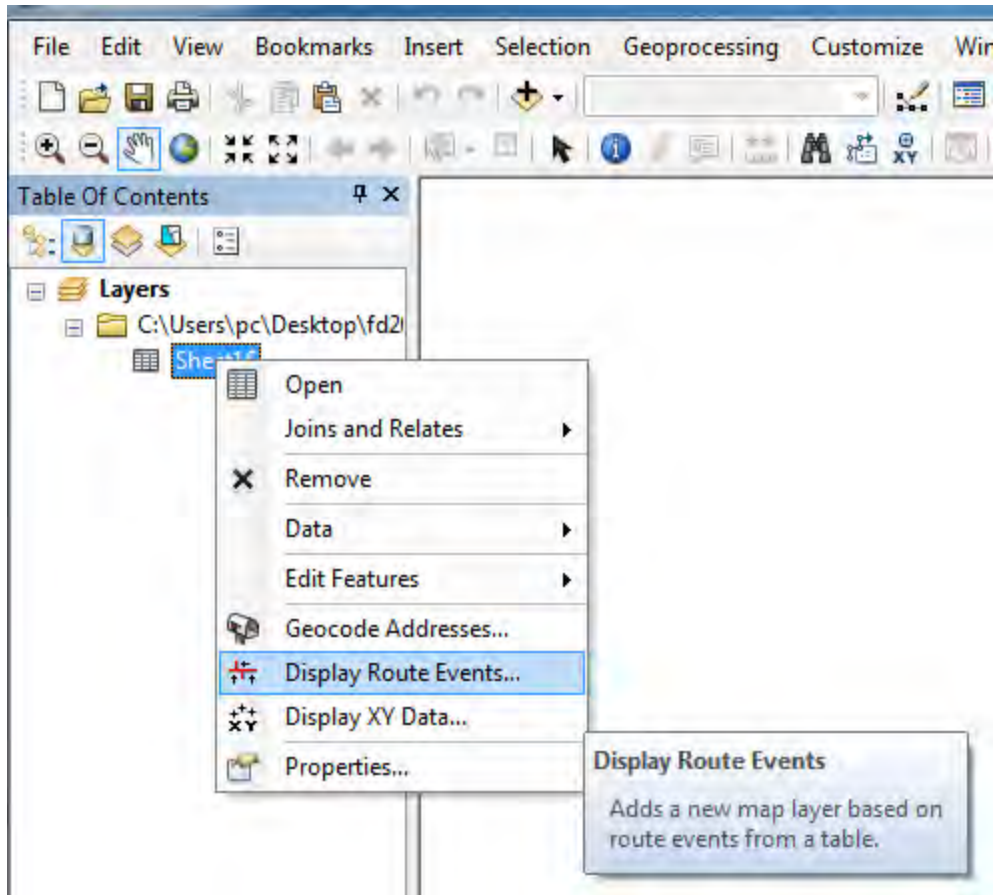**Converting XY Coordinates to Shape File** –GIS Tutorial Series at Mason.
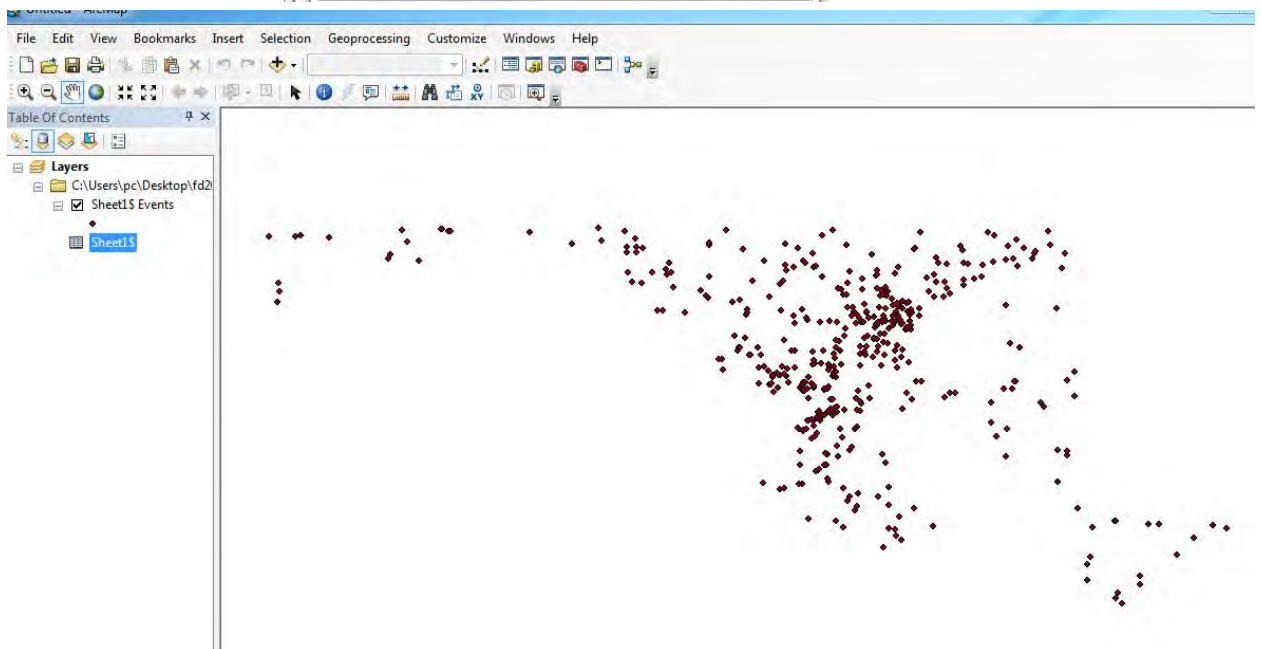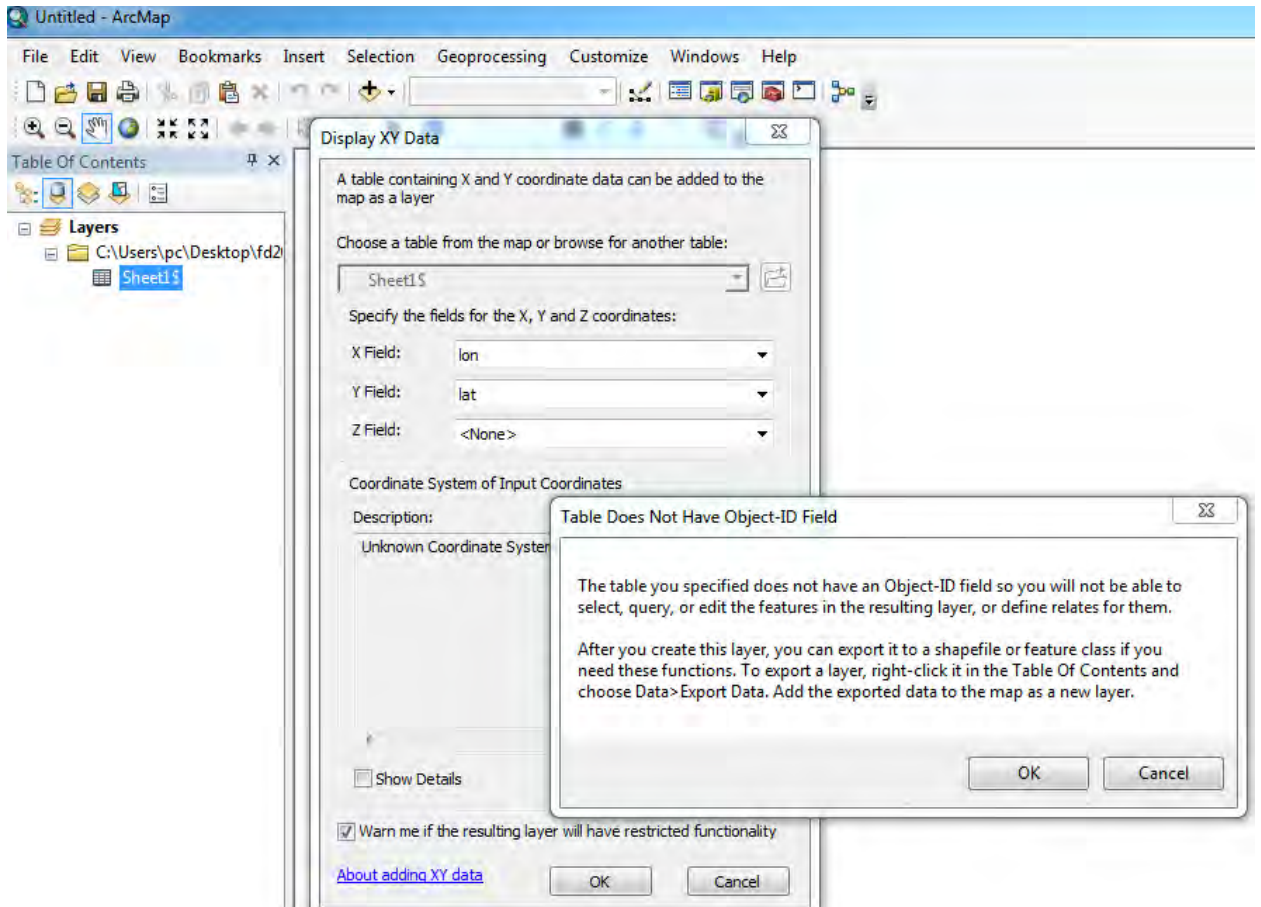
Obtain XY coordinates data

1. Create a new folder on your desktop computer (with a name)
2. Download the zip folder containing traffic incidence data in MD and the census tract boundary data in MD (from the library geodata server (librarygeodata.gmu.edu> GIS workshop>Spatial Join Exercise folder) on that folder.
   OR you can download the two data in this tutorial box (see below)-one in excel and another zip file containing MD census tract boundary file
3. Unzip the zip file by double click the file and "Extract" before you work the file in ArcGIS environment

Working with ArcGIS 10.2

4. Open ArcMap 10.2. For most computers this can be done by going to Start>Programs>ArcGIS 10.2>ArcMap 10.2
5. Click the Add Data Button located on the toolbar
6. Locate the excel file you just downloaded (with coordinates) and add the spreadsheet to the map (NOTE: usually the file have multiple spreadsheets in them, just click the first one).
7. Right click the spreadsheet under "table of content" just shown below and "click Display XY Data."

8. A new window should appear. Choose the X field to "Longitude" and Y field to Latitude (if not present already). Then just click **ok** when the comment box about unknown coordinate system box (shown below). Then you will see the point pattern (traffic accidents data) appeared on the screen with sheet$event file as a new data file in shape (shown below)

Untitled - ArcMap

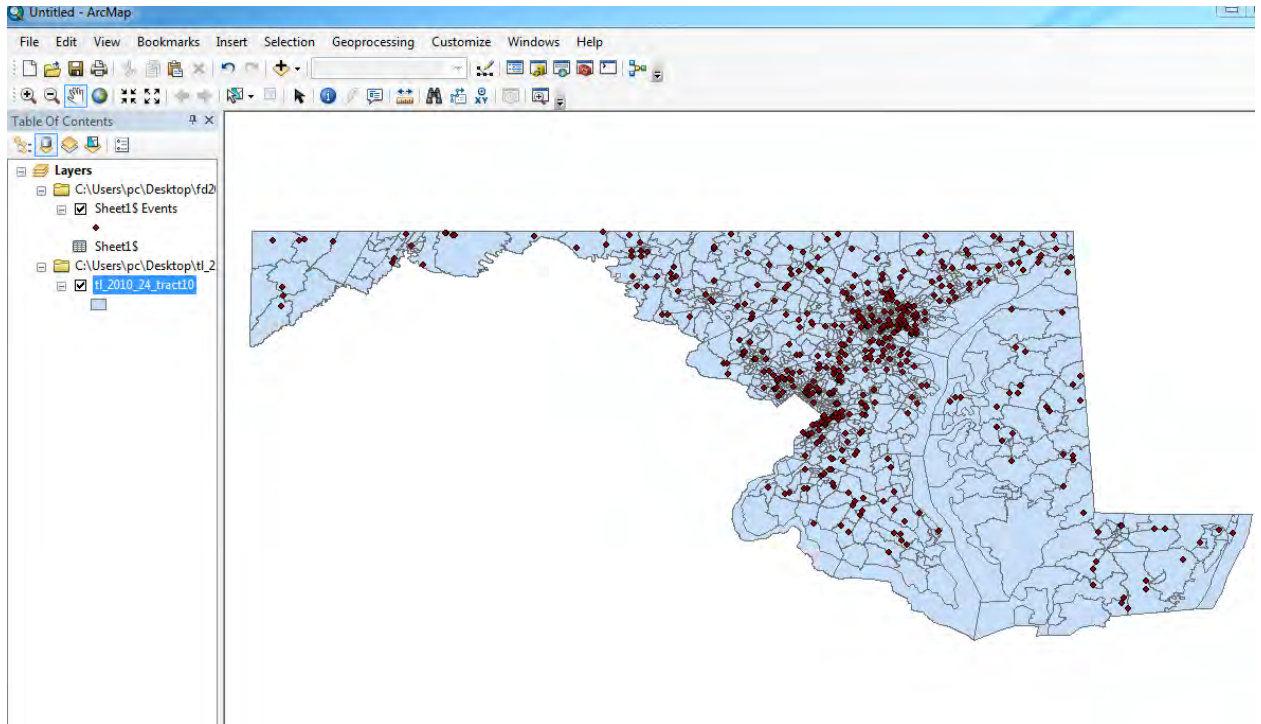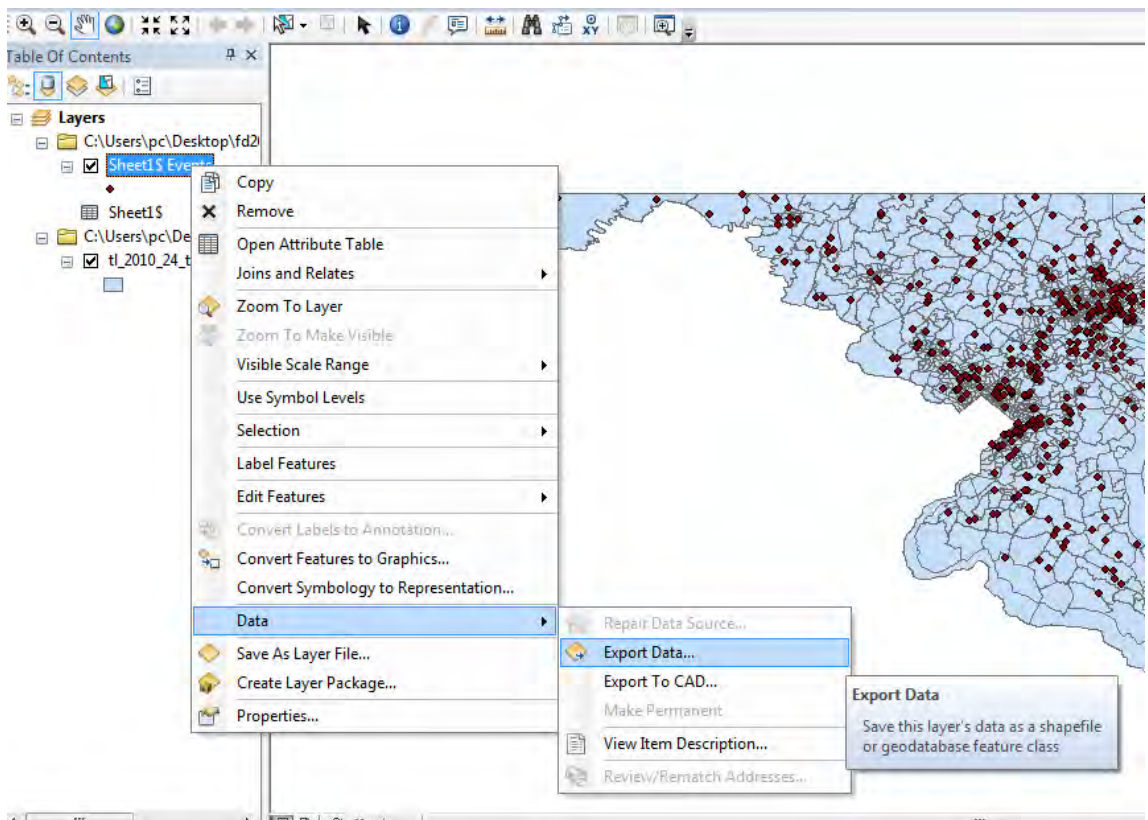File   Edit   View   Bookmarks   Insert   Selection   Geoprocessing   Customize   Windows   Help

Display XY Data

A table containing X and Y coordinate data can be added to the map as a layer

Choose a table from the map or browse for another table:

Sheet1$

Specify the fields for the X, Y and Z coordinates:

X Field: lon

Y Field: lat

Z Field: <None>

Coordinate System of Input Coordinates

Description:

Unknown Coordinate System

Table Does Not Have Object-ID Field

The table you specified does not have an Object-ID field so you will not be able to select, query, or edit the features in the resulting layer, or define relates for them.

After you create this layer, you can export it to a shapefile or feature class if you need these functions. To export a layer, right-click it in the Table Of Contents and choose Data>Export Data. Add the exported data to the map as a new layer.

OK   Cancel

☐ Show Details

☑ Warn me if the resulting layer will have restricted functionality

About adding XY data   OK   Cancel

Table Of Contents

☐ Layers
   ☐ C:\Users\pc\Desktop\fd2|
      Sheet1$

File   Edit   View   Bookmarks   Insert   Selection   Geoprocessing   Customize   Windows   Help

Table Of Contents

☐ Layers
   ☐ C:\Users\pc\Desktop\fd2|
      ☐ ☑ Sheet1$ Events
   Sheet1$

9. Then, click the ADD ⬇ button located on the toolbar and choose MD census tract boundary file (that you unzipped)—NOTE (you have to navigate your folder to find this data).

10.
11.   You will see then the boundary file appeared in the ArcMap workplace screen (below)

12.   Then, right click on the Sheet Event" and click Data>Export Data to save this shape file (converted from the excel file) for future use in GIS.

You created a shape file out of xy coordinates data successfully by now.

Updated Fall 2014 by staff in Data Service Group, GMU Libraries.