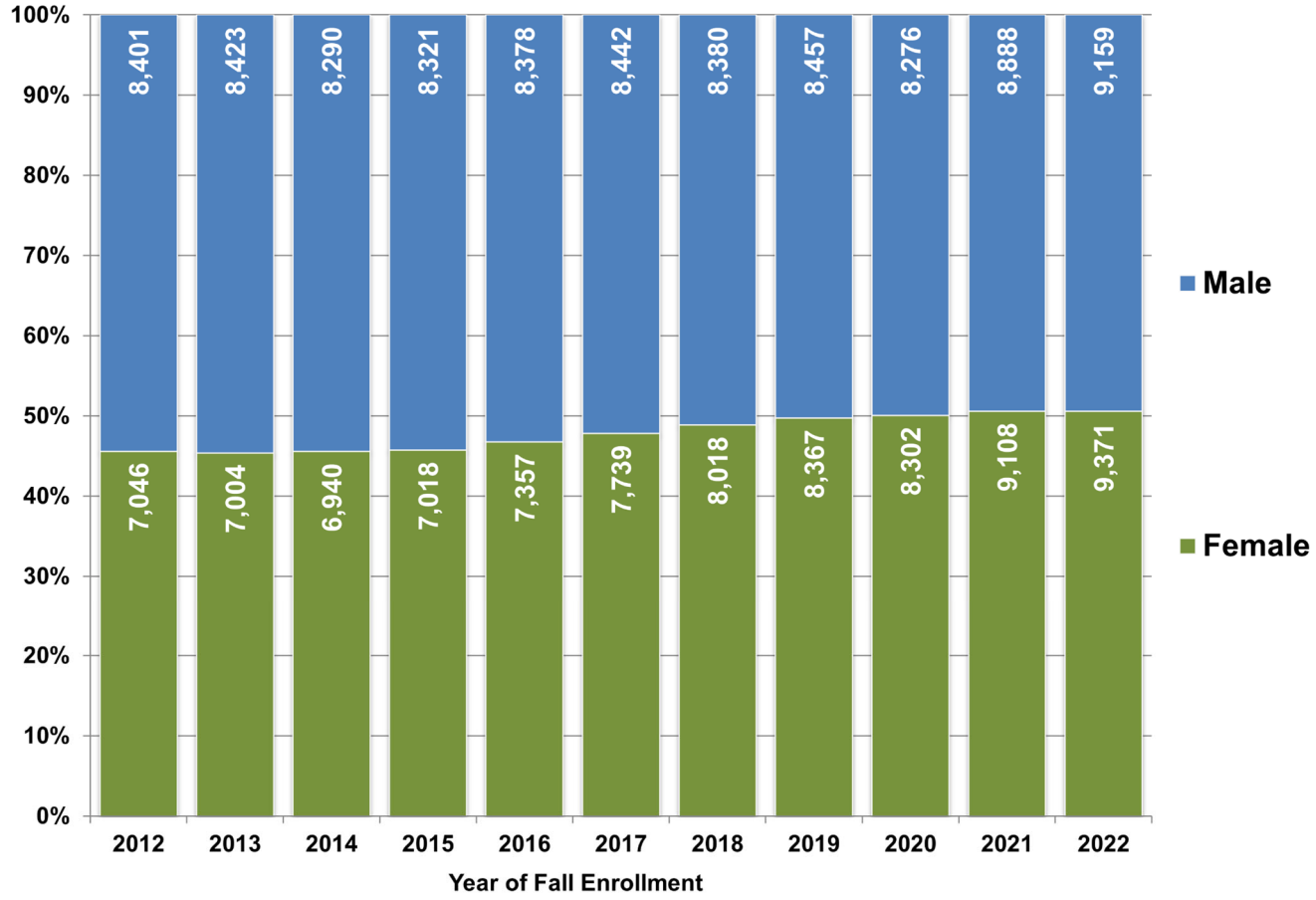
SOURCE: U-M Student Data Sets.

URM in the legend stands for "under-represented minority." "Two or More URM" represents non-Hispanic/non-Latino students who identified two or more ethnicities and at least one of the ethnicities included Black or African American, Native Hawaiian or Other Pacific Islander, or American Indian or Alaska Native.

[7] A list of U-M graduate and professional degree programs is published in Appendix C.

Females have averaged about 48 percent of the combined graduate and professional student population for the last decade, although the percentage has risen from 45.6 percent in 2012 to 50.6 percent in 2022.

7.5.2 Sex Distribution of ALL Graduate and Professional Students[8], Fall 2012-2022.

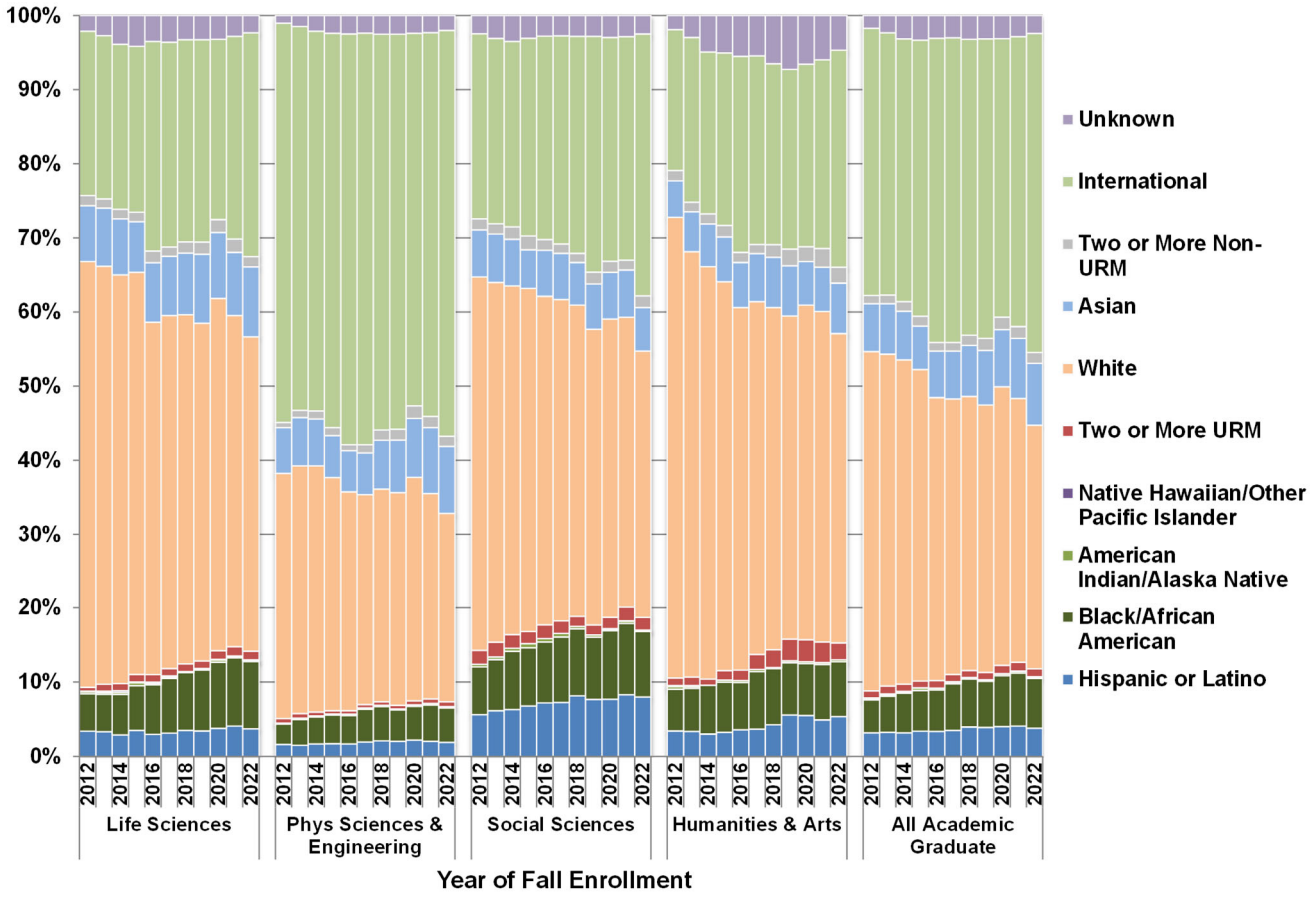


SOURCE: U-M Student Data Sets

[8] A list of U-M professional degree programs is published in Appendix C.

The subset of graduate students pursuing academic Master's and Ph.D. degrees who self-identify as an under-represented minority (bottom five, dark-colored column slices) has increased over the last decade.

7.5.3 Race and Ethnicity Distribution of Graduate Academic Students by Broad Discipline[9], Fall 2012-2022.



SOURCE: U-M Student Data Sets.

At the University of Michigan, graduate academic students are defined as those who are enrolled in graduate programs administered by the Horace H. Rackham School of Graduate Studies.

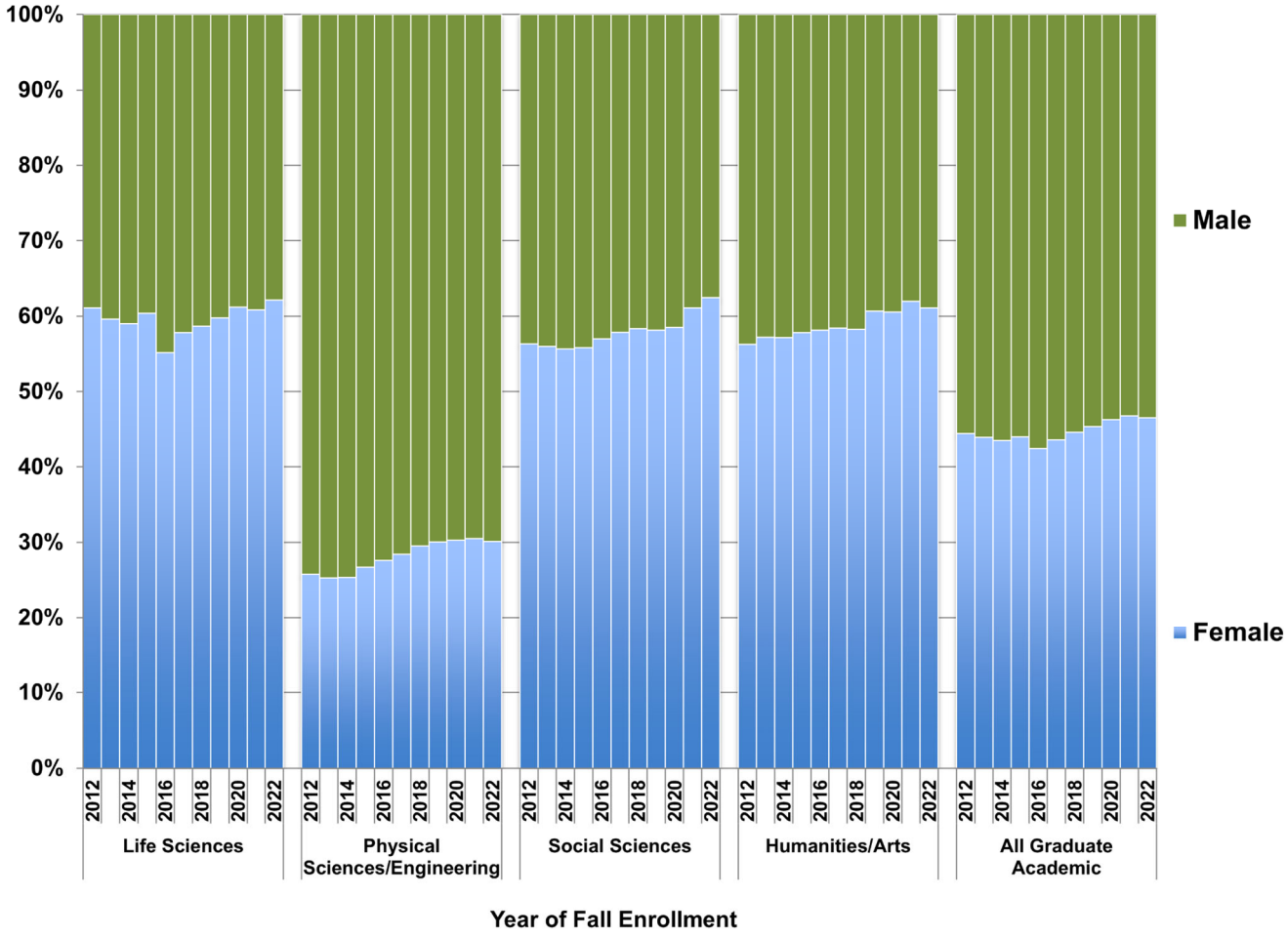
Data for students who identify as Native Hawaiian or Other Pacific Islander, Two or More Under-Represented Minority (URM), or Two or More non-URM are only available for 2010 and later, following a change in federal requirements for collecting race and ethnicity data from students.

URM in the legend stands for "under-represented minority." "Two or More URM" represents non-Hispanic/non-Latino students who identified two or more ethnicities and at least one of the ethnicities included Black or African American, Native Hawaiian or Other Pacific Islander, or American Indian or Alaska Native. "Two or More Non-URM" represents individuals selecting more than one ethnicity, none of which are under-represented minorities.

[9] A list of the disciplines assigned to each category is published in Appendix B.

About three-quarters of Master's and Ph.D graduate students enrolled in the physical sciences or engineering are male, although the female fraction is growing. In other disciplines, the balance is shifted toward female students.

7.5.4 Sex Distribution of Graduate Academic Students by Broad Discipline[10], Fall 2012-2022.



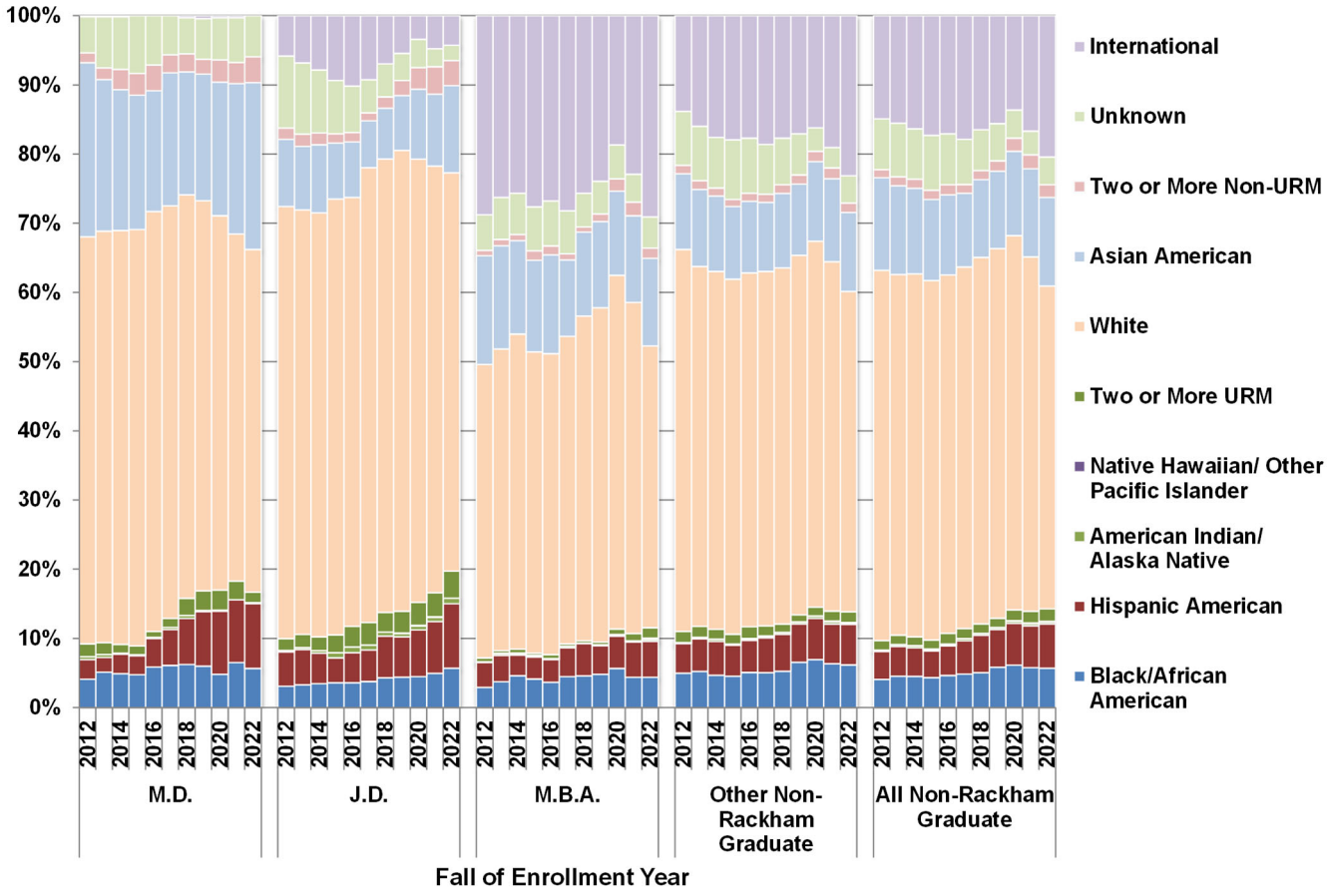
SOURCE: U-M Student Data Sets.

At the University of Michigan, graduate academic students are defined as those who are enrolled in graduate programs administered by the Horace H. Rackham School of Graduate Studies.

[10] A list of disciplines assigned to each category is published in Appendix B.

Underrepresented minority students (bottom five, dark-colored column slices) have increased as percentages of these degree programs over the last decade.

7.5.5 Race and Ethnicity Distribution of Students in Selected Graduate Programs[11], Fall 2012-2022.



SOURCE: U-M Student Data Sets

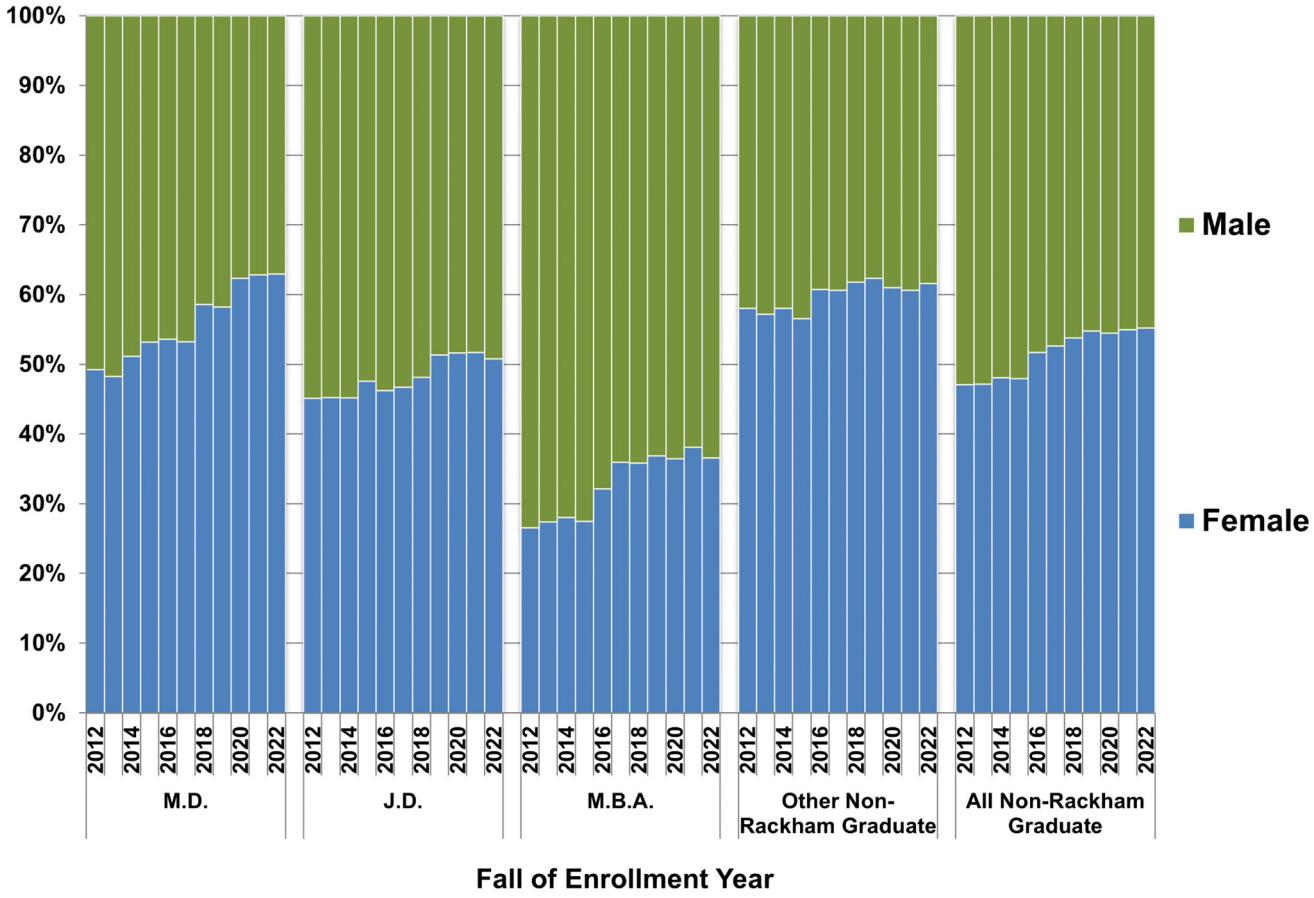
This chart summarizes data for selected graduate degree programs that are administered by individual schools and colleges other than the Horace H. Rackham School of Graduate Studies. U-M awards five professional doctorates (M.D., J.D., D.D.S., Pharm.D., and D.N.P.) as well as "non-Rackham" degrees in Public Health, Architecture, Engineering, Information, Music, among other jointly sponsored degree programs. The "Other" category combines all non-Rackham degrees except for M.D., J.D., and M.B.A.

URM in the legend stands for "under-represented minority." "Two or More URM" represents non-Hispanic/non-Latino students who identified two or more ethnicities and at least one of the ethnicities included Black or African American, Native Hawaiian or Other Pacific Islander, or American Indian or Alaska Native. "Two or More Non-URM" represents individuals selecting more than one ethnicity, none of which are under-represented minorities.

[11] A list of U-M professional and non-Rackham degree programs is published in Appendix C

In recent years, about one-third of MBA students are female, while more than 50 percent of MD and Law students are female.

7.5.6 Sex Distribution of Students in Selected Graduate Programs[12], Fall 2012-2022.



SOURCE: U-M Student Data Sets

This chart summarizes data for selected graduate degree programs that are administered by individual schools and colleges, not the Horace H. Rackham School of Graduate Studies. U-M awards five professional degrees (M.D., J.D., D.D.S., Pharm.D., and D.N.P.) as well as "non-Rackham" degrees in Public Health, Architecture, Engineering, Information, Music, among other jointly sponsored degree programs. The "Other" category combines all non-Rackham degrees except for M.D., J.D., and M.B.A.

[12] A list of U-M professional and non-Rackham degree programs is published in Appendix C.

Chapter 8 Teaching & Learning

Goals

The University of Michigan provides rich academic and social settings to help students find the right combination of courses and extra-curricular activities to meet their individual needs. It also seeks to enhance the student learning experience by improving the student-faculty ratio, encouraging international experiences, supporting academic multicultural initiatives, keeping pace with instructional technology and facilities, and expanding undergraduate engaged learning opportunities.

Overview

Instruction of students is a shared activity involving tenured and tenure-track faculty (3,156), lecturers (1,135), clinical-instructional faculty (2,364), other instructional faculty (394), and graduate student instructors (2,506), based on the November 2021 count of faculty and staff.

The learning and teaching environment at the University has been developed – and is regularly modified – to provide students with the knowledge and skills necessary to succeed in the 21st century. Faculty members bring tremendous depth to the classroom when they include the latest in research and scholarship in courses.

The institution must certainly support the development of all the traditional capabilities – the ability to speak and write clearly, reason critically and quantitatively, gain competence in a student's discipline of choice, and engage with the arts and humanities. Students must also have the confidence to innovate and take risks, develop skills for group work, collaborate effectively with individuals from diverse backgrounds and cultures, and have command of the latest information technologies.

The University offers undergraduate students the opportunity to participate in focused "learning communities," each organized around intellectual interests, such as international issues, research, or civic engagement. These give students the opportunity to live, interact and learn with a close-knit group that includes faculty and staff.

Global engagement is an area of special emphasis as a focus of unique learning opportunities. The Global Michigan web portal helps students find and pursue the kind of deep, cultural understanding that comes through shared experiences among students and faculty from different countries and cultures.

The University regularly administers a survey of undergraduate students known as UMAY (University of Michigan Asks You). UMAY asks students to report about their satisfaction with academic programs, their sense of knowledge gain, and their opportunities to gain experience outside of the classroom. Data from past surveys are summarized in this chapter.

For More Information

Michigan Learning Communities (lsa.umich.edu/mlc)

Living Learning/Theme Communities (housing.umich.edu/themes-mlcs/)

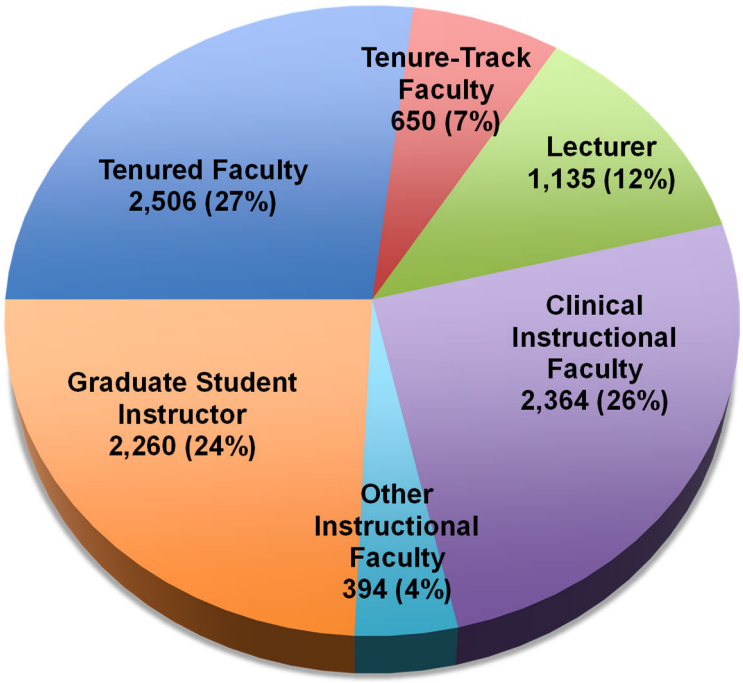
Global Michigan (global.umich.edu)

Engaged Michigan (engaged.umich.edu)

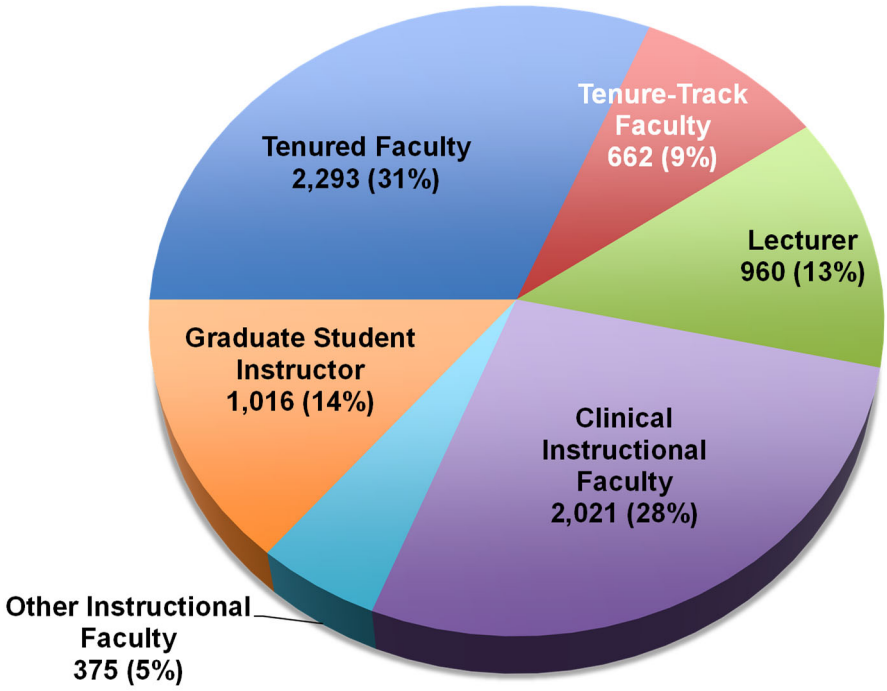
Charts in Chapter 8

Course instruction is performed by individuals in a variety of job categories including tenured and tenure-track faculty members, lecturers, clinical instructional faculty, and graduate student instructors.

8.1.1 Instructional Workforce Headcount by Job Family, Fall 2022.



8.1.2 Instructional Workforce Full-Time Equivalents (FTEs) by Job Family, Fall 2022.

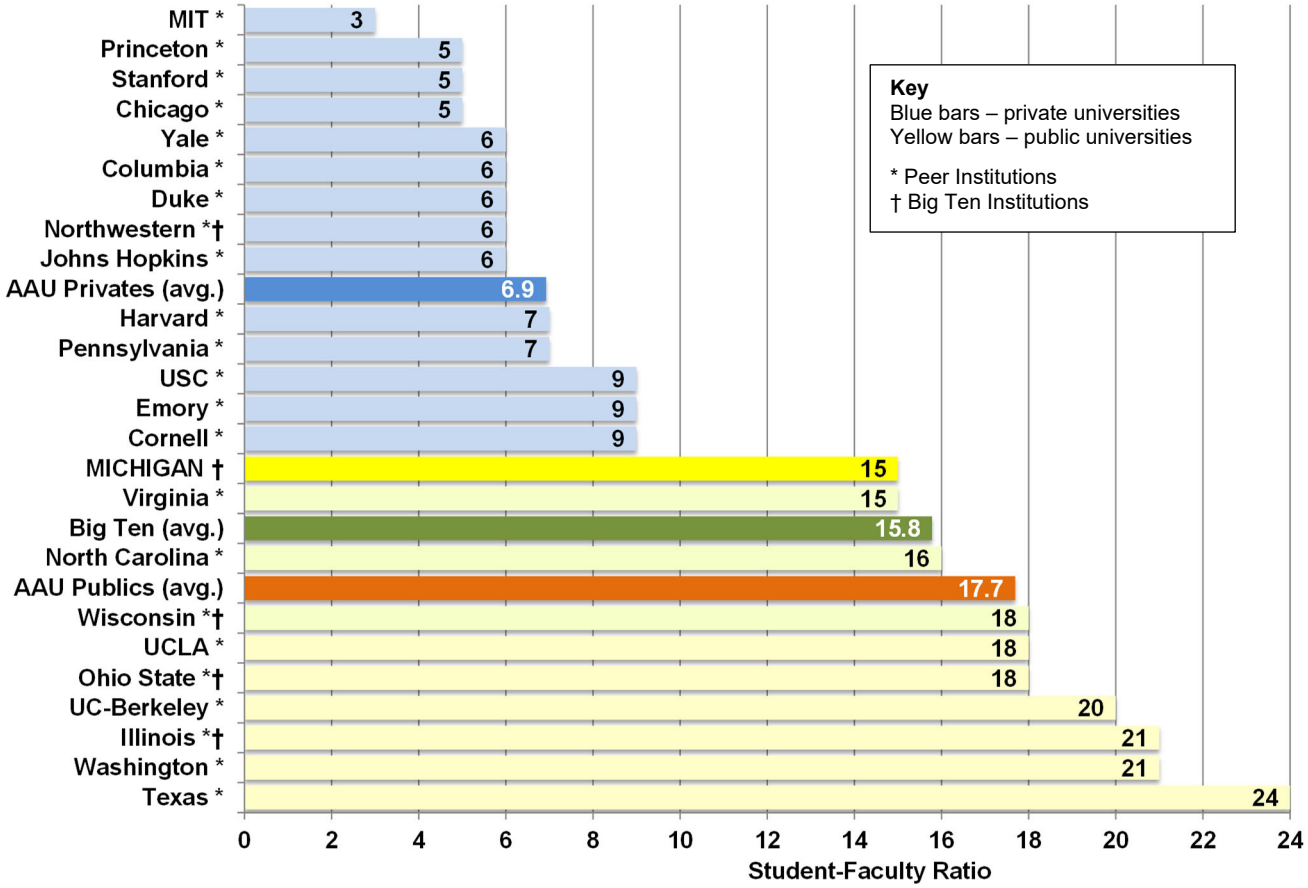


SOURCE: U-M Human Resources Data

In both pic charts above, "Other Instructional Faculty" includes regular faculty not assigned to the tenure track, supplemental instructional faculty, and adjunct lecturers. This chart does not include research-track faculty and emeritus faculty.

U-M's undergraduate students-to-faculty ratio was lower than the averages of AAU public and Big Ten institutions in Fall 2021.

8.2 Undergraduate Student-Faculty Ratios for U-M, Peer Universities, and Average Ratios for Public AAU, Private AAU, and Big Ten Institutions, Fall 2021.



SOURCE: U.S. News & World Report Best Colleges, 2023 Edition

All the universities in the chart are AAU member institutions. (See Appendix A for complete AAU member list.) The AAU public and private institution averages and the Big Ten institution averages are based on all respective member institutions, not only those in the chart.

[1] A list of the peers used for comparison on this page is published in Appendix A.

During the 2020-21 academic year, Michigan students took advantage of many opportunities to join communities of common intellectual interest to enhance their educational experiences.

8.3 Student Participation in Michigan Learning Communities, 2020-21.

Program	First-years	Sophomores	Juniors	Seniors	*TOTAL*
COMPREHENSIVE STUDIES PROGRAM: This program provides small enriched courses, academic advising and academic support and tutoring.	**609**	**763**	**771**	**866**	***3,009***
HEALTH SCIENCES SCHOLARS PROGRAM: For students seeking to explore the health sciences.	**112**	**27**	**5**	**1**	***145***
GLOBAL SCHOLARS PROGRAM: Prepares students to be interculturally competent global citizens, champions for meaningful change, and innovative leaders of tomorrow.	**-**	**55**	**38**	**32**	***125***
LIVING ARTS: Brings together students in engineering, the arts, and other fields to explore creativity and innovation.	**62**	**20**	**4**	**-**	***86***
LLOYD HALL SCHOLARS PROGRAM: For students to pursue creative expression through writing, the visual arts, and cultural and social involvement.	**105**	**31**	***7***	**10**	***153***
MAX KADE GERMAN RESIDENCE: Students practice German every day while living in a dedicated house that offers unique cultural events and a trip to a German-speaking country.	**-**	**10**	**9**	**6**	***25***
MICHIGAN COMMUNITY SCHOLARS PROGRAM: For students interested in community service, civic engagement, and social justice.	**83**	**47**	**17**	**2**	***149***
MICHIGAN RESEARCH AND DISCOVERY SCHOLARS: For students interested in a research partnership with a faculty member and a small, diverse, and supportive residential community.	**101**	**35**	**3**	**1**	***140***
RESIDENTIAL COLLEGE: A small four-year program with an emphasis on languages, writing, and the arts. Students live together in the RC residence hall their first two years.	**168**	**158**	**156**	**176**	***658***
UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM: Students participate in research, working with faculty from all academic fields.	**458**	**551**	**262**	**34**	***1,305***
WOMEN IN SCIENCE AND ENGINEERING RESIDENCE PROGRAM (WISE-RP): For students with interests in the sciences, technology, engineering, mathematics, and health fields.	**87**	**30**	**2**	**2**	***121***

SOURCE: Program Offices

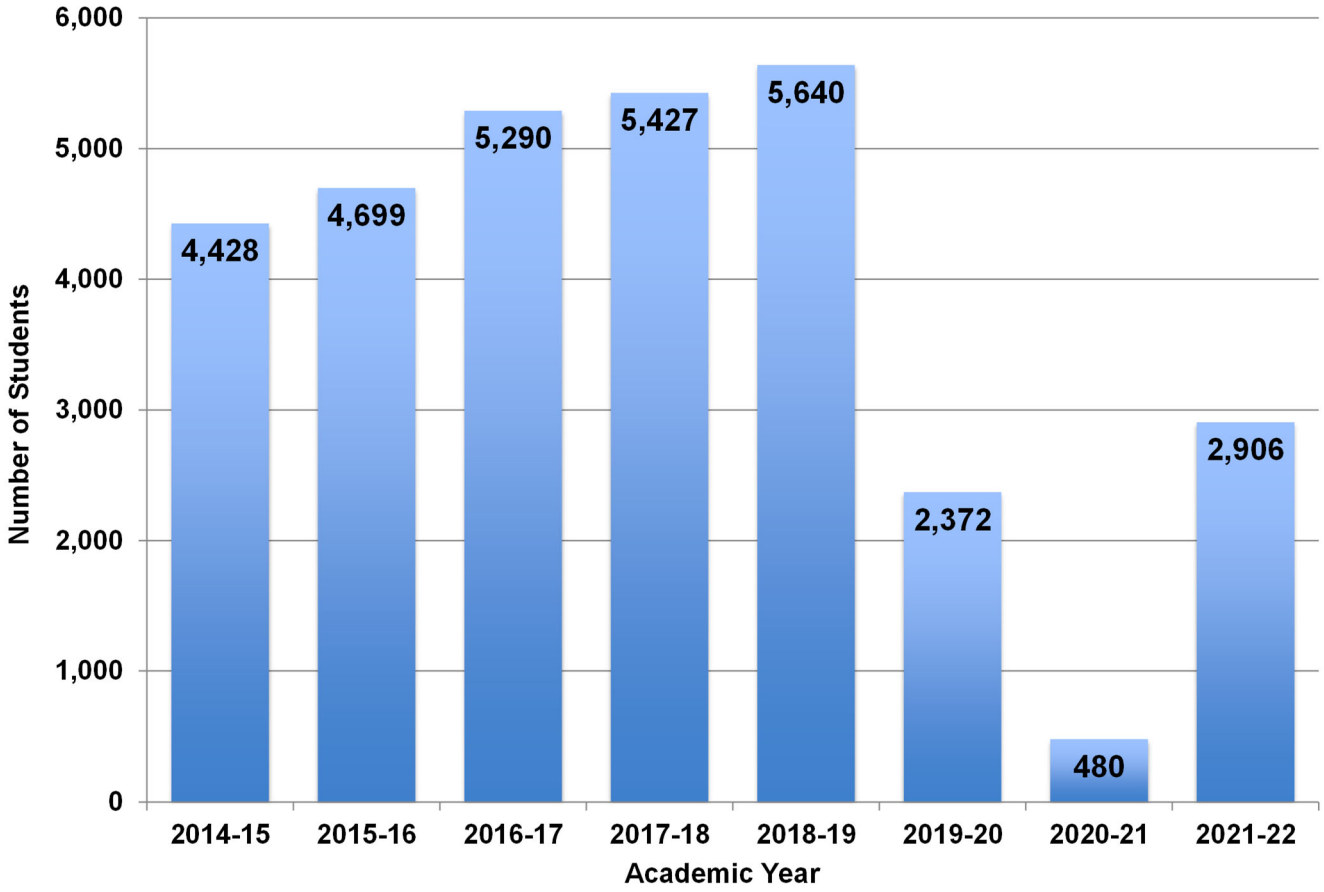
Michigan Learning Communities are generally self-selected groups of students and faculty, often from diverse backgrounds, drawn together by shared goals and common intellectual interests. These program combine the personal attention of a small college environment while still providing the resources of a large research university. In some communities, the members live in the same residence hall during the academic year.

More information is posted online.
Michigan Learning Communities (lsa.umich.edu/mlc)
Living Learning/Theme Communities (housing.umich.edu/themes-mlcs/)

[2] WISE-RP is designed for girls, women and non-binary individuals but is open to all undergraduate students.

The COVID-19 pandemic interrupted the education abroad starting in March 2020. Participation has started to pick up in the 2021-22 academic year.

8.4.1 Student Participation in Education Abroad, Academic Years 2015-2022.



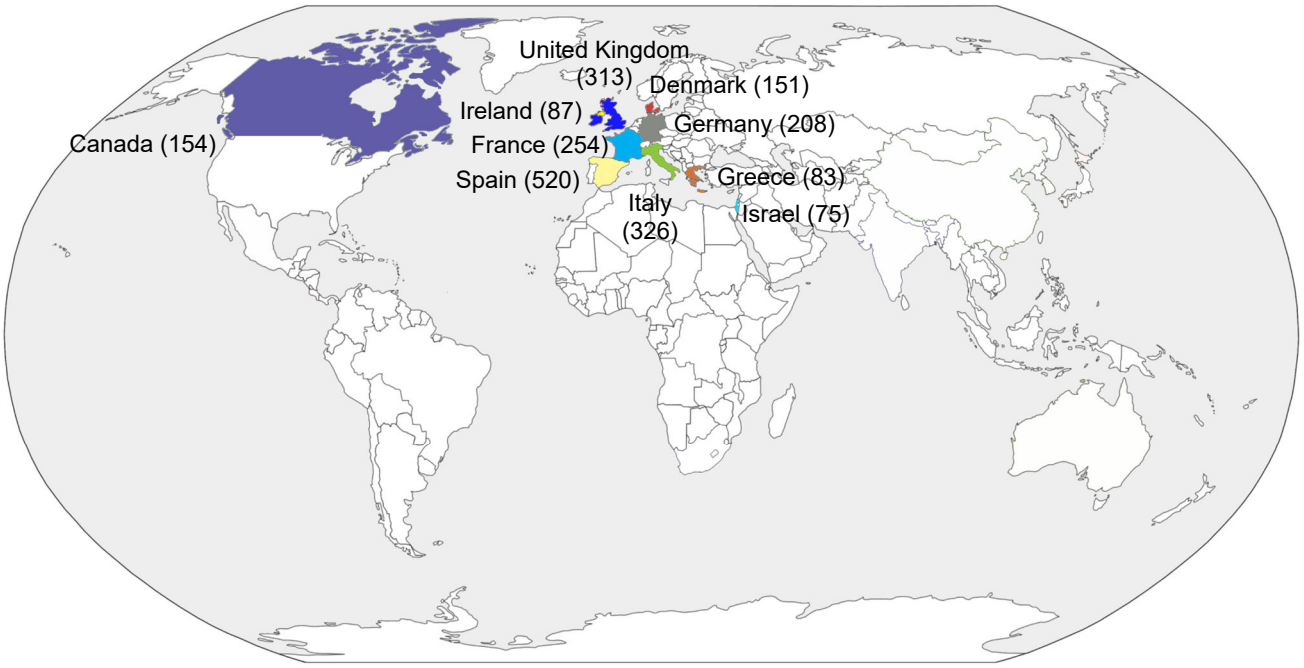
SOURCE: "Education Abroad Report September 2021-August 2022," U-M Global Engagement.

Although the pandemic put a halt to campus-related travel for the last half of academic year 2019-20, U-M student participation in education abroad was impressive prior to the interruption. It has started to improve as more study abroad programs have restarted.

The phrase “education abroad” refers to students who received academic credit for educational programs they attended abroad, or participated in research, internship, volunteer service, work opportunities, and conferences and professional meetings abroad as not-for-credit activities. The counts in the chart encompass both undergraduate- and graduate-level programs.

U-M students traveled to 113 countries for international experiences during the 2021-22 academic year.

8.4.2 Top Ten Education Abroad Destinations, Student Count by Country, 2021-22.

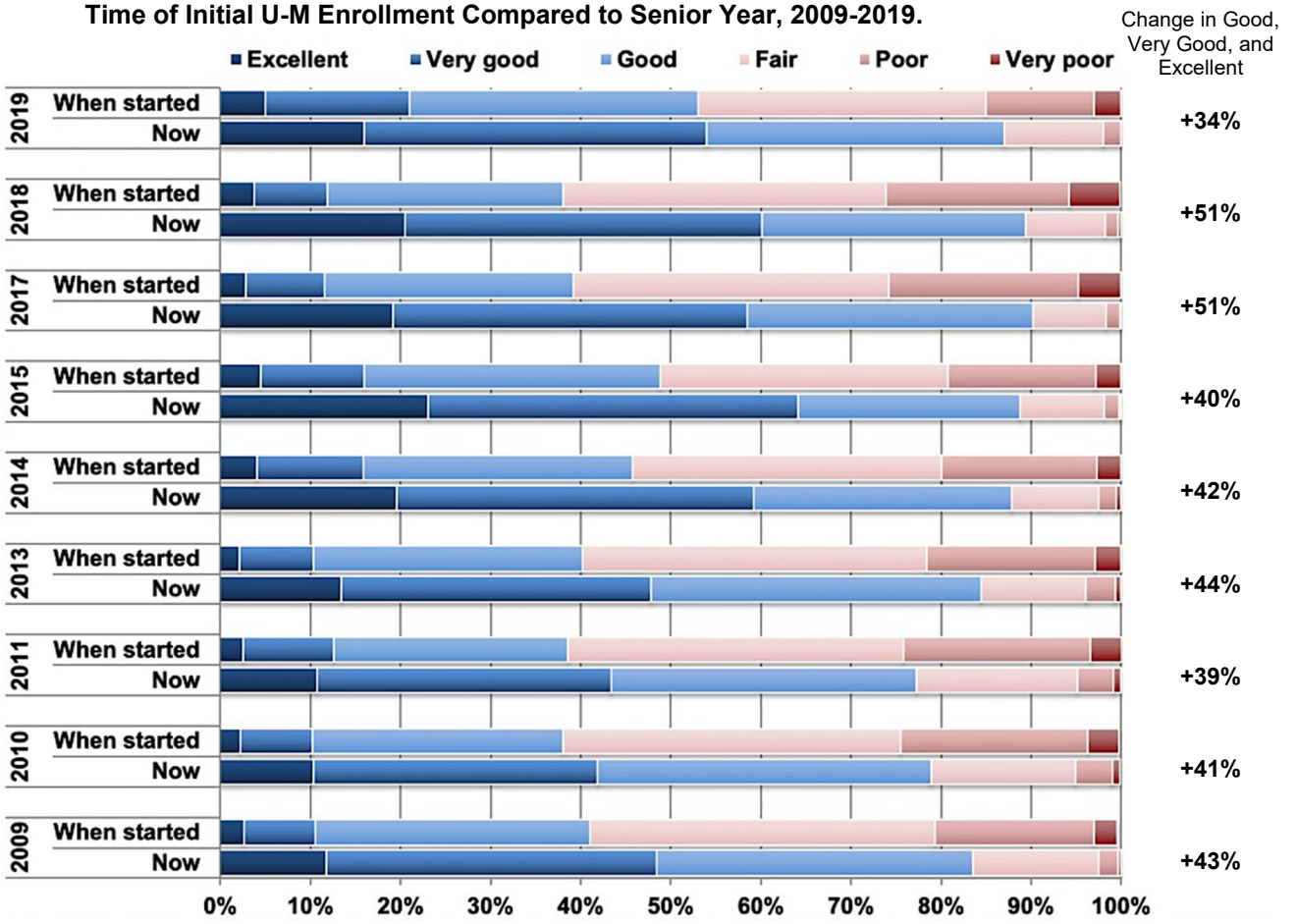


SOURCE: "Education Abroad Report September 2021-August 2022," U-M Global Engagement

Numbers in parentheses indicate the number of students who visited that country at least once during the academic year. The level of all study and other educational travel abroad has been increasing since the the pandemic has subsided.

Many graduating seniors report that compared to when they started at U-M, they increased involvement in and have a greater understanding of global or international topics.

8.4.3 Self-Reported Learning Gains of Graduating Seniors in Understanding Global Issues from Time of Initial U-M Enrollment Compared to Senior Year, 2009-2019.



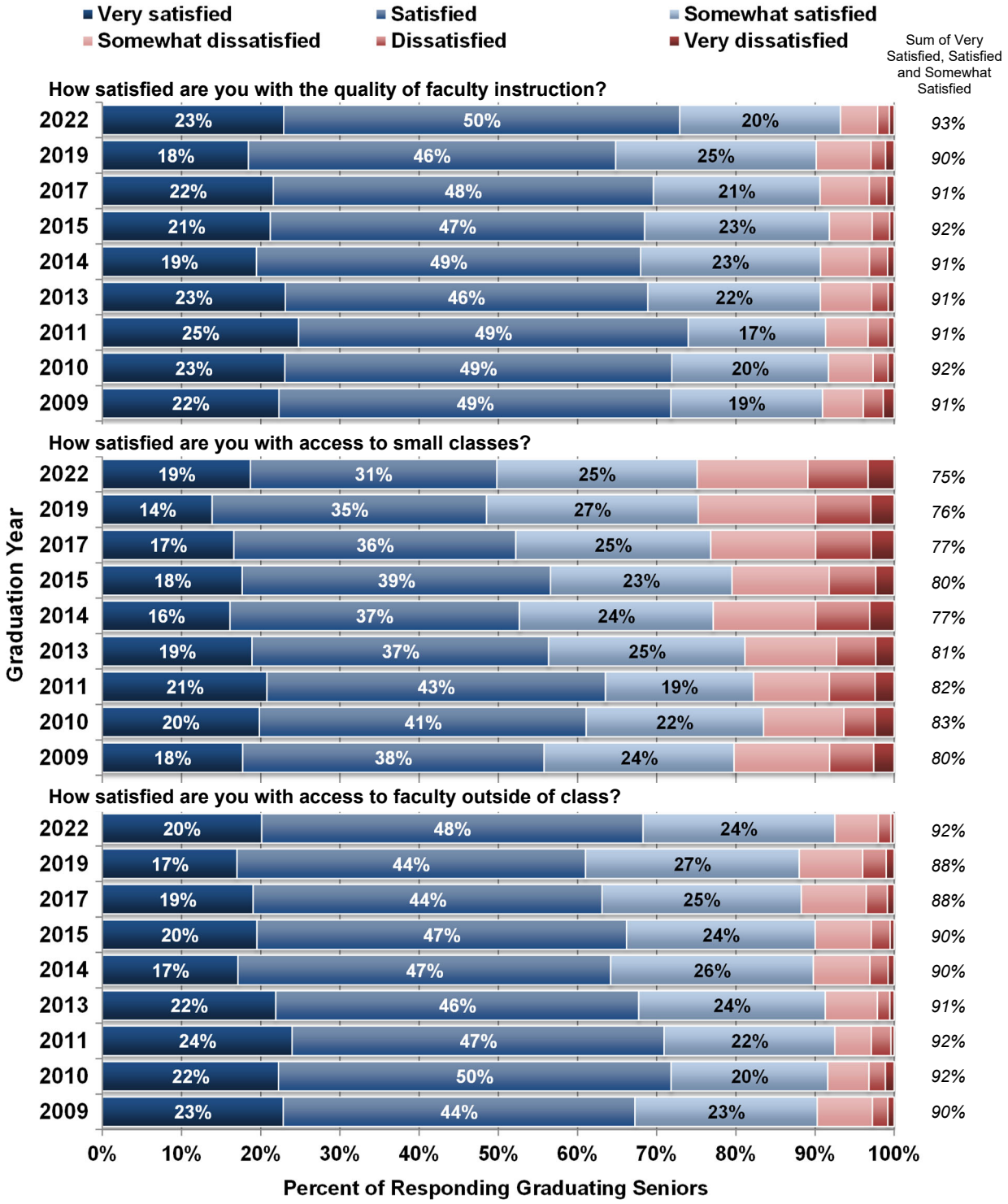
SOURCE: U-M Asks You (UMAY) undergraduate survey

The percentage to the right of each bar is the change in the fractions of seniors who replied "Excellent," "Very Good," and "Good" (the segments in shades of blue) comparing their learning gains from the time of initial enrollment compared to senior year.

Note: This question was not included in the most recent UMAY survey conducted in 2022.

Seniors express high levels of satisfaction with the quality of instruction they have received, the availability of small classes and engagement with faculty members.

8.5 Self-Reported Satisfaction of Graduating Seniors with Instructional Quality and Faculty Interaction, 2009-2022.

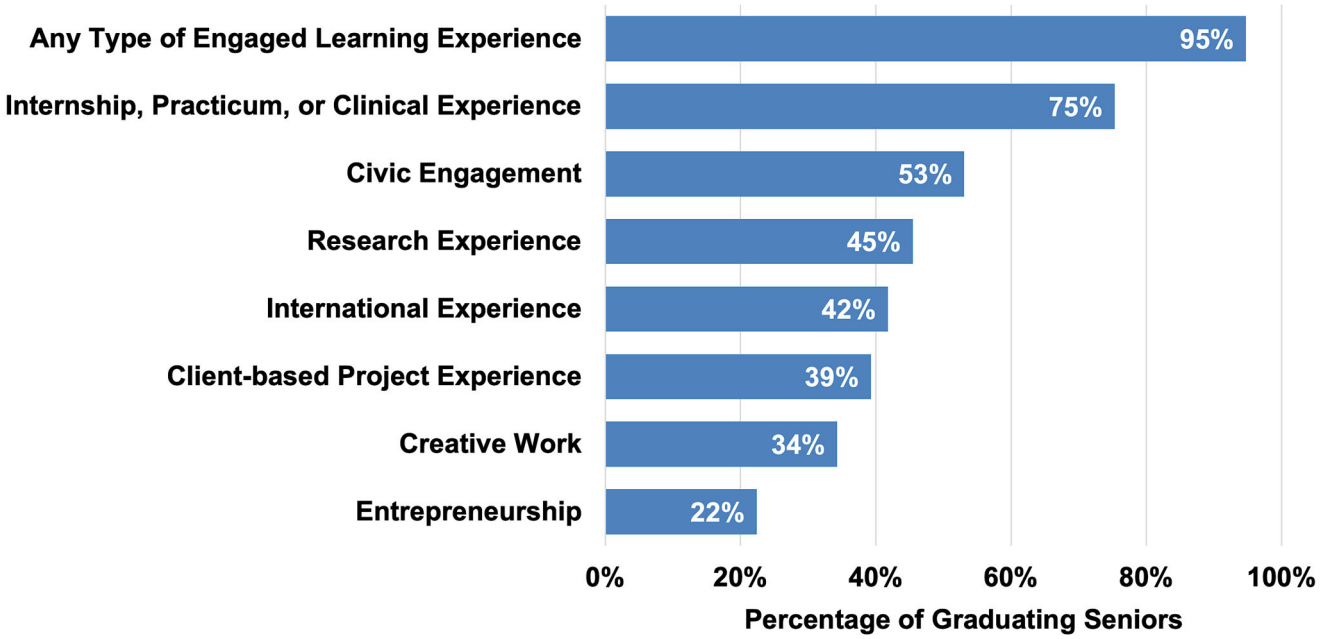


SOURCE: U-M Asks You (UMAY) undergraduate survey

The percentage to the right of each bar is the fraction of students who replied "Very Satisfied," Satisfied," and "Somewhat Satisfied" (the segments shaded in blue) for the particular question and year.

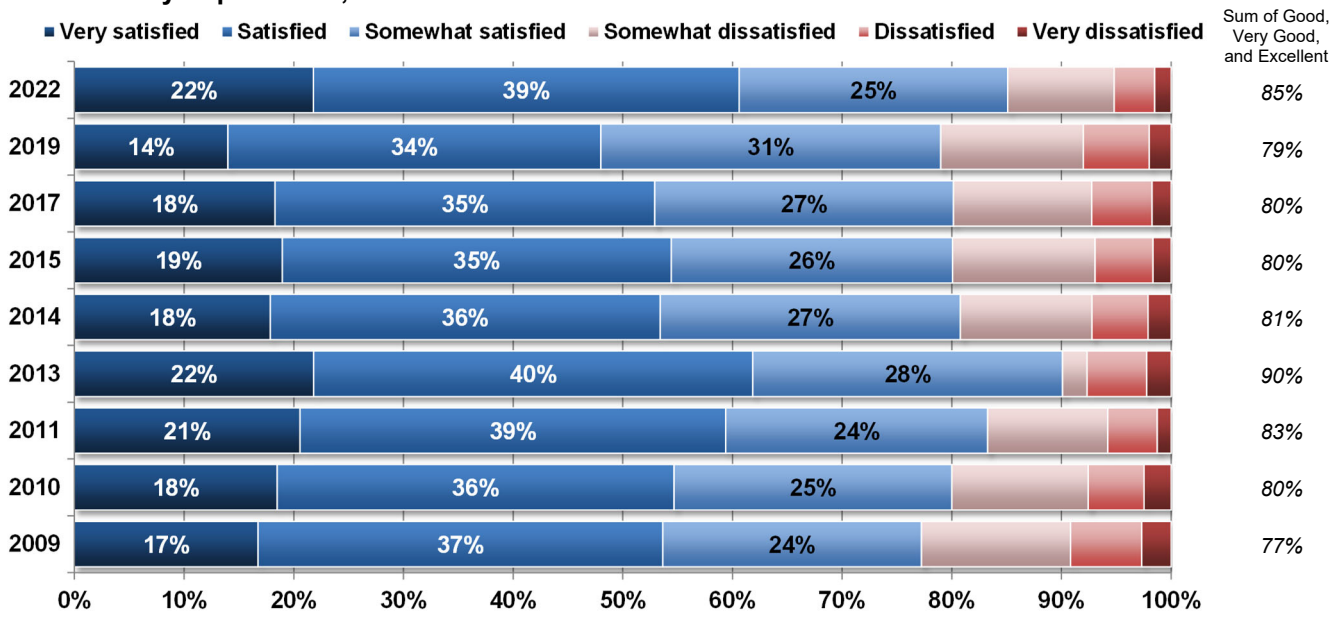
During the 2020-21 academic year, nearly all U-M seniors reported they engaged in learning activities outside the traditional settings.

8.6.1 Graduating Seniors in 2020-21 Who Reported Engaged Learning Experiences While at the U-M.



SOURCE: Engaged Learning Census (ELC)

8.6.2 Self-Reported Satisfaction of Graduating Seniors with the Opportunities for Research or Creative Activity Experiences, 2009-2022.



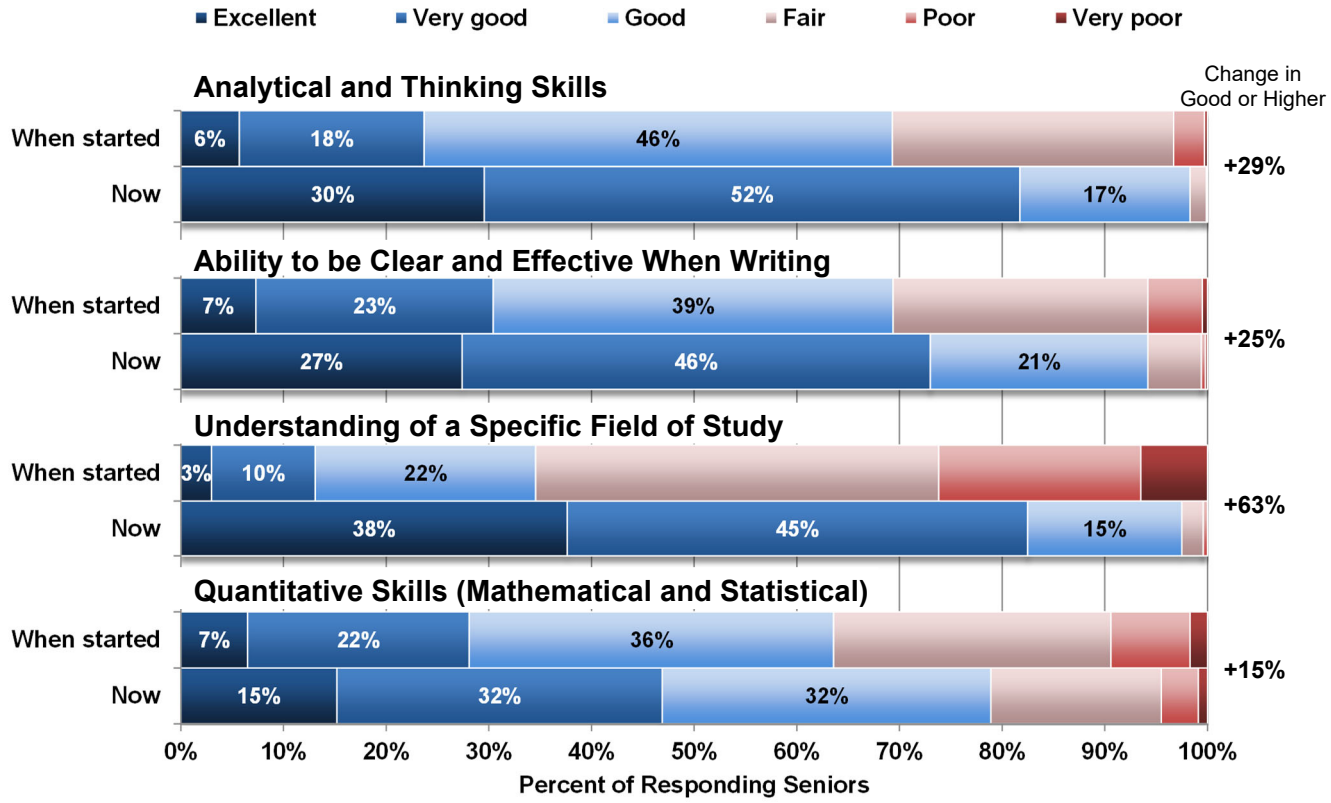
SOURCE: U-M Asks You (UMAY) undergraduate survey

Chart 8.6.1 reports the responses of graduating seniors to the Engaged Learning Census (ELC), a seven-item questionnaire asking about participation in high-impact engaged learning experiences. This survey was originally called the Graduate Exit Census Survey.

Chart 8.6.2 show the levels of satisfaction that seniors report through the U-M Asks You (UMAY) survey regarding the opportunities to participate in a research project or other creative activity, usually with a faculty member. The percentage to the right of each bar is the fraction of students who replied "Very Satisfied," Satisfied," and "Somewhat Satisfied" (the segments shaded in blue) for the particular year.

Students reported gains in their academic skills and knowledge between the time they started at Michigan and their senior year.

8.7 Self-Reported Learning Gains of Graduating Seniors from Time of Initial U-M Enrollment Compared to Senior Year, 2022.



SOURCE: U-M Asks You (UMAY) undergraduate survey

The percentage to the right of each bar is the difference between "When started" and "Now" for the sum of the responses "Excellent," "Very Good," and "Good" (the segments in shades of blue).


BAUSCH & LOMB

Chapter 9 Research & Technology Transfer

Goals

Excellence in research and scholarly activity is a central tenets of the University of Michigan's mission. These activities have the power to expand knowledge, increase our understanding of the world, improve lives, and contribute to the common good at the U-M, the broad scope, overall size, and emphasis on interdisciplinary approaches throughout the institution contributes to its standing as one of the world's leading universities. The money to support research and scholarship comes from the federal government, private sector, foundations, and the U-M's operating budget itself.

The University expects that research discoveries by its faculty members have the potential to contribute to the development of innovative products and processes. The U-M places a high priority on supporting this kind of activity under the Innovation Partnerships organization.

Overview

Total research expenditures by the University from all sources (external and University funds) exceeded $1.7 billion in FY 2022. Furthermore, U-M ranks second highest in the nation for total research spending among all public universities (based on FY2021 figures, the latest available). Sixty-six percent of U-M's research spending is provided by outside sources, with the largest share of research funding from the federal government.

The University's largest fraction of grant-supported work occurs in the biomedical and clinical sciences. The U-M Medical School alone regularly attracts more than $400 million each year in research grants.

Research is of special interest to the private sector. Innovation Partnerships works with faculty inventors to file patents and negotiate licensing agreements that benefit the University's industry partners and fund additional research and development work on campus. In certain instances, U-M faculty members establish companies to develop their inventions, thanks in part to an emerging campus culture of innovation and entrepreneurship.

In 2021, U-M established the Accelerate Blue Fund, an early state venture capital (VC) fund that invests only in U-M-licensed startups. The new fund aims to "bridge the funding gap between initial launch and [other private] funding for startups based on University of Michigan intellectual property."

For More Information

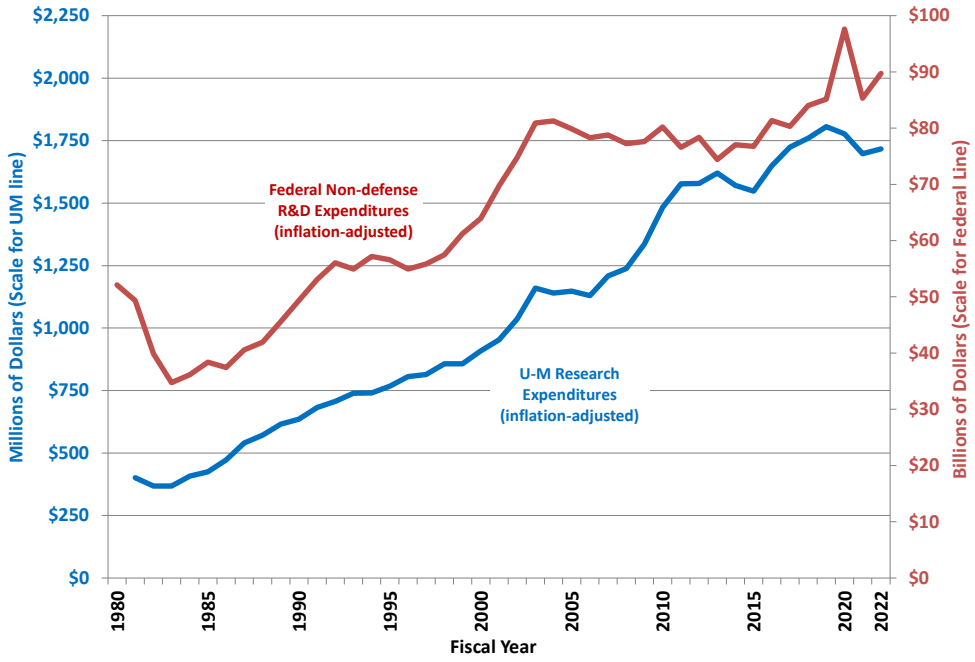
U-M Office of Research (research.umich.edu)

Innovation Partnerships (innovationpartnerships.umich.edu)

Charts in Chapter 9

The inflation-adjusted decline in total U-M research expenditures since FY2020 is largely attributed to the reduction in research activity on campus due to the pandemic. In spite of this dip, U-M spent third most on research among U.S. universities in FY2022.

9.1.1 Total Research Expenditures, Adjusted for Inflation[1], 1980-2022.



SOURCE: U-M Volume of Research (UMOR); American Association for the Advancement of Science Historical Trends in Federal R&D

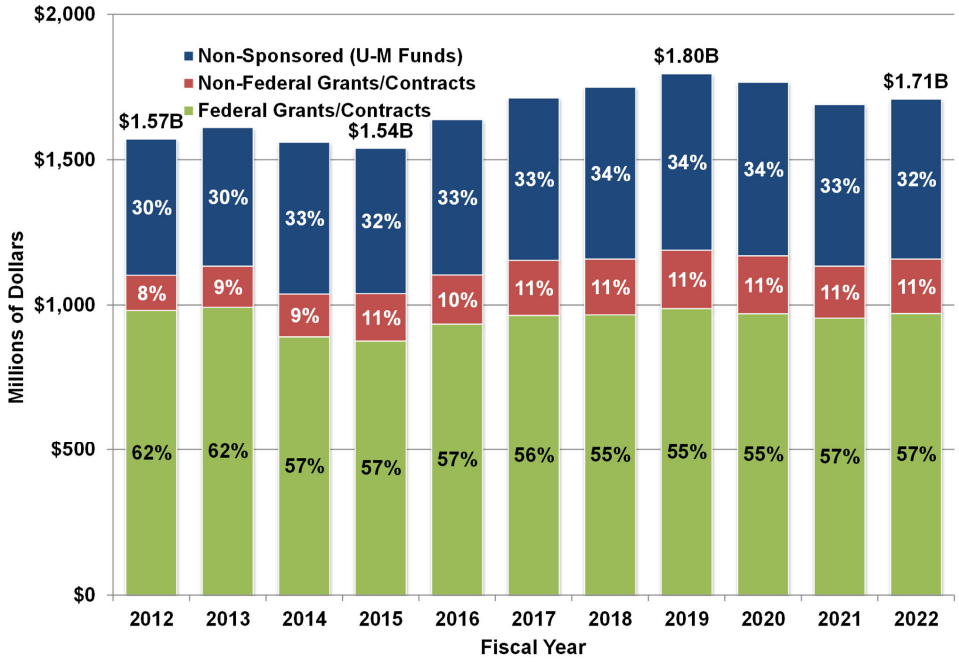
The research expenditures displayed in this chart and the table for 9.3 include those for the Ann Arbor, Dearborn, and Flint campuses. All other figures show data only for the Ann Arbor campus.

Note: Starting in FY2007, research support originating from the U-M faculty medical group practice was included as research expenditures. Previously this was reported with clinical activity.

[1] Based on 2022 U.S. Consumer Price Index.

The portion of the federal budget allocated to non-defense R&D spending can't be counted on to increase every year. This this reality in mind, the U-M has made an effort to grow research support from internal and non-federal sources.

9.1.2 Research Expenditures by Major Funding Source, Adjusted for Inflation[2], FY2012-FY2022.

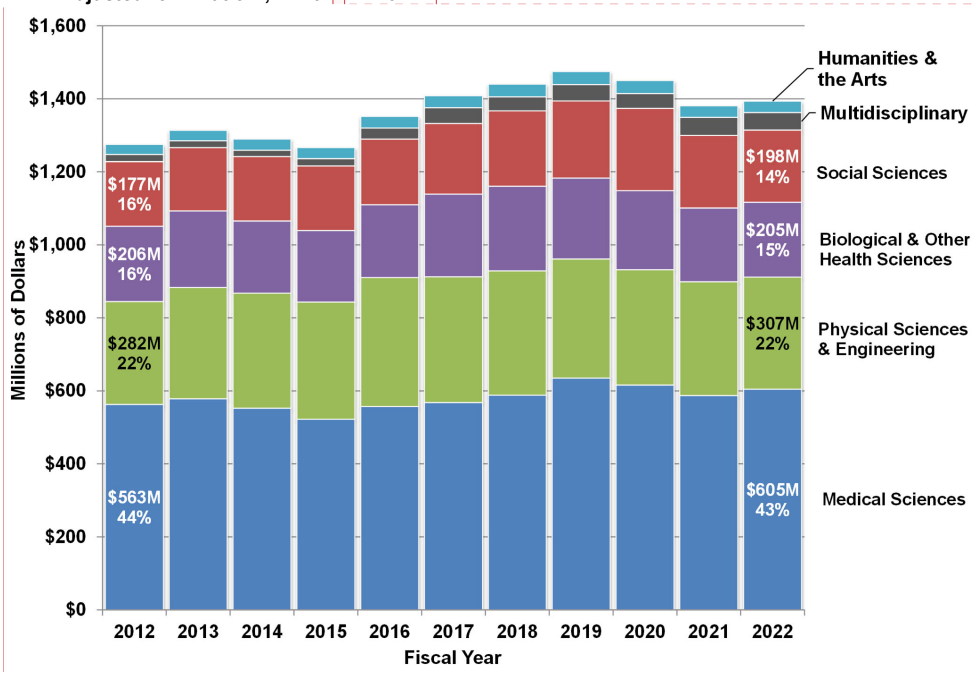


Source: U-M Financial Operations

[2] Based on 2022 U.S. Consumer Price Index.

Direct research expenditures on the U-M campus are greater today compared to 2012 and are recovering from the spending decline precipitated by the COVID pandemic.

9.1.3 Direct Research Expenditures by Discipline Area from Federal and Non-Federal Sources, Adjusted for Inflation[3], FY2012-FY2022.



SOURCE: U-M Financial Data

Direct expenditures cover salaries and benefits of researchers, whether faculty, staff or students, as well as equipment and supplies, research-related travel and other expenses tied to specific projects. Overhead expenditures are presented in chart 9.1.5 .

Direct research expenditures for Humanities & the Arts was $32M in FY 2022 and an inflation-adjusted $28M in FY2012M. Multidisciplinary research projects had direct expenditures of $41M in FY2022 and an inflation-adjusted $19M in FY2022.

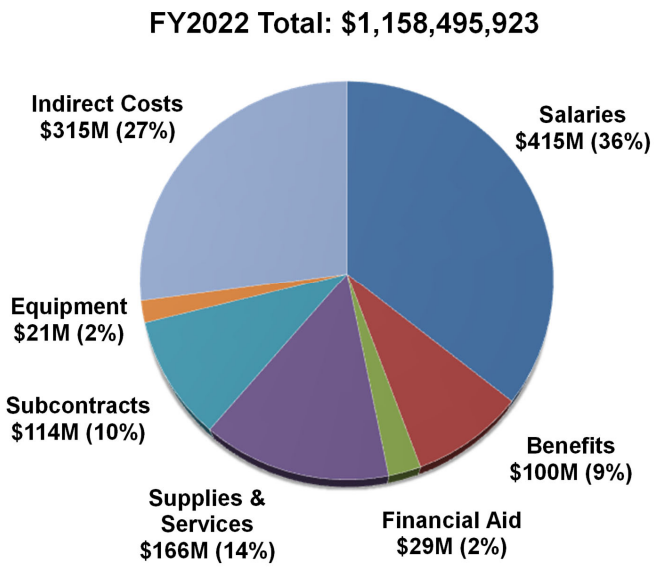
[3] Based on 2022 U.S. Consumer Price Index.

Commented [SA1]: The chart starts with 2011. Seems like it should start with 2012 because the header statement is about a decade of change.

Commented [SA2]: Please double check that the correct labels, "Social Sciences", "Physical Sciences & Engineering", and "Biological & Other Health Sciences" are associated with the correct colored portions of the stacked bars. The labels/color combos are different from the 18th Almanac edition and they also don't seem to align with the underlying data for the 19th edition, so I'm not sure which way is correct.

About 45 percent of the total annual sponsored research expenditures on the Ann Arbor campus goes to salaries and benefits for faculty, staff and graduate students.

9.1.4 Sponsored Research Expenditures by Type, FY2022.



SOURCE: U-M Financial Operations

The FY2022 total externally funded research expenditures for the Ann Arbor campus was $1.158 billion, a decrease of $100.6 million from the previous year. Salaries and benefits is the largest cost component.

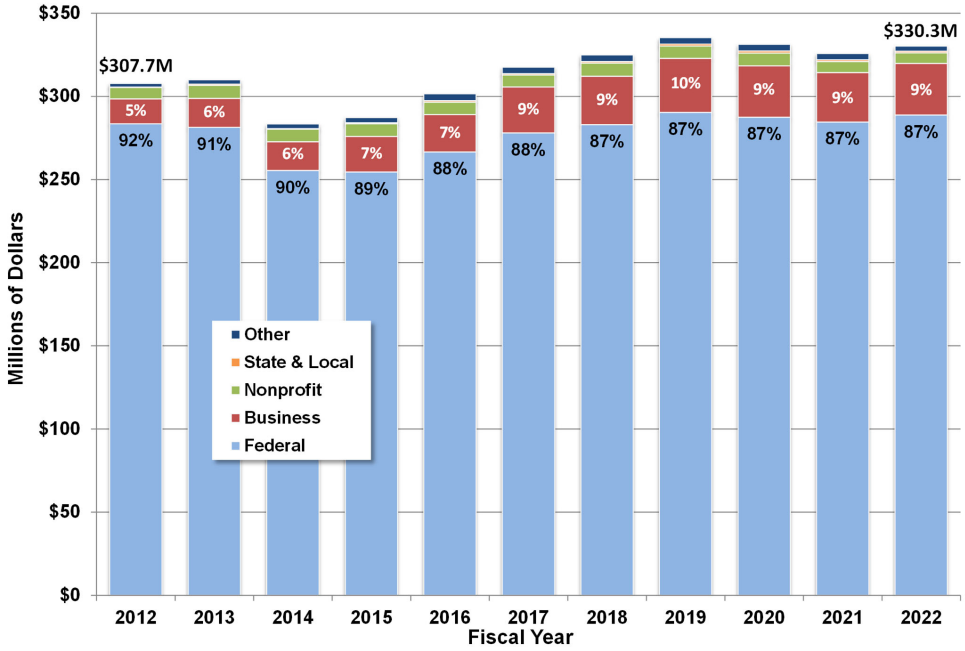
Indirect costs (IDC) are the costs of University operations that are not assigned to a particular project, such as the costs for general research administration, utilities use in research space, and other services that contribute broadly to the operation of the University's research enterprise.

For FY2022, 27 percent of the total research expenditures went to pay for indirect costs, which are collected as a percentage of the project budget at different rates depending on the type of research activity and the sponsor. The indirect cost recovery rate for research funded by the Federal government or industry is 56 percent for on-campus research and 26 percent for off-campus research.

The indirect cost recovery rates charged to non-federal sponsors, such as foundations, State of Michigan agencies, and private companies, vary according to the sponsor's policies or through negotiations with the sponsor. In such situations, the recovery rate may not cover the actual expenses incurred by the U-M to support some of these projects.

Federal sponsored projects provide a huge majority of indirect cost recovery funds, which contribute to the overhead costs of conducting research.

9.1.5 Sponsored Research Indirect Cost Recovery by Source, Adjusted for Inflation[4], FY2012-FY2022.



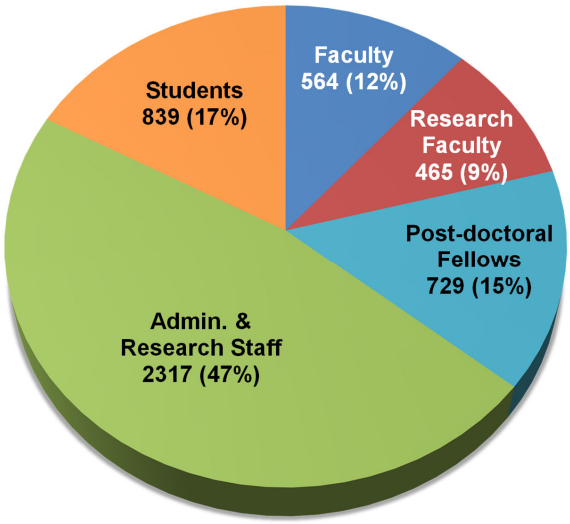
SOURCE: U-M Financial Data

Overhead spending covers items such as utilities, administration, and general maintenance of research facilities – known as "facilities & administration" or "indirect" costs – that supports the research enterprise.

[4] Based on 2022 U.S. Consumer Price Index.

A fall 2022 snapshot of personnel paid under sponsored projects shows that grants and contracts fund the full-time equivalent of 4,914 faculty members, post-docs, staff and students.

9.2 Sponsored Research Workforce by Full-Time Equivalents (FTEs), Fall 2022.



SOURCE: U-M Human Resources Data

Many tenured and tenure-track faculty members play key roles in sponsored research activity. Research faculty members, post-doctoral fellows, graduate (and some undergraduate) students, and a subset of the staff also contribute in major ways to the research enterprise.

The Fall 2022 total represents an increase of 18 FTEs (<0.5 percent) supported on sponsored projects compared to Fall 2021.

This FTE total does not include faculty, staff, and student involvement in research and scholarship whose activities are paid for by the General Fund.

U-M spent third most on research over the last five years among all U.S. universities, and second most among U.S. public universities.

Commented [SA3]: delete

9.3 University R&D Expenditures, U-M and Other Leading Institutions, FY2017-FY2021.

Institution[7]	FY2017	FY2018	FY2019	FY2020	FY2021
Johns Hopkins[5]	$2,562M	$2,661M	$2,917M	$3,110M	$3,181M
UC San Francisco	$1,409M	$1,596M	$1,595M	$1,651M	$1,710M
MICHIGAN	$1,530M	$1,601M	$1,676M	$1,674M	$1,640M
Pennsylvania	$1,374M	$1,442M	$1,506M	$1,579M	$1,632M
Washington	$1,348M	$1,414M	$1,426M	$1,457M	$1,489M
UCLA	$1,077M	$1,318M	$1,306M	$1,393M	$1,455M
UC San Diego	$1,133M	$1,265M	$1,354M	$1,404M	$1,425M
Wisconsin	$1,193M	$1,206M	$1,297M	$1,364M	$1,380M
Stanford	$1,110M	$1,158M	$1,204M	$1,204M	$1,274M
Harvard	$1,123M	$1,173M	$1,240M	$1,240M	$1,254M

SOURCE: National Science Foundation, Higher Education Research and Development Survey

The U-M is one of the nation's leading university's in total research spending for the past five years. Total expenditures include research spending from government sources, non-government sources, and the institution's own budget.

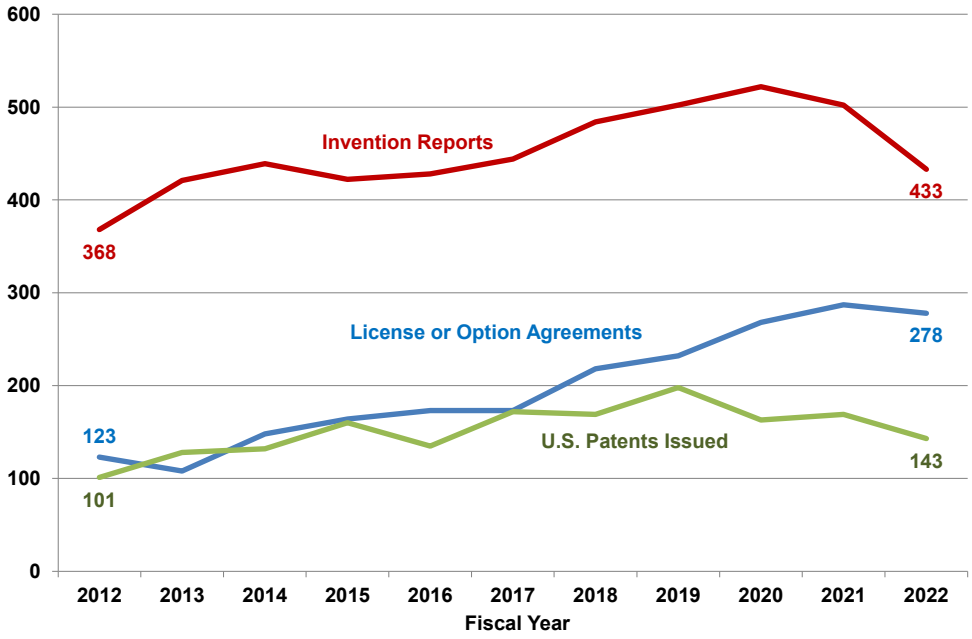
The list above is ordered by total research expenditures for FY2021. Data for public universities are shaded in yellow; private university data are shaded in blue.

The research expenditures displayed in this table and the chart for 9.1.1 include those for the Ann Arbor, Dearborn, and Flint campuses. All other figures show data only for the Ann Arbor campus.

[5] Johns Hopkins University expenditures include those by the Applied Physics Laboratory. In FY2021, APL R&D expenditures totaled $1.950M, 61% of JHU's total for the year.

Since Fiscal Year 2012, U-M faculty, staff and students have reported 4,965 inventions, have engaged in 2172 licensing agreements, and have been issued 1,670 U.S. patents.

9.4.1 Invention Reporting, Licensing and U.S. Patent Activity, FY2012-FY2022.

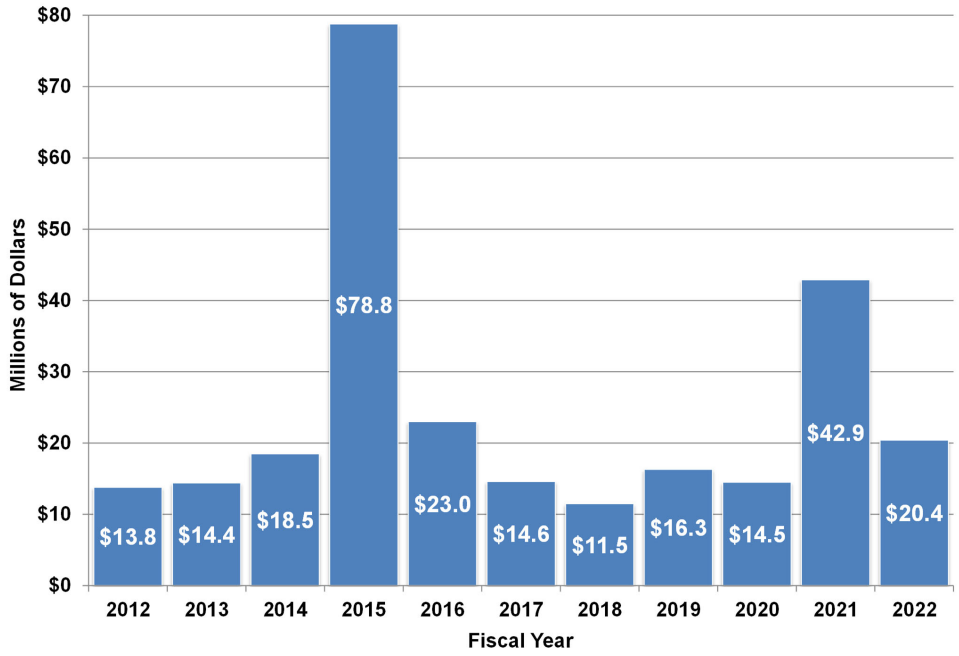


SOURCE: U-M Innovation Partnerships

Invention reports are descriptions of discoveries made by U-M faculty, staff and students with the potential to be further developed into new products or processes. Patents protect intellectual property that shows some promise for future development and application. License and option agreements are legal arrangements with companies (some of which have U-M faculty involvement) that allow the firms to use University-owned technology in products or processes being developed for the market.

Over the last decade, U-M discoveries have generated $269 million in revenues. The inventors and University share these revenues, with U-M administration's portion devoted to ongoing research and development.

9.4.2 Revenues from Royalties and Equity Sales, FY2012-FY2022.



SOURCE: U-M Innovation Partnerships

Revenues from licensing agreements support technology transfer operations as well as provide valuable resources for investment in research, education, and innovation.

Royalties are periodic payments by a licensee to the University of Michigan in order to have continued access to U-M-owned intellectual property. Equity sales include transfers of stock or cash payments by a licensee to U-M.

Royalty revenues reached an all-time high in FY2015. Nearly $75 million of that total comes from a new royalty agreement connected to a drug that was developed at U-M to help patients with Gaucher disease.

Since Fiscal Year 2012, 190 new companies based on U-M discoveries have been launched.

9.4.3 Formation of Start-up Companies that Utilize U-M Technology, FY2012-FY2022.

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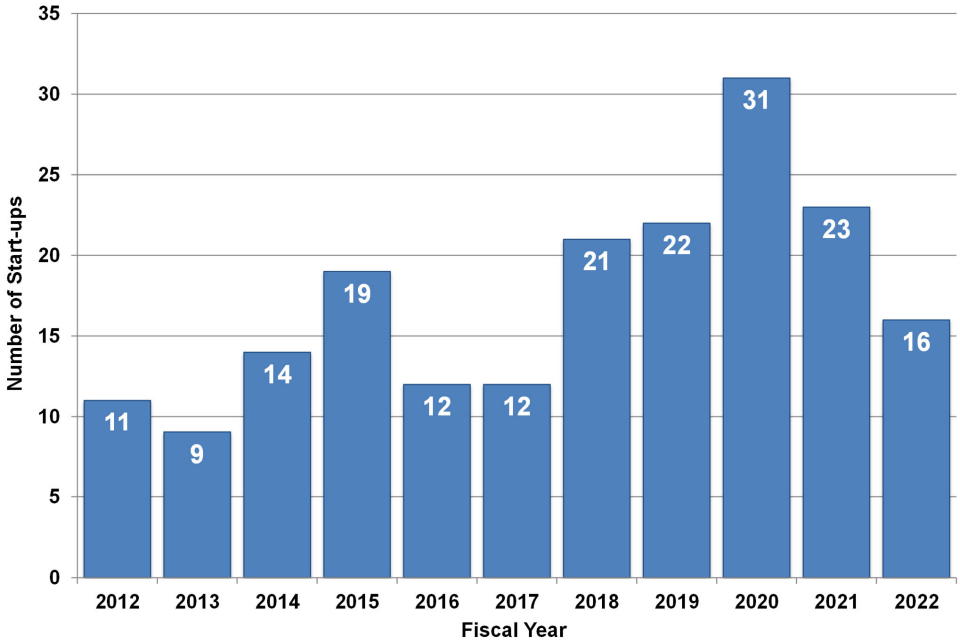


SOURCE: U-M Innovation Partnerships

While much of the new technology developed at U-M is licensed to existing companies for use in new products and processes, some inventions become the basis of new enterprises. Often this occurs when U-M inventors wish to have hands-on involvement in the further development of the technology.

A few of recently launched U-M start-ups include:

- Abcon, a cancer therapeutics startup.
- ArborMed, which is developing a treatment for Wilson's disease.
- Low Carbon Fuel Systems (LCFS), which is developing a flexible injection system.
- Decimal Code, which is applying advance artifical intelligenceand machine learning to optimize health system records and billing sytems.

Porfolio of U-M start-ups:
innovationpartnerships.umich.edu/portfolio/

Chapter 9 – Research & Technology Transfer (19th Edition)

Chapter 10 Budgets & Fundraising

Goals

The University budget is built to reflect the institution's commitments to academic excellence and affordability. Cost containment along with strategic investments in financial aid, faculty, and research are critical to these goals. Fundraising contributes to critical operational needs and strategic investments that can't be paid out of other budget categories.

Overview

This chapter focuses on revenues, and examines the trends by sources, such as state appropriations, tuition, research grants and fundraising. Since 2001, state appropriations as a revenue source have declined and the U-M budget has become increasingly reliant on tuition, research grants, and other sources of revenue.

The budgeted state appropriation for FY2024 was $356.6 million. When this is compared to inflation-adjusted state appropriations since FY2002, there is a widening funding gap between the appropriation provided by the State of Michigan and an appropriation that increased at the rate of inflation.

The COVID-19 pandemic caused the campus to move to remote teaching and work as much as possible, leading to lost revenues. Starting in fall 2021, in-person teaching with appropriate cautions returned and other work functions were performed through a mix of in-person and remote activities. While the pandemic put a strain on the U-M's finances, it has managed to weather the financial storm and has regained a fiscal picture like that from before the pandemic.

Starting in January 2018, the U-M offered the "Go Blue Guarantee," which pledges to fund four years of tuition for in-state undergraduate students with family incomes less than $65,000 and family assets less than $50,000. Starting with Fall 2023, qualifying family income was increased to $75,000 and the asset limit increased to $75,000.

In November 2013, the University launched its most recent major fundraising campaign - Victors for Michigan - with a goal of $4 billion. The campaign surpassed its goal and closed December 31, 2018, after raising $5.28 billion with more than 398,000 donors having made 2.4 million gifts.

The University manages its endowment to meet donors' expectations that their gifts will provide support to the University in perpetuity. The objective is to maintain and enhance the value of endowment gifts and to secure their future purchasing power.

For More Information

Go Blue Guarantee
(goblueguarantee.umich.edu)

Cost Cutting & Budget Update
(publicaffairs.vpcomm.umich.edu/key-issues/cost-cutting-budget-update/)

U-M Endowment Q&A
(publicaffairs.vpcomm.umich.edu/key-issues/university-of-michigan-endowment/)

Leaders & Best/Giving at Michigan
(leadersandbest.umich.edu/)

Charts in Chapter 10

Two-thirds of the U-M's annual General Fund budget directly supports academic activities.

10.1.1 Breakout by Spending Categories of General Fund Budget for the Ann Arbor Campus, FY2024.

67.3 cents of each dollar for academic activities: Instruction, Academic Advising, Libraries, Museums.

9.7 cents for administrative services: Admissions, Budgeting and Accounting, Central Human Resources, Central Information Technology, Legal Services.

13.2 cents for centrally awarded financial aid.

9.8 cents for facilities and risk management: Plant Operations, Utilities, Insurance, Public Safety.

SOURCE: Office of Budget and Planning (Financial Statement Budget Adjustment FY14 Dollar Bill.xls)

10.1.2 General Fund Budgeted Revenue and Expenditure Summary, FY2014-FY2024.

Revenue Budgets	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
State Appropriation	279,109	295,174	299,431	308,639	314,589	320,782	325,532	325,532	322,931	332,619	356,569
Tuition and Fees	1,217,808	1,277,842	1,308,819	1,395,166	1,490,041	1,597,254	1,694,487	1,702,208	1,797,875	1,948,370	2,101,595
Indirect Cost Recovery	219,303	213,874	215,799	226,543	239,050	253,195	277,117	264,054	280,095	301,251	324,048
Other Revenue	7,920	8,020	9,700	9,595	10,095	9,845	10,745	8,245	8,245	8,245	10,845
Total Revenues	1,724,140	1,794,910	1,833,749	1,939,943	2,053,775	2,181,076	2,307,881	2,300,039	2,409,249	2,590,485	2,793,057
Expenditure Budgets by Unit Type											
Schools and Colleges	994,968	1,018,185	1,037,508	1,092,817	1,166,701	1,252,248	1,330,899	1,290,121	1,382,843	1,536,172	1,648,467
University Academic Units	63,995	66,003	67,841	69,059	71,685	75,789	79,680	79,451	80,626	82,533	85,856
Research Units	4,779	3,326	3,719	4,114	2,913	5,549	6,394	5,903	5,773	7,579	5,934
Academic Program Support	69,073	79,912	78,215	98,783	97,319	86,158	86,602	109,720	86,897	68,533	83,489
Capital Renewal Fund	41,894	44,905	46.064	47,693	49,128	49,766	50,670	51,327	52,576	54,153	55,545
Executive Officer and Service Units	256,646	259,499	265,767	275,801	292,000	302,512	315,414	314,460	333,933	352,446	372,020
North Campus Research Complex	12,298	14,403	16,462	15,006	16,103	16,717	16,572	15,728	14,343	14,892	15,892
Financial Aid	161,170	183,444	195,627	212,295	231,436	262,117	286,926	300,842	317,500	332,643	369,277
University Items	119,318	125,232	122,545	124,376	126,490	130,220	134,723	132,487	134,492	141,532	156,577
Total Expenditures	1,724,140	1,794,910	1,833,749	1,939,943	2,053,775	2,181,076	2.307,881	2,300,038	2,409,073	2,590,485	2,793,057

Table entries are dollars in thousands.
SOURCE: U-M Office of Budget and Planning

Revenues grew over the last decade from tuition and indirect cost recovery – until the COVID-19 pandemic arrived. These two revenue sources are again growing in line with past years. Tuition growth has stemmed primarily from increases in out-of-state and graduate program rates, while indirect costs increase as externally funded research grows. A sizable portion of revenues gained by tuition increases goes to financial aid to assist student with need.

The state appropriation values in the table reflect the estimated funding level that was included in the U-M budget approved by the Regents.

NOTE: In charts 10.3, 10.4.1 and 10.4.2, the enacted state appropriations are used.

In addition to the General Fund, the U-M Ann Arbor operating budget projects revenues and expenditures for three additional funds: Designated, Expendable Restricted, and Auxiliary Activities.

10.1.3 Summary of Budgeted Revenues and Expenditures by Funds, FY2014-FY2024.

Budgeted Revenues by Fund	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
General	1,724,140	1,794,910	1,833,749	1,939,943	2,053,775	2,181,076	2,307,881	2,300,038	2,409,249	2,590,485	2,793,057
Designated	143,190	172,489	195,081	196,170	201,890	217,515	232,028	195,653	237,764	253,820	425,338
Auxiliary Activities	3,406,856	3,593,864	3,867,754	4,132,188	4,891,134	5,232,564	5,669,783	5,259,348	6,142,722	6,583,288	8,184,933
Expendable Restricted	1,097,197	1.054.926	1,157,947	1,204,451	1,269,565	1,315,880	1,398,915	1,268,003	1,581,455	1,562,024	1,647,820
Total Revenues	6,371,383	6,616,189	7,054,531	7,472,752	8,416,364	8,947,035	9,608,607	9,023,042	10,371,014	10,989,617	6,079,425

Budgeted Expenditures by Fund	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
General	1,724,140	1,794,910	1,833,749	1,939,943	2,053,775	2,181,076	2,307,881	2,300,038	2,409,073	2,590,485	2,793,057
Designated	143,190	172,489	195,081	196,170	201,890	217,515	232,028	195,653	237,764	253,820	276,100
Auxiliary Activities	3,495,268	3,638,271	3,937,359	4,062,275	4,845,345	5,292,120	5,730,165	5,275,252	6,136,391	6,506,402	8,071,448
Expendable Restricted	1,097,197	1.054.926	1,147,647	1,189,451	1,254,565	1,300,880	1,383,915	1,254,503	1,566,455	1,547,024	1,608,404
Total Expenditures	6,459,795	6,660,596	7,113,836	7,387,839	8,355,576	8,991,590	9,653,988	9,025,447	10,349,683	10,897,731	12,749,008

Table entries are dollars in thousands.
SOURCE: U-M Office of Budget and Planning, U-M Office of Financial Analysis

The total budget of the University of Michigan Ann Arbor is allocated to a wide range of activities, including instruction, research, administration, health care, student financial aid, student housing and athletics, among others. The revenue and expenditure budgets are divided into four main funds, which track broad campus activity groups.

The General Fund is used for operating purposes to support instruction, research, and public service; academic and other student services; operation and maintenance of the university's physical plant; and university-funded financial aid. Revenues for the General Fund come from State of Michigan appropriations, student tuition and fees, indirect cost recovery tied to sponsored grants and contracts, and other income. (See Table 10.1.2 for a breakdown of General Fund revenues and expenditures.)

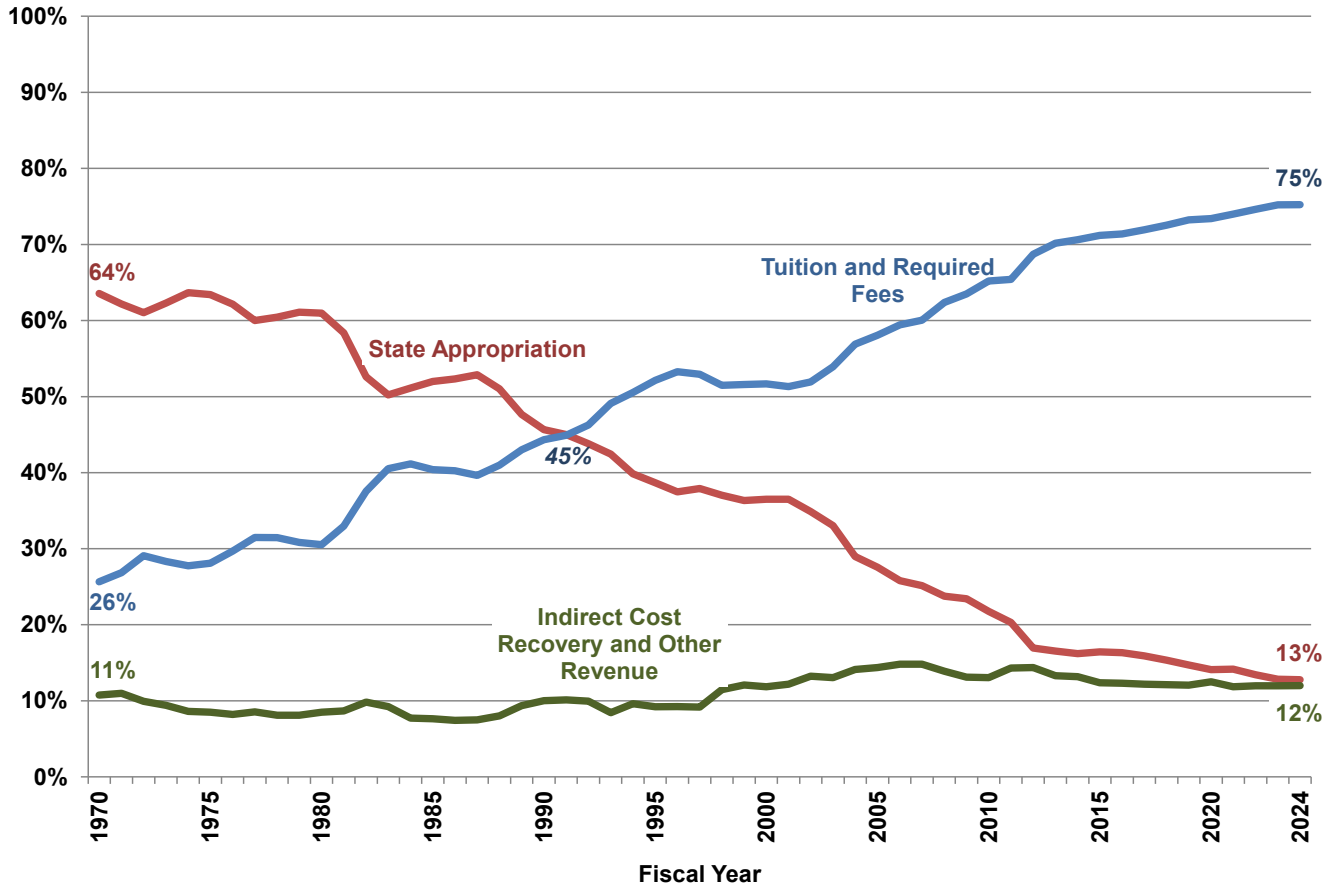
The Designated Fund is like the General Fund in that both support the academic mission of the university, although the Designated Fund revenue sources differ from those for General Fund. The major sources of income in the Designated Fund are departmental revenue for continuing education (non-degree granting), conferences and seminars, royalty income, endowment distribution from unrestricted endowments, publishing of teaching and research data, unrestricted gifts (President only), and investment income from the University Investment Pool for cash held in this fund.

The Expendable Restricted Fund includes spending for research and other sponsored activities with the funds originating from the federal government, other governmental units, non-federal agencies, foundations and charitable organizations, gifts, and endowment distributions. These funds are restricted and may only be used for expenditures relating to the specific purposes as stated by the sponsor or donor.

The Auxiliary Activities Fund supports activities that charge customers for goods and services provided. Auxiliary units include the U-M Hospital and Health Centers, student housing, intercollegiate and varsity athletics, and parking.

The state appropriation's share of the General Fund has declined dramatically since 1970.

10.2 Contributions to the University's General Fund Budget by State Appropriations, Tuition and Fees, and Other Revenues[1], FY1970-FY2024.



SOURCE: U-M Office of Budget and Planning

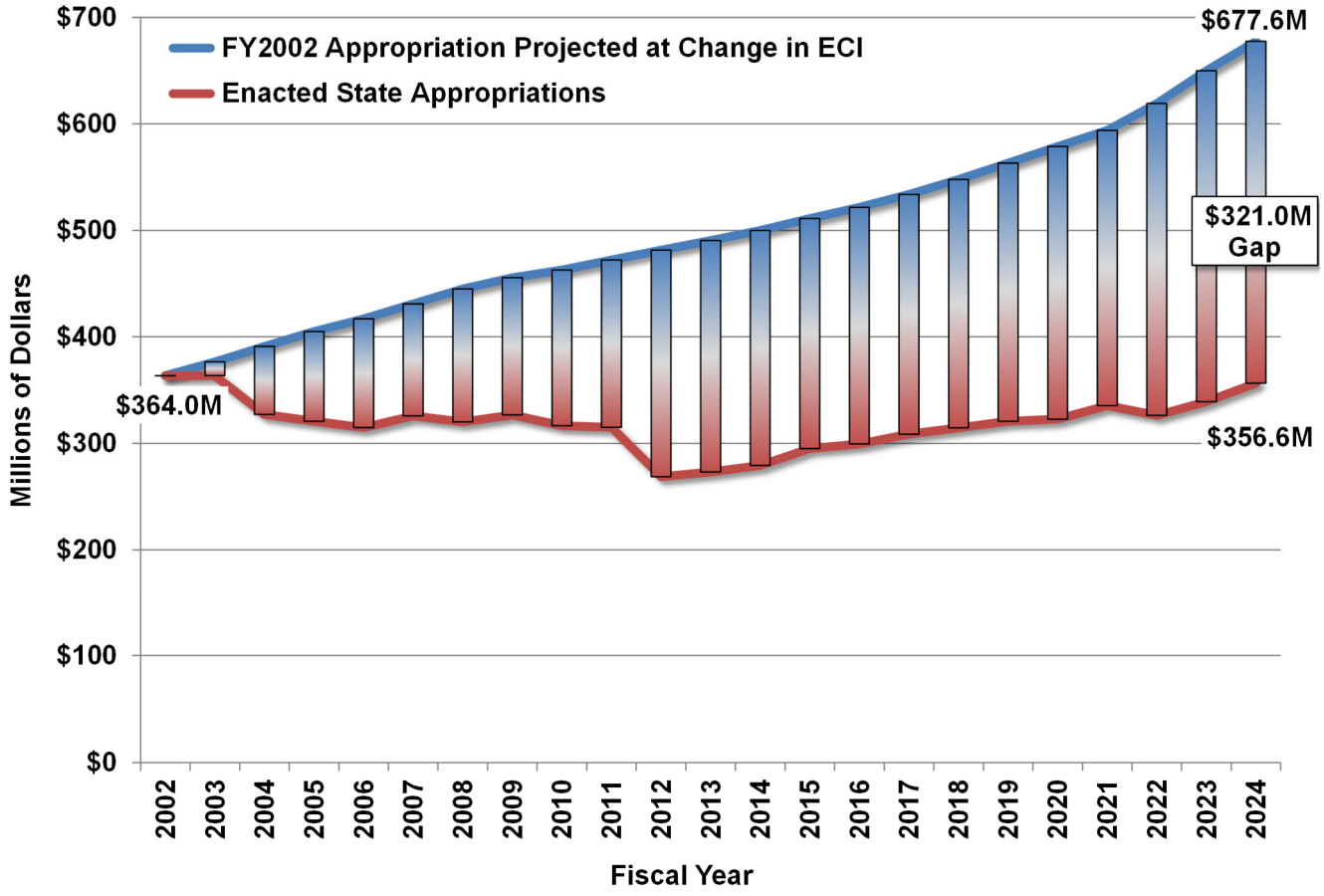
The U-M's General Fund budget for FY2024 projected a State of Michigan appropriation of $356.6 million, an increase of just under $24M from last year's budget.

In FY1970, the State appropriation represented 64 percent of the Ann Arbor campus General Fund budget. By contrast, tuition and required fees for FY2024 will be 75 percent of the General Fund; in FY1970, tuition was 26 percent of the General Fund. The crossover year was FY1991, when the State appropriation and tuition provided 45 percent of the General Fund budgeted revenues.

[1] Prior to FY1969, indirect cost recovery was not included in the General Fund.

The gap between the purchasing power for the FY2002 state appropriation projected to the FY2024 has grown to $321.1 million.

10.3 FY2002 State Appropriation Adjusted for Inflation and Projected Forward to Maintain Constant Value, Compared to Enacted Annual State Appropriations, FY2002-FY2024.



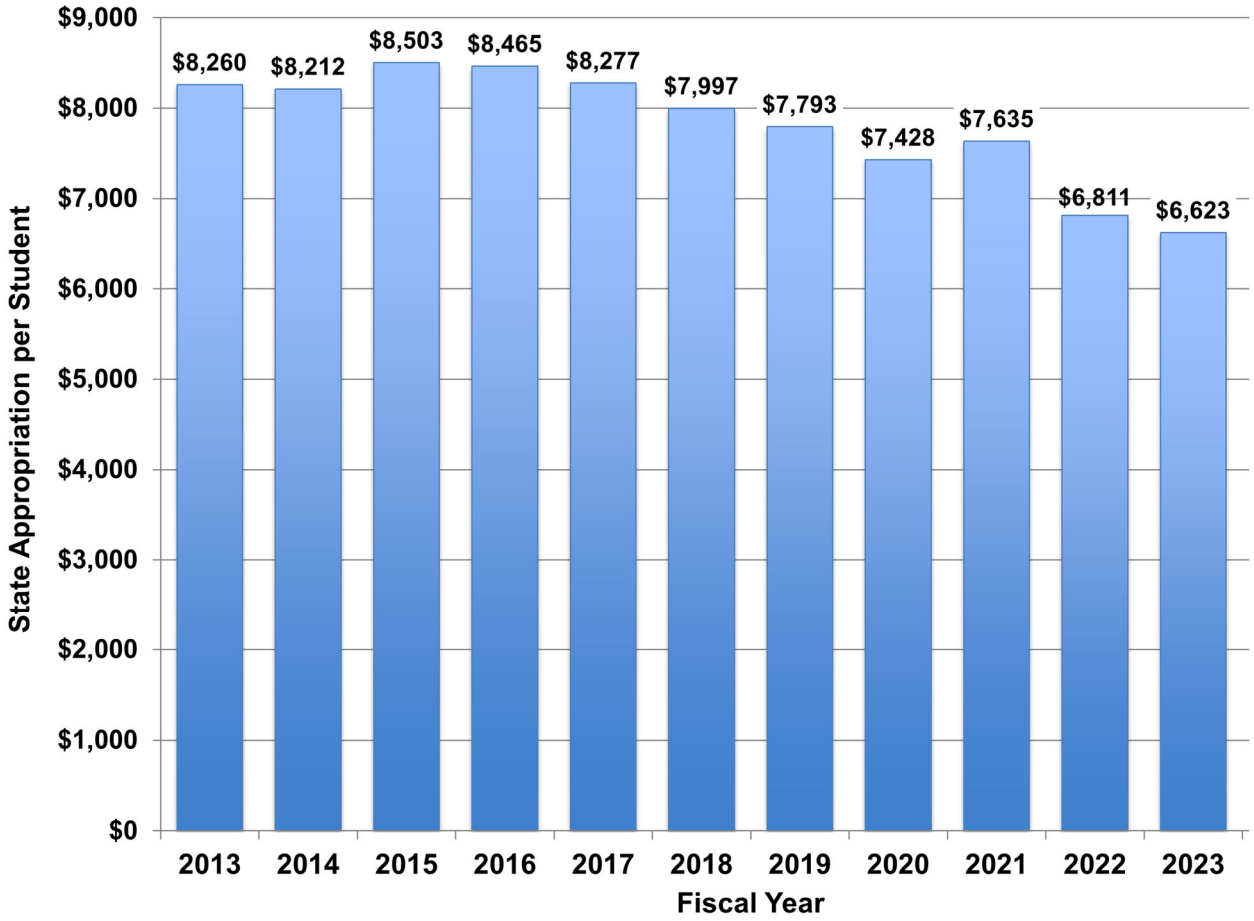
SOURCE: U-M Office of Budget and Planning

In inflation-adjusted dollars, the state appropriation for the Ann Arbor campus peaked at $363.56 million in FY2003. Factoring in inflation[2], the 2023 budgeted state appropriation for the Ann Arbor campus needed to be $677.6 million to equal the purchasing power of the 2002 appropriation, a gap of $321.0 million.

[2] Based on the estimated Employment Cost Index for 2024 as projected by the U-M Research Seminar for Quantitative Economics.

State support per student, when adjusted for inflation, is 20% lower than a decade ago.

10.4.1 State of Michigan Appropriations to the U-M Ann Arbor Campus per Full-Time-Equivalent Student, Adjusted for Inflation[3], FY2013-FY2023.



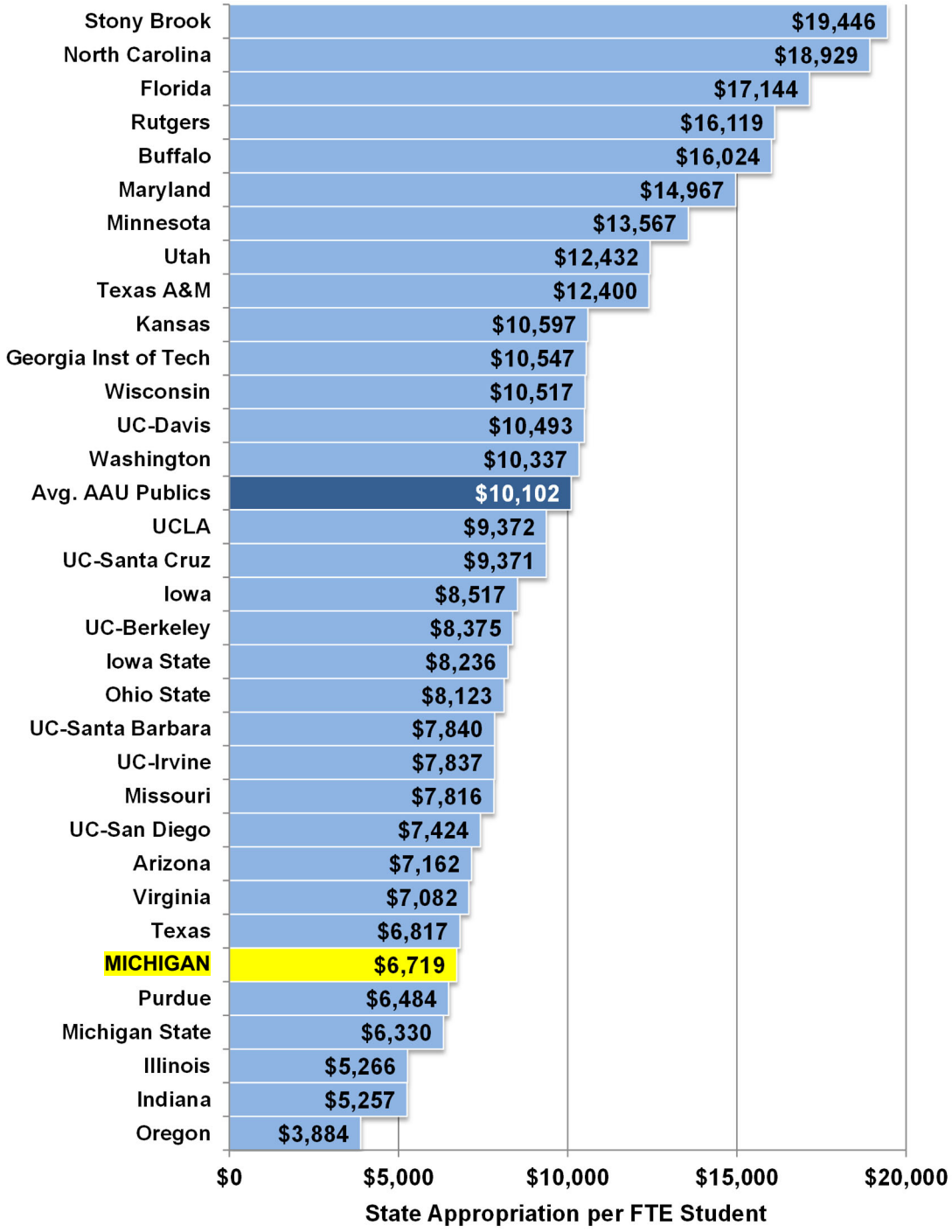
SOURCE: U-M Office of the Registrar, U-M Office of Budget and Planning

This chart is based on a simple calculation: The State of Michigan appropriation to the Ann Arbor campus as enacted each year is adjusted for inflation and the amounts are divided by the official fall semester full-time-equivalent (FTE) enrollment. FTE enrollment is calculated adding the count of part-time students divided by three to the count of full-time students.

[3] Based on the estimated Employment Cost Index for 2022 as projected by the U-M Research Seminar for Quantitative Economics.

Most AAU public universities receive more state support per student than the University of Michigan-Ann Arbor.

10.4.2 State Appropriation per Full-Time Equivalent Student to the U-M and AAU Public Institutions, based on FY2021 Appropriation and Fall 2020 Enrollment.



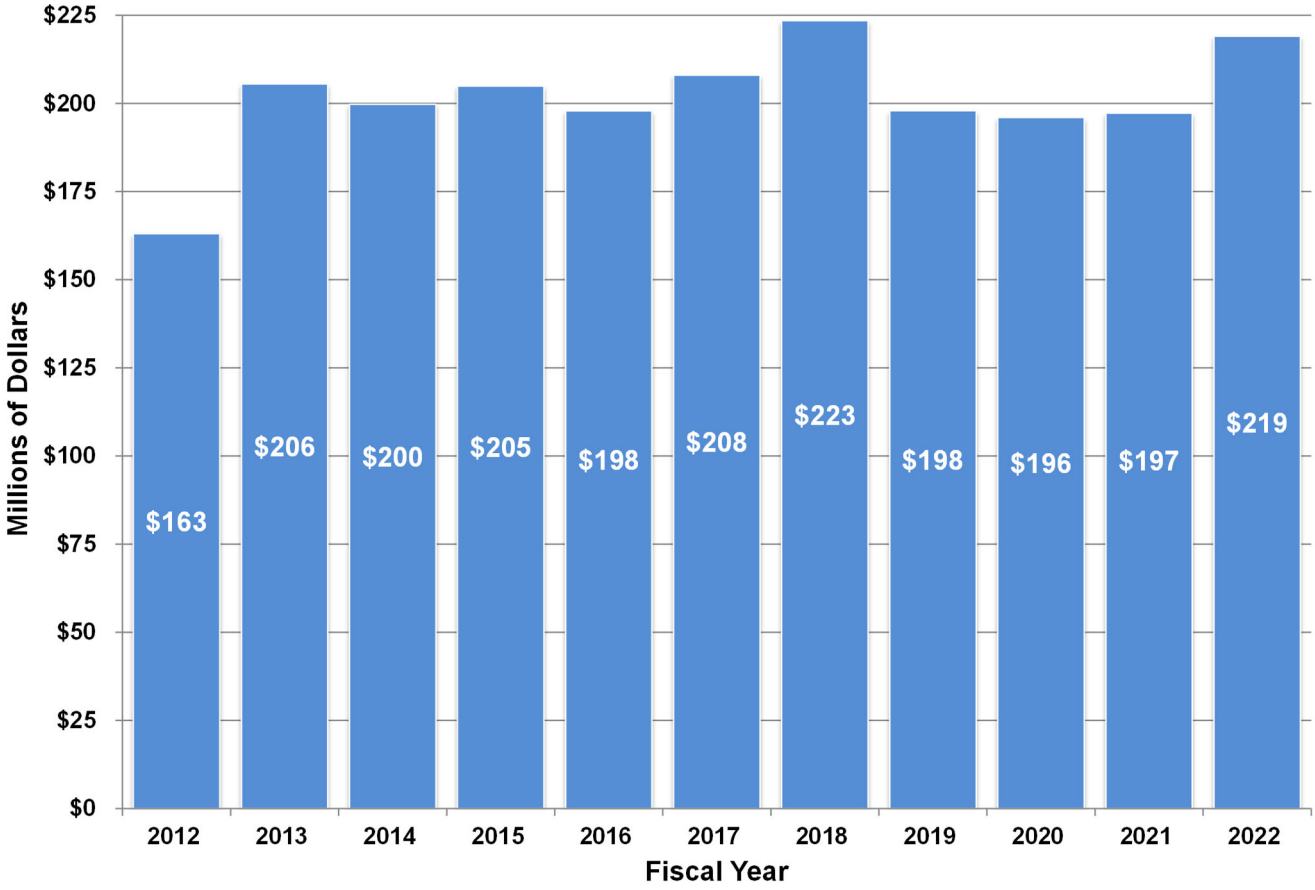
SOURCE: Integrated Postsecondary Education Data System (IPEDS)

The calculation of full-time equivalent (FTE) students for each school is based on IPEDS methodology. State appropriations for three AAU institutions – Pennsylvania State University, University of Colorado-Boulder and University of Pittsburgh – are not available in IPEDS.

Note: These values are not adjusted for inflation, so the U-M value above does not match the FY2021 inflation-adjusted value in 10.4.1.

Gifts are an important source of revenue that supports academic activities, student financial aid, and campus facilities.

10.5 Private Gifts to the University, Adjusted for Inflation[4], FY2012-FY2022.



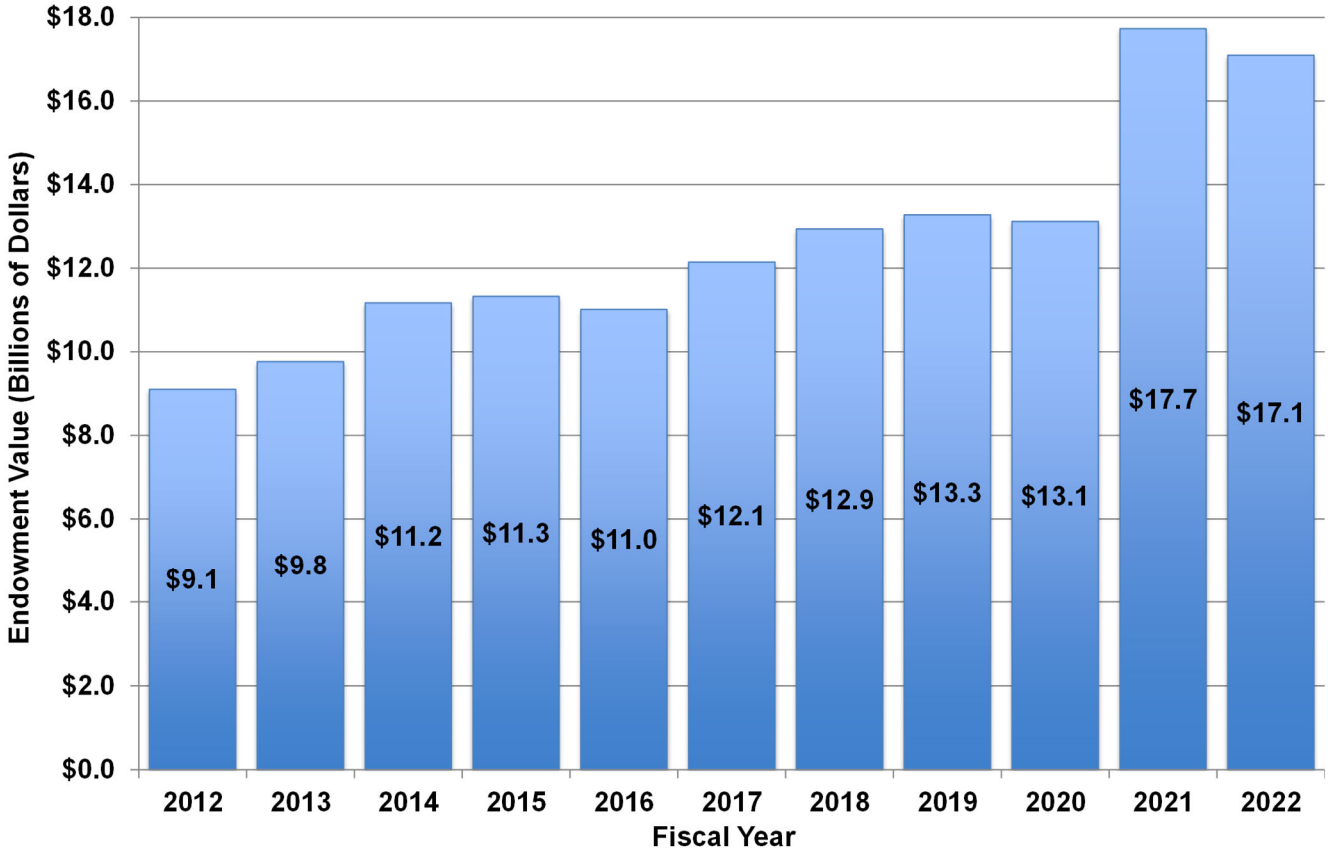
SOURCE: U-M Financial Statement

This chart shows the total private gifts to the University of Michigan for operational activities.

[4] Based on 2022 U.S. Consumer Price Index.

The U-M investment goal for the endowment is to grow it faster than the rate of inflation; this provides funds for the present and the future. In addition, the greater the endownment earnings each year, the more the endowment can contribute to the annual budget.

10.6.1 Total Value of U-M Endowment, Ann Arbor Campus, Adjusted for Inflation[6], FY2012-FY2022.



SOURCE: U-M Accounting Operations

The University of Michigan's endowment is essential to sustaining academic quality. Endowment funds are invested for the long-term, and earnings from those investments provide a guaranteed source of income to support in perpetuity (named) professorships, student scholarships, and innovative programs and learning opportunities. Donors who contribute to the endowment do so because they want to support the University and positively impact U-M students and academic programs now and in the future.

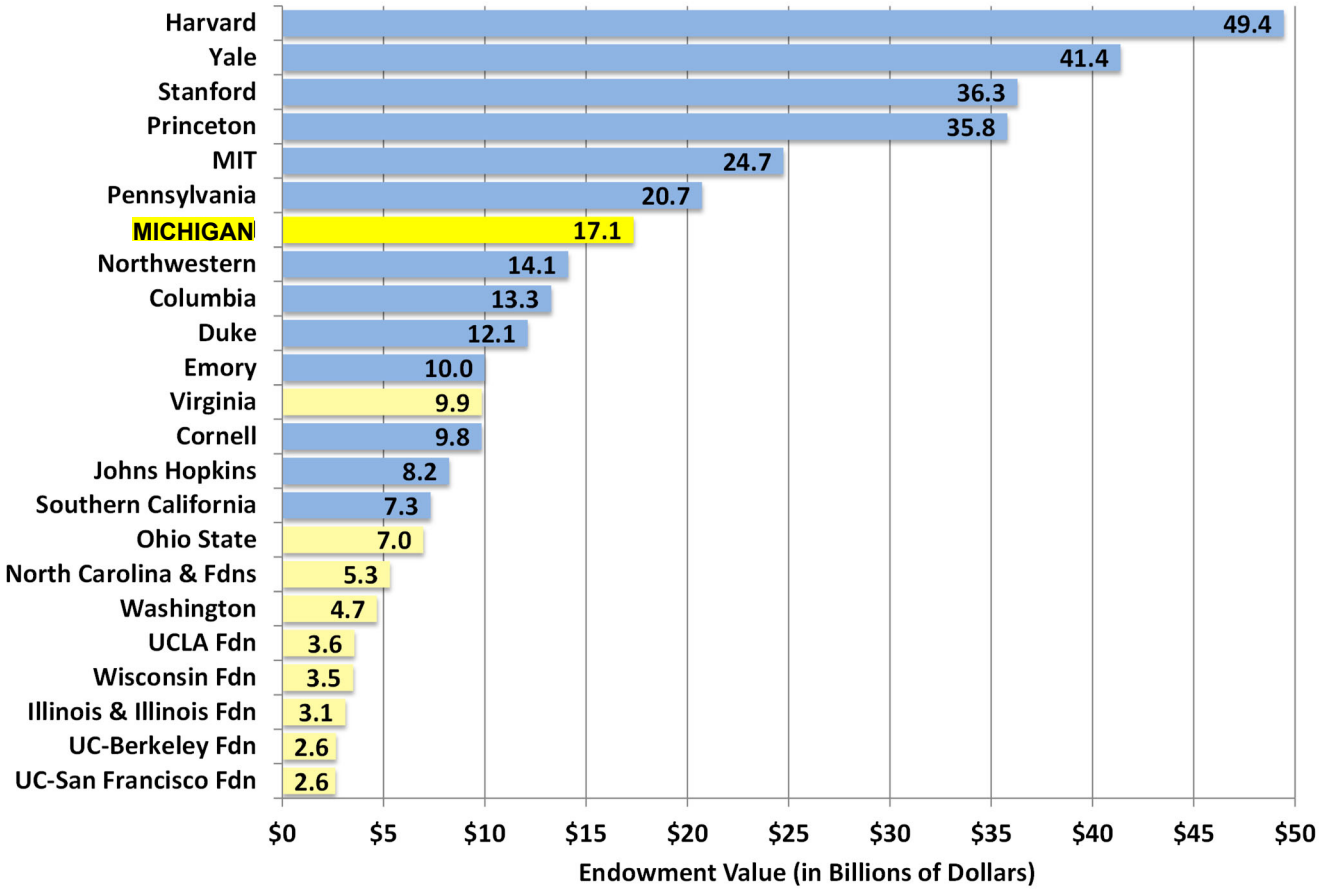
The change in endowment value from FY2021 to FY2022 is primarily due to the signifcant increase in the inflation rate.

The value of the endowment funds shown in the chart are the totals on June 30 of each year.

[6] Based on 2022 U.S. Consumer Price Index.

The U-M has the largest endowment among its public university peers. U-M has a large enrollment, too, so it's endowment per student is much lower than its private university peers with smaller enrollments.

10.6.2 Market Value[7] of Endowment, U-M and Peers, FY2022.



SOURCE: 2022 NACUBO Commonfund Study of Endowments

The U-M endowment market value increased by 3.3 percent, to $17.1B, at the end of FY2022, from $16.8B at the end of FY2021. The COVID-19 pandemic hurt returns for the previous fiscal year, just like it did the U.S. and world economies, although endowments were generally stable in FY2022. The value of North American college and university endowment funds decreased an average of 5.1 percent between FY2021 and FY2022, according to an annual survey of 689 institutions and higher education foundations by TIAA and the National Association of College and University Business Officers (NACUBO).

Data for public universities are shaded in yellow; private university data are shaded in blue.

[7] The change in market value does NOT represent the rate of return for the institution's investments. Rather, the change in the market value of an endowment from one fiscal year to the next reflects the net impact of withdrawals to fund institutional operations and capital expenses, the payment of endowment management and investment fees, additions from donor gifts and other contributions, and investment gains or losses. NACUBO-Commonfund Study of Endowments.

Chapter 11 Space & Sustainability

Goals

Campus space must support the academic and research missions of the University. This means adding space as it's needed as well as applying comprehensive policies on allocation and use of existing space, while doing the capital planning necessary to meet the institution's needs.

The U-M has added a focus on sustainability, which is related to space and to other business practices. As such, the university has set goals for greenhouse gas emissions, carbon output of university vehicles, and production of waste, among others.

Overview

The physical plant of the University of Michigan Ann Arbor campus is extensive, covering 3,188 acres locally. The campus includes 600 buildings with more than 2,000 classrooms and instructional laboratories. The U-M is responsible for 30 miles of roads and five million square feet of sidewalks, steps, ramps, and plazas. More than 16,000 trees and countless gardens populate the campus, as well as 13 million square feet of turf. Fiber optic cable extends more than 200 miles throughout the campus, supporting data centers, file servers, computers, and tablets.

Space utilization guidelines exist for classrooms, food service, research activities, and offices. Space management contributes to efficiency and cost containment While also ensuring that there is enough space available for effective teaching.

Planet Blue is the campus sustainability initiative, which includes educational, research, operational, and community engagement programs. In 2015, the University became a signatory to the American Campuses Act on Climate Pledge, joining more than 200 universities and colleges that committed to "significant action to reduce greenhouse gas emissions, increase campus sustainability, and incorporate environmental sustainability in academic curricula."[1]. In summer 2016, the U-M was one of eight institutions that received the Sustainability Award in Facilities Management[2] from a national organization of physical plant administrators.

In early 2019, the U-M launched the President's Commission on Carbon Neutrality[3]. This 17-member body released recommendations in March 2021 for reducing the U-M's carbon emissions to levels that will help the institution reach its 2025 and 2040 sustainability goals.[4] Recommendations included converting natural gas-based heating and cooling systems to all-electric or geothermal systems. In February 2023, the Ann Arbor campus announced that it had reached two of the2021 goals: greenhouse gas emissions have dropped by 25% compared to the 2006 benchmark, and the application of chemicals to campus grounds has declined by 40% (compared to 2006).

For More Information

Space Planning and Utilization (provost.umich.edu/resources-policies/space-planning/)

Planet Blue (planetblue.umich.edu/)
U-M sustainability education, research, and campus operations

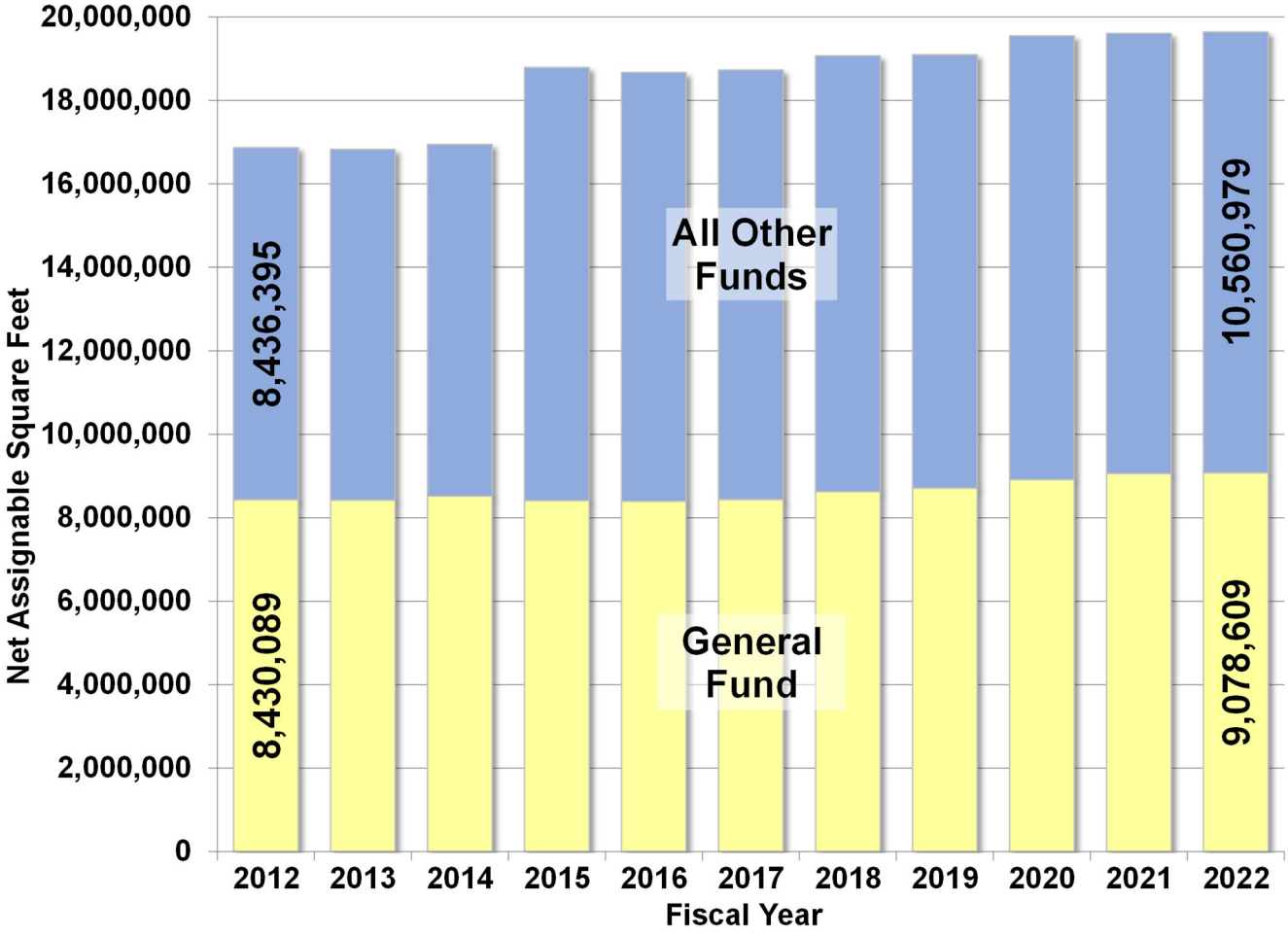
U-M Sustainability Goals (ocs.umich.edu/sustainability-goals/)

Charts in Chapter 11

[1] "University takes the American Campuses Act on Climate Pledge," *University Record*, Nov. 20, 2015.
[2] "U-M wins national award for campus sustainability excellence," *University Record*, July 25, 2016.
[3] "University launches Commission on Carbon Neutrality," *University Record*, February 4, 2019.
[4] " Carbon neutrality commission submits final report and recommendations," *University Record*, March 18, 2021.
[5] "U-M joins Better Climate Challenge in effort to cut emissions," *University Record*, May 24, 2022.

Ann Arbor campus space is divided about equally in being supported by the General Fund and by other funds. Compared to 2012, the General Fund now supports an additional 649,000 square feet, a 7.7% increase[6].

11.1 Total Facilities Space by General Fund and All Other Funds[7], FY2012-FY2022.



SOURCE: U-M Annual Space Management Survey Reports

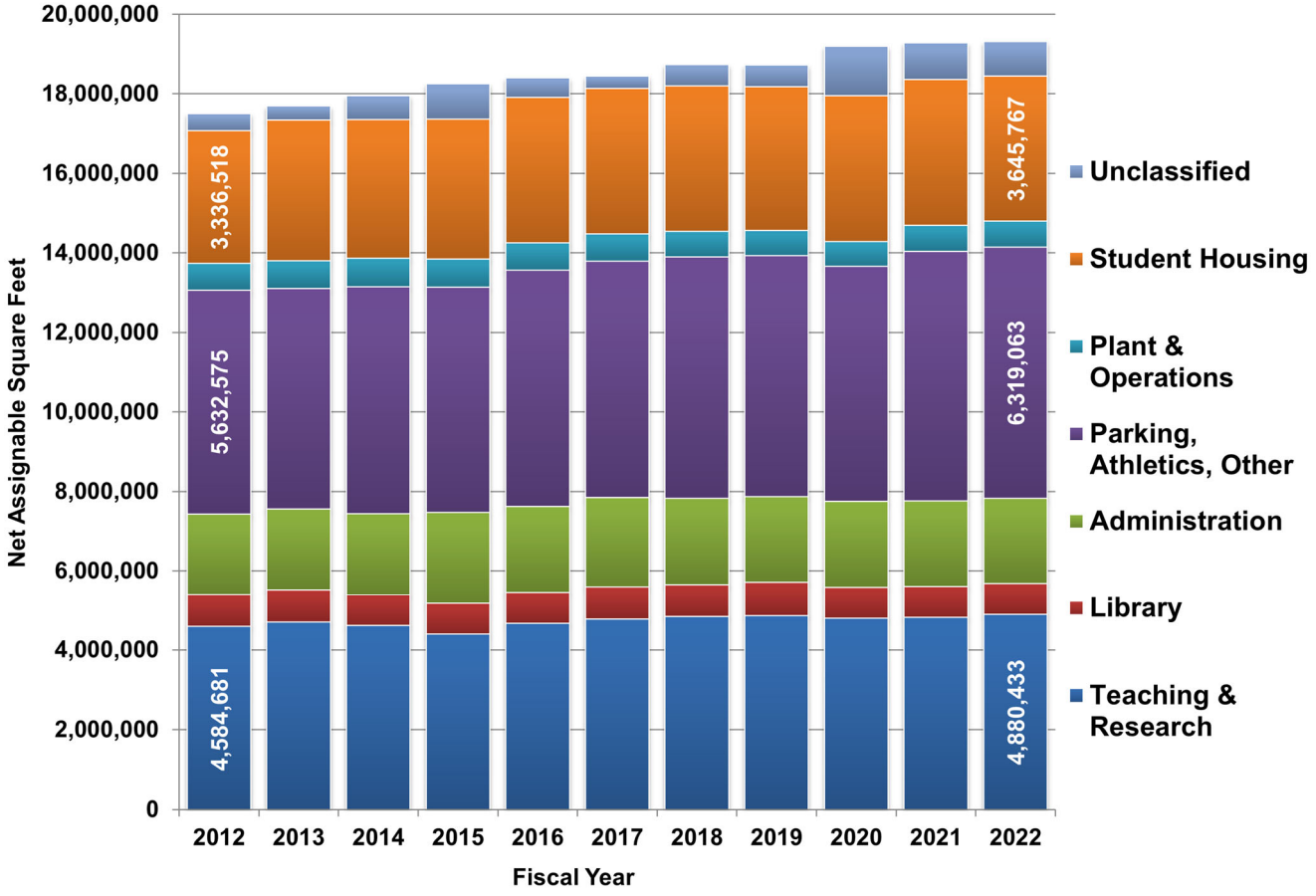
Ann Arbor campus space[5] supported by the General Fund is used for teaching, research, student services, support of the campus physical plant, and administration. All Other Funds space is used for the hospitals and health system, residence halls, parking structures and varsity athletic facilities. These space categories are labeled "net assignable," which means they exclude common areas, such as hallways, staircases, and lobbies.

[6] In this chart, General Fund space excludes the North Campus Research Complex and the non-Medical-School portion of the Health System.

[7] See Chapter 10, Figure 10.2 for details about the definitions of "All Other Funds."

Ann Arbor campus space has increased by 1.82 million net assignable square feet over the last decade at an annual growth rate of about 1.0 percent. All types of space are needed to support the University's mission.

11.2 Ann Arbor Campus Space by Function, FY2012-FY2022.



SOURCE: U-M Office of Space Analysis

Neither this chart nor 11.2.1 includes the space assigned to the U-M Health System or the North Campus Research Complex.

Space in the unclassified category is either not in use or being remodeled. Plant and Operations includes space used in the operation and maintenance of the University's physical plant, its heating/cooling and other utilities services, central information technology services, and some special service operations, such as printing services.

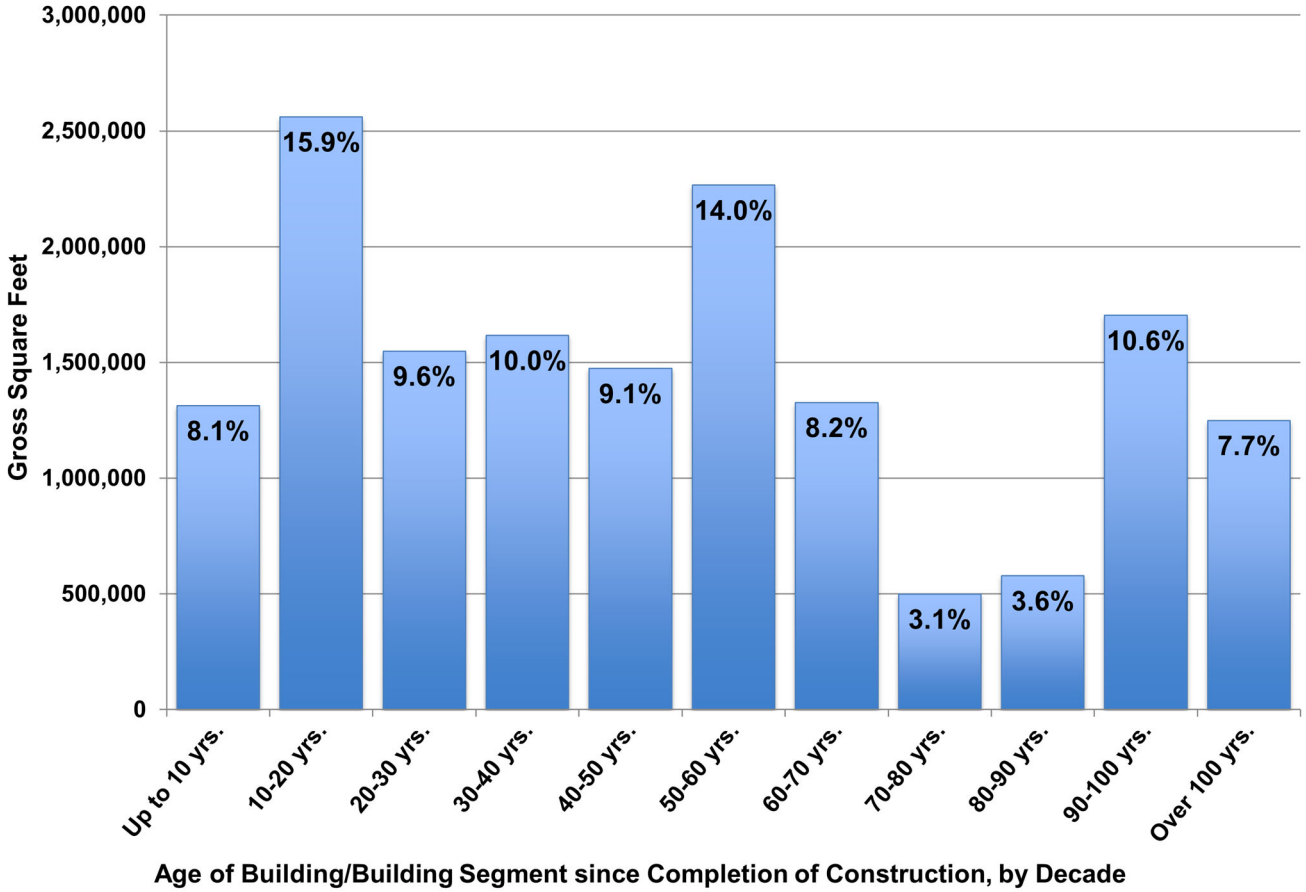
About 5/6 of the space in the Parking, Athletics, Other category is used by parking and athletics. The remainder supports activities such as development, government and community relations, student clubs and organizations, as well as University space leased to private entities or operated under a management agreement with an outside entity (i.e. food service in the student unions). The need for parking and the growth in athletic facilities have driven this category to grow the most over the decade displayed.

Administration combines space used by central functions, departmental functions, and student administration and student services.

Net assignable space excludes hallways, restrooms, elevators, and custodial areas.

More than half of the buildings on campus have been built or remodeled in the the last 50 years.Almost one-fifth of the buildings on campus are at least 90 years old.

11.3 Age of Ann Arbor Campus General Fund Space, by 10-year Increments through FY2022.



SOURCE: U-M Space Dataset

The General Fund building space for the Ann Arbor campus[8] and nearby areas totals 15.5 million gross square feet. Buildings on campus that are more than 100 years old include the President's House, Newberry Hall, Tappan Hall, Burnham House, and two barns at Matthaei Botanical Gardens; the 100-year-old structures contribute about 850,000 gross square feet to the campus total.

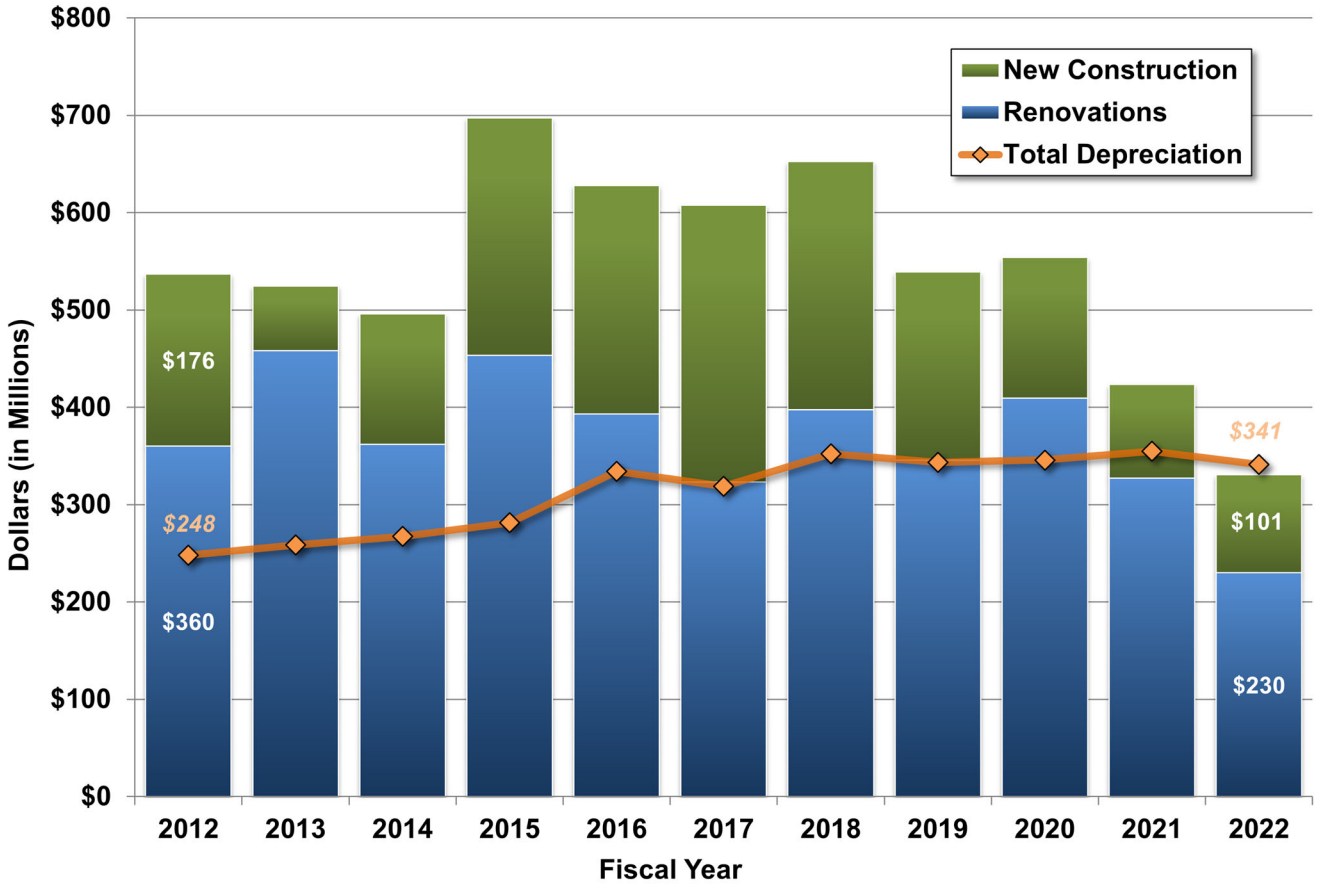
The last 20 years saw a large increase in new construction on campus tied to several U-M initiatives. During this period, the U-M campus added the Biomedical Sciences Research Building, Undergraduate Science Building, Palmer Commons, Computer Science Building, and the Ross School of Business building.

Buildings associated with auxiliary activities (e.g., U-M hospitals and clinics, student residence halls and athletic facilities) are not included in this chart because these facilities are not supported by the General Fund. Also, this chart does not include the North Campus Research Complex, a group of buildings acquired by the University in 2009.

[8] This chart excludes the non-Medical School parts of Michigan Medicine and the North Campus Research Complex.

The University tries to maintain a balance between adding new space and renovating existing space on campus.

11. 4 U-M General Fund Renovation and New Construction Expenditures, Adjusted for Inflation[9], and Depreciation of the U-M Physical Plant, FY2012-FY2022.

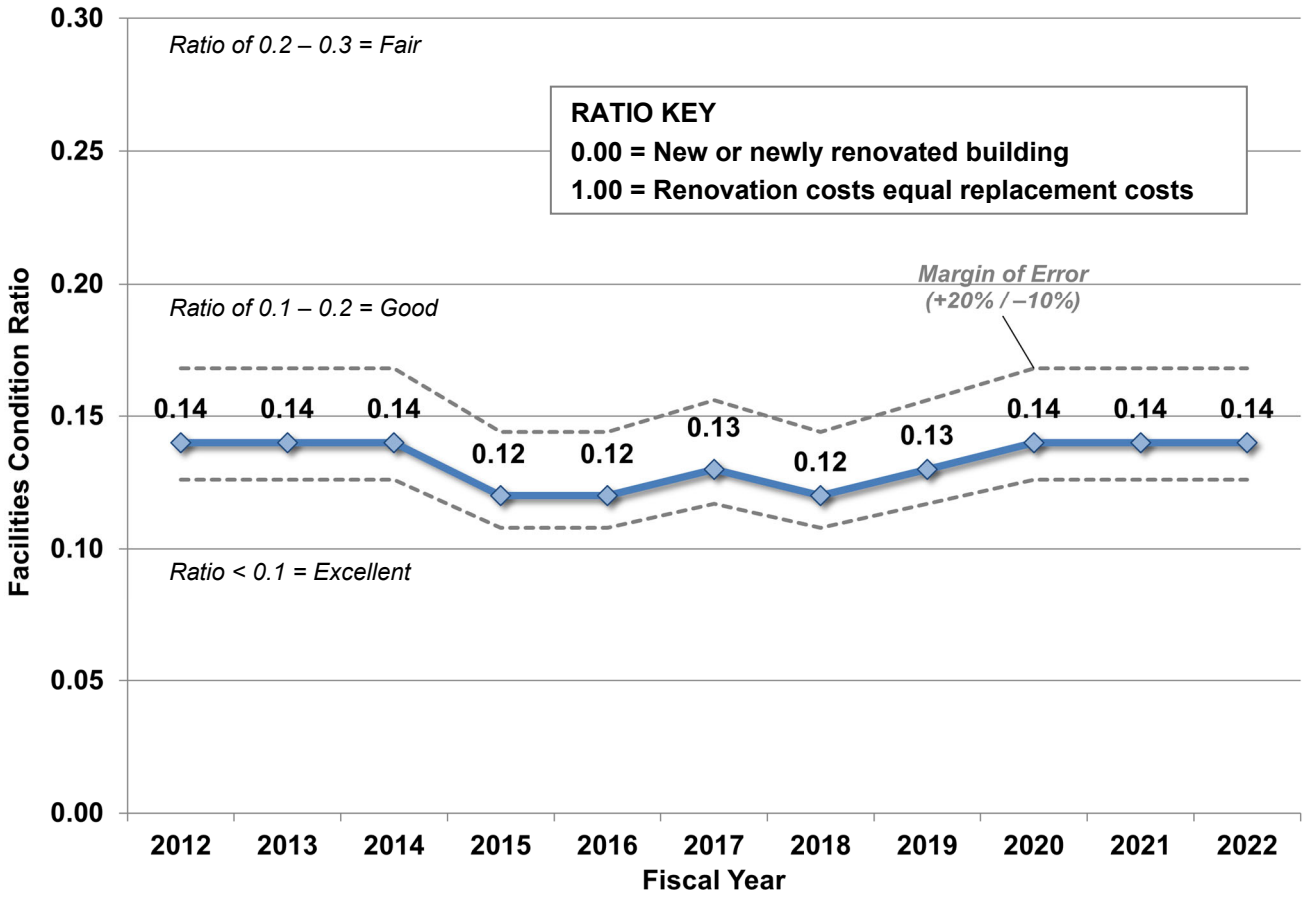


SOURCE: U-M Office of Financial Analysis

[9] Based on December 2021 Building Cost Index, *Engineering News-Record*.

The overall condition of General Fund buildings on the Ann Arbor campus has remained consistent. The U-M continues to monitor building condition by identifying and prioritizing infrastructure needs.

11.5 Ratio of General Fund Infrastructure Renovation Costs to Total Replacement Costs, FY2012-FY2022.

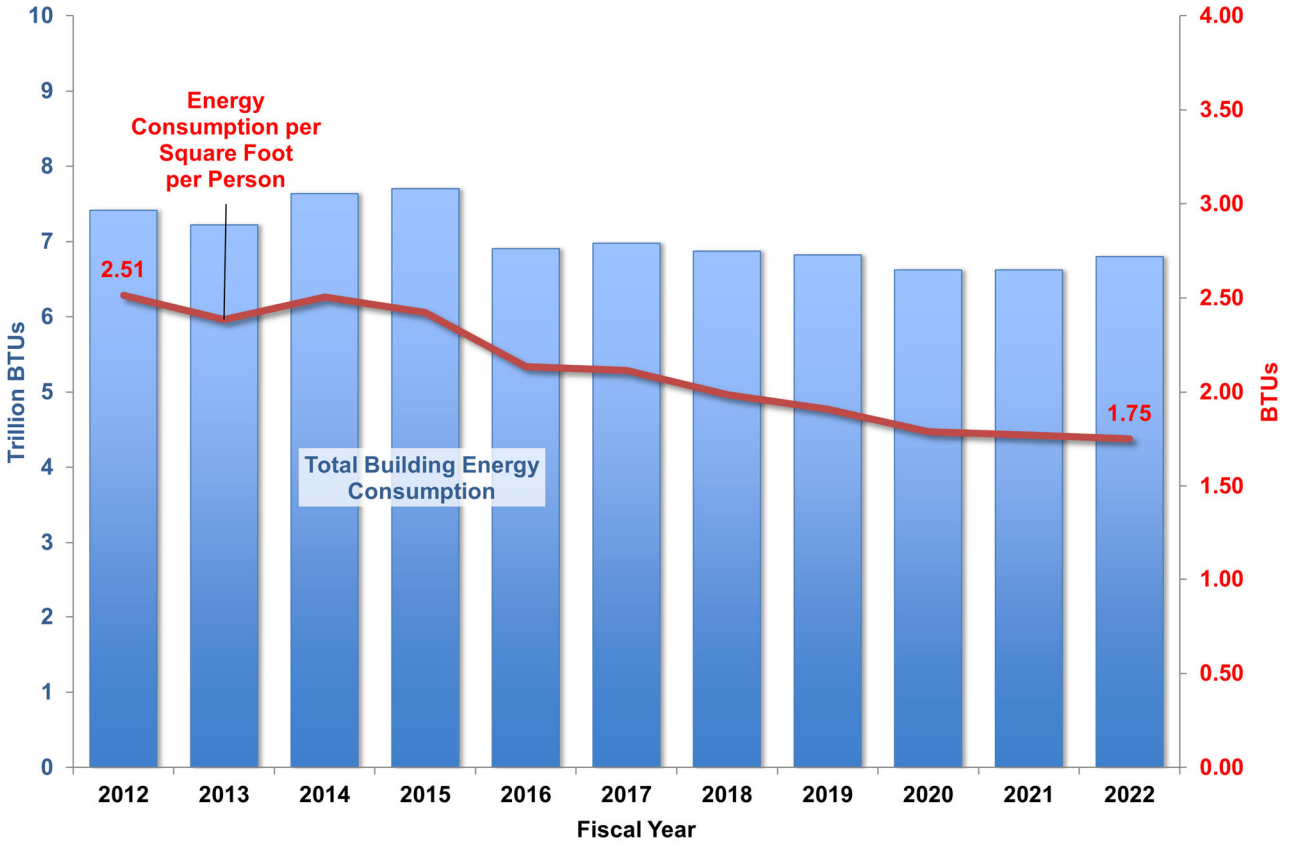


SOURCE: U-M Office of Financial Analysis

The facilities condition ratio is an indicator of building condition that divides the cost of needed building renovations by the cost to replace those structures. The ratio maximum of 1.0 indicates that the cost of renovating the existing facilities equals their total replacement. A ratio of 0 would mean no renovations are necessary; that is, the facilities are all new or newly renovated. A ratio of 0.2-0.3 is generally considered Fair, 0.1-0.2 is considered Good, and below 0.1 is considered Excellent.

Total energy use in campus buildings and energy use per square foot per person has declined compared to a decade ago because new construction and remodeled space is more efficient.

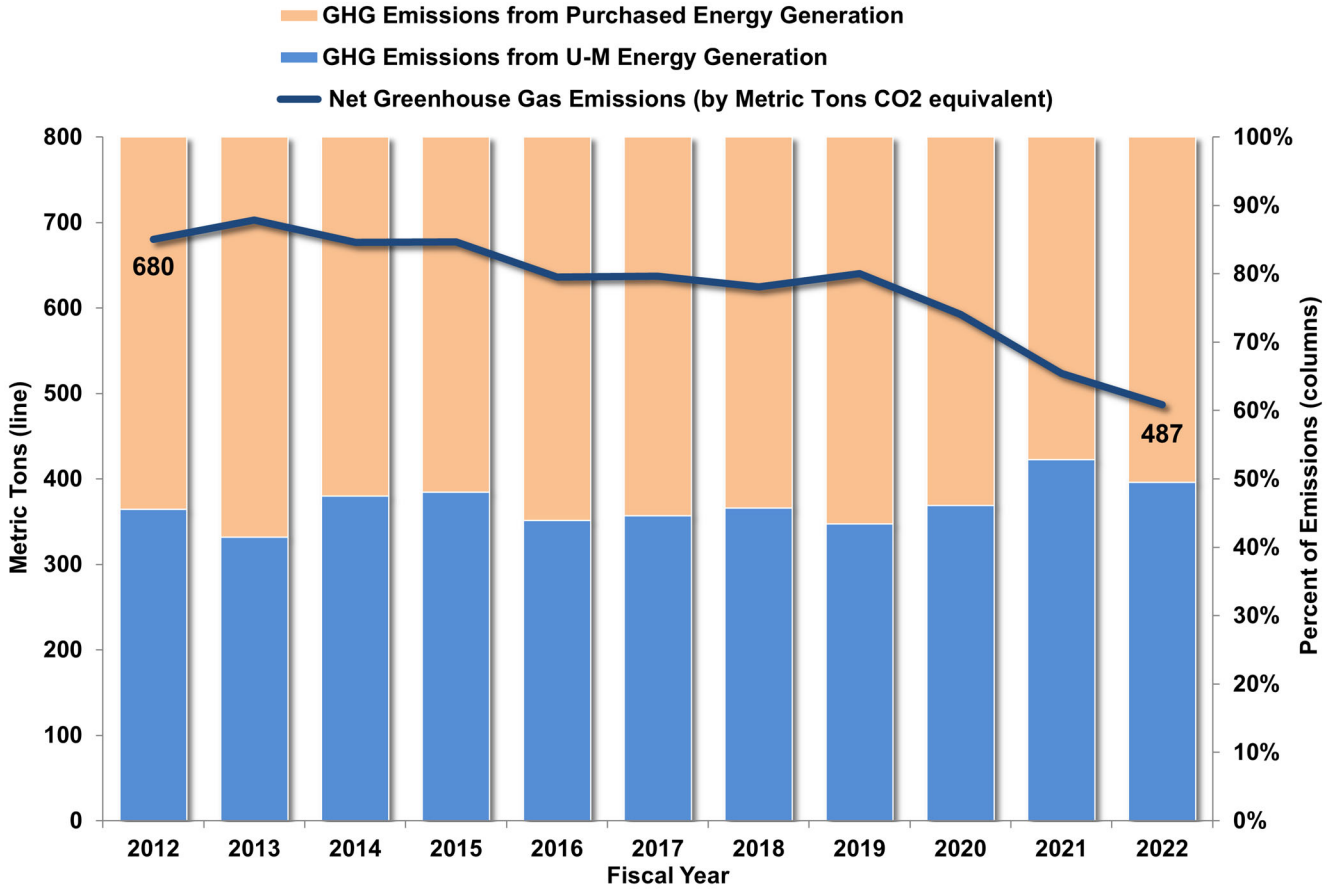
11.6.1 Building Energy Use, Total and per Square Foot per Person, FY2012-FY2022.



SOURCE: U-M Utilities and Plant Engineering

Net greenhouse gas emissions from campus buildings and vehicles have declined over the past several years as the fuel source for generating electricity has shifted to natural gas over coal.

11.6.2 Greenhouse Gas Emissions, Total and Percent of Emissions by Energy Generation Source, FY2012-FY2022.

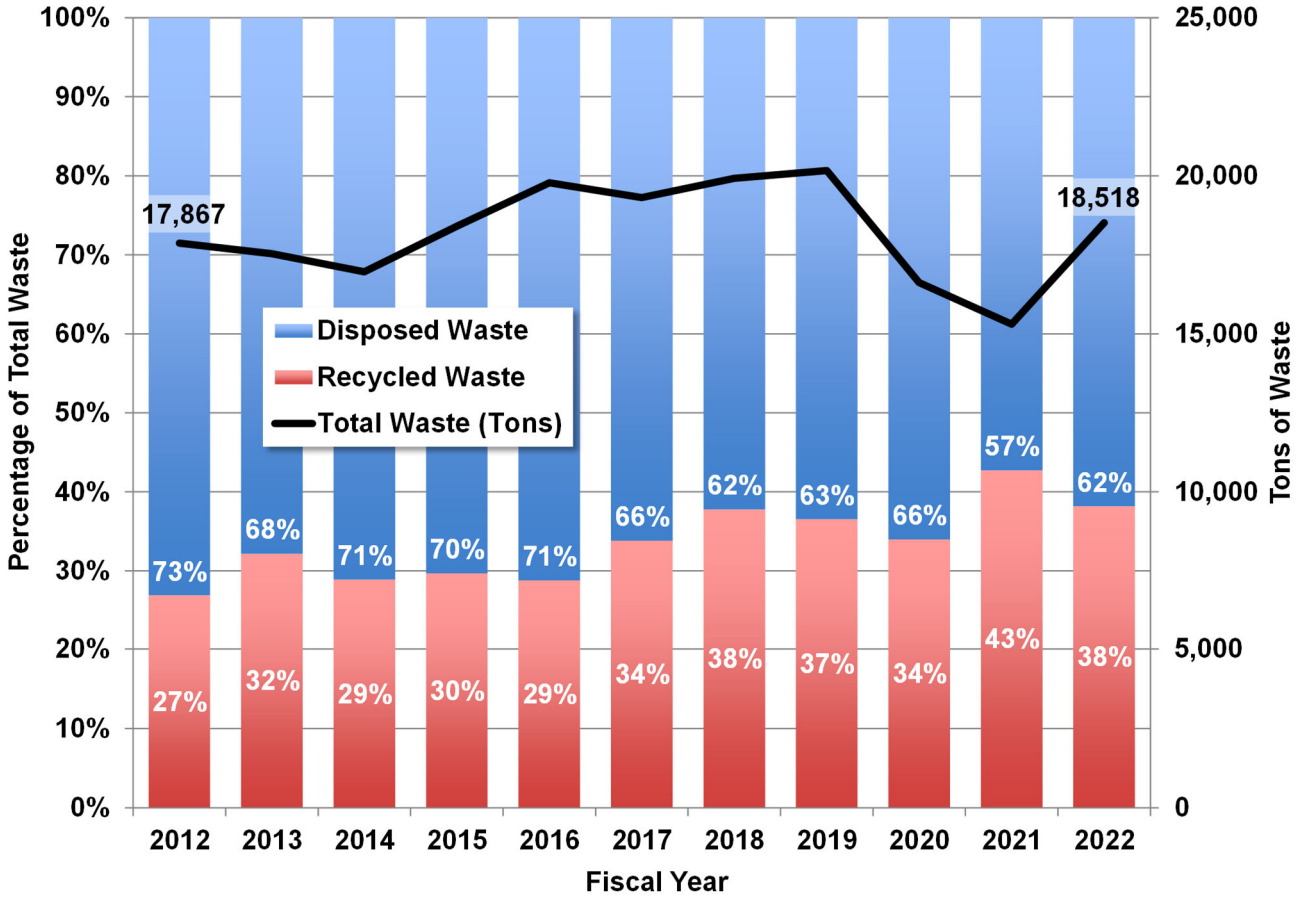


SOURCE: U-M Utilities and Plant Engineering

The level of greenhouse gas emissions is influenced by two factors: total energy usage and the energy provider. University-generated energy is optimized for efficient production and to limit greenhouse gas production. The university also purchases some energy generated that utilities produce at coal-fired plants, which produces higher levels of greenhouse gases. As natural gas becomes competitive with coal as a fuel source, U-M's external energy providers are shift to this fuel, greenhouse gas emissions have fallen. Also, U-M is making strides in producing energy from renewable sources.

The total waste generated at the University of Michigan increased in FY22 as on-campus work and educational activities returned following a lift in pandemic-related restrictions.

11.6.3 Total Waste and Percent Recycled Compared to that sent to a Landfill, FY2012-FY2022.



SOURCE: U-M Waste Management

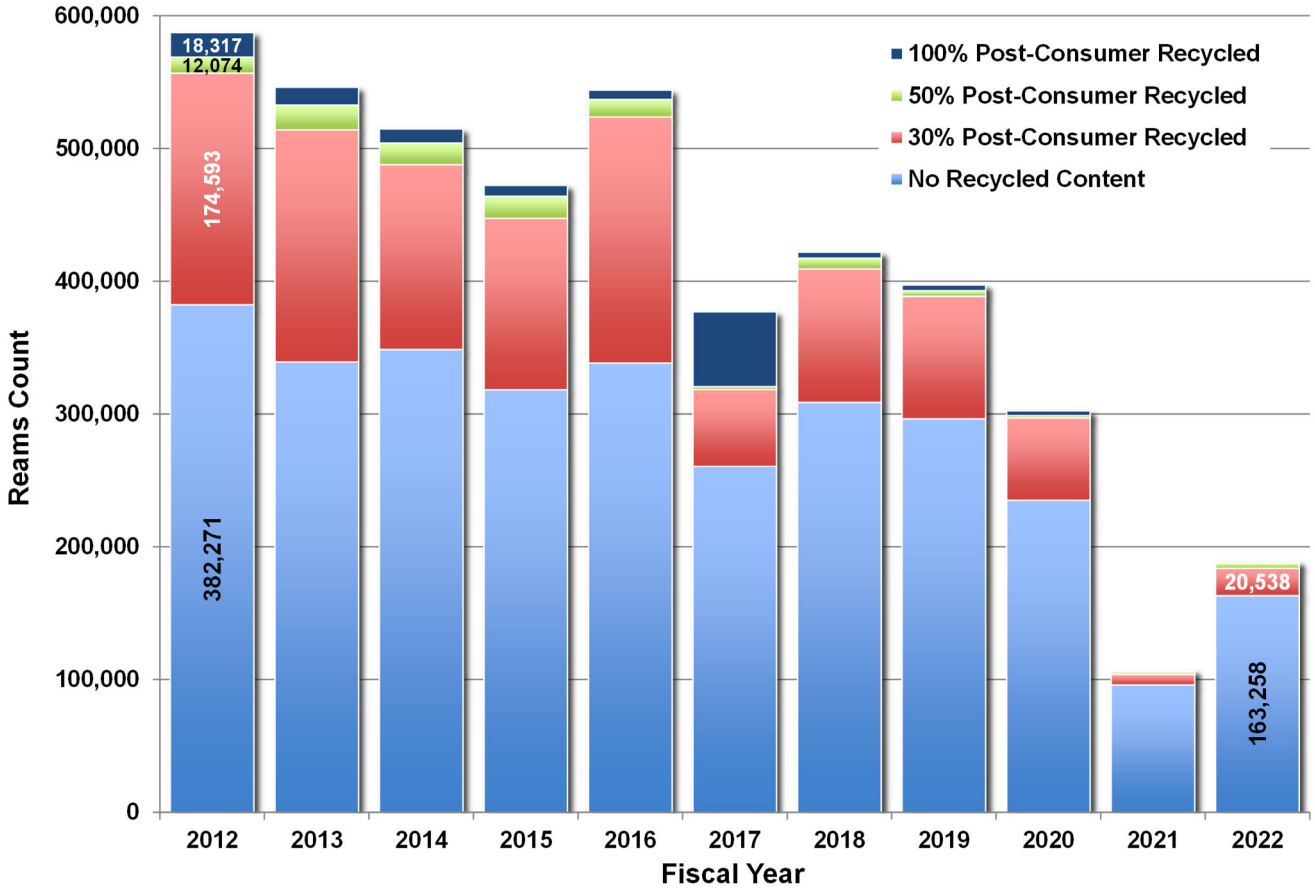
The values in the red columns indicate the percentage of total waste that was recycled. Total waste tends to track the overall space in use, which is increasing, so there is constant tension between space growth and waste that is recycled.

In fall of 2020, the U-M Office of Campus Sustainability[10] introduced "Where to Throw," a web application that allows the user to enter an item's description and find out the best method of reuse, recycle, composting, or, if necessary, disposal. See ocs.umich.edu/resources/where-to-throw/.

[10] 'Where to Throw' search tool eases campus waste disposal decisions, *The University Record*, Oct. 15, 2020.

The total amount of paper purchased by the University increased in FY2022 compared to the previous year, largely due to the return of in-person campus activities.

11.6.4 Paper Purchased by Percent Recycled Content, FY2012-FY2022.



SOURCE: U-M Office of Campus Sustainability

The changes in the types of paper used on c ampus over the last three years is difficult to interpret. In FY2020 total paper use declined, which might be both part of a trend to reduction in paper consumption, but also an effect of the campus clsoing down during the last half of the fiscal year due to the pandemic.

The large drop the following year would appear to be linked to the near total shutdown of on-campus activity. In FY2022, as people returned to on-campus activity, paper use increased, although recycled paper use appears to be at a level less than expected. It may take another year or two to determine the latest paper usage behaviors.

Chapter 12 Academic & Reputational Lists

Overview

The publication of university and college rankings has grown increasingly popular since *U.S. News* released the results of its first reputational survey of U.S. universities in 1983.

While rankings today remain a compilation of opinions, most rankings (*US News* included) now blend opinion survey results and quantitative data. The ranking sponsors sort and organize the data and opinions by different methods and create ordered lists of institutions.

Ranking lists are now part of the public conversation about higher education, and they can influence policymakers, prospective students, and donors. University officials are pleased that U-M is continually recognized as an excellent institution, while also noting that what should matter most is to understand an institution's commitment to academic excellence and societal impact when selecting a school to attend.

Recently high-profile law schools and medical schools announced they will not submit data for the *US News* ranking process. Only time will tell what effect these actions will play on the system of university and college rankings. Ironically, rankings are based on publicly available data from federal or state government sources, data provided by the schools (that can usually be found on a school's website), and surveys of university and college presidents, provosts, and deans (whose opinions may serve as echo chambers of the *status quo*).

In this chapter you will find tables showing well-known rankings, with U-M's position alongside those of schools it considers as peers[1]. In the end, what matters most is choosing a school that matches a student's particular interests, abilities, and ambitions with the programs, approaches and opportunities offered by a particular school.

Charts in Chapter 12

[1] Peer lists are provided in Appendix A

The U-M is one of the nation's leading public universities, according to the methodology used by *U.S. News & World Report* to produce its ordered list.

12.1.1 *U.S. News & World Report* Rankings of National Undergraduate Universities, U-M and Peers[1], 2018-2022.

University	2018	2019	2020	2021	2022	
					All	Public
Princeton University	1	1	1	1	1	--
Columbia University	2	2	2	2	18	--
Harvard University	3	3	3	2	3	--
Massachusetts Institute of Technology	3	3	3	2	2	--
Yale University	3	3	3	5	3	--
Stanford University	7	6	6	6	3	--
University of Chicago	3	6	6	6	6	--
University of Pennsylvania	8	6	6	8	7	--
Duke University	8	10	12	9	10	--
Johns Hopkins University	10	10	9	9	7	--
Northwestern University	10	10	9	9	10	--
Cornell University	16	17	18	17	17	--
University of California-Los Angeles	19	20	20	20	20	1
Emory University	21	21	21	21	22	--
University of California-Berkeley	22	22	22	22	20	1
UNIVERSITY OF MICHIGAN	27	25	24	23	25	3
University of Virginia	25	28	26	25	25	3
University of Southern California	22	22	24	27	25	--
University of North Carolina	30	29	28	28	29	5
University of Texas	49	48	42	38	38	10
University of Wisconsin	49	46	42	42	38	10
University of Illinois	46	48	47	47	41	13
Ohio State University	56	54	53	49	49	16
University of Washington	59	62	58	59	55	19

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: *U.S. News & World Report*, America's Best Colleges (2019-2023 Editions)

The *U.S. News & World Report* (*USN&WR*) system for creating an ordered list of 440 national universities (that is, universities that offer a full range of undergraduate majors, as well as master's and Ph.D. programs, and emphasize faculty research) is based on indicators chosen by *USN&WR* to reflect the academic quality of each institution.

The current indicators (and their contribution to the overall ranking) include: opinions of administrators at peer institutions (20%); rates that new first-year students return for a second year (4.4%); six-year graduation rates (17.6%); graduation rate performance (8%); factors that influence student social mobility (5%); faculty resources (20%); average spending per student on instruction, research and student services (10%); student selectivity (7%); bachelor's graduates indebtedness (5%); and the rate at which living alumni donate to the institution (3%). Additional detail on how these items are used to calculate the rankings can be found on the *USN&WR* web site or the annual rankings publication.

The U-M consistently appears in the top five of public universities according *USN&WR* methodology. Michigan receives high marks for retention of first-year undergraduates, graduation rate, the percentage of first-year undergraduates in the top 10 percent of their high school graduating classes, and its academic reputation.

[1] Peer lists are provided in Appendix A.

101 U-M graduate schools and programs are listed in the top ten in their fields (in bold) by *U.S. News & World Report*. Programs in italics are outside the top ten in their fields.

12.1.2 *U.S. News & World Report* Rankings of U-M Graduate Schools and Programs, 2023.

Best Business Schools	8
Accounting	**5**
Business Analytics	*13*
Entrepreneurship	**8**
Executive MBA	**7**
Finance	**10**
Information Systems	*13*
International	**8**
Management	**3**
Marketing	**3**
Nonprofit	**5**
Part-time MBA	**7**
Production/Operations	**5**
Project Management	**2**
Real Estate	*18*
Supply Chain/Logistics	*12*

Best Education Schools	1
Curriculum/Instruction	**5**
Education Policy	**7**
Educational Administration	**7**
Educational Psychology	**1**
Elem. Teacher Education	**3**
Higher Education Admin.	**1**
Secondary Teacher Education	**4**

Best Social Work Schools	1

Best Public Affairs Schools	4
Environ. Policy & Mgmt.	**5**
Health Policy & Management	**2**
Nonprofit Management	*24*
Public Finance & Budgeting	*35*
Public Policy Analysis	**2**
Social Policy	**2**
Urban Policy	*22*

Best Engineering Schools	7
Aerospace Engineering	**4**
Biomedical Engineering	**9**
Chemical Engineering	**10**
Civil Engineering	**5**
Computer Engineering	**7**
Electrical Engineering	**4**
Environmental Engineering	**2**
Industrial Engineering	**2**
Materials Engineering	**7**
Mechanical Engineering	**5**
Nuclear Engineering	**1**

Library & Information Studies Schools	6
Archives & Preservation	**4**
Digital Librarianship	**8**
Health Librarianship	**2**
Information Systems	**3**

Best Pharmacy Schools	3

Best Nursing Schools-Master's	8
Best Nursing Schools-Dr. Nursing Practice	**5**
DNP Nurse Practitioner-Family	**8**
DNP Nurse Pract. Adult/Ger., Acute Care	**8**
Master's Nurse Pract. Adult/Ger., Acute Care	**7**
Master's Nurse Practitioner Family	**7**
Nursing Midwifery	**2**

Best Public Health Schools	5
Biostatistics	**3**
Environmental Health Sciences	**5**
Epidemiology	**4**
Healthcare Management	**3**
Health Policy and Management	**3**
Social and Behavioral Sciences	**5**

SOURCE: *U.S. News & World Report*, America's Best Grad Schools (2024 Edition)

U.S. News & World Report publishes rankings of graduate programs offered by U.S. universities based on surveys of administrators, academics, and professionals as well as data that reflect the quality of a program's faculty, students, and research. Business, Education, Engineering Law, Medicine, and Nursing programs are evaluated each year, while others are evaluated and ranked less frequently.

The U-M Las School and Medical School do not participate in the U.S. News Graduate Program Rankings.

12.1.2 *U.S. News & World Report* Rankings of U-M Graduate Schools and Programs, 2023 (continued).

Social Sciences	
Economics	*12*
International Economics	**9**
Labor Economics	**7**
Public Finance	**7**
Political Science	**4**
American Politics	**1**
Comparative Politics	**7**
International Politics	**6**
Political Methodology	**4**
Sociology	**2**
Economic Sociology	**5**
Historical Sociology	**1**
Sex & Gender	**5**
Social Stratification	**3**
Sociology of Population	**5**

Best Social Work Schools	1

Humanities	
English	**8**
18th Through 20th Century British Lit.	**10**
Gender and Literature	**7**
Literary Criticism and Theory	*18*
History	**2**
African History	**5**
African American History	**9**
Asian History	**8**
Cultural History	**10**
European History	**7**
Latin American History	**4**
Modern U.S. History	**5**
U.S. Colonial History	*11*
Women's History	**4**

Life and Physical Sciences	
Biological Sciences	*23*
Cell Biology	*18*
Ecology/Evolutionary Biology	**9**
Biostatistics	**4**
Chemistry	*14*
Analytical Chemistry	**6**
Biochemistry	*12*
Organic Chemistry	*11*
Physical Chemistry	*19*
Computer Science	*11*
Artificial Intelligence	*10*
Programming Language	**18**
Systems	**10**
Theory	*15*
Earth Sciences	**9**
Geochemistry	*11*
Geology	**10**
Paleontology	**3**
Mathematics	*11*
Algebra/Number Theory/Algebraic Geometry	**6**
Analysis	*12*
Applied Math	*13*
Discrete Mathematics & Combinatorics	**10**
Geometry	*11*
Topology	**9**
Physics	*13*
Condensed Matter	*16*
Elem. Part./Fields/String Th.	*12*
Psychology	**3**
Behavioral Neuroscience	**3**
Clinical Psychology	**10**
Cognitive Psychology	**8**
Developmental Psychology	**2**
Social Psychology	**1**
Statistics	**7**

SOURCE: *U.S. News & World Report*, America's Best Grad Schools (2024 Edition)

U.S. News & World Report publishes rankings of graduate programs offered by U.S. universities based on surveys of administrators, academics, and professionals as well as data that reflect the quality of a program's faculty, students, and research. Business, Education, Engineering Law, Medicine, and Nursing programs are evaluated each year, while others are evaluated and ranked less frequently.

The U-M Las School and Medical School do not participate in the U.S. News Graduate Program Rankings.

The University is a top-20 institution globally according to list of global universities published by *U.S. News & World Report*. The U-M's position on this global list is consistently higher than on the *USN&WR* list limited to U.S. universities.

12.1.3 *U.S. News & World Report* Rankings of Best Global Universities, U-M and Peers[2], 2018-2022.

University	2018	2019	2020	2021	2022
Harvard University	1	1	1	1	1
Massachusetts Institute of Technology	2	2	2	2	2
Stanford University	3	3	3	3	3
University of California-Berkeley	4	4	4	4	4
University of Washington	10	10	8	7	6
Columbia University	8	7	6	6	7
Johns Hopkins University	11	11	10	9	10
Yale University	12	12	11	12	11
University of California-Los Angeles	13	14	13	14	14
University of Pennsylvania	16	16	14	13	15
University of California-San Francisco	15	15	15	11	16
Princeton University	9	8	11	16	16
UNIVERSITY OF MICHIGAN	18	17	17	19	19
Cornell University	23	23	22	22	21
University of Chicago	14	13	15	15	22
Northwestern University	24	24	24	24	24
Duke University	22	22	23	23	25
University of North Carolina	32	33	36	39	41
University of Texas	36	34	38	43	43
Ohio State University	46	45	45	52	55
University of Wisconsin	35	37	41	52	63
Emory University	73	71	71	74	72
University of Illinois	54	59	60	72	74
University of Southern California	62	69	70	70	80
University of Virginia	111	107	109	110	119

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: *U.S. News & World Report*, 2017-2021 Editions

Eight years ago, *U.S. News & World Report* added a global university comparison to its stable of rankings. The current list of 2,000 institutions concentrates "specifically on schools' academic research and reputation overall and not on their separate undergraduate or graduate programs," according to the publisher.

For the global ranking, U.S. News starts with data from the Thomson Reuters InCites™ database, such as reputation survey results, which represent 25% of a school's ranking score. Other items in the formula include adjusted counts of published scholarly papers, books and conference proceedings (15%); several different categories based on citations of published materials (50%); and counts of international collaborations (10%).

[2] Peer lists are provided in Appendix A.

The University is a top-25 institution globally according to the *Times Higher Education* ordered list.

12.2.1 Times Higher Education World University Rankings, U-M and Peers[3], 2018-2022.

University	2018	2019	2020	2021	2022
Harvard University	6	7	3	2	6
Stanford University	3	4	2	4	3
Massachusetts Institute of Technology	4	5	5	5	5
Princeton University	7	6	9	7	7
University of California-Berkeley	15	13	7	8	18
Yale University	8	8	8	9	12
University of Chicago	10	9	10	10	9
Columbia University	16	16	17	11	14
Johns Hopkins University	12	12	12	13	13
University of Pennsylvania	12	11	13	13	10
University of California-Los Angeles	17	17	15	20	15
Cornell University	19	19	19	22	19
Duke University	18	20	20	23	17
Northwestern University	25	22	24	24	20
UNIVERSITY OF MICHIGAN	20	21	22	24	21
University of Washington	28	26	29	29	25
University of Texas	39	38	44	47	49
University of Illinois	50	48	48	48	37
University of North Carolina	56	54	56	52	56
University of Wisconsin	43	51	49	58	43
University of Southern California	66	62	53	63	66
Emory University	84	80	85	82	98
Ohio State University	71	70	80	85	70
University of Virginia	107	107	117	127	113

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: *Times Higher Education*

Times Higher Education publishes two separate ordered lists based on two different methodologies. The World University Rankings (above) judges nearly 1,400 institutions on their teaching, research, citations, international outlook, and knowledge transfer. The World Reputation Rankings (see chart 12.2.2) is based on the results of an international, invitation-only survey sent to tens of thousands of experienced academics from around the world.

The World University Rankings shown on this page employ 13 performance indicators in five groups: Teaching (worth 30% of the overall ranking score), Research (30%), Citations (30%), International outlook (7.5%), and Industry income (2.5%).

[3] Peer lists are provided in Appendix A.

The U-M is listed 18th in the world according to the most recent *Times Higher Education* list based on academic reputation.

12.2.2 Times Higher Education World Reputation Rankings, U-M and Peers[4], 2018-2022.

University	2018	2019	2020	2021	2022
Harvard University	1	1	1	1	1
Massachusetts Institute of Technology	2	2	2	2	2
Stanford University	3	3	3	4	3
University of California-Berkeley	6	6	6	6	6
Princeton University	7	7	7	7	7
Yale University	8	8	8	8	8
Columbia University	12	13	14	12	15
University of California-Los Angeles	9	9	9	9	16
University of Chicago	9	10	12	11	17
UNIVERSITY OF MICHIGAN	15	15	15	16	18
Johns Hopkins University	21	16	19	20	20
University of Pennsylvania	16	20	20	19	22
Cornell University	18	22	25	22	23
University of Washington	28	28	29	28	24
University of Illinois	32	34	32	27	30
Duke University	29	28	28	28	34
University of Texas	36	31	30	31	38
Northwestern University	37	33	34	32	42
University of California, San Francisco	44	42	50	51-60	45
University of North Carolina	51-60	50	48	44	71-80
University of Wisconsin	33	36	33	35	71-80
Ohio State University	61-70	61-70	71-80	71-80	81-90
University of Southern California	61-70	61-70	61-70	61-70	81-90
Emory University	--	--	126-150	91-100	151-175
University of Virginia	--	--	126-150	126-150	176-200

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: *Times Higher Education*

The World Reputation Rankings (above) are based on subjective judgments collected from an invitation-only survey returned by nearly 30,000 academics from around the world for the 2022 edition, distributed to reflect the demographics of world scholarship.

The survey asks each respondent to name no more than 10 universities that he or she considers to be the "best." The top 100 schools in the list are assembled based on the frequency that each institution is included on the respondent's lists of best institutions in their fields.

[4] Peer lists are provided in Appendix A.

Michigan regularly scores highly based on the QS methodology, which attributes 80 percent of the score to a combination of academic reputation, citation frequency of faculty publications, and the student-faculty ratio.

12.3 QS World University Rankings, U-M and Peers[5], 2019-2023.

University	2019	2020	2021	2022	2023
Massachusetts Institute of Technology	1	1	1	1	1
Harvard University	3	3	5	5	4
Stanford University	2	2	3	3	5
University of California-Berkeley	28	30	32	27	10
University of Chicago	9	9	10	10	11
University of Pennsylvania	15	16	13	13	12
Cornell University	14	18	21	20	13
Yale University	17	17	14	18	16
Princeton University	13	12	20	16	17
Columbia University	18	19	19	22	23
Johns Hopkins University	24	25	25	24	28
University of California-Los Angeles	35	36	40	44	29
UNIVERSITY OF MICHIGAN	21	21	23	25	33
Northwestern University	31	29	30	32	47
Duke University	25	42	52	50	57
University of Texas	65	71	67	72	58
University of Washington	68	72	85	80	63
University of Illinois	75	82	82	85	64
University of Wisconsin	56	65	75	83	102
University of Southern California	129	121	112	134	116
University of North Carolina	90	95	100	102	132
Ohio State University	101	108	120	140	151
Emory University	156	158	160	155	199
University of Virginia	192	217	226	253	260

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: QS Intelligence Unit

The 2023 QS World University Rankings evaluated 1,400 universities from across the world. A school's rank is based on an amalgamation of indicators obtained through a global survey and data collected about each institution. Starting with the 2023 list, the number of indicators went to nine from six, and the weight attributed to the categories changed.

The components and the weight for the 2023 ranking score are: reputation based on a survey of university leaders (30% of score); reputation based on s survey of employers (10%); citations per faculty member according an analysis of citation databases (20%); student-to-faculty ratio (10%); proportion of international students in the student body (5%); and proportion of international scholars and scientists on the faculty.

[5] Peer lists are provided in Appendix A.

The U-M consistently appears among the top universities worldwide and in the top 10 of U.S. public universities in the ordered list published by ShanghaiRanking.

12.4 Academic Ranking of World Universities, U-M and Peers[6], 2019-2023.

University	2019	2020	2021	2022	2023
Harvard University	1	1	1	1	1
Stanford University	2	2	2	2	2
Massachusetts Institute of Technology	4	4	4	3	3
University of California-Berkeley	5	5	5	5	5
Princeton University	6	6	6	6	6
Columbia University	8	7	8	8	8
University of Chicago	10	10	10	10	10
Yale University	11	11	11	11	11
Cornell University	13	12	12	12	12
University of California-Los Angeles	11	13	14	13	13
University of Pennsylvania	17	19	15	15	14
Johns Hopkins University	16	15	16	14	16
University of Washington	14	16	19	17	18
University of California-San Francisco	20	21	20	19	21
UNIVERSITY OF MICHIGAN	20	22	26	28	26
Northwestern University	29	30	34	30	30
University of North Carolina	33	30	29	29	31
Duke University	28	27	32	31	34
University of Wisconsin	27	32	31	33	35
University of Texas	45	41	41	37	43
University of Illinois	38	45	55	49	52
University of Southern California	55	61	61	53	58
Emory University	101-150	101-150	101-150	101-150	101-150
Ohio State University	100	101-150	101-150	101-150	101-150
University of Virginia	151-200	151-200	151-200	201-300	201-300

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: ShanghaiRanking Consultancy

The Academic Ranking of World Universities (ARWU) is based on six numerical elements (listed with the percent weight of the element in parentheses): school alumni who have won Nobel Prizes and Fields Medals (10%), school faculty who have won Nobel Prizes and Fields Medals (20%), number of highly cited researchers in 21 broad subject categories according to Thomson Scientific (20%), number of articles published in journals of *Nature* and *Science* over the most recent five-year period (20%), number of articles indexed in Science Citation Index-Expanded and Social Sciences Citation Index (20%), and per capita academic performance of an institution (10%), determined by adding the weighted scores of all of the other indicators and dividing the sum by the number of full-time equivalent academic staff. The most recent list ranks 1,000 institutions.

The University of Michigan ranking in particular reflects high scores on the elements that measure citations of articles by U-M faculty across all disciplines.

Data for public universities are shaded in yellow; private university data are shaded in blue.

[6] Peer lists are provided in Appendix A.

The scope of U-M's research program and high number of Ph.D. degree recipients have the most influence on the University's position in the *Washington Monthly* ordered list, which focuses on universities' contributions to society.

12.5 *Washington Monthly* National University Rankings, U-M and Peers[7], 2018-2022.

University	2018	2019	2020	2021	2022
Stanford University	2	1	1	1	1
University of Pennsylvania	13	6	7	6	2
Massachusetts Institute of Technology	3	3	3	2	3
Princeton University	4	8	7	17	4
Duke University	6	5	8	3	5
Harvard University	1	2	2	5	6
Yale University	5	4	4	18	7
Cornell University	31	25	25	15	8
University of California-Berkeley	18	20	17	10	9
University of Wisconsin	22	23	21	4	16
University of Illinois	32	17	18	8	17
University of Washington	15	19	16	11	19
University of California-Los Angeles	9	12	11	22	21
Johns Hopkins University	62	56	54	7	23
University of North Carolina	16	22	19	9	24
Columbia University	14	13	14	43	25
UNIVERSITY OF MICHIGAN	25	26	29	16	26
Northwestern University	33	32	30	24	30
University of Virginia	40	52	28	28	31
University of Chicago	38	37	24	25	41
University of Southern California	60	64	53	95	52
Emory University	56	83	65	69	55
University of Texas	75	61	77	40	88
Ohio State University	105	95	98	41	95

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: *Washington Monthly*

Washington Monthly lists schools (442 national institutions in 2022) based on their contributions to the public good in three broad categories: Social Mobility, Research, and Service, each providing one-third of a school's score. However, *Washington Monthly* reported that "in the face of changing data availability," it consulted a group of higher education experts for input on revising its ranking system.

The Social Mobility component underwent some change from previous years. It looked at graduate rates for all students, the graduation rate gap between students awarded Pell Grants compared to those not receiving such grants, while no longer considering first-generation student data because it was difficult to obtain for all schools.

The Research component examined "the total amount of an institution's research spending; the number of science and engineering PhDs awarded by the university; the number of undergraduate alumni who have gone on to receive a PhD in any subject, relative to the size of the college; the number of faculty receiving prestigious awards, relative to the number of full-time faculty; and the number of faculty in the National Academies, relative to the number of full-time faculty."

The Service component was based on factors such as the rate by which students and alumni serve in the Peace Corps and AmeriCorps, ROTC participation, and work study-funded community service projects. Schools also ranked higher on this component for receiving the Carnegie Community Engagement Classification, participation in the National Study of Learning, Voting, and Enagement, and the ALL IN Campus Democracy Challenge, and for graduating a relatively higher number of students with degrees in health, education. and social work.

[7] Peer lists are provided in Appendix A.

Michigan performs well according to the "return on investment" metrics that are the focus of Forbes America's Top Colleges list.

12.6 Forbes America's Top Colleges, U-M and Peers[9], 2017-2022.

University	2017	2018	2019	2021	2022
Massachusetts Institute of Technology	5	4	4	6	1
Stanford University	2	3	2	4	2
University of California-Berkeley	29	14	13	1	3
Princeton University	4	5	5	3	4
Columbia University	14	15	14	5	5
University of California-Los Angeles	48	46	38	8	6
Yale University	5	2	3	2	8
Duke University	8	10	9	12	9
University of Pennsylvania	7	7	6	9	10
Northwestern University	28	20	17	10	11
Harvard University	1	1	1	7	15
Cornell University	15	13	11	13	16
Johns Hopkins University	30	25	22	37	18
University of Chicago	16	18	16	23	20
University of Southern California	44	30	30	17	21
MICHIGAN	38	22	20	22	25
University of North Carolina	68	47	45	28	28
University of Virginia	40	34	33	30	29
Emory University	n/a	52	55	35	31
University of Washington	79	72	64	27	33
University of Illinois	69	56	68	31	34
University of Texas	91	74	76	45	43
University of Wisconsin	87	75	69	59	49
Ohio State University	131	122	121	105	--

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: Forbes.com

America's Top Colleges is a ranking of 495 colleges and universities (in 2022) published by *Forbes*. Forbes skipped a 2020 list in order to reevaluate the method it uses to put instituitons in a particular order. Its new methodology, in use for two years now, attempts to look at the kind of students educated and whether a school is "accessible to those who cn't afford high sticker prices." Notably, the new set of criteria pushed Harvard out of the top ten for the first time.

Several new elements have gone into the rankings, which apply starting in 2021. The major categories re alumni salary (20%), student debt (15%), return on investment (15%), graduation rate (15%), Forbes' American Leaders list (15%), retention rate (10%) and academic success (10%).

[8] A list of peers used for comparison on this page is found in Appendix A.

The U-M is listed among the top 20 universities according to an international list based on measures of faculty and alumni achievements.

12.7 Center for World University Rankings, U-M and Peers[9], 2018-2022.

University	2018	2019	2020	2021	2022
Harvard University	1	1	1	1	1
Massachusetts Institute of Technology	3	2	2	2	2
Stanford University	2	3	3	3	3
Princeton University	7	7	7	6	6
University of Chicago	10	10	9	8	7
Columbia University	8	6	6	7	8
University of Pennsylvania	13	9	8	9	9
Yale University	11	12	10	10	11
University of California-Berkeley	6	8	12	12	12
Cornell University	14	14	13	14	14
UNIVERSITY OF MICHIGAN	18	17	16	15	15
Johns Hopkins University	16	18	15	16	16
Northwestern University	23	15	17	17	17
University of California-Los Angeles	15	16	18	18	18
Duke University	24	23	20	20	20
University of Illinois	32	20	22	22	22
University of Washington	19	19	23	23	25
University of Wisconsin	27	25	26	25	27
University of Texas	31	31	33	33	33
Univesity of California-San Francisco	22	34	37	38	35
University of North Carolina	33	36	40	39	39
University of Southern California	51	44	51	51	50
Ohio State University	40	54	58	56	59
University of Virginia	79	53	64	69	71
Emory University	80	90	121	124	129

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: Center for World University Rankings

The Center for World University Rankings (CWUR) foregoes any opinion surveys, relying on data about quality of education, alumni employment, faculty awards and publications, among other factors. The 2021 list ranked nearly 20,000 institutions and reported the top-ranked 2000 schools.

The education quality measure is based on a weighted measure of alumni who have won major international awards, prizes, and medals normalized for the university's size (25% of score). Alumni employment is a weighted count of alumni who have held CEO positions at the world's top companies (25%).

The faculty quality factor is based on a weighted count of prestigious awards received by an institution's faculty members, from Nobel Prizes to the many other major, if less well-known, international awards, such as the Draper Prize, Kyoto Prize, and Fields Medal (25%).

Other factors tn the ranking calculation include a count of research publications in major journals, the frequency that papers are cited by others, and a count of international patent filings (40%).

[9] Peer lists are provided in Appendix A.

Money launched a new rating system in 2023 that groups schools of similar quality rather than in an ordered list. U-M is included in the most highly rated group of five stars, along with most of its peers.

12.8 Money Best Colleges, U-M and Peer[10] Universities, 2023.

Public Universities	Private Universities
5 stars	**5 stars**
University of California-Berkeley	Columbia University
University of California-Los Angeles	Cornell University
University of Illinois	Duke University
UNIVERSITY OF MICHIGAN	Harvard University
University of North Carolina	Massachusetts Institute of Technology
University of Virginia	Northwestern University
University of Washington	Princeton University
University of Wisconsin	Stanford University
	University of Chicago
	University of Pennsylvania
	Yale University
4.5 stars	**4.5 stars**
Ohio State University	Emory University
University of Texas	Johns Hopkins University
	University of Southern California

Data for public universities are shaded in yellow; private university data are shaded in blue.

SOURCE: MONEY

Money's methodology changed in 2023, moving to a system that grouped schools into one of six "star" categories. Of the 736 colleges evaluated, 34 placed in the 5-star group, including the U-M. Money's new method differs from other rankings that put schools into an ordered list, highlighting that there is no one college that is better than all the others.

The new system acknowledges that schools of similar quality may be suited to prospective students according to everyone's "characteristics, priorities, and goals" for a college education.

The formula for placing universities in a star ranking group used 26 factors across three broad categories of educational quality, affordability, and outcomes of graduates.

Quality examined graduation rates of all undergraduates and of those who received Pell grants, a comparison of the standardized test scores and grade point averages of incoming first-year undergraduates, and financial stability of each institution, among others.

Affordability factors included the typical cost of attending each school (considering the typical amount of grant and scholarship aid provided by a school), the typical debt incurred by graduates and their ability to pay off the debt in the future, as well as looking at typical costs according to family income levels.

Student outcomes looked at the earning of graduates ten years after entering college. It also compared eventual earnings to the cost of attending a school.

[10] Peer lists are provided in Appendix A

Appendices

Appendix A: Peer Groups

The University of Michigan uses several groups of similar institutions of higher education for purposes of comparison. Here are descriptions and member lists of three peer groups referenced in the Michigan Almanac. Private institutions are shown in *italics*.

1) Official Peers (list developed by U-M officials)

- *Columbia University in the City of New York*
- *Cornell University*
- *Duke University* (added 2022)
- *Emory University* (added 2022)
- *Harvard University*
- *Johns Hopkins University*
- *Massachusetts Institute of Technology*
- *Princeton University* (added 2022)
- *Northwestern University*
- Ohio State University
- *Stanford University*
- University of California-Berkeley
- University of California-Los Angeles
- University of California-San Francisco (added 2020)
- *University of Chicago*
- University of Illinois at Urbana-Champaign
- University of North Carolina at Chapel Hill
- *University of Pennsylvania*
- *University of Southern California*
- University of Texas at Austin
- University of Virginia-Main Campus
- University of Washington-Seattle Campus
- University of Wisconsin-Madison
- *Yale University*

2) Association of American Universities (AAU) is a nonprofit association of the leading public and private research universities in the U.S. and Canada, listed with the year the school became a member in parenthesis. The Association of American Universities Data Exchange (AAUDE), a constituent group of the AAU, is comprised of the institutional research officers from each university as well as several non-AAU universities.

- *Boston University (2012)*
- *Brandeis University (1985)*
- *Brown University (1933)*
- *California Institute of Technology (2934)*
- *Carnegie Mellon University (1982)*
- *Case Western Reserve University (1969)*
- *Columbia University in the City of New York (1900)*
- *Cornell University (1900)*
- *Dartmouth College (2019)*
- *Duke University (1983)*
- *Emory University (1995)*
- Georgia Institute of Technology (2010)
- *Harvard University (1900)*
- Indiana University (1909)
- *Johns Hopkins University (1900)*
- *Massachusetts Institute of Technology (1934)*
- Michigan State University (1964)
- *New York University (1950)*
- *Northwestern University (1917)*
- Ohio State University (1916)
- Pennsylvania State University
- *Princeton University (1900)*
- Purdue University (1958)
- *Rice University (1985)*
- Rutgers University-New Brunswick (1989)
- *Stanford University (1900)*
- Stony Brook University – SUNY (2001)
- Texas A & M University (2001)
- *Tufts University (2021)*
- *Tulane University of Louisiana (1958)*
- University at Buffalo – SUNY (1989)
- University of Arizona (1985)
- University of California-Berkeley (1900)
- University of California-Davis (1996)
- University of California-Irvine (1996)
- University of California-Los Angeles (1974)
- University of California-San Diego (1982)
- University of California-Santa Barbara (1985)
- University of California-Santa Cruz (2019)
- *University of Chicago (1900)*
- University of Colorado, Boulder (1966)
- University of Florida (1985)
- University of Illinois at Urbana-Champaign (1908)
- University of Iowa (1909)
- University of Kansas (1909)
- University of Maryland at College Park (1969)
- University of Michigan (1900)
- University of Minnesota, Twin Cities (1908)
- University of Missouri, Columbia (1908)
- University of North Carolina at Chapel Hill (1922)
- University of Oregon (1969)
- *University of Pennsylvania (1900)*
- University of Pittsburgh (1974)
- *University of Rochester (1941)*
- *University of Southern California (1969)*
- University of Texas at Austin (1929)
- University of Utah (2019)
- University of Virginia (1904)
- University of Washington (1950)
- University of Wisconsin-Madison (1900)
- *Vanderbilt University (1950)*
- *Washington University in St Louis (1923)*
- *Yale University (1900)*

Canadian university AAU members (not included in comparison groups in this publication)

- McGill University (1926)
- University of Toronto (1926)

Non-AAU affiliates of AAUDE

- *Syracuse University*
- University of Nebraska-Lincoln

3) The **Big Ten**, an athletic conference formed in 1896 by seven public and private universities. The Big Ten membership is currently 14, listed with the year the school joined the conference in parenthesis. (Northwestern University, in italics, is the only private institution now in the Big Ten. The University of Chicago, also private, was a charter member, but left the conference in 1946.)

- Indiana University (1899)
- Michigan State University (1949)
- *Northwestern University* (1896)
- Ohio State University (1912)
- Pennsylvania State University (1990)
- Purdue University (1896)
- Rutgers University (2014)
- University of Illinois (1896)
- University of Iowa (1899)
- University of Maryland (2014)
- University of Michigan (1896)
- University of Minnesota (1896)
- University of Nebraska (2011)
- University of Wisconsin (1896)

Appendix B: U-M Graduate Academic Programs[1] Grouped by Broad Disciplinary Categories (Rackham Divisions[2])

Biological & Health Science / Life Sciences (Rackham Division 1)

- Agriculture
- Bioinformatics
- Biology (Cellular, Molecular, Developmental, Neural, Chemical, Evolutionary, etc.)
- Biomaterials
- Biostatistics
- Chemistry
- Clinical Research
- Ecology
- Environmental Health Science
- Epidemiological Science
- Genetic Counseling
- Health & Health Care Research
- Health Services Organization and Policy
- Human Genetics
- Immunology
- Industrial Health/Industrial Ecology
- Kinesiology
- Landscape Architecture
- Microbiology & Immunology
- Natural Resources/Conservation
- Neuroscience
- Nursing
- Nutritional Science
- Oral Health Sciences (Endodontics, Orthodontics, Periodontics, Prosthodontics, etc.)
- Pathology
- Pharmaceutical Sciences
- Pharmacology
- Pharmacy
- Physiology
- Spatial Analysis
- Sustainable Systems
- Toxicology

Physical Sciences & Engineering (Rackham Division 2)

- Applied Mechanics
- Applied Physics
- Applied Statistics
- Astronomy/Astrophysics
- Atmospheric, Oceanic & Space Sciences
- Biophysics
- Chemistry
- Complex Systems
- Computer Science & Engineering
- Construction Engineering & Management
- Design Science
- Engineering (Aerospace, Bio/Biomedical, Chemical, Civil, Electrical, Environmental, Financial, Industrial & Operations, Mechanical, Nuclear, Marine, etc.)
- Geology
- Macromolecular Science
- Materials Science
- Mathematics
- Mineralogy
- Naval Architecture
- Radiological Sciences
- Nuclear Science
- Oceanography: Physical
- Physics
- Robotics
- Scientific Computing
- Science, Technology & Public Policy
- Space & Planetary Physics
- Statistics
- Sustainable Systems
- Transportation & Logistics

Social Sciences (Rackham Division 3)

- Anthropology
- Area Ethnic, Cultural, Gender and Group Studies
- Asian Studies
- Business Administration
- Cognitive Science/Neuroscience
- Communication Studies
- Culture and Cognition
- Economics
- Education/Higher Education
- Education & Psychology
- Educational Studies
- Health Behavior & Health Education
- Health Service Organization & Policy
- Health Services Research
- History
- Information & Library Studies
- Political Science
- Psychology
- Public Administration
- Public Policy
- Sociology
- Urban & Regional Planning

Humanities & the Arts (Rackham Division 4)

- American Culture
- Architecture
- Art
- English Language and Literature
- Foreign Languages and Literatures
- Classical Art & Archaeology
- Classical Studies
- Comparative Literature
- Creative Writing
- Dance
- Film Studies
- History of Art
- Judaic Studies
- Linguistics
- Medical & Biological Illustration
- Museum Studies
- Music (Composition, Education, Musicology, Performance, Theory, etc.)
- Philosophy
- Screen Arts and Cultures
- Theatre
- Women's Studies

[1] Excludes U-M professional degree programs by the same or similar names.

[2] Rackham Divisions are disciplinary groupings established by the Horace H. Rackham School of Graduate Studies.

Appendix C: Graduate and Professional Degree Programs at the University of Michigan

Graduate Academic Degree Programs (U-M refers to these as "Rackham degrees")

One or more U-M School or College offers the listed degrees.

- Master of Arts (A.M.)
- Master of Science (M.S.)
- Master of Science in Engineering (M.S.E.)
- Master of Fine Arts (M.F.A.)
- Master of Landscape Architecture (M.L.A.)
- Master of Public Policy (M.P.P.)
- Master of Public Administration (M.P.A.)
- Master of Urban and Regional Planning (M.U.P.)
- Doctor of Musical Arts (D.M.A. or A.Mus.D.)
- Doctor of Philosophy (Ph.D.)

Other Graduate Degree Programs (U-M often refers to these as "Non-Rackham degrees" and/or professional degrees.)

Taubman College of Architecture and Urban Planning (TAUP)

- Master of Architecture (M. Arch.)
- Master of Urban Design (M.U.D.)

Ross School of Business

- Master of Business Administration (M.B.A.)
- Master of Accounting (M.Acc.)
- Master of Supply Chain Management (M.S.C.M.)

College of Engineering

- Master of Engineering (M. Eng.)
  Concentration areas: Pharmaceutical Engineering, Construction Engineering and Management, Structural Engineering, Integrated Microsystems, Space Engineering, Manufacturing, Applied Climate, Automotive Engineering, Energy Systems Engineering, Global Automotive and Manufacturing, Robotics and Autonomous Vehicles
- Doctor of Engineering (D. Eng.)
  Concentration areas: Manufacturing, Engineering

Law School

- Master of Comparative Law (M.C.L.)
- Master of Laws (L.L.M.)
- Doctor of the Science of Law (S.J.D.)

Medical School

- Master's in Health Professions Education (M.H.P.E.)

School of Information

- Master of Science in Information (M.S.I.)
- Master of Applied Data Science (M.A.D.S.)

School of Music, Theatre & Dance

- Master of Music (M.M.)
  Concentrations areas: Chamber Music; Church Music; Collaborative Piano; Composition; Conducting: Band/Wind Ensemble, Choral, Orchestral; Early Keyboard Instruments; Improvisation; Keyboard Instruments; Music Education; Music Education with Certification; Performance; Piano Pedagogy and Performance; Wind Instruments.
- Specialist in Music (Spec.M.)
  Concentrations areas: Church Music; Ethnomusicology; Music Education; Performance;

School of Public Health

- Master of Public Health (M.P.H.)
- Master of Health Services Administration (M.H.S.A.)
- Doctor of Public Health (D.P.H.)

School of Social Work

- Master of Social Work (M.S.W.)

Professional Degree Programs

School of Dentistry

- Doctor of Dental Surgery (D.D.S.)

Law School

- Juris Doctor (J.D.)

Medical School

- Doctor of Medicine (M.D.)

School of Nursing

- Doctor of Nursing Practice (D.N.P.)

College of Pharmacy

- Doctor of Pharmacy (Pharm.D.)

Appendix D: U-M Ann Arbor Information Summary

Name of institution:	University of Michigan
City/State:	Ann Arbor, Michigan
County:	Washtenaw
General telephone number:	(734) 764-1817

Prospective students should contact the following offices for further information:

First-Years/Undergraduates	Graduate Students
Office of Undergraduate Admissions	Graduate Admissions
University of Michigan	Rackham Graduate School
1220 Student Activities Building	University of Michigan
515 E. Jefferson St.	915 E. Washington
Ann Arbor, MI 48109-1316	Ann Arbor, MI 48109-1070
Phone: (734) 764-7433	Phone: (734) 764-8129
Fax: (734) 936-0740	rackadmis@umich.edu
admissions.umich.edu	/rackham.umich.edu/admissions

Year founded:	1817
President:	Santa J. Ono
Year assumed office:	2022
Source of control:	Public (State)
Student body:	Coeducational

Degrees offered: Bachelor's, Post-bachelor's certificate, Master's, Post-master's certificate, Doctoral, Professional
Number of undergraduate schools/colleges/divisions: 12
Number of graduate schools/colleges/divisions:19
Academic year calendar: Trimester (limited summer courses available)
Institutional accreditation: As an institution, the University of Michigan is accredited by the Higher Learning Commission, a regional accreditation agency that accredits degree granting institutions of higher education based in the 19-state North Central region of the United States. An accreditation statement must be published in a unit's bulletin and any other widely distributed advertising and recruitment materials in which accreditation status is relevant and mentioned. Federal law requires that whenever an institution refers to its affiliation with the Commission, it will include the Commission's address and telephone number. The preferred statement is: "The University of Michigan is accredited by the Higher Learning Commission, 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504. (800) 621-7440; (312) 263-0456; Fax: (312) 263-7462."

Year first accredited:	1913
Most recent accreditation:	2020 (Higher Learning Commission) accreditation.umich.edu/
Next scheduled evaluation:	2029-2030

Carnegie Classification: Doctoral / Research Universities - Extensive

Description of campus location:
Small city / Population: 119,980 (2019 census estimate)
44 miles from Detroit (nearest large city)

Appendix E: Glossary

AAU: American Association of Universities, a nonprofit association of 63 U.S. and two Canadian preeminent public and private research universities.

ACT: A standardized test designed to measure high school achievement and aid in the college admissions process.

Auxiliary activities: Essentially self-supporting activities primarily intended to furnish services to students, faculty and staff; examples include parking services, health care services to the public, residential services to students, and the athletic program.

Common Application: An undergraduate college admission application that students may use to apply to any of 488 member colleges and universities in the United States and various other countries. Its mission is to encourage the use of "holistic admission," a process that includes subjective factors gleaned from essays and recommendations alongside objective criteria such as class rank and standardized testing.

Constant Dollars: An adjustment made to financial values to account for the effects of inflation. Sometimes referred to as "real dollars".

Cost of Attendance Cost of attendance is the estimated full and reasonable cost of completing a full year as a full-time student and typically includes tuition and fees, books and supplies, room and board, personal costs and transportation. See Net Cost of Attendance.

Clinical faculty: At the University of Michigan, these non-tenure-track instructional faculty appointments emphasize clinical/practice and teaching skill.

Current Dollars: The value of dollars in the year they were received or paid without any adjustment for inflation. Sometimes referred to as "actual dollars".

Emeritus faculty: At the University of Michigan, regular and clinical instructional faculty, research professors, research scientists, librarians, curators, and archivists may, upon officially retiring from the University, be granted an emeritus or emerita title by the Board of Regents.

Expected Family Contribution (EFC): An estimate calculated according to a Federal formula of the amount that a student and his or her parents might be expected to contribute toward the costs of a college education. Once a student's EFC has been determined, the amount of federal, state, and institutional need-based aid the student is eligible to receive is calculated using the following equation: Cost of Attendance (minus) Expected Family Contribution (minus) Other Financial Resources (private scholarships, etc.) (equals) Eligibility for Need-Based Aid.

FTE: Full-time equivalent. A unit used to indicate the workload of an employed person or calculate the number of students or faculty members in a comparable or standardized way across institutions.

First generation student: An undergraduate student whose parents have not previously attended college at any level.

First-Years, First-Year Undergraduate: An undergraduate student who is attending college for the first time ever. This term is being used by many offices at the U-M, including the Office of Admissions, to replace the term "freshman" and "freshmen."

GPA: Grade point average. An indicator of past academic success that is requested as part of a student's application for admission.

General Fund: At the University of Michigan, the General Fund relies largely on student fees and state appropriations and pays for teaching, research, library services, student scholarships, fellowships, and maintenance and operation of physical properties, among other services.

Geographic origin: A student's geographic origin is defined according to the address used in the application for admission. The geographic origin of a student is similar, but not identical, to residency status.

Graduate Student Instructor (GSI): They are graduate students who help teach classes. GSIs act in different capacities depending on the class setup and professor preference. They can lead discussion sections, lead lectures, hold extra office hours, or be available for student help and advice.

Graduate Student Research Assistant (GSRA): A Graduate Student Research Assistantship (GSRA) is an appointment which may be provided to a student in good standing in a University of Michigan graduate degree program who performs personal research (including thesis or dissertation preparation) or who assists others performing research that is relevant to his or her academic goals.

Graduate Student Staff Assistant (GSSA): The GSSA is a graduate student whose employment is a part of a degree requirement or is otherwise considered academically relevant. GSSAs perform administrative, counseling or educational duties other than those of a GSI.

Grant Aid: Financial aid provided to students that is typically based on need.

Grant, research See research grant.

Indirect costs: Indirect costs are the real costs of University operations that are not readily assignable to a particular project. Officially known as Facilities and Administrative costs, these costs are determined by federal auditors under the guidelines of the Office of Management and Budget.

Indirect cost recovery: Payments for overhead costs received from a research sponsor.

In-state student: The informal designation of a student who pays the "resident" tuition rate. In broad terms, such students are permanent residents of the State of Michigan as demonstrated by the applicant's parents and/or the applicant or the applicant's spouse or partner holding permanent employment in the state.

Instructional faculty: Individuals at the University of Michigan involved in student instruction, excluding graduate student instructors. 'Regular instructional faculty' includes tenure track faculty, clinical instructional faculty, and lecturers. 'Supplemental instructional faculty' includes adjunct instructional faculty, adjunct clinical instructional faculty, and visiting instructional faculty.

National Postsecondary Student Aid Study (NPSAS): A comprehensive research dataset on financial aid provided by the federal government, the states, postsecondary institutions, employers, and private agencies, along with student demographic and enrollment data.

National Survey of Student Engagement (NSSE): A higher education survey administered by the Center for Postsecondary Research in the Indiana University School of Education NSSE annually collects information at hundreds of four-year colleges and universities about student participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college.

Net Cost of Attendance The net cost of attendance is defined as the sum of tuition and fees, room and board, books and supplies, and other expenses for a full-time first-year undergraduate minus the sum of need and merit-based grant aid (not including work-study programs or government subsidized loans). See Cost of Attendance.

Net Student Tuition/Fees: When used in the context of the University's operating revenues, this is the determined by subtracting scholarship aid from the tuition and fees paid by students.

Out-of-state student: The informal designation of a student who pays the "non-resident" tuition rate. In broad terms, such students are *not* permanent residents of the State of Michigan as demonstrated by the applicant's parents and/or the applicant or the applicant's spouse or partner holding permanent employment in another state or country.

Residency status: Residency status determines whether a student pays "in-state" or "out-of-state" tuition. Residency status is similar, but not identical, to geographic origin.

SAT: A standardized test designed to measure high school achievement and aid in the college admissions process.

Scholarship Aid: Financial aid provided to students, typically based on merit. (In some instances, scholarships may also have a need-based component.)

Selectivity: The percentage of applicants offered admission.

STEM: An acronym for fields related to science, technology, engineering and mathematics.

Technology transfer: The set of activities aimed at turning university research discoveries into products or processes with economic value.

Tenured/tenure-track faculty: Instructional faculty members who have either received tenure or who intend to be evaluated for tenure in the future.

U-M Health System: For the *Michigan Almanac*, this phrase refers collectively to the U-M Hospitals and Health Centers, Michigan Health Corporation, Medical School patient care-related activity and the Office of the Executive Vice President for Medical Affairs. This phrase *excludes* the Medical School, which is included as part of the Ann Arbor campus. NOTE: "Michigan Medicine" is the phrase used to cover U-M Hospitals, Health Centers, the Medical School and Medical Group Practice, Michigan Health Corp., and the Office of the Executive Vice President for Medical Affairs.

University of Michigan Asks You (UMAY): The name used at the U-M for its version of the Student Experience in the Research University (SERU) survey. The survey, designed to learn about undergraduate student experiences, is administered to all U-M undergraduates at the Ann Arbor campus. Other research institutions to their students administer similar surveys.

Yield: The percentage of admitted students who enroll.

Appendix E: Photography Captions and Credits

Cover: The relief details of the Ruthven lobby ceiling following renovation.
Photographer: Scott C. Soderberg

Page 2: On a stone bench near Angell Hall
Photographer: Austin Thomason

Page 8: Students in the Winter Garden at the Ross School of Business
Photographer: Scott C. Soderberg

Page 24: Student at work in Michigan Union
Photographer: Eric Bronson

Page 40: Spring 2016 Commencement.
Photographer: Scott C. Soderberg

Page 46: Student in darkened classroom
Photographer: Austin Thomason

Page 72: Dr. John Wei and Dr. Brent Hollenbeck
Photographer: Martin Vloet

Page 84: Lecture hall on campus
Photographer: Scott C. Soderberg

Page 98: U-M student teachers at an Ann Arbor middle school
Photographer: Austin Thomason

Page 110: At work in the U-M Herbarium.
Photographer: Eric Bronson

Page 124: U-M Museum of Art.
Photographer: Scott C. Soderberg

Page 136: Overlooking the Law School.
Photographer: Scott C. Soderberg

Page 148: Orion sculpture on Central Campus.
Photographer: Daryl Marshke

Page 166: Shakespeare in the Arb performance at Nichols Arboretum.
Photographer: Scott C. Soderberg

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photography.umich.edu/