The Effect of Adding County Trade Pull Factors, Trade Area Capture & Market Share Percentage Analysis to the Formula for Calculating Tier Ratings for North Carolina Counties

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Contents

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The Effect of Adding County Trade Pull Factors, Trade Area Capture & Market Share Percentage Analysis to the Formula for Calculating Tier Ratings for North Carolina Counties

Executive Summary

Each year, the North Carolina Department of Commerce divides the state's 100 counties into three tiers to indicate their level of economic distress or prosperity. Forty counties are placed in Tier 1 (most distressed) and 40 in Tier 2 (moderately distressed). These counties qualify for many state and federal grant programs that provide funding for rural development. The 20 counties in Tier 3 (least distressed) do not. The tier formula fails to take into account the tendency of wealth generated in rural counties to move to more urban counties and how that transfer affects rural counties' ability to provide goods and services to their residents.

Currently, four factors are used in determining a county's tier status: household income, population growth, unemployment rate and per capita property tax value. Adding County Trade Pull Factors (CTPF), Trade Area Capture (TAC) and Market Share Percentage (MS) to the formula would help stakeholders quantify what they intuitively already know about a county's economy and provide a way to measure the economic influence urban counties have on their rural neighbors.

This report uses CTPF, TAC and MS calculations for FY 2019-20 (July 1 to June 30) to study the economic pull of the retail sector in North Carolina counties. CTPF is a measure of per capita sales tax revenue generated by county. TAC is a measure of a county's spending capacity based on its *pull* (or loss) from adjacent counties. MS is a measure of a county's TAC as a percentage of the total state TAC.

A discussion of five North Carolina counties will demonstrate the utility of CTPF, TAC and MS in measuring how the economies of counties affect and are affected by those of their neighboring counties:

- **Mecklenburg County.** The city of Charlotte is located in Mecklenburg County. Consequently the county has the largest population and the largest economic impact of any county in North Carolina, with an MS of 15.73% that is driven by a CTPF of 1.49. It is classified as Tier 3.
- **Dare County.** This county lacks a major city within its borders and has only 37,411 permanent residents (66th largest in North Carolina). However, the county is home to the Outer Banks, a phenomenal tourist attraction for people from all over North Carolina, the United States and the world. Therefore, county residents benefit from the highest CTPF in North Carolina: 2.93. So even though Dare is listed as a moderately distressed, Tier 2 county, its CTPF creates a TAC comparable to that of a county with 108,389 people, which would rank its economic impact 20th in the state. But Dare's MS generates only 1.08% of the total North Carolina economy.
- **Pender, Camden and Polk counties.** Despite their Tier 3 (least distressed) ratings, these counties all have CTPFs of less than 1, which indicates they lose revenue to other, nearby counties. The CTPFs of Pender (0.64), Camden (0.41) and Polk (0.54) are lower than those of many Tier 2 and Tier 1 counties. Many other rural counties

also generate significant agricultural and timber industry wealth that migrates to adjacent counties with larger populations, more restaurant options, better developed service industries and more entertainment venues.

This report will argue that if CTPF, TAC and MS were added to the formula for calculating county Tier ratings counties with strong economies that are currently rated as Tier 2 would move up to Tier 3 because of the pull and influence they have on adjacent counties or because of the overall rank they have across the state. Some rural counties would likely drop from Tier 3 to Tier 2 or from Tier 2 to Tier 1. These changes on an annual basis would better reflect the level of economic distress a county is in and make more rural, less influential counties eligible for increased outside funding and more federal economic development programs.

Introduction

Quantifying the retail strength of an economy is relatively simple even with the many variables that must be considered. The circle of spending in cities and urban counties is also relatively easy to track. Large population centers create many opportunities for local businesses to generate revenue by selling goods and services and for the state to collect sales and use tax. The State of North Carolina collects a base 4.25% sales tax and all 100 counties have adopted to assess local sales tax of 2%, with some counties adding an additional 0.25% to 0.75% (McLaughlin, 2021). Business, industry, and state and local governments spend the revenue and sales taxes to provide more goods and services. Then the increased availability of goods and services entices more people to migrate into cities and urban counties, which increases demand for private and public services. And so, the circle continues.

The economic circle in rural counties, however, can be pushed out of shape or even broken by a shortage of local shops, service providers and other amenities. Property and income taxes help support county and local governments, but these units also need sales tax revenue to provide the level of services their residents expect. If residents cannot buy the goods and services they need inside the county borders, they will be pulled to neighboring counties to spend their money and pay sales tax on their purchases. This “pull” puts more pressure on property and income tax revenue to help the rural counties build the facilities and infrastructure they need to attract new businesses and residents.

So, how much pull does your county have – or lack?

In *The Rise of the Creative Class* (2004), Richard Florida discusses what drives industries and people to locate where they do and the economic impact of these decisions on counties. Florida’s research shows there is much more to economic growth than a concentration of people or business. For example, counties with diverse populations, built and natural resources, open space, and creative centers (such as universities and medical centers) attract people and their spending power. In contrast, industries like agriculture build wealth in rural counties, but without vibrant service and retail sectors, these counties have a hard time keeping that wealth at home.

Each year, the North Carolina Department of Commerce divides the state’s 100 counties in three tiers to indicate their level of economic distress or prosperity. Forty counties are placed in Tier 1 (most distressed) and 40 in Tier 2 (moderately distressed). These mostly rural counties qualify for many state and federal grant programs that provide funding for rural development. The urban and suburban counties in Tier 3 (least distressed) do not. The tier formula fails to take into account the tendency of wealth generated in rural counties to move to more urban counties and how that transfer affects rural counties’ ability to provide goods and services to their residents.

Currently, four factors are used in determining a county’s tier: household income, population growth, unemployment rate and per capita property tax value. Adding County Trade Pull Factors (CTPF), Trade Area Capture (TAC) and Market Share Percentage (MS) to the formula would help stakeholders quantify what they intuitively already know about a county’s economy and provide an additional way to measure the economic influence urban counties have on their rural neighbors.

The first ten Tier 3 counties are urban and suburban and dominate the state’s economy, as shown by their combined sales tax revenue for 2019 (Table 1). In 2019, these counties generated a combined $3.2 billion of the state's $7.2 billion in sales and use tax revenue. The second set of ten Tier 3 counties generated a combined $303 million in sales tax revenue. The bottom three in that set generated a combined total of only $38.4 million in sales tax revenue: Pender ($27.7 million), Camden ($10.4 million) and Polk ($3.3 million). That represents only 1.2% of the $7.2 billion state total.

Table 1. The 2019 sales tax revenue of each of the first 10 Tier 3 counties and the percentage those figures represent 44.6 percent of the total state sales tax revenue.

County	2019 sales and use tax revenue	Percentage of total state sales tax revenue
Mecklenburg	$1,131,060,326	15.73%
Wake	958,898,198	13.34
Durham	372,079,516	5.18
Cabarrus	172,631,079	2.40
Iredell	129,324,039	1.80
Union	110,921,357	1.54
Johnston	99,478,690	1.38
Orange	93,342,517	1.30
Moore	70,951,985	0.99
Henderson	65,888,842	0.92
Top Ten Tier 3 Counties – Total	**3,204,576,549**	**45.0%**
TOTAL	**$7,188,694,784**	**100.0%**

In contrast the four largest Tier 2 counties: Guilford, Forsyth, Buncombe and New Hanover, generated $1.15 billion in sales and use tax revenue in 2019, That amount is greater than the amount generated by all of the Tier 3 counties except Mecklenburg, Wake and Durham.

Sales and use tax revenue generation in 90 counties not in the top 10 Tier 3 counties, totaled $3.98 billion compared to the $3.2 billion generated by the top 10 Tier 3 counties. In addition, the agriculture and timber industries in those 90 counties created $11.5 billion in revenue, and $11.2 in tourism revenue in 2019. Farmers, loggers, and hotel and restaurant owners and their employees spend the wealth created from these sales on goods and services in counties with larger retail business communities.

Sales tax revenue is a good measure of the mobility of money but represents only a portion of tax collections and not necessarily the wealth of a county.

The state's natural attractions (such as the beaches on the Atlantic and the Appalachian Mountains) and metropolitan areas create significant pull in the state, the southeast U.S. and the world. The universities, event centers, sports arenas, museums and shopping in cities like Charlotte, Asheville, Greensboro, Raleigh and Winston-Salem also pull people in to play, visit, relax and enjoy life. Quantifying this pull helps elected officials and planners measure the impact of natural and built attractions.

The economic assessment tools discussed in this report were developed by Darling and Seitz (2003) and first used to determine the strength of the retail sector in Kansas counties. Today the Kansas Department of Revenue uses these tools to provide annual updates on the CTPFs of Kansas counties.

Economic growth is a measure of the increase in the capacity of an economy to produce goods and services. If the amount of revenue and wealth in a community stays the same, then there is no growth. So, communities need new money to add to existing goods and services for growth to occur. But where does the wealth come from that supports the growth in high impact communities? In North Carolina, much of it comes from the wealth generated by agriculture, timber and tourism.

Three North Carolina counties – Mecklenburg, Dare and Sampson – were studied to understand how pull factors change. In Mecklenburg County, the state's largest economy, its large population, concentration of businesses, built and natural attractions, create a pull comparable to a city 1.49 times its size. Dare County ranks 66th in population but its natural attractions pull in so much tourism business that its sales tax and use revenues are comparable to a county three times its size. And Sampson County, the state's largest agriculture economy generates $1.0 billion in revenue but almost fifty percent of the wealth is spent outside the county.

This report uses the same tools to evaluate data for FY 2019-20. Mecklenburg County continues to have the state's largest economy, with a CTPF of 1.49 (a drop of 0.04 compared to FY 2018-19), a TAC of 1,650,188 (down 0.09% from FY 2018-19) and an MS of 15.87% (up 0.09% from FY 2018-19). In broad terms, this means Mecklenburg County is a big county with a high concentration of businesses. People spend a lot of money there and create a high demand for services. Specifically, Mecklenburg County's concentration of business and interstate access enables it to capture and conduct business at a level comparable to a county with a 46% larger population.

In contrast, Dare County (population 37,411) is one of North Carolina's smaller counties but the Outer Banks beaches on its Atlantic shoreline create a tremendous local, regional, national and international pull. This pull results in the highest CTPF in the state at 2.93 (double that of Mecklenburg County's 1.49). Because of this pull, Dare County's TAC (108,389) would make it the 20th largest county in NC. And yet with its small geographic area, its seasonal business and small permanent population, its MS is 1.14% of the state's overall economy.

Duplin County replaced Sampson County in 2019 as the state's largest agriculture county, and similar to Sampson County the lack of retail business results in a CTPF of 0.53 in FY 2019-20. As mentioned earlier the lack of retail business in Duplin County results in a drain on the wealth generated in the county to larger, more urban counties. This is reflected by Duplin County's TAC (31,297), which is 58th in NC.

MS is not discussed at length in this paper as County rankings for TAC and MS are the same because MS is a mathematical proportion of TAC.

Leading Industries

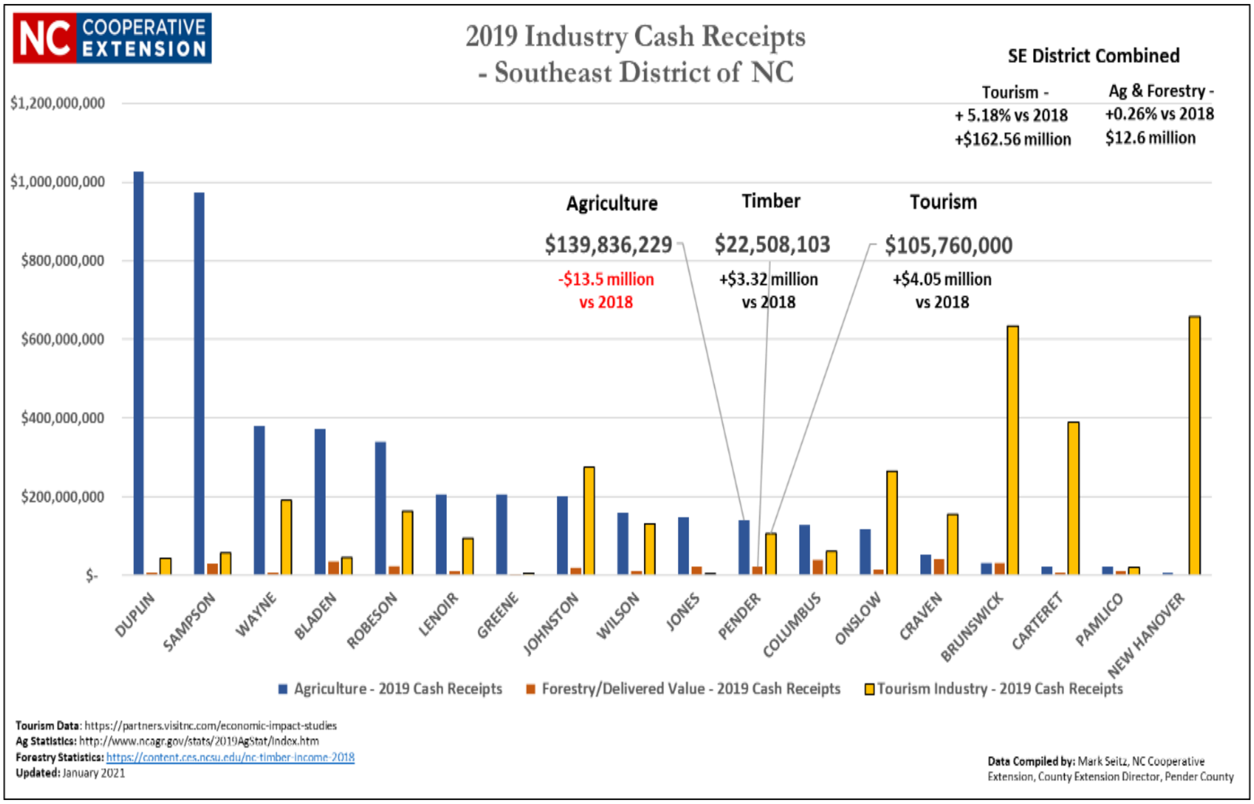
This report highlights three key industries in North Carolina: agriculture, timber and tourism. These industries are the economic drivers in all but the top ten counties in the state. This section provides revenue data from these industries for each county, grouped by NC Cooperative Extension's administrative districts.

Southeast District

In 11 of the 18 counties in the Southeast District, agriculture is the leading industry. Tourism and retail sales drive the economies in New Hanover, Brunswick and Carteret

Counties. Retail sales at outlet malls and restaurants in Johnston County exceed agriculture revenue, yet Johnston County still has the 12th largest agriculture industry in North Carolina. In Pender County in 2019, the agriculture and timber industries generated $162 million and tourism created $105 million. In the Southeast District as a whole, agriculture and timber revenue totaled $4.89 billion – $1.58 billion more than tourism. Pender County is one of the 11 counties in which agriculture is the leading industry, with significant revenue also coming from timber and tourism.

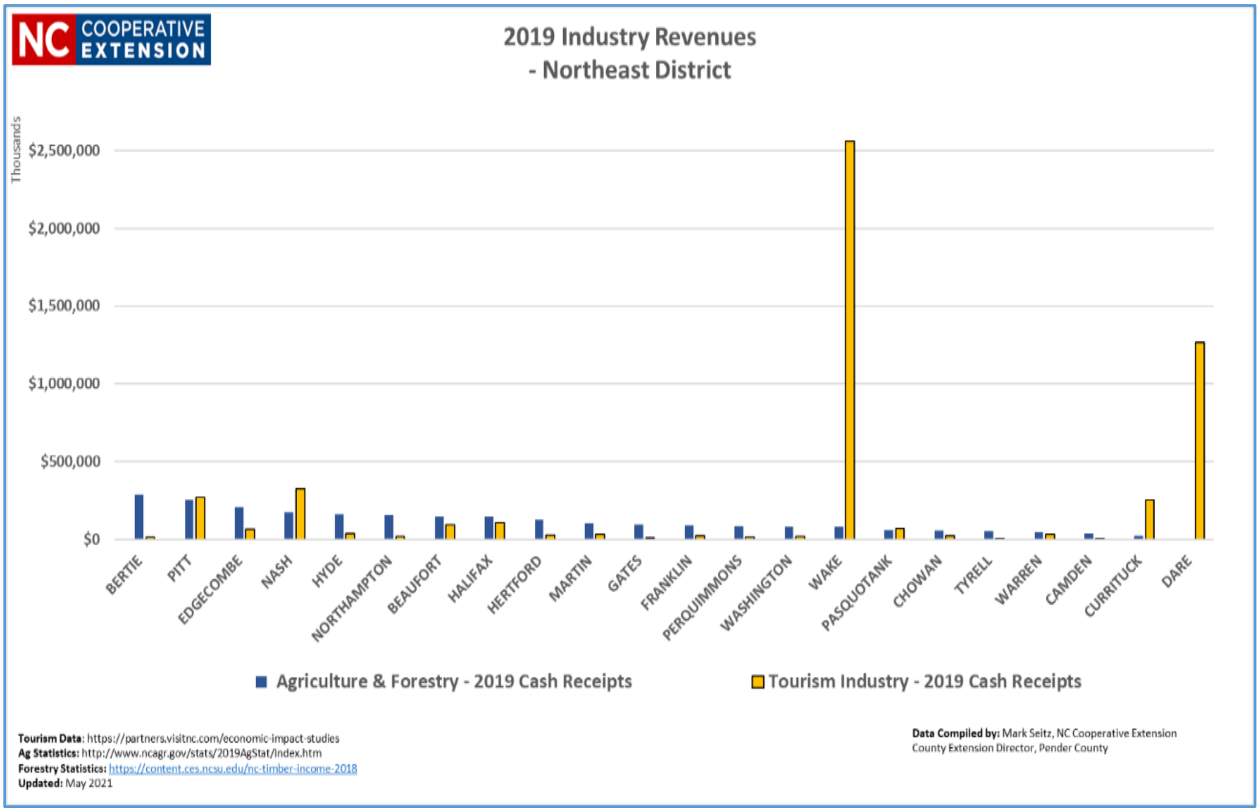
Figure 1. Southeast District Industry Revenue



Northeast District

The Northeast District includes 22 mostly rural counties. Tourism is the driving force in this region, with 69.5% of the tourism and sales tax revenue generated in three counties: Wake, Dare and Currituck. Wake County generates more than $2.56 billion in tourism and sales tax revenue from the city of Raleigh, the Research Triangle Park, North Carolina State University and other colleges and community colleges. Dare County, home of the Outer Banks, generates $1.187 billion in sales and use tax revenue from tourism and retail sales. The other 19 counties are rural, marked by the presence of many small towns, farms and timberland. While the land area is largely rural, agriculture revenue in those 19 counties totaled $1.942 billion, 54% of the tourism revenue generated across all 22 counties (Figure 2).

Figure 2. Northeast District Industry Revenue

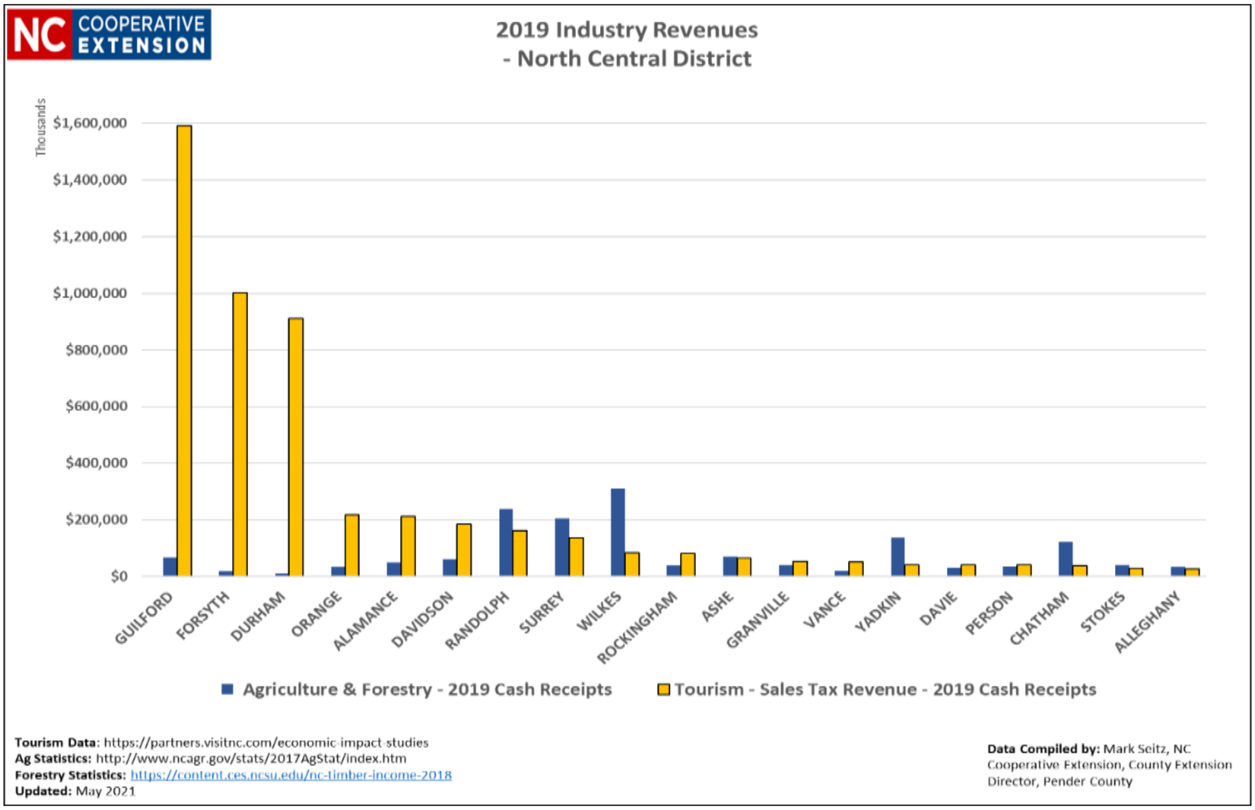


North Central District

The North Central District includes 20 counties. Tourism and sales tax revenues in the district are led by three counties – Guilford, Forsyth and Durham – which generated $3.51 billion in tourism and sales and use tax revenue in 2019. Much of that revenue is from visitors drawn to the University of North Carolina, Wake Forest University, retail shopping outlets and recreation facilities.

The population centers in this region dominate its economy. However, the agriculture and forestry industries are still important in Randolph, Surrey, Wilkes, Yadkin and Chatham Counties, generating $1.01 billion dollars in revenue in 2019. Farmers markets and vineyards are significant tourism attractions and help generate wealth in these counties.

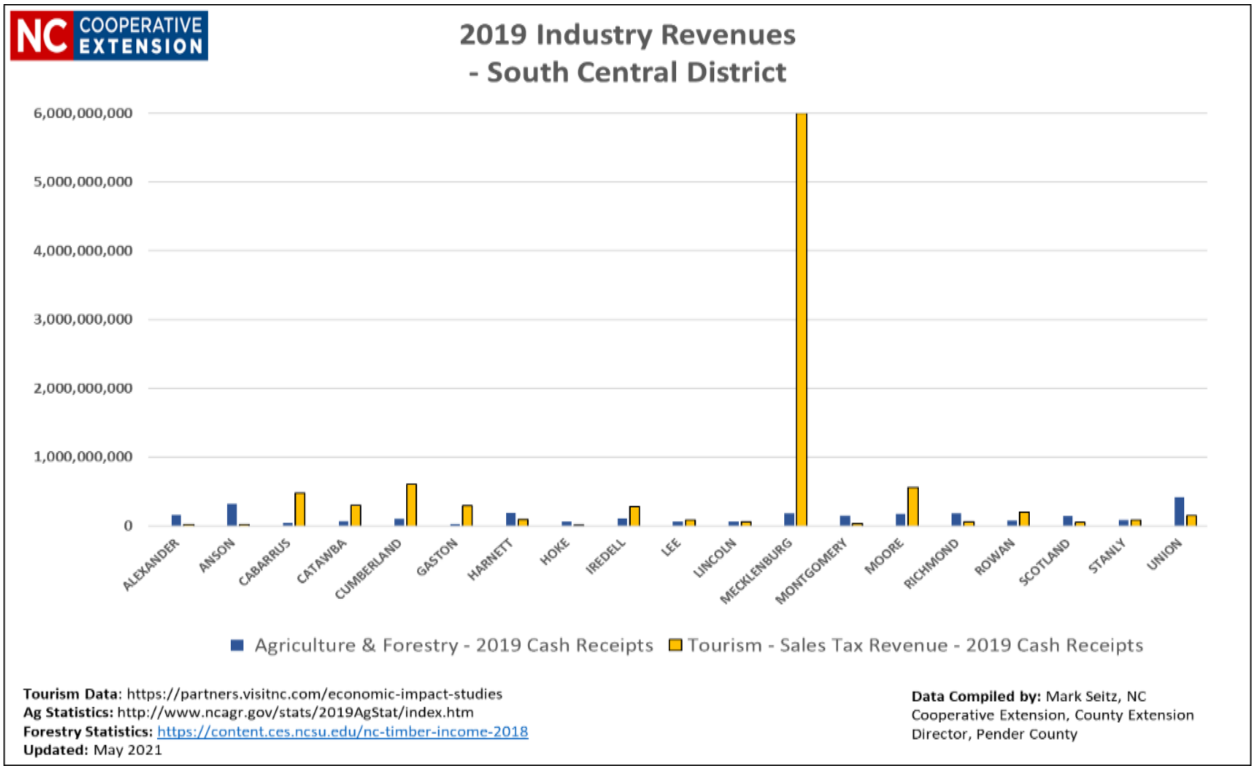
Figure 3. North Central District Industry Revenue



South Central District

The South Central District includes 19 counties, with Mecklenburg County the district's economic driver. Many economic and cultural factors influence the Mecklenburg County economy, including its population, banking centers, professional sports teams, regional airport, universities, parks and other amenities. These factors are similar to those Richard Florida discussed in his two books, *The Rise of the Creative Class* (2004) and *The New Urban Crisis* (2017). Mecklenburg's CTPF of 1.49 generates a tremendous amount of sales and use tax revenue, nearly $6 billion in 2019 alone. Sales and use taxes generated by the other 18 counties equaled $1.3 billion. With so much pull the wealth need to generate this much sales tax comes from the agriculture and timber and tourism industries in the other 18 South Central District counties. Combined agriculture and timber created $2.6 billion in wealth and tourism created $3.4 billion in tourism, with much of that flowing into Mecklenburg County.

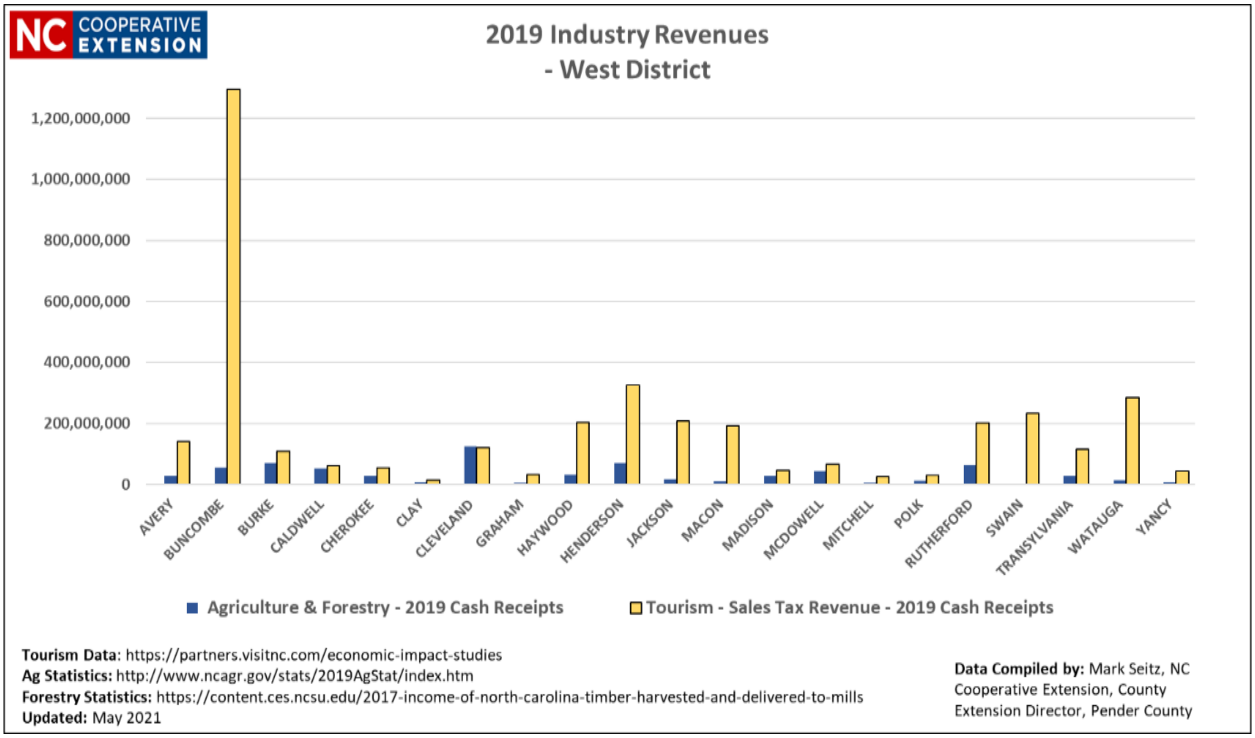
Figure 4. South Central District Industry Revenue



West District

The 21-county West District Buncombe County is the largest generator of sales and use tax revenues. Buncombe County (where the city of Asheville is located) generated $262 million in sales and use tax revenue, 55.4 percent of the District total. The remaining 20 counties combined generate $473 million in sales and use tax. Tourism is the dominate industry in the District that creates this tax revenue. Tourism is credited with generating $3.8 billion in revenue across the District while the agriculture and timber industry generate $710 million. The mountainous terrain in much of the district limits agriculture production to river bottom land for horticulture production or hillsides where Christmas tree production, apple orchards and livestock grazing is prevalent. Only two counties in the district – Cleveland and Henderson – have agriculture industries whose revenue generation outpaces that of tourism. Figure 5 shows how dominant Buncombe County's tourism industry is in the West District.

Figure 5. West District Industry Revenues



County Pull Factors

Figure 6 provides a visual perspective of how high and low CTPF counties are spread across the state. The formula for calculating CTPF follows.

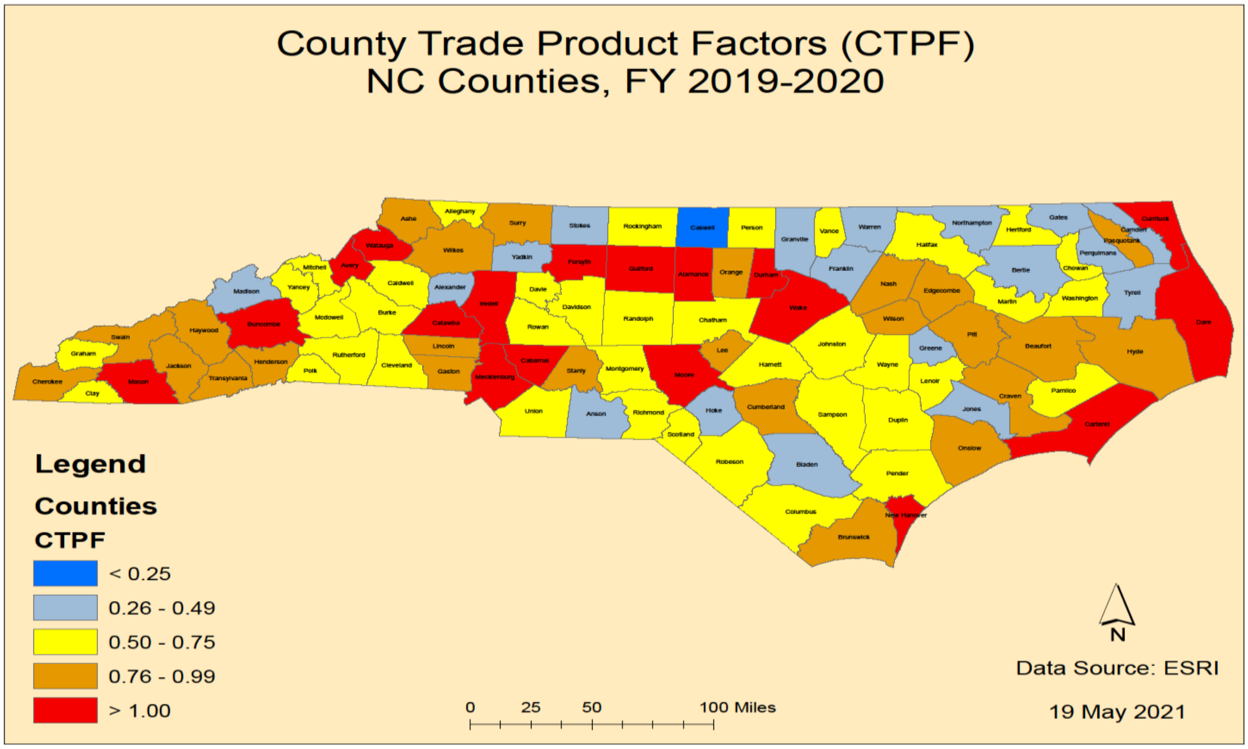
CTPF = [(county sales tax revenue ÷ county population) / (state sales tax revenue / state population)]

Sixteen counties in North Carolina have CTPFs greater than 1.0, which means they pull revenue from nearby counties. The five counties with the highest CTPFs are:

- Dare (2.98)
- Durham (1.49)
- New Hanover (1.49)
- Mecklenburg (1.49)
- Buncombe (1.46)

The average CTPF for the top 18 counties is 1.34. These high CTPF counties (shaded red in Figure 6) are coastal counties, are accessible by interstates or four-lane highways, or are home to major natural attractions. Twenty-six counties have CTPFs between 0.75 and 0.99 (shaded orange in Figure 6). These are large, suburban counties with a concentration of retail business, built or natural attractions and military (Cumberland, Craven and Onslow). Sixty-seven of the 100 counties in North Carolina have CTPFs between 0.76 and 1.0 (shaded yellow and orange in Figure 6). These counties have higher per capita incomes and higher concentrations of retail businesses than those with CTPFs below 0.5, but they still lose revenue to larger urban counties or to counties with natural attractions. Seventeen counties have CTPFs between 0.5 and 0.75 (shaded yellow in Figure 6). These counties rely on agriculture and timber sales to generate wealth and have small populations. They also have small retail sectors, so residents must drive significant distances to find the goods and services they need and want. Counties with extremely low CTPFs, less than 0.49 (less than 0.25 shaded blue; and 0.26 to 0.49 shaded blue in Figure 6) are rural, with small service sectors, limited or no interstate connections and few towns with retail businesses. They depend heavily on property tax revenue to pay for infrastructure.

Figure 6: North Carolina County Trade Pull Factors Map – FY 2019-20.



Map created by Stephanie Chizmar, PhD Candidate, Forestry and Environmental Resources, Research Assistant, Extension Forestry, NC State University

Trade Area Capture

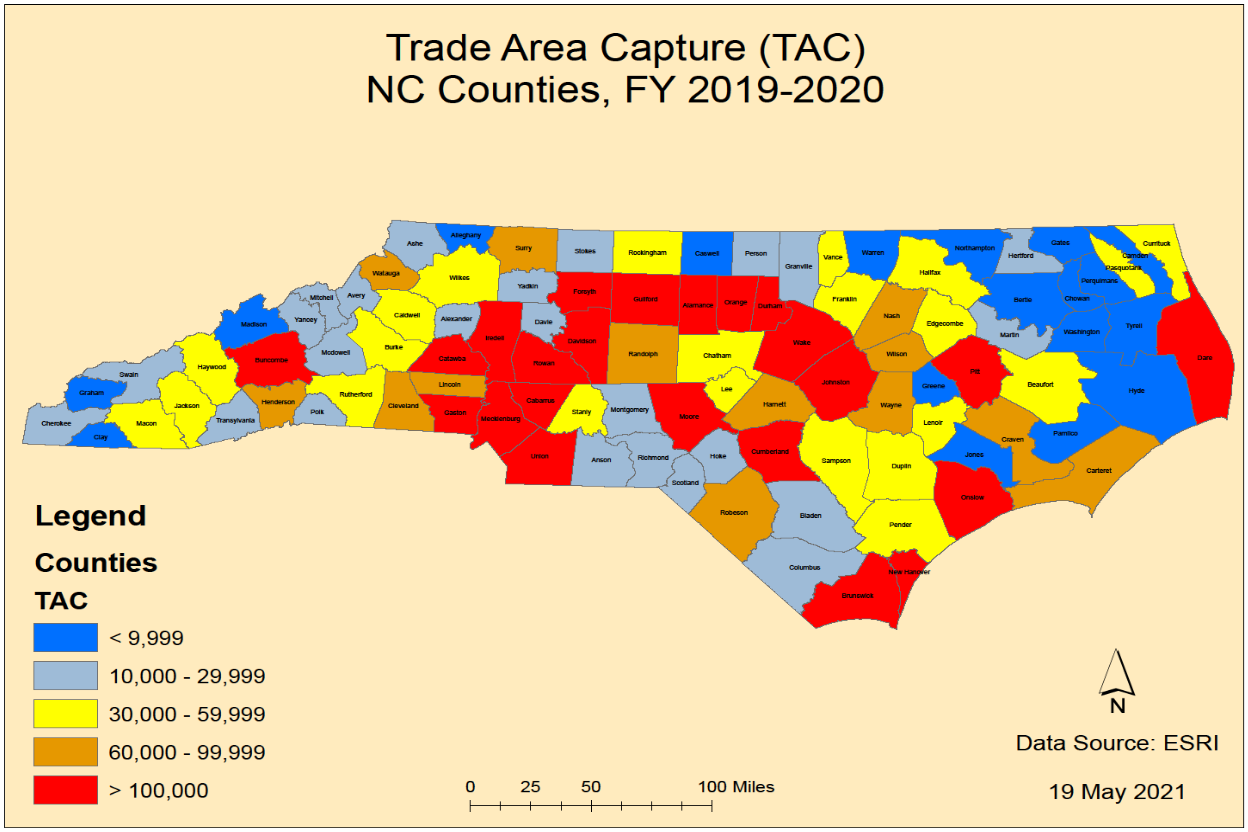
Figure 7 provides a snapshot of how a county's pull, or its loss of spending to adjacent counties, influences its per capita capacity to generate sales tax revenue. The formula for calculating TAC follows:

*TAC = county CTPF * county population*

Twenty counties with populations of less than 100,000 pull enough additional business to generate sales tax at a level comparable to those of counties with more than 100,000 permanent residents. Dare County (population 37,411) in the Northeast District has a TAC greater than 100,000 with a CTPF of 2.98. Its beaches attract so many tourists that it creates revenues comparable to a county with a population of 115,878.

In contrast, Greene County in the Southeast District has a CTPF of 0.24 and a population of 21,015. Its sales tax revenue generating capacity is equivalent to a county with only 5,043 residents. But Greene County farms and forests generated $211.9 million in revenue in 2019. Counties like Avery and Mitchell in the West District have larger CTPF's relative to their population but lack Dare County's concentration of retail businesses that could pull in additional sales tax revenue.

Figure 7. North Carolina County Trade Area Capture



Map created by Stephanie Chizmar, PhD Candidate, Forestry and Environmental Resources, Research Assistant, Extension Forestry, NC State University

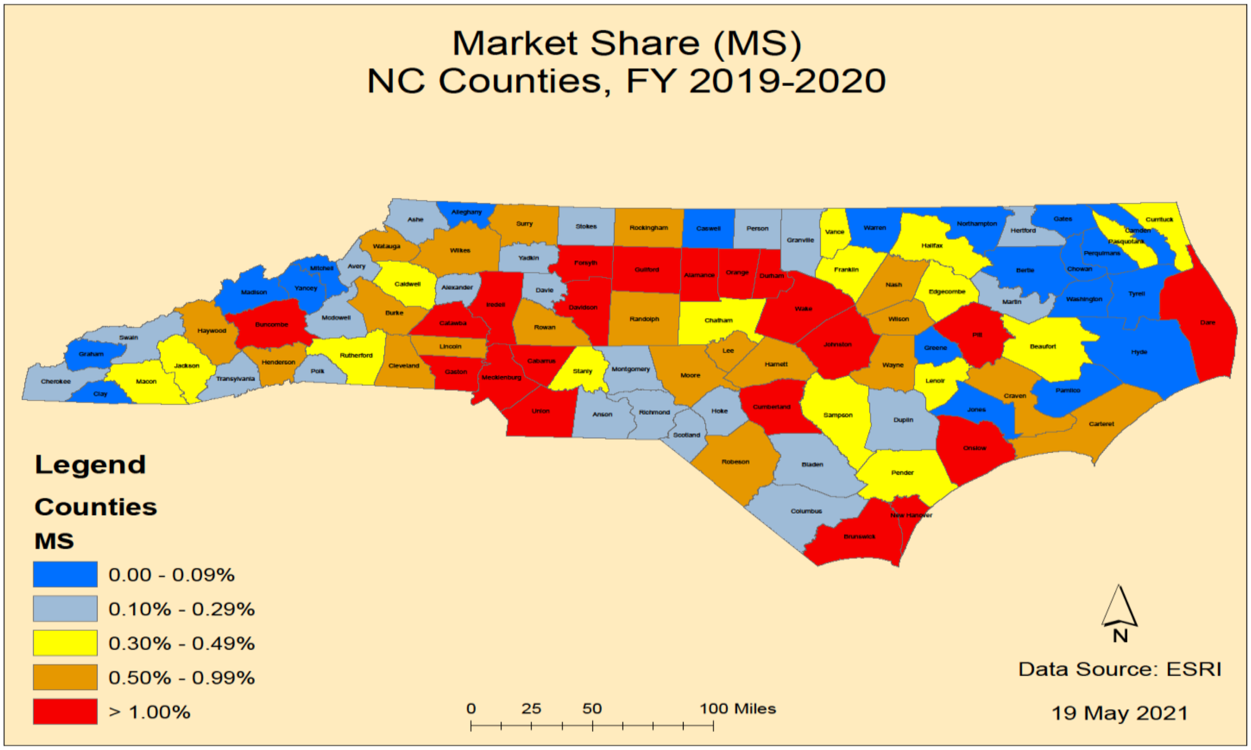
Market Share

Figure 8 shows the market share (MS) that each county generates as a percentage of the state's total sales tax revenue. The formula for calculating MS follows:

MS = county TAC ÷ state population

MS is the TAC of a county on a percentage basis. Twenty-one counties have MS percentages greater than 1% and represent 73.29% of the state's retail activity. Mecklenburg (15.73%), Wake (13.33%), Guilford (5.18%), Durham (5.17%) and Forsyth (3.80%) make up the top five counties. Dare County, with the state's largest CTPF, generates 1.03% of the state's retail activity.

Figure 8. North Carolina County Percentage Market Share (MS)



Map created by Stephanie Chizmar, PhD Candidate, Forestry and Environmental Resources, Research Assistant, Extension Forestry, NC State University

Twenty counties have MS values between 0.51 and 1.0 and 59 counties have MS values of less than 0.5. Tyrell County in the Northeast District has the lowest MS (0.02). While retail activity in these 59 counties is low, they generated $7.59 billion dollars in agriculture and forestry revenue combined in 2019 and an additional $10.45 billion in tourism revenue.

Tier Designations & Economic Distress Ratings

As mentioned earlier, the North Carolina Department of Commerce uses four factors to calculate the economic distress level of every county in the state:

- Average unemployment rate
- Median household income
- Adjusted property tax per capita
- Percentage growth in population

Each county is then ranked by the impact indicator from a score of 100 to 1. Counties that rank the highest in each of these categories are given a score of 100. Each of the ranks are added up to give the total rank. The bottom 40 counties based on the total combined scores are classified as Tier 1 counties, which are the most economically distress. These counties have small retail sectors, small populations or are near other counties with large economies. The middle 40 counties are classified as Tier 2 counties and are moderately distressed economically and the Top 20 counties by combined scores are classified as Tier 3 counties and are determined to be the least economically distressed. The state map in Figure 9 shows the Tier 1 counties in yellow, Tier 2 in orange and Tier 3 in red for 2021 as determined by the North Carolina Department of Commerce.

When factoring in CTPF, TAC and MS into the current calculations five Tier 2 counties rise to Tier 3 and five counties drop to Tier 2. The counties that move up are Alamance, Buncombe, Brunswick, Dare, New Hanover. The five that drop to Tier 2 are Camden, Macon, Pender, Polk and Transylvania County. While the economies of the Tier 3 counties that would drop to Tier 2 are strong, the change in Tier status better reflects the economic dominance that nearby counties or cities have in their respective areas of the state. For example, Pender County's rapid population growth (95th highest in North Carolina) brings a lot of wealth and prosperity to the county, the economic pull that New Hanover County has on Pender County takes away much of its wealth. Camden (CTPF 0.41) is heavily influenced by Norfolk, Virginia to the north and by Dare County's 2.94 pull.

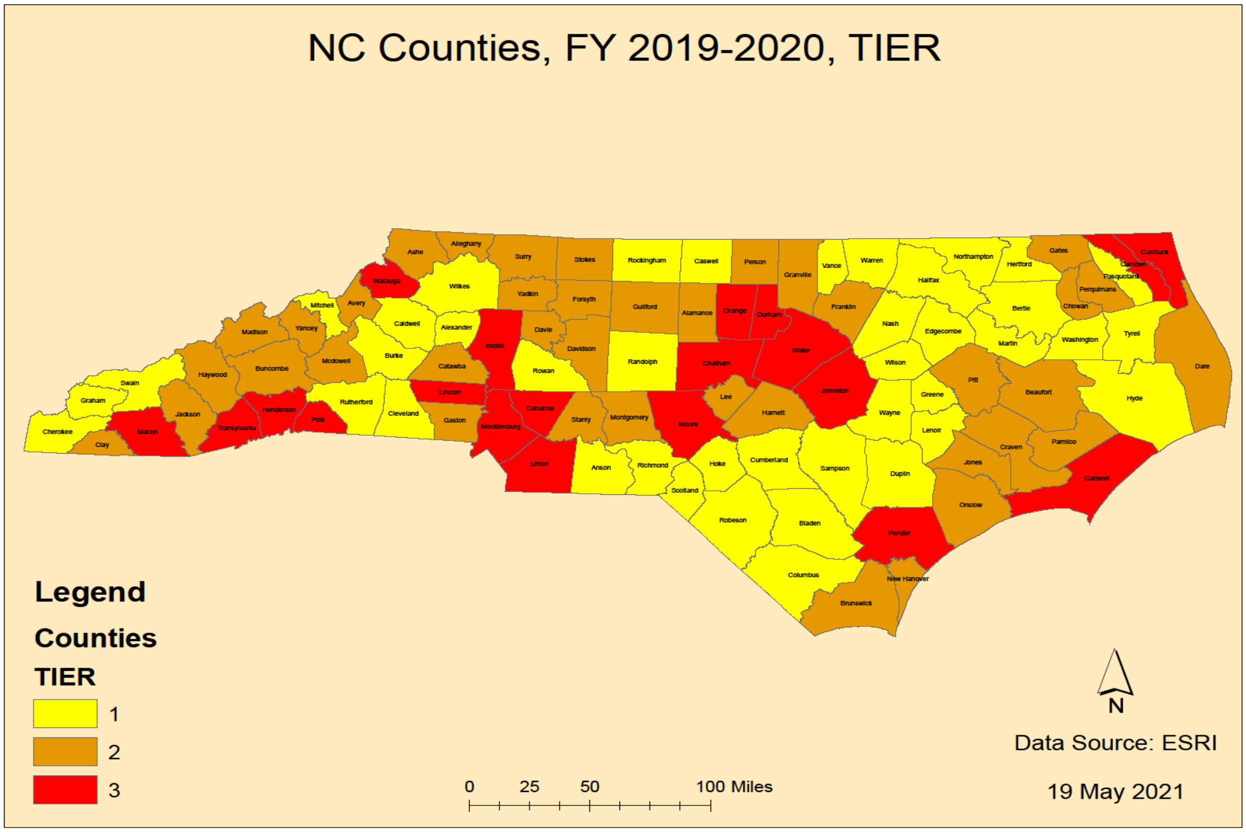
In western North Carolina Buncombe County's high per capita property tax base (88th highest in North Carolina), its median household income (79th in North Carolina) and are the factors that affect its current Tier 2 status but when including the economic pull it has in the region (96th highest) and its TAC and MS (both 95th highest) it moves Brunswick County into the Tier 3 status, which better reflects its influence in its region of the state. Similar impacts are evident in the data for Alamance, Brunswick and Transylvania County which move to Tier 3 with the addition of the CTPF, TAC and MS factors.

Polk County's current Tier 3 status is pushed by its adjusted property tax value (81st highest) and its low unemployment rate (83rd highest) but its small population and small market share and lack of retail limit the impact it has on the region. Polk County's CTPF (23rd), TAC (21st) and MS (21st) drop it to the 46th most distressed county in North Carolina.

Pender County (Tier 3) ranks fifth in North Carolina in population growth rate, 19th in median household income, 25th in per capita income and 32nd in unemployment. The county's adjusted property tax base per capita is 28th at $125,777. Population growth is the largest factor driving Pender's Tier 3 status. However, the county ranks 60th in CTPF and 49th in TAC and MS, reflecting its rural nature and lack of retail business relative to nearby New Hanover County. With a CTPF of 0.64, Pender County loses $0.36 of every dollar in sales tax revenue spent by its permanent residents.

Tier designations have a significant impact on the eligibility of counties to qualify for rural development grants. For example, the One North Carolina Fund (OneNC) is a discretionary grant program overseen by the Governor of North Carolina to provide cash grants to projects that create jobs. Tier 3 counties are required to provide no less than one dollar for every dollar provided by OneNC, Tier 2 counties one dollar for every two dollars provided by OneNC and Tier 1 counties one dollar for every three dollars provided by OneNC. In this scenario it is important that an accurate assessment of a county's level of economic distress is made. By adding the CTPF, TAC and MS factors to the state's tier calculation would better reflect the economic 'pull' that counties with strong economies have on their neighboring counties.

Figure 9. NC Commerce Department County Tiers – Economic Distress Ratings



Map created by Stephanie Chizmar, PhD Candidate, Forestry and Environmental Resources, Research Assistant, Extension Forestry, NC State University

Conclusion

Most people have an intuitive sense of the economic activity happening around them without being able to quantify that activity's impacts. CTPF, TAC and MS are simple measures providing a way to quantify what most people know about where they live. They know urban counties like Mecklenburg and Wake, where Charlotte and Raleigh are located, respectively, attract lots of people and money. They know counties like New Hanover (city of Wilmington) and Dare (the Outer Banks and Kitty Hawk) attract a great deal of seasonal tourism. They know that summer tourism traffic is a nuisance but that it signals a large influx of outside money to the region. And they know that Avery County and others in the western NC mountains attract tourists whose purchases from local rafting, canoeing, fishing, bicycling and outdoor recreation companies generate much of the counties' sales tax revenue.

So, while our intuition gives us a sense of the economic activity in a county or a region, it is less obvious that the significant wealth generated by the agriculture and forestry industries migrates out of rural counties to suburban and urban counties. CTPF is in part a measure of the migration of this wealth to other counties. The effect of this migration is that rural counties are left with smaller allocations of sales tax, thereby increasing the property tax burden on homeowners and on agriculture and forest landowners. The loss of wealth and revenue also leaves many counties unable to support the costs associated with expanding the infrastructure needed to support new development and growth. How this affects each county's tier designation will be discussed in a future report.

This report offers policymakers a method of better quantifying the push and pull of the economic activity in their counties. It also provides an additional measure of how a county's economic influence in a region could affect its economic tier status.

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Appendix A: County Trade Pull Factors

County	Extension District [a]	CTPF FY 2015-16	CTPF FY 2016-17	CTPF FY 2017-18	CTPF FY 2018-19	CTPF FY 2019-20
Alamance	NC	1.15	1.12	1.11	1.08	1.06
Alexander	SC	0.39	0.39	0.40	0.40	0.44
Alleghany	NC	0.52	0.52	0.52	0.52	0.57
Anson	SC	0.44	0.44	0.44	0.44	0.46
Ashe	NC	0.71	0.73	0.72	0.75	0.79
Avery	W	1.07	1.10	1.14	1.22	1.30
Beaufort	NE	0.76	0.73	0.73	0.78	0.78
Bertie	NE	0.33	0.33	0.36	0.32	0.34
Bladen	SE	0.47	0.48	0.50	0.47	0.47
Brunswick	SE	0.98	0.98	0.98	0.97	0.97
Buncombe	W	1.55	1.55	1.58	1.56	1.46
Burke	W	0.61	0.59	0.60	0.60	0.61
Cabarrus	SC	1.31	1.29	1.25	1.22	1.16
Caldwell	W	0.59	0.54	0.53	0.54	0.57
Camden	NE	0.44	0.37	0.37	0.36	0.41
Carteret	SE	1.26	1.25	1.28	1.35	1.33
Caswell	NC	0.21	0.21	0.24	0.23	0.24
Catawba	SC	1.13	1.14	1.12	1.09	1.08
Chatham	NC	0.63	0.62	0.63	0.63	0.68
Cherokee	W	0.80	0.81	0.83	0.83	0.85
Chowan	NE	0.68	0.66	0.67	0.69	0.70
Clay	W	0.55	0.49	0.51	0.53	0.60
Cleveland	W	0.70	0.74	0.79	0.75	0.71
Columbus	SE	0.52	0.53	0.55	0.54	0.54
Craven	SE	0.80	0.78	0.78	0.85	0.86
Cumberland	SC	0.99	0.96	0.91	0.91	0.90
Currituck	NE	1.45	1.41	1.46	1.39	1.42
Dare	NE	3.15	3.19	3.21	3.06	2.93
Davidson	NC	0.59	0.59	0.58	0.60	0.64
Davie	NC	0.60	0.60	0.57	0.61	0.65
Duplin	SE	0.51	0.52	0.50	0.54	0.53
Durham	NC	1.78	1.73	1.73	1.72	1.69
Edgecombe	NE	0.50	0.51	0.51	0.58	0.87
Forsyth	NC	1.11	1.11	1.07	1.06	1.04
Franklin	NE	0.47	0.47	0.47	0.47	0.50
Gaston	SC	0.76	0.75	0.74	0.77	0.82
Gates	NE	0.24	0.24	0.24	0.24	0.26
Graham	W	0.55	0.63	0.60	0.60	0.68
Granville	NC	0.45	0.46	0.44	0.44	0.46

County	Extension District [a]	CTPF FY 2015-16	CTPF FY 2016-17	CTPF FY 2017-18	CTPF FY 2018-19	CTPF FY 2019-20
Greene	SE	0.26	0.23	0.24	0.25	0.28
Guilford	NC	1.08	1.09	1.06	1.04	1.01
Halifax	NE	0.73	0.73	0.75	0.80	0.73
Harnett	SC	0.51	0.51	0.51	0.51	0.54
Haywood	W	0.93	0.90	0.89	0.88	0.92
Henderson	W	0.81	0.82	0.82	0.81	0.82
Hertford	NE	0.71	0.69	0.70	0.68	0.71
Hoke	SC	0.28	0.27	0.30	0.28	0.31
Hyde	NE	0.89	0.86	0.85	0.89	0.87
Iredell	SC	1.03	1.02	1.00	1.00	1.04
Jackson	W	0.86	0.89	0.91	0.93	1.00
Johnston	SE	0.69	0.70	0.70	0.71	0.69
Jones	SE	0.25	0.32	0.36	0.40	0.39
Lee	SC	0.97	0.99	0.97	0.95	0.97
Lenoir	SE	0.72	0.73	0.74	0.76	0.76
Lincoln	SC	0.65	0.71	0.71	0.76	0.82
Macon	W	1.08	1.13	1.13	1.11	1.11
Madison	W	0.38	0.38	0.38	0.39	0.43
Martin	NE	0.67	0.66	0.66	0.65	0.66
McDowell	W	0.59	0.60	0.58	0.61	0.64
Mecklenburg	SC	1.58	1.56	1.54	1.52	1.49
Mitchell	W	0.71	0.71	0.72	0.69	0.70
Montgomery	SC	0.49	0.48	0.52	0.56	0.57
Moore	SC	1.00	1.01	0.97	0.97	1.03
Nash	NE	0.88	0.86	0.87	0.85	0.82
New Hanover	SE	1.52	1.52	1.48	1.53	1.49
Northampton	NE	0.37	0.35	0.42	0.42	0.40
Onslow	SE	0.84	0.82	0.79	0.84	0.85
Orange	NC	0.92	0.94	0.91	0.92	0.92
Pamlico	SE	0.53	0.53	0.54	0.57	0.56
Pasquotank	NE	0.95	0.92	0.90	0.93	0.98
Pender	SE	0.58	0.60	0.60	0.62	0.64
Perquiman	NE	0.38	0.40	0.33	0.34	0.39
Person	NC	0.63	0.61	0.63	0.64	0.63
Pitt	NE	1.02	1.02	0.99	0.96	0.98
Polk	W	0.50	0.51	0.54	0.62	0.54
Randolph	NC	0.61	0.62	0.61	0.60	0.62
Richmond	SC	0.66	0.66	0.64	0.63	0.64
Robeson	SE	0.62	0.61	0.59	0.61	0.60
Rockingham	NC	0.57	0.57	0.55	0.58	0.60

County	Extension District [a]	CTPF FY 2015-16	CTPF FY 2016-17	CTPF FY 2017-18	CTPF FY 2018-19	CTPF FY 2019-20
Rowan	SC	0.70	0.71	0.69	0.73	0.73
Rutherford	W	0.65	0.71	0.64	0.69	0.69
Sampson	SE	0.60	0.58	0.55	0.55	0.57
Scotland	SC	0.63	0.65	0.68	0.65	0.64
Stanly	SC	0.71	0.72	0.71	0.73	0.81
Stokes	NC	0.37	0.38	0.40	0.40	0.43
Surrey	NC	0.95	0.95	0.92	0.92	0.95
Swain	W	0.71	0.74	0.75	0.71	0.79
Transylvania	W	0.75	0.76	0.76	0.77	0.80
Tyrell	NE	0.44	0.40	0.47	0.40	0.40
Union	SC	0.67	0.69	0.67	0.65	0.67
Vance	NC	0.78	0.76	0.72	0.70	0.72
Wake	NE	1.16	1.18	1.28	1.26	1.26
Warren	NE	0.30	0.30	0.31	0.31	0.34
Washington	NE	0.49	0.78	0.64	0.51	0.52
Watauga	W	1.22	1.22	1.19	1.16	1.19
Wayne	SE	0.74	0.73	0.71	0.72	0.76
Wilkes	NC	0.64	0.67	0.69	0.74	0.77
Wilson	SE	0.93	0.96	0.91	0.90	0.98
Yadkin	NC	0.44	0.44	0.42	0.42	0.45
Yancy	W	0.51	0.52	0.52	0.56	0.57

Note. CTPF = county trade pull factor. A CTPF below 1.0 means the county loses trade to neighboring counties. A CTPF above 1.0 means the county pulls trade from its neighboring counties. A CTPF of 1.0 means the county neither loses nor gains trade from neighboring counties.

[a] Indicates which of North Carolina Extension's five administrative districts the county is in: North Central, Northeast, South Central, Southeast or West.

Appendix B: Trade Area Capture

County	Extension District [a]	TAC FY 15-16	TAC FY 16-17	TAC FY 17-18	TAC FY 18-19	TAC FY 19-20
Alamance	NC	181,990	178,224	180,517	179,947	182,996
Alexander	SC	14,398	14,441	14,819	15,013	16,427
Alleghany	NC	5,603	5,658	5,697	5,844	6,368
Anson	SC	11,261	11,289	11,081	10,955	11,144
Ashe	NC	19,050	19,603	19,519	20,245	21,576
Avery	W	18,886	19,238	20,045	21,380	22,783
Beaufort	NE	36,111	34,717	34,593	36,873	36,829
Bertie	NE	6,752	6,570	6,912	6,038	6,378
Bladen	SE	16,170	16,343	16,861	15,455	15,463
Brunswick	SE	120,416	124,816	128,765	132,241	139,201
Buncombe	W	391,841	396,961	407,318	403,327	382,214
Burke	W	54,084	52,526	53,288	54,044	55,013
Cabarrus	SC	257,653	259,957	259,192	258,103	251,864
Caldwell	W	47,607	43,944	43,685	44,524	46,643
Camden	NE	4,522	3,889	3,926	3,893	4,501
Carteret	SE	86,560	86,169	88,129	93,714	92,305
Caswell	NC	4,926	4,893	5,524	5,184	5,360
Catawba	SC	175,600	178,201	176,683	172,352	172,398
Chatham	NC	45,017	44,900	45,226	45,806	50,924
Cherokee	W	21,677	22,494	23,348	23,573	24,384
Chowan	NE	9,748	9,479	9,471	9,614	9,713
Clay	W	5,849	5,304	5,648	5,899	6,784
Cleveland	W	67,805	71,982	76,992	72,870	69,192
Columbus	SE	29,572	30,189	30,559	29,809	29,793
Craven	SE	82,300	81,105	80,473	87,969	87,457
Cumberland	SC	320,598	312,428	302,941	302,428	301,003
Currituck	NE	36,525	36,453	38,559	37,623	39,475
Dare	NE	112,460	114,558	115,988	111,845	108,389
Davidson	NC	97,150	97,399	96,438	100,302	107,530
Davie	NC	24,937	25,401	24,392	25,950	27,818
Duplin	SE	30,202	30,914	29,533	31,511	31,297
Durham	NC	537,182	531,267	537,993	543,742	542,854
Edgecombe	NE	27,321	27,244	26,761	30,144	44,811
Forsyth	NC	409,691	414,087	402,038	402,121	398,192
Franklin	NE	29,663	30,360	31,109	31,481	34,719
Gaston	SC	161,765	162,619	163,115	171,519	183,013
Gates	NE	2,708	2,760	2,752	2,728	3,041
Graham	W	4,759	5,354	5,148	5,086	5,715
Granville	NC	26,475	27,154	26,218	26,301	28,093

County	Extension District [a]	TAC FY 15-16	TAC FY 16-17	TAC FY 17-18	TAC FY 18-19	TAC FY 19-20
Greene	SE	5,397	4,940	5,053	5,193	5,979
Guilford	NC	558,270	568,170	555,989	555,350	543,503
Halifax	NE	38,243	38,042	38,558	40,467	36,592
Harnett	SC	65,336	66,728	68,013	67,804	73,681
Haywood	W	55,716	54,788	54,632	54,551	57,259
Henderson	W	91,663	93,136	94,702	94,163	96,130
Hertford	NE	17,272	16,638	16,652	16,083	16,801
Hoke	SC	14,643	14,602	15,966	15,197	16,943
Hyde	NE	4,942	4,720	4,553	4,633	4,301
Iredell	SC	174,729	176,455	175,382	177,762	188,680
Jackson	W	35,632	37,667	38,959	40,248	43,874
Johnston	SE	128,490	133,936	137,033	144,354	145,137
Jones	SE	2,468	3,136	3,470	3,860	3,679
Lee	SC	57,779	59,111	58,846	58,637	59,930
Lenoir	SE	42,106	41,710	42,008	42,281	42,455
Lincoln	SC	52,762	57,228	58,228	63,740	70,276
Macon	W	37,070	38,853	39,346	39,078	39,769
Madison	W	7,996	8,115	8,282	8,434	9,435
Martin	NE	15,747	15,337	15,113	14,797	14,793
McDowell	W	26,531	26,975	26,312	27,743	29,404
Mecklenburg	SC	1,634,832	1,643,155	1,660,339	1,666,036	1,650,188
Mitchell	W	10,827	10,759	10,904	10,401	10,404
Montgomery	SC	13,538	13,064	14,380	15,152	15,548
Moore	SC	94,702	96,287	94,673	96,088	103,517
Nash	NE	82,328	80,985	81,642	79,702	77,056
New Hanover	SE	335,615	338,924	335,379	355,370	349,264
Northampton	NE	7,658	7,023	8,315	8,296	7,833
Onslow	SE	156,979	153,020	152,897	166,611	168,410
Orange	NC	130,599	133,357	132,322	134,794	136,184
Pamlico	SE	6,722	6,781	6,842	7,207	7,129
Pasquotank	NE	37,682	36,866	35,619	36,894	39,137
Pender	SE	33,625	35,186	36,513	38,769	40,538
Perquimmons	NE	5,069	5,323	4,457	4,518	5,307
Person	NC	24,637	24,090	24,987	25,189	24,737
Pitt	NE	178,559	179,938	176,398	172,101	177,421
Polk	W	10,226	10,344	11,037	12,720	11,135
Randolph	NC	86,739	88,443	87,060	86,494	89,396
Richmond	SC	29,770	29,493	28,751	28,303	28,699
Robeson	SE	83,305	81,781	78,812	80,470	78,937
Rockingham	NC	51,914	51,728	50,027	52,186	54,326

County	Extension District [a]	TAC FY 15-16	TAC FY 16-17	TAC FY 17-18	TAC FY 18-19	TAC FY 19-20
Rowan	SC	97,402	99,216	97,257	102,646	103,745
Rutherford	W	43,284	47,023	42,795	46,083	46,580
Sampson	SE	37,999	36,847	34,991	35,128	36,214
Scotland	SC	22,235	22,857	23,921	22,601	22,243
Stanly	SC	42,939	43,472	43,701	45,175	50,654
Stokes	NC	17,076	17,468	18,505	18,130	19,701
Surrey	NC	69,109	68,716	66,629	66,376	68,315
Swain	W	10,319	10,664	10,773	10,131	11,293
Transylvania	W	24,941	25,497	25,797	26,442	27,643
Tyrell	NE	1,773	1,651	1,911	1,633	1,620
Union	SC	149,849	156,053	154,779	153,555	161,831
Vance	NC	34,661	33,558	31,783	31,295	32,291
Wake	NE	1,192,596	1,233,609	1,367,145	1,379,200	1,399,008
Warren	NE	6,087	5,977	6,075	6,057	6,614
Washington	NE	6,100	9,464	7,739	6,076	6,055
Watauga	W	64,515	65,776	65,347	64,831	66,647
Wayne	SE	91,463	90,257	87,800	89,138	93,349
Wilkes	NC	44,097	46,242	47,500	50,419	52,546
Wilson	SE	75,908	78,334	73,951	73,647	80,057
Yadkin	NC	16,493	16,661	16,022	15,897	17,125
Yancy	W	9,005	9,229	9,290	10,046	10,317
State Totals	**All**	**10,042,802**	**10,146,298**	**10,273,416**	**10,383,635**	**10,491,297**

[a] Indicates which of North Carolina Extension's five administrative districts the county is in: North Central, Northeast, South Central, Southeast or West.

Appendix C: North Carolina Counties' Percentage of Market Share

County	Extension District [a]	MS (%) FY 15-16	MS (%) FY 16-17	MS (%) FY 17-18	MS (%) FY 18-19	MS (%) FY 19-20
Alamance	NC	1.81	1.76	1.76	1.73	1.74
Alexander	SC	0.14	0.14	0.14	0.14	0.16
Alleghany	NC	0.06	0.06	0.06	0.06	0.06
Anson	SC	0.11	0.11	0.11	0.11	0.11
Ashe	NC	0.19	0.19	0.19	0.19	0.21
Avery	W	0.19	0.19	0.20	0.21	0.22
Beaufort	NE	0.36	0.34	0.34	0.36	0.35
Bertie	NE	0.07	0.06	0.07	0.06	0.06
Bladen	SE	0.16	0.16	0.16	0.15	0.15
Brunswick	SE	1.20	1.23	1.25	1.27	1.33
Buncombe	W	3.90	3.91	3.96	3.88	3.64
Burke	W	0.54	0.52	0.52	0.52	0.52
Cabarrus	SC	2.57	2.56	2.52	2.49	2.40
Caldwell	W	0.47	0.43	0.43	0.43	0.44
Camden	NE	0.05	0.04	0.04	0.04	0.04
Carteret	SE	0.86	0.85	0.86	0.90	0.88
Caswell	NC	0.05	0.05	0.05	0.05	0.05
Catawba	SC	1.75	1.76	1.72	1.66	1.64
Chatham	NC	0.45	0.44	0.44	0.44	0.49
Cherokee	W	0.22	0.22	0.23	0.23	0.23
Chowan	NE	0.10	0.09	0.09	0.09	0.09
Clay	W	0.06	0.05	0.05	0.06	0.06
Cleveland	W	0.68	0.71	0.75	0.70	0.66
Columbus	SE	0.29	0.30	0.30	0.29	0.28
Craven	SE	0.82	0.80	0.78	0.85	0.83
Cumberland	SC	3.19	3.08	2.95	2.91	2.87
Currituck	NE	0.36	0.36	0.38	0.36	0.38
Dare	NE	1.12	1.13	1.13	1.08	1.03
Davidson	NC	0.97	0.96	0.94	0.97	1.02
Davie	NC	0.25	0.25	0.24	0.25	0.27
Duplin	SE	0.30	0.30	0.29	0.30	0.30
Durham	NC	5.35	5.24	5.24	5.24	5.17
Edgecombe	NE	0.27	0.27	0.26	0.29	0.43
Forsyth	NC	4.08	4.08	3.91	3.87	3.80
Franklin	NE	0.30	0.30	0.30	0.30	0.33
Gaston	SC	1.61	1.60	1.59	1.65	1.74
Gates	NE	0.03	0.03	0.03	0.03	0.03
Graham	W	0.05	0.05	0.05	0.05	0.05

County	Extension District [a]	MS (%) FY 15-16	MS (%) FY 16-17	MS (%) FY 17-18	MS (%) FY 18-19	MS (%) FY 19-20
Granville	NC	0.26	0.27	0.26	0.25	0.27
Greene	SE	0.05	0.05	0.05	0.05	0.06
Guilford	NC	5.56	5.60	5.41	5.35	5.18
Halifax	NE	0.38	0.37	0.38	0.39	0.35
Harnett	SC	0.65	0.66	0.66	0.65	0.70
Haywood	W	0.55	0.54	0.53	0.53	0.55
Henderson	W	0.91	0.92	0.92	0.91	0.92
Hertford	NE	0.17	0.16	0.16	0.15	0.16
Hoke	SC	0.15	0.14	0.16	0.15	0.16
Hyde	NE	0.05	0.05	0.04	0.04	0.04
Iredell	SC	1.74	1.74	1.71	1.71	1.80
Jackson	W	0.35	0.37	0.38	0.39	0.42
Johnston	SE	1.28	1.32	1.33	1.39	1.38
Jones	SE	0.02	0.03	0.03	0.04	0.04
Lee	SC	0.58	0.58	0.57	0.56	0.57
Lenoir	SE	0.42	0.41	0.41	0.41	0.40
Lincoln	SC	0.53	0.56	0.57	0.61	0.67
Macon	W	0.37	0.38	0.38	0.38	0.38
Madison	W	0.08	0.08	0.08	0.08	0.09
Martin	NE	0.16	0.15	0.15	0.14	0.14
McDowell	W	0.26	0.27	0.26	0.27	0.28
Mecklenburg	SC	16.28	16.19	16.16	16.04	15.73
Mitchell	W	0.11	0.11	0.11	0.10	0.10
Montgomery	SC	0.13	0.13	0.14	0.15	0.15
Moore	SC	0.94	0.95	0.92	0.93	0.99
Nash	NE	0.82	0.80	0.79	0.77	0.73
New Hanover	SE	3.34	3.34	3.26	3.42	3.33
Northampton	NE	0.08	0.07	0.08	0.08	0.07
Onslow	SE	1.56	1.51	1.49	1.60	1.61
Orange	NC	1.30	1.31	1.29	1.30	1.30
Pamlico	SE	0.07	0.07	0.07	0.07	0.07
Pasquotank	NE	0.38	0.36	0.35	0.36	0.37
Pender	SE	0.33	0.35	0.36	0.37	0.39
Perquimmons	NE	0.05	0.05	0.04	0.04	0.05
Person	NC	0.25	0.24	0.24	0.24	0.24
Pitt	NE	1.78	1.77	1.72	1.66	1.69
Polk	W	0.10	0.10	0.11	0.12	0.11
Randolph	NC	0.86	0.87	0.85	0.83	0.85
Richmond	SC	0.30	0.29	0.28	0.27	0.27
Robeson	SE	0.83	0.81	0.77	0.77	0.75

County	Extension District [a]	MS (%) FY 15-16	MS (%) FY 16-17	MS (%) FY 17-18	MS (%) FY 18-19	MS (%) FY 19-20
Rockingham	NC	0.52	0.51	0.49	0.50	0.52
Rowan	SC	0.97	0.98	0.95	0.99	0.99
Rutherford	W	0.43	0.46	0.42	0.44	0.44
Sampson	SE	0.38	0.36	0.34	0.34	0.35
Scotland	SC	0.22	0.23	0.23	0.22	0.21
Stanly	SC	0.43	0.43	0.43	0.44	0.48
Stokes	NC	0.17	0.17	0.18	0.17	0.19
Surrey	NC	0.69	0.68	0.65	0.64	0.65
Swain	W	0.10	0.11	0.10	0.10	0.11
Transylvania	W	0.25	0.25	0.25	0.25	0.26
Tyrell	NE	0.02	0.02	0.02	0.02	0.02
Union	SC	1.49	1.54	1.51	1.48	1.54
Vance	NC	0.35	0.33	0.31	0.30	0.31
Warren	NE	0.06	0.06	0.06	0.06	0.06
Washington	NE	0.06	0.06	0.06	0.06	0.64
Watauga	W	0.64	0.65	0.64	0.64	0.64
Wayne	SE	0.91	0.89	0.85	0.86	0.89
Wilkes	NC	0.44	0.46	0.46	0.49	0.50
Wilson	SE	0.76	0.77	0.72	0.71	0.76
Yadkin	NC	0.16	0.16	0.16	0.15	0.16
Yancy	W	0.09	0.09	0.09	0.10	0.10

Note. MS = Market share.

[a] Indicates which of North Carolina Extension's five administrative districts the county is in: North Central, Northeast, South Central, Southeast or West.

Appendix D: Combined Factors

County	CTPF FY 19-20	Tier FY 19-20	TAC FY 19-20	MS (%) FY 19-20
Alamance	1.06	2	182,996	1.74
Alexander	0.44	1	16,427	0.16
Alleghany	0.57	2	6,368	0.06
Anson	0.46	1	11,144	0.11
Ashe	0.79	2	21,576	0.21
Avery	1.30	2	22,783	0.22
Beaufort	0.78	2	36,829	0.35
Bertie	0.34	1	6,378	0.06
Bladen	0.47	1	15,463	0.15
Brunswick	0.97	2	139,201	1.33
Buncombe	1.46	2	382,214	3.64
Burke	0.61	1	55,013	0.52
Cabarrus	1.16	3	251,864	2.40
Caldwell	0.57	1	46,643	0.44
Camden	0.41	3	4,501	0.04
Carteret	1.33	3	92,305	0.88
Caswell	0.24	1	5,360	0.05
Catawba	1.08	2	172,398	1.64
Chatham	0.68	3	50,924	0.49
Cherokee	0.85	1	24,384	0.23
Chowan	0.70	2	9,713	0.09
Clay	0.60	2	6,784	0.06
Cleveland	0.71	1	69,192	0.66
Columbus	0.54	1	29,793	0.28
Craven	0.86	2	87,457	0.83
Cumberland	0.90	1	301,003	2.87
Currituck	1.42	3	39,475	0.38
Dare	2.93	2	108,389	1.03
Davidson	0.64	2	107,530	1.02
Davie	0.65	2	27,818	0.27
Duplin	0.53	1	31,297	0.30
Durham	1.69	3	542,854	5.17
Edgecombe	0.87	1	44,811	0.43
Forsyth	1.04	2	398,192	3.80
Franklin	0.50	2	34,719	0.33
Gaston	0.82	2	183,013	1.74
Gates	0.26	2	3,041	0.03
Graham	0.68	1	5,715	0.05
Granville	0.46	2	28,093	0.27

County	CTPF FY 19-20	Tier FY 19-20	TAC FY 19-20	MS (%) FY 19-20
Greene	0.28	1	5,979	0.06
Guilford	1.01	2	543,503	5.18
Halifax	0.73	1	36,592	0.35
Harnett	0.54	2	73,681	0.70
Haywood	0.92	2	57,259	0.55
Henderson	0.82	3	96,130	0.92
Hertford	0.71	1	16,801	0.16
Hoke	0.31	1	16,943	0.16
Hyde	0.87	1	4,301	0.04
Iredell	1.04	3	188,680	1.80
Jackson	1.00	2	43,874	0.42
Johnston	0.69	3	145,137	1.38
Jones	0.39	2	3,679	0.04
Lee	0.97	2	59,930	0.57
Lenoir	0.76	1	42,455	0.40
Lincoln	0.82	3	70,276	0.67
Macon	1.11	3	39,769	0.38
Madison	0.43	2	9,435	0.09
Martin	0.66	1	14,793	0.14
McDowell	0.64	2	29,404	0.28
Mecklenburg	1.49	3	1,650,188	15.73
Mitchell	0.70	1	10,404	0.10
Montgomery	0.57	2	15,548	0.15
Moore	1.03	3	103,517	0.99
Nash	0.82	1	77,056	0.73
New Hanover	1.49	2	349,264	3.33
Northampton	0.40	1	7,833	0.07
Onslow	0.85	2	168,410	1.61
Orange	0.92	3	136,184	1.30
Pamlico	0.56	2	7,129	0.07
Pasquotank	0.98	1	39,137	0.37
Pender	0.64	3	40,538	0.39
Perquimans	0.39	2	5,307	0.05
Person	0.63	2	24,737	0.24
Pitt	0.98	2	177,421	1.69
Polk	0.54	3	11,135	0.11
Randolph	0.62	1	89,396	0.85
Richmond	0.64	1	28,699	0.27
Robeson	0.60	1	78,937	0.75
Rockingham	0.60	1	54,326	0.52

County	CTPF FY 19-20	Tier FY 19-20	TAC FY 19-20	MS (%) FY 19-20
Rowan	0.73	1	103,745	0.99
Rutherford	0.69	1	46,580	0.44
Sampson	0.57	1	36,214	0.35
Scotland	0.64	1	22,243	0.21
Stanly	0.81	2	50,654	0.48
Stokes	0.43	2	19,701	0.19
Surrey	0.95	2	68,315	0.65
Swain	0.79	1	11,293	0.11
Transylvania	0.80	3	27,643	0.26
Tyrell	0.40	1	1,620	0.02
Union	0.67	3	161,831	1.54
Vance	0.72	1	32,291	0.31
Wake	1.26	3	1,399,008	13.33
Warren	0.34	1	6,614	0.06
Washington	0.52	1	6,055	0.06
Watauga	1.19	3	66,647	0.64
Wayne	0.76	1	93,349	0.89
Wilkes	0.77	1	52,546	0.50
Wilson	0.98	1	80,057	0.76
Yadkin	0.45	2	17,125	0.16
Yancy	0.57	2	10,317	0.10

Note. CTPF = County Trade Pull Factors, TAC = Trade Area Capture, MS = Market Share

Appendix E: Tier Status Ranks with CTPF, TAC and MS Factored In

COUNTY	ADJ. PROP TAX PER CAPITA FY 20-21	RANK	POP. GROWTH	RANK	MED HOUSE INCOME 2018	RANK	Unemply 12 Mth Avg Oct 19 - Sept 20	RANK	CTPF	RANK	TAC	RANK	MS	RANK	RANK TOTAL	TIER 2021	CTPF ADJ. TIER
WAKE	$146,397	86	5.55%	89	$80,169	99	5.61%	81	1.26	92	1,399,008	99	13.33%	99	645	3	3
DURHAM	126,617	73	4.65	86	59,329	85	5.72	77	1.69	99	542,854	97	5.17	97	614	3	3
MECKLENBURG	143,536	83	4.39	85	64,509	93	6.66	33	1.49	97	1,650,188	100	15.73	100	591	3	3
CABARRUS	113,877	59	6.48	94	69,297	96	6.14	58	1.16	90	251,864	92	2.40	92	581	3	3
ORANGE	130,800	76	3.17	70	71,920	97	4.73	100	0.92	74	136,184	82	1.30	82	581	3	3
NEW HANOVER	159,632	89	3.58	76	53,419	77	6.35	49	1.49	98	349,264	94	3.33	94	577	2	3
IREDELL	137,976	80	4.66	87	60,044	87	6.47	42	1.04	85	188,680	91	1.80	91	563	3	3
UNION	123,606	71	5.38	88	80,428	100	5.29	89	0.67	44	161,831	85	1.54	85	562	3	3
CURRITUCK	250,610	99	6.43	93	64,426	92	5.73	75	1.42	95	39,475	50	0.38	50	554	3	3
CARTERET	220,566	97	1.63	49	55,052	82	5.62	80	1.33	94	92,305	75	0.88	75	552	3	3
MOORE	129,160	75	5.67	91	59,471	86	6.18	56	1.03	84	103,517	78	0.99	78	548	3	3
CHATHAM	149,548	87	7.01	96	73,703	98	4.89	99	0.68	46	50,924	59	0.49	59	544	3	3
DARE	395,462	100	3.87%	79	64,768	94	9.13	3	2.93	100	108,389	81	1.03	81	538	2	3
BRUNSWICK	193,103	93	12.59%	100	60,163	88	7.92	11	0.97	78	139,201	83	1.33	83	536	2	3
WATAUGA	164,159	90	3.47%	75	48,489	59	5.24%	90	1.19	91	66,647	65	0.64%	65	535	3	3
BUNCOMBE	149,620	88	2.12%	58	53,960	79	7.11%	23	1.46	96	382,214	95	3.64%	95	534	2	3

COUNTY	ADJ. PROP TAX PER CAPITA FY 20-21	RANK	POP. GROWTH	RANK	Median Household Income 2018	RANK	Unemply 12 Mth Avg Oct 19 - Sept 20	RANK	CTPF	RANK	TAC	RANK	MS	RANK	RANK TOTAL	TIER 2021	CTPF ADJ. TIER
JOHNSTON	90,154	46	9.20%	99	60,296	89	5.67%	79	0.69	47	145,137	84	1.38%	84	528	3	3
LINCOLN	120,007	66	6.07%	92	62,963	91	5.90%	69	0.82	65	70,276	68	0.67	68	519	3	3
HENDERSON	135,818	78	3.19%	71	54,012	80	5.95%	67	0.82	67	96,130	77	0.92	77	517	3	3
ALAMANCE	85,841	40	5.65%	90	50,480	67	6.29%	52	1.06	87	182,996	89	1.75	89	514	2	3
FORSYTH	98,276	51	2.56%	63	50,112	63	6.43%	45	1.04	86	398,192	96	3.80	96	500	2	2
MACON	215,533	96	4.33%	84	46,426	49	5.89%	70	1.11	89	39,769	51	0.38	51	490	3	2
GUILFORD	99,098	52	2.42%	61	52,166	75	7.34%	18	1.01	83	543,503	98	5.18	98	485	2	2
CATAWBA	111,625	58	1.86%	54	53,738	78	7.12%	22	1.08	88	172,398	87	1.64	87	474	2	2
TRANSYLVANIA	170,161	92	3.59%	77	51,398	72	5.38%	87	0.80	62	27,643	37	0.26	37	464	3	2
PENDER	125,777	72	6.76%	95	54,900	81	5.93%	68	0.64	41	40,538	52	0.39	52	461	3	2
GASTON	82,322	31	3.73%	78	52,798	76	6.92%	28	0.82	64	183,013	90	1.74	90	457	2	2
ONSLOW	69,406	9	7.10%	97	$50,531	68	6.47%	41	0.85	68	168,410	86	1.61	86	455	2	2
STANLY	$80,713	28	4.00%	81	51,491	73	5.55%	82	0.81	63	50,654	58	0.48	58	443	2	2
PITT	$75,055	19	3.01%	68	43,303	33	6.02%	62	0.98	80	177,421	88	1.69	88	438	2	2
CRAVEN	$94,239	50	-0.18%	23	50,748	69	5.86%	71	0.86	70	87,457	73	0.83	73	429	2	2
HAYWOOD	$127,203	74	2.55%	62	47,183	53	6.51%	38	0.92	75	57,259	63	0.55	63	428	2	2
JACKSON	$212,315	95	2.26%	60	44,502	41	6.58%	36	1.00	82	43,874	54	0.42	54	422	2	2
AVERY	$244,779	98	1.67%	51	41,701	22	5.40%	85	1.30	93	22,783	34	0.22%	34	417	2	2

COUNTY	ADJ. PROP TAX PER CAPITA FY 20-21	RANK	POP. GROWTH	RANK	Median Household Income 2018	RANK	Unemply 12 Mth Avg Oct 19 - Sept 20	RANK	CTPF	RANK	TAC	RANK	MS	RANK	RANK TOTAL	TIER 2021	CTPF ADJ. TIER
LEE	$93,278	49	3.45%	73	48,984	60	7.00%	24	0.97	77	59,930	64	0.57	64	411	2	2
DAVIDSON	$86,458	42	2.20%	59	47,758	55	6.23%	54	0.64	39	107,530	80	1.02	80	409	2	2
SURREY	$84,132	36	1.01%	42	46,342	46	5.97%	65	0.95	76	68,315	66	0.65	66	397	2	2
DAVIE	$109,476	57	2.60%	64	60,801	90	6.03%	61	0.65	42	27,818	38	0.27	38	390	2	2
ASHE	$143,823	84	2.68%	66	41,864	23	5.39%	86	0.79	61	21,576	32	0.21	32	384	2	2
ROWAN	$90,368	47	1.63%	48	46,864	52	7.00%	25	0.73	54	103,745	79	0.99	79	384	1	2
FRANKLIN	$81,970	30	7.51%	98	57,710	83	6.05%	60	0.50	19	34,719	45	0.33	45	380	2	2
NASH	$82,699	33	1.93%	55	50,122	64	7.30%	20	0.82	66	77,056	70	0.73	70	378	1	2
BEAUFORT	120,177	67	-0.09%	24	46,411	48	5.82%	74	0.78	59	36,829	48	0.35	48	368	2	2
GRANVILLE	79,270	24	3.47%	74	58,956	84	5.17%	91	0.46	17	28,093	39	0.27	39	368	2	2
CUMBERLAND	70,734	11	0.75%	37	46,779	51	8.29%	7	0.90	73	301,003	93	2.87	93	365	1	2
POLK	140,114	81	3.07%	69	$50,467	66	5.51%	83	0.54	23	11,135	21	0.11	21	364	3	2
WILSON	83,426	34	1.65%	50	$44,015	39	7.89%	13	0.98	79	80,057	72	0.76	72	359	1	2
HARNETT	65,538	6	4.28%	83	$51,225	71	6.61%	35	0.54	24	73,681	69	0.70	69	357	2	2
RANDOLPH	80,498	26	0.86%	40	$48,372	58	6.46%	44	0.62	35	89,396	74	0.85	74	351	1	2
CLEVELAND	90,825	48	2.10%	57	$42,728	27	6.71%	32	0.71	51	69,192	67	0.66	67	349	1	2
WILKES	83,712	35	0.29%	30	$44,080	40	5.99%	64	0.77	58	52,546	60	0.50	60	347	1	2
WAYNE	67,791	8	0.65%	35	$41,572	21	5.84%	73	0.76	56	93,349	76	0.89	76	345	1	2

COUNTY	ADJ. PROP TAX PER CAPITA FY 20-21	RANK	POP. GROWTH	RANK	Median Household Income 2018	RANK	Unemply 12 Mth Avg Oct 19 - Sept 20	RANK	CTPF	RANK	TAC	RANK	MS	RANK	RANK TOTAL	TIER 2021	CTPF ADJ. TIER
CAMDEN	107,683	56	2.65%	65	$65,955	95	5.01%	97	0.41	11	4,501	5	0.04	5	334	3	2
YANCY	131,484	77	3.30%	72	$44,756	43	5.84%	72	0.57	28	10,317	19	0.10	19	330	2	2
BURKE	77,012	22	1.48%	46	$44,946	44	6.42%	46	0.61	34	55,013	62	0.52	62	316	1	2
MCDOWELL	86,652	43	2.03%	56	$43,972	38	6.16%	57	0.64	40	29,404	41	0.28	41	316	2	2
PERSON	116,915	61	1.47%	45	$50,149	65	6.56%	37	0.63	36	24,737	36	0.24	36	316	2	2
MONTGOMERY	120,504	68	1.20%	43	$47,757	54	5.95%	66	0.57	30	15,548	26	0.15	26	313	2	2
CLAY	165,357	91	3.99%	80	$42,878	30	6.36%	48	0.60	32	6,784	14	0.06	14	309	2	2
PAMLICO	142,479	82	0.02%	28	$46,447	50	5.07%	94	0.56	25	7,129	15	0.07	15	309	2	1
RUTHERFORD	105,088	53	1.77%	52	$42,831	29	7.89%	12	0.69	48	46,580	56	0.44	56	306	1	1
LENOIR	72,783	13	-1.12%	17	$40,433	18	5.30%	88	0.76	57	42,455	53	0.40	53	299	1	1
SAMPSON	75,196	20	0.64%	34	$42,807	28	5.07%	95	0.57	27	36,214	46	0.35	46	296	1	1
STOKES	85,811	39	0.15%	29	$50,826	70	5.68%	78	0.43	12	19,701	31	0.19	31	290	2	1
CALDWELL	87,524	44	0.84%	39	$43,328	34	6.97%	27	0.57	26	46,643	57	0.44	57	284	1	1
DUPLIN	74,828	16	0.34%	31	$42,725	26	5.00%	98	0.53	21	31,297	43	0.30	43	278	1	1
CHOWAN	105,196	54	-0.95%	18	$42,618	25	5.49%	84	0.70	50	9,713	18	0.09	18	267	2	1
MADISON	117,715	63	1.49%	47	$44,693	42	6.01%	63	0.43	13	9,435	17	0.09	17	262	2	1
YADKIN	$80,872	29	0.81%	38	$49,070	61	6.32%	50	0.45	15	17,125	30	0.16	30	253	2	1
ALLEGHANY	$144,776	85	1.82%	53	$39,735	16	6.38%	47	0.57	29	6,368	11	0.06	11	252	2	1

COUNTY	ADJ. PROP TAX PER CAPITA FY 20-21	Rank	POP. GROWTH	Rank	Median Household Income 2018	Rank	Unemply 12 Mth Avg Oct 19 - Sept 20	Rank	CTPF	RANK	TAC	RANK	MS	RANK	TIER RANK	TIER 2021	CTPF ADJ. TIER
MITCHELL	$119,600	65	-0.03%	27	$43,967	37	6.83%	31	0.70	49	10,404	20	0.10	20	249	1	1
ROCKINGHAM	$80,308	25	-0.03%	26	$41,869	24	7.34%	19	0.60	31	54,326	61	0.52	61	247	1	1
PERQUIMANS	$120,608	69	0.67%	36	$48,337	57	6.19%	55	0.39	8	5,307	6	0.05	6	237	2	1
SWAIN	$117,022	62	-1.66%	11	$43,121	31	7.29%	21	0.79	60	11,293	23	0.11	23	231	1	1
ALEXANDER	$73,977	14	1.21%	44	$49,138	62	6.64%	34	0.44	14	16,427	27	0.15	27	222	1	1
HOKE	$66,780	7	4.06%	82	$47,892	56	7.63%	15	0.31	4	16,943	29	0.16	29	222	1	1
MARTIN	$82,397	32	-2.13%	7	$43,569	35	6.27%	53	0.66	43	14,793	24	0.14	24	218	1	1
GATES	$77,897	23	-0.23%	21	$51,746	74	5.13%	92	0.26	2	3,041	2	0.03	2	216	2	1
WARREN	$121,676	70	-2.18%	5	$38,430	12	8.33%	93	0.34	5	6,614	13	0.06	13	211	1	1
EDGECOMBE	$60,475	2	-1.98%	8	$38,818	14	8.92%	4	0.87	71	44,811	55	0.43	55	209	1	1
ROBESON	$53,527	1	-1.16%	15	$35,407	1	7.60%	16	0.60	33	78,937	71	0.75	71	208	1	1
VANCE	$61,655	4	0.95%	41	$40,263	17	8.49%	5	0.72	53	32,291	44	0.31	44	208	1	1
JONES	$87,538	45	-0.36%	20	$43,302	32	5.13%	93	0.39	7	3,679	3	0.04	3	203	2	1
HYDE	$212,056	94	-4.15%	2	$40,653	19	10.89%	1	0.87	72	4,301	4	0.04	4	196	1	1
RICHMOND	$75,051	18	0.63%	33	$38,514	13	7.88%	14	0.64	38	28,699	40	0.27	40	196	1	1
HALIFAX	$75,253	21	-1.82%	10	$36,760	5	8.07%	10	0.73	55	36,592	47	0.35	47	195	1	1
HERTFORD	$69,944	10	-2.51%	4	$38,216	11	6.11%	59	0.71	52	16,801	28	0.16	28	192	1	1

COUNTY	ADJ. PROP TAX PER CAPITA FY 20-21	RANK	POP. GROWTH	RANK	Median Household Income 2018	RANK	Unemply 12 Mth Avg Oct 19 - Sept 20	RANK	CTPF	RANK	TAC	RANK	MS	RANK	County Rank Total	TIER 2021	CTPF ADJ. TIER
BLADEN	$85,232	38	-0.41%	19	$36,976	8	6.32%	51	0.47	18	15,463	25	0.15	25	184	1	1
GRAHAM	$135,833	79	-1.59%	12	$39,502	15	8.24%	8	0.68	45	5,715	8	0.05	8	175	1	1
GREENE	$60,667	3	-1.17%	14	$43,591	36	5.06%	96	0.28	3	5,979	9	0.06	9	170	1	1
COLUMBUS	$74,838	17	-1.36%	13	$36,862	7	6.98%	26	0.54	22	29,793	42	0.28	42	169	1	1
ANSON	$84,218	37	-1.12%	16	$38,023	10	6.49%	40	0.46	16	11,114	22	0.11	22	163	1	1
NORTHAMPTON	$105,853	55	-2.86%	3	$37,233	9	6.49%	39	0.40	9	7,833	16	0.07	16	147	1	1
SCOTLAND	$63,457	5	-0.21%	22	$36,730	4	9.97%	2	0.64	37	22,243	33	0.21	33	136	1	1
CASWELL	$74,656	15	-0.04%	25	$45,517	45	6.90%	29	0.24	1	5,360	7	0.05	7	129	1	1
BERTIE	$72,221	12	-2.14%	6	$35,433	2	5.73%	76	0.34	6	6,378	12	0.06	12	126	1	1
WASHINGTON	$80,661	27	-1.88%	9	$36,042	3	7.51%	17	0.52	20	6,055	10	0.06	10	96	1	1
TYRELL	$118,548	64	-7.65%	1	$36,765	6	8.15%	9	0.40	10	1,620	1	0.02	1	92	1	1