

Time in Rank for Instructional Tenure-Track Associate Professors REVISED (January 2024)

The ADVANCE Program at the University of Michigan (U-M) examined the time in rank for instructional tenure-track Associate Professors on the Ann Arbor campus¹ to understand whether there are differences by school/college, disciplinary area, gender, or race-ethnicity. Unlike the Assistant Professor rank, there are no policies to limit how long someone remains an Associate Professor (with tenure)². Given the decentralized nature of the university and our shared commitment to diversity, equity and inclusion, it is important to periodically review the time that faculty spend in the Associate Professor rank.

Analytical Strategy

Hiring, tenure, and promotion data were extracted from the HR data warehouse for instructional tenure-track faculty in the Associate Professor and Professor ranks who were active in the school/college as of September 2, 2022.³ The attached tables use two methodological approaches, and information is presented by gender (male/female) and race-ethnicity (URM⁴, A/AA⁵, White), as per available data.

1. Retrospective: Data on faculty who are currently at the rank of Professor⁶, and were promoted from Associate within the last eight years (promotion dates of 2015 - 2022), were examined. These data were further split into two groups: (i) faculty promoted to Associate Professor from the Assistant Professor rank while at U-M, and (ii) faculty who were hired directly into the Associate Professor rank at U-M. The average time spent at the Associate Professor rank before promotion to Professor was calculated for each unit⁷.
2. Current: Data on faculty who are currently at the rank of Associate Professor, and the distribution of time in rank, were examined.

There are different field and disciplinary norms, and different practices across academic units, including variation both within and across the schools and colleges. Thus analyses were done unit-by-unit. Group comparisons were made to determine whether there are significant differences⁸ based on gender or race-ethnicity as well as being promoted to or hired directly as an Associate Professor at U-M.

¹ Includes Michigan Medicine.

² Associate Professors without tenure still must be evaluated for tenure according to the university timeline guidelines.

³ In October 2023, ADVANCE staff included Human Resource Legacy data for faculty who were hired at U-M prior to 2001. The addition of this new dataset impacted the categorization of faculty in our analysis and the time spent in rank (Tables C, F).

⁴ Underrepresented Minorities (URM) includes faculty who identify as African-American/Black, Hispanic/Latinx, Native American/Alaskan Native, and/or Native Hawaiian/Pacific Islander.

⁵ Asian/Asian-American

⁶ Faculty who were hired as Professors were excluded from the analysis. The Law School was excluded from the analysis because the Associate Professor rank is not used.

⁷ For this calculation of the average, no distinction was made between those promoted to or hired into the Associate Professor rank.

⁸ References to group differences refer only to differences found to be statistically significant ($p < 0.05$). These are differences that would have emerged simply by chance (when there truly was no difference or effect) at or less than 5 percent of the time. This is a generally-accepted standard of statistical significance in social science research.

Findings

Recently promoted to full Professor. There are 524 Professors on the Ann Arbor campus who were promoted in the last 8 years. These Professors spent an average of 6.9 years in the Associate Professor rank, and there is variance across the schools, colleges, and divisions (Table A). At the university level, there are no significant differences in the years in the Associate Professor rank by gender. An analysis of group differences between race-ethnicity groups at the university level indicates that Asian/Asian American faculty who were recently promoted to full Professor were in the Associate Professor rank for significantly fewer years as compared to both URM faculty and White faculty (Table B). Due to the smaller numbers of faculty, it was not always possible to look for group differences within each school, college or division⁹. In the Michigan Medicine Clinical Departments, White faculty who were hired into the Associate Professor rank spent a longer time at that rank before promotion than those who were promoted into the rank while at U-M; this was also true for men at the university level (Table B).

Current Associate Professors. On the Ann Arbor campus, there are 740 instructional tenure-track faculty who currently are in the Associate Professor rank, with a campus mean of 5.9 years in rank (Table C). This average includes faculty who were evaluated for promotions that are effective as of Fall 2022.

At the university level, for current Associate Professors hired as Associate Professors, men spent significantly longer time in the Associate professor rank compared to women. An additional finding that male Associate Professors hired as an Associate Professor spent longer in the Associate Professor ranked when compared to male Associate Professors who were promoted as an Associate Professor was approaching significance (Table D).

An additional analysis indicated that faculty who are or have spent time as untenured Associate Professors¹⁰ spent more time in the rank compared to tenured Associate Professors (Table D).

Significant group differences by race-ethnicity or gender that were found for current Associate Professors within specific schools, colleges, or divisions are also listed in Table D. Within the Business, Public Sector, and Arts group, for Associate Professors who were promoted to Associate Professor, men spent more time in rank compared to women. Additional group comparisons were run across the other specific schools, colleges, or divisions, and no additional group comparisons were significant.

There are 198 current Associate Professors whose time in rank is above the average within their school, college or division ($M = 14.75$ years, $SD = 7.49$). At the university level, there are no significant differences by gender or by race-ethnicity in the years in rank for Associate Professors who are above the mean as compared to the total number of Associate Professors on campus (see Table E). Figure 1 displays the distribution of the

⁹ Group difference testing requires a minimum of 6 cases in each comparison group.

¹⁰ Faculty members were coded as "Untenured Associate Professors" if they are currently or have spent any amount of time as an untenured Associate Professor.

current Associate Professors whose time as an Associate Professor is greater than their school, college or division by race-ethnicity and gender, and Figure 2 presents gender by type of hiring.

Limitations

These data – when the numbers of faculty are large enough for a meaningful comparison – can speak to whether there are significant differences in years to promotion to full Professor or in years thus far spent in the Associate Professor rank by race-ethnicity and/or gender group, and few such differences were found. We do note that there are Associate Professors whose years in the Associate Professor rank create outliers within their school, college, or division¹¹. These outliers increase the group means and challenge our ability to interpret group differences (or the lack thereof).

The data here cannot shed light on the experiences of individual faculty; there may be biases or inequitable experiences, for example, that stand in the way of a promotion and cannot be detected by these analyses. Further, this analysis cannot explain why some faculty have remained at the Associate Professor rank for more years than the average for their unit. Reasons may include:

1. Different disciplinary norms and practices within each school/college or department that influence when and the criteria by which faculty members are evaluated for promotion from Associate Professor to full Professor;
2. Faculty involvement in leadership or administrative roles at U-M or in their professional organizations;
3. Increased clinical responsibilities;
4. Difficulty securing external funding or in achieving other expected markers of impact and success; or
5. High levels of satisfaction with their current role and responsibilities.
6. For those hired into the Associate Professor rank at U-M, it can take time to get established in a new institution.

Therefore, it will be critical to understand the individual stories and experiences of faculty in the Associate Professor rank to provide a more nuanced understanding of these data.

In addition, these analyses apply only to instructional tenure-track faculty.

¹¹ Outliers are more than two standard deviations above the mean within the school, college or division.

Figure 1. Current Associate Professors who are Above the Mean Time in their School, College or Division (Race-Ethnicity by Gender)

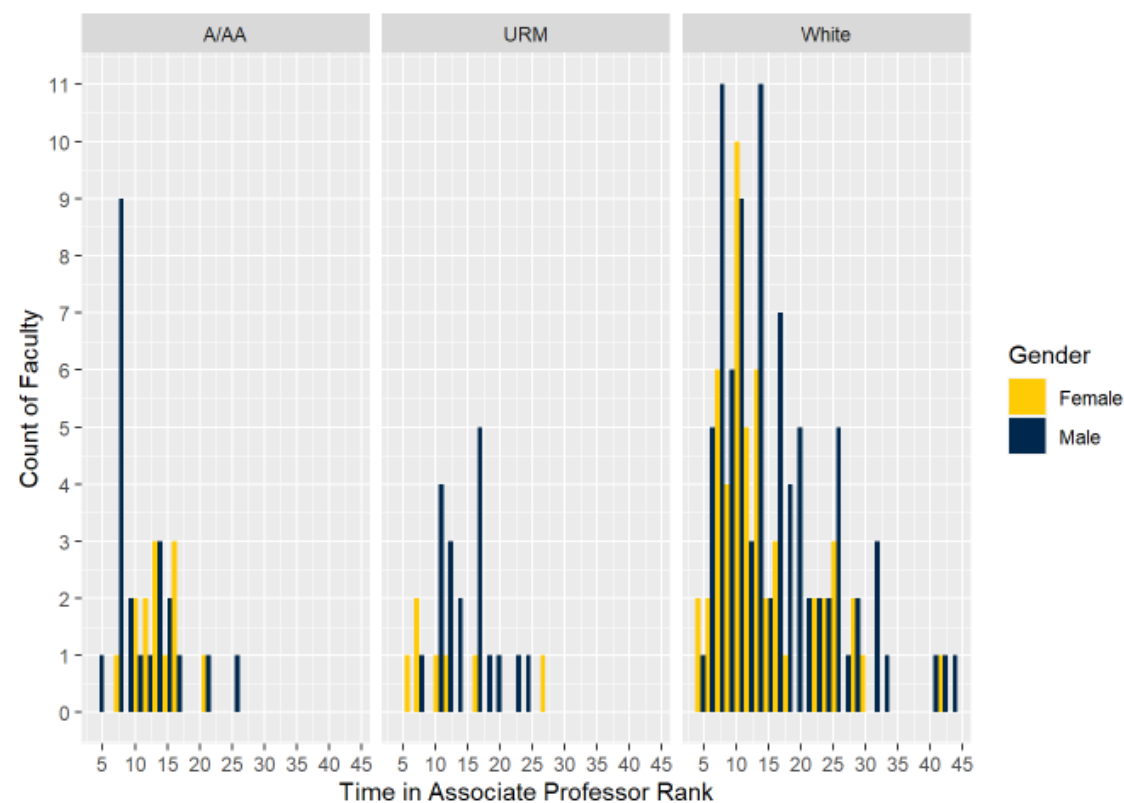


Figure 2. Current Associate Professors who are Above the Mean Time in their School, College or Division (Gender by type of Associate Professor)

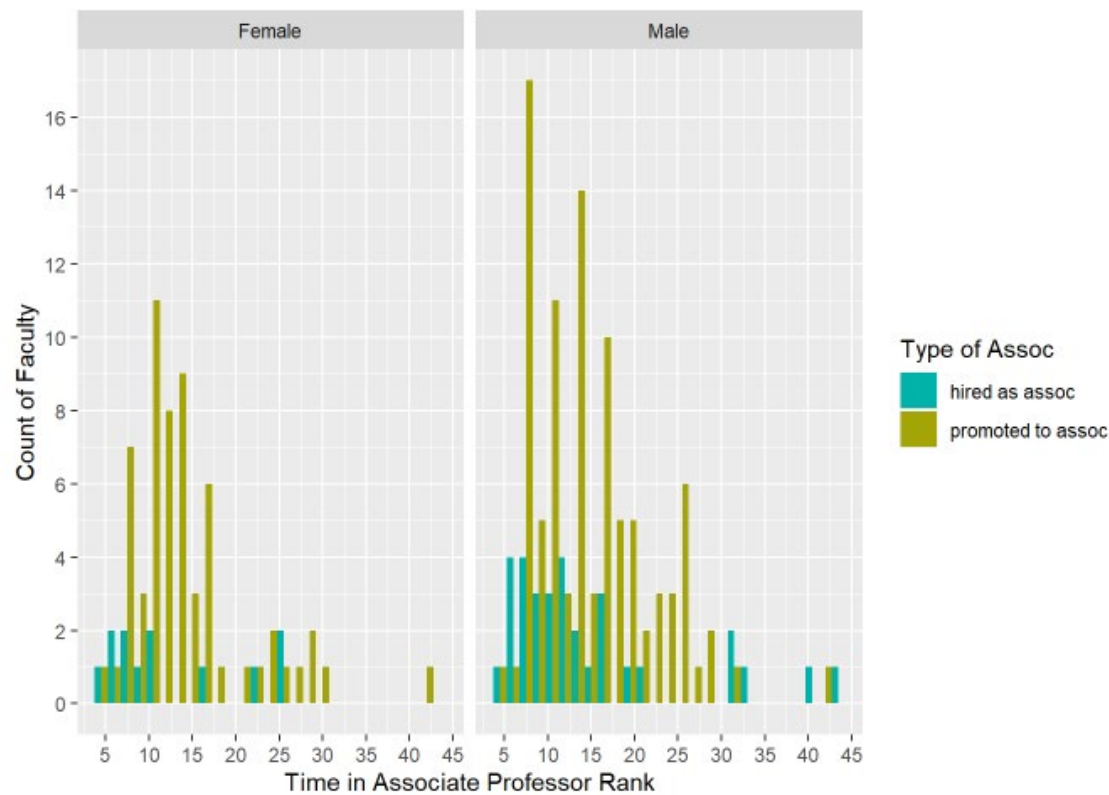


Table A: Average Time (in Years) in Associate Professor rank among Professors who were promoted in the last 8 years - by Sex and Race/Ethnicity

	Women				Men				A/AA				URM				White			
	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>
College of Engineering	6.7	15	5.5	5	6.3	34	5.7	15	6.1	21	5.3	2	4.5	2	8.0	2	6.9	26	5.4	16
LSA Humanities	9.3	15	9.7	9	9.1	19	13.3	9	7.5	4	9.7	1	9.7	4	4.5	2	9.4	25	12.6	15
LSA Natural Sciences	4.9	20	9.3	2	5.3	40	5.2	9	4.7	11	7.2	4	5.7	3		0	5.3	46	5.3	7
LSA Social Sciences	8.4	19	6.2	3	7.5	18	5.4	5	9.0	1		0	8.6	5	5.0	1	7.7	30	5.8	7
Michigan Medicine - Basic Science Departments	7.3	3	7.0	2	5.4	14	8.4	4	5.1	8	4.8	2		0	5.8	1	6.3	9	10.7	3
Michigan Medicine - Clinical Departments	6.2	32	6.5	11	6.3	63	9.4	16	6.1	31	5.5	6	8.0	1	4.6	2	6.3	63	9.4	19
Business, Public Sector & the Arts*	9.2	19	6.1	12	8.2	38	8.0	13	7.9	14	5.0	1	10.2	8	3.0	1	8.4	34	7.3	23
Health, Environment & Information**	7.1	19	6.3	12	5.9	24	5.6	5	4.8	8	3.9	2	6.2	6	7.2	3	7.1	26	6.2	12
University of Michigan	7.2	142	6.9	56	6.7	250	7.8	76	6.1	98	5.8	18	8.1	29	5.8	12	7	259	7.9	102

*Business, Public Sector & the Arts includes: Taubman College of Architecture & Urban Planning, Stamps School of Art & Design, Ross School of Business, School of Education, School of Music, Theatre & Dance, Ford School of Public Policy, and School of Social Work

**Health, Environment & Information includes: School of Dentistry, School for Environment and Sustainability, School of Information, School of Kinesiology, School of Nursing, College of Pharmacy, and School of Public Health

Table B: Professors Promoted in the last 8 years

University of Michigan - Ann Arbor						
Significant Differences in the Associate Professor Time in Rank (in Years) among Professors Promoted in the last 8 years						
Faculty Group	Subgroup	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F (df)</i>	<i>p</i>
Promoted to Associate	URM*	29	8.08	3.96	6.10 (2,383)	0.002
	A/AA	98	6.1	2.13		
	White*	259	7	3.06		
Faculty Group	Subgroup	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t (df)</i>	<i>p</i>
Men	Hired as Associate	12	8.53	1.99	2.34 (236)	0.020
	Promoted to Associate	236	6.62	2.79		

* Group is significantly different than A/AA faculty

Michigan Medicine - Clinical Departments						
Significant Differences in the Associate Professor Time in Rank (in Years) among Professors Promoted in the last 8 years						
Faculty Group	Subgroup	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t (df)</i>	<i>p</i>
White	Hired as Associate	19	9.42	6.07	2.16 (20)	0.043
	Promoted to Associate	63	6.33	2.48		

Table C: Average Time (in Years) among current Associate Professors - by Sex and Race/Ethnicity

	Women				Men				A/AA				URM				White			
	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>	prom to assoc	<i>n</i>	hired as assoc	<i>n</i>
College of Engineering	4.0	30	4.4	3	4.4	48	6.6	18	3.3	24	5.3	8	4.7	5	8.4	2	4.8	46	6.7	11
LSA Humanities	8.4	31	6.7	10	7.1	41	21.2	7	5.2	13			7.8	10	6.4	7	8.4	48	17.1	10
LSA Natural Sciences	2.6	19	6.1	1	5.4	15	5.6	3	3.2	8			6.1	2	4.7	1	3.9	24	6.1	3
LSA Social Sciences	5.2	29	0.9	5	3.8	31	8.3	4	2.8	8	1.6	2	4.4	6	0.1	2	4.8	44	8.3	4
Michigan Medicine - Basic Science Departments	7.6	20	2.3	3	5.3	22	5.7	6	5.4	9	5.6	3	14.7	3			5.9	29	4.1	5
Michigan Medicine - Clinical Departments	4.1	48	3.7	9	5.9	81	5.7	11	4.5	37	7.9	5	6.0	9	3.1	1	5.6	82	3.8	14
Business, Public Sector & the Arts*	5.3	58	5.3	16	8.6	58	6.7	16	7.5	17	1.1	2	6.4	17	5.9	13	7.0	81	6.7	17
Health, Environment & Information**	4.9	41	6.3	11	6.7	45	7.5	14	6.1	17	5.2	4	4.7	8	4.3	4	6.0	60	8.1	17
University of Michigan	5.2	276	4.9	58	6.2	341	7.9	79	4.8	133	5.2	24	6.4	60	5.4	30	6.0	414	7.7	81

*Business, Public Sector & the Arts includes: Taubman College of Architecture & Urban Planning, Stamps School of Art & Design, Ross School of Business, School of Education, School of Music, Theatre & Dance, Ford School of Public Policy, and School of Social Work

**Health, Environment & Information includes: School of Dentistry, School for Environment and Sustainability, School of Information, School of Kinesiology, School of Nursing, College of Pharmacy, and School of Public Health

Table D: Current Associate Professors

University of Michigan - Ann Arbor						
Significant Differences in the Time in Rank (in Years) among current Associate Professor						
Faculty Group	Subgroup	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t (df)</i>	<i>p</i>
Hired as an Associate Professor	Men	79	7.94	8.8	-2.44(132)	0.016
	Women	58	4.94	5.57		
Male faculty	Hired as Associate	79	7.94	8.8	1.95(418)	0.052
	Promoted to Associate	341	6.17	6.17		

Faculty Group	Subgroup	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F (df)</i>	<i>p</i>
Current Associate Professor	Tenured Associate	725	5.75	6.57	-2.26(29)	0.032
	Untenured Associate	29	10.01	10.10		

Table E: Current Associate Professors Above the Mean of Time in Rank in their School, College or Division as Compared to the Overall Faculty Composition

University of Michigan - Ann Arbor				
Demographic Comparison		<i>n (%)</i>	<i>n (%)</i>	<i>F</i>
		<i>Current Associate Professors above the mean of time in rank</i>	<i>Total number of current Associate Professors on campus</i>	
Race-Ethnicity	AAA	35 (17.7)	157 (21.6)	0.48 (not significant)
	URM	26 (13.1)	87 (12.0)	
	White	137 (69.2)	484 (66.5)	
Demographic Comparison		<i>n (%)</i>	<i>n (%)</i>	<i>p</i>
		<i>Associate Professors above the mean of time in rank</i>	<i>Total number of Associate Professors on campus</i>	
Gender	Women	72 (36.4)	325 (43.9)	0.06 (not significant)
	Men	126 (63.6)	415 (56.1)	

*Mean was calculated using current Professors time in Associate Professor rank before being promoted