



Wing and Fin Outfitters

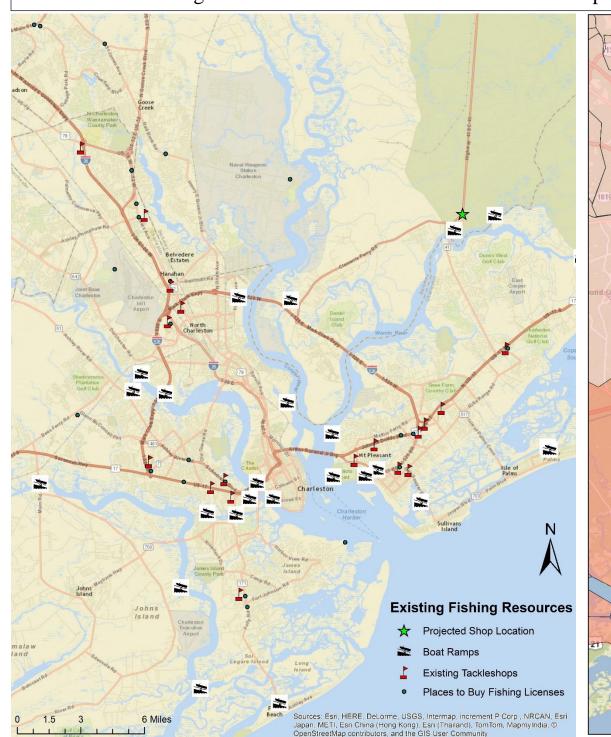
Using GIS to Determine the Ideal Location for a Tackle Shop in Charleston, SC Matt Giordano

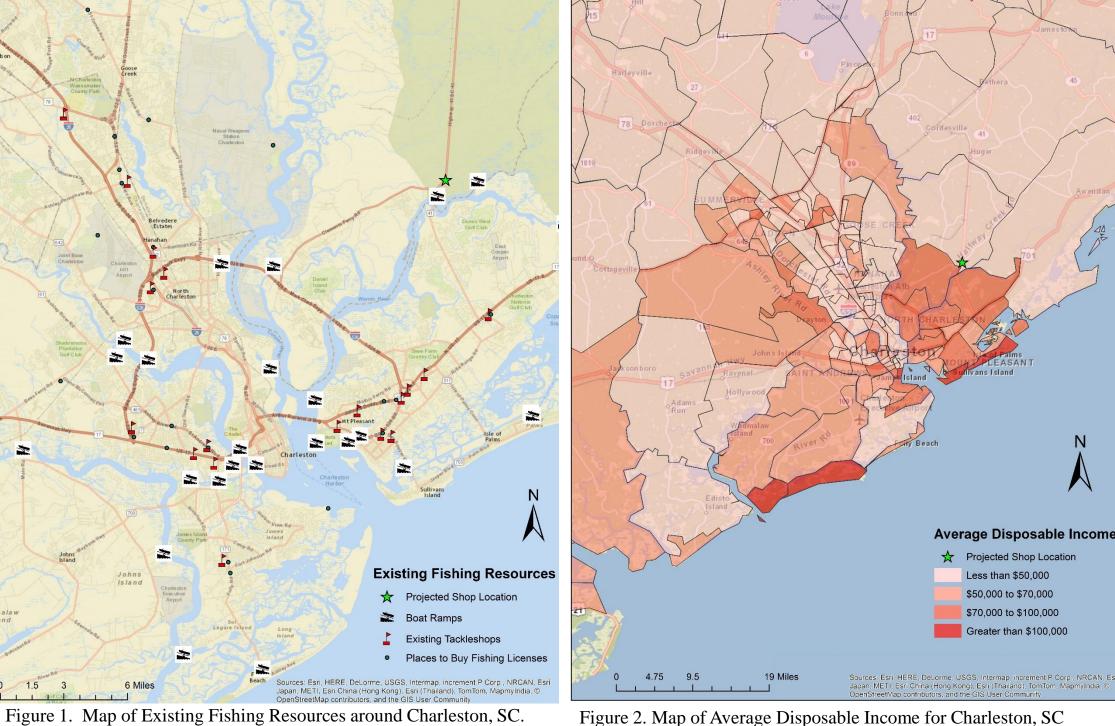
EES201 – Introduction to Geographic Information Systems – Fall 2014, Furman University, Greenville, SC

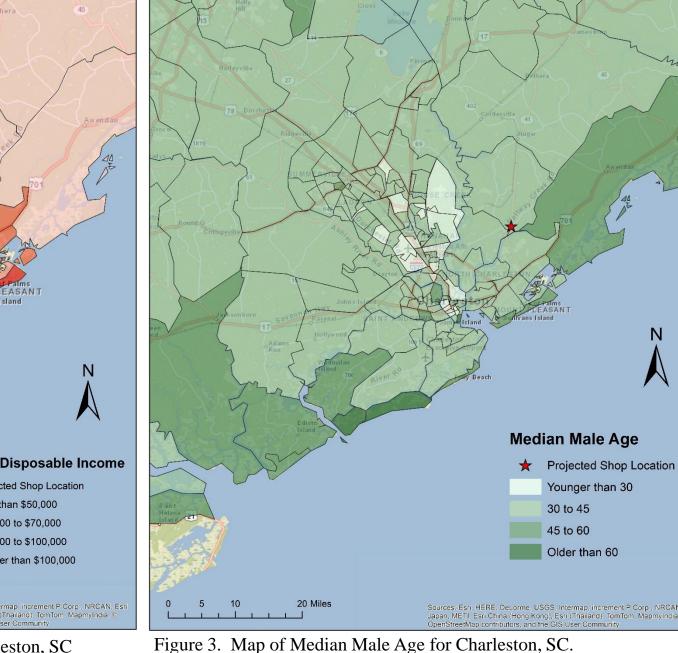


I. Introduction / Lit Review

A few years down the road I hope to open a tackle shop in Charleston, South Carolina with my current college roommate. I have been fishing my entire life and since coming down to school I have spent many breaks down in Charleston. My interest in the area really blossomed during the summer of 2013 which I spent in Charleston fishing and working around the water. During my time in Charleston I have realized that many local shops are in good locations but they do not provide excellent service. Shops seem to get by on reputation rather than actual service. I selected the best location for a tackle shop to be opened in Charleston using drive time to shops, average disposable income, median male age and the location of existing tackle shops as well as boat ramps. There is no specific research on tackle shop locations but I used GIS, Business Analyst, and Community Analyst to create my maps. GIS has been taught and used for many different applications. For example, GIS is being applied to undergraduate business classes, giving students a greater understanding of the interconnected market. (Calvert and O'Toole, 2010) The program is widely used to give raw data a spatial aspect than can be evaluated on a map. It enables basic analysis from statistical programs such as AVM and CAMA to be projected on a map. (O'Connor, 2013) In the last two decades the program that has been used to determine retail locations. The program has been applied in the United Kingdom to determine retail locations using income and drive time. One particular article evaluated the placement of a grocery store using GIS. The analysis was run using census data and the UK expenditure survey which essentially shows where people are spending there money. (Benoit and Clarke, 1997) GIS is capable of showing housing and land values which can highlight an area that is best for a new business. (Bocksael et al, 1997) Overall GIS use is still being expanded and explored, I have taken advantage of the tools to determine where a tackle shop can profit in Charleston, SC.







II. Methodology

For my project I created six maps highlighting different aspects needed for a tackle shop to be profitable. My first map looks at boat ramps around the area to determine where people that do not live on the water are likely to put there boat into the water for a day of fishing. I used google earth and South Carolina Department of Natural Resources database for boat landings. I then compiled the coordinates in an excel spreadsheet and projected them on my map. The next map I created looked at average disposable income using data from the 2013 census. I created a map highlighting different levels of disposable income to determine areas that have people with the ability to spend money on different hobbies. Fishing is a hobby for many Americans. In fact 16% of the population 16 years and older spent an average of 16 days fishing in 2001. My main target audience is people doing saltwater fishing and this number has increased 2% in the last decade. Although this does not seem like a significant increase, sportsmen spent over 70 billion dollars on hunting and fishing equipment in 2001 alone. (U.S. Fish and Wildlife Survey, 2001) The shop needs to be located around people that are going to buy new gear and bait for a day on the water. My fourth and fifth maps used Business Analyst to determine drive time around existing shops. I found the shops and imported them from an excel spreadsheet, I then weighted the shops based on the expected range of customers they attract. My maps take into account the fact that larger fishing stores such as Bass Pro Shops are going to attract people from farther out than local tackle shops will. A larger store such as Bass Pro Shops is able to carry a large inventory with great variety which means that people will make a drive to Bass Pro Shops. Bass Pro Shops is a destination that people will make a trip to for larger purchases but they will still use local shops for quick pickups while heading to the water. I then looked at the five maps and found an area that seems to be close to a boat ramp, around an area with a population with disposable income, and away from existing shops. One final factor I took into account was median age. Although people of various ages fish, males in the age range of 30 to 45 will likely be the biggest spenders because they are people with disposable income willing to spend money on fishing. After creating the maps and determining an ideal location I created a drive time map for my proposed location. It shows the area that my shop will be accessible to while being located close to the water.

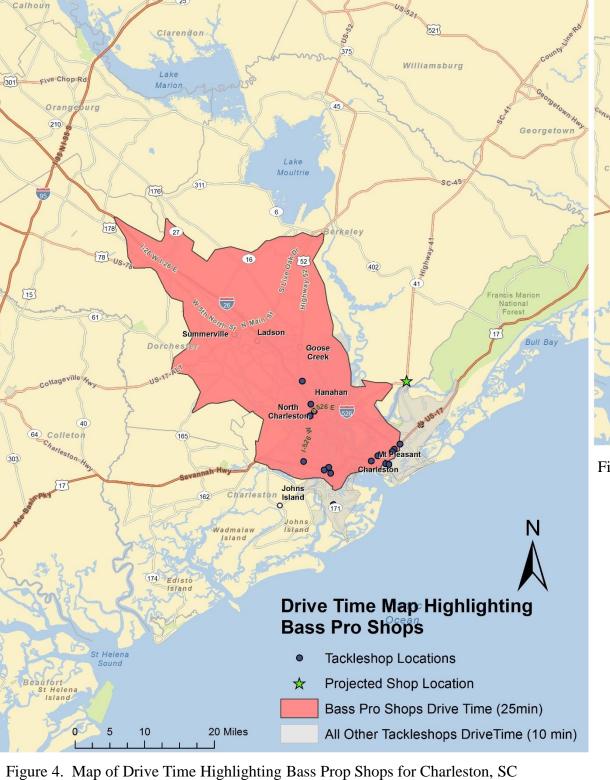
IV. Conclusion and Future Research

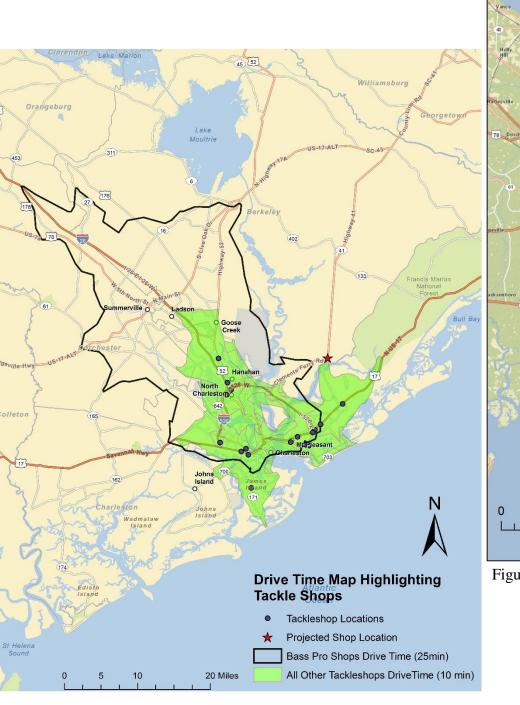
Overall the six maps show that a new tackle shop in Charleston is a possibility and one that can be profitable. The area up Highway 41 is a developing area and the real estate will be less expensive than a location closer to downtown. My proposed location sits at 2719 Highway 41, Cainhoy, SC. The lot is .62 acres and is on sale for \$375,000 with an estimated mortgage rate of \$1392 per month. The lots sits on the corner of Highway 41 and Reflectance Rd. (Zillow, 2014) In the future I would like to create more maps looking at profit from existing shops. A shops run by guys in there 20s is very attractive to the younger fishing customers and this could help build a strong client base. Many factors go into starting a new business that can not be mapped, but using GIS gives a raw look at the area and can show basic analysis of the area.

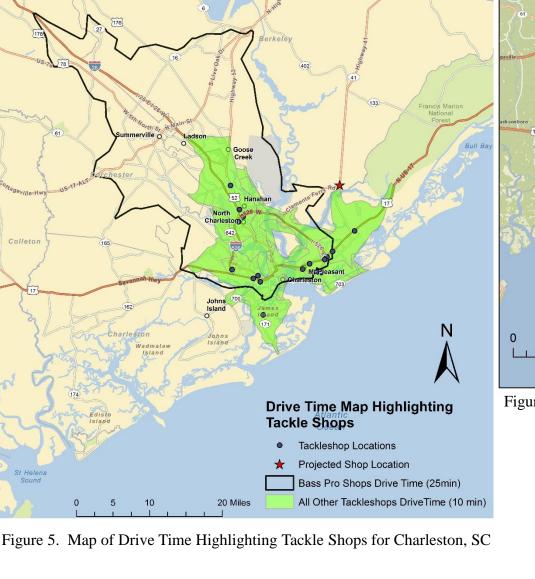
III. Results and Discussion

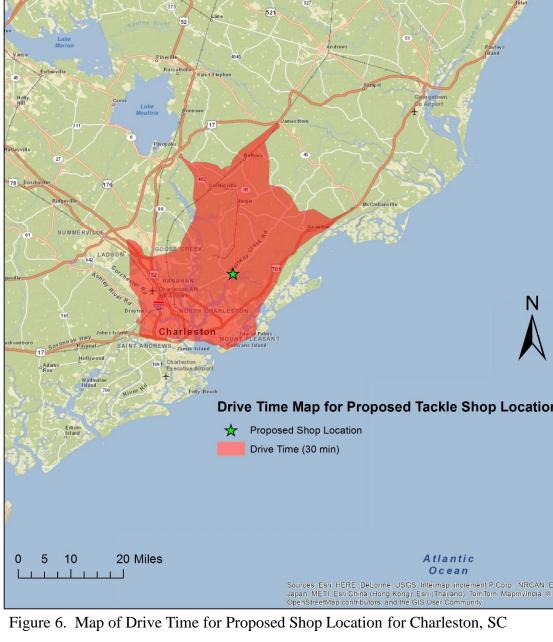
From the five maps I was able to determine a location on Highway 41 that fits the parameters that I mapped. The area sees traffic from fishermen going out on the water and is close to neighborhoods of higher socio-economic standing. The maps paint a picture that people on Highway 41 and the close surrounding area would have to travel far to reach existing local shops. Most of the local shops are clustered around the downtown area and the surrounding beaches. Highway 41 runs right over the Wando river which is a well known fishing area. The river also leads out to the harbor where many people fish. The shops location will intercept people coming from outside of Charleston to fish while serving people living in neighborhoods around the area.











V. Acknowledgements

I would like to thank Mike Winiski for assisting me on the map creation.

VI. References/ Data Sources

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