

Part 1:FEDERATION METHODS

(Fall 1998)

(Remember WRITE ONLY ON EVERY OTHER LINE
on ONE SIDE OF THE PAPER)

- A. List and describe the steps in the research process. Then, select a research topic from the list below to illustrate these steps. Be as specific as possible in demonstrating your knowledge of the research process.
1. Relationships of the homeless to traditional societal institutions.
 2. Evaluate the treatment and/or education programs in Federal prisons.
 3. Impacts of new welfare reform legislation.
 4. Impacts of the Baby Boom generation on social institutions as they age.

B. Choose one of the following:

1. For three of the following select and discuss an appropriate sampling procedure. What problems would you expect to encounter (discuss each)?
 - a. coaches of college football
 - b. voters of Dade County
 - c. interview transcripts
 - d. high-school dropouts
 - e. welfare recipients

OR

2. You have been asked to design a scale to measure _____ (choose your concept). Outline the steps you would take in developing your scale. What major decisions would you have to make in designing yours scale? Address yourself to such problems as (a) sampling of item content, (b) selecting responses to items, (c) selecting a system of scoring items, and (d) testing for reliability and validity of items.

Part II.

FEDERATION STATISTICS

(Fall 1998)

- A. Define and relate each of the following to one another as they apply to conducting a test of statistical significance:
1. research and null hypothesis
 2. simple random sample
 3. sampling distribution and standard error
 4. level of significance and critical region
 5. one-tail and two tail test
 6. Type I and Type II error
- B. Answer three of the following questions.
1. Answer the following questions about Table 1 below.
 - a. What assumptions must be made to use regression analysis in the analysis of data? Provide a brief description of each.
 - b. What do each of the following tell us:
 1. Unstandardized regression coefficients (b's not shown in table)
 2. Standardized regression coefficients (Beta)
 3. level of significance (p)
 4. coefficient of determination (R^2)
 - c. Write a brief essay substantively interpreting the table

Table 1: Effects of Religious Diversity, Percent Catholic, and Population Growth on Rate of Church Adherents within Urban Communities (Urban Communities, U.S., 1906)						
	<i>Equation 1</i>			<i>Equation 2</i>		
	Beta	b	p	Beta	b	p
Religious Diversity*	.84	.76	<.001	.79	.72	<.001
Percent Catholic	.40	1.23	<.001	.35	1.19	<.001
Population Growth				-.22	-.12	-.042
R^2	.60			.64		

*Religious diversity is measured by an index based on the number of different denominations and size of each denomination.

2. Note that this question is made up of more than one table. Write an essay substantively interpreting the findings.

Table 2: Relationship between Age and Life Satisfaction		
	Age (X)	
Satisfaction (Y)	<i>Young Adult</i>	<i>Older Adult</i>
Low	54.3	33.9
High	45.7	66.1
	100.0% (105)	100.0% (165)
	Gamma=.40	

Table 2a: Relationship between Age and Life Satisfaction, Controlling for Race (percentages)		
	Age (X)	
White	<i>Young Adult</i>	<i>Older Adult</i>
Satisfaction (Y)		
Low	54.7	34.2
High	45.3	65.9
	100.0% (53)	100.0% (82)
	Gamma=.40	
NonWhite		
Satisfaction (Y)		
Low	53.9	33.7
High	46.2	66.3
	100.1% (52)	100.0% (83)
	Gamma=.39	

Table 2b: Relationship between Age and Life Satisfaction, Controlling for Social Class (percentages)		
	Age (X)	
Working Class	<i>Young Adult</i>	<i>Older Adult</i>
Satisfaction (Y)		
Low	25.0	24.8
High	75.0	75.2
	100.0% (32)	100.0% (129)
	Gamma=.01	
Middle Class		
Satisfaction (Y)		
Low	67.1	66.7
High	32.9	33.3
	100.0% (73)	100.0% (36)
	Gamma=.01	

Table 2c: Relationship between Age and Life Satisfaction, Controlling for Income (percentages)		
	Age (X)	
Low	<i>Young Adult</i>	<i>Older Adult</i>
Satisfaction (Y)		
Low	50.0	16.7
High	50.0	83.3
	100.0% (80)	100.0% (120)
	Gamma=.67	
High		
Satisfaction (Y)		
Low	68.0	80.0
High	32.0	20.0
	100.0% (25)	100.0% (45)
	Gamma=-.31	

3. Write a brief essay substantively interpreting this table. Identify all of the statistical procedures used and interpret them, including the percentages.

	% in Favor	Significance of Chi Square ¹	Phi or V	Lambda
SEX				
Male	81.2	.		
Female	73.4	.01	.09	.00
RELIGION				
Protestant	76.1			
Catholic	80.0			
Jew	66.7			
None	75.8			
Other	63.6	.58	.06	.00
RACE				
White	80.9			
Black	51.8			
Other	63.9	.00	.23	.00
MARITAL²				
Married	80.2			
Unmarried	73.0	.02	.09	.04

- For 2X2 tables, this is based on the unadjusted chi square, before Yates' correction.
- This variable is recoded. All "nomarried" respondents have been collapsed into the same category.

4. Write a brief essay substantively interpreting this table.

Joggers	Involvement in Jogging	Levels of Self Esteem
	(X)	(Y)
Siegfried	18	15
Marsha	17	18
Patsy	15	12
Christy	12	16
Tricia	10	6
Evelyn	9	10
Frank	8	8
Phyllis	8	7
Debbie	5	5
Wendy	1	2
$r_s = .86 \quad t=4.77 \quad .005 < p < .001$		