

CHAPTER 15

Attribute queries

The ability to query data in an attributes table separates GIS software from graphic design software. Having the ability to query subselections of data allows users to analyze communities and problems in more sophisticated ways, to use the software to ask questions, and to perform intelligent analysis based on the answers.

The two most frequently used queries are attribute and location queries (graphics queries also exist and are used least often). An attribute query is simply a data query. Location queries are covered in the next chapter.

Exercise goal

Create an attribute query that identifies counties that have greater than 15 percent senior citizen population (derived in chapter 5). **1**

Exercise file locations

Chapter directions: Follow the exercise as it appears in this book

AgeJoined.shp, created in chapter 5. Complete the chapter 5 exercise if you did not already.


CD: Use the CD included with this book

All files needed for this exercise are included on the book's CD. Files are organized by chapter.

Personal files: Use files you've gathered from other sources

To complete this exercise, you will need a shapefile that has some data in it that can be queried using greater than or less than operators. Demographic information is a good choice. For example, you could query things like counties that have a population over 20,000 but less than 50,000 people.

1 Add a shapefile

1. Open ArcGIS.
2. Click the Add Data icon .
3. Either open Folder Connections or select the Connect to Folder icon and navigate to **AgeJoined.shp** that you created in chapter 5.

2 Write a query

1. From the Selection menu, choose Select by Attributes.

1

Alabama Counties with 15% or Greater Senior Population, 2000 *Based on an attribute query*



2. Type the query as you see it in the graphic. For the query to work for counties that are greater than 15 percent, you must type in **.15**, not 15. **2**
3. The counties that meet the condition are highlighted with a bright blue line.
4. Open the attributes table and notice that the corresponding rows are also highlighted.

3 Create a new shapefile of selected areas

Notice that only counties meeting our requirement are selected. Let's make our query into a new shapefile that contains only the counties that answer the query.

1. In the table of contents, right-click **AgeJoined** and select Data, then Export Data.
2. Leave the default Export Selected Features and navigate to where you would like to save the file. Name the new file **Seniors**, and click Save and OK.
3. When prompted whether you would like to add this file to your current view, click Yes. Notice how the shapefile is added to the table of contents.

4 Export records (optional)

You can export the selected records from the attributes table.

1. In the table of contents, right-click **AgeJoined**.
2. Open the attributes table.
3. Click the Table Options tool arrow on the Table toolbar (the first icon) and select Export.
4. Navigate to where you would like to save the file. Give it a new name if you like. Notice that the file extension is .dbf. This is a generic database file type that can be read in Excel and Access.
5. To erase the query, on the Selection menu, select Clear Selected Features.

