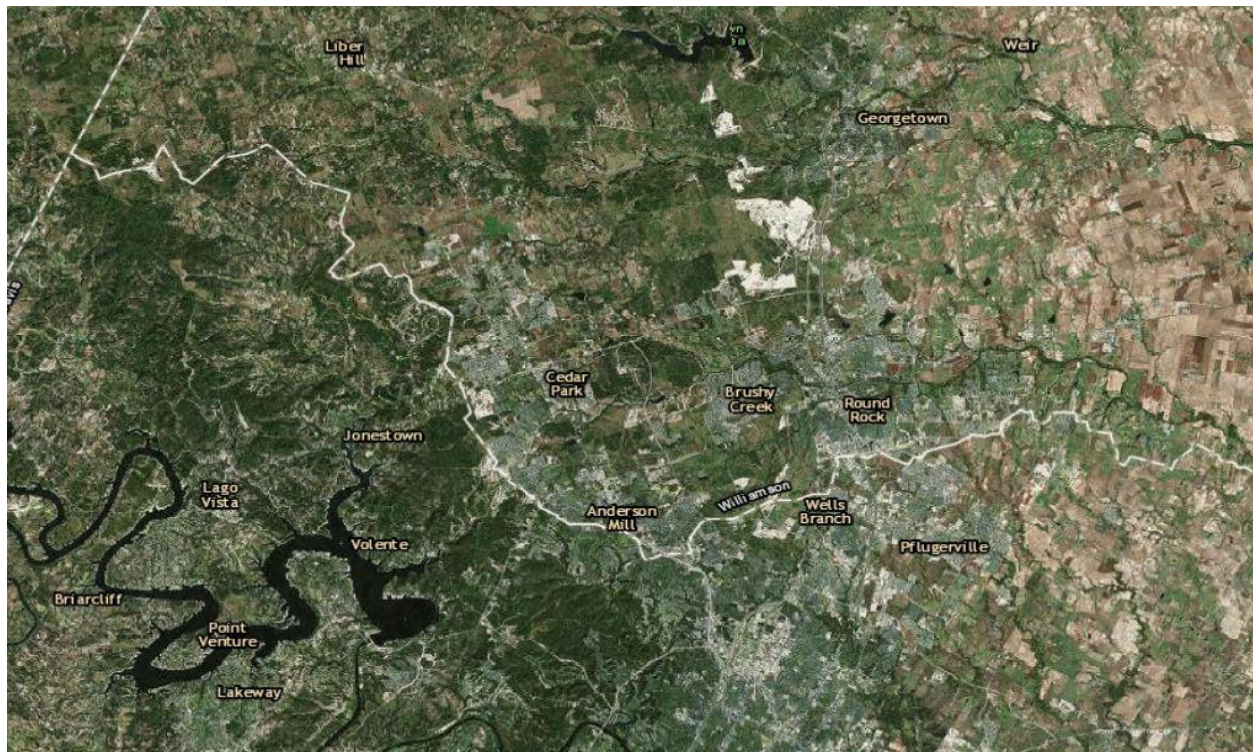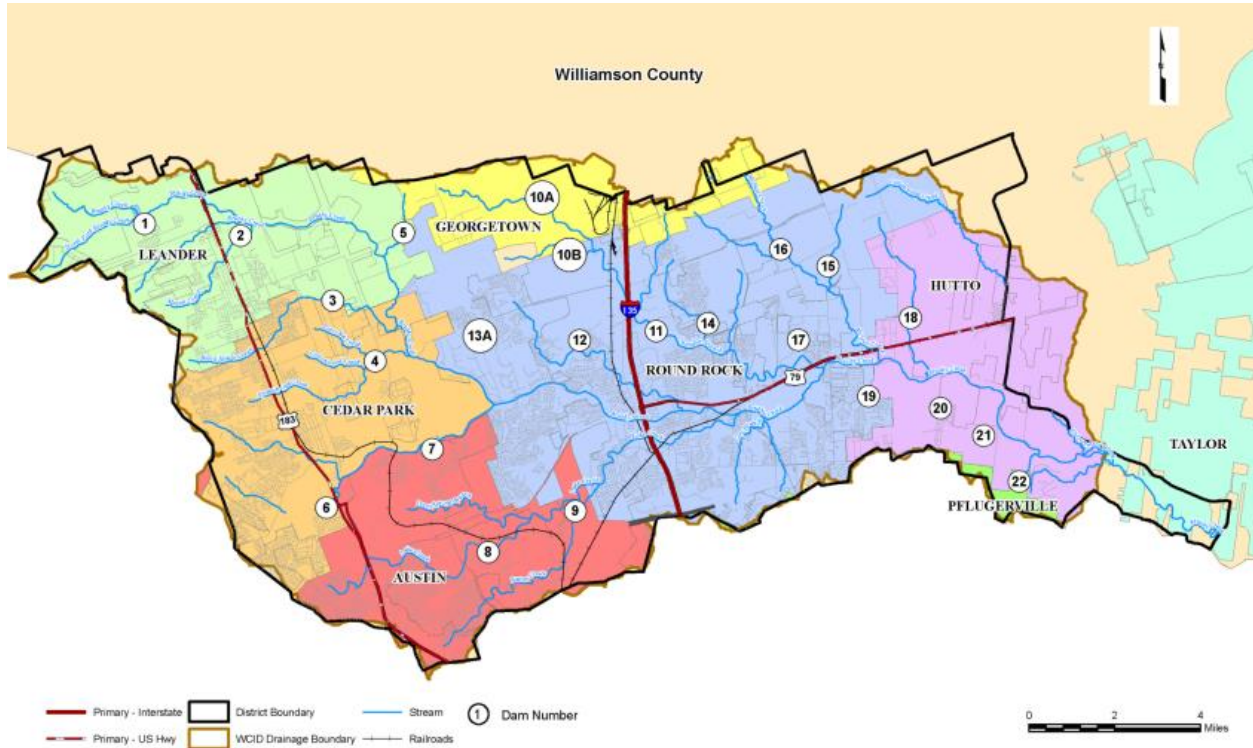**Demographics of Upper Brushy Creek Watershed**

The question of why take a look at the demographics of the Upper Brushy Creek Watershed began a couple of years ago, when I was a reporter at KUT – Austin's NPR affiliate. Sadly, natural disasters are often the bread and butter of local news. People tune in and get the latest on what's happening. When Brushy Creek first flooded back in 2012, we went out and got some interviews from locals telling us about the storm, what was missing from their homes, etc. Then, when it happened again in 2013, we went out and got interviews again, but also reported that this might be a perpetual problem. Accordingly, the Upper Brushy Creek Water Control and Improvement District applied for funds that would be allocated by the Texas Water Development Board (and the State Legislature) to improve most or all of the 23 dams throughout the watershed. It seemed like those residents most affected by the floods would be getting the help they needed. But what I wanted to know was what did that person that needed the most help look like?

To give a bit of perspective, this is a simple basemap that hopefully gives an idea of (geographically and topographically) where it is we're talking about. (Sorry to the folks in Utah and North Carolina if this doesn't help all that much. I wasn't as nice as Dr. Maidment in his demographics lecture to create a slide for each of your states).

Here is a map of the different cities and major roadways in the watershed (this map was created by Ruth Haberman and the folks at the Upper Brushy Creek Water Control and Improvement District). This gives a better sense of the complicated jurisdictional boundaries that the watershed encompasses.


Now that we have a sense of jurisdiction, here is a little image that should give you the flood characteristics of the Upper Brushy Creek watershed (through the flowlines, floodplain and catchments).
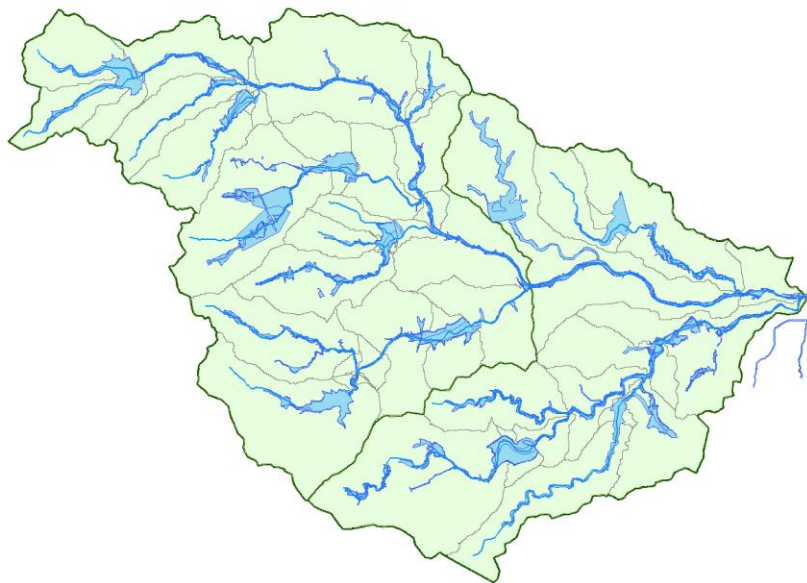
Now, getting to the real crux of this term project, I took the lessons given in Dr. Maidment's lecture about demographics to, hopefully, construct some maps that expressed, rather simply, some of the highlights of the folks that live in this watershed. But what I soon came to understand was that this wasn't as simple as downloading the data and exporting the shapefiles into ArcMap. Like many of you, I'm sure, I spent weeks trying to get a sense of what the data in my different tables actually mean. First, I wanted to spacially look at the U.S. Census Block groups and how they overlap in the Upper Brushy Creek watersheds.

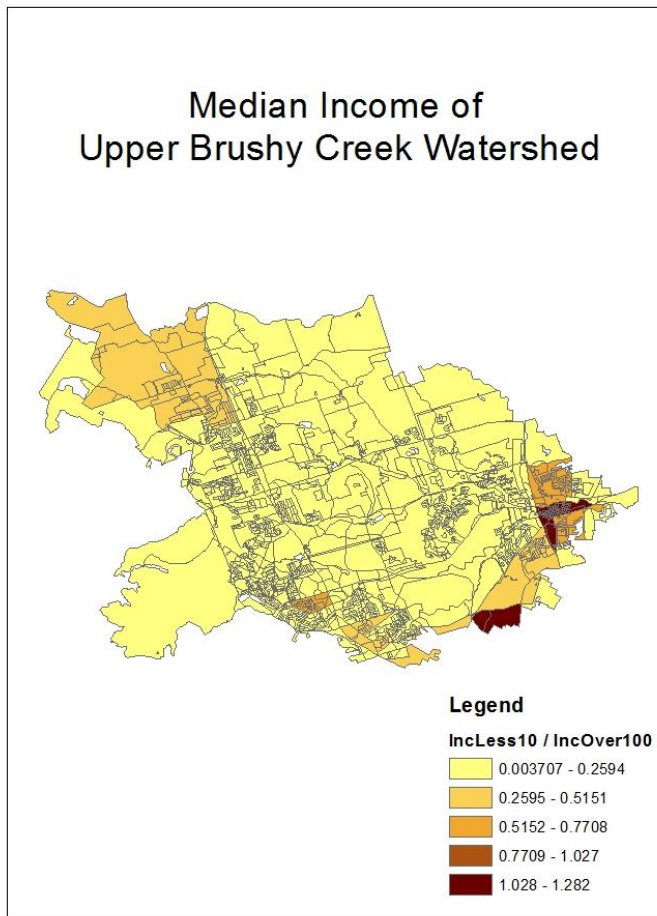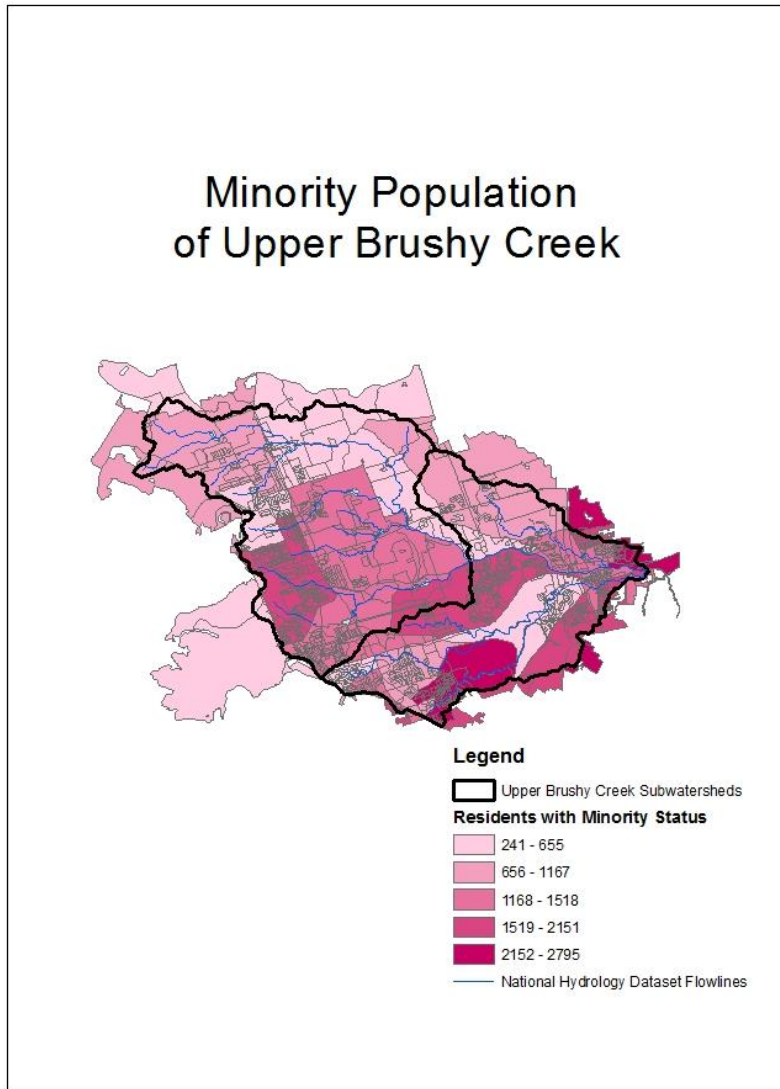Upper Brushy Creek Subwatersheds & US Census Block Groups
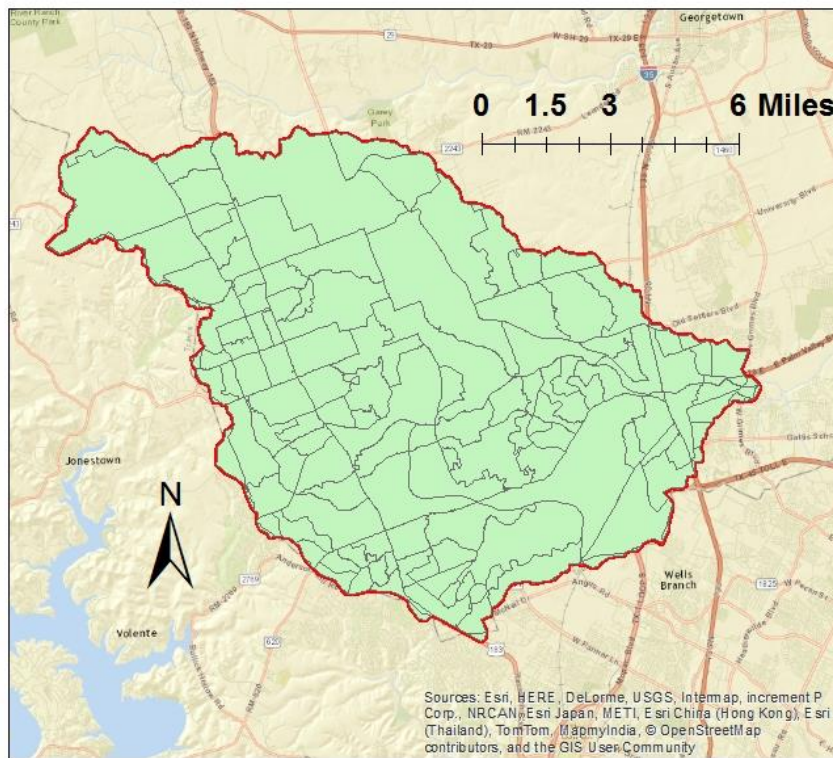
For instance, here's a look at a couple of different indicators of income in the two subwatersheds that make up the Upper Brushy Creek Water Control and Improvement District. I wanted to get a sense of how the income was spread between the two and throughout the district. As this map shows, there are about 10,000 people in this group of subwatersheds and they're generally pretty well off. Generally, most households make between the 50 and 75 thousand dollars a year. It's interesting to note, though, that there are about 4 times more households that are making more than 100 thousand dollars a year. The less than 10K is a bit of an outlier – there's only about 70 households in this watershed that fit that profile.


Median Income of
Upper Brushy Creek Watershed

Legend

IncLess10 / IncOver100

0.003707 - 0.2594	
0.2595 - 0.5151	
0.5152 - 0.7708	
0.7709 - 1.027	
1.028 - 1.282	

After investigating the income of the watershed, I wanted to take a look at the ethnicity – the racial background of the watershed. The legend depicts the number of people in the watershed that are not Caucasian. There are about 72 hundred white people that live in this watershed and the closest minority group is Hispanic – at about 17 hundred folks.

Minority Population of Upper Brushy Creek

Legend

☐ Upper Brushy Creek Subwatersheds

Residents with Minority Status

	241 - 655
	656 - 1167
	1168 - 1518
	1519 - 2151
	2152 - 2795
—	National Hydrology Dataset Flowlines

Finally, I decided to map the elderly population. The image depicts that the elderly population is generally spread out evenly. This is especially interesting to note in the context of emergency response teams and the need to get out to those folks if a dangerous situation were to emerge.
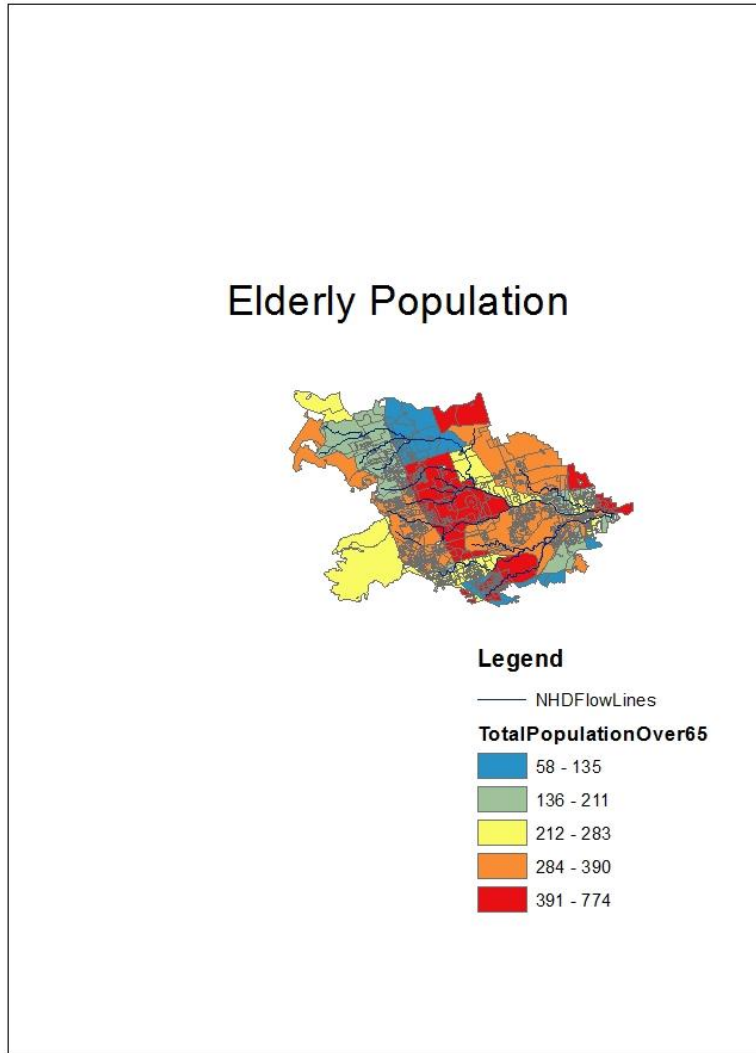
So, what's next? Well, this is a first evaluation of the data. And with it, I've gotten a pretty general sense of what the person that lives in the Upper Brushy Creek Watershed looks like, what sort of economic situation they're in and how many elderly folks are in the watershed. Now, it's my job to go deeper and figure out what that means for the Water Control and Improvement District and Emergency Response teams that might be asked to respond to yet another flood in the area.