

EPPS 6313 : Recitation Session #7

Problem 1

H_0 : Police officer type and using force are independent.

Test it and calculate measures of magnitude(ϕ, C, V).

	Officer Type			
		Minimizer	Control	Total
Using	No	90	65	155
Force	Yes	10	35	45
	Total	100	100	200

Problem 2

Calculate Gamma(γ) and τ_b , τ_c and test them.

Respondent	Income(Row)	Preference to iPad(Column)
A	Low	Mod
B	Mod	Mod
C	High	High
D	High	Mod
E	Mod	High

Problem 3

Among Gamma, λ , and d_{yx} , which one is the proportionate reduction in Error interpretation?

EPPS 6316 : Recitation Session #7

Problem 1

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reg realrinc educ age female married white femage femedu femalemarried
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Source	SS	df	MS	Number of obs = 1941		
Model	1.9309e+11	8	2.4137e+10	F(8, 1932)	=	86.16
Residual	5.4120e+11	1932	280125777	Prob > F	=	0.0000
				R-squared	=	0.2630
				Adj R-squared	=	0.2599
				Root MSE	=	16737

realrinc	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
educ	3099.178	197.9623	15.66	0.000	2710.936	3487.42
age	406.0277	42.58114	9.54	0.000	322.5179	489.5376
female	15489.91	4703.047	3.29	0.001	6266.328	24713.49
married	5469.593	1103.49	4.96	0.000	3305.438	7633.749
white	643.3327	994.1187	0.65	0.518	-1306.326	2592.991
femage	-181.0588	61.17309	-2.96	0.003	-301.031	-61.08654
femeduc	-1089.988	285.0856	-3.82	0.000	-1649.095	-530.8797
femalemarr~d	-5221.796	1543	-3.38	0.001	-8247.915	-2195.677
_cons	-36511.18	3283.073	-11.12	0.000	-42949.92	-30072.44

Our model is :

$$\begin{aligned} \text{realincome} = & \beta_0 + \beta_1 \text{educ} + \beta_2 \text{age} + \beta_3 \text{female} + \beta_4 \text{married} + \beta_5 \text{white} \\ & + \beta_6 \text{female} * \text{age} + \beta_7 \text{female} * \text{educ} + \beta_8 \text{female} * \text{married} \end{aligned}$$

- Ignore all β , except β_0 , β_1 , β_3 , and interpret them. Why do β_1 and β_3 have different interpretations ? Explain it with graph.
(Then, I will explain it mathematically.)
- Interpret the effect of White on real income
- Interpret β_8
- Interpret the effect of age on real income