

Analysis (Question 1)

Our analysis (see the Table 1) backs up the accusation in which out 73.5% female were rejected. The Table 2 (left column) gives an impression of a 'grave' gap between admittance of male vs. female students (44% vs. 35%).

Table 1: Evidence in favor of accusation on graduate school

Dept	Male		Female	
	Admitted	Rejected	Admitted	Rejected
A	512	313	89	19
B	353	207	17	8
C	120	205	202	391
D	138	279	131	244
E	53	138	94	299
F	22	351	24	317
Total	1198	1493	451	1251
%	44.51	55.48	26.49	73.5

Table 2: Data Transition (left column to right column)

Admit	Gender	Dept	Freq
Admitted	Male	A	512
Rejected	Male	A	313
Admitted	Female	A	89
Rejected	Female	A	19
Admitted	Male	B	353
Rejected	Male	B	207
Admitted	Female	B	17
Rejected	Female	B	8
Admitted	Male	C	120
Rejected	Male	C	205
Admitted	Female	C	202
Rejected	Female	C	391
Admitted	Male	D	138
Rejected	Male	D	279
Admitted	Female	D	131
Rejected	Female	D	244
Admitted	Male	E	53
Rejected	Male	E	138
Admitted	Female	E	94
Rejected	Female	E	299
Admitted	Male	F	22
Rejected	Male	F	351
Admitted	Female	F	24
Rejected	Female	F	317

Dept	Gender	Admitted	Rejected
A	Male	62,06	37,94
	Female	82,41	17,59
B	Male	63,04	36,96
	Female	68,00	32,00
C	Male	36,92	63,08
	Female	34,06	65,94
D	Male	33,09	66,91
	Female	34,93	65,07
E	Male	27,75	72,25
	Female	23,92	76,08
F	Male	5,90	94,10
	Female	7,04	92,96

Admitted (Male) = $512 / (512 + 313) = 62.6 \%$
Rejected (Male) = $313 / (512 + 313) = 37.94 \%$

This transition table is displayed in figure on next page



Fig. 1: Percent Stacked chart for gender wise distribution in each department

However, I shall reject the accusation regarding gender discrimination. We have established a question: **“How many female candidates have knocked at the door of graduate school and what percentage was turned down or welcomed ?”**. We have plotted the stacked bar chart (Fig. 1) based on this “fair enough” principle. We have concluded following findings:

1. More female were accepted in departments A, B, D and F. Specially two departments A and B have shown high inclination towards selection of female candidates where more than 82% and 68% female potential candidates were accepted. This is not true for male potential candidates in either of the departments.
2. Department C and E are showing that more male candidates were accepted, but the difference is marginal. In fact the percentage is almost close in both of the departments where 36.9% male and 34.1% female were admitted. This is true for department E as well (27.8% male vs. 23.9% female) were accepted.
3. Department A accepts higher number of applicants for both genders. There were 825 male versus 108 female candidates for this department. Although department A accepts 82% female (vs. 62% male) but higher number of male applicants gives the false sense of bias on overall admissions to all departments.
4. The phenomenon in (3) repeated itself for department B in almost same fashion.
5. Department E has higher rejection rate for both male and female candidates. There were significantly more female candidates than opposite gender. Although on individual gender bases, there was no imbalance as almost same percentage for each gender was accepted. But a higher rate of rejection leads to misleading accusation of gender discrimination.

Regards

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End
