

Title:

2002 Election Inquiry

Subject:

Geography, Civics, History, & Political Science

Grade Level:

4th through 12th Grade

Goal:

Students will understand some elements of the geographic distribution of ethnicity, age, population and electoral votes.

Materials:

1. Access to a computer attached to the internet.
<http://fisher.lib.virginia.edu/elections/maps/>
<http://nationalatlas.gov/electionsprint.html>
<http://spatialnews.geocomm.com/features/election2000/>
2. ArcView 2.1 or greater for Windows or Macintosh
3. 2000 Presidential Election Data
<http://spatialnews.geocomm.com/features/election2000/>
2000_Election_Data Directory (Located on your CD)
4. Blank U.S. & State outline map
GIS_Class_Graphics (Located on your CD)

Procedures:

1. Background and Anticipatory Set
 - a. Visit “US Presidential Election Maps: 1860-1996” and identify some factors that influenced or affected presidential elections.
<http://fisher.lib.virginia.edu/elections/maps/>
2. Objective/Purpose
 - a. Upon completion of this activity students will:
 - i. be able to identify states with large number of electoral votes
 - ii. be able to describe some recent voting history patterns in the U.S.
 - iii. be able to identify some particularly strong age groups or ethnic groups in surrounding states
 - iv. be able to provide some predictions for county and state elections.
3. Instructional Input
 - a. Handout the outline maps of the U.S. and ask students to identify 10 states that presidential candidates should pay the most attention to. Share their information with their neighbors.
 - b. Visit “National Atlas.gov, Presidential Elections 1789-2000” site and discuss the 2000 presidential election results.

- c. Discuss how nice it would be to query the data to create our own maps about the election.
4. Modeling
 - a. Open ArcView with a new view window.
 - b. Add a new theme
 - i. Pres_nov29.shp found 2000_Election_Data Directory (Located on your CD)
 - c. Zoom in to an area of interest and query out the “Unique Value” “Winner” field. Change the color to represent the candidates and their political parties.
 - d. Model the following ArcView steps:
 - i. Adding a new theme
 - ii. Turning a theme on/off
 - iii. Changing a theme’s properties
 - iv. In the Legend Editor, change the “field type” and “field values”
 - v. Changing the theme’s symbols (color & shape)
 - vi. Applying changes to the theme.
5. Checking for understanding
 - a. Check to see if students can access data and complete ArcView steps and procedures.
6. Guided Practice
 - a. Have each student open ArcView and add the election shape file.
 - b. Have each student follow along.
7. Independent Practice
 - a. Have students do the “Student Activity Page”

Evaluations:

See ArcView/GIS Map Project Rubric
ArcView_GIS_Rubric.pdf

Project Extensions:

1. If you are campaigning on issues important to Hispanic voters, what are the three states/counties where you are likely to spend most of your time?
2. If you are campaigning on issues important to Black voters, what are the three states/counties where you are likely to spend most of your time?
3. If you are campaigning on issues important to people over the age of 65, what three states/counties would you spend most of your time?

ArcView/GIS Lesson

Taken from ESRI (Environmental Systems Research Institute, Inc)

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STUDENT ACTIVITY PAGE

NAME _____ CLASS _____ DATE _____

PRACTICE MAP



ARCVIEW INSTRUCTIONS:

- ALL CLICKS ARE "SINGLE CLICK" UNLESS NOTED AS "DOUBLE CLICK."
- "**Make active**" = focus the computer's attention on a theme by clicking one time directly on the name of a theme, so it looks "raised" in the list.
- "**Turn on/off**" = click one time in the check box to the left of the theme name, making a check mark appear/disappear, so the theme displays or does not display in the map.

1. Complete the map above as instructed by your teacher.
2. Consult with the other members of your group, and identify the 10 states to which Presidential candidates have been paying most attention. (If you can't agree on all 10, indicate which ones you agree on and which are alternates.) List them here.

3. Open ArcView with a new view.
4. Add the themes named 2000_Pres_Election.shp and Pres_Nov28.shp files located in the 2000_Election_Data directory on your CD.
5. Copy the themes so you have multiple copies on your screen. Select the theme first by clicking on it and using the edit menu to copy and paste the theme.
6. Using the Pres_Nov28.shp theme, query out the “Unique Value” “Winner” field. Change the color to represent the candidates and their political parties.
7. With the use of the Data Dictionaries, select the 2000_Pres_Election.shp theme and select an area of interest that you think has a correlation with how each state or county voted. Query out your areas of interest and compare your results with the “winner” theme.
8. Using the 2000_Pres_Election.shp theme, query out “Unique Value” “Evotes” and compare your results with the “winner” theme. "EVotes" represents the selected state's Electoral Vote count.
9. In the THEME menu, choose "Hide/Show Legend". This minimizes your legend display.
10. Go to VIEW, then LAYOUT and create your map. Write a short summary of your findings.

DATA DICTIONARY-1

Definitions of race (white, black, other) and ethnicity (Hispanic, non-Hispanic) and age groupings are from the U.S. Bureau of the Census. "The voting age population (U.S. residents 18 years and over) includes persons who are ineligible to vote, such as noncitizens, convicted felons, and prison inmates, but excludes Americans living overseas who can vote." (U.S. Department of Commerce, Bureau of the Census, Voting and Registration, July 31, 2000) See "<http://www.census.gov/population/www/socdemo/voting.html>" for more information.

Tot18ov	Total number of residents of voting age at the time of the election
Mt18ov	Total males of voting age
Mt1824	Total males aged 18-24
Mt2544	Total males aged 25-44
Mt4564	Total males aged 45-64
Mt65up	Total males aged 65 and above
Ft18ov	Total females of voting age
Ft1824	Total females aged 18-24
Ft2544	Total females aged 25-44
Ft4564	Total females aged 45-64
Ft65up	Total females aged 65 and above
Wht180v	Total number of whites of voting age
Mw18ov	Total white males of voting age
Fw18ov	Total white females of voting age
Blk180v	Total number of blacks of voting age
Mb18ov	Total black males of voting age
Fb18ov	Total black females of voting age
Oth180v	Total number of "non-whites and non-blacks" of voting age (includes the Census Bureau's traditional groupings of Asian Pacific Islander, American Indian/Eskimo/Aleut, and Other)
Mo18ov	Total "non-white and non-black" males of voting age
Fo18ov	Total "non-white and non-black" females of voting age
Hsp18ov	Total number of Hispanics (which can be of any race) of voting age
Mh18ov	Total Hispanic males of voting age
Fh18ov	Total Hispanic females of voting age
Nhs18ov	Total number of non-Hispanics (which can be of any race) of voting age
Mn18ov	Total non-Hispanic males of voting age
Fn18ov	Total non-Hispanic females of voting age
Evotes	Total electoral votes

DATA DICTIONARY-2

Pop1990	Estimated state population as of July 1, 1990
Pop1996	Estimated state population as of July 1, 1996
Pop1998	Estimated state population as of July 1, 1998
	Electoral Total number of a state's electoral votes
Chg_9600	Change in population (in thousands) between 1996 and 2000

Pchg_9600	Percent change in population between 1996 and 2000
Voteage_00	Thousands of residents of voting age at the time of the 2000 election (projected)
Voteage_98	Thousands of residents of voting age at the time of the 1998 election
Voteage_96	Thousands of residents of voting age at the time of the 1996 election
Regvote_96	Percent of eligible voters who were registered to vote at the time of the 1996 election
Voting_96	Percent of eligible voters who actually voted for President in the 1996 election
Voteage_94	Thousands of residents of voting age at the time of the 1994 election
Regvote_94	Percent of eligible voters who were registered to vote at the time of the 1994 election
Voteage_92	Thousands of residents of voting age at the time of the 1992 election
Regvote_92	Percent of eligible voters who were registered to vote at the time of the 1992 election
Voting_92	Percent of eligible voters who actually voted for President in the 1992 election

DATA DICTIONARY-3

Sen	Political party designations of Senators at the time of the 2000 election
Sen_el	Political party designations of current Senate seats up for election in 2000.
Hou	Total number of members in the House of Representatives, all of whom are in the 2000 election
Hou_d	Number of Democratic Representatives, all of whom are in the 2000 election
Hou_r	Number of Republican Representatives, all of whom are in the 2000 election
Evotes	Total number of a state's electoral votes