

Simpson's Paradox

A prominent university was accused of gender discrimination in its graduate admission policies. The difference seemed to be too large to be due just to chance. Here are the numbers:

Gender	Applicants	% Admitted
Men	8,442	44%
Women	4,321	35%

But an examination of the admissions of individual departments revealed no such bias. Instead, there was a small bias in favor of admitting women. Here are the numbers for the main departments:

Department	Men		Women	
	Applicants	% Admitted	Applicants	% Admitted
A	825	62%	108	82%
B	560	63%	25	68%
C	325	37%	593	34%
D	417	33%	375	35%
E	191	28%	393	24%
F	272	6%	341	7%

This occurred because women were applying to competitive departments with a low rate of admissions, while men were applying to less competitive departments with high rates of admissions.