

Case School of Engineering: 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.

Figure 1: Tenure-Stream Positions by Gender for the Case School of Engineering, AY 1998-99 to AY 2007-08

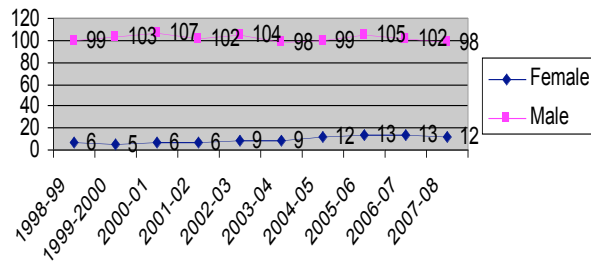
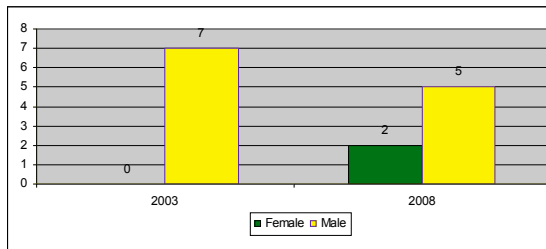


Figure 1 shows the total number of tenure-stream faculty in the Case School of Engineering, stratified by gender. The faculty positions include: assistant professor, associate professor, and full professor.

Figure 2: Number of Department Chairs by Gender for the Case School of Engineering, 2003-2008



Of the 7 departments in the Case School of Engineering, the number of female department chairs increased from 0 in 2003 to 2 in 2008. In 2008, the female department chairs were from the Mechanical and Aerospace Engineering department and the Electrical Engineering and Computer Science department.

Figure 3: Number of Endowed Chairs for 31 S&E Departments, AY 2003-04 to AY 2007-08

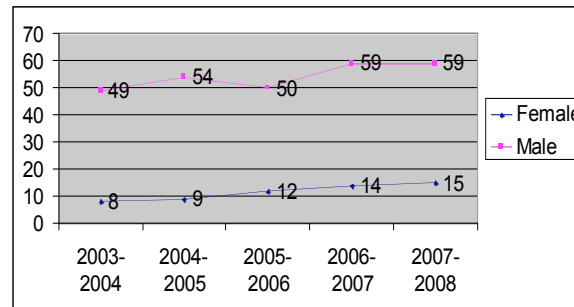


Figure 3 illustrates the number of endowed chairs in the 31 science and engineering departments over the past four academic years. The number of female endowed chairs increased from 8 in AY 2003-04 to 15 in AY 2007-08, while the number of male endowed chairs increased from 49 in AY 2003-04 to 59 in AY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

Salary Study for Case School of Engineering, 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 CSE Faculty by Rank and Gender, AY 2007-08

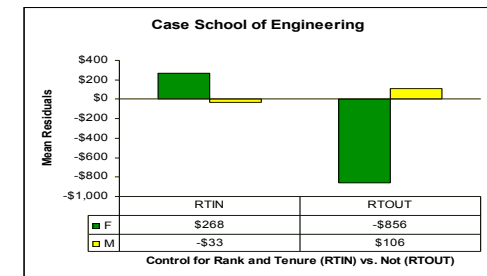
Rank	Sex	N	Mean
Full	F	4	\$121,916
Full	M	57	\$120,396
Associate	F	2	.
Associate	M	23	\$85,618
Assistant	F	6	\$79,699
Assistant	M	17	\$81,312
Total		109	

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 4: Mean Residuals by Gender in CSE Departments, AY 2007-08



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