

## 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 2023 term, the University enrolled 9,773 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 8,562 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, 82 percent of the students who enrolled in such programs between 2008 and 2017 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](http://rackham.umich.edu))

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

Office of Budget and Planning – Campus Statistics  
([obp.umich.edu](http://obp.umich.edu))

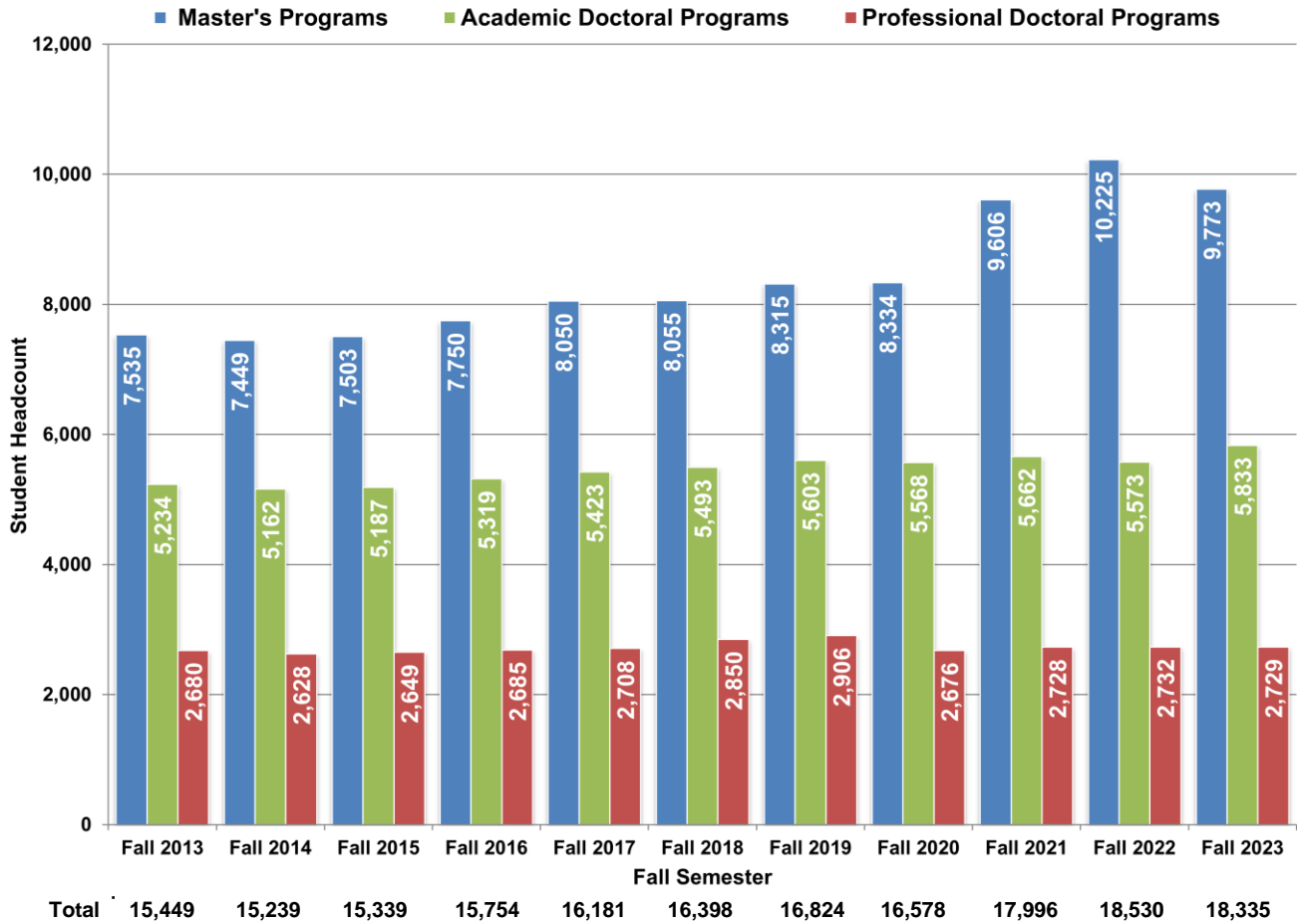
Reports about the gender and racial/ethnic diversity of graduate students are in Chapter 8.

## Charts in Chapter 5

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- 5.1.2 Graduate Academic and Professional Student Enrollment by Percent of Total Enrollment for U-M and AAU Public and Private Universities, Fall 2013-2023.
- 5.1.3 U-M Graduate Academic and Professional Student Enrollment Headcount, with Percent of Total Enrollment, for Selected Years from 1960 to 2023.
- 5.1.4 U-M Graduate Academic and Professional Student Enrollment by School/College and Degree Sought, Fall 2023.
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- 5.2.3 Graduate Professional and Non-Rackham Student Tuition and Required Fees, Adjusted for Inflation, In-State per Semester, FY2004-FY2024.
- 5.2.4 Graduate Professional and Non-Rackham Student Tuition and Required Fees, Adjusted for Inflation, Out-of-State per Semester, FY2004-FY2024.
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- 5.3.2 Ph.D. Degrees Awarded, Headcount, by Discipline Group for U-M, Peers and Big Ten Universities, 2021-22.
- 5.3.3 Academic Master's Degrees Awarded, Headcount, by Discipline Group for U-M, Peers and Big Ten Universities, 2021-22.
- 5.3.4 Academic Master's Degrees Awarded, Headcount, by Discipline Group for U-M, Peers and Big Ten Universities, 2021-22.
- 5.4.1 Academic Doctoral Completion Rates by Discipline Group, Enrollment Cohorts from 2008-2017.
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- 5.9.1 Pass Rates for Four States' Bar (Law) Examinations by U-M Law School Graduates 2017-2022.
- 5.9.2 Pass Rates for U.S. Medical Licensing Examinations by U-M Medical Students, 2019-2023.
- 5.9.3 Pass Rates for National Board Dental Examinations by U-M D.D.S. Students, 2019-2023.
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Total graduate and professional student enrollment has grown at an average annual rate of 1.9 percent since 2013.

5.1.1 Graduate Academic and Professional<sup>1</sup> Student Enrollment by Level, Fall 2013-2023.



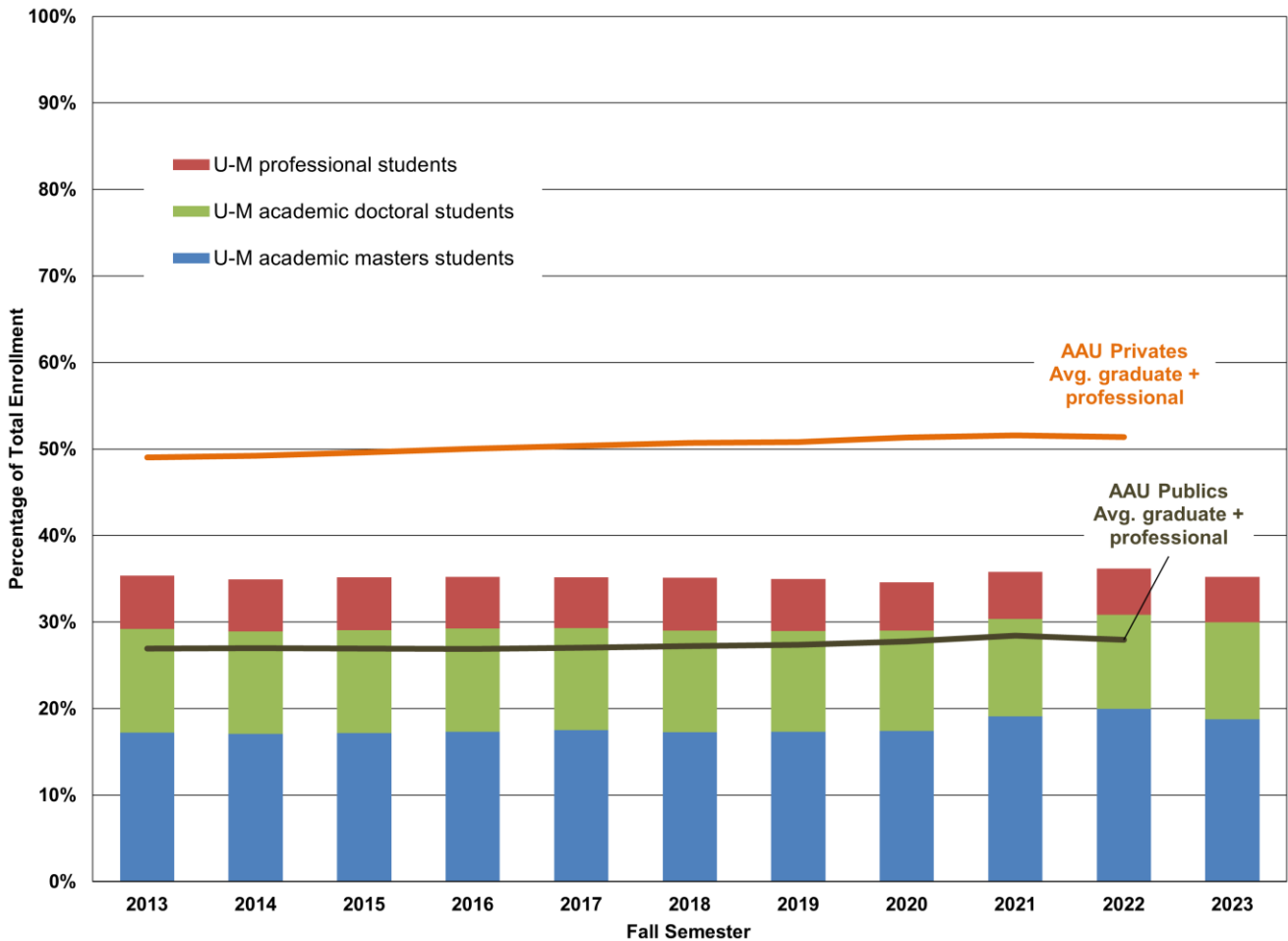
SOURCE: U-M Student Data Sets

Total University of Michigan graduate and professional student enrollment is 2,886 larger (+19%) in Fall 2023 compared to Fall 2013.

<sup>1</sup> A list of graduate academic and professional degree programs is in Appendix C.

Graduate and professional students comprise 35 percent of the total student enrollment, about seven percent more than the average enrollment at AAU public institutions and about 16 percent lower than the average at AAU private universities.

**5.1.2 Graduate Academic and Professional<sup>2</sup> Student Enrollment by Percent of Total Enrollment for U-M and AAU Public and Private Universities<sup>3</sup>, Fall 2013-2023.**



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

Total University of Michigan student enrollment – undergraduate and graduate – has increased to 52,065 for Fall 2023 from 43,710 in Fall 2013, while the total graduate enrollment – academic and professional – increased to 18,335 from 15,449.

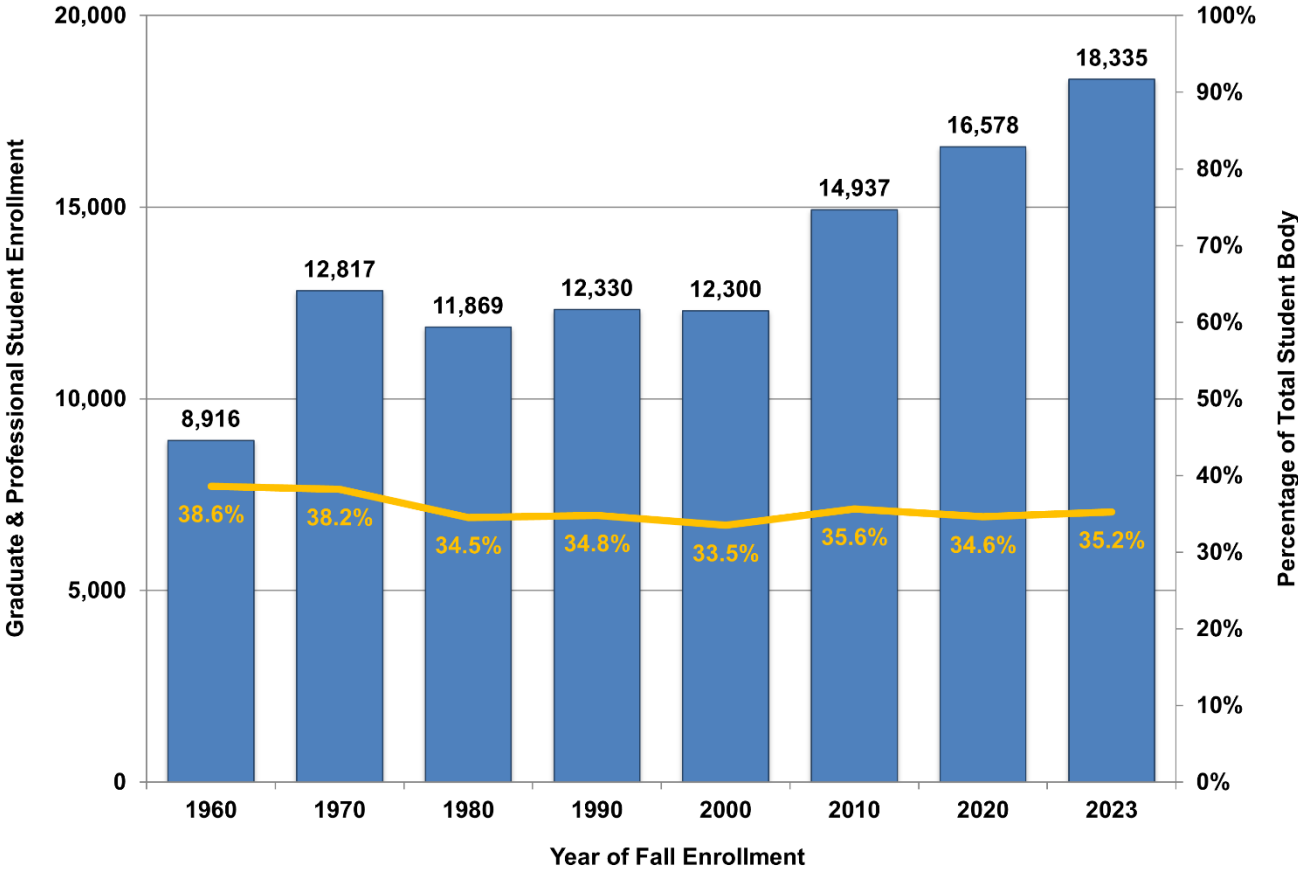
The average percentages reported for AAU Private and Public Universities are based on the combined enrollment of graduate academic and professional students compared to the total student enrollment at all levels – undergraduate, graduate, and professional. (Note: AAU school counts as reported to IPEDS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

<sup>2</sup> A list of graduate academic and professional degrees is in Appendix C.

<sup>3</sup> 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 18,335 in 2023, 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 2023.**



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 2023.

College/School	Graduate Academic (Rackham)		Other Graduate (Non-Rackham)		Professional
	Masters	Doctoral	Masters	Doctoral	Doctoral
Taubman College of Architecture & Urban Planning	73	41	301	-	-
Penny W. Stamps School of Art & Design	14	-	-	-	-
Stephen M. Ross School of Business	-	81	1,936	-	-
School of Dentistry	110	16	-	-	474
School of Education	199	88	-	-	-
College of Engineering	1,608	1,850	540	4	-
School for Environment & Sustainability	461	55	-	-	-
Horace H. Rackham School of Graduate Studies	87	213	-	-	-
School of Information	-	133	1,181	-	-
School of Kinesiology	102	33	-	-	-
Law School	-	-	40	4	973
College of Literature, Science & the Arts	592	2,132	-	-	-
Medical School	152	684	148	-	672
School of Music, Theatre & Dance	18	126	139	-	-
School of Nursing	-	21	272	-	140
College of Pharmacy	15	117	-	-	327
School of Public Health	192	235	510	-	-
Gerald R. Ford School of Public Policy	198	-	-	-	-
School of Social Work	-	-	940	-	-
Joint Programs by two Schools/Colleges	-	-	88	-	-
<b>Grand Total, Graduate Students</b>	<b>3,821</b>	<b>5,825</b>	<b>6,095</b>	<b>8</b>	<b>2,586</b>

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 2023-24.

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.	\$17,694	\$27,009	M.Arch.	\$17,694	\$25,860
	Ph.D. Candidate	\$7,348	\$7,348			
Penny W. Stamps School of Art & Design	M.F.A.	\$13,857	\$27,913			
Stephen M. Ross School of Business	M.A./Pre-candidate	\$14,170	\$28,212	M.B.A.	\$35,196	\$37,696
	Ph.D. Candidate	\$7,679	\$7,679	M.Acc.	\$26,291	\$28,791
School of Dentistry <sup>4</sup>	M.S.	\$10,299	\$17,492	D.D.S.	\$18,700	\$25,365
	Pre-candidate	\$15,324	\$25,364			
	Ph.D. Candidate	\$7,315	\$7,315			
School of Education	M.A./Pre-candidate	\$13,857	\$27,913			
	Ph.D. Candidate	\$7,417	\$7,417			
College of Engineering	M.S./Pre-candidate	\$15,470	\$29,014	M.Eng.	\$15,894	\$29,492
	Ph.D. Candidate	\$8,817	\$8,817	D.Eng.	\$10,735	\$10,735
School of Environment & Sustainability	M.S./Pre-candidate	\$13,416	\$26,491			
	Ph.D. Candidate	\$7,182	\$7,182			
School of Information	Pre-candidate	\$13,596	\$27,360	M.S.I.	\$13,596	\$27,360
	Ph.D. Candidate	\$7,274	\$7,274			
School of Kinesiology	Pre-candidate	\$14,754	\$29,907			
	Ph.D. Candidate	\$7,274	\$7,274			
Law School				J.D.	\$34,581	\$36,081
College of Literature, Science, & the Arts	M.A./M.S./ Pre-candidate	\$13,596	\$27,360			
	Ph.D. Candidate	\$7,274	\$7,274			
Medical School <sup>4</sup>	M.S./Pre-candidate	\$13,621	\$27,416	M.H.P.E.	\$9,770	\$10,667
	Ph.D. Candidate	\$7,417	\$7,417	M.D.	\$17,593	\$23,935
School of Music, Theatre & Dance	M.A./M.F.A./ Pre-candidate	\$13,857	\$27,913	M.M./ Spec.M.	\$14,218	\$28,275
	D.Mus.Arts Candidate	\$9,031	\$9,031			
	Ph.D. Candidate	\$7,417	\$7,417			
School of Nursing	M.S./Pre-candidate	\$14,015	\$28,230	D.N.P.	\$14,015	\$28,230
	Ph.D. Candidate	\$7,417	\$7,417			
College of Pharmacy	M.S./Pre-candidate	\$13,596	\$27,360	Pharm.D.	\$17,833	\$20,974
	Ph.D. Candidate	\$7,417	\$7,417			
School of Public Health	M.S./Pre-candidate	\$16,895	\$27,864	M.P.H.	\$16,895	\$27,864
	Ph.D. Candidate	\$7,411	\$7,411			
Gerald R. Ford School of Public Policy	M.P.P./M.P.A.	\$16,527	\$28,163			
Rackham Interdepartmental Programs	M.A./M.S./ Pre-candidate	\$13,596	\$27,360			
	Ph.D. Candidate	\$7,274	\$7,274			
School of Social Work				M.S.W.	\$16,295	\$26,056

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

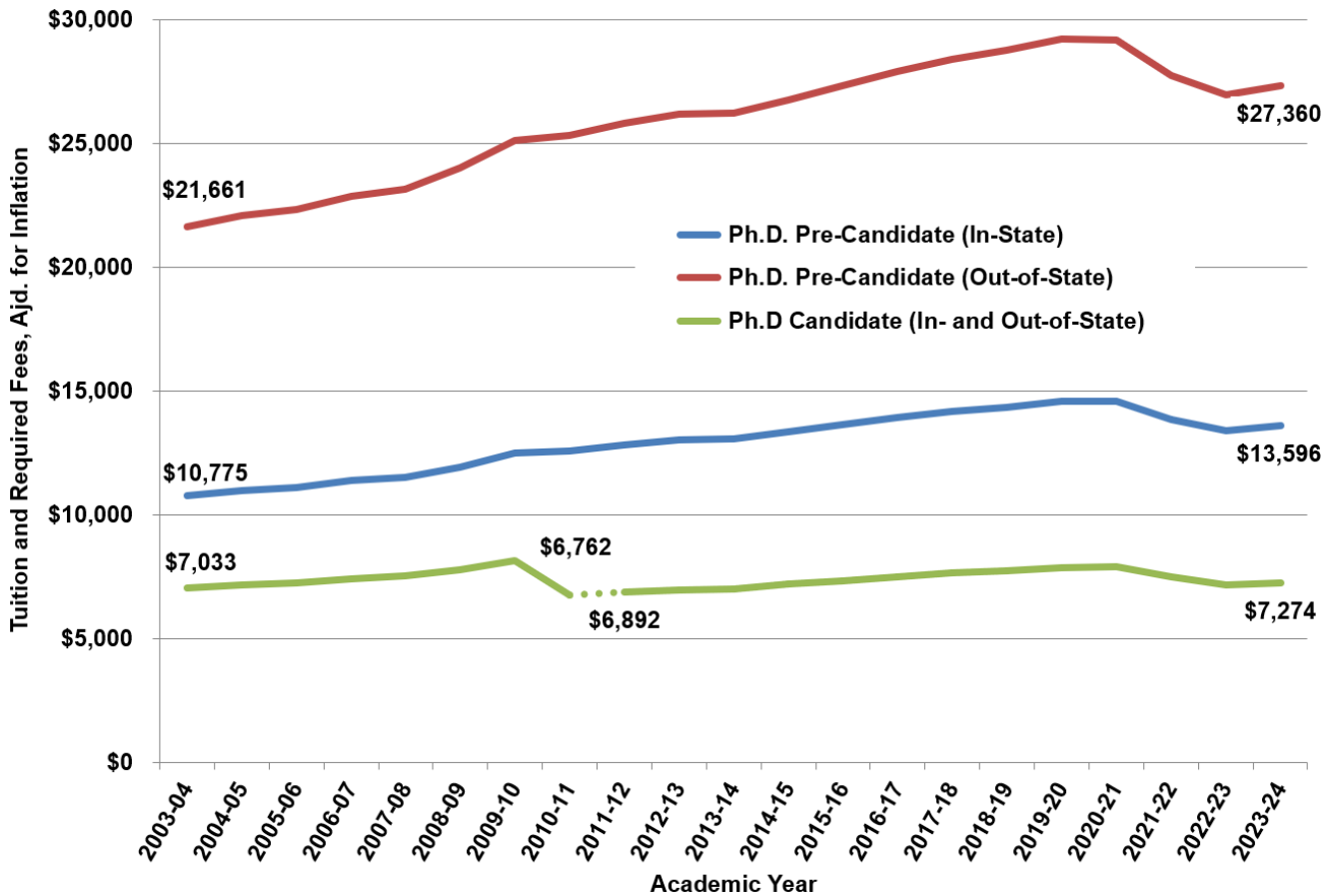
specialized degrees and joint degree programs are not listed above. The Registrar's Office posts tuition and fees for these programs: [ro.umich.edu/tuition-residency/tuition-fees](https://ro.umich.edu/tuition-residency/tuition-fees)

<sup>4</sup> 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 1.2 percent from academic years 2004 to 2024 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<sup>5</sup>, per Semester, Academic Year 2004-2024.**



SOURCE: UM Office of Budget and Planning

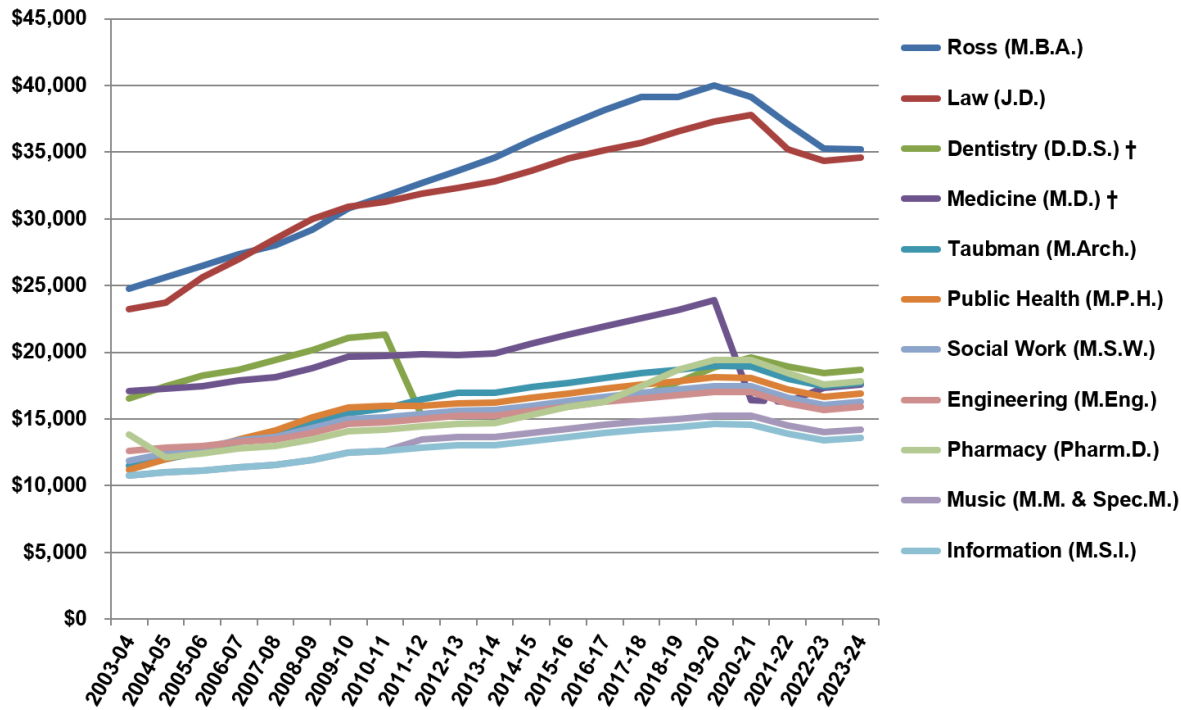
The chart represents tuition and required fees for the typical graduate academic (Rackham) student, as represented by those enrolled in the College of Literature, Science and the Arts. Rates can vary for students enrolled in other graduate academic programs. (See chart 5.2.1)

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.

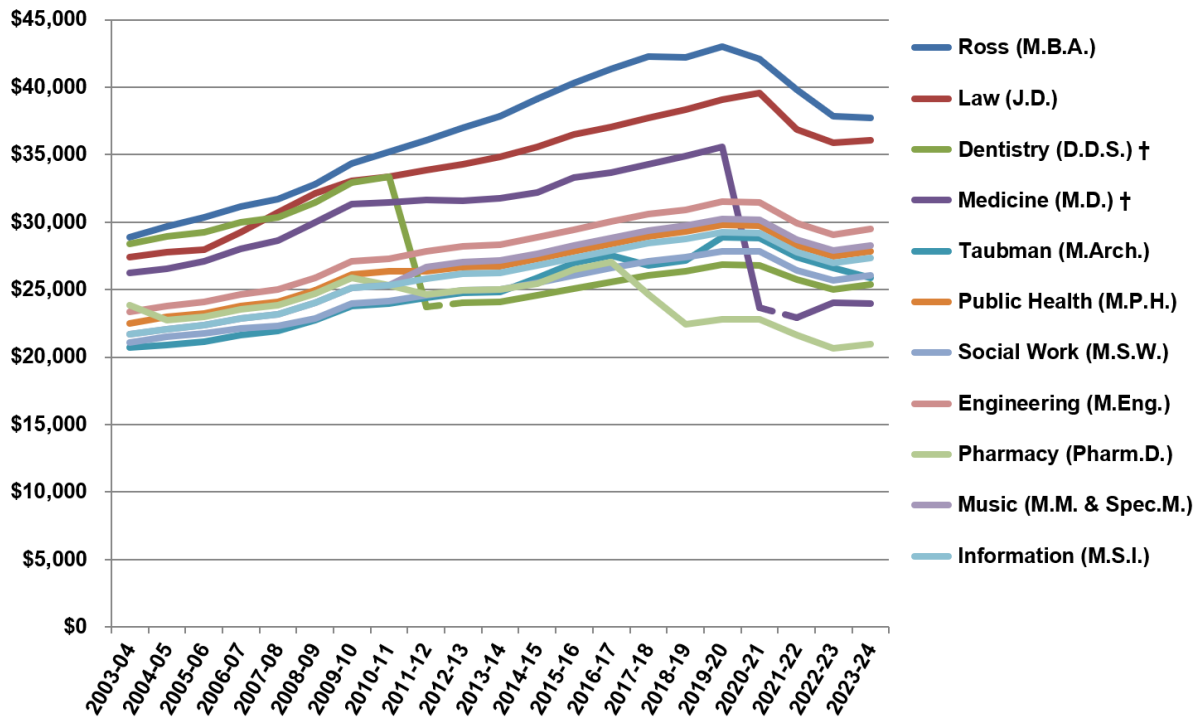
<sup>5</sup> Based on the FY2024 U.S. Consumer Price Index (as estimated by the U-M Research Seminar in Quantitative Economics)

When adjusted for inflation, tuition and required fees increased slightly for both in-state and out-of-state students this year compared to last.

**5.2.3 Graduate Professional and Non-Rackham Student Tuition and Required Fees, Adjusted for Inflation<sup>6</sup>, In-State per Semester, Academic Year 2004-2024.**



**5.2.4 Graduate Professional and Non-Rackham Student Tuition and Required Fees, Adjusted for Inflation<sup>6</sup>, Out-of-State per Semester, Academic Year 2004-2024.**



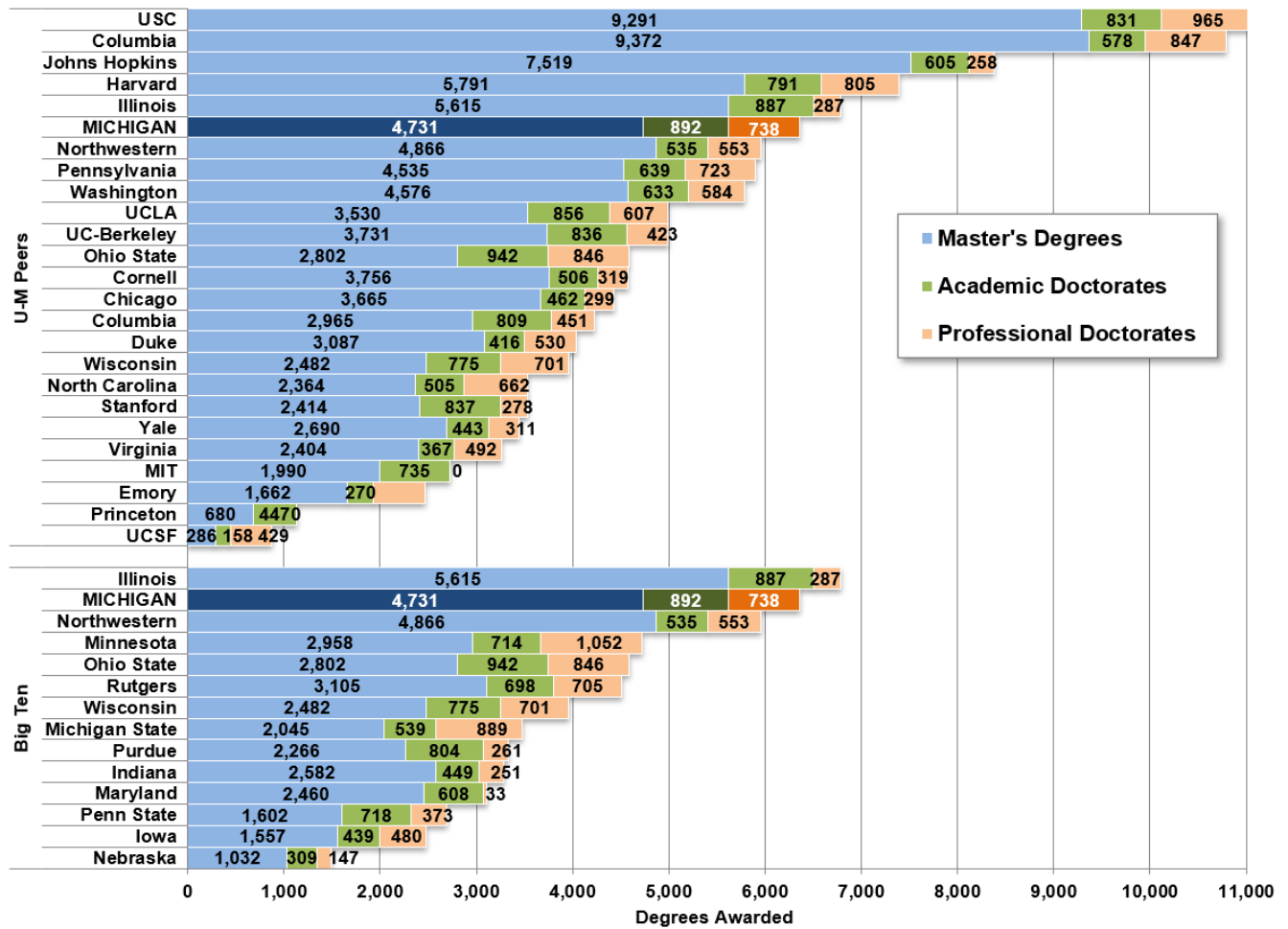
SOURCE: UM Office of Budget and Planning

† 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.

<sup>6</sup> Based on FY 2024 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 almost any other Big Ten institution, and is ranked 6<sup>th</sup> among peer universities.

5.3.1 Graduate Master’s, Academic Doctoral and Professional Doctoral Degrees Awarded, Headcount for U-M, Peers and Big Ten Universities, 2021-22.

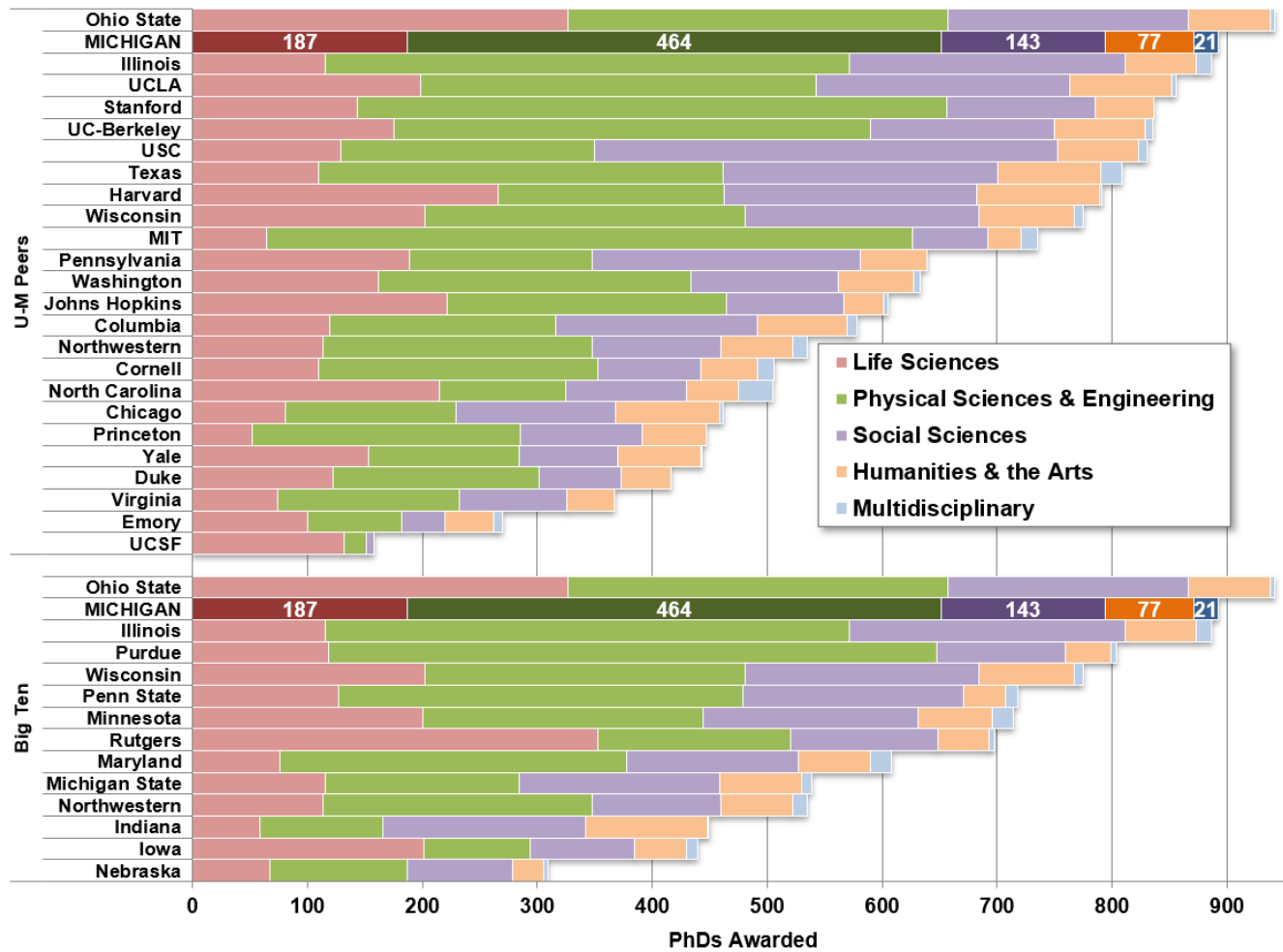


SOURCE: Integrated Postsecondary Education Data System (IPEDS)

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 graduated 651 Ph.D. students in the sciences, technology, engineering and mathematics (STEM) in 2021-22 – an increase of 84 students compared to 2020-21.

5.3.2 Ph.D. Degrees Awarded, Headcount, by Discipline Group<sup>7</sup> for U-M, Peers and Big Ten Universities, 2021-22.



SOURCE: Integrated Postsecondary Education Data System (IPEDS)

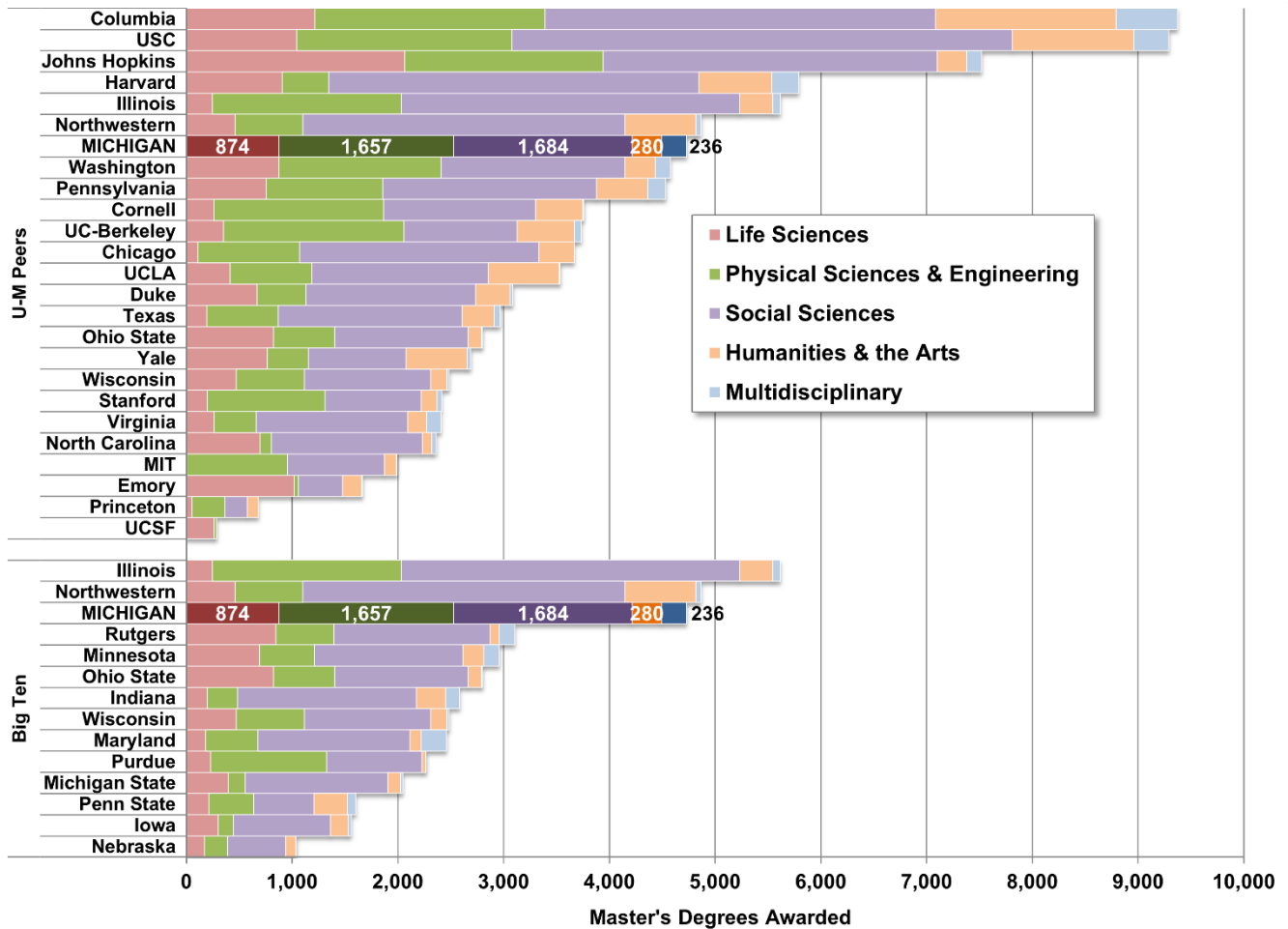
In the life sciences, physical sciences, and engineering – also known as STEM fields (science, technology, engineering, and mathematics) – U-M awarded 651 such Ph.D. degrees in 2021-22. The number of graduates in STEM fields is important because labor analyses often indicate that the American workforce 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.

<sup>7</sup> 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<sup>8</sup> for U-M, Peers and Big Ten Universities, 2021-22.



SOURCE: Integrated Postsecondary Education Data System (IPEDS)

U-M graduates more master’s students overall than most Big Ten universities. 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,

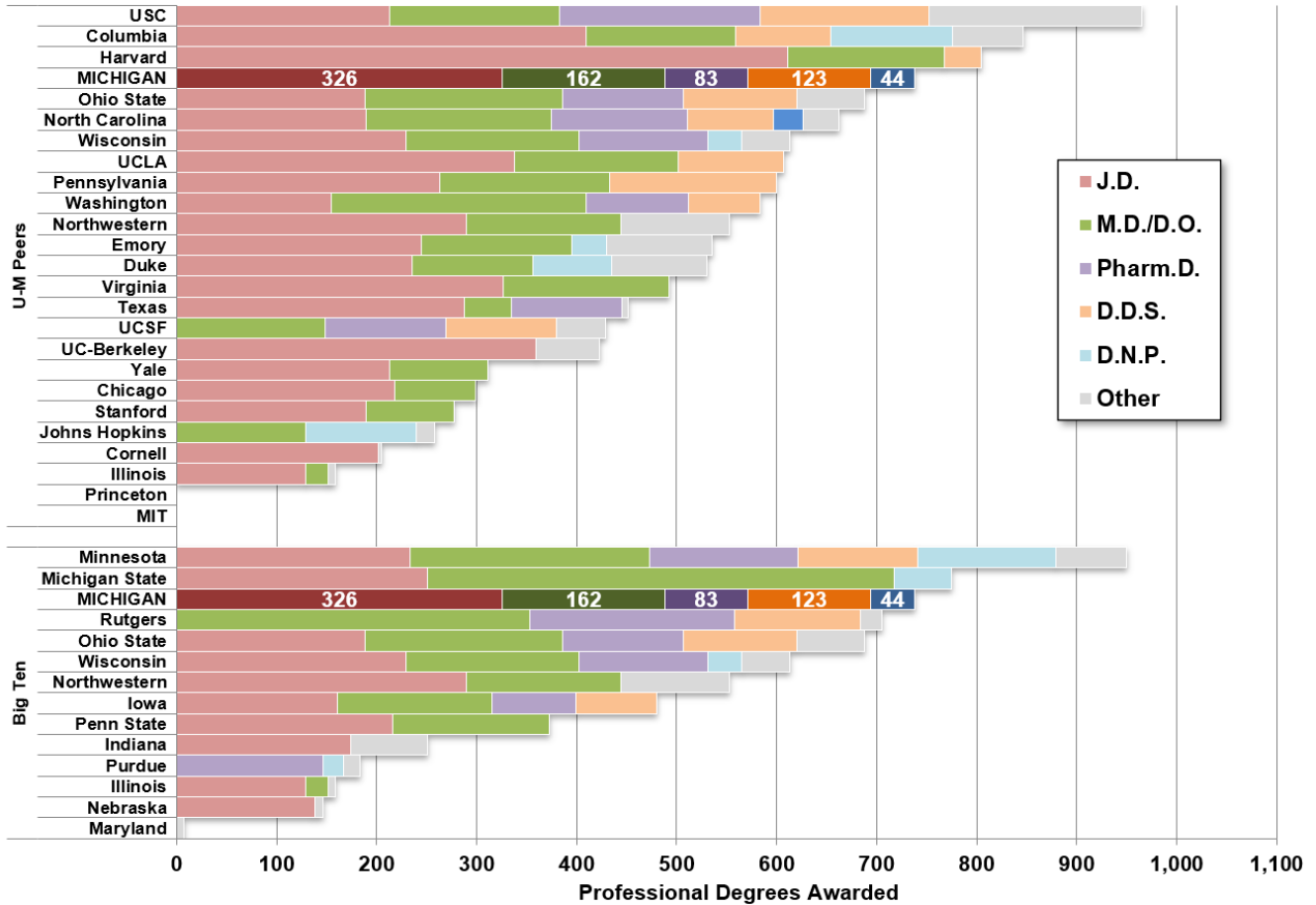
and mathematics) – 2,513 U-M students graduated with master’s degrees during 2021-22.

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.

<sup>8</sup> 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, 2021-22.



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.).

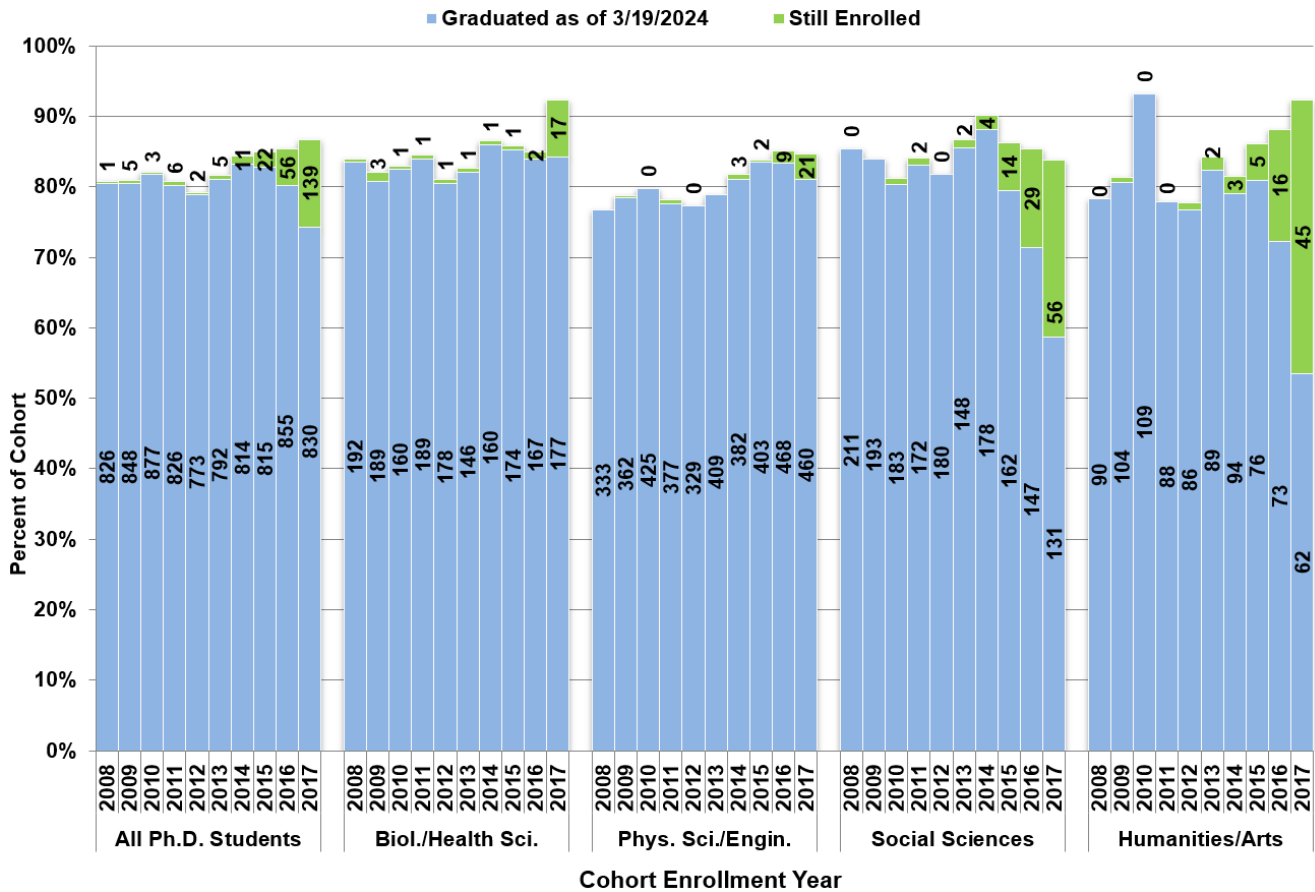
To keep the comparisons consistent between U-M and the comparison schools, all degree awards for Charts 5.3.2, 5.3.3 and 5.3.4 at peer and Big Ten universities were categorized according to the same academic disciplines and professional categories the U-M uses.

<sup>9</sup> 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, 82 percent of students who enrolled in a doctoral program between Spring term 2008 and Winter term 2017 have graduated with a Ph.D.

**5.4.1 Academic Doctoral Completion Rates by Discipline Group<sup>10</sup>, Enrollment Cohorts 2008-2017.**



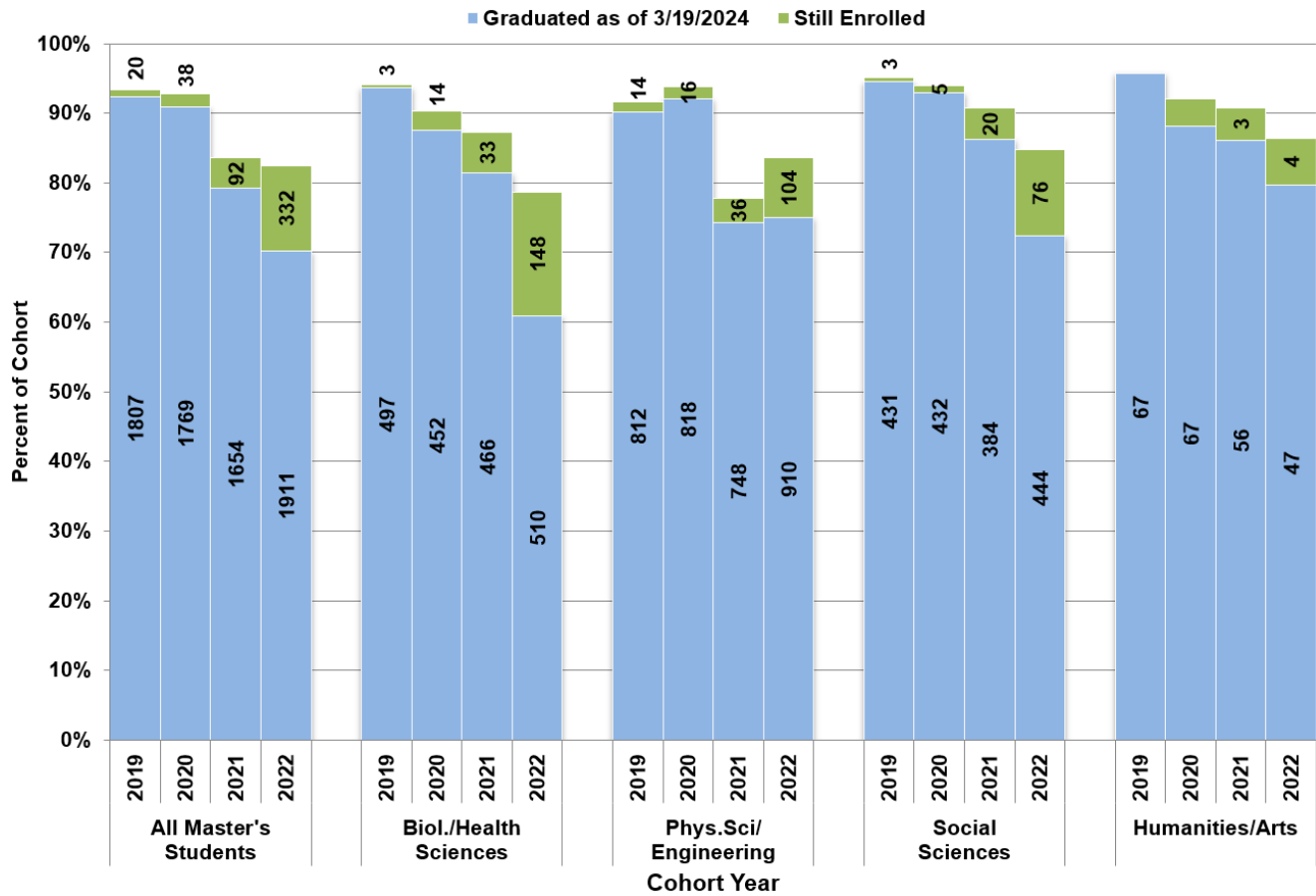
SOURCE: Horace H. Rackham School of Graduate Studies

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 March 2024.

<sup>10</sup> 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, 89.6% have completed their degrees.

5.4.2 Academic Master’s Completion Rates by Discipline Group<sup>11</sup>, Enrollment Cohorts 2019-22



SOURCE: Horace H. Rackham School of Graduate Studies

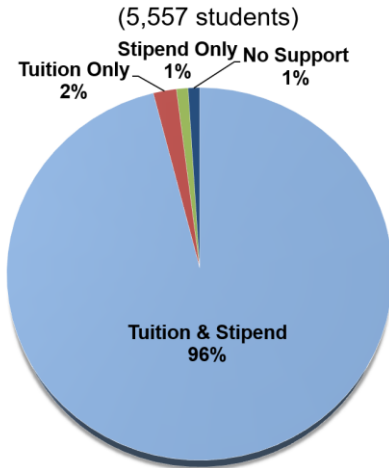
U-M master’s programs usually require about two years to complete, so the average in the headline does not consider the completion counts for the master’s students who first enrolled in the Fall 2022 term.

<sup>11</sup> A list of disciplines assigned to each group is found in Appendix C.

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

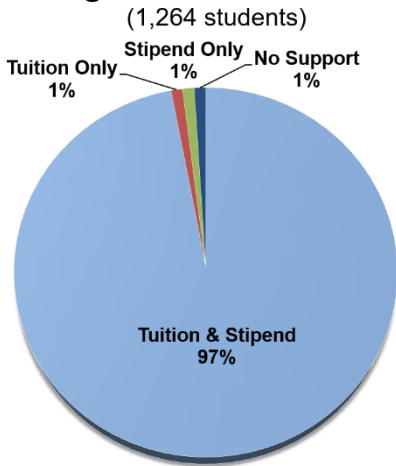
**5.5.1 Funding Support for Rackham Ph.D. Students<sup>12</sup>, 2022-23.**

**All Rackham Ph.D. Students**

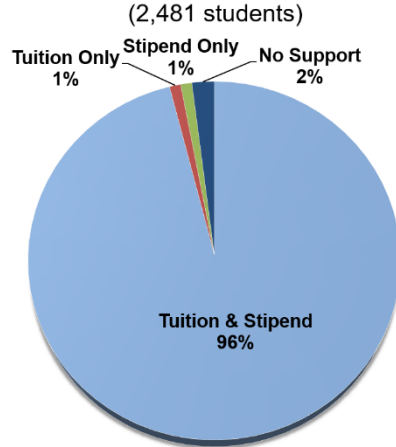


In all fields of study, a substantial percentage of academic Ph.D. students receives both tuition grants and a stipend to help cover living expenses. A small percentage of students competed successfully for external funding and did not need additional financial support. Stipends may be paid as part of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

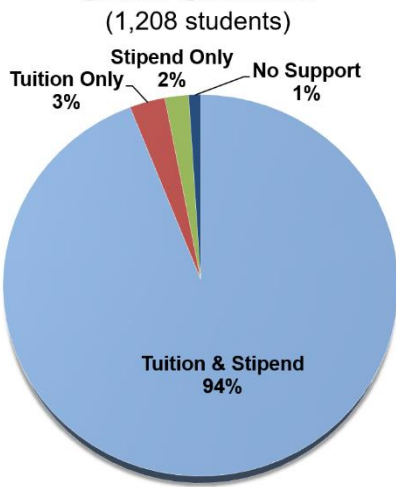
**Biological & Health Sciences**



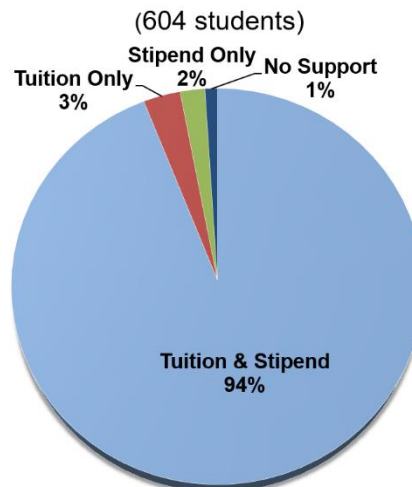
**Physical Sciences & Engineering**



**Social Sciences**



**Humanities & the Arts**



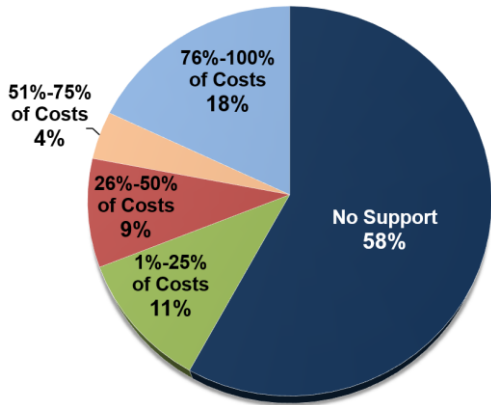
SOURCE: Horace H. Rackham School of Graduate Studies

<sup>12</sup> 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.

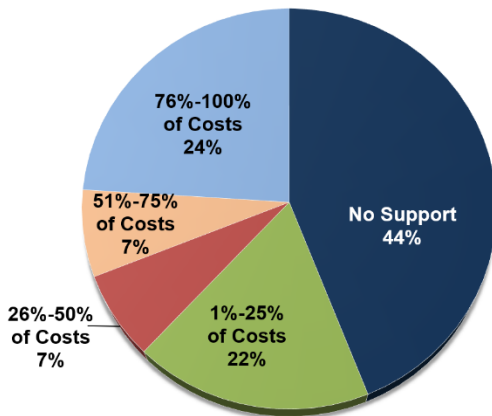
5.5.2 Funding Support for Rackham Master's Students<sup>13</sup>, 2022-23.

**All Rackham Master's Students**  
(3,931 students)

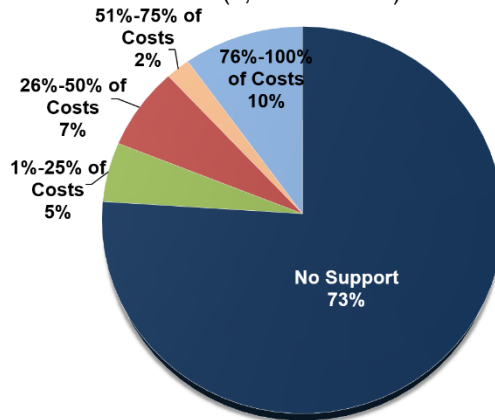


The five categories of support (No Support, and covering 1%-25%, 26%-50%, 51%-75%, 76%-100% of costs) represent the fraction of the total calculated cost of attendance provided as tuition grants and stipends to students enrolled in master's programs. Loans that master's students may acquire are not included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

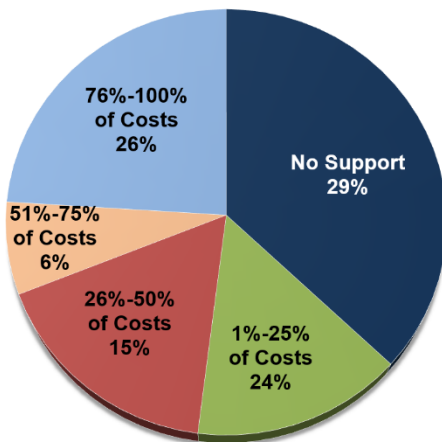
**Biological & Health Sciences**  
(1,107 students)



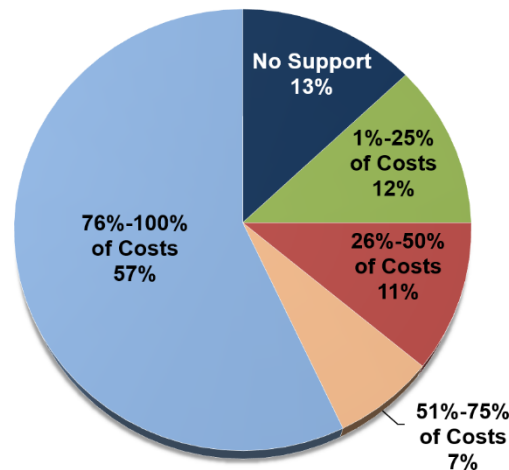
**Physical Sciences & Engineering**  
(1,940 students)



**Social Sciences**  
(769 students)



**Humanities & the Arts**  
(115 students)

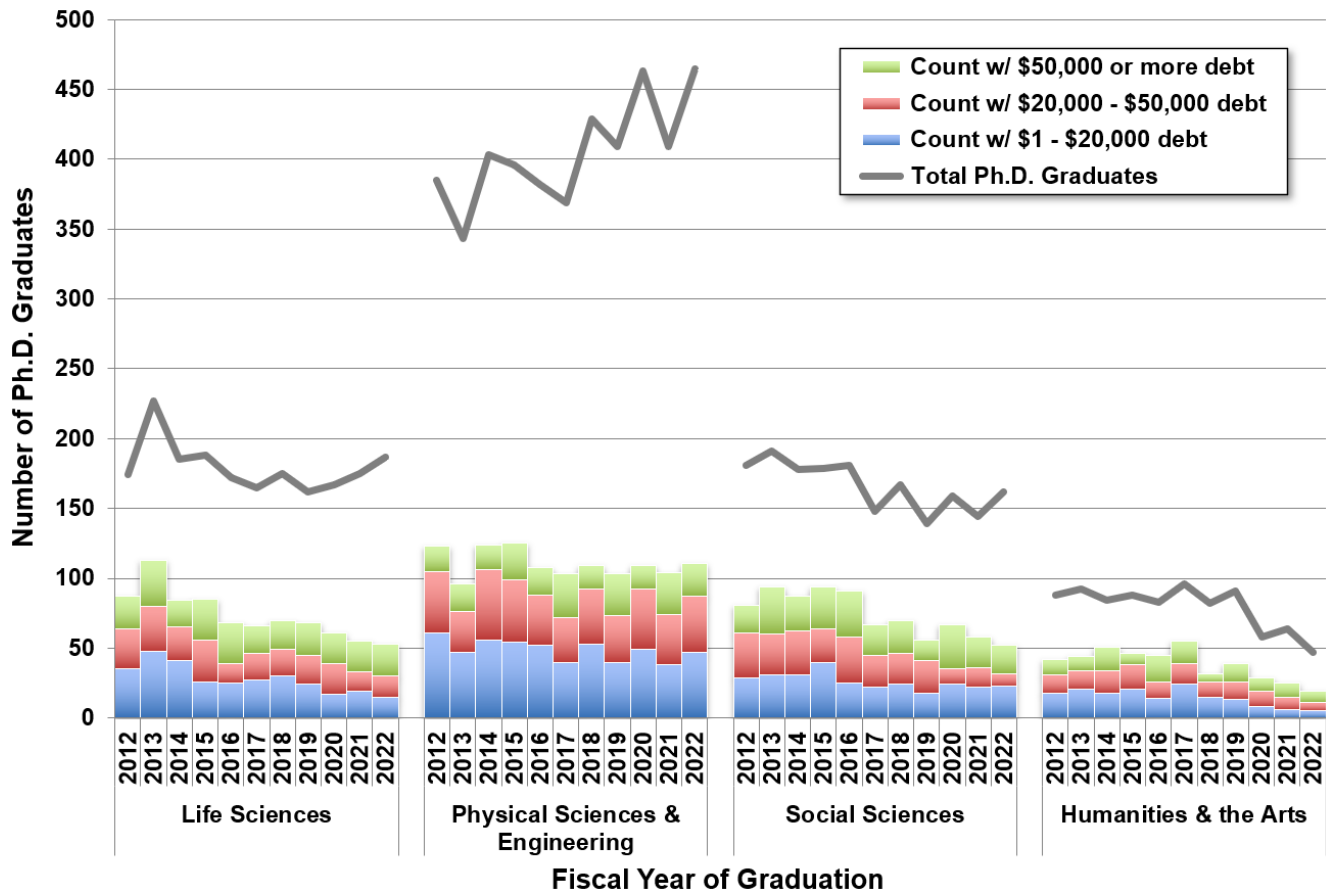


SOURCE: Horace H. Rackham School of Graduate Studies

<sup>13</sup> A list of disciplines assigned to each group is found in Appendix C.

## Sixty-four 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<sup>14</sup> for Domestic Students, FY2012-2022.



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

Only about one-third (36% 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 (41%), Physical Sciences & Engineering (27%), Social Sciences (45%), and Humanities & the Arts (49%).

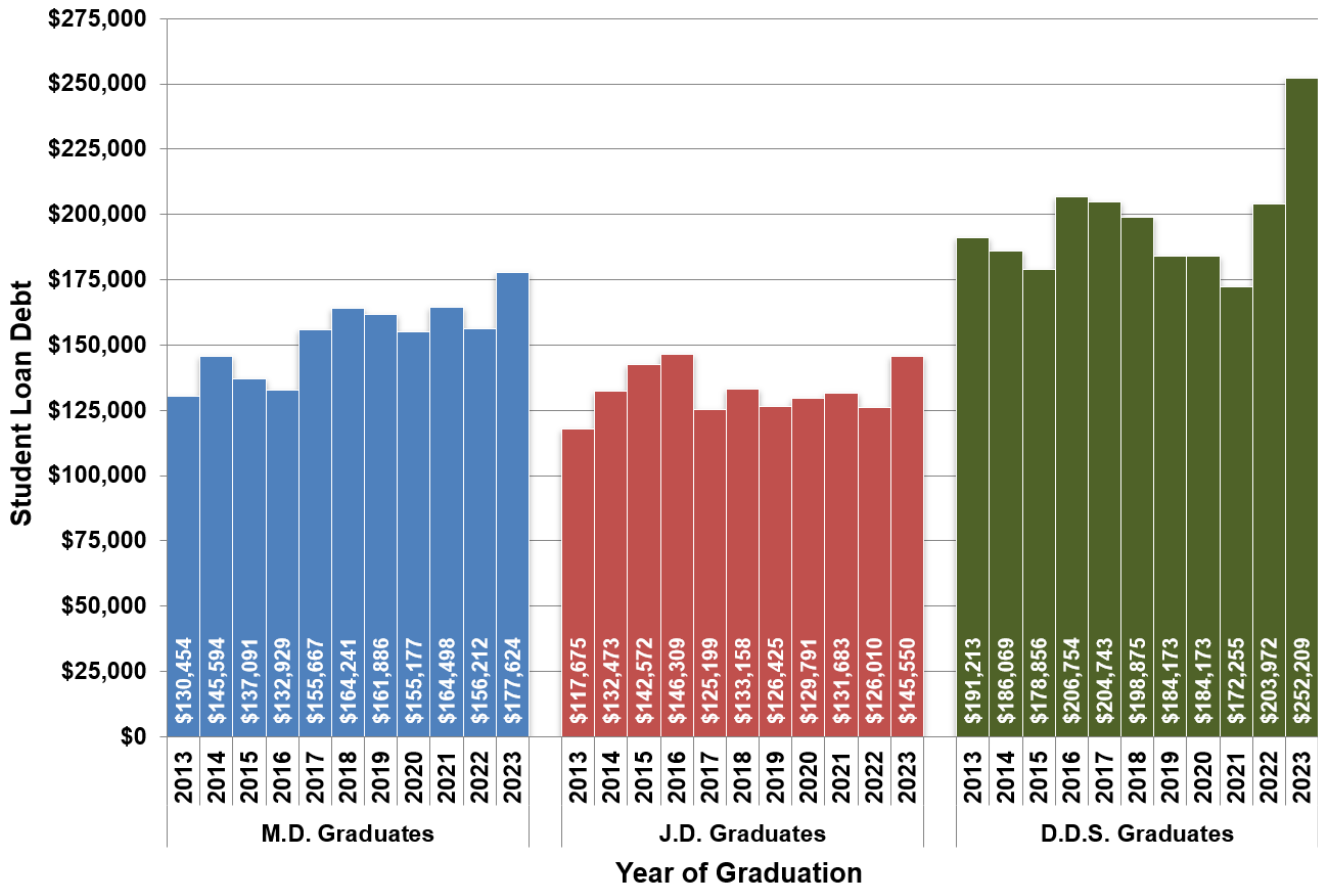
The issue of student debt remains important to the University of Michigan and higher education overall. Student loan debt presents a serious challenge to scholars just starting their careers, especially for the two percent of U-M Ph.D. graduates who have accumulated student loan debt that exceeds \$100,000.

Percent of Ph.D. Graduates without debt Ten-year average by Field of Study	
Life Sciences	59%
Physical Sciences & Engineering	73%
Social Sciences	55%
Humanities & the Arts	51%

<sup>14</sup> 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, 2013-2023.



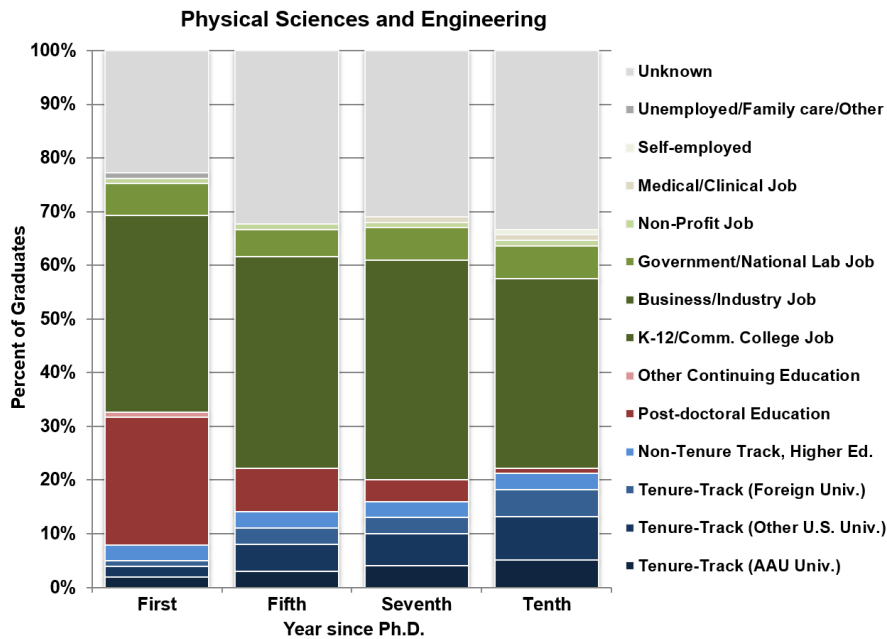
SOURCE: School’s Dean or Financial Aid Office

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

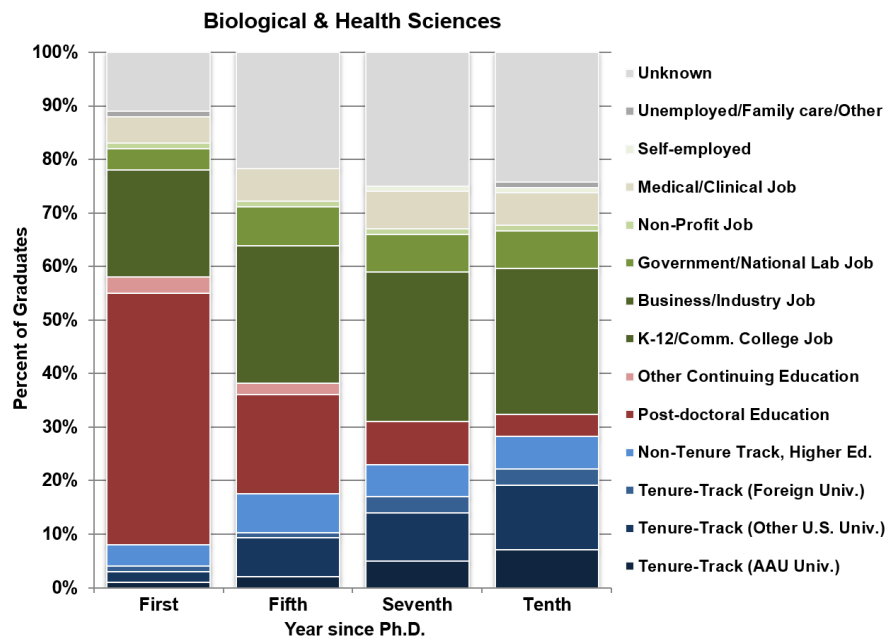


Career paths for Ph.D. students vary by field of study. For instance, a large fraction of Ph.D. graduates in the physical sciences and engineering go into private or non-profit sector jobs

5.7 Placement Outcomes for U-M Ph.D. students from 2011 through 2023 graduating classes, by Discipline Group<sup>15</sup>.



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.

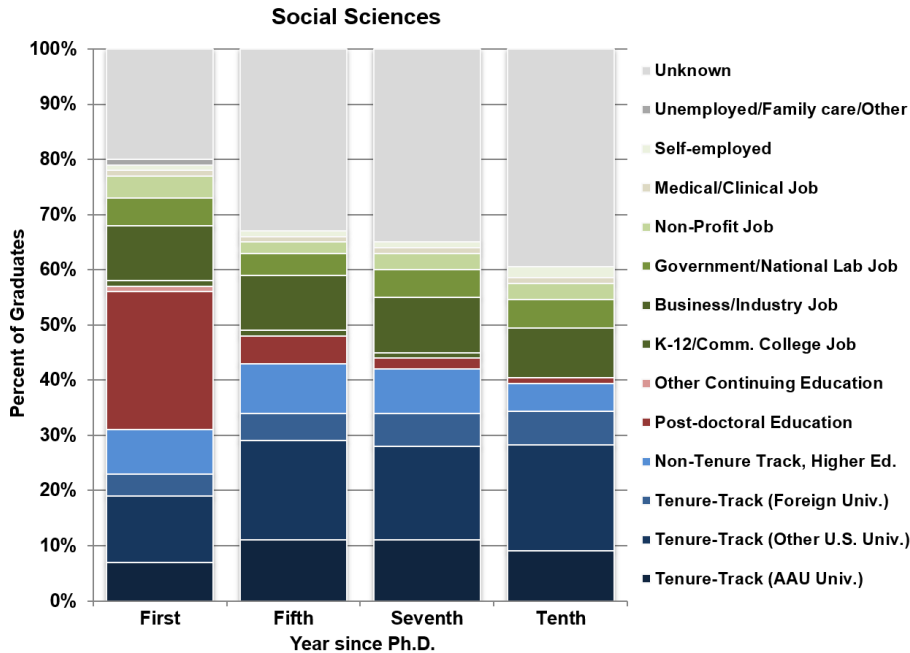
SOURCE: Survey of Academic Departments by Rackham Graduate School

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.

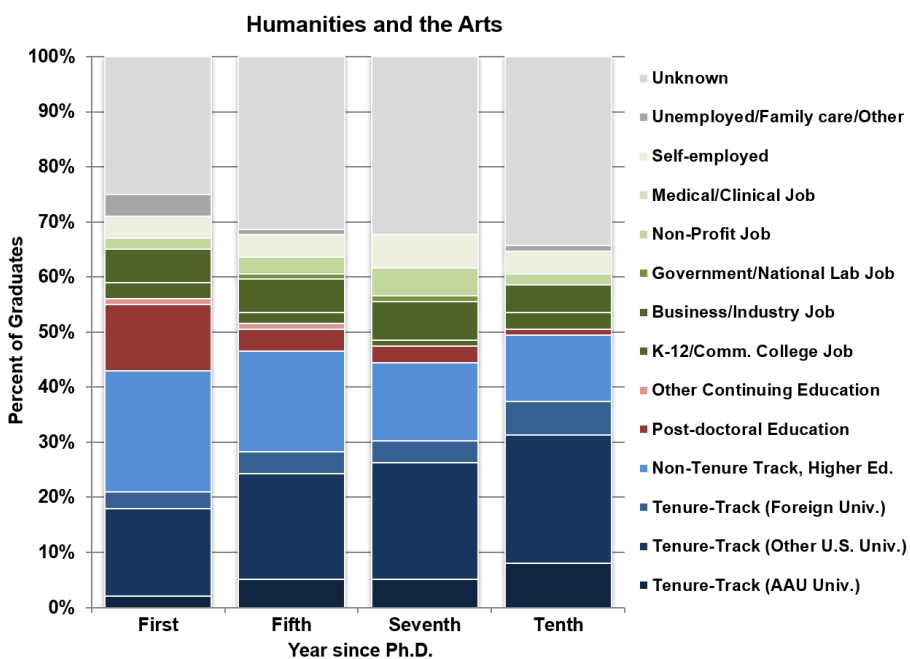
Note: These charts indicate a substantial percentage of graduates whose plans are unknown compared to past years. This is due in part to disruption of careers due to the coronavirus pandemic.

<sup>15</sup> 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<sup>15</sup> (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

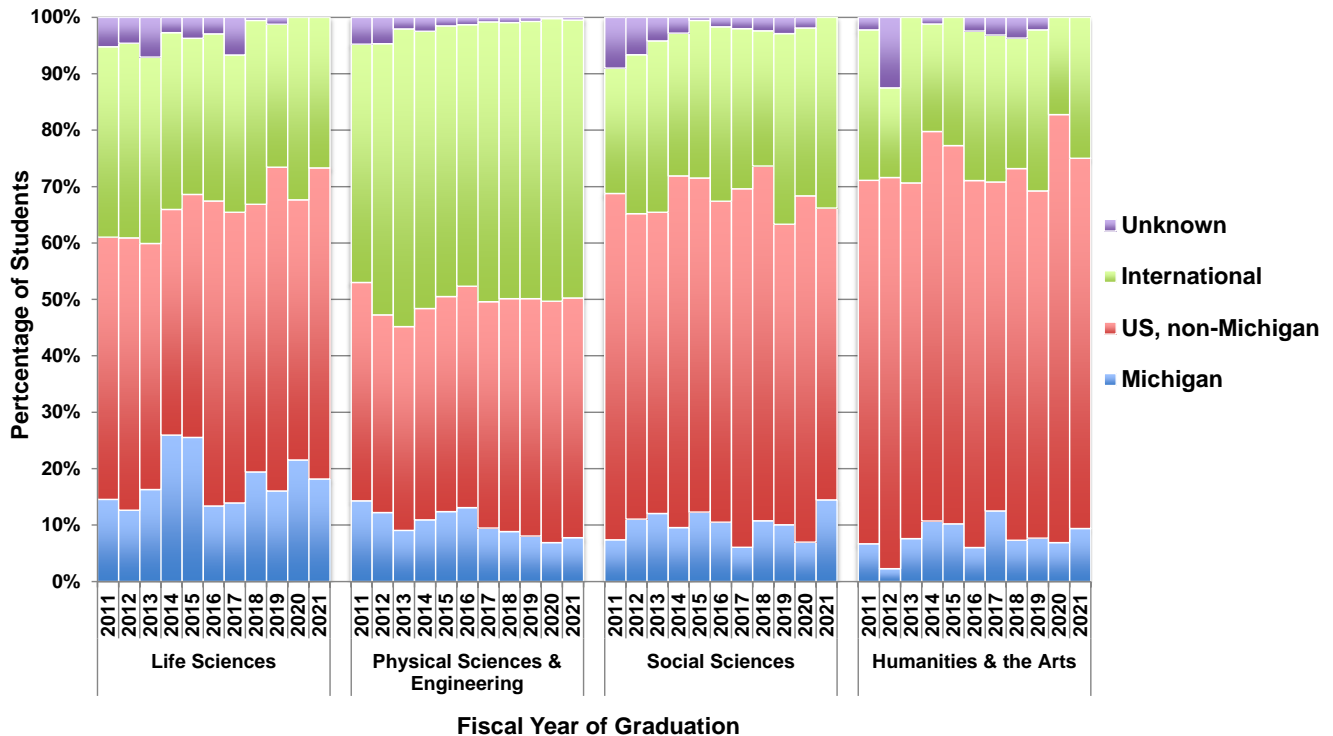
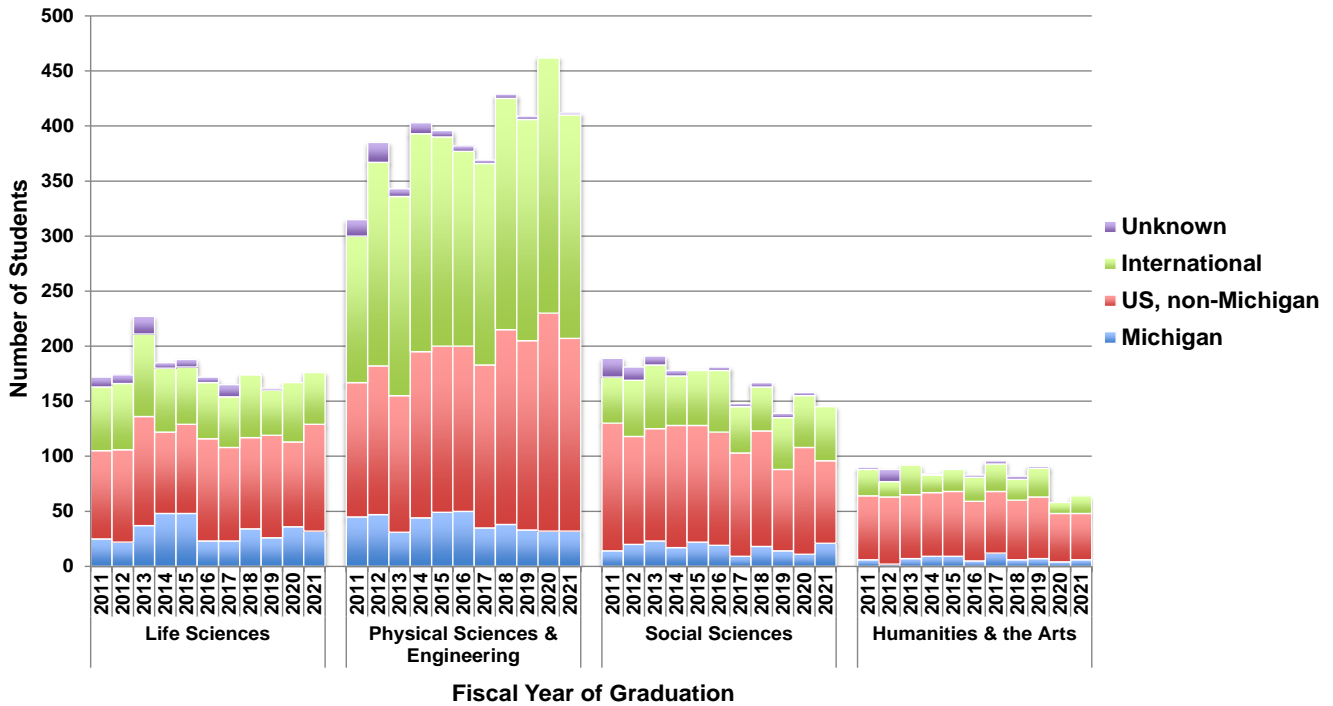
Blue shades represent higher education positions, reds indicate post-doctoral or other post-graduate training, greens are positions outside of higher education, and the grays represent unknown activity or not currently employed.

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.

<sup>15</sup> 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<sup>18</sup>, FY2011-2021.**



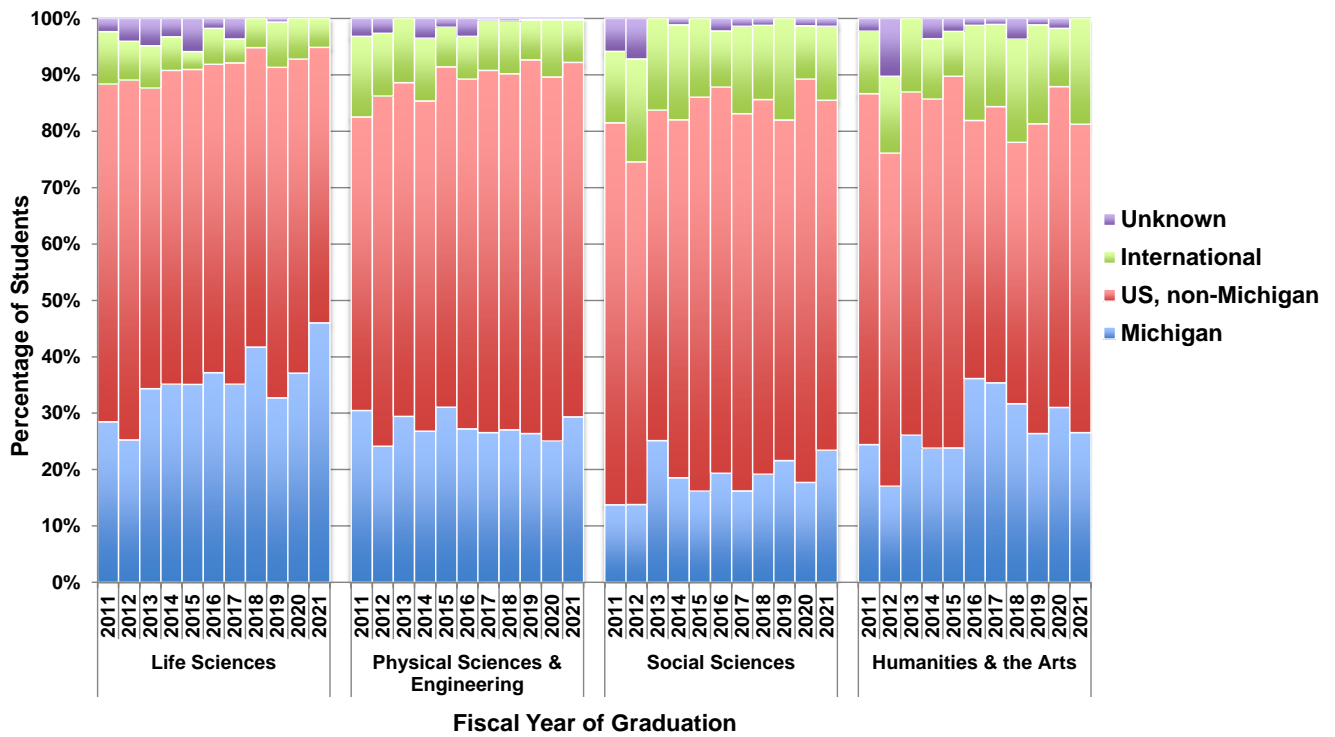
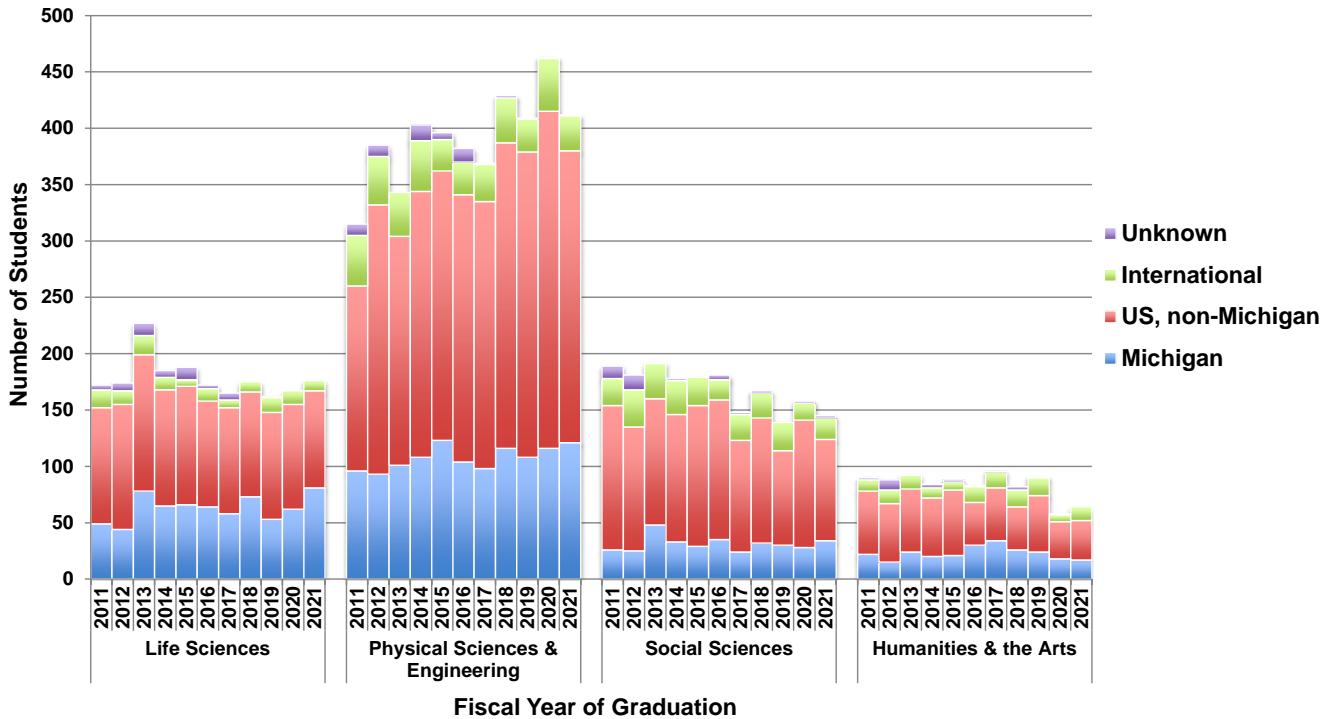
SOURCE: NSF/NIH/USED/USDA/NEH/NASA, Survey of Earned Doctorates

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

<sup>18</sup> A list of disciplines assigned to each group is found in Appendix C.

**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<sup>19</sup>, FY2011-2021.**

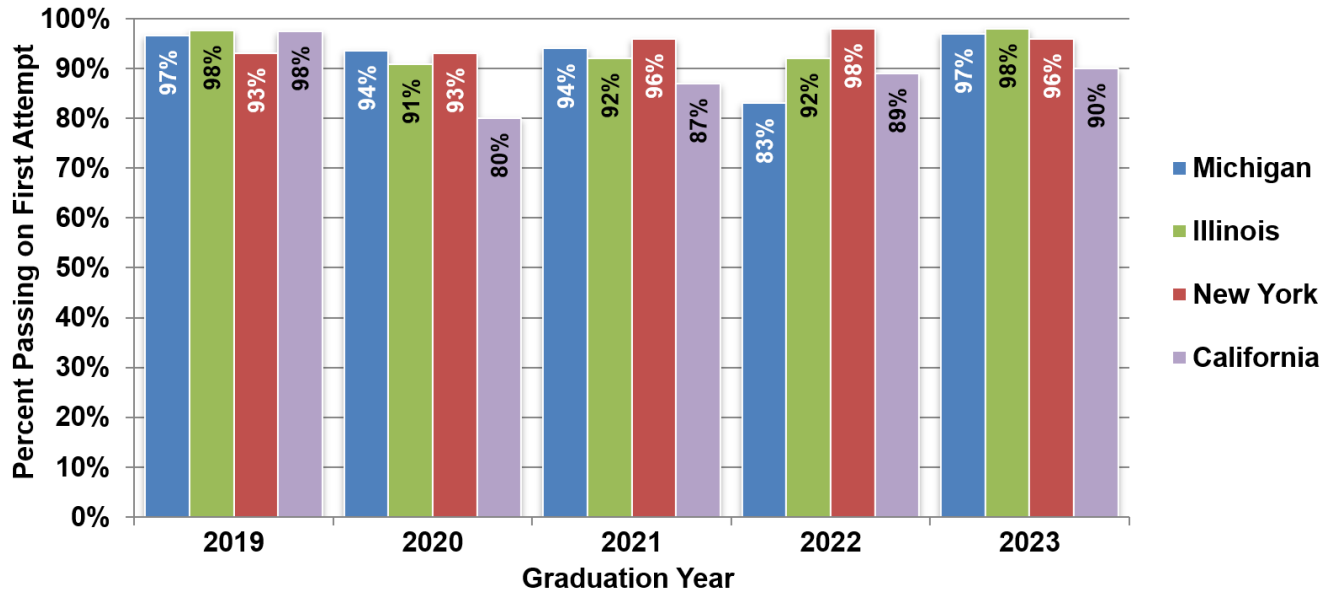


SOURCE: NSF/NIH/USED/USDA/NEH/NASA, Survey of Earned Doctorates

<sup>19</sup> A list of disciplines assigned to each group is found in Appendix C.

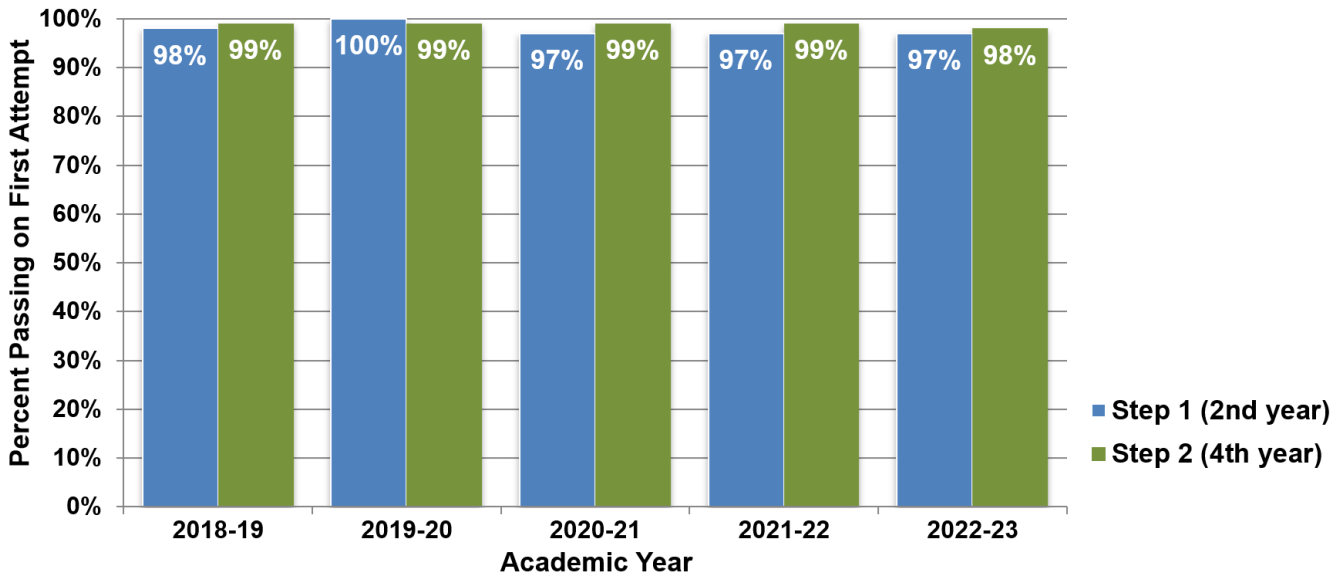
**U-M law, medicine, dentistry and pharmacy professional students pass their licensing exams at very high rates.**

**5.9.1 Pass Rates for Four States' Bar (Law) Examinations by U-M Law School Graduates, 2019-2023.**



SOURCE: Registrar, U-M Law School

**5.9.2 Pass Rates for U.S. Medical Licensing Examination by U-M Medical Students, 2019-2023.**



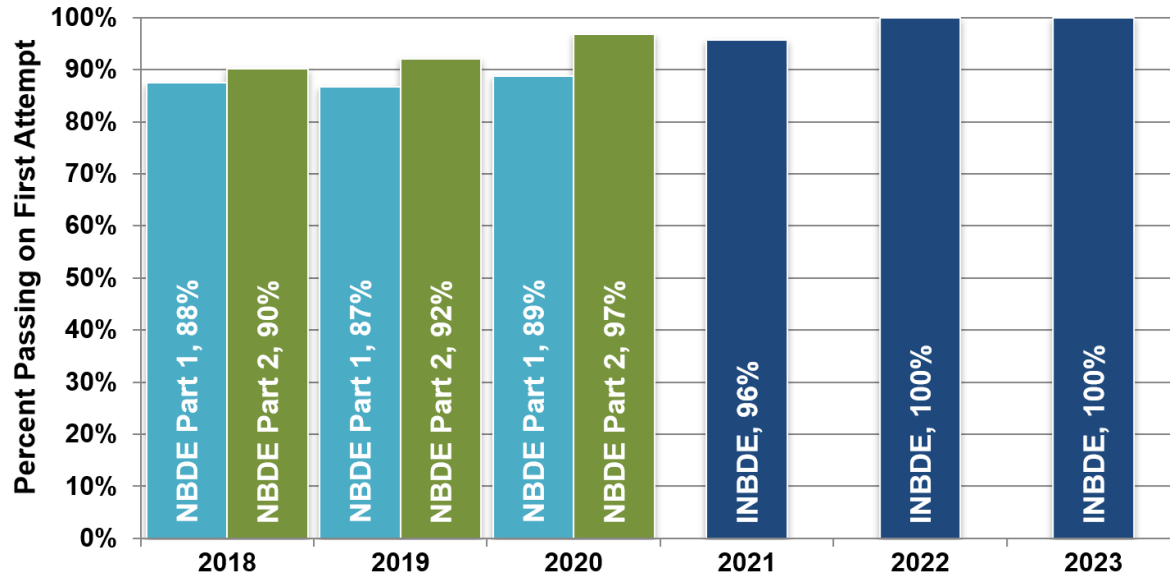
SOURCE: Registrar, U-M Medical School

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, 2018-2023.**

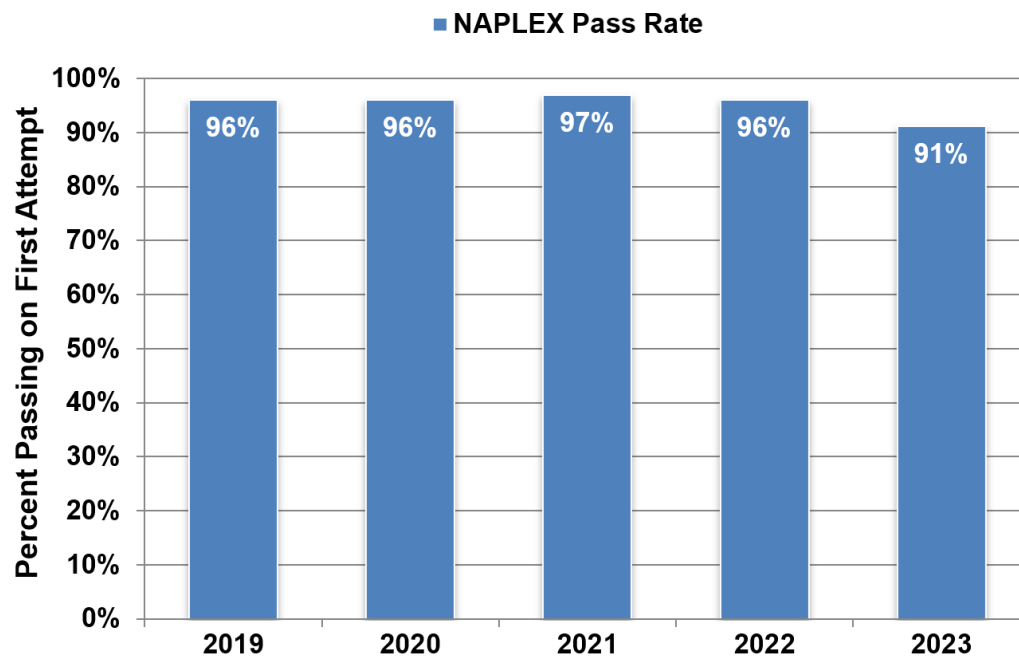


SOURCE: School of Dentistry

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, 2019-2023.**



SOURCE: College of Pharmacy

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