

**Date:** December 2, 2011  
**TO:** Faculty and Deans  
**FROM:** Tony Nicastro, for the Promotion & Tenure Workshop Committee  
**SUBJECT:** Tenure and Promotion Rate Comparisons

In response to faculty concerns about the relative rates of tenure and promotion among various groups, APSCUF and the Promotion and Tenure Workshop Committee undertook an analysis of the data available in two blocks of time: 1996-2006 and 2001-2011. Because the tenure and promotion policies changed in 2001, we also examined whether the policy changes detectably influenced rates. The data in Table 1 below indicate that the approval rates using the old and new policies are statistically indistinguishable.

An examination of the data from 2001 to 2011 presented in Table 2 indicates that the rates for tenure and for promotion to any rank do not depend on gender or multicultural status. This conclusion follows from considering the range of uncertainty represented by the 1-sigma range (plus or minus one standard deviation). As a guide to interpretation, if the 1-sigma ranges of two rates overlap, the two rates are *statistically indistinguishable*. The relatively small numbers of persons in each category do not permit percentages to be quoted to two significant digits, so the table below correctly rounds to the nearest 10%. [Though not quoted below in the Tables, if the two-sigma ranges of two rates overlap, the difference in the two rates is said to be *not statistically significant*.]

For example, for the ten-year period (2001-2011) the promotion rate to Full professor for women is  $82/109 = 75\%$  (of the 109 applications, 82 were approved). The one standard deviation interval of uncertainty for this group ranges from 70-80%. In the same ten years, multicultural faculty submitted 30 applications in this category, 17 of which were approved. The range of uncertainty for this group is 40-70%. Because the two ranges overlap (70%-80%; 40-70%) the rate of promotion of women to Full Professor is statistically indistinguishable from that of multicultural faculty. In fact, only when two rates differ by more than 3 standard deviations (3 sigma) can it be said that a significant difference is present. If the difference between two rates falls between two and three standard deviations, nothing conclusive can be said about the two rates.

Table 1. Comparison of promotion rates by category before and after change in policies in 2001

(approved/applied)	1996-2001 data	2001-2006 data
Promo to Assoc (85/116, 76/91)	60%-80%	70%-90%
Women (43/56, 41/50)	60%-90%	70%-100%
Men (42/60, 35/41)	60%-80%	70%-100%
Multicultural (7/11, 8/10)	40%-90%	50%-100%
Promo to Full (61/96, 50/76)	50%-70%	50%-80%
Women (25/38, 30/41)	50%-80%	60%-90%
Men (36/58, 19/34)	50%-70%	40%-70%
Multicultural (7/14, 5/10)	20%-80%	20%-80%

Table 2: Promotion and tenure comparisons by category in 2001-2011

		<b>2001-2011 Data</b>	
		<b>(approved /applied)</b>	<b>1 Sigma Range</b>
Tenure	Total (M&W)	(198/206)	90% - 100%
	Men	(91/94)	90% - 100%
	Women	(107/112)	90% - 100%
	Multicultural (M&W)	(33/35)	80% - 100%
Promotion to Associate	Total (M&W)	(246/301)	80% - 90%
	Men	(113/143)	70% - 90%
	Women	(134/158)	80% - 90%
	Multicultural (M&W)	(30/40)	60% - 90%
Promotion to Full	Total (M&W)	(169/238)	70% - 80%
	Men	(87/129)	60% - 70%
	Women	(82/109)	70% - 80%
	Multicultural (M&W)	(17/30)	40% - 70%