The Aging of Tenure-Track Faculty in Higher Education

IMPLICATIONS FOR SUCCESSION AND DIVERSITY

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Introduction

America’s workforce is aging, and popular press articles have warned of a “silver tsunami” of retirements, particularly among the baby boomer generation.\(^1\) Dramatic headlines aside, even gradual changes in workforce demographics will affect hiring, budgeting, training, and more. Higher education tenure-track faculty may be uniquely affected by these demographic trends.\(^2\) Faculty require long periods of training but often work beyond typical retirement ages; jobs are stable, and turnover is very low; the pipeline for new hires is fundamentally limited; and competition occurs nationally. As the workforce ages, this may create unique challenges for the management of a faculty workforce.

This report examines CUPA-HR data to consider how faculty are distributed by age, how age and rank interact in terms of salary, the representation of women and racial/ethnic minorities by age and rank, and variations of age across faculty disciplines.\(^3\)

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2. Non-tenure-track faculty, whether in teaching or research, are not examined in this report. These faculty exhibit quite different characteristics, and their role in higher ed is rapidly changing.
3. Data were collected as part of CUPA-HR’s Faculty in Higher Education Survey from 2018. Data from for-profit institutions were omitted from all analyses. Demographic analyses omit incumbents that did not have the relevant variable reported (e.g., age, sex, race/ethnicity).
Current Age Distribution of Faculty

Higher education tenure-track faculty require advanced training, so they are naturally older than typical U.S. workers — the median age in the U.S. labor force is 42 years compared to the median tenure-track faculty age of 49. There are also significantly more faculty aged 55 or older compared to the general workforce. Just 23% of all U.S. workers are 55 or older, compared to 37% of faculty. 4

The distribution of faculty ages is shown in Figure 1. Although the number of faculty begins to drop after age 65, 13% of faculty are 65 or older — compared to 6% of all U.S. workers. 5

Because it takes time to gain seniority, increases in rank are related to increases in age, as seen in the colored shading of Figure 1. As would be expected, most new assistant professors are in their thirties. Among tenure-track faculty older than 55, nearly two-thirds (65%) hold the rank of full professor, whereas more than one quarter (28%) are associate professors, and a small number (6%) are assistant professors.

5 Ibid.
Faculty Salaries by Age and Years in Rank

The median salary of tenure-track faculty increases steadily with age (Figure 2). Much of the increase can be attributed to the large salary differences between ranks. Full professors have the steepest slope in terms of differences in salary as age increases. Older full professors make much more than do younger full professors. For associate professors, older faculty have slightly higher salaries than do younger faculty. For assistant professors, there is very little difference in salary between older and younger faculty.
Figure 3 depicts median salary differences by years in rank for each rank. Experience matters for full professors: those with more years in rank earn higher salaries. This is also true for associate professors, but only for those with more than five years in rank. Those associate professors who have not experienced a promotion to full professor can expect incremental increases in salary, although their salary remains proportionately lower than salaries of full professors. One can see from the graph that the median salary of an associate professor with 30 years in that rank ($90,865) is still lower than that of a full professor with less than one year in rank ($97,000). For assistant professors, median salaries increase with each year in rank up to five years (right before the point at which assistant professors generally go up for promotion). However, median salaries decrease with each year in this rank after that point.
The Representation of Women and Racial/Ethnic Minorities by Age and Rank

The adequate representation of women and racial/ethnic minorities among faculty remains a concern in higher ed, particularly in the more senior academic ranks. Among all tenure-track faculty, women make up 45% of those aged 55 or younger and just 35% of those older than 55. Figure 4 shows the percentage of female faculty by age and rank. Across ranks, the percentage of women declines steadily with age cohort: over half (52%) of faculty in the youngest age group (25-30 years old) are women, but fewer than one-third (30%) in the oldest group (65-70) are. This overall decline is driven largely by a decline in women among full professors with increases in age.

Figure 4

FACULTY IN HIGHER EDUCATION SURVEY 2018
Representation of Women in Tenure-Track Faculty by Age and Rank

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6 Bichsel, J.; Li, J.; Pritchard, A.; & McChesney, J. (2018). Faculty in Higher Education Report: Key Findings, Trends, and Comprehensive Tables for Tenure-Track, Non-Tenure Teaching, and Non-Tenure Research Faculty; Academic Department Heads; and Adjunct Faculty at Four-Year Institutions for the 2017-18 Academic Year (Research Report). CUPA-HR.
For all tenure-track faculty, racial/ethnic minorities comprise 26% of those 55 or younger and just 16% of faculty older than 55. Figure 5 shows an overall decline with age in the representation of racial/ethnic minorities.\(^7\) This appears to be due primarily to lack of promotion. With each increase in rank, from assistant to full professor, there is a decrease in the percentage of minorities. For example, looking at the median age of 49 for all tenure-track faculty, one sees the percentage of minorities is approximately 30% for assistant professors and approximately 20% for full professors.

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\(^7\) Racial/ethnic minorities include anyone reported with a race/ethnicity status as something other than White. It does not include those classified as resident aliens or those whose race/ethnicity was unknown or unreported.
Age Variations Between Disciplines

Academic disciplines vary substantially in the percentage of older faculty they employ (Figure 6). Across all disciplines, the percentage of faculty 55 or older and the percentage of faculty at the full professor rank is the same (37%). However, these two figures vary greatly by discipline. Communications technologies has the lowest percentage of faculty older than 55 and also few full professors, which makes sense for a relatively young field. The opposite is seen in legal professions and studies which has both a large percentage of older faculty and a large percentage of full professors.

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8 Disciplines are defined by two-digit 2010 CIP codes established by IPEDs. Two disciplines are omitted in these analyses due to a low number of reported incumbents: personal and culinary services and science technologies/technicians.
Tenure-Track Faculty Older Than 55 by Discipline

Percentage Older Than 55

- Engineering Technologies
- Liberal Arts and Sciences, General Studies
- Visual and Performing Arts
- Multi- and Interdisciplinary Studies
- Public Administration and Social Service Professions
- Education
- Philosophy and Religious Studies
- Agriculture and Agriculture Operations
- Natural Resources and Conservation
- Library Science
- Biological and Biomedical Sciences
- Communication, Journalism
- Foreign Languages, Literatures and Linguistics
- English Language and Literature
- History, General
- Mathematics and Statistics
- Physical Sciences
- Engineering
- Social Sciences
- Computer and Information Sciences
- Area, Ethnic, Cultural, Gender Studies
- Family, Consumer, and Human Sciences
- Psychology
- Law Enforcement, Protective Services
- Parks, Recreation, Leisure and Fitness
- Communications Technologies

Percentage at Full Professor Rank

- Transport and Materials Moving
- Legal Professions and Studies
- Theology and Religious Vocations
- Health Professions and Related Clinical Sciences
- Architecture and Related Services
- Business, Management, Marketing
- Engineering
- History, General
- English Language and Literature
- Mathematics and Statistics
- Physical Sciences
- Engineering
- Social Sciences
- Computer and Information Sciences
- Area, Ethnic, Cultural, Gender Studies
- Family, Consumer, and Human Sciences
- Psychology
- Law Enforcement, Protective Services
- Parks, Recreation, Leisure and Fitness
- Communications Technologies

Figure 6
Conclusions and Next Steps

Tenure-track faculty have a median age of 49, and many in the baby boomer generation are approaching retirement age. This could lead to increased turnover in the coming decade and increased competition in hiring new Ph.D.s. This impending wave of retirements has a number of implications and opportunities:

- **Retirements are likely to vary considerably by academic discipline.** With a predicted higher ed enrollment cliff on the horizon,9 institutions will need to consider what enrollments are predicted to be for each discipline, and the number of faculty who will be needed to support that enrollment.

- **The budgetary implications of replacing retiring tenure-track faculty will depend on their rank at retirement, which varies by discipline, as well as whether they will be replaced with another tenure-track position.** Declining enrollments will mean declining revenue. Historic data covering the period of the economic recession shows that the tendency to maintain a certain proportion of tenure-track faculty in the context of declining revenue is related to an institution’s classification and total expenses.10 Institutions will need to consider their mission, disciplinary trends, enrollment shifts, predicted learning needs and perceived value, and the costs of replacing tenure-track faculty when strategizing about their future faculty composition.

- **Demographic differences between younger and older faculty will shift the composition of faculty in the future.** Younger faculty cohorts include more women and more racial/ethnic minorities, suggesting that intentional efforts of campuses to diversify their faculty may be succeeding. However, hiring diverse faculty is not enough. Institutions must retain and promote women and minorities to maintain their representation in more senior ranks. Retention and promotion efforts need to include the development, coaching, and championing of women and minorities to mitigate barriers to their success. Policies that address equal pay, non-discrimination, and an inclusive workplace are necessary.11 Higher ed institutions can use future faculty retirements as an opportunity to shape a more diverse faculty workforce.

Human resources leaders should be aware of these trends and discuss implications with the provost and other leaders at their institution. Closely examining the disciplines highlighted in this report is a first step. Analyzing comprehensive data, both internally and for the entire higher education landscape, is a critical second step.12 Institution leaders should use these data to plan their customized faculty workforce of the future. The aging of the faculty workforce — in addition to changing enrollments — presents an opportunity to shift resources to meet evolving student and institutional needs.

10 Baccalaureate institutions and those with greater total expenses hire greater proportions of tenure-track faculty, even during periods of declining revenue. Source: Li, J., McChesney, J., & Bichsel, J. (2019, February). Impact of the Economic Recession on Student Enrollment and Faculty Composition in U.S. Higher Education (Research Report). CUPA-HR.
11 CUPA-HR now offers a free tool for institutions to assess their progress on DEI across campus, the CUPA-HR Diversity, Equity, and Inclusion Maturity Index.
12 DataOnDemand from CUPA-HR offers reliable and up-to-date salary and demographic data for this purpose.