

Cross-tabulations

Frequency Marijuana Use

	Yes, Past Yr	Yes, Not in past yr	Never	TOTAL	
Shoplift	Yes	162	30	117	309
	No	114	34	283	431
	TOTAL	276	64	400	740

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Terminology

- Dependent variable = outcome
 - Displayed in *rows* of table
- Independent variable = predictor of outcome
 - Displayed in *columns* of table
- DV can be used as IV in other analyses
 - e.g. “shoplift” to predict motor vehicle theft

Independent variable



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Dependent Variable



Shoplift

Cross-tabulation

- Provides examination of dependent and independent variables simultaneously
- Are the two variables associated?
 - i.e. does one influence the other?

e.g. d.v. = vote for Bush

i.v. = party affiliation (Rep/Dem)

Cross-tabulation

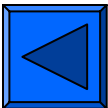
- Chi square (P^2) = measure of association
 - Program provides actual number
- Is it *statistically significant*?
 - What's the probability you'd get that number by chance?
 - $\leq .05$ = statistically significant
 - i.e. there's less than a 1 in 20 chance (5%)



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Chi square 58.977 (DF = 2, Prob. = 0.000)





An Important Aside

- Printing conventions:

For a given measure:

* means $p \leq .05$

** means $p \leq .01$

*** means $p \leq .001$

- Asterisks are just shorthand for different probability levels

Cross-tabulation

- If two variables associated, how strong is that association?
- Cramér's V = one measure of strength
 - Varies from 0 to 1
 - For large survey data (GSS, NYS, etc.):
 - $\leq .10$ = weak
 - $.10 - .29$ = moderate
 - $\geq .30$ = strong

CramJr's V: 0.282**

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