SOC 4650/5650: Lab-14 - Condemned Buildings in St. Louis

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Directions

Please complete all steps below. Your map should be uploaded to your GitHub assignment repository by 4:00pm on Monday, May 14th, 2017. This lab uses data from `DataLibrary/CourseData/StLouis/`.

Part 1 - Clean and Map Condemned Property Data

The condemnation data contains individual variables for house number (`addrnum`), street direction (`stdir`), street name (`stname`), and street type (`sttype`). These data will have to be combined to create a single address field.

1. Create a new geodatabase for this lab.
2. Add the file `STL_STRUCTURE_Condemn.csv` to your map document, and check to make sure the attribute table imports properly (each observation should be in its own row with variable names clearly labeled).
3. Save the table (Right click ▷ Data ▷ Export...) to your geodatabase.
4. Using the *feature class* version of the condemnation table, add a new field named `address`. Open the table (right click and then choose Open), and use the Table Options menu to access the Add Field... tool. Name the new variable `address` and make it a text variable with a length of 100.
5. Using the Field Calculator... (right click on the new `address` variable), combine the four address variables using this statement:

   ```
   [addrnum] & " " & [stdir] & " " & [stname] & " " & [sttype]
   ```

   This statement will concatenate the four variables, combining them into a single variable where data is separated with a single space. It is important that you put one space between the double quotes to achieve the desired effect. If you data looks like this - `123MainSt` - you need to re-create the address variable and check the addition of spaces between each set of double quotes.

6. Geocode the condemned building data using the address geocoder that we built during the lecture. Make sure to do a single field geocode on the `address` variable. You should have a total of 29,939 matches, 978 ties, and 1,646 unmatched observations.

7. Check the attribute table for a variable named `status_1`, and query it for boarded up buildings (right click on the geocoded feature class in the Table of Contents, choose Properties, and then choose the Definition Query tab). The query should look like this:

   ```
   status_1 = 'B'
   ```

   This will give you a map of all buildings that have been ordered boarded up by the City of St. Louis.

8. Export a `.pdf` image of your geocoded data.