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Abstract

Municipal annexation is a process by which a municipality expands its boundaries into adjacent areas not already incorporated into the municipality, often in response to urbanization near city boundaries. Shoestring or flagpole annexation occurs when a city, town or other municipality in which it acquires new territory that is contiguous to the existing territory but is only connected to it by a thin strip of land. Annexation is tied to city growth, and the City of Greenville is much smaller than other cities in the state.

Objectives and Literature Review

To analyze the history of annexation in other cities in South Carolina to compare them to the annexation in the City of Greenville. To answer the following questions: How has annexation in the City of Charleston differed from that in Greenville? Are there any opportunities for Greenville's annexation that have been successful in other cities in the state?

Previous research indicates that multiple factors influence municipal annexation. Investigations into municipal annexation "have been largely conducted at the interstate unit of analysis and have focused on the impact of annexation legislation on overall annexation frequency" (Smith and Willse 2012). City annexation is also messy, and annexation laws differ greatly between states. Zeinemann studied annexation in Wisconsin, finding that annexation and annexation law are often uncoordinated and inconsistent. While most of my sources focused on the theoretical framework of urban annexation, GIS is useful in this context by linking historical spatial information to corresponding geographic features in a computerized cartographic database (Siebert 2000).



South Carolina Major City Demographics

Median Housing Value:

Charleston:



Rock Hill:



3.5 7 Greenville:

(end				
	Median Housing Value				
	72,500 - 145,800				
	145,801 - 218,700				
	218,701 - 300,500				
	300,501 - 443,600				
	443,601 - 701,500				
	701,501 - 1,000,001				

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	63,600 - 76,500	
	76,501 - 102,600	
	102,601 - 123,500	
	123,501 - 154,200	
	154,201 - 188,500	
	188,501 - 282,600	

ounty Med			
	63,600 -		
	76,501 -		
	102,601		
	123,501		
	154,201		
	188, <mark>5</mark> 01		



•	we did in nousing value.	ooun
	42,800 - 69,500	
	69,501 - 108,100	
	108,101 - 151,200	
	151,201 - 199,400	
	199,401 - 309,600	
	309,601 - 596,500	
	Ideal for Annexation	

	,
00	108,10
00	151,20
00	199,40
00	309,60
tion	

Median Income:

Charleston:



Rock Hill:

Greenville:



0 2.25 4.5

egend	

Legend

City Median

59,237 - 83,462

83,463 - 110,909

ty Median Income			
	5,560 - 22,738		
	22,739 - 38,912		
	38,913 - 58,042		
	58,043 - 86,157		
	86,158 - 135,221		
	135,222 - 234,875		

County Median Income: 5,560 - 22,738 22,739 - 38,912 38,913 - 58,042 58,043 - 86,157 36,158 - 135,221 135,222 - 234,875

ege	end		
ty	Median Income:	Cour	ity
	18,939 - 25,861		18
	25,862 - 33,407		25
	33,408 - 44,643		33
	44,644 - 59,236		44

County Me			
	18,939		
	25,862		
	33,408		
	44,644		
	59,237		
	83,463		

g€ , ∣	end Median Income:	0
	8 828 - 18 226	
_	18 227 - 28 631	
_	28 632 - 37 377	
	37,378 - 49,617	

deal for Annexation



Mariah Morgan



Future Research

Future research should utilize more recent data. For this project, I used data from the 2010 Census and 2006 to 2010 American Community Survey. These data sets were the most recent complete datasets that could be used, and they still included a great deal of error. Specifically, the educational attainment variable had a great deal of error. Additionally, future research should include a wider variety of variables than educational attainment, median income, and median housing value, for owner occupied dwellings.

As we can see from the analyses presented, there is a significant variation in racial makeup and median income within and among the cities studied. The City of Charleston has the widest variation of median income in the cities studied, ranging from 5,560 to 234,875. In contrast, The cities of Rock Hill and Greenville had narrower ranges of median income, 18,939 to 110,909 and 8,828 to 132,663.

One of the constraints that Greenville faces in annexing additional properties is that it is ringed by areas of lower median income, especially west of the city. This is significant because taxes are an important factor driving annexation.

I used median housing value and median income in block groups to highlight areas that are ideal for annexation. While I originally planned to do this with all of the variables that I studied, I found that the standard of error in the educational attainment data was too high for meaningful results. Using the highest median housing values outside of city limits, I found four census tracts that were ideal for annexation. Using median income, I found six census tracts that were ideal for annexation. However, one of the limitations to my study was my use of census data, which is usable for residential annexation rather than commercial annexation. These recommendations, based on housing and income data, are not viable for commercial properties. One of the key issues that I ran into was the extent of the data. Since annexation is so specific, block level data is more useful than block group data. However, the variables that I used are only available for block group data.

References and Data Sources

Siebert, Loren. "Using GIS to Document, Visualize, and Interpret Tokyo's Spatial History." Social Science History 24, no. 3 (2000): 537-

Smith, Russell M., and John T. Willse. "Influences on Municipal Annexation Methodology: An Intrastate Analysis of Annexation Activity in North Carolina, 2000-2010." State & Local Government Review 44, no. 3 (2012): 185-95. Minnesota Population Center. National Historical Geographic Information System: Version 2.0. Minneapolis, MN: University of Minnesota 2011. http://www.nhgis.org

edian Income 9 - 25,861 2 - 33.407 8 - 44.643 4 - 59,236 - 83,462 3 - 110,909

ountv Median Income 18,227 - 28,631

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81,588

65,260

93,854

85,655

80,327

Annexation Recommendations: MEDIAN HOUSING VALUE:			
Census Tract and Block Group:	Median Housing Value:		
001900, 2	396,600		
002103, 2	334300		
001807, 3	309,600		
001900, 3	362,400		
MEDIAN	INCOME:		
Census Tract and Block Group:	Median Income:		
002811, 2	71,643		
001900, 2	100.192		

001501, 1

002811, 1

001807, 3

001900, 3

002804, 1

Conclusion

Acknowledgements