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Extended Publication: Measuring the Impact Economic Pull Factors Have on the Tier Status of the CREATE BRIDGES Counties in Western North Carolina

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CREATE BRIDGES Extended Publications 23-6

Measuring the Impact Economic Pull Factors Have on the Tier Status of the CREATE BRIDGES Counties in Western North Carolina

Mark Seitz, North Carolina Cooperative Extension

Introduction

CREATE BRIDGES is a collaborative effort between the Southern Rural Development Center at Mississippi State University, University of Arkansas, the University of Kentucky, New Mexico State University, The University of Illinois Urbana-Champaign Extension, North Carolina State University and Oklahoma State University.

CREATE BRIDGES' goal is to bring community economic development research and expertise to rural communities; to raise awareness about the importance of retail, tourism, accommodations, and entertainment in their economies; to assess assets and challenges unique to each community; and to develop strategies that strengthen a community's retail sector and effectively implement those strategies. There are currently eight CREATE BRIDGES projects on-going in six states.

This paper focuses on how county trade pull factors impact retail trade in the four counties in western North Carolina (Macon, Jackson, Swain, and Graham) selected to participate in the project along with seventeen other counties that are part of the West District of North Carolina Cooperative Extension (NC State Extension, Extension Information Technology [Cartographers], 2022) to offer a regional perspective of the economy and how the surrounding county economies impact the CREATE BRIDGES counties.



Program Overview

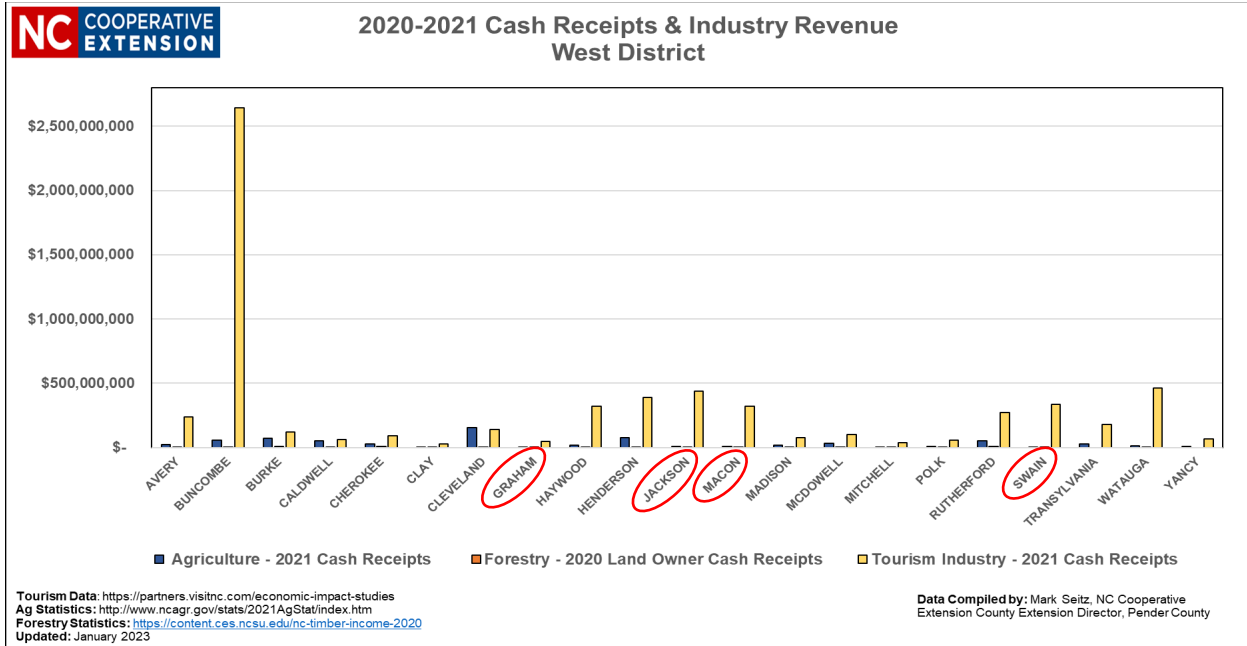
CREATE BRIDGES (Celebrating Retail, Accommodations, Tourism, and Entertainment by Building Rural Innovations and Developing Growth Economies) is a pilot project designed for multi-county regions to raise the awareness of the role retail, accommodations, tourism, and entertainment businesses play in the local economy; determine challenges, barriers, and opportunities related to those businesses; and develop and implement strategies to strengthen the retail, accommodations, tourism, and entertainment sectors within a region. CREATE BRIDGES is a collaborative partnership between the Southern Rural Development Center, the University of Arkansas, The University of Illinois, the University of Kentucky, New Mexico State University, North Carolina State University and Oklahoma State University. It is currently active in eight regions throughout the six partner states.

CREATE BRIDGES' focus on strengthening the retail sector in rural communities is important because "economic development and community viability in the future may depend heavily on the retail sector" (Nelson, Johnson and Darling, 2007). And in North Carolina, as in all states, retail sales and the accommodation industry are a significant part of the economy.

In North Carolina the retail and accommodation industry accounts for 27% of all jobs and 10% of GDP. In contrast manufacturing and agriculture account for 22% of GDP and 12% of employment (National Retail Federation, 2021). Both sectors are vital to the economic health of counties but with retail impacting nearly 1 in 3 people in North Carolina in comparison to agriculture and manufacturing only impacting 1 in 12 people, growing the retail sector will have a significant impact on the county economy (National Retail Federation, 2021).

Pull factor analysis is a good way to measure the movement of revenue between counties in comparison to the spending by permanent residents. Gale (1996) utilized pull factors to analyze the relationship between retail sales and personal income for all U.S. counties between 1982 and 1992. This work, cited 21 times, confirms the idea that counties with higher population densities, lower farm reliance, larger size and interstate highway access, tend to have higher pull factors due to greater consumer accessibility. Darling and Tublene (1996) studied the population threshold of minor trade centers and how they impact retail sales in Kansas. Their work showed cities with populations greater than 5,000 were significant retail hubs. Evidence of this can clearly be seen by the dominance that Buncombe County (Graph 1) has in the region.

More recently Hughes (2004) and Toma (2010) looked at West Virginia's and Georgia's sales tax policies and their impact on retail sales in food, drinking establishments and gas stations in bordering counties. This work demonstrates that differences in state sales tax rates can influence the economic pull of border counties. And while three of the four CREATE BRIDGES counties in this study border Tennessee and South Carolina, those impacts go beyond the scope of this paper.



Graph 1. 2020-2021 Agriculture, Forestry and Tourism Industry Cash Receipts – NC Cooperative Extension West District Counties

Sources: *Tourism Economics*, prepared for Visit North Carolina, 2022; Parajuli, R. and Bardon, R., 2022; Troxler, S., & Webb, D., 2022.

With pull factor analysis based on sales tax revenues it can be an effective measure of the success or failure of strategies devised by CREATE BRIDGES teams. However, they are not the only measures of economic success or distress and therefore it is important to consider other factors to provide a more complete picture of the economic impact of the implemented strategies.

In North Carolina, the NC Department of Commerce established a formula to measure economic distress using four metrics: median household income (MHI), unemployment percent (UI), percent population growth (POP) and adjusted per capita property tax valuation (PTV). These terms and others used in this paper are summarized in Table 1. The data for each of these metrics is collected from the US Census Bureau (United States Census Bureau, U.S. Department of Commerce, 2022), and these factors are ranked 100 (highest) to 1 (lowest) to create an index value and those combined index values are the basis for the NC Tier System (North Carolina Department of Commerce, 2021). While these factors are important, they alone do not provide a complete picture of what is happening in a county’s economy. The focus of this work is to combine the impact pull factors have on an economy with the economic distress factors used by the NC Department of Commerce to offer a more complete picture of each county’s level of economic prosperity

or distress. When combined CREATE BRIDGES teams can better evaluate the success of the strategies devised to increase retail activity.

Residents of rural counties travel to suburban and urban counties looking for places to eat, shop, be entertained and receive medical care. Conversely, in-state and out-of-state tourists travel to counties with an abundance of natural attractions (Outer Banks, rivers, mountains, state and national parks and campgrounds). And, while tourism industry revenues (Graph 1) are most often associated with an influx of money from outside the county or region, some of that spending comes from residents of rural and suburban counties that are close to larger metropolitan counties. And it is that pull that impacts the success of any devised strategies.

As CREATE BRIDGES teams develop strategies to strengthen their retail sectors, measuring the success of these projects can be difficult. For example, tourism revenue in 20 of the 21 west district counties increased between 2019 and 2021. But are these increases a reflection of people just wanting to get out of their houses post-covid or is it an indication that these county's retail sectors are growing? If the county's population increased at a high rate, was the increased tourism revenue due to the higher population's spending capacity or because there were more residents spending money in their home county because the retail base grew? County trade pull factors provide the per capita measure of retail growth to answer those questions.

Upendram and Darling (2004) define county trade pull factors (CTPF) as a measure of the relative strength of the business community based on county per capita sales tax revenue. They further define trade area capture (TAC) as a measure of the customer base served by the community, meaning it is the CTPF times the county population. And the percent market share (MS) is the TAC divided by the state population, which shows what percentage of the state's economy is generated by each county.

A CTPF greater than 1.0 means the county, is pulling in money from other counties because of its strong retail sector or natural amenities. A CTPF equal to 1.0 means the county is neither gaining nor losing money, and a CTPF less than 1.0 means the county is losing money to an adjacent county. Combined with the economic distress metrics used by the North Carolina Commerce Department, pull factors offer stakeholders a more complete understanding of what is happening with county economies and offers CREATE BRIDGES teams a method of quantifying the success or failure of their efforts to strengthen the retail sector in their counties.

Methods

FY 21-22 data for the twenty-one NC Cooperative Extension West District counties (NC State Extension, Extension Information Technology [Cartographers], 2022), including the four CREATE BRIDGES counties, are the focus of this report (Table 2). The metrics: MHI, POP, UI and PTV, are used by the NC Commerce Department to determine each county's level economic distress (North Carolina Department of Commerce, 2021). The annual values for each metric are collected from the US Census Bureau and ranked from the highest (100) to the lowest (1). Those rankings then become the index values (IV) for each metric, thereby changing the identifying variables from MHI, POP, UI and PTV to *IVMHI*, *IVPOP*, *IVUI* and *IVPTV*. The values for *IVMHI*, *IVPOP*, *IVUI* and *IVPTV* are then added together (Formula 1), and those index values are then added together and re-ranked to determine the county's level of economic distress in the state.

Formula 1: Economic Distress Index = IVMHI + IVUI + IVPOP + IVPTV

With 100 counties in North Carolina the highest rank given is 100 and the lowest is 1. But counties with high unemployment are considered highly distressed because fewer people have jobs, which lowers the county's MHI and eventually impacts the PTV. While 100 is the high index value given to the metrics *IVMHI*, *IVPOP* and *IVPTV*, the opposite is true with the unemployment index (*IVUI*). The county with the highest unemployment rate has an index value of 1 and a county with the lowest unemployment level in North Carolina has a value of 100. That is because high unemployment is equated with a high level of economic distress. Therefore, the state's formula identifies the county with the highest combined index value as the least economically distressed and the county with the lowest combined index value as the most economically distressed. Therefore, based on the state's formula, the *IVUI* needs to be low for the index value to equate to a county with high unemployment and a high level of economic distress, and the *IVUI* needs to be high for county with the lowest level of unemployment, equating to a low level of economic distress.

Once the index values are determined the combined scores are ranked again from 100 to 1 to determine each county's level of economic distress without pull factors compared to the other counties. The top 20 counties with the highest combined scores are classified as Tier 3 (least economically distressed), the next 40 are Tier 2 (moderate economic distress) and the next 40 Tier 1 (most economically distressed).

The county trade pull factors: CTPF, TAC and MS are based on county population and annual sales and use tax revenues collected in each county (Tables 3, 4 and 5). County population data is retrieved from the US Census Bureau (United States Census Bureau, U.S. Department of Commerce, 2022) and sales and use tax revenue data from the NC

Department of Revenue (North Carolina Department of Revenue, 2022). Each county's collected sales tax is divided by the county's population. That total is then divided by the value of the state sales tax divided by the state population (Formula 2) to show the per capita movement of revenue between counties, or CTPF. Each county's CTPF is then ranked from 100 to one to determine the IVCTPF (Table 2).

*Formula 2: CTPF = [(County STR ÷ County Population) / (State STR ÷ State Population)]
where STR = sales and use tax revenue*

A CTPF greater than 1.0, means the county is gaining revenue, a CTPF equal to 1.0 means the county is neither gaining nor losing revenue and a CTPF less than 1.0 means the county is losing revenue.

TAC is calculated by multiplying the CTPF by the county's population (Formula 3).

Each county's TAC is ranked from 100 to 1 to determine the IVTAC.

Formula 3: TAC = County CTPF X county population

And MS is calculated by taking the county TAC and dividing it by the state population (Formula 4). Each county's MS is then ranked to get the IVMS.

Formula 4: MS = County TAC ÷ State TAC

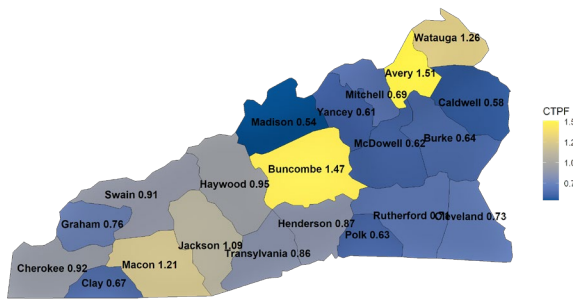
Once these calculations are made the index values for every county are combined with the pull factor index values and re-ranked to show how the county's level of economic distress changes when pull factors are added to the state's economic distress formula. As discussed earlier this methodology creates an adjusted Tier 3, Tier 2 and Tier 1 order that includes pull factors. This adjusted order better reflects what is happening in a county's economy as it adjusts for the flow of money and wealth between counties (Table 2).

Finally, combining IVMHI, IVUI, IVPOP, and IVPTV with IVCTPF, IVTAC and IVMS (Formula 5) offers stakeholders a more complete picture of the economic distress counties may be experiencing as well as the gain or loss of retail revenue happening between counties. This gives CREATE BRIDGES teams a more comprehensive method of assessing the success of the strategies employed to increase the strength of the retail industry in their counties.

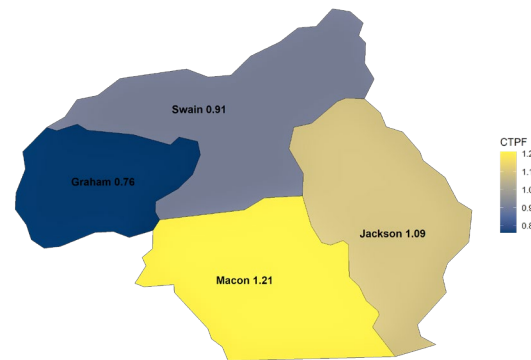
Formula 5: Economic Distress Tier Index Values Plus Pull Factor Index Values: Tier Status = IVMHI + IVUI + IVPOP + IVPTV + IVCTPF + IVTAC + IVMS

Results

The twenty-one North Carolina counties shown in Map 1 are the counties in the West District of NC Cooperative Extension. In FY 21-22, only three counties: Buncombe, Henderson and Macon were ranked as Tier 3 but with pull factors added to the formula Macon County drops to Tier 2. Buncombe County is a Tier 3 county using the state’s formula, but its regional dominance is evident with an eleven-spot jump to the fourth largest county economy in the state when pull factors are included.



Map 1: NC Extension West District Counties



Map 2: CREATE BRIDGES counties.

Sources (for Maps 1 & 2): North Carolina Department of Revenue, 2022a; United States Census Bureau, U.S. Department of Commerce, 2022.

Created by: Bressingham, D., 2023.

Buncombe County’s ranking is important as it is the dominant county in the region (Graph 1). Its population of 266,987 is 2.5 times larger than the four CREATE BRIDGES counties combined. It is a crossroad county with access to I-26 and I-40 and US 74/76 with a large population, large retail center and accommodation business. And as three of the four (Macon, Jackson and Swain) CREATE BRIDGES county seats are within a one-hour drive of Buncombe County’s County seat, Asheville, with Graham County’s seat a two-hour drive from Asheville, its economic pull across the region is significant. It has a CTPF of 1.47, 6th largest in the state (Table 2). As such its proximity to the CREATE BRIDGES counties creates a significant economic challenge to overcome.

The data in Tables 2 and 3 show the data used by the NC Department of Commerce used to establish each county’s level of economic distress based on the index values for MHI, POP, UI and PTV. Those index values are added together and sorted to get the combined index values for the tier rankings without pull factors are shown for FY 21-22 in Table 2 and for fiscal years 2012-2013 to fiscal year 2021-2022 in Table 3. Pull factors and their corresponding index values derived from Formulas 1 through 5 for the same fiscal years are also shown, along with the adjusted tier ranking when pull factors are included. The

four counties included in the CREATE BRIDGES project are highlighted in Map 2 and color coded based on their adjusted tier ranking in FY 21-22.

Buncombe County's regional tourism dominance in the West District is very apparent with its nearly \$2.6 billion in revenue in FY 21-22 (Graph 1). And yet the vulnerability of Buncombe County's dependence on tourism is evident in the economic distress index value of 67 in FY 20-21 (Table 2 and Table 3). Buncombe County's large food and accommodation business sector suffered a significant economic blow during the pandemic. As people traveled less or stayed home in fear of covid-19, restaurants and hotels struggled to attract visitors, revenues declined, and unemployment rose. But post pandemic the tourists returned, and unemployment dropped, resulting in a significant reduction in the county's unemployment rate, which caused Buncombe's IVUI to rise from 23 in FY 20-21 to 65 in FY 21-22 (Table 2).

At the same time Macon County, despite its significantly smaller population, was classified ahead of Buncombe County with a combined economic distress index value of 85 (Tier 3) in FY 20-21 (Table 2). When pull factors are included for that year, the combined economic distress index value for Macon County drops to 79 (Tier 2) while Buncombe County rises to 85 in FY 20-21 (Table 2). While Buncombe County is not part of the CREATE BRIDGES counties, its mention is important because of the dominance it has in the region. And because of that dominance Macon County's tier ranking (85) ahead of Buncombe County (67) in FY 20-21 (Table 2) demonstrates how important it is to include the flow of money between counties in the North Carolina Department of Commerce's formula.

When pull factors are added to the economic distress measure, Macon County's drop to Tier 2 in the last two years more accurately reflects its economic standing in the state. It has a small measure of regional economic strength as seen by its IVPOP (82), IVUI (83), IVPTV (94) and its IVCTPF (90) in FY 21-22 (Table 2) but its IVMHI (39), IVTAC (53) and IVMS (53) suggest it does not have the population density to attract the business concentration that Buncombe County and other larger counties enjoy.

Jackson County, the CREATE BRIDGES' most populated county, was classified as a Tier 2 County in both FY 20-21 and FY 21-22, ranking 66th in FY 20-21 without pull factors and 69th with pull factors (Table 2). In FY 21-22 its tier rank rose four places to 70th without pull factors and to 74th when pull factors were included (Table 2). In FY 21-22 without its high IVPTV (95) Jackson County would likely be a mid-level Tier 2 county based on its IVMHI (54), IVPOP (54) and IVUI (60). Its IVCTPF in FY 20-21 (85) and in FY 21-22 (88) also demonstrates it has enough population density and retail base to attract business from nearby counties but its population of 44,950 in 2021 is 5.9 times smaller than Buncombe

County. Jackson County's CTPF of 1.09 (Table 2 and Table 3) indicates its retail strength is pulling in a small amount of retail business from its neighbors but its population is not large enough to significantly change its IVTAC (57) and IVMS (57).

The retail sector in Swain County is classified as Tier 1 in both years under the state's economic distress formula. In FY 20-21 (Table 2) Swain County's combined economic distress index without pull factors was 21 and in FY 21-22 (Table 2) it rose to 38. This increase is driven by a significant decrease in unemployment rate which increased its IVUI from 21 to 59. In both FY 20-21 and FY 21-22 Swain County's IVPTV (62), like Macon and Jackson County, is its most stabilizing metric. When pull factors are added its IVCTPF in FY 20-21 (72) and FY 21-22 (73) show that it has a decent amount of pull in the local area considering its small population, but its IVTAC and IVMS of (22) and (23) suggest it has neither the population density nor the retail base to see significant increases in the short term.

While Swain County's CTPF of 0.91 and 0.92 is strong for a small population county, its IVUI change from 21 (high unemployment) to 59 (lower unemployment) between FY 20-21 and FY 21-22 suggest its economy is heavily dependent on its outdoor recreation industry and tourism spending. Further evidence of this is seen in a move from a combined index rank with pull factors from 27 in FY 20-21 to 37 in FY 21-22.

Graham County's struggles the most of the four CREATE BRIDGES counties. Like Macon, Jackson and Swain Counties it has a high IVPTV, 79 in FY 20-21 and 80 in FY 21-22, but in FY 20-21 its IVMHI (15), IVPOP (12) and its IVUI (8) indicate many of its citizens struggle financially with low incomes and high unemployment and it struggles to get people to move to the county. Its overall rank in the state's tier formula was 18 in FY 20-21. When adding pull factors its standing drops from 18 to 14 (Table 2). The situation did not change significantly in FY 21-22 as covid-19's impacts lessened. Its ranking in the state's economic distress formula was 20 with and without pull factors. And its IVMS (10) shows its retail base only captures 0.06% of the state's retail business.

Tables 3, 4 and 5 show the ten-year changes in CTPF, TAC and MS of the twenty-one counties in the West District. The CTPF values in all four CREATE BRIDGES counties increased, which suggests that these counties are finding ways to promote the natural beauty and attractions in their counties. Graham County's CTPF rose 0.17 points, Jackson County 0.26, Macon County 0.09 and Swain County 0.29. Graham County's TAC rose from 5,189 to 6,407, Jackson County's from 33,703 to 49,060, Macon County from 37,721 to 45,576 and Swain County's TAC nearly doubled in that span rising from 8,979 to 13,080 (Table 4). The MS of Graham County increased from 0.05% to 0.06%, Jackson County from

0.35% to 0.45%, Macon County from 0.39% to 0.42% and Swain County from 0.09% to 0.12% (Table 5).

Conclusion

Determining a county's level of economic distress encompasses many things. MHI, UI, POP and PTV are static measures of economic distress that do not account for the flow of money between counties. CTPF, TAC and MS measure the flow of money between counties based on its retail strength, and the data show that including pull factors in the formula used by the NC Commerce Department gives stakeholders a better understanding of what is happening in their counties and how retail spending is impacting the economy.

Applying economic pull factors changes Macon County's position in the state's economic distress rankings, dropping it from 81 to 77. This places it just below Tier 3 status, high in Tier 2. That change more accurately reflects the strength its natural attractions have in bringing people to the area to live and play. It reflects both its seasonal and regional retail strength while also recognizing that a county with a small population can be prosperous, but it does not have the population density or retail concentration comparable to larger Tier 3 counties like Buncombe (Asheville), Wake (Raleigh), Mecklenburg (Charlotte) and New Hanover (Wilmington). None of the CREATE BRIDGES counties have the spending capacity or the population that these counties have. Macon County's CTPF of 1.21 and Jackson County's CTPF of 1.09 show they benefit from the pull that the many natural attractions and open spaces which entice people to visit and spend money, but they have neither the variety or concentration of retail business, the medical centers or universities or accommodation industry to be considered as Tier 3, 'least economically distressed'.

Even with small populations, the CTPF in Swain County in FY 21-22 (0.91) and Graham County (0.76) suggest they do benefit from the natural attractions in their counties. Of the eight counties in the West District with populations under 25,000 Swain and Graham County have the highest IVCTPF's. And while they do not have the population or retail concentrations of larger counties, the natural attractions and the outdoor businesses that promote those attractions provide a strong foundation on which the CREATE BRIDGES and regional economy can expand.

The increases in TAC likely reflect a combination of population growth and an increase in every county's CTPF. Each county's population has grown in the last 10 years and with it their spending capacity has grown, evidenced by their increasing TAC's (Table 4). And, while each county's MS grew, the data are more a reflection of their small populations in

comparison to the other 96 counties in the state than they reflect little to no growth in their MS rankings (Table 5).

Tourism revenues in each county demonstrate an awareness in the business community that 'selling' the shared use of the natural attractions to visitors has value. While offering decision makers a way to quantify each county's measure of economic distress, the state's tier formula ignores the spending capacity of counties with large populations and the economic pull that large counties have on their neighbors. Adding the index values of the county trade pull factors for each county to the state's formula accounts for that movement of money.

The research results in this paper are constrained by the assumptions that sales and use tax revenues collections only come from the residents of North Carolina. With significant access to interstates and four lane highways in the region and its relative proximity to Atlanta, Georgia; Knoxville and Chattanooga, Tennessee; Winston-Salem and Charlotte, North Carolina and other large cities, retail spending is likely coming from a much larger area than just North Carolina or the western counties of North Carolina.

A pull factor analyses across a multi-state region, or on a much tighter district basis or a focus on the counties in South Carolina, Georgia and Tennessee that surround the CREATE BRIDGES counties in this study would offer additional perspectives on what is impacting these counties.

Finally, this research can and should be used by the CREATE BRIDGES stakeholders as an evaluation tool to help quantify the efficacy of the strategies implemented to strengthen the retail sectors of the economies in Macon, Jackson, Swain and Graham Counties.

About the Author

Mark Seitz has been the Cooperative Extension Director for North Carolina Cooperative Extension in Pender County since 2010. He received his Masters of Agribusiness from Kansas State University in 2003, where he worked with Dr. David Darling (retired) in the Department of Agricultural Economics to develop county trade pull factor data for Kansas counties. Today, he develops county trade pull factor data and reports for 100 North Carolina counties.

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Appendix
Data Tables

Table 1: Acronyms and Definitions

Acronym	Definition	Source / Formula
CTPF	County Trade Pull Factor	$(\text{County STR} \div \text{County Population}) / (\text{State STR} / \text{State Population})$
STR	Sales Tax Revenue	NC Department of Revenue Annual Data
TAC	Trade Area Capture	County Population * CTPF
MS	Percent Market Share	County TAC / State TAC
County Economic Distress	Combined Index Values of Economic Distress Ranks	$\text{CED} = (\text{IVMHI} + \text{IVUI} + \text{IVPOP} + \text{IVPTV})$
Tier 3	Least economic distress	Top 20 Combined County Economic Distress Values
Tier 2	Moderate economic distress	Middle 40 Combined County Economic Distress Values
Tier 1	Most economic distress	Bottom 40 Combined County Economic Distress Values
MHI	Median Household Income	US Census Data
UI	Unemployment Rate (%)	US Census Data
POP	Population Growth Rate (%)	US Census Data
PTV	Per capita property tax valuation rate	US Census Data
IVMHI	Rank Among 100 NC Counties	Highest Rank = 100, Lowest Rank = 1
IVUI	Rank Among 100 NC Counties	Highest Rank = 100, Lowest Rank = 1
IVPOP	Rank Among 100 NC Counties	Highest Rank = 100, Lowest Rank = 1
IVPTV	Rank Among 100 NC Counties	Highest Rank = 100, Lowest Rank = 1

Sources: United States Census Bureau, U.S. Department of Commerce, 2022; North Carolina Department of Commerce, 2021

Table 2: NC Cooperative Extension West District Counties- FY 21-22

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NC COOPERATIVE EXTENSION WEST DISTRICT COUNTIES - FY 21-22

COUNTY	MHI	IVMHI	POP	IVPOP	UI	IVUI	PTV	IVPTV	COMB. TIER INDEX VALUE	COMB. TIER RANK	TIER STATUS	CTPF	IVCTPF	TAC	IVTAC	MS	IVMS	COMB. INDEX VALUES W/PULL FACTORS	RANK W/PULL FACTORS	ADJ. TIER STATUS
BUNCOMBE	\$55,032	77	3.08%	78	4.73%	65	\$159,363	86	306	85	3	1.47	95	392,968	95	3.64%	95	591	97	3
BURKE	\$43,915	30	-1.15%	35	4.80%	62	\$84,213	20	147	27	1	0.64	36	57,876	60	0.54%	60	303	40	1
CALDWELL	\$46,094	41	-0.47%	46	5.29%	38	\$100,814	48	173	36	1	0.58	25	47,549	55	0.44%	55	308	42	2
CHEROKEE	\$40,793	18	1.46%	64	5.39%	35	\$127,054	61	178	40	1	0.92	74	26,975	36	0.25%	36	324	45	2
CLAY	\$42,160	20	-0.01%	38	5.26%	42	\$178,605	90	190	46	2	0.67	44	7,761	15	0.07%	15	264	31	1
CLEVELAND	\$43,512	28	2.51%	76	5.68%	27	\$98,051	45	176	37	1	0.73	52	72,471	67	0.67%	67	362	55	2
GRAHAM	\$42,207	21	-2.47%	20	7.15%	9	\$146,420	80	130	20	1	0.76	56	6,407	10	0.06%	10	206	20	1
HAYWOOD	\$51,548	63	0.91%	59	4.69%	67	\$136,708	74	263	74	2	0.95	76	60,361	61	0.56%	61	461	75	2
HENDERSON	\$58,928	83	2.16%	71	4.43%	86	\$139,206	77	317	91	3	0.87	69	104,819	77	0.97%	77	540	85	3
JACKSON	\$46,820	45	0.52%	54	4.85%	60	\$224,746	95	254	70	2	1.09	88	49,060	57	0.45%	57	456	74	2
MACON	\$45,703	39	3.85%	82	4.48%	83	\$218,595	94	298	81	3	1.21	90	45,576	53	0.42%	53	494	77	2
MADISON	\$46,190	42	-0.69%	40	4.64%	70	\$127,502	64	216	58	2	0.54	21	11,872	21	0.11%	21	279	34	1
MCDOWELL	\$47,085	47	-0.69%	41	4.85%	61	\$105,093	51	200	53	2	0.62	32	29,072	40	0.27%	40	312	43	2
MITCHELL	\$48,841	53	-0.61%	43	5.64%	30	\$126,339	60	186	41	2	0.69	46	10,306	17	0.10%	17	266	32	1
POLK	\$52,125	67	-2.04%	24	4.76%	64	\$170,693	88	243	68	2	0.63	33	13,116	23	0.12%	23	322	44	2
RUTHERFORD	\$43,183	26	-1.32%	30	6.77%	12	\$124,497	59	127	19	1	0.71	48	48,038	56	0.44%	56	287	35	1
SWAIN	\$45,554	37	-2.84%	19	4.85%	59	\$127,214	62	177	38	1	0.91	73	13,080	22	0.12%	22	294	37	1
TRANSYLVANIA	\$51,509	62	-0.14%	48	4.37%	88	\$191,697	92	290	79	2	0.86	67	30,242	42	0.28%	42	441	72	2
WATAUGA	\$46,453	43	-0.57%	44	3.98%	98	\$181,496	91	276	77	2	1.26	92	71,549	66	0.66%	66	500	80	2
YANCY	\$44,554	32	2.42%	73	4.52%	79	\$136,616	73	257	72	2	0.61	29	11,319	20	0.10%	20	326	46	2

MHI = Median Household Income
 POP = Population Growth %
 UI = Unemployment %
 PTV = Per Capita Property Tax Valuation
 CTPF = County Trade Pull Factor
 TAC = Trade Area Capture
 MS = Percent Market Share

IVMHI = Index Value of Median Household Income
 IVPOP = Index Value of Percent Population Growth
 IVUI = Index Value of Percent Unemployment
 IVPTV = Index Value of Per Capita Property Tax Valuation
 IVCTPF = Index Value of County Trade Pull Factor
 IVTAC = Index Value of Trade Area Capture
 IVMS = Index Value of Percent Market Share

Data Compiled by: Mark Seitz, County Extension Director
 NC Cooperative Extension - Pender County
 Updated: August 2022

Sources: North Carolina Department of Commerce, 2021; North Carolina Department of Revenue, 2022.

Table 3: NC Cooperative Extension West District: County Trade Pull Factors

COUNTY	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
AVERY	1.01	1.04	1.07	1.09	1.11	1.16	1.23	1.31	1.51	1.51
BUNCOMBE	1.46	1.46	1.52	1.55	1.56	1.59	1.56	1.47	1.42	1.47
BURKE	0.60	0.61	0.61	0.61	0.60	0.60	0.60	0.61	0.66	0.64
CALDWELL	0.57	0.58	0.61	0.59	0.54	0.54	0.55	0.57	0.60	0.58
CHEROKEE	0.79	0.78	0.79	0.78	0.81	0.83	0.83	0.85	0.93	0.92
CLAY	0.53	0.58	0.55	0.54	0.48	0.51	0.53	0.60	0.68	0.67
CLEVELAND	0.73	0.69	0.74	0.71	0.75	0.80	0.75	0.71	0.74	0.73
GRAHAM	0.59	0.56	0.54	0.56	0.63	0.61	0.61	0.69	0.76	0.76
HAYWOOD	0.94	0.92	0.94	0.93	0.91	0.89	0.88	0.92	0.97	0.95
HENDERSON	0.81	0.79	0.78	0.81	0.82	0.82	0.81	0.82	0.85	0.87
JACKSON	0.83	0.87	0.90	0.85	0.89	0.91	0.93	1.00	1.08	1.09
MACON	1.12	1.10	1.09	1.09	1.13	1.13	1.10	1.10	1.19	1.21
MADISON	0.37	0.36	0.36	0.38	0.38	0.38	0.39	0.44	0.53	0.54
MCDOWELL	0.60	0.62	0.61	0.59	0.60	0.58	0.61	0.65	0.66	0.62
MITCHELL	0.80	0.77	0.75	0.72	0.72	0.73	0.70	0.70	0.71	0.69
POLK	0.41	0.45	0.50	0.51	0.51	0.54	0.62	0.54	0.62	0.63
RUTHERFORD	0.66	0.64	0.62	0.66	0.72	0.65	0.69	0.70	0.73	0.71
SWAIN	0.62	0.61	0.65	0.73	0.76	0.76	0.72	0.80	0.92	0.91
TRANSYLVANIA	0.75	0.73	0.74	0.75	0.76	0.76	0.78	0.81	0.88	0.86
WATAUGA	1.20	1.25	1.22	1.21	1.21	1.18	1.17	1.20	1.25	1.26
YANCY	0.56	0.53	0.53	0.51	0.53	0.52	0.56	0.57	0.63	0.61

Created by: Mark Seitz, NC Cooperative Extension – Pender County, August 2022

Sources: North Carolina Department of Commerce, 2021; North Carolina Department of Revenue, 2022.

Table 4: Western NC Counties: Trade Area Capture (TAC)

COUNTY	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
AVERY	17,846	18,425	18,746	18,886	19,238	20,045	21,380	22,783	26,576	26,624
BUNCOMBE	360,425	363,678	380,748	391,841	396,961	407,318	403,327	382,214	376,214	392,968
BURKE	52,699	54,080	53,308	54,084	52,526	53,288	54,044	55,013	59,396	57,876
CALDWELL	46,354	47,219	49,448	47,607	43,944	43,685	44,524	46,643	49,474	47,549
CHEROKEE	21,351	21,100	21,374	21,677	22,494	23,348	23,573	24,384	27,163	26,975
CLAY	5,728	6,209	5,856	5,849	5,304	5,648	5,899	6,784	7,812	7,761
CLEVELAND	70,163	67,064	70,769	67,805	71,982	76,992	72,870	69,192	73,158	72,471
GRAHAM	5,189	4,896	4,581	4,759	5,354	5,148	5,086	5,715	6,405	6,407
HAYWOOD	55,769	54,447	55,933	55,716	54,788	54,632	54,551	57,259	61,522	60,361
HENDERSON	87,604	86,807	87,617	91,663	93,136	94,702	94,163	96,130	100,802	104,819
JACKSON	33,703	35,200	36,650	35,632	37,667	38,959	40,248	43,874	48,318	49,060
MACON	37,721	37,498	37,066	37,070	38,853	39,346	39,078	39,769	44,175	45,576
MADISON	7,819	7,702	7,564	7,996	8,115	8,282	8,434	9,435	11,713	11,872
MCDOWELL	26,844	27,887	27,078	26,531	26,975	26,312	27,743	29,404	30,541	29,072
MITCHELL	12,113	12,147	11,259	10,827	10,759	10,904	10,401	10,404	10,559	10,306
POLK	8,324	9,224	10,133	10,226	10,344	11,037	12,720	11,135	13,002	13,116
RUTHERFORD	44,506	43,137	40,556	43,284	47,023	42,795	46,083	46,580	49,614	48,038
SWAIN	8,979	9,017	9,334	10,319	10,664	10,773	10,131	11,293	13,211	13,080
TRANSYLVANIA	24,801	24,337	24,303	24,941	25,497	25,797	26,442	27,643	30,619	30,242
WATAUGA	62,745	65,444	64,174	64,515	65,776	65,347	64,831	66,647	70,409	71,549
YANCY	9,964	9,413	9,179	9,005	9,229	9,290	10,046	10,317	11,659	11,319

Created by: Mark Seitz, NC Cooperative Extension – Pender County, August 2022

Sources: North Carolina Department of Commerce, 2021; North Carolina Department of Revenue, 2022.

Table 5: Western NC Counties: Percent Market Share (MS)

County	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
AVERY	0.18%	0.19%	0.19%	0.19%	0.19%	0.20%	0.21%	0.22%	0.25%	0.25%
BUNCOMBE	3.69%	3.69%	3.83%	3.90%	3.91%	3.96%	3.88%	3.64%	3.52%	3.64%
BURKE	0.54%	0.55%	0.54%	0.54%	0.52%	0.52%	0.52%	0.52%	0.56%	0.54%
CALDWELL	0.47%	0.48%	0.50%	0.47%	0.43%	0.43%	0.43%	0.44%	0.46%	0.44%
CHEROKEE	0.22%	0.21%	0.21%	0.22%	0.22%	0.23%	0.23%	0.23%	0.25%	0.25%
CLAY	0.06%	0.06%	0.06%	0.06%	0.05%	0.05%	0.06%	0.06%	0.07%	0.07%
CLEVELAND	0.72%	0.68%	0.71%	0.68%	0.71%	0.75%	0.70%	0.66%	0.68%	0.67%
GRAHAM	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.06%	0.06%
HAYWOOD	0.57%	0.55%	0.56%	0.55%	0.54%	0.53%	0.53%	0.55%	0.57%	0.56%
HENDERSON	0.90%	0.88%	0.88%	0.91%	0.92%	0.92%	0.91%	0.92%	0.94%	0.97%
JACKSON	0.35%	0.36%	0.37%	0.35%	0.37%	0.38%	0.39%	0.42%	0.45%	0.45%
MACON	0.39%	0.38%	0.37%	0.37%	0.38%	0.38%	0.38%	0.38%	0.41%	0.42%
MADISON	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.09%	0.11%	0.11%
MCDOWELL	0.27%	0.28%	0.27%	0.26%	0.27%	0.26%	0.27%	0.28%	0.29%	0.27%
MITCHELL	0.12%	0.12%	0.11%	0.11%	0.11%	0.11%	0.10%	0.10%	0.10%	0.10%
POLK	0.09%	0.09%	0.10%	0.10%	0.10%	0.11%	0.12%	0.11%	0.12%	0.12%
RUTHERFORD	0.46%	0.44%	0.41%	0.43%	0.46%	0.42%	0.44%	0.44%	0.46%	0.44%
SWAIN	0.09%	0.09%	0.09%	0.10%	0.11%	0.10%	0.10%	0.11%	0.12%	0.12%
TRANSYLVANIA	0.25%	0.25%	0.24%	0.25%	0.25%	0.25%	0.25%	0.26%	0.29%	0.28%
WATAUGA	0.64%	0.66%	0.64%	0.64%	0.65%	0.64%	0.62%	0.64%	0.66%	0.66%
YANCY	0.10%	0.10%	0.09%	0.09%	0.09%	0.09%	0.10%	0.10%	0.11%	0.10%

Created by: Mark Seitz, NC Cooperative Extension – Pender County, August 2022

Sources: North Carolina Department of Commerce, 2021; North Carolina Department of Revenue, 2022.