Using Census Geolytics – Neighborhood Change Database

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Census Geolytics Neighborhood Change Database is an archive of census data at the census tract level for 1970, 1980, 1990, and 2000.[1] Tufts GIS Center has purchased this and other Census Geolytics products. Please talk to the Lab Assistant if you would like to use this data set. It requires using both a NCDB CD of data in a GIS Center computer (we have installed the Census Geolytics software on all GIS Center computers). For additional information and more comprehensive help with the software, you can go to the manufacturer's website.

It is important to follow the steps to map making precisely. To begin, the *Census Geolytics CD: 1970-2000 Neighborhood Change Database* (NCDB) **only works from the DVD drive (on the Dells in the lab, the disk drive on the bottom)**. To start the program, go to All Programs - Data and Statistical Applications-Geolytics Census Products - NCDB (Neighborhood Change Database).

Steps to Map Making

1. Once the program is open, click on Help and choose "Getting Started" from the dropdown menu.[2] The steps of creating and exporting a map are listed within the Quick User Guide.
2. Close or minimize the Quick User Guide and click on **File** in the original NCDB window. Choose "New Request" from the dropdown menu. In the next steps, you will move from left to right along the toolbar.

3. Click on **Year**, and choose a decade that you would like to map.

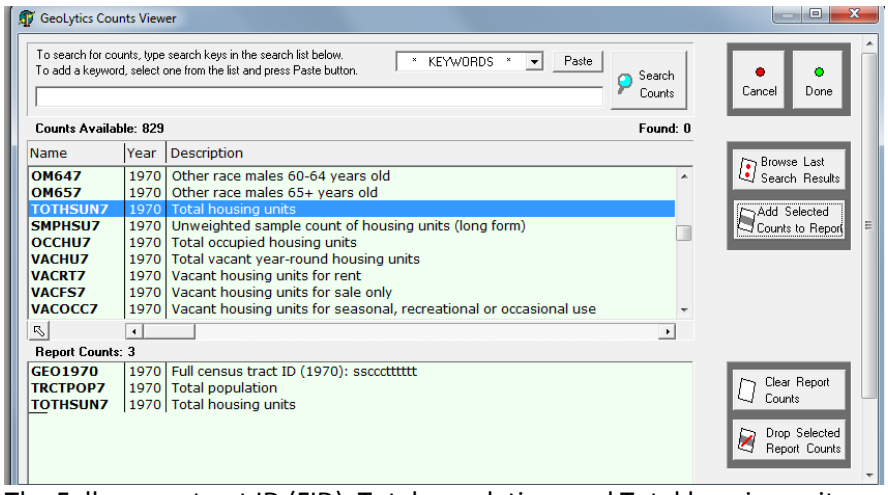
[1] Go to the NHGIS website for interactive historic census map making. Social explorer also has census data from 1790-2000. You can experiment with maps to get a visual of what you may produce before going into the Geolytics software. This can be extremely helpful, especially because you do not know how your maps will change over time.

[2] While Census Geolytics is relatively clear, it is recommended to read and carefully go through all of the map-making steps before saving and exportig the shape file you create.

4. Click on **Area**. For this example, geographic area was chosen. Next, choose which level you would like to map on: Nation, State, Counties or Tract. The "Counties" level was chosen here. You will then be asked to specify your location based on what level you wish to map (Suffolk County in Massachusetts was chosen here). Click "*Done*" at the far right of this window.

5. Refer back to the toolbar and click on **Counts**. You will be asked to build a table based on the counts (census data) you decide to map. Add as many counts as you would like (or think you may need) in your attribute table by clicking on them and then clicking the **Add Selected Counts to Report** button.[3]

   NOTE: If you use the search bar to search for Counts by name or keyword, it will tell you how many counts it has found, and will highlight them within the larger list. You can, however, click the **Browse Last Search Results** button multiple times to quickly jump through the highlighted selections.

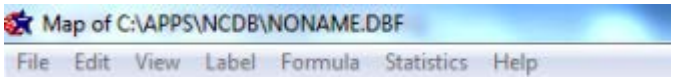


The Full census tract ID (FID), Total population, and Total housing units were added here. Click "*Done*" at the far right of the Geolytics Counts Viewer window.

6. Next, click on Run (toolbar) and choose Summary from the dropdown menu. This will create a count of your census data (displaying the field names you may choose to map and analyze in the future).

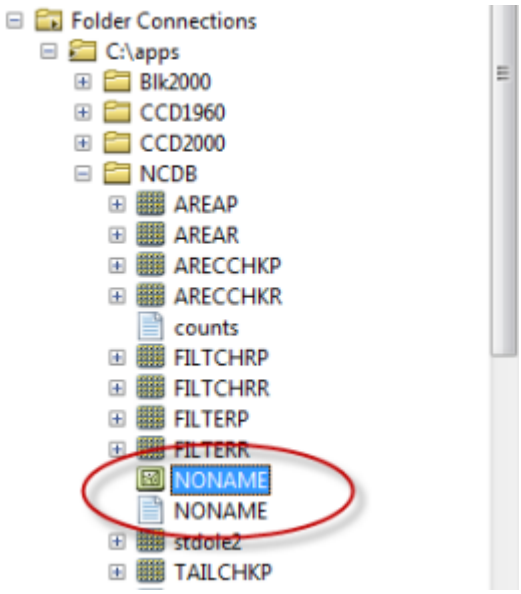
7. Click on Run again and choose Map. Check to see if a) all the data is there and b) whether or not you'd like to include zero counts. Click on "Save" and close the map.

8. Click on Run again and choose Map (again). Click on File and choose Export to Arcview Shape. This will automatically create a .shapefile that includes the attribute table that you created. Unfortunately, you do not have the option to choose where to save this file. The bar at the top of your browser will specify the path the file was saved to.



[3] You can go back to your counts after you have saved an exported in order to add or remove any data.

9. Open ArcCatalog and copy the file from its original folder to your H drive (you may have to connect the C:\APPS folder). You should also copy the summary file from Step 6.



Adapting Geolytics: Shapefiles to Arcview

1. Open a new ArcMap document and add any layers from ArcCatalog that you would like in your final map.

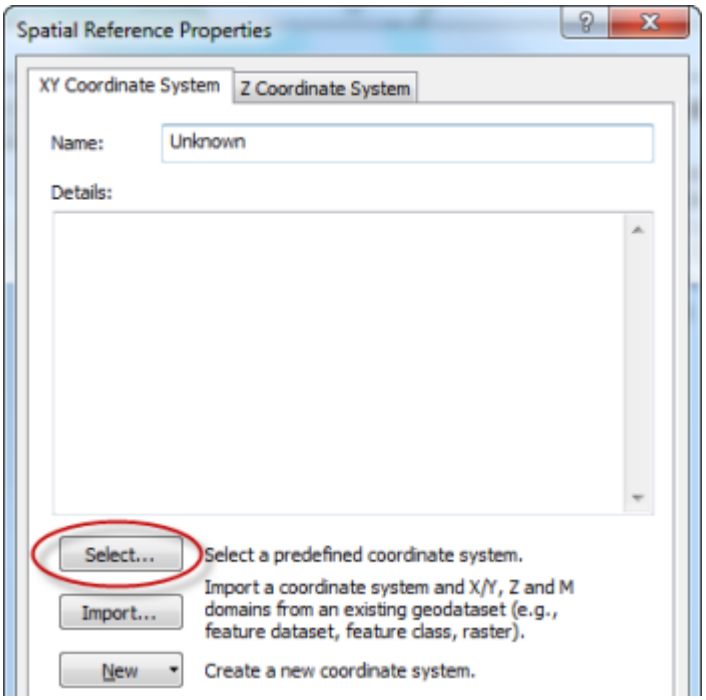
2. Add the Geolytics shapefile you created in NCDB and saved on your H drive to your new map document (this shapefile will not appear because its coordinate system is currently undefined).

3. Click on the toolbox icon  on the ArcMap toolbar
4. Select Data Management Tools from the ArcToolbox menu, then choose Projections and Transformations, then Define Projection

5. In the Define Projection window, click on  next to the “Input Dataset or Feature Class” bar to select the shapefile you just created and added to your map. The name of this shapefile should appear.

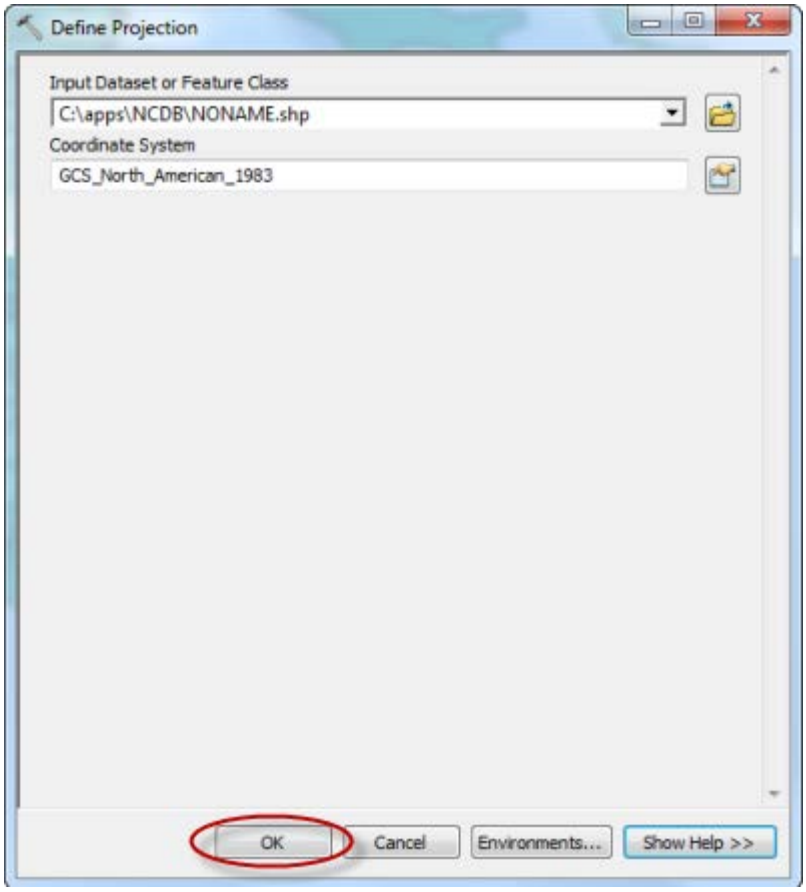
6. Click on  next to the “Coordinate System” bar in the same Define Projection window. A new Spatial Reference Properties window will allow you to define the coordinate system for your new shapefile.

7. Click “Select…” to choose your geographic coordinate system



8. Choose the Geographic Coordinate System Folder, then choose the North America folder within the Browse for Coordinate System window. Choose the NAD (North American Datum) 1983 projection file. Click “OK”

9. Make sure your fields match the ones in the example below (though your data should be coming from the H: drive), and click “OK” in the Define Projection window.



The shapefile should appear in your data frame.