

Out Date: Thursday 11 December 2014

Due Date: Thursday 18 December 2014 at 12:00

Here is a project to wrap-up the semester: analyzing zoning in Westfield and Holyoke. You should be able to complete this project on your own. This project, in essence, replaces a traditional final exam.

GIS Mapping Task. Create a zoning map for Westfield and Holyoke using the MassGIS zoning data layer. The map also includes an analysis table comparing the different zoning classes for each city.

- Create the map in 8.5 by 11 inches with two data frames: one for Westfield and one for Holyoke. Include the required map elements and the 'current as of' date(s) for the zoning data for each city.
- Show the three different zoning categories (Residential, Commercial, Industrial) using the GEN_USE zoning code in three different colors.
- Use the same symbology in both data frames and choose colors that can be distinguished when printed in black/white.
- Include a zoning comparison table on the map as detailed below.
- Include an overview map and useful text explaining the map and the analysis.

GIS Analysis Task. Include an analysis table summarizing the three GEN_USE zoning categories for Westfield and Holyoke. The table consists of five columns:

Column 1	Zoning Category (Residential, Commercial, Industrial)
Column 2	Area (acres) for Westfield
Column 3	Area (acres) for Holyoke
Column 4	Area (%) for Westfield (i.e. % of total area of Westfield)
Column 5	Area (%) for Holyoke (i.e. % of total area of Holyoke)

GIS Interpretation Task. Answer and discuss the following questions.

1. Explain the difference(s) between land use and zoning data.
2. Interpret and discuss the similarities and differences between Westfield and Holyoke in terms of their zoning (compare both the absolute values and the percentages).
3. How could you make this map and the zoning comparison between Westfield and Holyoke more meaningful and more detailed?

Bonus / Extra Credit. Upload the zoning data to ArcGIS Online, create a meaningful map, and share your map as a professional web application.

Tip 1: <http://doc.arcgis.com/en/arcgis-online/reference/shapefiles.htm>

Tip 2: <http://video.arcgis.com/watch/433/add-features-from-a-file>

Deliverables. A professional project report (4 to 5 pages) that includes the items as detailed below. Remember to add a title page and to include page numbers. *The number of pages is merely a guideline.* Some of you will write more, others will be able to condense their answers, explanations, and interpretations into fewer words.

- A description of your mapping and analysis procedure (think in terms of writing a cookbook recipe or tutorial that someone else can follow along to reproduce your map and analysis).
- A data layer table.
- The answers to the three questions (as detailed above).
- Your zoning analysis table (as detailed above).
- Your map, exported as a JPG image, and inserted as the last page of your project report.

Use professional, well-written, and proper English language and professional formatting and layout. Think in terms of using this report as a sample of your work for a job interview.

The map, the introduction/documentation, professionalism and attention to detail are all equally important in terms of your project grade.

Your map (and the report) have to be professional and meaningful, something we could send to the City of Westfield/Holyoke Planning Department to advertise our GIS program and students.

Contact me for clarification of this project or my expectations as needed.