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For my project I planned to show the change in median household income at and around the Clarksdale public housing development before and after its HOPE VI revitalization. This redevelopment began with the demolition of the original development in late 2004. For project this I first wanted to find a shapefile showing the location of the housing development. I started by looking at the LOJIC database, but had trouble finding anything that would work. I eventually decided to use a map that displayed points showing the location of public housing buildings. I used this to make a new feature class in ArcGIS and draw a polygon that encompassed the all the buildings that were label as part of the Liberty Green development, which is the name of the redevelopment of the Clarksdale public housing project. This left me with a rectangle that encompassed the entire development. I then symbolized the rectangle as a red outline and moved on to finding the map shapefile. To find this shapefile I went to the census bureau and found a map of block groups in Kentucky for 2010. Doing this led to me realize a problem, initially I had planned to calculate the change in income by block groups, since they were the smallest geography that income data was available for. However, since the block group map is changed every 10 years, I would not be able to calculate a change for every block group, since a block group from 2000 might not exist any longer after the 2010 census. I decided that instead of calculating the change I would make 2 maps of household median income, one using data from 2000 and one using data from a few years after the redevelopment was finished. To find the income data I looked on the Census bureau website. I found the data for both 2000 and 2016, I decided to use 2016 data because it had the most complete data for relevant block groups of those a few years after the project's completion in 2009. The next problem I ran into was that the income data from 2000 did not account for inflation. To fix this I used an inflation calculator to find out how much the dollar has inflated and used excel to adjust the money to 2016 dollars.

Now that I had the data ready, I added it to two ArcGIS maps one for the 2000 income and one for the 2016 income. I then joined the standalone tables, that had the income data, to the respective block group maps. I then needed to cut down the block group maps to just include the project and some of the surrounding area. I started by doing this on the map for 2000 income levels. I selected an area that encompassed downtown and the west end. I decided to include the west end because the outline of the river made it easier to orientate yourself when looking at the map. I then copied the feature layer with the chosen block groups from the 2000 income map into the 2016 income map. I then used the 2000 feature layer to selected those same block groups on the 2016 feature layer and made a layer with the selected block groups. Both maps now had an identically sized block groups feature layer. Next, I symbolized both maps as graduated colors using the median income data as the field. Since I originally planned to only have one map, I was going to use natural breaks. However, since I was now going to have 2 maps, I thought it would be hard to compare them if the breaks were at different points, so I instead used defined interval breaks with an interval an interval of 13,000. This led to the 2016 map having 7 classes while the 2000 map had 6, which would make it harder to compare the maps. To fix this I deleted one of classes from the 2016 map and raised the upper bound on the highest class, so it encompassed all the block groups. I then changed the color scheme on both maps to blue-green continuous.

Now that I had both maps looking the way I wanted, I made a layout. I chose a landscape orientation for the layout so I could put both map frames next to each other. I then added guides offset by 0.25 from the edge and added the map frames positioning them at the edge of the guides. I then added a title to the top and put a label for the 2 maps showing which was 2000 and

which was 2016. Then I put a compass rose on both as well as a scalebar. I then activated the map frame for the 2000 income map and positioned it where I wanted. I then opened its properties and copied the extent and the scale to the 2016 map so they both looked the same. I then added a legend under the maps. Since they both had the same interval, I decided to only add one. I then added citations for my sources and my name and the date. Finally, I decided to add a map frame showing the extent of the 2 other maps and where it was in relation to the rest of Jefferson County. I then exported the map to a PDF.

One thing that can be seen in the two maps is that the income did change directly around the redevelopment with only one block group, located west of the development, remaining similar. Another thing that can be noticed in the map is the increase in income along the eastern waterfront and in the center of the city, possibly due to gentrification in the area. The increase in income directly around the development can likely be attributed to the redevelopment itself. Since the redevelopment transformed the Clarksdale project from low-income housing to mixed-income housing. This likely led to more wealthy tenants residing in the development, increasing the median household income around it.