

# CEE 5690 - Descriptive Modeling of Data

## Conditional Independence

*Week 3: Edwards 1.4*

February 4, 2008

### Sex and Admissions

Consider the following table:

Sex	# Applying	# Admitted	% Admitted
Male	600	350	58.3
Female	600	250	41.6

Also consider following table:

Dept.	Sex	# Applying	# Admitted	% Admitted
I	Male	100	25	
	Female	300	75	
II	Male	200	100	
	Female	200	100	
III	Male	300	225	
	Female	100	75	

### Airline Performance

Consider the following performance data for two different airlines

#### Airline 1

Airport	# On time	# Delayed	% Delayed
Los Angeles	497	62	
Phoenix	221	12	
San Diego	212	20	
San Francisco	503	102	
Seattle	1841	305	
Total	3274	501	

#### Airline 2

Airport	# On time	# Delayed	% Delayed
Los Angeles	694	117	
Phoenix	4840	415	
San Diego	383	65	
San Francisco	320	129	
Seattle	201	61	
Total	6438	787	

# Regression

Consider the following data:

A	1	1	1	1	1
X	4.5	4.0	5.0	6.0	5.5
Y	19.3	18.7	20.3	20.9	20.4
A	2	2	2	2	2
X	10.5	12.0	12.0	11.0	11.5
Y	15.3	16.8	17.2	16.2	16.2

Plot X against Y. What do you see?