

Project planning and analyzing customer requirements.

I put together a MS Access database using a variety of layers obtained from the Census Bureau and other sources. The purpose was to create an application to be utilized by recruitment staff using allowable software defined by contract restrictions. I put this database together because the Early Local Census Offices (ELCO's) were on an outside contractor's computer system called the Field Data Collection Automation (FDCA) system. The FDCA system is highly restricted on the types of software that can be installed and used. Originally I wanted to install the free ArcReader mapping program on the ELCO's computers, but that would have required an expensive contract change. The next best alternative was to use MS Access and build tabular data from GIS data that is easily useable.

The spatial data layers included ELCO, LCO, State, County, Zip Code, Census Tract and Block boundary files and American Indian Areas (AIA) and American Indian Subdivisions.

The geographic databases' smallest spatial unit is the BLOCK. The Denver 10 state region has over 800,000 individual block polygons. I used the Spatial Join function in ArcMap to join all layers to the block layer. The spatial join allowed me to add the attribute fields of the other layers to the block layer. This enables the person running the form to filter the data on those added attribute fields. The final table includes; ELCO, LCO, STATE, COUNTY, COUNTY NAME, ZIP, BLOCKS, TRACT, PRA, AIA, SUBDIVISION, HOUSING, HSEDNS, ACT, AREA SQMI, HASRES, HASTL and Google Maps.

The Access form I built uses combo boxes so the user can choose the specific attributes he or she is researching. The user clicks the filter button extracting only the desired data. This filtered data can be exported to an MS Excel spreadsheet.

One of the unique features of this database is that I have included a hyperlink of the centroid of the individual block. When the hyperlink is clicked it brings up the geographic location of the census block in Google Maps.

The Local Census Offices (LCO) found this application very useful in their recruiting efforts as well as for planning future field operations. The Regional Census Center (RCC) area managers and staff have successfully used this database for planning purposes.

I received a Cash-In-A-Flash award for this project.