ANSWER KEY
History 595: Quantitative Analysis of Historical Data

Part 1: Note: I have given more detailed answers that you needed to have in several cases to explain the principles behind the correct responses.

1.2	A. Population = 7.3 million voters; sample = 1824 exit poll participants. B. 60.5% is a statistic from the sample; 60.0% is a parameter from the vote total.
1.4.	Statistics because based on a sample.
1.6	Mode was 2 hours a day. Descriptive of the results of the sample
1.8	A. Statistics from the survey. B. inferential of the total population, e.g, all black households.
2.2	Q C C Q C Q C Q C
2.4	N N O I I I O I O I
2.14	A. Experimental because there is a treatment and control group and the treatment is placing the children in an environment with smokers. B. Use an observational method of choosing adults who spent their childhoods in homes with smokers and adults who spent their childhoods in homes with no smokers. The researcher would observe (examine) the results, but would not put individuals in one or the other group.
2.20	It is not random because you have determined to stop selecting whites or blacks once 25 cases have been collected for the category. It is stratified random sampling and its advantage is that you are guaranteed an equal number of cases of each race for comparison purposes. Simple random sampling might result in too few cases for one category.
2.28	Newspaper coverage varies by day of the week, so 7 or a multiple of 7 would select the same day each week. That would bias the sample if one wanted a sample representative of all the days of the week. The Sunday paper is much larger, for example, than other days. Sport and entertainment coverage varies by day of the week.
2.30	Native Americans are a small proportion of the total population and would likely result in too few cases chosen for useful statistical analysis. An over sample of Native Americans would guarantee sufficient cases to compare Native American attitudes to non Native Americans. For estimates of the total population attitude, the Native American cases would be down weighted to their proper proportion in the total population.
2.36	FTTF. Well designed experimental designs always produce more scientifically reliable results than observational studies. The problem is that in many situations, it is not possible to design an experimental study (see question 2.14), and one must thus use weaker methods. In this case, since an experimental method to test the treatment exists, it is preferred over an observational study, particularly one that did not employ randomization or control for bias.

Part II: Simon Data Set

Identify the 15 variables in the Simon data set as nominal, ordinal or interval.

Measurement Level	Variable Name and Description
N	1. WARD: The Ward the family lived in (14th, 18th, 20th or 22nd)
I	2. YRBUILT: The Year the dwelling they are living in was built, (last three digits only, 888 = 1888, 929 = 1929)
I	3. PERSONS: The total number of Persons living in the dwelling as recorded in the 1905 Wisconsin Census
I	4. FIRSTFAM: The total number of Persons in the first family in the dwelling
I	5. AGE: Age of the head of the household
I	6. FAMILIES: The number of Families living in the dwelling
N or O	7. OCC$: Occupational Group of the Household Head
N	8. NATIV$: Nativity Group of Household Head
N	9. NATIVP$: Nativity Group of Household Head's parents (same coding scheme as NATIV$)
N	10. OWN: Whether the residents own or rent the dwelling (0 = No or renter; 1 = Yes or owner)
I	11. PROPVALU: Assessed value of the structure for tax purposes in 1905
I	12. VALUENOW: Assessed value of the structure in 1905 converted to 2002 $.
I	13. SIZE: Square Footage of dwelling
N	14. BLDGTYPE$: Type of dwelling:
N	15. CASE: Case identifier (for use later in the semester)