AdvanceRIT Annual Faculty Data Report

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Professor Margaret Bailey, Ph.D., P.E., Professor Carol Marchetti, Ph.D., and Bhaksar Bali, MBA 2019
1 Executive Summary

Originally funded through a National Science Foundation (NSF) ADVANCE Institutional Transformation grant (1209115) awarded in 2012, AdvanceRIT is a long-term, multi-faceted program designed to increase the representation of women faculty at RIT. Additionally, the program examines the unique challenges experienced by women faculty of color and Deaf and Hard-of-Hearing faculty and adapts interventions to address the needs of these key subpopulations. In AY 2018, the AdvanceRIT program was incorporated into the Office of the Provost. The program continues to combine research with programming and policy/practice enhancements to drive long-term changes that will transform RIT’s culture, promote inclusion, and expand the representation of women among the faculty and campus leadership.

Using evidence to inform decision-making is critical during institutional transformation initiatives. The AdvanceRIT program has gathered and analyzed information from a variety of sources and uses the resulting “data knowledge” to support the creation and administration of various programs and initiatives. Quantitative and qualitative data sources include the 2016 Collaborative on Academic Careers in Higher Education (COACHE) RIT Faculty Job Satisfaction Survey, results of focus groups conducted by social science researchers at RIT, and NSF ADVANCE Indicator Data. Findings within the AdvanceRIT Annual Faculty Data Report provide a compelling narrative and demonstrate the need to support leadership and career development activities for RIT faculty as well as organizational development initiatives to support an inclusive campus culture.

The NSF Indicator Data, a set of information that the NSF ADVANCE funding program prescribes as indicators of institutional transformation, answer the following research questions:

1. What is the distribution of science and engineering (S&E) faculty by gender, rank, and department?
2. What are the outcomes of institutional processes of recruitment and advancement for S&E faculty?
3. What is the gender distribution of S&E faculty in leadership positions in the institution?
4. What is the allocation of resources for S&E faculty by gender at the institution?

In this data report, we address research questions (1), (2), and (3). RIT Human Resources (HR), Institutional Research (IR), and the Office of the Provost provided the data for AdvanceRIT analyses. Research question (4) is explored annually in the work of the RIT Resource Allocation Committee (RAC), a cross-university, faculty-administration committee that works closely with HR and IR in support of their annual salary-equity study focused on faculty.

**Summarized Results**

**Perception of the Tenure Process:** On the 2016 COACHE survey, pre-tenured women faculty gave lower mean ratings than pre-tenured men faculty on a number of items related to the tenure process.

- Large effect size by gender differences: 1) *Tenure Decisions Are Performance Based*, 2) *Clarity of Tenure Process*, 3) *Clarity of Tenure Criteria*, and 4) *Clarity of Body of Evidence for Deciding Tenure*.

- Medium effect size by gender differences: 1) *Consistency of Messages about Tenure*, 2) *Clarity of Tenure Standards*, 3) *Clarity of Whether I Will Achieve Tenure*, 4) *Clarity of Expectations: Scholar*, and 5) *Clarity of Expectations: Broader Community*.

**Insights Shared from Women Faculty within Two Key Faculty Sub-Populations on Campus – Women AALANA and Women Deaf and Hard-of-Hearing (DHH):** In several focus groups conducted during the Spring of 2013, when asked about their experiences at RIT, AALANA women faculty identified mission drift or creep, absence of work-life balance, lack of effective mentoring, and feelings of isolation and not belonging as concerns. During the DHH focus groups, participants discussed the topics of career pathways, mentoring, and networking. Themes from the discussion of career pathways included the importance of influence from key individuals, resilience, independent learning, and self-reflection.

**Representation:** The period from 2010 to 2018 saw small improvements in the percentage of
STEM women at associate and full professor ranks; however, at the assistant professor level, the representation of women faculty has declined considerably. Overall, the representation of women among tenured/pre-tenured (T/TT) faculty at RIT increased slightly from 30.7% in 2010 to 33.6% in 2018. However, this is predominantly due to a decrease in the number of men faculty (from 547 in 2010 to 489 in 2018) and a slight increase in the number of women faculty (from 242 in 2010 to 248 in 2018). On average, over the period of 2010 to 2018, women represented 32.4% of the T/TT faculty at RIT. The representation of AALANA faculty among pre-tenured and tenured RIT faculty increased slightly from 2010 (9.1%) to 2018 (10.3%). In analyzing data from 2010 to 2018 in predominantly STEM colleges (hereafter, referred to as “STEM colleges” and these include CET, COS, GCCIS, GIS, KGCOE) to predominantly Non-STEM colleges (hereafter, referred to as “non-STEM colleges” and these include CAD, CLA, CHST, NTID, SCB), the number of women T/TT faculty increased from 84 to 88 in the STEM colleges and remained unchanged in Non-STEM colleges at 155. From 2010 to 2018, the representation of women faculty at all ranks rose in the STEM colleges from 22.5% to 24% and in the non-STEM colleges, from 38.3% to 45.9%.

From 2010 and 2018, within STEM colleges the representation of women by rank changed as follows: (a) assistant professors decreased from 30.3% to 23.5%, (b) associate professors and full professors increased from 23.4% to 29.2%, and (c) full professors increased from 16.7% to 19.5%, respectively. Within non-STEM colleges, the representation of women by rank saw these changes: (a) assistant professors decreased from 49.2% to 46.8%; (b) associates professors increased from 40.7% to 48.9%, and (c) full professors increased from 24.0% to 40.8%. Overall at RIT, the number of T/TT faculty decreased from 2010 to 2018, with 779 (48.0% within STEM colleges) in 2010 to 705 (52.1% within STEM colleges). The greatest cause of this decline was a significant drop in the T/TT faculty within NTID over this period (from 141 to 73).

From 2010 to 2018, there was a 39% increase in the number of full professors who are women (from 54 in 2010 to 75 in 2018) and a 6% decrease in the number of full professors who are men (from 218 in 2010 to 206 in 2018). In 2018, the percentage of women full professors in COLA, CAD, CHST and NTID is close to or exceeds 40%. At the associate professor level, an
increase in the count of women faculty has also occurred from 99 in 2010 to 110 in 2018. However, at the assistant professor level, the count of women faculty has declined from 89 in 2010 to 63 in 2018. Women faculty now represent only 36% of the assistant professors on campus, down from nearly 42% in 2010. An area of concern is that women comprise only 23.5% (19/81) of assistant professors in STEM colleges at RIT in 2018 as compared with 30.3% (27/89) in 2010.

**Critical Mass Analysis Summary:** At RIT, the number of STEM departments with less than a 20% representation of women faculty decreased from 18 in 2010 to 13 in 2018. By contrast, the number of SBS, Professional/Other, and non S&E departments with less than a 20% representation of women faculty was the same in 2010 as it was in 2018 (6). From 2010 to 2018, the number of STEM departments with a representation of women of between 20% and 40% increased from 9 to 17 at RIT. By contrast, the number of SBS, Professional/Other, and non S&E departments with a representation of women between 20% and 40% stayed relatively constant from 2010 (12) to 2018 (10) at RIT.

**Advancement:** Since 2010, tenure and promotion patterns for women faculty remain as expected based on their representation on the faculty. From 2010 to 2018, the mean tenure approval rate for AALANA faculty (84%) was much lower than the mean tenure approval rate for Non-AALANA faculty (97%) at RIT. By contrast, from 2010 to 2018, the mean promotion approval rate for AALANA faculty (85%) was similar to that for Non-AALANA faculty (88%) at RIT. The count and representation of associate professors by gender and college grouping (STEM colleges versus non-STEM colleges) for “years in rank” (YIR) greater than 9 years in 2010 and 2018 are also examined. Overall at RIT the data reveals an increase from 2010 to 2018 in the percentage of men associate professors with YIR greater than 9 years (from 27% to 39.6%), with a slight decrease for women faculty (from 35.4% to 33.9%). However, in STEM colleges, both women and men have seen a marked increase from 2010 to 2018 in the percentage with YIR above 9, with nearly a 3-fold increase for women (from 4 in 2010 to 14 in 2018) and doubling for men faculty (from 22 in 2010 to 40 in 2018). In 2018, nearly 40% (54/137) of the associate professors within STEM colleges have YIR above 9 compared to 35% (50/141) in non-
STEM colleges. In non-STEM colleges, the count and representation of women associate professors with YIR greater than 9 declined significantly from 2010 to 2018.

**Hiring:** The percentage of women T/TT faculty hired from 2010 to 2018 in STEM colleges has declined in most years since 2010, with a peak in 2010 of 50% (5/10) and a low in 2018 of 11% (2/18), driving the decrease in the representation of women faculty at the assistant level. For non-STEM colleges, the opposite is true with a low of 31% (4/13) in 2014 to a peak in 2018 of 83% (5/6) women faculty hires. Overall at RIT from 2010-2018, the representation of women T/TT hires has averaged 38% and in 2018 it is 29% (7/24). The percentage of AALANA faculty hired among total hires of pre-tenured and tenured faculty at RIT increased from 2010 (7%) to 2018 (16%).

**Departures.** The percentage of women and AALANA faculty among departures from RIT varies from year to year, but the increasing trend in departures by AALANA faculty is of note. In 2018, the percentage of women departures among T/TT faculty departures dropped to a low of 29% (4/14) since 2010 with the peak occurring in 2016 of 40% (6/15). The percentage of women faculty departures from 2010 to 2018 in STEM colleges has oscillated since 2010, with a peak in 2012 of 38% (3/8) and a low in 2011 of 0% (0/4). From 2010 to 2018, 14 out of 75 STEM faculty departures or 19% have been women. For non-STEM colleges, the pattern for women faculty departures has also varied with a peak of 64% in both 2013 (7/11) and in 2014 (7/11) and a low of 25% (1/4) in 2015. From 2010 to 2018, 37 out of 81 or 46% have been women. Overall at RIT from 2010-2018, the representation of women departed has averaged 33% and in 2018 it was 29% (9/31). In regards to the % of women faculty who leave each year, looking at the 2018 departures, 9 women left out of 243 women on the faculty which represents 3.7% of women faculty. This compares with 4.6% of men departing. The percentage of AALANA faculty departures among total departures increased significantly from 2010 (0%) to 2018 (43%).

**Department Leadership:** From 2010 to 2018, the number of men and women department heads increased from 57 to 65 while the representation of women among department heads
slightly decreased from 30% to 28% (from 17/57 to 18/65). Within STEM colleges, the number of women department heads changed from 5 to 4 from 2010 to 2018, respectively and in non-STEM colleges, the number changed from 12 to 13. Also, the number of STEM associate professor department heads at RIT increased from 3 in 2010 to 9 in 2018 whereas in the non-STEM colleges, the count of associate professors holding departmental leadership positions has remained unchanged at 12.

**Endowed Professors:** At RIT, the percentage of women faculty holding endowed positions among the total number of faculty holding endowed positions was the same in 2010 as it was in 2018 (25%). It oscillated between 2010 and 2018, with a peak of 39% in 2015 (7/18) and a low of 9% (1/11) in 2013. The percentage of AALANA faculty holding endowed positions among all faculty holding endowed positions at RIT decreased from 2010 (8%) to 2018 (0%).