## Lab Assignment # 7[[1]](#footnote-1)

Codebook on Pornlaw

--------------------------------------------------------------------------------------------------------

pornlaw FEELINGS ABOUT PORNOGRAPHY LAWS

--------------------------------------------------------------------------------------------------------

type: numeric (byte)

label: PORNLAW

range: [1,3] units: 1

unique values: 3 missing .: 2,543/4,510

tabulation: Freq. Numeric Label

775 1 ILLEGAL TO ALL

1,125 2 ILLEGAL UNDER 18

67 3 LEGAL

2,543 .

.

Cross Tabulation of pornlaw and sex

+----------------+

| Key |

|----------------|

| frequency |

| row percentage |

+----------------+

| FEELINGS ABOUT PORNOGRAPHY LAWS

Gender | ILLEGAL T ILLEGAL U LEGAL | Total

-----------+---------------------------------+----------

MALE | 234 568 38 | 840

| 27.86 67.62 4.52 | 100.00

-----------+---------------------------------+----------

FEMALE | 541 557 29 | 1,127

| 48.00 49.42 2.57 | 100.00

-----------+---------------------------------+----------

Total | 775 1,125 67 | 1,967

| 39.40 57.19 3.41 | 100.00

. Which variable is the independent variable?

Sex is the independent variable as it not subject to change like the pornlaw that is derived from people’s opinion and the pornlaw is dependent on the sex.Thus it is right to conclude that pornlaw is contingent on the sex.

Which variable will you put on the row, and how will you do the percentages?

Sex should be on the row as it is the independent variable thus forming the predictor and pornlaw forming the outcome.The percentages are calculated as follows-

. tabulate sex pornlaw, row

.

Chi-squared value calculation

+--------------------+

| Key |

|--------------------|

| frequency |

| expected frequency |

| row percentage |

+--------------------+

| FEELINGS ABOUT PORNOGRAPHY LAWS

Gender | ILLEGAL T ILLEGAL U LEGAL | Total

-----------+---------------------------------+----------

MALE | 234 568 38 | 840

| 331.0 480.4 28.6 | 840.0

| 27.86 67.62 4.52 | 100.00

-----------+---------------------------------+----------

FEMALE | 541 557 29 | 1,127

| 444.0 644.6 38.4 | 1,127.0

| 48.00 49.42 2.57 | 100.00

-----------+---------------------------------+----------

Total | 775 1,125 67 | 1,967

| 775.0 1,125.0 67.0 | 1,967.0

| 39.40 57.19 3.41 | 100.00

Pearson chi2(2) = 82.8157 Pr = 0.000

.

.Reporting the Chi-squared value and the level of significance

The chi-squared value calculated above is compared with the chitable table that holds all the necessary information on the significant values.Chitable is an installed user command

The chitable table is called by the following command-

.chitable

Our chi-square value can be summarized as

χ 2 (1, N = 1967) =82.8157 ; p

Pr=0.000 therefore Pr<0.001

Summary Analysis of the Significance Test

P is significant and critical. The relationship between pornlaw and sex does not occur by chance as observed from the chitable.

a cross-tabulation of pres00 (whom you voted for in 2000) and pres04 (whom you voted for in 2004

+----------------+

| Key |

|----------------|

| frequency |

| row percentage |

+----------------+

VOTE FOR GORE, | VOTE FOR KERRY, BUSH, NADER

BUSH, NADER | KERRY BUSH NADER DIDNT VOT . | Total

----------------+-------------------------------------------------------+----------

GORE | 680 59 9 4 61 | 813

| 83.64 7.26 1.11 0.49 7.50 | 100.00

----------------+-------------------------------------------------------+----------

BUSH | 65 763 6 3 66 | 903

| 7.20 84.50 0.66 0.33 7.31 | 100.00

----------------+-------------------------------------------------------+----------

NADER | 13 7 4 0 2 | 26

| 50.00 26.92 15.38 0.00 7.69 | 100.00

----------------+-------------------------------------------------------+----------

OTHER (SPECIFY) | 6 5 8 0 0 | 19

| 31.58 26.32 42.11 0.00 0.00 | 100.00

----------------+-------------------------------------------------------+----------

DIDNT VOTE | 3 2 0 2 2 | 9

| 33.33 22.22 0.00 22.22 22.22 | 100.00

----------------+-------------------------------------------------------+----------

. | 667 610 20 8 1,435 | 2,740

| 24.34 22.26 0.73 0.29 52.37 | 100.00

----------------+-------------------------------------------------------+----------

Total | 1,434 1,446 47 17 1,566 | 4,510

| 31.80 32.06 1.04 0.38 34.72 | 100.00

.

A codebook on the two variables

--------------------------------------------------------------------------------------------------------

pres00 VOTE FOR GORE, BUSH, NADER

--------------------------------------------------------------------------------------------------------

type: numeric (byte)

label: PRES00

range: [1,6] units: 1

unique values: 5 missing .: 2,740/4,510

tabulation: Freq. Numeric Label

813 1 GORE

903 2 BUSH

26 3 NADER

19 4 OTHER (SPECIFY)

9 6 DIDNT VOTE

2,740 .

--------------------------------------------------------------------------------------------------------

pres04 VOTE FOR KERRY, BUSH, NADER

--------------------------------------------------------------------------------------------------------

type: numeric (byte)

label: PRES04

range: [1,6] units: 1

unique values: 4 missing .: 1,566/4,510

tabulation: Freq. Numeric Label

1,434 1 KERRY

1,446 2 BUSH

47 3 NADER

17 6 DIDNT VOTE

1,566 .

.

who voted for Gore or Bush in 2000 and for Kerry or Bush in 2004.

+----------------+

| Key |

|----------------|

| frequency |

| row percentage |

+----------------+

VOTE FOR GORE, | VOTE FOR KERRY, BUSH, NADER

BUSH, NADER | KERRY BUSH NADER DIDNT VOT . | Total

----------------+-------------------------------------------------------+----------

GORE | 680 59 9 4 61 | 813

| 83.64 7.26 1.11 0.49 7.50 | 100.00

----------------+-------------------------------------------------------+----------

BUSH | 65 763 0 0 0 | 828

| 7.85 92.15 0.00 0.00 0.00 | 100.00

----------------+-------------------------------------------------------+----------

NADER | 0 7 0 0 0 | 7

| 0.00 100.00 0.00 0.00 0.00 | 100.00

----------------+-------------------------------------------------------+----------

OTHER (SPECIFY) | 0 5 0 0 0 | 5

| 0.00 100.00 0.00 0.00 0.00 | 100.00

----------------+-------------------------------------------------------+----------

DIDNT VOTE | 0 2 0 0 0 | 2

| 0.00 100.00 0.00 0.00 0.00 | 100.00

----------------+-------------------------------------------------------+----------

. | 0 610 0 0 0 | 610

| 0.00 100.00 0.00 0.00 0.00 | 100.00

----------------+-------------------------------------------------------+----------

Total | 745 1,446 9 4 61 | 2,265

| 32.89 63.84 0.40 0.18 2.69 | 100.00

Pearson chi2(20) = 1.8e+03 Pr = 0.000

Cramér's V = 0.4422

gamma = 0.7967 ASE = 0.022

Interpret the percentages and phi, as well as the statistical significance.

From the Pearson Chi-square test analysed from a table table and the Cramér's V the Chi-square test indicates that the relationship is significant while V value indicate that the two variables are moderately related.

.

a cross-tabulation of polviews and premarsx.

+----------------+

| Key |

|----------------|

| frequency |

| row percentage |

+----------------+

THINK OF SELF AS |

LIBERAL OR | SEX BEFORE MARRIAGE

CONSERVATIVE | ALWAYS WR ALMST ALW SOMETIMES NOT WRONG . | Total

---------------------+-------------------------------------------------------+----------

EXTREMELY LIBERAL | 17 2 7 43 70 | 139

| 12.23 1.44 5.04 30.94 50.36 | 100.00

---------------------+-------------------------------------------------------+----------

LIBERAL | 28 15 40 144 297 | 524

| 5.34 2.86 7.63 27.48 56.68 | 100.00

---------------------+-------------------------------------------------------+----------

SLIGHTLY LIBERAL | 30 15 54 128 290 | 517

| 5.80 2.90 10.44 24.76 56.09 | 100.00

---------------------+-------------------------------------------------------+----------

MODERATE | 170 57 140 346 970 | 1,683

| 10.10 3.39 8.32 20.56 57.64 | 100.00

---------------------+-------------------------------------------------------+----------

SLGHTLY CONSERVATIVE | 63 30 65 109 351 | 618

| 10.19 4.85 10.52 17.64 56.80 | 100.00

---------------------+-------------------------------------------------------+----------

CONSERVATIVE | 135 38 55 78 379 | 685

| 19.71 5.55 8.03 11.39 55.33 | 100.00

---------------------+-------------------------------------------------------+----------

EXTRMLY CONSERVATIVE | 43 5 7 17 95 | 167

| 25.75 2.99 4.19 10.18 56.89 | 100.00

---------------------+-------------------------------------------------------+----------

. | 23 5 11 17 121 | 177

| 12.99 2.82 6.21 9.60 68.36 | 100.00

---------------------+-------------------------------------------------------+----------

Total | 509 167 379 882 2,573 | 4,510

| 11.29 3.70 8.40 19.56 57.05 | 100.00

Pearson chi2(28) = 214.3000 Pr = 0.000

Cramér's V = 0.1090

gamma = -0.0434 ASE = 0.018

Kendall's tau-b = -0.0303 ASE = 0.013

TAU-B estimates

Number of obs = 1881

Kendall's tau-a = -0.1674

Kendall's tau-b = -0.2307

Kendall's score = -295969

SE of score = 24633.570 (corrected for ties)

Test of Ho: polviews and premarsx are independent

Prob > |z| = 0.0000 (continuity corrected)

.

The significance test of the gamma value is as follows :z= a/b where a is the Gamma value and ASE of the Gamma-0.0434/0.018=-2.41111111111. given the probability of p<0.0001 indicates that the relationship is weak. 11% of the population are always conservatives which is quite a small number to compare with the whole population.

6.

A table showing the mean hours worked in the last week(hrs 1) for each level of political views (polviews)

number of |

hours |

worked | think of self as liberal or conservative

last week | extremely liberal slightly moderate slghtly c conservat extrmly c | Total

-----------+-----------------------------------------------------------------------------+----------

2 | 0 0 0 2 0 1 0 | 3

4 | 0 0 0 1 0 0 0 | 1

5 | 1 0 1 0 0 0 0 | 2

6 | 0 0 0 1 0 0 0 | 1

8 | 0 0 0 1 0 0 0 | 1

9 | 0 0 0 0 1 1 0 | 2

10 | 0 0 0 0 4 1 1 | 6

11 | 0 0 0 0 1 0 0 | 1

12 | 0 1 1 2 0 0 0 | 4

13 | 0 0 0 0 1 0 0 | 1

14 | 0 0 0 1 1 0 0 | 2

15 | 1 2 0 1 0 0 0 | 4

16 | 0 0 1 6 0 2 0 | 9

17 | 0 0 0 1 0 1 0 | 2

18 | 1 1 0 2 0 0 0 | 4

20 | 4 4 3 8 6 3 2 | 30

21 | 0 0 0 1 0 0 0 | 1

22 | 0 0 0 0 1 0 1 | 2

23 | 0 0 1 1 0 0 0 | 2

24 | 1 4 1 2 2 1 0 | 11

25 | 1 3 1 2 0 3 0 | 10

26 | 0 1 0 1 0 0 1 | 3

27 | 0 0 0 2 0 0 0 | 2

28 | 0 3 0 2 0 0 0 | 5

30 | 0 3 1 10 5 4 1 | 24

31 | 0 0 0 1 0 1 0 | 2

32 | 1 1 4 9 6 1 0 | 22

33 | 0 0 0 1 0 0 0 | 1

34 | 0 0 0 1 1 2 0 | 4

35 | 1 1 7 10 1 4 1 | 25

36 | 0 3 2 3 3 1 1 | 13

37 | 0 0 0 6 5 2 0 | 13

38 | 0 0 3 4 4 2 0 | 13

39 | 0 0 0 2 0 0 0 | 2

40 | 7 25 39 115 35 42 10 | 273

41 | 0 0 2 2 1 0 0 | 5

42 | 0 0 1 7 2 4 2 | 16

43 | 0 0 1 5 1 1 0 | 8

44 | 0 1 1 5 2 2 0 | 11

45 | 0 4 5 25 7 6 1 | 48

46 | 0 1 2 0 0 0 0 | 3

47 | 0 1 1 1 1 0 1 | 5

48 | 0 1 3 10 1 4 1 | 20

49 | 0 0 1 3 0 0 0 | 4

50 | 4 6 7 24 13 11 1 | 66

52 | 0 1 0 5 1 0 1 | 8

53 | 1 0 2 2 0 0 0 | 5

54 | 0 0 0 1 1 0 0 | 2

55 | 0 5 4 5 3 3 0 | 20

56 | 0 3 0 3 1 1 0 | 8

58 | 1 0 1 1 0 0 0 | 3

60 | 0 8 7 16 7 8 0 | 46

61 | 0 1 0 0 0 0 0 | 1

62 | 1 0 0 1 0 1 0 | 3

63 | 0 0 0 1 0 0 0 | 1

64 | 1 2 0 0 0 1 0 | 4

65 | 0 0 2 4 2 1 0 | 9

66 | 0 0 1 0 0 0 0 | 1

70 | 0 2 4 8 0 1 0 | 15

72 | 1 0 0 0 0 2 0 | 3

74 | 0 0 0 0 1 0 0 | 1

75 | 0 0 0 2 3 2 0 | 7

80 | 0 2 0 1 0 1 0 | 4

84 | 0 0 0 1 0 0 0 | 1

85 | 0 1 0 0 1 0 0 | 2

87 | 0 0 0 0 0 1 0 | 1

88 | 0 1 0 0 1 0 0 | 2

89 | 0 1 0 4 3 3 0 | 11

-----------+-----------------------------------------------------------------------------+----------

Total | 27 93 110 336 129 125 25 | 845

.

Summary of data

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

hrs1 | 1,729 41.77675 14.62304 1 89

polviews | 1,331 4.124718 1.385016 1 7

. What do the means suggest about people who are extreme in their views (in either direction)?

The means suggest that people people who work averagely (41.77675) a have a soft spot for their views are they mostly don’t lie on the extreme sides of supporting or not supporting.

7



8.

Conduct a chi­ squared analysis

| IS YOUR HEALTH SATISFACTORY

Gender | EXCELLENT GOOD FAIR POOR | Total

-----------+--------------------------------------------+----------

MALE | 444 755 299 71 | 1,569

FEMALE | 532 886 405 124 | 1,947

-----------+--------------------------------------------+----------

Total | 976 1,641 704 195 | 3,516

Pearson chi2(3) = 8.2141 Pr = 0.042

. Calculate the odds ratio.

| IS YOUR HEALTH SATISFACTORY

Gender | EXCELLENT GOOD FAIR POOR | Total

-----------+--------------------------------------------+----------

MALE | 444 755 299 71 | 1,569

FEMALE | 532 886 405 124 | 1,947

-----------+--------------------------------------------+----------

Total | 976 1,641 704 195 | 3,516

Analysis

The Chi-square test indicates that the relationship on gender and health is significant.

DO FILE

1. . codebook pornlaw

. tabulate sex pornlaw, row

1. . tabulate sex pornlaw, chi2 expected row
2. . tabulate pres00 pres04, miss row

. codebook pres00 pres04

. tabulate pres00 pres04 if pres00==1 | pres00==2 & pres04==1 | pres04==2, chi2 gamma miss row V

4. . tabulate polviews premarsx, chi2 gamma miss row taub V

. ktau polviews premarsx

6. . tab hrs1 polviews

. summarize hrs1 polviews

7. . graph hbar (count), over(hrs1) over(polviews)

8. . recode health (1=1)(2=1) if health==1 & health==2, generate(SATISFACTORY)

. recode health (3=2)(4=2) if health==3 & health==4, generate(UNSATISFACTORY)

. label variable health "IS YOUR HEALTH SATISFACTORY"

. rename health health2

. tabulate sex health2, chi2

. tabulate sex health2

1. [↑](#footnote-ref-1)