

EXERCISE 1:

DISPLAY, NAVIGATE, AND PRINT MAP OF A CUSTOM REGION

In this exercise you will apply skills you have learned in Tutorial 1 to find an area of your interest, display the map of your choice, look up map information, and print the map. We will focus on a custom region in North Central Indiana (NCI Region or NCIR) which includes the following six counties: Cass, Clinton, Fulton, Howard, Miami, and Tipton. Also, we will use maps of industry clusters as an example.

Step 1 : Navigate and interpret the map of the custom region

1. Open the "Industry & Occupation Clusters" map. Using "Zoom to State" tool, navigate to Indiana and further to the NCIR using navigational controls in the top left corner of the map viewer. Using the "pan option" position the area in the center of the map viewer so that all counties of the region are visible on the map.
2. In the list of layers find the map that shows employment in *Transportation equipment manufacturing industry cluster* (2010) and make it visible (check the box). Also, turn off a map of counties. You will still be able to see the base topomap with county names, since the cluster maps are semi-transparent.
3. Open the map legend and look at the meaning of color variations to get a sense of overall employment situation for this cluster in the region. Now you should be able to see labels that identify employment by county for this cluster. Answer the following questions:

Q1. Which county within the NCIR has the highest employment in *Transportation equipment manufacturing industry cluster* in 2010? How many jobs in that county were in *Transportation equipment manufacturing industry cluster* in 2010?

Q2. Which county within the NCIR has the lowest employment in *Transportation equipment manufacturing industry cluster* in 2010? How many jobs in that county were in *Transportation equipment manufacturing industry cluster* in 2010?

4. Now click on the county with lowest employment and examine the temporal trend. You will see a chart that shows employment for the *Transportation equipment manufacturing industry cluster* for three consecutive years: 2008, 2009, and 2010. Answer the following questions:

Q3. Has the county employment in *Transportation equipment manufacturing industry cluster* been increasing, decreasing or remained steady between 2008 and 2010? What was the employment in 2008? How many jobs were added/lost between 2008 and 2010?

Q4. What other county or counties in the NCIR show a similar trend?

5. Next, add to the display two more cluster maps: *Fabricated metal products manufacturing* and *Machinery manufacturing*. (You will see only one on the very top layer).
6. Open “Identify map objects” tool, choose “Identify by point” option and click on Miami County. You will see employment numbers for all three clusters side by side for Miami County. Answer the following questions:

Q5. Which cluster out of these three employed more people in Miami county in 2010?

Step 2 : Print the map

Now we will print the map of the region as PNG image to be used later in a Power Point or a Word document.

1. Open “Print map” tool, type the title of your choice in the “**Title**” field, and your name in the “**Author**” field.
2. Choose “Letter ANSI A Portrait” in the “**Layout templates**” field, and “PNG32” in the “**Formats**” field.
3. Next, check the box next to in “**Use this scale**” field and change value to 1,000,000.
4. Hit print button. A new pop-up window with the generated image will appear in a few seconds (make sure pop-ups are allowed in your browser for the RDM web site).
5. Use the “Save image as” option of your browser to save the map to your local drive. Inspect your map if your region is not fully within the printed map view you may need to adjust region’s position by panning your map in the viewer and then repeat print process.

Step 3 : Submit your answers

Record you answers in an MS Word document (please use this exercise numbering: Q1, Q2 etc.) and insert the image of your map in the document or attach it to your email along with the document.

Also, please provide your feedback about your experience during the following training sections of RDM: the webinar, the interactive map, the tutorial, and the exercise. Was the material easy to use and understand? What was most challenging? What can be improved?

When you send your response, please indicate your level of GIS expertise (none, some, intermediate, advanced).

Please send your answers to Andrey Zhalnin: azhalnin@purdue.edu.

We appreciate your time!