



College of Arts and Sciences: Temporal Trends for NSF-ACES Indicators



Background

One of the goals of the NSF-ADVANCE/ACES program is to be able to display temporal trends of specific indicators. The purpose of this exhibit is to summarize the ongoing evaluation of the impact of interventions occurring at the university on institutional transformation.

The indicators reported in this poster include: number of Tenure-stream faculty by gender, department chairs by gender, endowed chairs by school, and salary. The figures featured capture the temporal trends associated with the implementation of the NSF-ADVANCE/ACES program at Case Western Reserve University.

Departments included in the NSF-ACES program from the College of Arts and Sciences are: Anthropology, Astronomy, Biology, Chemistry, Geological Sciences, Mathematics, Physics, Political Science, Psychology, Sociology, and Statistics.

Figure 1: Tenure-Stream Positions by Gender for the College of Arts and Sciences, AY 1998-99 to AY 2007-08

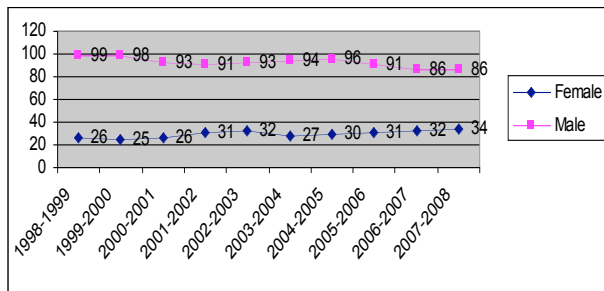
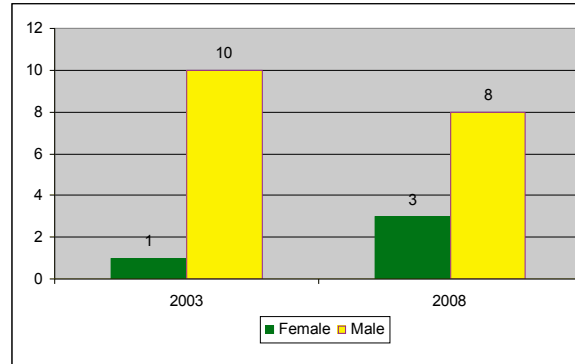


Figure 1 shows the total number of tenure-stream science and engineering (S&E) faculty in the College of Arts and Sciences, stratified by gender. The faculty positions include: assistant professor, associate professor, and full professor.

Figure 2: Number of Department Chairs by Gender for the College of Arts and Sciences, 2003-2008



Of the 11 departments of the College of Arts and Sciences included in the NSF-ACES program, the number of female department chairs has increased from 1 in 2003 (Sociology) to 3 in 2008 (Astronomy, Chemistry, and Mathematics).

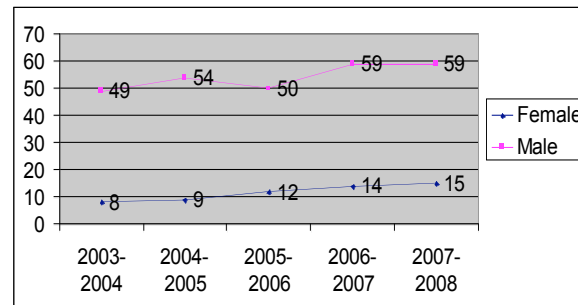


Figure 3 illustrates the number of endowed chairs in the 31 science and engineering departments over the past four academic years. The number of female endowed chairs increased from 8 in AY 2003-04 to 15 in AY 2007-08, while the number of male endowed chairs increased from 49 in AY 2003-04 to 59 in AY 2007-08.

Salary Study for College of Arts and Sciences, AY 2007-08 Data

Subjects are all full time active faculty and base salaries for the academic year 2007-08 are adjusted to a 9 month equivalent appointment.

Table 1: Salary of CAS Faculty by Rank and Gender, AY 2007-08

Rank	Sex	Humanities		Sciences	
		N	Mean	N	Mean
Full	F	8	\$84,039	13	\$96,192
Full	M	21	\$89,737	57	\$101,567
Associate	F	20	\$64,683	11	\$71,403
Associate	M	18	\$65,123	14	\$72,977
Assistant	F	9	\$54,563	16	\$59,646
Assistant	M	7	\$55,982	15	\$60,046
Total		83		126	

Two regressions were performed: first controlling for rank, tenure status, age, years since hire, degree, years since highest degree, and years in rank; and the second controlling for all the same variables except rank and tenure.

Regression controlling for:

- GR: Rank, Tenure Status, Age, Years since Hire, Degree, Years since highest degree, and Years in Rank.
- GR_RT: Age, Years since Hire, Degree, Years since highest degree, and Years in Rank.

Figure 4a: Mean Residuals by Gender, CAS Humanities Departments, AY 2007-08

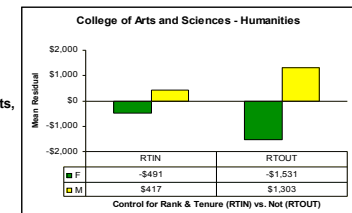
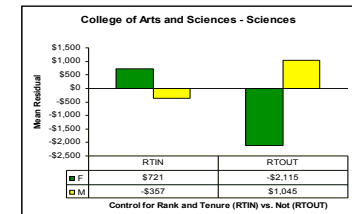


Figure 4b: Mean Residuals by Gender, CAS Science Departments, AY 2007-08



After explaining variations due to all variables in the model, a negative mean residual indicates that salaries are lower than predicted, and a positive mean residual indicates that salaries are greater than predicted.