

History 595: Midterm Examination

Question 1: (13 points) In 1973, the Center for Research in Social Psychology at University of Wisconsin -- Madison collected data on the social and sexual behaviors and attitudes of UW Madison students. This study, "Premarital Sexuality among Young People, 1973," focused on the social aspects of premarital sexuality, sociopsychological characteristics, sexual behavior, and contraceptive knowledge and use among young people. Information on personal and family characteristics, sexual experience, peer group influence, and self-image was also collected. Below is a list of variables from the survey.

Define them as nominal, ordinal, interval (1 point each).

1. Gender
2. Marital Status of the respondent (single or married)
3. Age of the respondent
4. Year in school (freshman, sophomore, junior, senior)
5. GPA
6. Respondent's religious preference (denomination)
7. Religion the respondent was raised in (denomination)
8. Father's occupation
 - 1 professional/technical
 - 2 business, managers and officials
 - 3 clerical and sales
 - 4 skilled workers and foreman
 - 5 factory workers
 - 6 service workers
 - 7 unskilled workers
 - 8 farmers
 - 9 unemployed or retired
9. Whether the respondent took a course in school that dealt with human sexual behavior
 - 1 No
 - 2 Yes, about 1/4 or less
 - 3 Yes, about 1/2
 - 4 Yes, about 3/4
 - 5 Yes, the entire course
10. "How do you think your father would feel if you were to tell him that you were unwed and pregnant?" (For females) "...if you had gotten a girl pregnant?" (For males)
 - 1 Very positive
 - 2 Quite positive
 - 3 Slightly positive
 - 4 Slightly negative
 - 5 Quite negative
 - 6 Very negative
11. If you were pregnant, or got a girl pregnant, what do you think your parents would want you and your partner to do?
 - 1 Get married
 - 2 Have an abortion
 - 3 Find your own solution

- 4 Stay at home have the baby, put it up for adoption
- 5 Stay at home, have and keep the baby
- 6 Leave home, have and keep the baby
- 7 "Dissociate" yourself from your family

12. Answer to the question: "What percentage of the single women around your age do you think engage in sexual intercourse?"

13. Have you had sexual intercourse? (Yes/No)

Question 2: (15 points) Attached is a portion of the questionnaire sponsored by ABC News on September 11, 2001, asking about the terrorist attacks that took place that day. Identify the variables (answers) as nominal, ordinal or interval.

The questions are numbered, 1-11, and 910, 917, 918, 921 (or 15 variables in all).

Question 3: (10 points) The Marquette University Law School Poll, <https://law.marquette.edu/poll/>, has been polling political attitudes in Wisconsin for the past 4-5 years. In the poll they conducted in October 2014, they asked 1164 likely voters a question about support for expanding state payments for voucher schools students. The reported results are in the attached table. Estimate the 95% confidence interval for the proportion of respondents who favored expanding tuition vouchers for private schools statewide, and report the point estimate of those in favor.

Question 4: (10 points) A student who has not taken History 595 has come to you with a question. The student says she has read an article in a history course that says that the average height of an adult male in the United States has increased from 66.9 inches in 1900 to 70 inches today. She says the article says that the distribution of heights is approximately normal in both years, and that the standard deviation in mean height in both years was 3.5 inches. Explain to her what these statements mean. By way of example, tell her your estimate of the proportion of American men who were six feet tall (72 inches) in both years and show her the equation you used to do it.

Question 5: (10 points) Attached is a stem and leaf plot of the age distribution from a sample of the population of the city of Milwaukee in 1910. There were 5285 cases in the sample, for a sampling rate of 1.4%. From the plot, estimate the number of Milwaukeeans who were age 25 in 1910.

Question 6: (18 points) Below is part of a short essay describing the results of a 1993 survey of people's musical tastes. (The survey is the General Social Survey, which you've seen in examples in the textbook.) Read the material and answer the following questions on the basis of this text and attached table.

"Musical tastes change with the times. New genres regularly appear, established styles decline in popularity, and some musical stalwarts undergo revivals. Whether an original form of music, a foreign import, or a second (or later) coming of an old style, "new" musical genres appeal disproportionately to the young (probably especially to those in their teens). Each emerging generation is open to the population music of its day and especially drawn to music that plays to that generation and defines itself as that generation's sound. As that generation ages, it tends to maintain its preference for the music of its youth. Other genres may come along and the absolute popularity of a type of music will probably wane as new forms emerge, but at a minimum each generation remains relatively more favorable towards the music of its youth than generations raised either before or after the advent of a genre of music.

"Because music exerts a strong cohort effect, we can observe the changing musical tastes of America over the last 70 years by examining the musical preferences across birth cohorts in the 1993 General Social Survey conducted by the National Opinion Research Center. We can track...aspects of the generational transformation, [such as] changes in musical popularity...."

"...Table 1 shows ...the proportion that "likes very much" each of 18 types of music in each of seven birth cohorts from those born before 1920 to those born from 1970 to 1975...."

1. Which birth cohort had the strongest musical preference for big band music? For heavy metal? For reggae?
2. What was the most popular musical preference for people born in the 1940s? The 1950s?
3. For which musical genre(s) does there not appear to be much difference in preferences by the age of the respondents? Why did you pick the genre(s) you did?
4. Which musical genres are most closely associated with particular birth cohorts?
5. Which birth cohort seems to like the most diverse array of musical genres?
6. Are the results statistically significant? Explain why you answered as you did.

Question 7: (24 points) Below is a cross tabulation of building type and ward from Roger Simon's study of city building in Milwaukee for 1905. The sample survey results report the numbers and proportions of commercial properties (e.g. stores and warehouses), cottages, duplexes, and residences. Residences are single family houses. Ward 14 is the South Side. Ward 18 is the East Side. Wards 20 and 22 are the North Side. Using the material below, answer the following questions.

1. What is the modal housing type for each ward?
2. Which ward has the largest number of cottages?
3. Which has the largest proportion of cottages?
4. Are the results statistically significant? If so, why? If not, why not?
5. Show how the expected frequency for duplexes in the 20th ward was calculated.
6. Show how the df statistic was calculated.

```
>TABULATE BLDGTYP2$ * WARD
```

Data for the following results were selected according to:
(BLDGTYPE\$<> 'apthouse') AND (BLDGTYPE\$<> 'church')

Frequencies

BLDGTYP2\$ (rows) by WARD (columns)

| | 14 | 18 | 20 | 22 | Total |
|------------|-----|-----|-----|-----|-------|
| commercial | 9 | 2 | 14 | 6 | 31 |
| cottage | 73 | 15 | 100 | 89 | 277 |
| duplex | 7 | 17 | 29 | 35 | 88 |
| residence | 11 | 72 | 53 | 44 | 180 |
| Total | 100 | 106 | 196 | 174 | 576 |

Row percents

BLDGTYPE2\$ (rows) by WARD (columns)

| | 14 | 18 | 20 | 22 | Total | N |
|------------|--------|--------|--------|--------|---------|-----|
| commercial | 29.032 | 6.452 | 45.161 | 19.355 | 100.000 | 31 |
| cottage | 26.354 | 5.415 | 36.101 | 32.130 | 100.000 | 277 |
| duplex | 7.955 | 19.318 | 32.955 | 39.773 | 100.000 | 88 |
| residence | 6.111 | 40.000 | 29.444 | 24.444 | 100.000 | 180 |
| Total | 17.361 | 18.403 | 34.028 | 30.208 | 100.000 | |
| N | 100 | 106 | 196 | 174 | | 576 |

Column percents

BLDGTYPE2\$ (rows) by WARD (columns)

| | 14 | 18 | 20 | 22 | Total | N |
|------------|---------|---------|---------|---------|---------|-----|
| commercial | 9.000 | 1.887 | 7.143 | 3.448 | 5.382 | 31 |
| cottage | 73.000 | 14.151 | 51.020 | 51.149 | 48.090 | 277 |
| duplex | 7.000 | 16.038 | 14.796 | 20.115 | 15.278 | 88 |
| residence | 11.000 | 67.925 | 27.041 | 25.287 | 31.250 | 180 |
| Total | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | |
| N | 100 | 106 | 196 | 174 | | 576 |

Expected values

BLDGTYPE2\$ (rows) by WARD (columns)

| | 14 | 18 | 20 | 22 |
|------------|--------|--------|--------|--------|
| commercial | 5.382 | 5.705 | 10.549 | 9.365 |
| cottage | 48.090 | 50.976 | 94.257 | 83.677 |
| duplex | 15.278 | 16.194 | 29.944 | 26.583 |
| residence | 31.250 | 33.125 | 61.250 | 54.375 |

Deviates: (Observed-Expected)

BLDGTYPE2\$ (rows) by WARD (columns)

| | 14 | 18 | 20 | 22 |
|------------|---------|---------|--------|---------|
| commercial | 3.618 | -3.705 | 3.451 | -3.365 |
| cottage | 24.910 | -35.976 | 5.743 | 5.323 |
| duplex | -8.278 | 0.806 | -0.944 | 8.417 |
| residence | -20.250 | 38.875 | -8.250 | -10.375 |

Test statistic

Pearson Chi-square

Value

115.213

df

9.000

Prob

0.000

TNS INTERSEARCH
Horsham, PA

#DL-17801
September 11, 2001
FINAL

(TERRORIST POLL 1)

INTRODUCTION: Hello, I'm calling on behalf of ABC News. We're conducting a public opinion survey about today's terrorist attacks.

IF RELUCTANT RESPONDENT USE ANY OR ALL OF THE FOLLOWING:

We're not selling anything; we're just interested in your opinions.

It's for a news poll that will be reported on ABC.

We need opinions of average Americans and it will only take a few minutes of your time.

IF RESPONDENT ASKS "WHO ARE YOU," "WHERE ARE YOU CALLING FROM": My name's _____ and I work for TNS Intersearch, which conducts these polls for ABC.

Our research experts have randomly selected the person in your household that I should speak to, so that all types of people will be represented in our survey. Thinking of all the (male/female) adults age 18 or over who live in your household and are at home right now, may I please speak to the one who last had a birthday? (IF NO MALE/FEMALE IN THE HOUSEHOLD, ASK: Then may I please speak to the (female/male) who last had a birthday?)

As you have probably heard, apparent terrorist attacks today destroyed the World Trade Towers in New York City, damaged the Pentagon in Washington D.C. and caused a plane crash in Pennsylvania. Apparently these attacks were carried out by terrorists who hijacked commercial airplanes.

1. Do you think the United States government did all it reasonably could do to try to prevent these attacks, or do you think it could have done more?

- 1 US did all it could do
- 2 US could have done more
- 8 DK/No Opinion
- 9 NA/Refused

2. How much confidence do you have in the ability of the U.S. government to prevent further terrorist attacks against Americans in this country: a great deal, a good amount, only a fair amount or none at all?

- 1 Great deal
- 2 Good amount
- 3 Fair amount
- 4 None at all
- 8 DK/No Opinion
- 9 NA/Refused

3. How concerned are you about the possibility there will be more major terrorist attacks in this country - is that something that worries you a great deal, somewhat, not too much, or not at all?

- 1 Great deal
- 2 Somewhat
- 3 Not too much
- 4 Not at all
- 8 DK/No Opinion
- 9 NA/Refused

4. Are you personally worried that you or a close relative or friend might be the victim of a further terrorist attack in this country, or is that something you're not especially worried about?

- 1 Worried
- 2 Not worried
- 8 DK/No Opinion
- 9 NA/Refused

5. How concerned are you about the possibility there will be a major terrorist attack in your own community where you live - is that something that worries you a great deal, somewhat, not too much, or not at all?

- 1 Great deal
- 2 Somewhat
- 3 Not too much
- 4 Not at all
- 8 DK/No Opinion
- 9 NA/Refused

6. If the United States can identify the groups or nations responsible for today's attacks, would you support or oppose taking military action against them?

- 1 Support
- 2 Oppose
- 8 DK/No Opinion
- 9 NA/Refused

IF YES to Q6

7. What if that meant getting into a war - in that case would you support or oppose taking military action?

- 1 Support
- 2 Oppose
- 8 DK/No Opinion
- 9 NA/Refused

8. Apart from those responsible for today's attacks, would you support or oppose the U.S. taking military action against countries that assist or shelter terrorists?

- 1 Support
- 2 Oppose
- 8 DK/No Opinion
- 9 NA/Refused

9. How confident are you in the ability of the U.S. government to find and punish the people responsible for these attacks - are you very confident, somewhat confident, not too confident, or not at all confident?

- 1 Very confident
- 2 Somewhat confident
- 3 Not too confident
- 4 Not at all confident
- 8 DK/No Opinion
- 9 NA/Refused

10. Would you be willing to give up some of the liberties we have in this country in order for the government to crack down on terrorism, or not?

- 1 Would be willing
- 2 Would not be willing
- 8 DK/No Opinion
- 9 NA/Refused

11. Did you, personally, do any of the following because of today's attacks:

- a. Call or e-mail a friend or relative in New York or Washington to see how they were
- b. Stay home from work or leave early
- c. Watch or listen to broadcast news reports
- d. Pray for the victims and their families
- e. Change your daily plans or activities in any way

Now just a few more questions to help classify your answers:

910. What is your age?

DK/No opinion 8888

NA/Refused 9999

917. At present, are you yourself employed part-time or full-time or are you retired or something else?

- 1 Employed part-time
- 2 Employed full-time
- 3 Unemployed
- 4 Laid off
- 5 Retired
- 6 Full-time homemaker
- 7 Student
- 9 NA/Refused

918. Are you of Hispanic origin or background?

(IF "YES," ASK:) Are you White Hispanic or Black Hispanic?

(IF "NO," ASK:) Are you white, black, or some other race?

- 1 White
- 2 Black
- 3 White Hispanic
- 4 Black Hispanic
- 5 Hispanic (no race given)
- 6 Other race
- 8 DK/No Opinion
- 9 NA/Refused

921. RECORD GENDER

- 1 Male
- 2 Female

END

35b. Favor/Oppose: Expanding tuition vouchers for private schools to schools statewide?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid Favor | 552 | 47.4 | 47.4 | 47.4 |
| Oppose | 531 | 45.6 | 45.6 | 93.0 |
| Don't know | 77 | 6.6 | 6.6 | 99.6 |
| Refused | 5 | .4 | .4 | 100.0 |
| Total | 1164 | 100.0 | 100.0 | |

Table 1

Musical Preferences by Birth Cohorts

(% Like Very Much)

| | Birth Cohorts | | | | | | | Prob. |
|--|---------------|-------|-------|-------|-------|-------|-------|-------|
| | Pre- 1920 | 1920s | 1930s | 1940s | 1950s | 1960s | 1970s | |
| Big Band/Swing | 37.7 | 35.8 | 25.9 | 13.9 | 9.7 | 6.7 | 3.7 | .0000 |
| Bluegrass | 9.7 | 16.0 | 13.9 | 11.4 | 5.6 | 6.1 | 5.4 | .0009 |
| Country/Western | 17.9 | 30.7 | 30.1 | 29.5 | 21.1 | 20.0 | 20.0 | .0025 |
| Blues or Rhythm and Blues | 9.2 | 11.9 | 10.5 | 12.5 | 17.1 | 13.2 | 14.2 | .254* |
| Broadway Musicals/ Show Tunes | 17.8 | 25.3 | 20.2 | 22.1 | 8.7 | 5.9 | 9.8 | .0000 |
| Classical Music- Symphony & Chamber | 17.4 | 18.4 | 21.1 | 18.3 | 17.3 | 12.9 | 14.0 | .2580 |
| Folk Music | 10.6 | 10.6 | 10.8 | 10.5 | 8.1 | 3.3 | 3.4 | .0016 |
| Gospel Music | 30.4 | 29.0 | 33.4 | 20.8 | 19.0 | 16.2 | 13.0 | .0000 |
| Jazz | 9.7 | 9.6 | 15.4 | 15.5 | 21.0 | 16.4 | 11.6 | .0078 |
| Latin/Mariachi/ Salsa | 1.4 | 4.8 | 6.0 | 6.6 | 5.5 | 4.0 | 2.4 | .219* |
| Mood/Easy Listening | 13.0 | 19.6 | 20.5 | 17.2 | 14.0 | 11.0 | 8.9 | .0081 |
| New Age/Space Music | 0.0 | 2.1 | 0.9 | 2.8 | 4.1 | 3.2 | 5.5 | .073* |
| Opera | 6.8 | 6.2 | 10.8 | 3.7 | 1.8 | 1.7 | 4.4 | .0000 |
| Rap Music | 0.0 | 1.4 | 0.0 | 1.7 | 1.7 | 2.9 | 17.6 | .0000 |
| Reggae | 1.0 | 1.4 | 0.3 | 2.4 | 4.6 | 9.4 | 20.1 | .0000 |
| Contemporary Pop/ Rock | 0.0 | 3.4 | 5.1 | 8.5 | 14.8 | 23.2 | 28.5 | .0000 |
| Oldies Rock | 4.3 | 11.9 | 13.9 | 36.9 | 33.0 | 27.1 | 24.4 | .0000 |
| Heavy Metal | 0.0 | 1.4 | 0.0 | 0.6 | 1.7 | 7.1 | 13.0 | .0000 |
| | (109) | (155) | (175) | (285) | (378) | (331) | (156) | |

Source: 1993 GSS

Wording: I'm going to read you a list of some types of music. Can you tell me which of the statements on this card comes closest to your feeling about each type of music? Let's start with big band music. Do you like it very much, like it, have mixed feelings, dislike it, dislike it very much, or is this a type of music that you don't know much about?

*=Each of these shows statistically significant variation by birth cohorts when % saying like very much + like is compared to other response categories (Blues=.0003; Latin=.0046; New Age=.0000).