

Income Effects on a Speech Community: Oconee County within Northeastern Georgia

by

Ryan Dekker

(Under the Direction of Lewis Howe)

ABSTRACT

In a politically conservative area outside of metro-Atlanta, one county, Oconee County, is conspicuously wealthier than its surrounding neighbors. Despite demographic overlap of ethnicity, voting patterns, and church attendance, this study seeks to understand divergences in speech patterns using the Rapid and Anonymous Surveys and passage reading. Attrition of regionally marked phonetic forms was attested in Oconee County as well as other enclaves corresponding to grocery stores catering to higher-end customers. These patterns suggest that grocery stores displaying specific non-local network ties correlated with a lack of regionally marked Southern speech features being observed, while stores that demonstrated local ties corresponded to more Southern variants. A statistically significant effect was observed in which women displayed higher rates of the Southern forms. I propose these speech trends are a reflection of attitudes towards identity and culture. These findings are explained within the Labovian perspective of language variation to primary social features.

INDEX WORDS: Sociolinguistics, Vowel Indexicality, Southern American English, Speech Community, Speech Evaluation, Standardization

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Chapter 1

Introduction

By taking a real-time approach to speech differentiations within a community, we can see, or begin to see, a differentiation in regional affiliation and identity. Labov stated that “the speech community is not defined by any marked agreement in the use of language elements, so much as by participation in a set of shared norms” (1972, p. 120). Following these criteria, language variation can be observed as emerging within a community, not only differentiating itself from outsider communities. The present study examines a community consisting of six contiguous counties in Northeastern Georgia located outside of the Metropolitan area of Atlanta and south of the Appalachian Mountains. One county within this group, Oconee County, shares most cultural and demographic patterns with its neighbors but differs in income (and other measures). Through Rapid and Anonymous Surveys (RAS), data was gathered and analyzed in an attempt to understand the distribution of two vowel phenomena, namely monophthongization of /aɪ/ and the merger of the “pin-pen” distinction. Coupled with the RAS data, I also analyzed data acoustically from participant passage readings, a method that allows for a more precise measurement of vowel qualities. This multifaceted study aims to investigate a possible link between social and demographic categories (such as income and education) with respect to the attrition of the rate of regionally marked features. These patterns observed in this study are understood as possible means of explaining others shifts away from regional speech forms, particularly in communities that include comparable income discrepancies.

Later in the thesis, I will describe the area that was surveyed, arguing that it constitutes a speech community with shared speech norms and with shared social practices. Equally important to consider is the evaluative aspects towards a speech form of this or any community. A speech community is a *social*

phenomenon and the organization of linguistic realizations and evaluations within it (Hymes & Fought, 1981). Speech use found in a community is a partial reflection of the history and culture in which they belong. Style, socioeconomic class, and gender can all account for variation patterns due to social embedding within a speech community (Weinreich et al, 1968). Individuals can index identity by affiliating themselves not only local groups but through whole regions or an entire country. However, a worldwide weakening of social boundaries and possible deference to local group norms changes the ways individuals can index identity; in the present day, this process of an updated focus towards a small scale, face-to-face series of observation can explain speech indexicality at the individual level. (Gumperz & Levinsol, 1996). The present study assumes an intentionally narrow scope towards a speech community in order to document a possible change in speech patterns as the result of a shift in cultural norms.

Oconee County, Georgia represents an exemplary model for a non-urban community that shows clear income and wealth divides. In comparison to adjacent counties, Oconee County will be shown to differ with respect to income levels, but not in racial demographics nor with respect to Presidential voting records. The one exception to this pattern is Clarke County, which houses the University of Georgia. Clarke County is Georgia's sixth largest county in terms of population density¹, and has the highest population density among those outside the Metropolitan Atlanta area. Clarke County's density of 909 people per square mile far surpasses the counties surveyed for the present study of this speech community. The counties surveyed range from 181/sq. mile in Oconee to a mere 33/sq. in Oglethorpe. The counties surveyed do not consist of densely centralized populations; rather they represent of more rural patchwork of shared social, political, and cultural norms, in particular voting patterns, racial demographics, and religious practices.

In order to illustrate the relation between income and speech pattern differences, I will present this speech community's demographic makeup along with and the speech samples that I have collected. No perfect method exists for gathering naturalistic dialect patterns of a given area's population (Bailey & Tillery, 2003). The two methods for this study are used to analyze local speech patterns under two controlled

¹ <http://www.usa.com/rank/georgia-state--population-density--county-rank.htm>

environments – a natural, brief elicitation of regional markers and a sample of carefully read speech. The RAS data collected in supermarkets reveal the influences of differing cultural realities reflected by different supermarkets and their specific target customers. These two models of data collection closely follow Labov's early methods from his 1966 dissertation concerning English New York City. His RAS documentation of the responses were binary (Labov, 2009), as are mine. The tokens in this RAS study will be binary under the categorizations of "Southern", which consist of the glide weakening for /aɪ/ and the vowel merger of "pin-pen" versus the "Non-Southern" with the absence of these two features. Together these two methods of RAS and passage reading will elicit the targeted speech features, providing a means of understanding their connection to the regional affiliation found within this speech community.

Rather than trying to link potentially stigmatized forms from one's learned vernacular to a specific socioeconomic trait as Labov did with his New York dissertation (Labov, 2009), the present study explores notions of group identity, affiliation, weak and strong network ties, and the indexical stylistic practice inherent in speech forms. The departure of treating class affiliation as static categories is now an established approach explaining sociolinguistic variation (Eckert, 2012). The goal of this work is a bridge from earlier waves of variationist studies which assumed a direct connection between language and socioeconomic class to the assumption that speech forms can be linked with regional, local, or even individual identities. The social meanings related with speech are multifaceted and are apt to change, as do the speech realizations themselves. Specifically, this study focuses on the speech patterns that are attested for regionally marked speech features in a non-urban area where wealthier enclaves exist. Does a more standard, non-regionally marked variety follow a pattern in this culturally conservative speech community? I hypothesize that it does via a correlation to higher income areas, with their greater likelihood of having weaker social ties (Milroy & Milroy, 1992). Importantly, I do not suspect that the use of non-regional forms is the result of a stigmatization for regionally marked features. Within this community, the patterns associated with the regionally marked forms likely exhibit interpersonal earnestness and authenticity, as they have been for other localized speech varieties (Edwards & Jacobsen, 1987). In essence, this is a study developed in the Labovian tradition that observes local speech and attempts to uncover linguistic identity markers. Rather than focusing

on socio-economic class as Labov did, this work concentrates on the affiliatory notion of local regional speech forms and the dispersion of these features within this speech community.

As will be shown in the proceeding chapter, this speech community has seen population growth as a whole, with the higher income population in Oconee County showing the largest rate of increase. The study of this speech community is an attempt to see whether the population flux, including a more mobile and prosperous population, has led to a drift from the regional speech patterns. This population increase may well have led to a weakening of social ties within the community; strength of social ties is a vital aspect in understanding speech patterns of a community, as noted here by Milroy: “speakers with more connections to other groups (weak ties) will show more influence of a more mobile surrounding society in their speech. (Milroy, 1980:196)”. The preceding quote is a pertinent descriptive notion for this community. More prosperous, and therefore more mobile, neighborhoods and communities live in the surveyed counties. As will be shown, these wealth divides are correlated with differences in patterns of speech, producing an orderly differentiation. Strong local ties and historically regionally associated speech will still exist, but a sizeable portion of speakers does not exhibit the diphthong glide reduction or the “pin-pen” merger as studied here. Through the complex interaction of speech and culture, new patterns of emergent weak social ties and attrition of regional speech features may form. We can see in this study whether the variable for income discrepancies, as well as population growth, explains the patterns of usage for Southern features attested in these populations even though these two groups (i.e. Oconee County and its surrounding neighbors) have considerable overlap in the other demographic and social qualities.

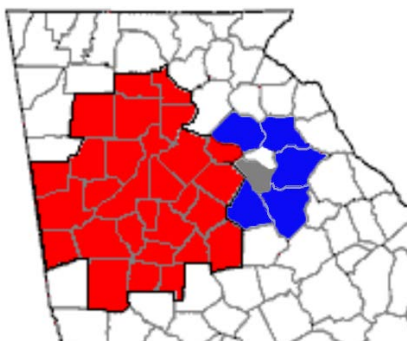
The following chapter provides the demographic information for how and why these counties constitute a speech community in addition to the divergences that exist within it. Sociolinguistic theory and past fieldwork studies comprise the Literature Review of Chapter 3, followed by the Methodology and Results in Chapters 4 and 5. The results of the study from both methods detail the observed divergences of speech patterns attested in Oconee County as well as other noted areas. The Discussion chapter serves as overview of the findings as well as the conclusions to be drawn from the present study.

Chapter 2

Social and Demographic Background on Counties Surveyed

Before presenting and analyzing the speech data, the necessary demographic and available speech data must be reviewed. The demographic data will consist of population, racial demographics, voting patterns, and religious data. Using publicly available data from the U.S. Census (Census.gov), as well as past collection of speech data from the Linguistic Atlas Project, the similarities as well as their differences become apparent, forming a foundation in which to analyze the current demographic and speech data of Greene, Jackson, Madison, Morgan, Oconee, and Oglethorpe Counties.

Figure 2.1 Map of Counties Surveyed



In Figure 2.1 the massive Metropolitan Atlanta area, per the U.S. Census, is shown in red. This major metropolitan area has been excluded from this study. The speech community studied is displayed in blue, with Oconee County specified in gray. The counties in white, including the much more densely populated, heavily Democratic, and more ethnically diverse Clarke County located in the middle, are not analyzed in the current study.

2.1 The Demographic and Cultural Overlap

Table 2.1 Population and Demographic Data

County	Population (2016 estimate)	White, Non-Hispanic	Population change since 2010 Census	Persons per Church ²	Trump Vote Percentage ³
Oconee	36,838	84.8	+12.3	83	66.6
Greene	17,003	57.1	+6.3	107	62.0
Jackson	64,615	82.2	+6.8	105	79.4
Madison	28,824	82.6	+2.5	74	76.2
Morgan	18,170	71.7	+1.7	134	69.2
Oglethorpe	14,921	75.8	+0.1	44	69.3
Georgia	10,310,371 (64,845 per county)	53.4	+6.4	--	51.3

Looking at voting patterns and racial demographics provided in Table 2.1, each of these counties skews heavily white and heavily favorable toward Donald J. Trump and the Republican Party in the 2016 Presidential election. Oconee has outpaced the other counties in terms of population increase since the last official Census in 2010. Thus, we can expect to see a higher rate of transplants not only from other regions of the state, but from various part of the U.S. In fact, Oconee County has the highest rate among others in foreign born residents at 5.4%, with the other counties ranging from 1.7% (Oglethorpe) to 4.9% (Greene)⁴. As these counties are not in a major metropolitan area, it is no surprise that only a handful of percentage points represent each county. Oconee County has the second highest population among the represented counties, though its population is still 43% lower populated than the neighboring Jackson County. Each of these counties is below Georgia's average county population size, but Georgia's median county population is 22,688, with half of these represented counties surpassing the median. The least populated is Oglethorpe,

² Yellowpages.com

³ CNN.com/election

⁴ Foreign accented English was not noticeably represented in the present study

ranking 108th of Georgia’s 159 counties. Jackson ranks highest at 37th, which, as noted, does not even surpass the average county population. Not only are these counties outside the Metropolitan Atlanta area, they have very few exits for Interstate Highways, eight total, thus making it more difficult to have a direct connection to larger urban areas, and creating increased social and cultural isolation. Jackson County has five exits for I-85, and Morgan County has merely three for I-20.

Table 2.2 People per Church

County	Oconee	Greene	Jackson	Madison	Morgan	Oglethorpe
People per Church	83	107	105	74	66	44

Beyond the demographic makeup of these counties, compositions of culture will be analyzed in order to show various instances of how this community consists of shared norms. Religiosity is a significant aspect of day-to-day life in the Southeastern United States (Mathews & Schweiger, 2004). For this community, the table above shows the people per church, meaning that the *lower* the number represented means the more churches exist per resident. The range goes from one church for every 107 people all the way to one church for every 44 people⁵. According to Brauer (2017), the total number of churches in the U.S. as of 2012 was 384,000. Therefore, there was one church for every 812 people in the United States. As these are counties in the rural South, the rate of churches per person far surpasses that of the national average. In fact, the least populated county in this study, Oglethorpe, had the highest rate churches – one for every 44 people. We must keep in mind, of course, that not all churches have the same capacity of congregation size. However, through the number of congregations, we can still infer how these congregations assert themselves as an aspect of the norms of everyday life in a community. The notion of a “cultural localism” in smaller, close-knit communities can be described as a community that is oriented towards an intentionally narrower scope and stronger local ties. Cultural localism is predictive of religiosity and conservatism, characteristics that, I maintain, are shared by all communities in this study (Eisinga, et al.

⁵ These numbers were ascertained using the online Yellow Pages church listings for each county

1991).

Table 2.3 Mean Travel Time

County	Oconee	Greene	Jackson	Madison	Morgan	Oglethorpe
Mean Travel Time (minutes)	24.4	26.1	30.7	27.4	27.4	28.8

The table above shows the mean commute time to work for each given county. They are remarkably similar, which should not be too surprising considering their distance from Metropolitan Atlanta and the heavy traffic that can be associated with it. Rural communities will have less of a traffic impediment but still may have longer distances to travel to their place of employment (likely via driving since public transportation would be not as prevalent). However, Clarke County, the county which was not included in this community of practice, has a considerably shorter commute time at 19.3 minutes despite bordering many of the aforementioned counties. Although Clarke County is the smallest county in the state of Georgia (in terms of geographic area), has a larger population than Oconee, Greene, Madison, Morgan, and Oglethorpe Counties combined. In addition to a transient resident group of college students, Clarke County also has a central employment hub represented by the University of Georgia, the largest employer in the county⁶. Clarke County is not a rural community and displays distinctly different racial demographics and voting patterns than its neighbors. The present study consists of non-urban areas for a country where rural areas are declining in their share of the population. Per the U.S. Census: “The urban population of the United States increased from 79% in 2000 to 80.7% in 2010.” (Census.gov). These counties surveyed have an average population per square mile of 97.1, far below Georgia’s average of 168.4 (Georgia itself is 17th in the U.S. in population density⁷). Clarke County’s population per square mile is 979, lapping the field with its bordering counties. The six counties included in this study share much in terms of demographics in addition to

⁶ <http://www.athensbusiness.org/major-employers.php>

⁷ Census.gov

geographic proximity. Clarke County is simply *sui generis* compared to its bordering counties⁸.

2.2 Linguistic Atlas Program Speech Data

In order to document and compare speech data across a specific time span, past speech data must be surveyed. While there are no comparable studies employing a Rapid and Anonymous Survey technique in this area, an abundance of speech data in the U.S. exists through field interview data via the Linguistic Atlas Project (LAP), hosted and maintained by the University of Georgia. For the counties of interest, online interview data for Greene, Oconee, Oglethorpe, Jackson, and Madison were all recorded at or around 1970. Morgan County is the only county from the present study not surveyed in LAP.

Because the RAS component of the current study will focus on both the English diphthong /aɪ/ realized as [a:] and the vowel in /ɛn/ becoming [ɪn], this LAP assessment of the speech data for this project will be used to determine the ratio of these vowel environments. These two features of the Southern American English (SAE) are have been observed not by linguists (see e.g. Allbritten, 2011) but also by the general public (Preston, 1999).

While gathering and transcribing available LAP data, the criteria for my transcribing required an interviewee living in one of the specified counties at the time of the interview and have a recording present under the section labeled “Family”, which ranged from 2 and a half to five minutes. The interview section concerning “Family” allowed for a naturalistic topic of conversation and it was never the first section to occur, which likely mitigated any effects of an initial unnatural response corresponding with the beginning of an interview. The second half of these “Family” sections were typically one-word lexical query elicitations common in the dialectical field methods. A total of 16 speakers met these criteria, 13 being white and 3 being African-American. I noted their use of the two “Southern” variables impressionistically. As expected,

⁸ Clarke is one of only two counties in Georgia that voted for Hillary Clinton in the 2016 Presidential Election that did not also border any other “blue counties”. Bibb County, representing the urban center of Macon, was the other.

[aɪ] or [a:] was a much more prevalent phonemic environment than a stressed [ɛn] or [ɪn]. The Southern ‘markers’ of [a:] and [ɪn] were in the majority use for both cases, with [a:] being realized 37 times compared to [aɪ]’s 24, with stressed [ɪn] realized 10 times compared to 9 instances of [ɛn]. The total of the ‘Southern’ realizations was thus 61% in this sample. Nearly all interviewees had instances of *both* [a:] and [aɪ], suggesting variation with these features. All participants surveyed in this sample of LAP displayed monophthongization to some degree.

Table 2.4 LAP Sample of Speech Realizations

	[a:]	[aɪ]	[ɪn]	[ɛn]
LAP Data Speech Realizations	37 (60.7%)	24 (39.1%)	10 (52.6%)	9 (47.4%)

Given that the majority of speakers in this LAP sample realized Southern forms in these two specific environments, we now have a reference point of which to evaluate the forms as analyzed in the current project. Thus, we can determine whether these two forms of [a:] and [ɪn] occur more or less frequently in the present study. In the LAP data, some of these participants were born in the 19th century, with most participants residing quite close to where they were born. Today, this area has seen clear population growth, with Oconee County seeing the highest growth rate since these field interviews took place, as noted in the previous section. The only interview with an Oconee resident unfortunately did not have many of the token environments present, though her rate of ‘Southern’ realizations of [a:] and [ɪn] rather than the non-regionally marked of [aɪ] and [ɛn] was quite high. The proceeding section and chapters describe in detail how Oconee County is distinct from its neighbors since the time of the LAP recordings.

Section 2.3 What Makes Oconee Different

The table below shows age and education demographics for the concerned counties, considering data from 2016.

Table 2.5 Age and Education Data

County	Population	% Persons under 5 years	% Persons under 18 years (%)	% Persons over 65	% Bachelor's degree or higher, age 25+
Oconee	36,838	5.5	26.7	14.5	44.9
Greene	17,003	5.3	18.9	28.3	24.7
Jackson	64,615	6.7	25.6	13.8	19.2
Madison	28,824	6.1	24.4	16.4	15.6
Morgan	18,170	5.3	22.7	19.3	22.1
Oglethorpe	14,921	5.5	21.4	18.4	17.2
Georgia	10,310,371	6.4	24.4	13.1	28.8

Oconee County leads all others in its population of children under 18. Undoubtedly, there are a lot of school-aged children in Oconee, as it even beats the state average. However, the distribution of the ages of the children living in Oconee is not equally distributed. Even though it has the highest percentage rate of Persons under 18 it has the second *lowest* rate of Persons under 5. This means that Oconee school-aged children are more likely to have not been born in the county where they now go to school in. Oconee County is receiving transplants at a higher rate than the other counties surveyed, with the likely new residents' families having school-age children. Notice that Oconee also has the second lowest rate of persons over 65. Each of these counties skew higher than the state average because they are more rural, but the two most populated counties in this study, Jackson and Oconee, have seen their elderly population drop in comparison to the other counties' due to an increasing population of young people. Greene County is an especially stark difference in that it is the only county below 20% for persons under 18 as well as the only county over 20% for persons over 65. Greene County skews older and has fewer transplants and a higher number of people who have lived there for decades' time. While Oconee County skews younger, it also is more educated. With the national and Georgia rates of persons 25 or older having a Bachelor's degree or higher being 29.8% and 28.8% respectively, Oconee County's is a standout at 44.9%.

Table 2.6 Housing Data

County	Median gross rent	Median value of owner-occupied housing units	Residential Building Permits, 2016	Population
Oconee	\$883	\$235,700	418	36,838
Greene	\$636	\$169,300	188	17,003
Jackson	\$777	\$155,700	873	64,615
Madison	\$710	\$122,700	8	28,824
Morgan	\$853	\$182,900	105	18,170
Oglethorpe	\$745	\$121,100	39	14,921
Georgia	\$879	\$148,100	51,675	10,310,371

The above table shows more divisions - this time in terms of monetary assets within the community. In terms of rent, the median cost of residency in this community has an outlier in Greene County but otherwise tends to be close to \$800. Oconee is the only county that is above the state of Georgia rate, and even then, it surpasses it only by \$4. However, listing the values of resident-owned properties demonstrates a stark divide. Even in the attempt to use the median housing price to remove outliers on both ends of the spectrum, the value is substantially higher than even the second place Morgan County. The median value of an Oconee homeowner's property is worth over \$50,000 more than the median of a Morgan County home. An owner of a median value home in Oglethorpe or Madison County will find that the neighboring Oconee County median home is worth over 90% more. There are also income discrepancies between Oconee and its surrounding counties. The number of Residential Building Permits in these counties ranges from the relatively low 8 in Madison County all the way to Jackson County's 873. Jackson County, the most populous of the counties surveyed, continues to grow in terms of both population and housing development. Oconee has roughly half the population and roughly half the amount of Building Permits, so these counties should see approximately equal growth as the other counties get left behind. Even though the cost of rent is not particularly high in any of these counties, there is a clear divide in the cost of homeownership.

Table 2.7 Income and Poverty Levels

County	Median household income, 2015	Per capita income in past 12 months	Persons in poverty, percent	Population
Oconee	\$72, 182	\$33, 528	6.8	36,838
Greene	\$42, 408	\$28, 209	21.2	17,003
Jackson	\$53, 379	\$23, 504	13	64,615
Madison	\$41, 912	\$20, 857	15.1	28,824
Morgan	\$51, 820	\$24, 435	14.3	18,170
Oglethorpe	\$44, 226	\$21, 848	16.9	14,921
Georgia	\$49, 620	\$25, 737	16	10,310,371

In another look at the varying income levels for this speech community, we can infer that not only is the middle 50% of Oconee County is better off economically but the poverty rate is a fraction of that for the other counties. It is also especially lower than the adjacent Clarke County’s poverty rate of 38.1%. Additionally, Greene County has both the highest rate for persons in poverty and the second highest rate of per capita income, which shows further evidence that within this non-urban speech community wealth divides do exist.

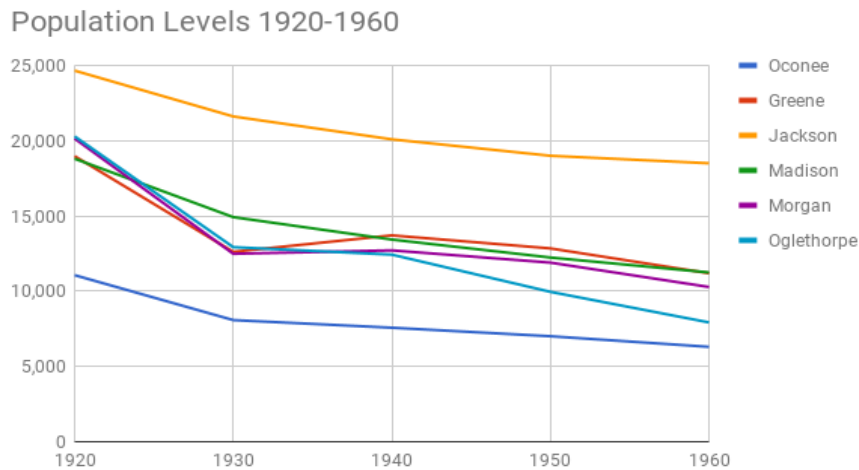
Table 2.8 Population Levels Since 1970

County	1970	1980	1990	2000	2010	Population (2016 est.)
Oconee	7,915	12,427 (+ 57)	17,618 (+ 41.8)	26, 225 (+ 48.9)	32, 808 (+ 25.1)	36,838 (+ 12.3)
Greene	10,212	11, 391 (+ 11.5)	11, 793 (+ 3.5)	14,406 (+ 22.2)	15, 994 (+ 11)	17,003 (+ 6.3)
Jackson	21,093	25, 343 (+ 20.1)	30, 005 (+ 18.4)	41,589 (+ 38.6)	60,485 (+ 45.4)	64,615 (+ 6.8)
Madison	13,517	17,747 (+ 31.3)	21,050 (+ 18.6)	25,730 (+ 22.2)	28,120 (+ 9.3)	28,824 (+ 2.5)
Morgan	9,904	11,572 (+ 16.8)	12,883 (+ 11.3)	15,457 (+ 20)	17,868 (+ 15.6)	18,170 (+ 1.7)
Oglethorpe	7,598	8,929 (+ 9.3)	9,763 (+ 9.3)	12,635 (+ 29.4)	14,899 (+ 17.9)	14,921 (+ 0.1)
Georgia	4589575	5,463,105 (+16.4)	6,478,216 (+18.6)	8,186,453 (+26.4)	9, 687, 653 (+18.3)	10,310,371 (+6.4)

As shown in Table 2.8, the total population of these counties in 1970 was 70,239. The population per square mile at that time was 35.5, consistent with that of a rural community. Currently, the population per square mile is 91.1. The total population in 2016 was estimated at 180,371, with Oconee exhibiting the largest population growth, from 7,915 to 36,838. Notably, these counties experienced a population *decrease*

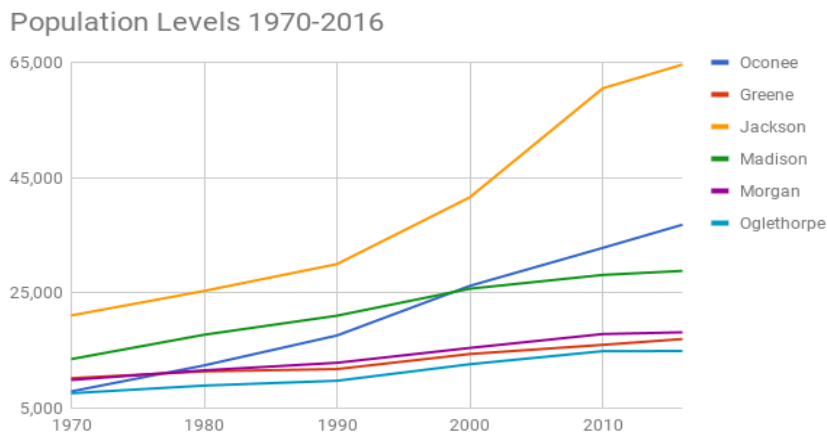
from the 1920s to the 1970s, with a decrease recorded during nearly each decade for every single county, as shown in Figure 2.3. This is likely a product of the Great Migration of African-Americans occurring in Georgia in this time, as approximately 4.8 million black southerners migrated away from their home states between 1940 and 1960, the height of the Great Migration (de Jong, 2005). The results of black emigration lead to the currently predominately white racial makeup that persists in these counties today.

Figure 2.2 Population Levels 1920-1960



As exhibited, a notable decline occurs in each county throughout the 1920s. In all subsequent decades, populations either flatline or undergo a population decrease, inferring more evidence of later stages of the Great Migration of African-American out of this area.

Figure 2.3 Population Levels 1920-1970

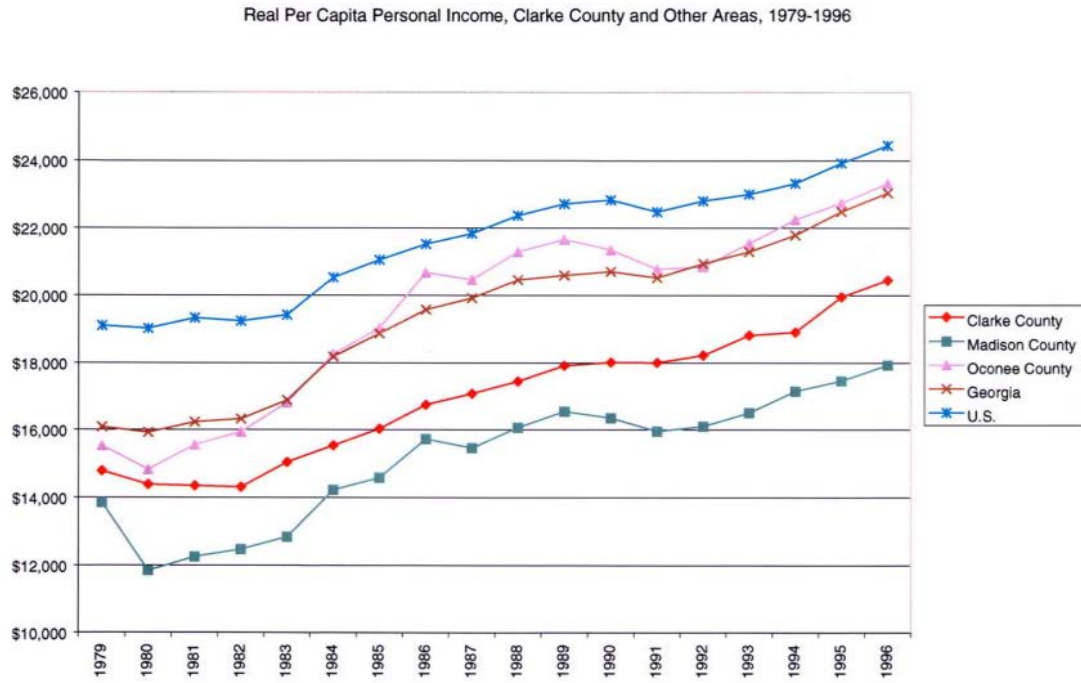


The 1970s onward showed a pattern of growth for each county. Each county has at least doubled in population, with Jackson tripling and Oconee more than quadrupling. Oconee County lead in population growth rate for nearly every single decade - four out of five. The state of Georgia itself has experienced evident growth since 1970 but this region of the state surpasses those high benchmarks. Many of the recordings sampled from the LAP project for this area were sampled at or about 1970, meaning a sharp rate in growth certainly has the capacity for a shift in speech patterns.

Oconee County has, by any measure, seen tremendous growth in the recent decades. Two years before the present Oconee County High School was built in 1992, all the way up to the most recent population estimate in 2016, the county's population more than doubled. Despite being the smallest county surveyed in terms of area, it has had the highest population growth rate. Jackson and Oconee each have a similar history of population growth and currently have by far the highest rate of residential building permits currently on file, as evidenced by Table 2.6. These two counties will likely continue their high growth rates, with transplants having the ability to affect local speech forms. Figure 2.3 provides data from the U.S. Bureau of Economic Analysis⁹ which demonstrates not only the strong population increase as shown in Table 2.8 but also its increase in income relative to that of neighboring counties and the state of Georgia overall. Starting from 1979, Oconee was below the state average in income but had come to surpass the state average by 1996. Per capita income in Oconee was less than \$2,000 higher than that of Madison in 1979 but by 1996 was over \$5,000 higher, suggesting a rising social and economic mobility for Oconee during this time period. As the most recent Income data in Table 2.7 shows, these wealth and economic mobility divides have increased since then but Figure 2.4 reveals the more gradual pace it took in the 1970s, 80s, and 90s. Also shown in Table 2.5, Oconee's rate of person holding a bachelor's degree far surpasses that of the other counties in this speech community, again providing a potential factor in explaining its observed higher wealth and economic mobility.

⁹ <https://www.accgov.com/DocumentCenter/View/338>

Figure 2.4 Oconee County Per Capita Income 1979-1996



Source: U.S. Bureau of Economic Analysis

In a final look at the demographic data for these counties, the detailed evidence¹⁰ of the preponderance of Republican voting shows that it easily outpaces the Republican-leaning Georgia as a whole when looking at statewide elections. Since 2004, Jackson County leads all others in Republican voting percentage. Each of these counties hit their highest watermark in 2010, when the Republicans reclaimed the U.S. House of Representatives in a midterm year. Since then, Georgia’s Republican state-wide voting has declined slightly each year while only one such county represented has also declined in each successive election – Oconee County. Oconee’s Republican voting rate in the Presidential election in 2016 was still a convincing 66.6%, despite representing a nearly full seven-percentage point decline from the Presidential election in 2012. While the other counties increased or essentially flatlined in their support from 2012 to 2016, Oconee did have a notable decrease, as it did in 2014 as well.

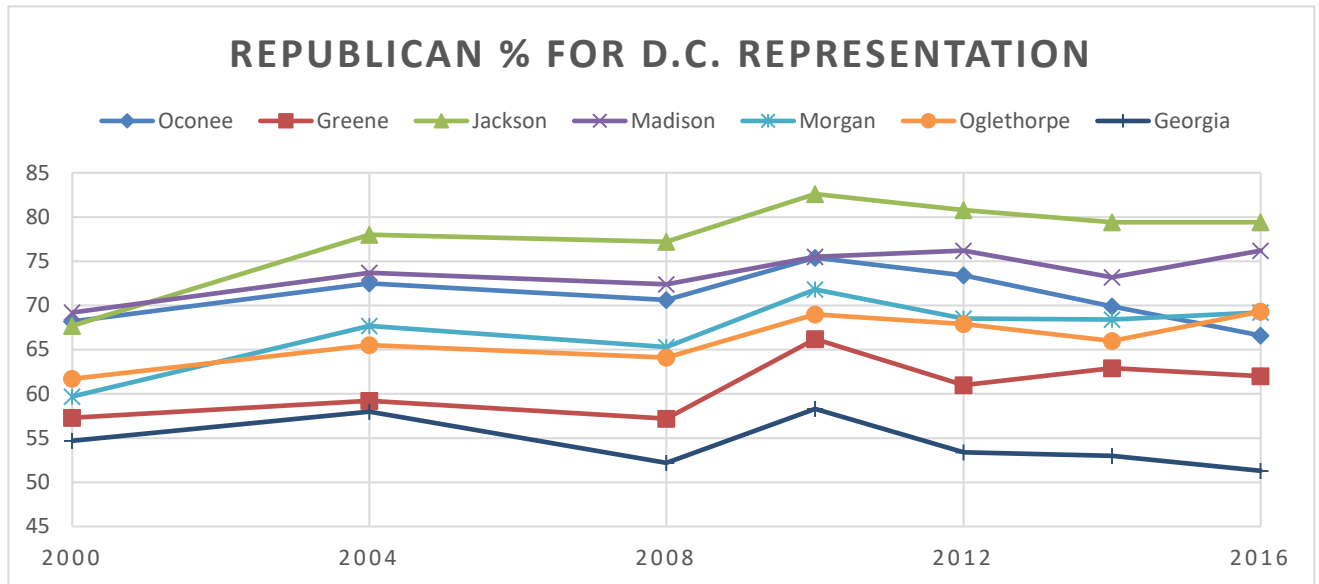
¹⁰Cnn.com/election

Table 2.9 Republican Voting Percentage for Statewide Elections

County	Bush (2000)	Bush (2004)	McCain (2008)	Senate – Isakson (2010)	Romney (2012)	Senate – Purdue (2014)	Trump (2016)
Oconee	68.2	72.5	70.6	75.4	73.4	69.9	66.6
Greene	57.3	59.2	57.2	66.2	61.0	62.9	62.0
Jackson	67.7	78.0	77.2	82.6	80.8	79.4	79.4
Madison	69.2	73.7	72.4	75.5	76.2	73.2	76.2
Morgan	59.7	67.7	65.3	71.8	68.5	68.4	69.2
Oglethorpe	61.7	65.5	64.1	69.0	67.9	66.0	69.3
Georgia	54.7	58.0	52.2	58.3	53.4	53.0	51.3

The graph below shows the pattern of each county, as well as Georgia as whole, soundly endorsing George W. Bush for reelection with a higher rate than he had won in 2000. Successively, each declined in 2008, but had a sharp rise in 2010. After that election, we see Oconee more closely follow the path of Georgia’s slide in Republican voting, going from the second highest rate in 2012 to the second lowest only four years later. As noted earlier, Oconee County’s population growth since 2010 is estimated to have increased 12.3% , which is nearly double that of any other county in this sample. Even when the housing market was still recovering from recession during the last official U.S. Census in 2010, Oconee has seen a sharp population increase and a successive decline in Republican voting in 2012, 2014, and 2016. This rate of transplants has not radically altered the voting patterns, but they certainly can be a factor in the ebb of Republican votership. We can easily note the rate of change in population and voting trends in this area. What the present study intends to find is whether this speech community can be observed to track the rate of Southern features in public speech. Oconee, with its high growth rate and downward trend in Republican voting may have its speech patterns drifting away from this area’s historical patterns of Southern American English.

Figure 2.5 Republican Voting Percentage for Statewide Elections



Defining this speech community required describing the demographic and cultural overlap that binds this region together. Per the most recent U.S. Census and other sources of data, these counties far outpace the national average for Republican voting, Non-Hispanic White demographics, persons per church, and are all outside of a major Metropolitan area. The sample of the LAP data for this area showed that this speech community incorporated both /aɪ/ monophthongization and the merging of the “pin-pen” vowels a majority of the time of the recordings that took place nearly 50 years ago. Even though there are several features that collectively characterize this contiguous area, an income divide exists for Oconee County compared to that of its neighbors. The divide for income distribution is observed primarily through the using presented in Table 2.7. As patterns of income divides exist, the aim of this study is to determine whether a similar pattern exists for the distribution of Southern regional speech forms in this speech community, with the analysis situated in the context of on sociolinguistic theory.

Chapter 3

Literature Review

3.1 The Locality of Speech Variants

Within a group of shared cultural norms, income differences can exist, as demonstrated by the previous chapter. The effects of socio-economic class on linguistic variation within a speech community could thus be observed. More dominant social groups tend to consciously mark themselves off symbolically as distinct from other groups, up to and including language (Kroch, 1978). Speakers use linguistic resources available to them to associate or not with particular groups (Beane & Johnstone, 1997). The present study concerns itself with this area's makeup of predominantly white and politically conservative Southerners against the backdrop of the historical dialect patterns of this area.

Labov concisely established two factors for the conflicting means on the rate of homogeneity and variability within a speech community. Homogeneity is largely maintained through the means of language *transmission* – a generational, incremental transfer of language features. Variability within a speech community can largely be explained by *diffusion*, the weakening and attrition of original patterns and features, not just through new incoming residents but through a conscious process of shift. (Labov, 2007). Beyond the disruption of intergenerational transfer of speech forms, diffusion also refers to the incorporation of sources outside the speech community for speech features. The current study uses diffusion as an explanatory approach for the attrition of once more commonplace regionally marked Southern speech features in this area. A recent example of diffusion in the Labovian sense would be the

city of St. Louis, located squarely in Midland territory. It has been noted to have recently developed many of the elements of the Northern Cities Vowel Shift even though this city has long been known to display a mixture of Northern, Midland, and Southern features (Murray 1993, 2002). Recent decades have witnessed a strong shift to Northern phonology (Labov, 2007). These are more conscious efforts of an externalization towards an affiliation more towards Chicago than Jefferson City, the capital of Missouri. The externalization of identity can be observed, from a sociolinguistic perspective, via the observation of different speech behaviors, such as the characteristic patterns of English vowels. This possible externalization of ideology and affiliation for the present study is measured through the vowel environments associated with Southern American English.

Within a speech community, social meaning can be assigned to any given form of one's vernacular. Labov defines a vernacular not as the stigmatized form but merely the features that one first learned and will be used in speech that is not carefully monitored (Labov, 2009). The middle class and upper middle class in his studies had degrees of self-awareness and control in their likelihoods of a given feature, especially in passage or in minimal pair reading. However, in his documentation of postvocalic /r/ in New York in the 1960s he observed the following:

“Not one speaker in the sample who was raised in New York City was able to use /r/ 100% of the time in conversation, and this includes a great many who were consciously aiming at that direction after r-usage had been discussed.” (Labov, 2009, p.80)

Even those who are aware of a variant and its social indexicality still may not avoid its use 100 percent of the time. What Labov observed was a change in progress, as exhibited in a follow-up study of his Rapid and Anonymous Survey environment where it found that /r/ usage increased for each setting while a recent study still showed similar stratifications existing (Mather, 2012). As the present study includes middle class and working class residents, I hypothesize that higher income areas use the more standardized forms and can have ability to affect the spread of the forms studied here for the “pin-pen” merger and monophthongization.

The Atlas of North American English defines the South as a dialect region specifically by the monophthongization of /aɪ/ before voiced obstruents, the initiating stage of the Southern Shift (Labov et

al, 2006). As this is a primary indicator of “sounding Southern”, this is a particularly important variable studied in the data collection method for this study. Thomas states there is no distinction made for rural Southern speakers regarding monophthongization before either a voiced or a voiceless consonant; this applies to both older and younger speakers (2008, p. 87). Neither does age for the “pin-pen” merger (2008). Some notable differentiations that exist for younger Southern speakers are the complete merger of “Mary-merry-marry”, full rhoticism present for back vowels, and the monophthong [ɛ] realized in words like “fail”, whereas older speakers favor the diphthong. Even within the Southern American variant of English, there are emerging patterns of age divergences (Thomas, 2008). In addition to the monophthongization of /aɪ/, the Southern phonological indicator will be the “pin-pen” merger, the process of /ɛ/ and /ɪ/ merging into [ɪ] before nasals. As stated by Thomas:

This merger “...is strongly associated with Southern speech, though it also occurs among some whites in the southern Midwest and among African Americans everywhere. The resulting merged vowel usually closer to [ɪ] in quality, though a few speakers have it closer to [ɛ]. The merger apparently grew from a sporadic feature of a few speakers to a majority feature during the late 19th century and continued to spread during the 20th century. Today, however, some Southerners, largely under the influence of schools, have begun to distinguish PIN and PEN.” (Thomas, 2008, p.115)

Not only does this geographically linked pattern apply to Non-Hispanic White Southerners, it also applies to African-Americans. This shows the prevalence of this form in the South, or at least in its historically documented fashion. The widespread use of this form of “pin-pen” merger across ethnicities means that it will be applicable to all participants in this study as a possible variant.

What this study intends to find is the rate for the distribution regionally distinctive Southern American English features in this Southern speech community. The linguistic process of diffusion and dialect leveling can cause historically salient phonological and morphosyntactic regional features to erode. Looking within a speech community with possible dialect contact, a theme of analysis is the ongoing impact of language attitudes, particularly as a consequence of the activities of speakers constructing a linguistic distinctiveness from a contrasting group, à la Labov’s Martha’s Vineyard study of the in-group signifier of /aɪ/ centralization (Labov, 1972). Lesley Milroy also describes how cognitive

constraints towards the age of learning a second dialect at various ages occur and how different community networks have different transmission of linguistic forms (Milroy, 2002). The age of the child learning a new dialect of the same language is by far the most important factor in producing new target forms (Tagliamonte & Molfenter, 2007). From contact and interaction, dialect leveling can occur where the “eradication” of socially or locally marked variants in conditions of social or geographic mobility (Milroy, 2002). Leveling leads to greater linguistic homogeneity and a tendency for distinctive localized norms to dissipate. This is a “normalization” not a “standardization” in that community members are not vying to “standardize” their language. The acquisition of a highly localized dialect likely requires both transmission from parents who share the same localized forms and a close-knit community network structure. If this community network loosens as members become more mobile, leveling and simplification take place (Milroy, 2002). Rather than the described process of transmission, a generational gap of diffusion can take place even if a parent-child transmission of phonological system occurs but a child’s peer group represents a contrast from that of the parents.

To take a case geographically close case to the present study, Roswell, Georgia has shown a shift in speech patterns exhibited generationally (Corrigan & Mearns, 2015). Roswell itself has become less of a suburb of Atlanta and more independent “Edge City.” Studies on speech of Roswell found that on a vowel by vowel basis, younger speakers had shown a “leveling” of features and a strong generational shift in pronunciation (Corrigan, & Mearns, 2015). Not every distinctive SAE feature of the younger speakers had been lost and the speakers themselves had shown variability. For these younger speakers living in the metropolitan Atlanta area of Roswell, we are seeing a shift away from the regionally distinctive features that their grandparents had used, such as the features of lacking rhoticity in unstressed vowels and the diphthongal pronunciation of “dog” as [æu] (Corrigan, & Mearns, 2016). Even something relatively straightforward as a lexical isogloss is still only an abstraction for the possibilities of hearing any given form. Results studied from isogloss in Iowa, being a state with supposed dialect boundaries, were deemed to be not statistically significant for various words representing either the Northern or Midland/Southern forms (Davis & Houck, 1995).

In the collection *Regionalism in the Age of Globalism*, Polk's excerpt on the American South of present day provides a necessary insight on the region of the country that will be studied here. He describes Southerners largely as adherents towards regional differentiation based on an ideology that valorize the "the rural, the down home." (Hönnighausen, et al, 2005) Polk stresses the Southern understanding of "rootedness" through family and shared values is not immobility but simply reverence. He speculates that the affinity for the locality was driven by higher historical rates of poverty in the South and linking virtue to the reverence for one's family and region in order to counterbalance a lack of possible mobility. In this same volume, Salmons' "The Role of Community and Regional Structure in Language Shift" theorizes how language patterns of local communities can change, using the case of the largescale shift away from the German language in Wisconsin throughout the first half of the 20th century (Hönnighausen, et al, 2005). Although the current study does not seek to document language shift but rather the possible attrition of dialect features, these developments are nonetheless analogous in that past linguistic features are in the process of shift. The U.S. has seen a dramatic restructuring of community life toward increasingly non-local, and, as he defined, away from a horizontal (local) social organization to the vertical (regional or national), with verticalization leading to language shift (Hönnighausen, et al, 2005). These processes apply to the economic, religious, and educational. Churches, schools, and business all became more dependent on a wider, national scale that affected the viability of a minority language due to its marginalization. Explicitly, "nonlocal control typically forces a switch" (Hönnighausen, et al, 2005, p.136). Policy decisions made far outside a local community help determine their fates. The process also diminishes social cohesion. As Salmons (Hönnighausen, et al, p.144) notes, "Language, a critical piece of how social identity is constructed and transmitted, provides here a clear picture of one aspect of homogenization in modern society." Verticalization processes became increasingly global as the 20th century progressed. Even in non-urban communities such as the one surveyed in the present study, the schools, churches, and businesses may rely on national or international mandates that can affect the most humble of communities.

For a comparative study such as the present study's Rapid and Anonymous Surveys and passage

reading, it is important to note the viability of what exactly can be inferred from a properly orchestrated linguistic methodology. Past benchmarks of speech production can be used to make general observations, under the assumption of individual vernaculars remaining relatively stable (Bailey & Tillery, 2003). Labov, Bailey, Wilke, and Tillery have used the Linguistic Atlas Project for diachronic about dialect (2003). This study makes use of LAP as an existing real time benchmark and compares this data to the more informal method represented by the RAS.

3.2 Social Effects on Speech Variants

With increasing social and geographical mobility in North America, region has become less significant than it once was in accounting for variation (Beane & Johnstone, 1997). Relatively public speech will highlight linguistic choices, expressive of self-image through the various forms of a linguistic repertoire. Beane and Johnstone state explicitly “public speech is best for showing the ways in which people’s choices are self-expressive” (Beane & Johnstone, 1997, p.223). Hearers understand a speaker’s pragmatic strategies in a public-facing environment regarding various linguistic registers. Naturally, some people’s self-images are relatively consistent while others’ are relatively flexible (1997).

This study looks not only at speech forms but how these speech forms serve as an expression of identity. The Rapid and Anonymous Survey method is administered in a public domain with the respondents expressing themselves without the knowledge of participation in a study. These expressions can have association with local speech forms. Cultural identity is postulated as a speaker's orientation to the local as well as larger regional cultures, correlated with vernacular variants (Hazen, 2002). The speech-community approach identifies social factors that divide a speech community: age, sex, ethnicity, and social class have all been widely studied aspects on speech variants. However, a speaker’s affiliation with particular groups and its effect on speech is not a well-understood connection. This does not only refer to familial roots or the length of time in an area; affiliation with groups large and small will also

affect speech patterns. An example includes a community of African-Americans in a racially diverse North Carolina community with steady rate of copula absence, even when controlling for social class and residential neighborhood (Hazen, 2002). Likewise, cultural identity can be a process of distancing oneself from various groups and having speech reflect that. The categories constituting cultural identity are themselves fluid (Hazen, 2002). A follow-up of Labov's Martha's Vineyard study showed how the socio-economic structure of the allegiances and the traditional way of life have had an effect of the rate of /ai/ centralization decreasing from what it was decades earlier (Blake and Josey, 2003). Population flux, changing attitudes, a stronger reliance on tourism, and fishing conglomerates replacing independent fishing communities have all lead to a decrease in the usage of /ai/ centralization (2003).

A standard dialect is one spoken by educated members of society and used in writing and in the media. Standard forms are of higher prestige and of higher perceived competence but do not evoke the same level of personal warmth and trustworthiness as do nonstandard forms (Edwards & Jacobsen, 1987). These notions of prestige and friendliness may be in competition for the context of education as the standard form is rated favorably, especially by the middle class, for status, prestige, and competence. These understandings exist alongside the findings that nonstandard variants contribute to group bonding and solidarity. In Edwards and Jacobsen's study, a non-standard Nova Scotia dialect was rated as higher in "Personal Integrity" but lower in "Vocabulary" and "University Success". They went on to state that a regional standard for a community can have both high competence judgments without being downgraded for integrity.

Labov cited the widespread evidence that women use prestige forms at a higher rate cross-linguistically and cross-culturally (Labov, 2001). This is especially true for middle class women. Gordon (1997) offers the proposal that it is not a matter of self-promotion but a matter of avoidance. The use of prestige forms is not about appearing "better" but an aversion to any negative stereotypes and these prestige forms are more likely in a situation where one is not familiar with the interlocutors. Gordon's study used a survey of New Zealand English to understand how lower prestige accents were found to be evaluated to as relating to a lower income, occupation, and intelligence (Gordon, 1997).

Language is very much a social phenomenon. Social networks are indeed multifaceted. New habits emerge in the form of a complex system of unpredictable interactions in every group, in every place (Kretzschmar, 2015). What the present study describes is a social emergence in the form of an attrition of regional speech features via interactions and an influx of new residents and wealth divides. The preceding chapters show that at least some areas in the Oconee community, the ones that skew wealthier, have seen a rise and establishment of speech features that are not of the Southern American variety. This emergence represents the process of reinforcement through interaction. Large-scale vowel shifts like the Northern Cities chain shift and the Southern Shift can and have been accompanied by smaller scale changes in the local and social settings. The language usage described here constitutes a micro-level perspective, representative of a narrower, more focused regional pattern of linguistic behavior.

3.3 Social Networks in Language Variation

The present study discusses the notion of social networks to explain for linguistic variation in the selected communities. Loose-knit network ties facilitate linguistic innovations (Milroy & Milroy, 1992). Granovetter explains the favorability of weak network tie spread explicitly: “whatever is to be diffused can reach a larger number of people, and traverse greater social distance (i.e., path length), when passed through weak ties rather than strong” (Granovetter, 1973, p.1366). Milroy and Milroy suggest that a social class model based on conflict, division, and inequality best accounts for many of the patterns of language variation uncovered by the detailed work of sociolinguists.

The social value towards the ideal of mobility would be a main cause for abandonment of a vernacular code (Milroy & Milroy, 1992). The most dense networks would require that everyone know everyone else and, moreover that, the members of the network would know each other in a range of different capacities. Consequently, a strong sense of local or ethnic identity help maintain localized cultural and linguistic norms (Milroy & Milroy, 1992). An outside linguistic innovation will be associated

with the weakening of such a structure. Highly educated and mobile individuals are typically more able to be selective in their choice of contacts than the embedded localized solidarity network. Those who approximate least closely to the norms of their local community are frequently found in middle class areas of cities (Milroy & Milroy, 1992). Middle class groups are generally connected internally with a higher proportion of weak ties than working class groups.

Milroy and Milroy set their model of sociolinguistic structure with three tiers of a person's "life-mode" along with two tiers of community-based ties. "Life-mode 1" is based typically around a family-owned business. This life-mode heavily favors strong, dense network ties. "Life-mode 2" is an ordinary wage earner and "Life-mode 3" is a wage earner in a professional or managerial capacity with a high level of skill. The latter tends to favor non-community based, mainly weak social ties. The tendency for "Life-mode 2", to group with either mainly strong or mainly weak network ties is dependent on whether the worker is relatively poor (predominantly strong) or relatively affluent (predominantly weak). As noted, the speech community for the present study represents affluent areas as well as more difficult economic situations. The more affluent wage earners may not be in a professional skill trade but are still expected to diverge away from the local community and move towards greater social and geographic mobility. This model explicitly links the social variables of socioeconomic class and social network.

Murray has taken issue with how sociolinguists have treated the social network of individuals as a categorical variable. For the Milroys' Belfast data, sex of the speaker explains more variance of vernacular uses than does one's "network" (Murray, 1993). Murray suggests that those lacking local ties may be isolated and "socially incompetent". He puts forth the claim that ethnicity and class differences will better explain variation and that weak tie transfer is not the main proponent of linguistic innovation. He cites this lack of empirical data demonstrating that linguistic innovation comes from weak ties rather than strong ones. One example of the type of effect described by Milroy and Milroy concerns speakers of AAVE. Labov affirmed that AAVE has diverged rather converged to a more generalizable mainstream English while featuring many linguistically innovative features coming from strong ties within a community (Murray, 1993). In sum, Murray's criticism of the social network approach and its application

in explaining linguistic variation is healthy in its skepticism but unreasonable in its expectation of applicability for each network. He does, however, remain frustrated with the vagueness of application of network theory, ending his work by stating that “Network remains a metaphor, a suggestion, a so-far unfulfilled promise of explanation” (Murray, 1993, p172).

The summaries provided here, from the examples of local representations of language use to the broad application of social theories, are all intended to aid in explaining language addressed in this project. Studying network types provides an explanation for the propagation of speech forms as well as a manner of exposure to new variants. The proceeding chapters will apply these approaches and findings in order to understand the aforementioned speech community in northeastern Georgia.

Chapter 4

Methodology

The primary method of data collection of speech for this study was through Rapid and Anonymous Surveys (RAS). The objective of this study was to cover the 1,979 sq. miles represented by this community, and using RAS was a practical way to do so. Labov states that The RAS technique “has proved quite effective in giving a rapid profile of a single variable in a new area”. (Labov, 1981, p. 50). In order to get more of an equitable comparison of the relevant speech data, I chose to solicit data in grocery stores, a feature of each of the local communities surveyed. The two most common stores in this study (Kroger and Publix) are also the two most common grocery stores in the state of Georgia¹¹.¹² Wal-Mart Supercenters in this area were excluded due to their lack of comparability in terms of store layout and a far broader variety of items available to purchase. Grocery stores themselves vary in size, product offerings, and technology but they all roughly offer the same types of products purchased by the local community. Although most members of these local communities frequent grocery stores, it turned out to be difficult to gather RAS data from the customer population, and, thus, most of the RAS data was collected from employees rather than customers. This data therefore is not a truly representative sample of the entire population. More white-collar employees of management were specifically targeted and for the survey, as they were able to be found throughout the store at any given time. Hence, the sample was not entirely made of hourly workers. However, not every speaker had their position noted in the study and thus the position of each participant will not be a factor analyzed for realization of speech forms.

¹¹ <http://corporate.publix.com/about-publix/company-overview/facts-figures>

¹² <https://www.hoursguide.com/kroger/georgia>

The sample covered estimated ages ranging from teenagers to those 60 and above. Each participant had their age estimated to within a five year window. The average estimated age for the sample was 37.2 years old. Males made up 53% percent of the sample compared to 47% for women. The sample was a skewed 87% for Non-Hispanic Whites but, as Figure 2.1 shows, this speech community is, more generally, a predominantly white community. Even though this sample represents a subset of a population, the makeup does have mix of blue-collar and white-collar, older and younger, and only slightly over represents Non-Hispanic Whites.

As Labov demonstrated in his study of New York City Department Stores, relevant speech stratifications can be made even if the data is gathered from a subset consisting of employees (Labov, 2009). Like Labov's study, I argue that the participants are a reflection of the cultural realities of the communities as to be exhibited in their speech, tied to the stratification of each store. The employees surveyed range from minimum wage workers for some stores to salaried managers. A division was observed in that it was men who mostly held positions stocking the shelves and women were more likely to be cashiers. There did not appear to be any obvious bias regarding the hiring of employees based on production of Southern speech forms, though all positions do require interacting with customers in some way.

The supplemental data for this study was gathered through passage reading from willing participants. Having recorded speech data allows for a far more comprehensive analysis of speech forms where the method of RAS is by definition limited in its scope. The passage reading was brief, with an approximately two minutes recorded per participant. The readers all consented to participate for this study and were offered \$5 for their time. The participation of these residents allowed this study to have additional data that could be analyzed acoustically in order to gain more knowledge on speech forms in this area. All participants were required to be over 18 and to be a resident of one of the six counties surveyed. As there were far fewer willing participants for the passage reading, the bulk of the analysis and discussion will concentrate on the Rapid and Anonymous Survey findings for this speech community.

Both methods aim to establish whether differences exist in the observed speech patterns for

Oconee County compared to the other five counties surveyed. As Oconee County is more economically mobile community, the expectation is that the localized speech variants of Southern American English will be less prevalent. The passage reading data allows for the analysis of additional features beyond monophthongization and the “pin-pen” merger of SAE, with the same expectation of more SAE features to be observed in the non-Oconee speakers. The higher number of participants of the RAS component of the study allowed for a robust analysis regarding the stores’ attributes and location for additional factors to explain the prevalence of regional speech variants. Not only do the non-regional speech variants of [aɪ] and [ɛn] expect to be found more often in Oconee, these two variants were also expected to be observed at a higher rate in any grocery store exhibiting factors that display attributes of non-regional affiliations, such as the sale of freshly prepared sushi and customizable six-packs of microbrew beer.

Chapter 5

Results

5.1 Rapid and Anonymous Surveys

As previously stated, the two vowel variants emblematic of a Southern American English vowel space to be studied are the rates of the SAE variants /aɪ/ as [a:] and /ɛn/ as [ɪn]. In order to get as many tokens as possible, I wanted these to be easily solicitable. Thankfully, numbers are both easy to elicit and contain the desired phonetic environments, with “five” and “nine” representing contexts of monophthongization and “ten” providing an ideal situation for the ‘pin-pen’ merger. Additionally, the word “aisle” is ubiquitous with a grocery store context. If I were to ask where an item is located that I knew to be on “aisle five” and then asked the participant to repeat themselves, I would be able to elicit four tokens for the same variable /aɪ/. To that end, if I did the same for “aisle ten”, then I would get four total tokens as well, but with two for monophthongization and two for the ‘pin-pen’ merger. Other words documented for the study tracked the rate of monophthongization for “right”, “rice”, “fine”, and “time”. Early attempts to avoid priming the participants were not successful, as I initially did not want to say the word “find”, containing the token /aɪ/, and instead asked “Do you know where the X is?” This method typically garnered the response of the employee physically walking to the correct aisle rather and showing me personally rather than telling me where it is and exhibiting the speech forms. I reconciled this by always stating “Do you know where I could find the X?”.

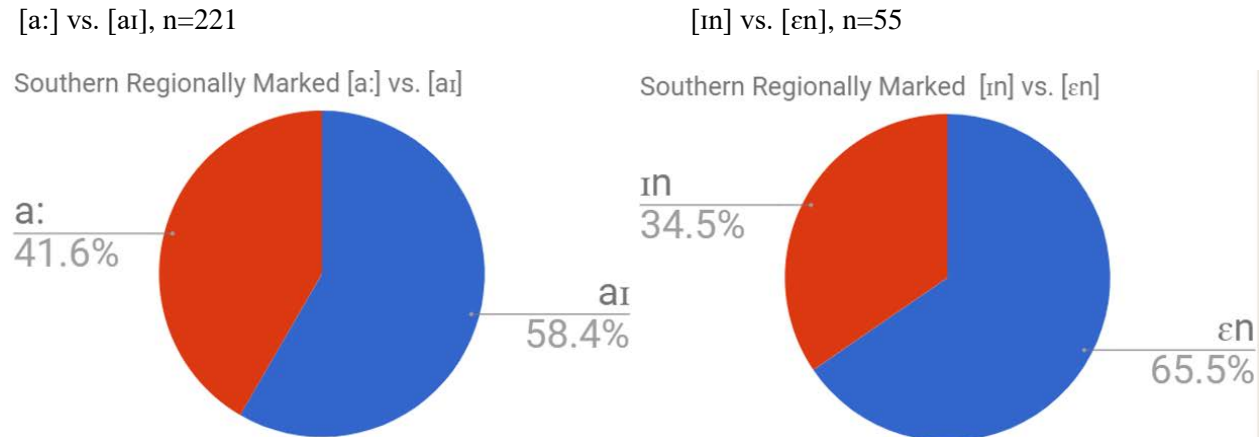
The domain in which the participant responds is a public one. It is important that this data represents how each participant presents themselves to a stranger, comprising their own externalizations

of how their speech forms shape their identities (Bean & Johnstone, 1997). The ideas of a “linguistic market index” (how important it is in a person’s job to sound correct) and “symbolic index” (people’s values, attitudes, and social indexation) are very much present in this study. What is important is that, while this is technically a professional duty for these participants, it is a relatively “low-stakes” venture to provide directions to an item, though it is certainly not a “no stakes” venture where the participant’s speech register is not monitored at all. These forms of /aɪ/ as [a:] and /ɛn/ as [ɪn] index regionally affiliated speech and do serve as “markers” to semiotically indicate Southern speech. Allbritten noted in her dissertation concerning speech perception that “a college student in/from South Alabama thought that others from Texas sounded extremely “country” when she first met them due to their prevoiceless (aɪ) monophthongization” (Allbritten, 2011, p.225). Forms such as monophthongization are indeed forms that display indexical meaning.

In the RAS portion of this study, the non-regional forms were more common than the Southern-marked features. Most speakers produced a glide realization for /aɪ/ and most did not merge /ɛn/ into [ɪn]. The participants consisted of 125 different speakers for a total of 276 tokens. It is noticeable that the monophthongization variable is far more common, 221 to 55, due to it applying to multiple words – as in *aisle five/nine*. Also, the solicitation of the word “ten” proved to be more difficult because most grocery stores surveyed only have only frozen foods on “aisle ten” in the middle of the store, which makes asking where the frozen food section a curious request. Most of the solicitations for the “pin-pen” variable were gathered by asking when the store closed, to which the most common answer was ten o’clock.

The more standard, non-regional forms are the more common forms attested in this survey, in what is a more rural socially and culturally conservative speech community. Below, in Figure 5.1, we see the ratio is not particularly high for the rate of Southern realizations. But we shall see further than there are some patterns that emerge from these data.

Figure 5.1 – Overall Distribution of All Participants



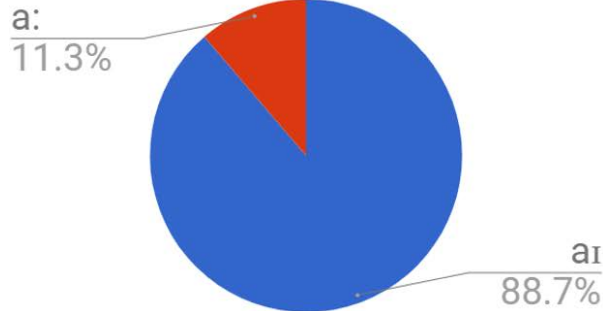
These two charts have similar ratios. Considering the findings for the sample’s overall distribution, it can be inferred that these two emblematic vowel features are each realized at about the same rate in proportion to the other two non-regionally marked varieties. Monophthongization and the ‘pin-pen’ merger are distinct phonological processes but are connected by their social embedding (Allbritten, 2011). While the rate of Southern marked realizations will vary, as to be shown, but the rate of either the monophthong variant or the merged pre-nasal vowel will stay roughly in proportion of each other when dissecting the other variables in the study.

Oconee County, as discussed in the second chapter, is wealthier than its adjacent neighbors. Just as striking as the wealth divide is the contrast in Southern-marked realizations. Each pie chart below is affirmatively blue. Non-regionally marked forms now appear to be normal for this county, at least those found in the grocery stores sampled. The ‘pin-pen’ merger diagrammed does not reflect the same degree of distinction, or lack thereof, as that of monophthongization but this can partially be explained as the former’s smaller sample size. Coupled together, the realization of Southern-marked variables is only 14% to the 86% non-Southern marked. Oconee County is an explanatory variable with a strong enough indicator to infer that one type, the non-regionally marked, is dominant for this area. Through population influx over several decades, with rates of wealthy residences, a stable and emergent pattern appears to have been established.

Figure 5.2 – Oconee County only

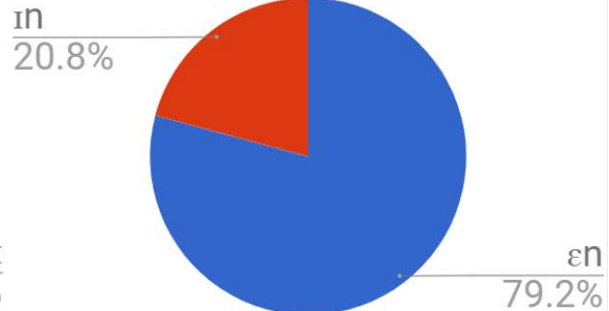
[a:] vs. [aɪ], n=62

Southern Regionally Marked [a:] vs. [aɪ]



[ɪn] vs. [ɛn], n=24

Southern Regionally Marked [ɪn] vs. [ɛn]

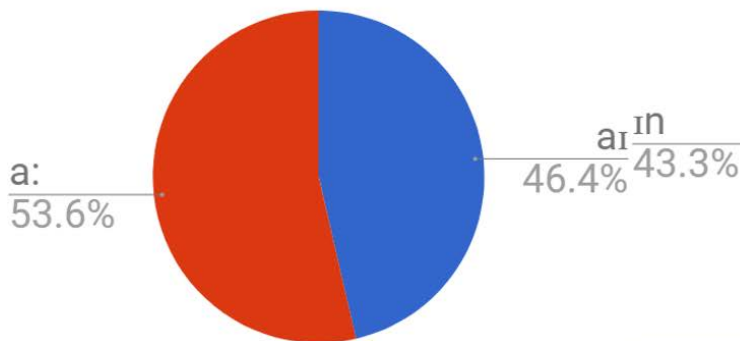


For the rest of this speech community, we see a different reality of speech forms. Rather than being skewed, the speech forms are closer to half and half. Rather than monophthongization being a sliver of a pie chart, it is a majority! The Figure below shows Southern realizations each be roughly half of all expected speech tokens. While Oconee’s rate was 13.9%, the five other counties in this speech community had a considerably higher Southern-marked rate of 52%. The probability of hearing Southern realizations of speech forms in these five counties is much less predictable.

Figure 5.3 – All Counties EXCEPT Oconee

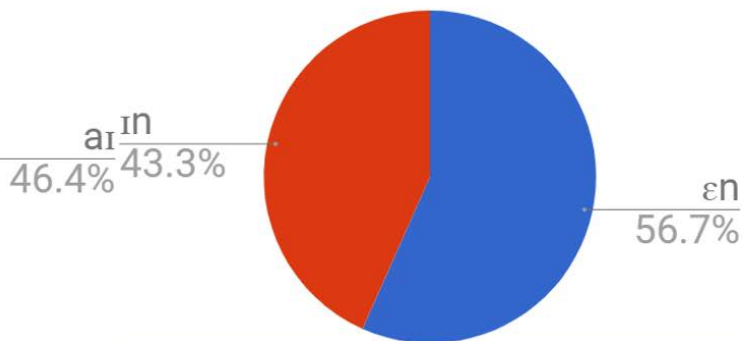
[a:] vs. [aɪ], n=166

Non-Oconee Southern Regionally Marked [a:] vs. [aɪ],



[ɪn] vs. [ɛn], n=30

Non-Oconee Southern Regionally Marked [ɪn] vs. [ɛn]



The grocery stores that these surveys took place in are classifiable in their characteristics. Anyone can check the price of store-brand corn flakes for each store, or the number of checkout lines, or the price of the most expensive gallon of milk. One especially small store in Madison County had a sign that read “We do not take non-local checks”. None of the others had such a sign. Most stores had kiosks for self-

checkout. Only a few did not. Binary variables like these, covering each of the 14 different grocery stores in these six counties, are common. Thus, three culturally significant characteristics were chosen examples of how these stores cater or appeal to a specific clientele. These characteristics include the following:

- 1) Does the grocery store play country music?
- 2) Does a grocery store prepare sushi rolls in the seafood section?
- 3) Do they allow customers to create their own six pack with custom microbrew beers?

Like Labov's trendsetting study of New York City department stores, the characteristics of each establishment within the community are meant to exhibit contrasts. My first characteristic is entirely mutually exclusive with respect to the other two. The second and third variables overlap extensively to the point where there is only one store, the Publix in Jackson County, which has custom microbrew six-packs but no sushi. The latter two items were chosen because of an assumed lack of connection to the American South. Sushi rolls are a product of Japan. Beer Microbreweries are underrepresented in the American South; although Georgia is 8th in population rank, it is 40th in Breweries per capita¹³. Microbrews and sushi are not historically a part of the American South's culture but arguably Country Music is. Cultural insignia and its associations with speech forms has been observed pertaining to its pairing with a more rural lifestyle and sensibility:

"Some students in Texas high schools and universities adopt Southern-sounding ways of talking (together with other markers of ruralness such as stylized cowboy dress, country music and dancing, and pick-up trucks) to express their allegiance to traditional 'small-town' values." (Johnstone, 1999, p.511)

Associations of speech patterns and 'ruralness' towards country music is something that can be explored in this community. In the inverse, a disassociation, can be inferred through non-local cultural insignia such as sushi. Thus, these stores were categorized into three groups on the basis of expected clientele: Group 1 - Having country music present. Group 2 – Having both sushi and custom microbrew six-packs. Finally, Group 3 is all other stores, most of which display none of the three binary variables. These stores' group distributions have 37 speakers present for the "country music" group, 40 speakers for "sushi", and

¹³ <https://www.thrillist.com/news/nation/most-craft-breweries-by-state-united-states>

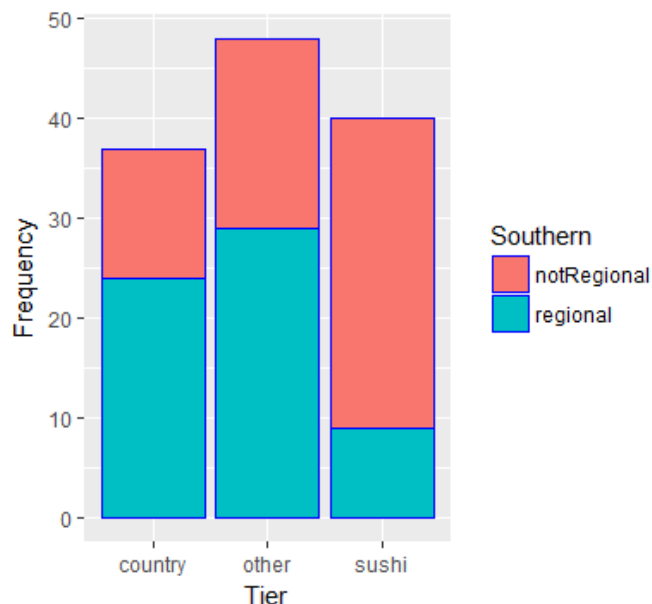
48 speakers for all others comprising the “other”.

Table 5.1 Speech Realizations per Store

Groups	[a:]	[aɪ]	[ɪn]	[ɛn]
Group 1 – Country Music	31 (53.4%)	27 (46.7%)	6 (46.2%)	7 (53.8%)
Group 2 – Sushi, custom microbrews	17 (22%)	60 (78%)	5 (21.7%)	18 (78.3%)
Group 3 – Other	45 (54.2%)	38 (45.8%)	8 (47.1%)	9 (52.9%)

Groups 1 and 3 closely resemble each other. The stores playing country music actually have a marginally lower rate of Southern realizations of [a:] or [ɪn] at 51% versus 53% for the stores in the “other”. Those samples can be categorized as effectively the same. Group 2, “Sushi”, only consists of two stores in the area that meet the criteria. The relatively large number of tokens gathered here show that these are large stores with large numbers of employees, many of whom are commonly found throughout the store and are willing to offer assistance on where items can be found. This group, which was attested only in Oconee and Jackson, has a distinctive rate of 78% diphthongization, outpacing the other two groups who display low rates of these features. Unlike Figure 4.2, Group 2 encapsulates more than the one county of Oconee, an educated and wealthy county. Group 2 has a similar rate as Oconee as a whole but includes the parts of Jackson County that will regularly encounter a non-regionally marked accent. In this domain, non-regionally marked forms for both variables were realized at a rate of 78%.

Figure 5.4 - Distribution of Features across Store Groups per Speaker



The Figure above illustrates clearly how the stores containing sushi behave differently than their counterparts. No group is particularly over- or underrepresented in terms of the amount of participants. The most common group lacked both sushi and country music. As with Labov’s data on phonological variants in department stores, one store displayed skewed data. In Labov’s case it was the department store Klein’s where only 9.7% of the targeted words exhibited rhoticity (Labov, 1972). While the “country” and “other” groups largely pattern together in their rate of attested SAE forms, the non-regional forms heard in the “sushi” group comprise a strong majority. It is important to note that the sale of sushi in the seafood department of the store is merely a proxy for socio-economic class displaying less cultural localism and more social and economic mobility represented by a relatively expensive and somewhat ‘exotic’ item freshly prepared for the clientele. For sushi to exist in a seafood department of a grocery store, a non-insignificant investment has to be made not only in the means to produce it but the real estate of all-important counter space for customers to purchase from. For a store to hire a required specialist for sushi preparation and acquire this specialized inventory, the store is making an assertion that this product will be successful even if there may be risk involved. In this non-urban community, it is no surprise that only two stores have this item available for sale.

Figure 5.5 – Map of Grocery Stores Surveyed, Marked by Store Grouping

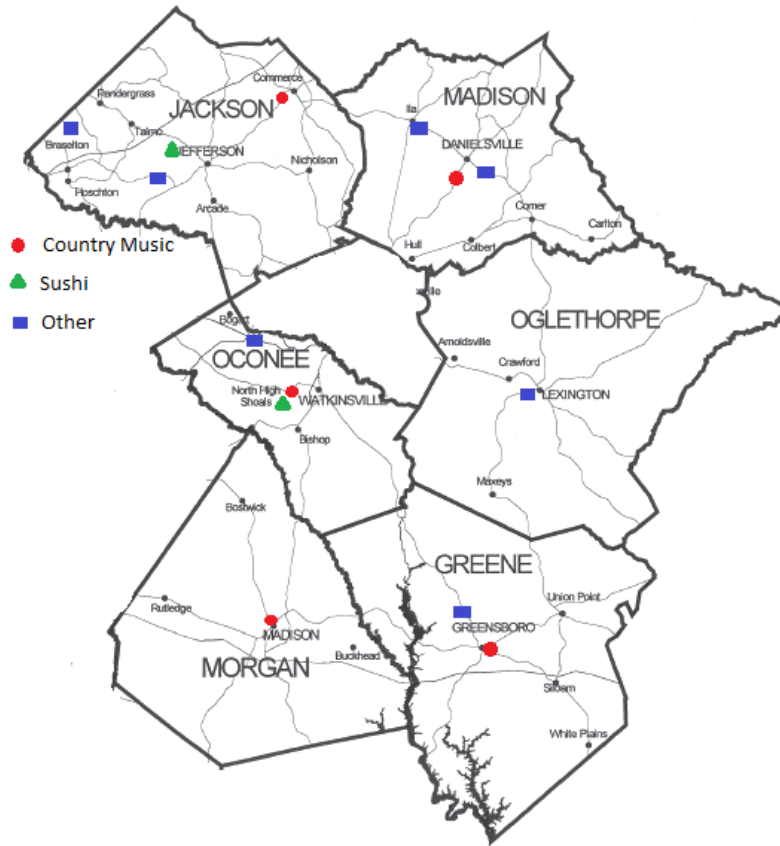


Figure 5.5 shows the dispersion of all grocery stores in this speech community. Morgan, Greene, Oglethorpe all have populations between 15 and 18 thousand people and predictably have only one or two grocery stores. Jackson, the most populous county, has the most stores. As exhibited, some of these stores are more towards the western part of the county, which is in proximity to the periphery of Metropolitan Atlanta. I argue that even if these stores are close to a metro area, the county they are in still voted nearly 80% for Donald Trump and is over 82% Non-Hispanic White, each far surpassing the Georgia averages of 53% and 51%. The same notion of distinctions of demographics can be said for Oconee’s stores being in proximity to Clarke County, a much more densely populated community. However, much like how Jackson is in proximity to an urban area but still having more of a demographic resemblance to the counties east of Atlanta, Oconee is demographically and politically distinct from adjacent the Clarke.

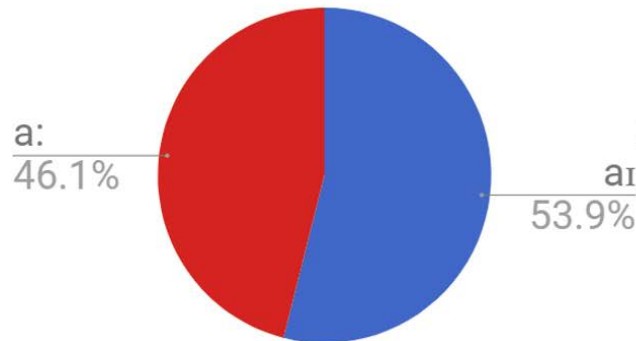
5.2 Age and Sex in Rapid and Anonymous Surveys

Do older people in this speech community use the regionally marked forms more often? Decades ago, when the Linguistic Atlas Project mapped part of this area, the sample had a higher rate of these two SAE features being realized. Much has changed due to population flux since then. The Sunbelt Migration of the U.S. had not yet widely occurred (Glaeser & Tobio, 2008). The LAP sample of speech gathered for this study showed that each speaker had Southern-marked represented in their speech a majority of the time. Figure 5.6 illustrates that even with those considered to be over 40 have an overall rate of Southern realizations below 50%.

Figure 5.6 - Aged 40 or Older

[a:] vs. [aɪ], n=76

Over 40 Southern Regionally Marked [a:] vs. [aɪ]



[ɪn] vs. [ɛn], n=23

Over 40 Southern Regionally Marked [ɪn] vs. [ɛn]

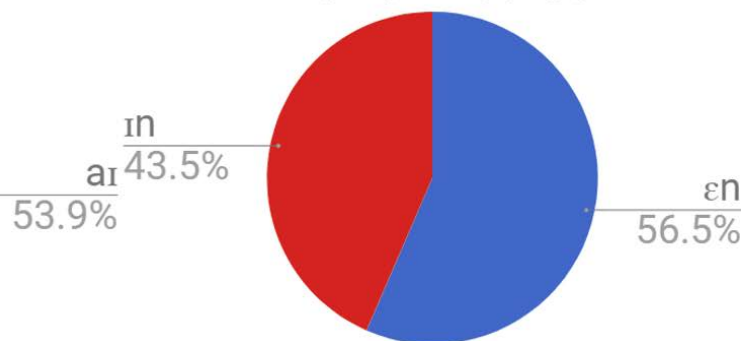
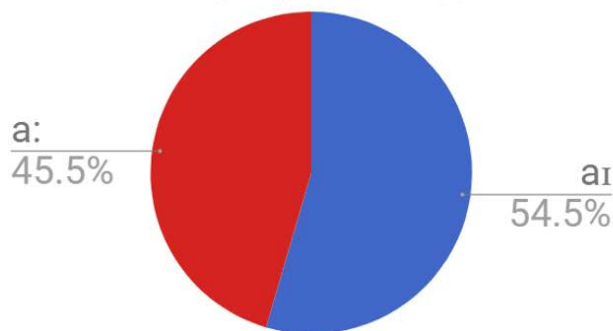


Figure 5.7 - Aged 39 or Younger

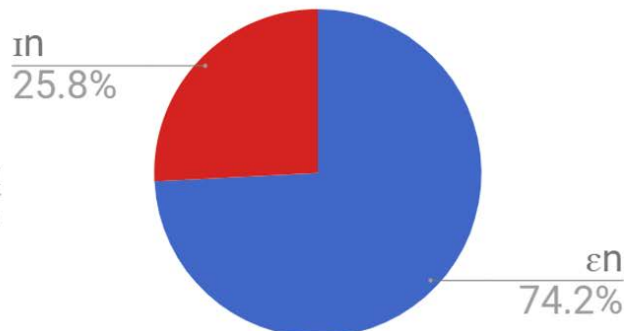
[a:] vs. [aɪ], n=143

Under 40 Southern Regionally Marked [a:] vs. [aɪ]



[ɪn] vs. [ɛn], n=31

Under 40 Southern Regionally Marked [ɪn] vs. [ɛn]



Young people display a lower overall rate of using the Southern forms. Their representation are also discernibly more present in this study, dependent as the study was on grocery store employees. In comparison of the sets of charts for these two age groups, the only noticeable difference is the rate of the “pin-pen” merger. The older cohort had the merger 44% of the time while the younger group used it in a distinct minority fashion at 26%. Their rate of monophthongization is remarkably similar, with those perceived to be age 40 or older having a higher rate by only the slimmest of margins. The monophthongization speech feature does not appear to have a systematic age distribution in this speech community. None of speakers in the younger group were alive when the LAP recordings for this area showed that all speakers sampled did exhibit the Southern forms under discussion. Today, both groups show a minority use of the two Southern forms but with largely similar patterns for their rate of /aɪ/ not showing glide weakening.

In a final subcategorization of the data, we can explore gender as an explanatory variable. Women tend to use prestige forms more commonly than men (Gordon, 1997). However, in this study, women used the marked Southern variant more often – the monophthongization is at 60%. Women did show a minority usage of the “pin-pen” merger, but in comparison to men at an 18% usage, women’s use of this form is far more prevalent in relation. This pattern of use cannot even be attributed to an “age-gap” between the two groups, as their estimated ages were nearly identical, as shown below. Given the limitation that each participant’s age was only estimated within a five-year window, the age estimation still shows a sample that was not biased in a single direction for either sex.

Table 5.2 - Women and Men

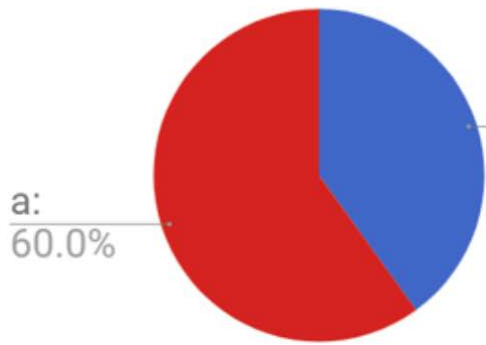
	[a:]	[aɪ]	[ɪn]	[ɛn]	Estimated Age, averaged
women	51 (60.0%)	34 (40.0%)	13 (46.4%)	15 (53.6%)	37.1
men	37 (29.1%)	90 (70.9%)	4 (18.2%)	18 (81.8%)	37.2

Figure 5.8 - Women

[a:] vs. [aɪ], n=85

[ɪn] vs. [ɛn], n=28

Women - Southern Regionally Marked [a:] vs. [aɪ]



Women - Southern Regionally Marked [ɪn] vs. [ɛn]

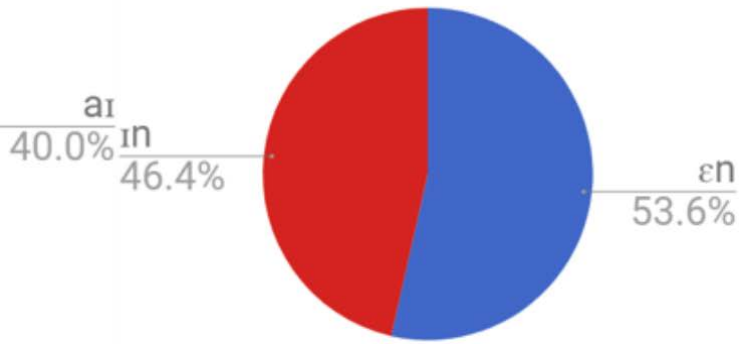
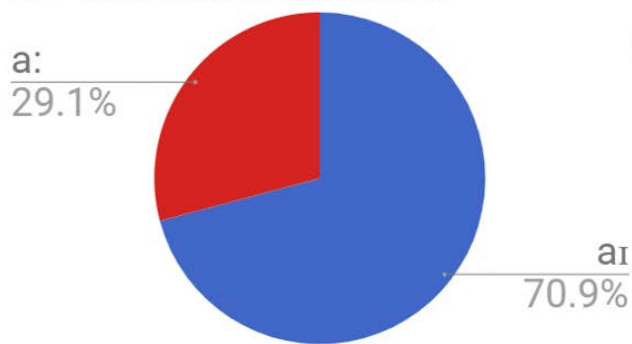


Figure 5.9 - Men

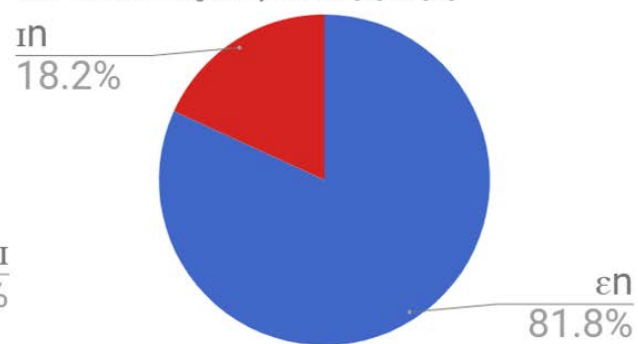
[a:] vs. [aɪ], n=127

Men - Southern Regionally Marked [a:] vs. [aɪ]



[ɪn] vs. [ɛn], n=22

Men - Southern Regionally Marked [ɪn] vs. [ɛn]



If women are cross-culturally more likely to use prestige forms more often, why do women use the marked Southern forms more? As the Figures above display clear divides between the two groups, the ratio for men shows a substantial amount of blue (i.e. non-Southern realizations). These findings suggest a significantly higher rate of Southern regional forms and can be analyzed as a manifestation of what Labov referred to as the “gender paradox”, in the particular observation that women conform more closely than men to sociolinguistic norms that are overtly prescribed, but conform less than men when they are not. (Labov, 2001). Women, across languages and cultures, tend to use prestige forms more often than men. They also “have been found to be in advance of most linguistic changes” (Labov, 200, p.267). In the present study, the drifting away from the Southern marked forms is being led by the men in this sample. This can be explained by what Labov later illustrates that the “gender paradox” is better understood as a conformity paradox, i.e. women conform when the speech norms are overtly prescribed and deviate more when the norms are not overtly described (Labov, 2001). Following the claims by

Labov, to hear the monophthongization of /ai/ is not associated with stigma in this culturally conservative community since women use it at a higher rate.

The previous chapter referenced sociolinguistic work on phonology, perception, identity, and social network transmission. The latter may explain the patterns for regionally marked speech features in this speech community. If the women in this study were found to have higher use a form that is tied to the regional form, as opposed to the non-regional form that is linked to an association with weaker social ties (Milroy & Milroy, 1992), then women in this community likely retain their regional marking through a rate of more dense local ties within the community. Milroy and Milroy assert: “Social network is generally sensitive to network structure, with choice of variant is more closely correlated with network structure for women than for men” (Milroy & Milroy, 1993, p.12). Women are more likely to have the quality and quantity of their network ties affect their speech variants. In addition to these inferences, we can examine further demographic information from 2016 related to household makeup, labor participation, and gender

Table 5.3. Demographics on Households and Labor

County or Region	Female Persons %	Labor Force % those aged 16+	Labor Force %, female, aged 16+	Persons per Household	Bachelor’s Degree %	Persons in poverty %
Oconee	50.9	65.7	59.4	2.84	46.6	6.8
Greene	51.5	48.7	45.2	2.45	24.7	21.2
Jackson	50.6	60.2	54.6	2.91	19.1	13
Madison	50.7	55.6	52.7	2.72	15.5	15.1
Morgan	51.7	59	53	2.67	20.8	14.3
Oglethorpe	50.7	56.6	52.6	2.55	16.6	16.9
Georgia	51.3	62.3	57.9	2.72	29.4	16
U.S.A.	50.8	63.1	58.3	2.64	30.3	12.7

The data was modeled into a logistic regression showing that sex was the most important factor, being statistically significant in these samples. The table above provides information on reasons as to why women used the local variants more often. This speech community is majority female and women have a lower rate of participation in the labor force than men. The variance for the six counties of this speech community shows that Oconee and Jackson counties compose the top two rates for Labor Force participation, Labor Force participation for women, and persons per household. Jackson and Oconee also are the only counties to beat the Georgia average for persons per household. In addition to these two counties having higher labor participation rates, including those for women, they have a greater probability of being a double income-earning household in the middle class. Those noted aspects increase the likelihood of having a greater amount of weak ties, as Milroy and Milroy state “Speakers whose ties to a localized network are weakest, who approximate least closely to the norms of their local community, and who are most exposed to external pressures are frequently found in the middle-class” (Milroy & Milroy, 1992, p.16). Weak ties are related to higher wages and higher rates of employment because these ties provide new information by taking people out of their immediate, localized networks (Montgomery, 1994). Jackson and Oconee, likely having the greater concentration of middle class residents in this area, were also the only two counties to have the “sushi” grocery stores, which incorporated the non-regional speech forms a vast majority of the time. While pockets of affluence exist in the speech community, all six of these counties are non-urban and all but Oconee County surpass the national average for the rate of those living in poverty. Oconee is also the only county to beat the state and national averages for those holding a bachelor’s degree, where higher education levels predict a higher amount of weak ties in social networks. A socially and geographically less mobile community will rely more on strong ties and will lack the opportunity to foster weak ties (Milroy & Milroy, 1992). As discussed in Chapter 3, German language shift in North America was an ongoing process, but women were more likely to retain their German monolingual status due to less employment opportunities and more restricted social networks (Wilkerson & Salmons, 2008). The strong local ties the studies speech community studied here may pertain to women as a necessity for those who are primary caretakers of children under five, do not hold a

bachelor's degree, and are heads of household. All three of these factors contribute to the Feminization of Poverty (Northrop, 1990). The possibility of women in this speech community relying on strong social ties out of necessity, coupled with the lack of ability to cultivate new weak ties may have led to these dense local ties affecting speech patterns so that the regional varieties are favored by women overall.

The explanatory likelihood of Southern features being present for a given speaker showed that the predictive value for ethnicity is almost nonexistent because nearly all participants were white, reflecting the makeup of the speech community. Age also shows more of a muted effect for one's age threshold linked to speech features. The "County" factor, being in Oconee or not, the sample did not show statistically significant explanatory power itself because divergences between the two groups were not distinct enough to meet that threshold, but the features did show a trend. The comparison between Figures 5.2 and 5.3 suggests a difference existing between the two groups where the Oconee speakers did have noticeably higher rates of both diphthong realization for /aɪ/ and a distinction between *pin* and *pen*. As per the title of this work, the initial inquiry was for one county, Oconee, and its possibility of noticeably higher incomes leading to a significantly different realization of speech forms and the study did find an observable difference in the sample via Rapid and Anonymous Surveys. The study did show two statistically significant results for variables within the speech community. The trinomial categories within "Group" note the rate of Sushi and country music, where both appear to have predictive powers, each in their own direction. As noted earlier, "country music" and "other" each had similar ratios of regionally marked variants but it was the "other" group that narrowly exceeded the ratio of the Southern forms. Sex of the participant not only was a significant factor, it is in fact the most significant factor. Women use the Southern regional forms more often than men in this area, suggesting regional affiliation markers such as monophthongization and the merger of the pre-nasal vowel are features more commonly used by women. As exhibited, the single most robust predictor of all the independent variables predicting the presence or absence of a feature was the sale of sushi predicting the absence of Southern features in this sample. The general take-home for these results is that if you see sushi rolls in this community, you should not expect to hear [a: ɪ. fa:v].

5.3 Acoustically Analyzed Speech Samples

Acoustically analyzed speech allows us to overcome some of the shortcomings of the Rapid and Anonymous Survey method, particularly in that it does not rely purely on impressionistic measurements. In the RAS method, discerning glide length of participant required sharp attention be paid to what amounts to a fraction of a second and assign a binary outcome to the production of a phoneme - /aɪ/ as either [a:] or [aɪ]. With audio recordings of passage reading, a vowel can be analyzed for its exact glide length, formant frequencies, duration, and pitch. This can be done manually or through a semi-automated process. Naturally, this method's drawback is the strength of the RAS method, as a sociolinguistic analysis of speech forms within a community calls for naturalistic data on how people actually talk. However, an observer has the ability to affect the participant to give unnaturalistic speech data, where the only aim was to document naturalistic speech (Labov, 1972). Even as the recording of a passage is not entirely replicable and relatable to conversational speech, this method documents precise measurements on speech data in order get a better understanding of speech forms than simply that which is impressionistic.

Participants were recruited in public places (stores and parks) across the speech community with myself holding a sign offering "\$5 for 2 minutes" in a research endeavor. A total of 12 speakers agreed to participate in this recorded portion of study, with each signing a release form as well as my promise of anonymity. In an attempt to attract as many possible participants, I used a passage that was relatively short. A short passage resulted in fewer tokens to be analyzed, but a compromise was made for the sake of participant recruitment. I chose Abraham Lincoln's "The Gettysburg Address" because it is short, contains a range of vowel phonemes, and would not be subject to the possible imitation of the original orator of this speech. Speakers may have at least passing familiarity with its contents, aiding in its readability. If any speaker had any verbal mishaps for this 150 year old passage, I either edited out the

miscue or updated the transcription to reflect what the participant had produced¹⁴. The device used for each recording was a ZOOM h4n Handy Recorder and microphone. Each .WAV recording was saved only as the participant's county of residence and their order of recording in order for anonymity. Their audio file was uploaded to DARLA Semi-Automated Alignment and Extraction¹⁵ for analysis with the file name under the naming convention of "Oconee2.wav", "Jackson1.wav", etc. Each audio file was uploaded along with the participant's edited transcription of The Gettysburg Address. The data from DARLA gave the formant measurements for all stressed vowels as well as a vowel plot of the F1 and F2 for both monophthong and diphthong vowels. This analysis using vowel extraction allowed for the intricate acoustic measurement of vowel qualities.

The RAS data relied heavily on the /aɪ/ monophthongization to be a marker for an emblematic feature of SAE vowel space. This SAE phoneme is not only emblematic but it is even more consequential as an instigator of the Southern Shift Vowel movement (Labov, et al, 2006). This monophthong also becomes fronted, causing the various front vowels the ability to either raise or lower, as shown below in Figure 5.10. As the front vowels shift, the back vowels /u/ and /o/ move forward. These two vowels' fronting process are well documented and consistent for both women and men (Clopper et al, 2005). A dispersion approach attests that vowels intend to repel one another in order to achieve maximal diffusion through the available space. Typological analyses of cross-linguistic vowel phoneme inventory show that maximum dispersion is not the reality for language production (Hall, 2011). Vowels may not have distinct targets for maximum distinction but rather sets of potentially contrasting forms. The SAE vowels themselves, as shown below, have a range of movement with possible overlap but still remain contrastive.

¹⁴ The most common error was pronouncing 'consecrate' as 'concentrate'

¹⁵ <http://darla.dartmouth.edu/semi>

Figure 5.10 Front Vowels in Southern Shift¹⁶

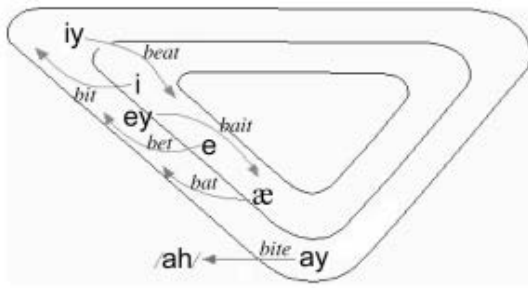
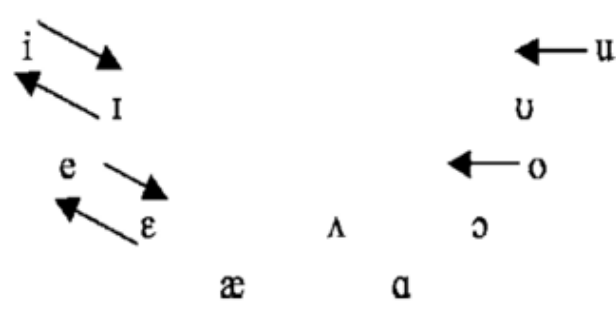


Figure 5.11 All Vowels in the Southern Shift¹⁷



Having the vowel formants for all stressed vowels allows for precise measurements of phonological features for the participants. Below, in Figures 5.12 and 5.13, vowel plots for each set of either Oconee residents or Non-Oconee residents are given, showing a range of monophthongs and diphthongs. As exhibited in the exemplary Figures 5.10 and 5.11 above, /ɛ/ and /e/ are in ‘near-merger’ status. After /a/ monophthongization, this merger of /ɛ/ and /e/, indicates Stage 2 of the Southern Vowel Shift (Labov et al. 2006, p.127). The vowel formants and plots gathered allow testing whether this near merger is present for the participants. The distance between the average /ɛ/ and average /e/ was calculated using the Euclidian distance between the plotted points¹⁸, which is an effective way of measuring the vowels in an acoustic study (Lee, et al, 2014). If a speaker had identical pairs of average F1 and F2 for both /ɛ/ and /e/, their distance, of course, would be zero. No speaker had a total merger, but Madison1, a male speaker, had the closest distance between the two averaged vowels with a distance of 0.1414. The two speakers with the most distinctive sets for /ɛ/ and /e/ were Oconee2 at 8.3006 and Jackson4 at 8.5659. Both speakers were women.

Figure 5.12 – Vowel Plots for Oconee County Speakers

¹⁶ Schematic originally from Labov et al, 2006

¹⁷ Schematic originally from Clopper et al, 2005

¹⁸ $d = \sqrt{(x^2 - x1)^2 - (y^2 - y1)^2}$

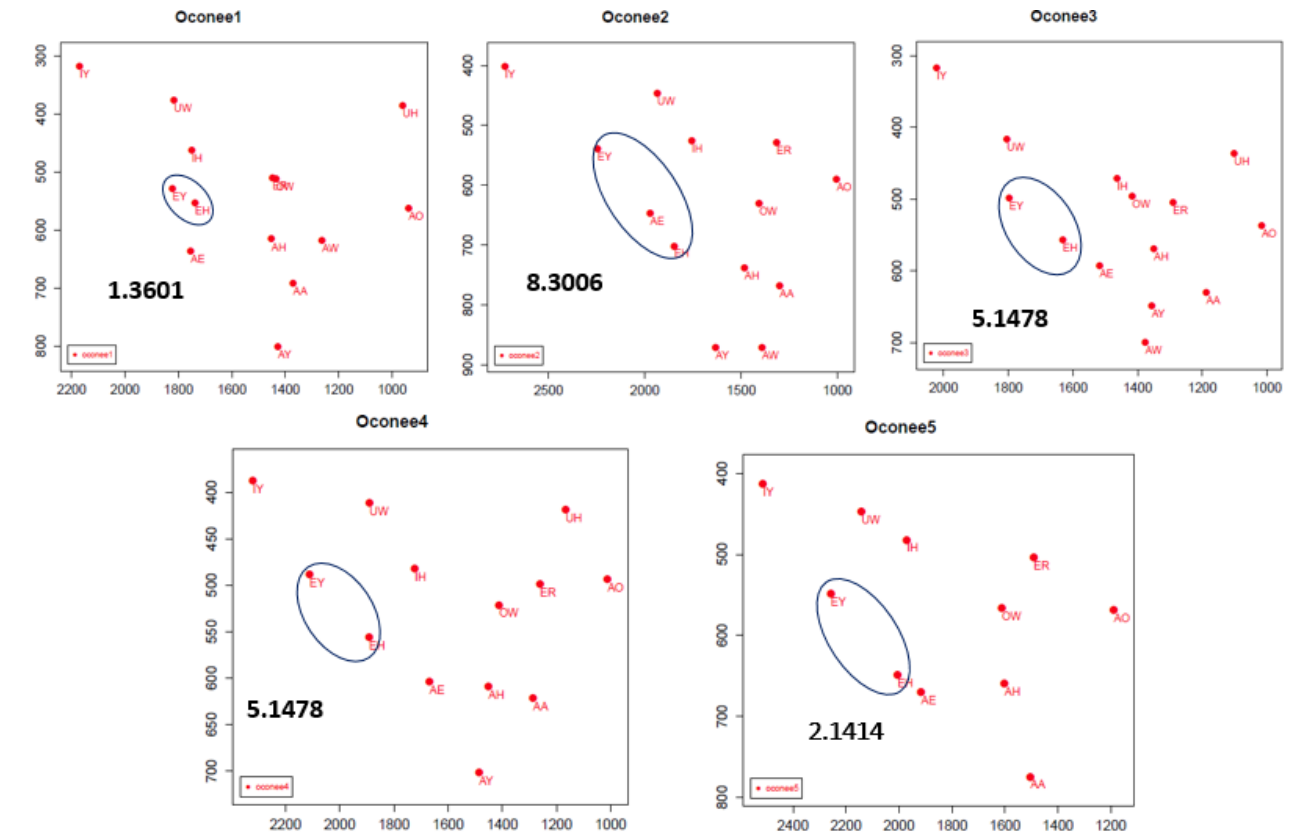
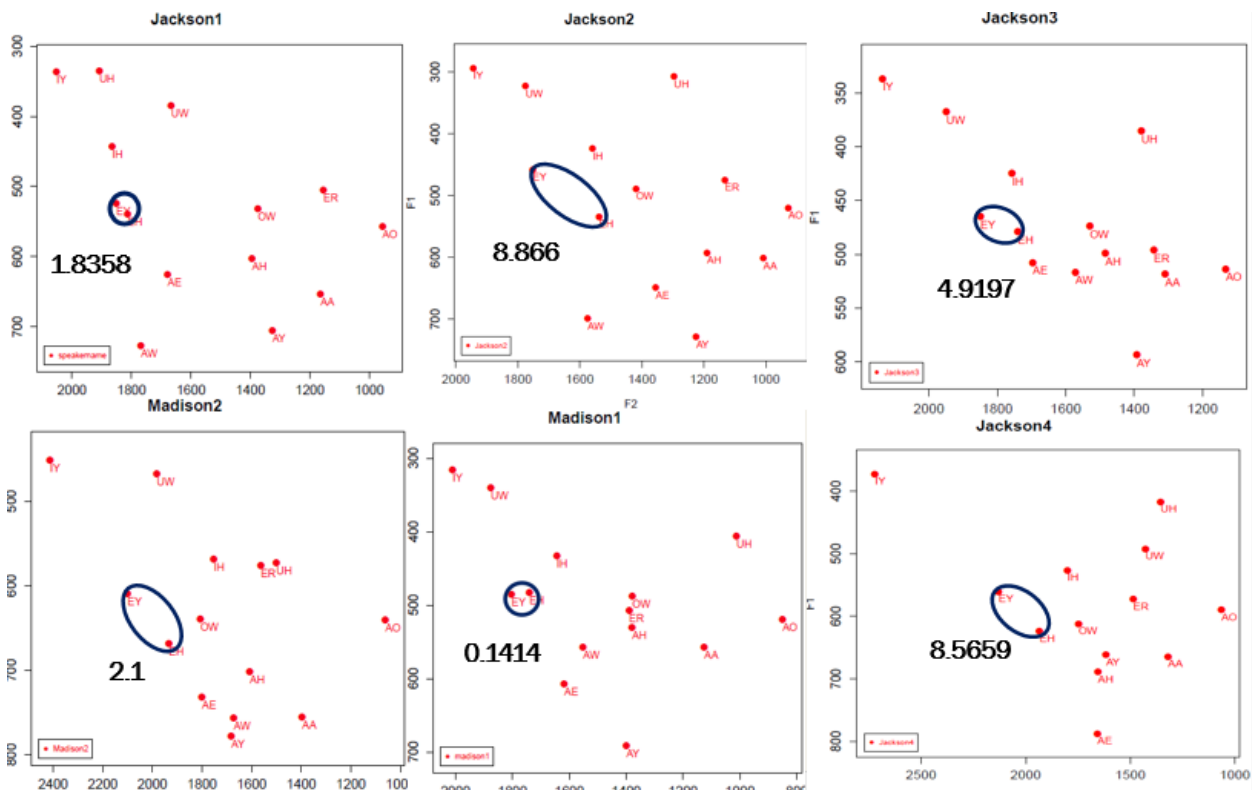
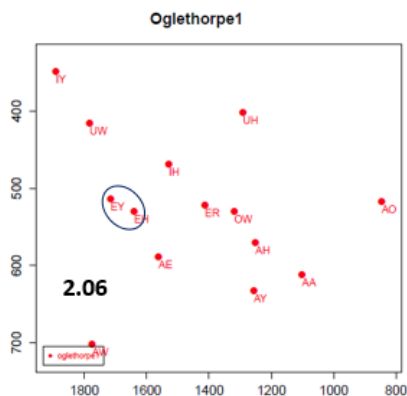


Figure 5.13 – Vowel Plots for Non-Oconee County Speakers





As for the /ɛ/and /e/ distinction between the two sets of Oconee residents and Non-Oconee residents, the Non-Oconee set did show more evidence of a merger in terms of the median. The Non-Oconee residents had a 2.10 median versus the Oconee¹⁹ set's 5.14. The non-Oconee average was 4.069 while Oconee's was 4.419. The vowel charts allow for an illustrative account for the relation of each vowel to another and the /ɛ/and /e/ proximity was shown to be closer for the Non-Oconee sample with the aid of formant measurement and Euclidian distance formulated between the two points.

Although, Figures 5.12 and 5.13 are illustrative, we can narrow in on specific formants, such as the average F2, measuring frontedness/backness. As established in Figure 5.11, both /u/ and /o/ are expected to be fronted as a feature of SAE. By measuring each speaker's F2 for the average production of these two vowels, we can determine how much of an effect 'The Southern Shift' has.

Table 5.4 - /u/ and /o/ Fronting for Oconee Speakers

Participant	Average /o/ F2	Average /u/ F2	Average /u/ F2 at 35%	Average /u/ F2 at 80%
Oconee1 - Male	1407.49	1697.86	1716.35	1506.05
Oconee2 - Female	1406.28	1934.86	1691.3	1361.36
Oconee3 - Male	1416.52	1804.35	1786.85	1506.8
Oconee4 - Female	1411.68	1890.35	1893.4	1851.15
Oconee5 - Female	1611.13	2141.9	2046.15	1908.9
Average	1614.41	1730.08	1826.81	1626.85

¹⁹ Two Oconee participants had the exact same Euclidean Distance between /ɛ/and /e/

Table 5.5 - /u/ and /o/ Fronting for non-Oconee Speakers

Participant	Average /o/ F2	Average /u/ F2	Average /u/ F2 at 35%	Average /u/ F2 at 80%
Jackson1 - Male	1390.41	1644.04	1690.86	1554.44
Jackson2 - Male	1418.64	1775.24	1766.28	1670.88
Jackson3 - Male	1529.36	1948.83	1936.5	1913.93
Jackson4 - Female	1747.42	1428.05	1423.85	1436.45
Madison1 - Male	1378.32	1876.48	1874	1591.7
Madison2 - Female	1807.14	1982.81	1949.55	1919.38
Oglethorpe1 - Male	1318.94	1783.1	1773.68	1639.52
Average	1654.83	1635	1773.53	1675.19

The fronting of /o/ is a feature of the SAE vowel space and the non-Oconee speakers had a more fronted average F2 for this vowel. The effect of /o/ fronting is stifled by the fact that the measurement of F2 for female vowel spaces and male vowel spaces are not in the same range of production for possible formants. Women have a higher range of formant production than men (Huber, et al, 1999). If adult female and male speakers produce the same F2 for the vowel /u/, the male has actually fronted the vowel more because of a smaller possible range of vocal production. Even with the Oconee speakers being majority female and the non-Oconee speakers being majority male, the non-Oconee speakers had a higher F2 for a more fronted /o/, suggesting a larger effect of the Southern shift for the non-Oconee residents.

Looking at the vowel charts above, it is clear that each speaker's /u/ vowel (indicated in the chart as UW) is fronted towards proximity of the /i/ (indicated in the chart as IY). In fact, Labov stated this phenomenon of fronted /u/ has come to cover "90% of the North American continent" (Labov 2008, p.27). Tables 5.4 and 5.5 list the /u/ F2 for Oconee and non-Oconee speakers, with the Oconee speakers exhibiting a more fronted F2 for a higher degree of /u/ fronting. An acoustically observed aspect of the SAE variant of /u/ fronting shows it is a monophthong with little movement during its duration (Thomas,

2008). A more diphthongal type of /u/ is consistent with descriptions of /u/-fronting in non-Southern speakers (Koops, 2010). In Tables 5.4 and 5.5, the average /u/ formant for each participant is provided in addition to the average formant reading at the 35% duration mark and the 80% mark. The latter two readings allow for an analysis of a possible change in vowel movement. If the two measurements vary wildly, then this phoneme functions like a diphthong. The speakers not residing in Oconee showed more stability in its production, as the beginning and end of the vowel measurements were closer to one another. The Oconee speakers had a range between the averages of over 201Hz, while the non-Oconee speakers had a range of 98Hz. The non-Oconee speakers had more of a monophthong production of /u/ than their Oconee counterparts, following closer the tendencies of SAE.

Table 5.6 Formant measurement for /aɪ/ - Oconee Speakers

Participant	Average /aɪ/ F1, F2 at 35% duration	Average /aɪ/ F1, F2 at 80% duration	Euclidean Distance between plotted points for 35% vs 80%
Oconee1 - Male	751.04, 1331.42	610.22, 1620.24	321.56
Oconee2 - Female	857.9, 1574.64	642.46, 1758.8	282.98
Oconee3 - Male	628.3, 1304.34	549.94, 1515.5	225.3
Oconee4 - Female	670.17, 1442.7	589.53, 1540	127.14
Oconee5 - Female	888.5, 1642.48	636.68, 1988.72	428.04
Participant Average	759.18, 1459.12	605.77, 1684.65	277.01

Table 5.7 Formant measurement for /aɪ/ - Non-Oconee Speakers

Participant	Average /aɪ/ F1, F2 at 35% duration	Average /aɪ/ F1, F2 at 80% duration	Euclidean Distance between plotted points for 35% vs 80%
Jackson1 - Male	660.04, 1287.14	604.38, 1442.24	164.80
Jackson2 - Male	683.13, 1073	616.3, 1461.23	393.74
Jackson3 - Male	579.44, 1378.9	559.04, 1375.6	20.09
Jackson4 - Female	520.6, 1510.05	561.7, 1578.35	79.40
Madison1 - Male	642.81, 1264.58	567.7, 1520.13	266.76
Madison2 - Female	746.87, 1673.63	666.28, 1802	151.79
Oglethorpe1 - Male	608.68, 1216.64	600.2, 1313.56	97.3293
Participant Average	660.04, 1343.42	596.51, 1499.02	167.7

The RAS data presented earlier in this chapter suggested that Oconee had a higher rate for realizing /aɪ/ as a diphthong. The passage reading data allows for an acoustic and potentially more precise measure of vowel production. Tables 5.6 and 5.7 show the averaged /aɪ/ formant measurements during both at the 35% duration and at the 80% duration. If a production were a diphthong, these two points will be of different values. The non-Oconee speakers were shown to have more monophthongization tendencies, speakers Oglethorpe1 and Jackson3 showed the strongest tendencies for producing this phoneme as a monophthong. Overall, the average distance between the two duration points show a closer at 167.7 compared to Oconee's 277.01. This acoustic data is further evidence for a difference in speech production between Oconee and its neighboring counties regarding the indicator of the phoneme /aɪ/.

Acoustic recordings allowed for the analysis for the vowels of /ɛ/, /e/, /o/, /u/, and /aɪ/. The passage reading sample of data suggests a difference existing for the residents of Oconee verses those who do not reside in Oconee. Both methods of this study suggest a difference well between these two groups. Oconee is wealthier, is typically more educated, and has seen the highest rate of population

growth overall. Those factors may have had an affect towards the attrition of regional speech forms, as described in this study.

Chapter 6

Discussion

The identification of the commonalities and contrasts within this community allowed for a basis towards the study's premise that differences in the regionally speech marked forms could exist. The hypothesis was that socioeconomic divides would predict divides for the observed speech features, with Oconee County and its apparent wealth divides producing a significantly lower rate of the SAE variants. It is not the argument of this work that a number in a bank account is a direct predictor speech forms; rather it is a reality that class differences lead to different social network ties in terms of quantity and quality, where middle class social network structures favor weak ties and a more generalizable affiliation to others within the middle class. More middle class residents would exist in Oconee, but other areas, as shown, have a higher likelihood of middle class residents in parts of Jackson and Greene counties. The more economically and socially mobile community would be expected to use the more generalizable and mainstream speech forms rather than the localized, regionally marked variants. The results of both methods in this study suggest differences in speech variants between the county with the most middle class residents, Oconee County, and the five other counties of this speech community. Oconee speakers in the RAS study used the Southern variants a minority of the time while the non-Oconee speakers used the Southern variants at a majority rate. Data from the acoustically analyzed speech showed that Oconee had a lower rate regarding additional SAE variants as well. In a community where wealth divides now are present, this study aimed to link the speech form variations that exist within a heavily white, socially conservative, church going population towards the affiliation a speaker has towards Southern identity and whether non-regional variants erode this regional affiliation.

Although Oconee County is clearly a part of this regional community, it also has identifiable contrasts from its adjacent neighbors. This is a fascinating community, in terms of its language usage, and it allows for a general explanation of the different cultural divides for this contiguous area that also has much cultural overlap. Like nearly anywhere, wealthy enclaves can exist and they were found in this speech community. While most of these were found in Oconee County, enclaves defined by socioeconomic status exist in the other counties as well. This does not mean, however, that they are sequestered: The Publix in Oconee County, with its overwhelming number of non-regionally marked speech forms, is located directly across from Bell's, a store playing country music and an observable prevalence of Southern-marked forms. At Bell's, there are no California sushi rolls and no beer from limitedly distributed Colorado breweries. Instead, there is more of a cultural localism exhibited through the Southern American English played through the radio station over the loud-speakers. You would tend to hear different glide length realizations from one grocery store directly across the street from the other. Employees and patrons at Bell's should be more likely to identify as "Southerners" and thus use Southern speech forms.

The study's most surprising finding was that women in the RAS study were significantly more likely to use the regionally marked forms, under the inference of their stronger affiliating bond not only to Southern cultural markers but also to other speakers within social networks who prevalently use Southern forms in their speech. Most speakers documented did not use the historically Southern speech forms but enclaves of noted socially significant markers for these speech features existed that corresponded to their presence or absence. After decades of steady population influx and pockets of wealth accumulation, this culturally and politically likeminded community now appears to have contrasts in speech forms that could be based from varying degrees of strong and weak ties in this network of shared norms. Although this study was focused on a non-urban community in the American South, it is still representative for a speech community's attrition of the regionally distinctive speech forms due to a more socially and economically mobile contingent of the population.

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