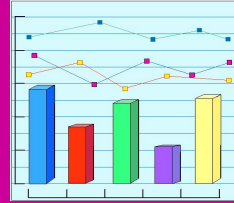
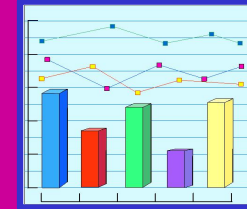


SAMPLES, POPULATIONS, & STATISTICS



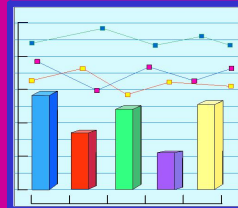
PHIL 101
Self, World, & God
Dr. Jeff Johnson
Winter Quarter 2008

POPULATIONS

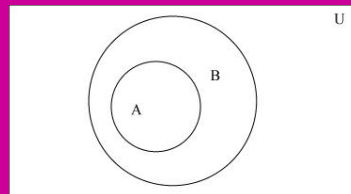


- Collections
 - Of people
 - Of things
 - Of abstract things
 - Sets
- Populations
- Questions about populations

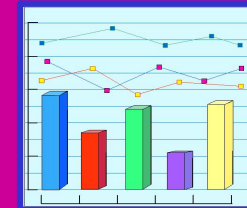
SAMPLES



- Part of a collection
- Subset
- Sample
- What does the sample look like?
- Inferences from samples to populations



ITTBE



- The sample has some property P
- Why do we observe P ?
- Because the whole population has P - Representative sample
- Other answers
 - It's just a fluke that the sample had P -- Chance
 - Something about how the sample was put together is why we see P - Sample Bias

e_1 . Sample has P .
=====

t_0 . Population has P

Rivals:

t_1 . Chance

t_2 . Sample bias

t_3 . Other

CORRELATIONS



- Two factors
- One time correlations
 - Gun shot and dead butler
 - Peter Revson crash
- Statistical correlations
 - Race and criminal justice
 - Race and capital punishment

ITTBE



e_1 . Details of crash
 e_2 . Broken suspension part
=====
 t_0 . Broken part caused the crash

RIVALS



- t_1 . Reverse causation - crash caused the part to break.
 t_2 . Common cause
 t_3 . Chance - just a fluke that we observed the correlation.

BALDUS STUDY



Race Killer/Victim	Death Sentence	Percentage
Black/White	50 of 223	22%
White/White	58 of 748	8%
Black/Black	18 of 1443	1%
White/Black	2 of 60	3%
Total by Victim		
White	108 of 981	11%
Black	20 of 1503	1%

ITTBE



- e₁. Georgia homicides 1974-9
- e₂. Murderers of white victims -- 108 of 981 received the death penalty
- e₃. Murderers of black victims -- 20 of 1503 received the death penalty
-
- t₀. Statistically significant correlation between the race of the victim and death sentence for murderer
-
- t*₀. Race of victim is causally relevant to who receives the death penalty

JUSTICE POWELL'S OPINION



- Equal Protection challenge
- "Purposeful discrimination"
- Eighth Amendment challenge
- Slippery slope argument

DISSENTING OPINIONS



- Justice Brennan
 - General opposition to death penalty
 - Baldus study demonstrates racial bias
 - Eighth Amendment consideration
- Justice Blackmun
- Justice Stevens

FOLLOW UP



- McCleskey's execution 1991
- Powell's retirement and autobiography
- GAO Report 1990
 - 28 studies
 - 82% race was relevant