Introduction to ArcView and Thematic Mapping, Thomas H. Grayson, 22 January 2002

GIS: More Than Just Pretty Maps

Pretty Maps Example: MapQuest

It's all about the questions you can ask and how you display the answers:

> More control of what data are shown and how they are symbolized
> Can answer more interesting questions about the data sets
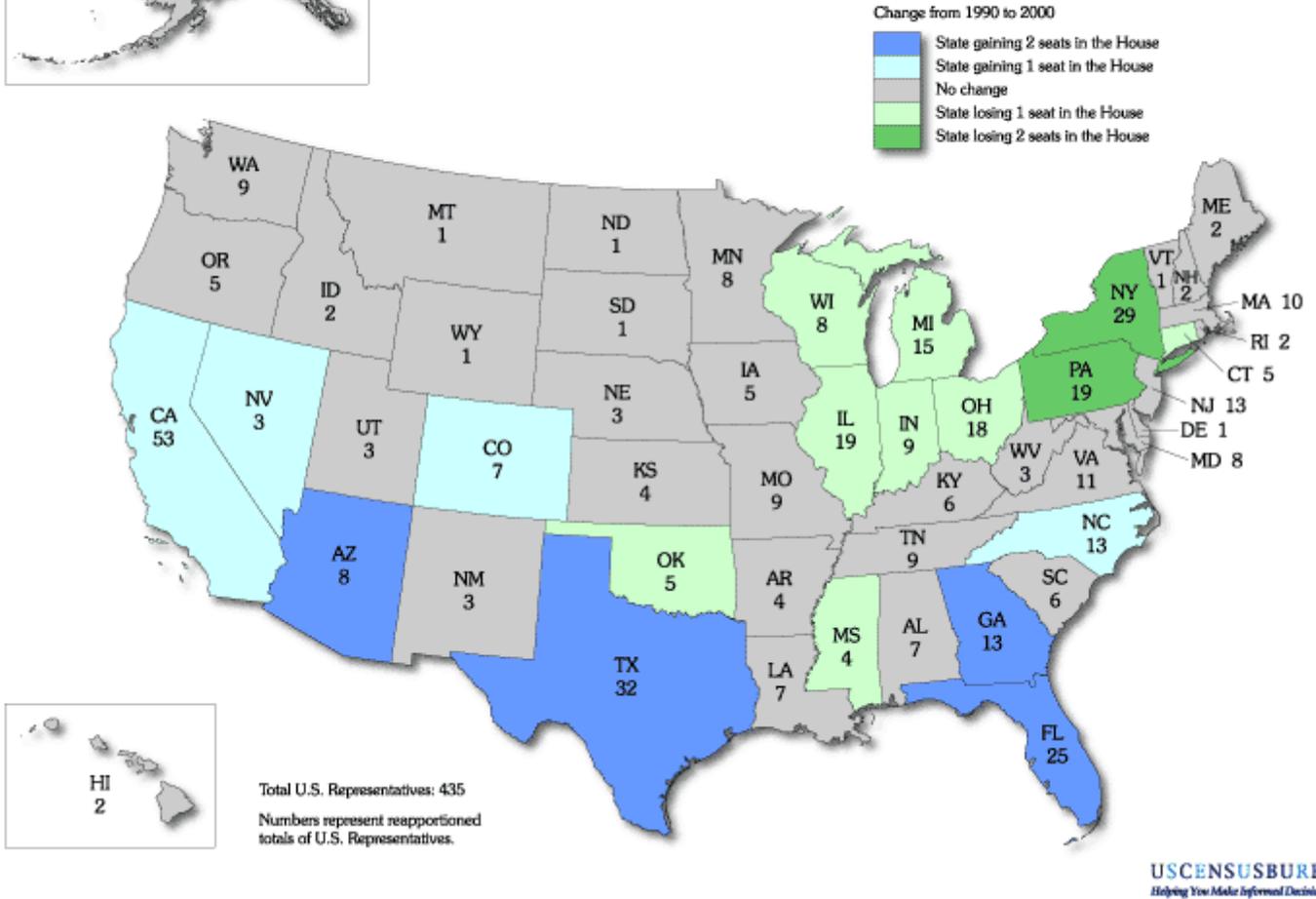> Can add new data or update existing data

Introduction to ArcView

Example Tasks:

1. Create a map to view the changes in the apportionment of US Representatives, similar to this one from the US Census Bureau:
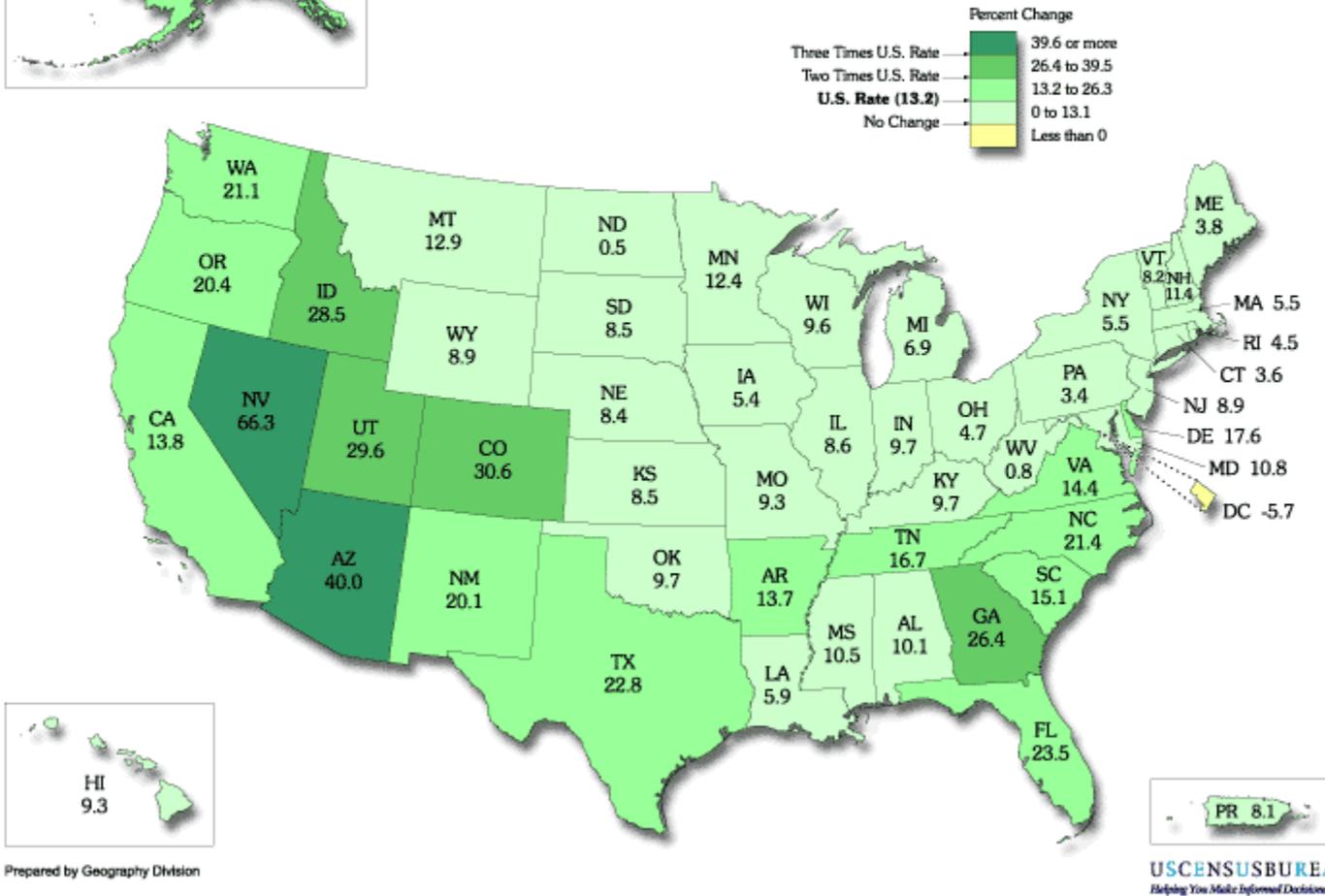
Figure 3. Apportionment of the U.S. House of Representatives for the 108th Congress

Change from 1990 to 2000
- State gaining 2 seats in the House
- State gaining 1 seat in the House
- No change
- State losing 1 seat in the House
- State losing 2 seats in the House

AK 1

WA 9
MT 1
ND 1
MN 8
ME 2
VT 1
NH 2
OR 5
ID 2
SD 1
WI 8
NY 29
MA 10
RI 2
CA 53
NV 3
WY 1
MI 15
PA 19
CT 5
NJ 13
UT 3
CO 7
NE 3
IA 5
IL 19
IN 9
OH 18
WV 3
VA 11
DE 1
MD 8
KS 4
MO 9
KY 6
NC 13
AZ 8
NM 3
OK 5
AR 4
TN 9
SC 6
MS 4
AL 7
GA 13
TX 32
LA 7
FL 25

HI 2

Total U.S. Representatives: 435

Numbers represent reapportioned totals of U.S. Representatives.

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Helping You Make Informed Decisions

2. Look at the percentage change in resident population of the US by state between 1990 and 2000, similar to this map from the US Census Bureau:

Figure 1. Percent Change in Resident Population for the 50 States, the District of Columbia, and Puerto Rico: 1990 to 2000

Launching ArcView

Setting Project Properties

Creating a View

Adding themes to a View
- o   Making them visible
- o   Displaying the layers in a particular order
- o   Setting the View properties
  - ▪   View name
  - ▪   Map units
  - ▪   Distance units
- o   Zoom and Pan

Examining the attributes of:
- o   A feature with the info ("i") tool
- o   An entire layer with **Theme > Table**

Changing the symbolization of a theme
- o Changing the theme's name using **View > Properties**
- o The Legend Editor and the Symbol Window
  - Color Palette
  - Fill Palette

Creating a thematic map

Creating a Layout
- o Key map elements:
  - ArcView provides:
    - Title
    - Legend
    - North arrow
    - Scale bar
  - You add:
    - The sources of the data
    - Name of the map's creator (that's you!)
    - The date the map was created (today)

Printing out your work

Saving your work in a project file
- o Use "Save Project" to create a project file
  - Retains the status of your ArcView session:
    - Windows you had open
    - Themes you used
    - Symbolization choices
    - Map layouts
    - and more
- o After doing a lot of new work, save copies under new names often using "Save Project As"
- o Project files can become corrupted, so save copies!