North Carolina

Stronger Economies Together

Strategies for Building New Economic Opportunities

NC Isothermal Region C

Economic Development Plan

November 30, 2016, rev. April 10, 2017; May 26, 2017

Contents

EXECUTIVE SUMMARY

Stronger Economies Together Initiative

Launched in 2009 by USDA Rural Development in collaboration with the nation's Regional Rural Development Centers (RRDC) and their land-grant university partners, the purpose of Stronger Economies Together (SET) is to strengthen the capacity of communities in rural America to work together in developing and implementing an economic development blueprint that strategically builds on the current and emerging economic strengths of their region. Important elements of the Stronger Economies Together program include: building collaboration between communities in a region, providing economic analyses that are tailored to help capture the region's current or emerging clusters and comparative economic advantages, and technical assistance support provided by land-grant university extension systems to the regions over a period of several months including the SET training.

NC Isothermal Region C Executive Summary

This Regional Economic Development Plan will serve as the roadmap for the future economic development efforts of NC Isothermal Region C, a 4 county region in South Central North Carolina. Key regional stakeholders embrace a spirit of regionalism to support this initiative. Implementing the action items described within this document will strengthen the ability of NC Isothermal Region C to secure its economic future and position it as a competitive region. This plan reflects a four module planning process with active participation from business, civic, and community leaders. Significant research and discussions have led to the development of this plan, including a civic forum in October 2015 where stakeholders from all 4 counties were present and engaged, and five training sessions conducted throughout the region from January to May 2016. A regional writing team was assigned the duty of developing this plan based on the input it received at the civic forum, the five training sessions, and several post-training focus groups focused on the goal-setting, target development, and pathway identification that are a part of this plan.

NC Isothermal Region C Description

NC Isothermal Region C is comprised of four North Carolina counties – Cleveland, McDowell, Polk and Rutherford -- located in the state's southwestern foothills. The region is centrally located between four metro areas – Asheville, Hickory, Charlotte and Greenville-Spartanburg, SC. Interstate 40 passes through McDowell County across the northern part of the region connecting to I-77 to the east and I-26 to the west. Interstate-85 passes through the southeastern corner of Cleveland County, connecting Charlotte and Spartanburg. US Hwy 74 is the primary route across the three counties bordering South Carolina and US Hwy 221 is the major north-south highway, passing through Rutherford and McDowell counties.

NC Isothermal Region C Vision, Mission, and Value Statement

Vision

We are a regional coalition which values economic diversity and collaboration. Together we share risks and rewards in order to build opportunities for our citizens. We are a network of the surrounding economic engines with internal and external partners that enhance economic growth.

Mission

We are a four county region including Rutherford, McDowell, Polk and Cleveland. Our regional collaborative exists to be a regional brokerage of assets and talent development that improves individual, household and business prosperity and strengthens local communities.

Value Statement

We value the role of education (primary and post-secondary) and socio-determinants in the design and implementation of economic goals. By enhancing the educational and safety-net network connections, our citizens can maximize their skill sets' value, increase their social mobility, and reinvest their social capital back into the community. In addition, by connecting communities through enhancements in the built environment we can promote healthy and active lifestyles, increase the quality of life for residents and visitors, and promote whole person wellness. These elements form a foundation for success of the economic goals by solidifying the physical, organizational, and human capital infrastructure.

INTRODUCTION

Acknowledgements

NC Isothermal Region C would like to thank the staff from the United States Department of Agriculture Rural Development, Regional Rural Development Centers, and North Carolina State University Extension for support throughout the course of this project. We would also like to show our appreciation to the individuals that took part in the training sessions, and numerous other individuals, for their valuable insight and ideas that led to the creation of this plan.

Regional Collaboration

Broad participation from key stakeholders throughout the region was a major objective of this planning process. The plan has buy-in from several key decision makers in the region including twenty-seven municipal governments, three community colleges, and county health departments, social services, economic development offices, and utilities.

Regional Economic Goals

NC Isothermal Region C arrived at its regional economic development plan by participating in a process that engaged representatives throughout the four county region in a Civic Forum held in October 2015 at the Tryon International Equestrian Center in Mill Spring, NC. Attended by 78 people, the Civic Forum participants reviewed demographics of the region and identified regional strengths, assets, and opportunities. Top regional assets included location, natural resources/beauty, highway infrastructure, educational alliances, and low cost of living. Biggest challenges identified by participants were lack of a willing and skilled workforce (widespread inability to pass background checks and drug screenings), inconsistent broadband infrastructure, low attraction and retention of youth, lack of strategic action, and lack of branding and regional identity. Major concerns following a review of the demographics were:

- Aging workforce
- Increase in poverty, particularly among minors
- Decrease in household income
- Lower average earnings/worker as compared to the state of NC
- Number of workers leaving the region for work, as compared to the number of workers coming into the region for work

(More demographic information is in the Regional Demographics Section of this plan.)

Top opportunities identified at the Civic Forum included:

- Education: funding, results, trade training in high school, free tuition to community college, pathways
- Collaborative regional marketing/branding
- Manufacturing and Hospitality/Tourism as growth industries
- Recreation
- Transportation: improve/increase public transportation; consider region as a transportation/distribution hub

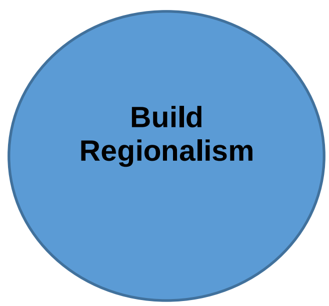
Five training sessions followed the Civic Forum to assist the Regional Team in identifying the goals and strategies that would best support the opportunities and address the challenges expressed at the Civic Forum. A writing team then refined those goals and strategies through a vetting process with industry focus groups assembled to provide additional knowledge and comment. Based on their feedback, we have only one fully-developed goal for NC Isothermal

Region C's SET V plan, with three industry clusters targeted for development and five pathways identified for the region's better infrastructure and quality of life.

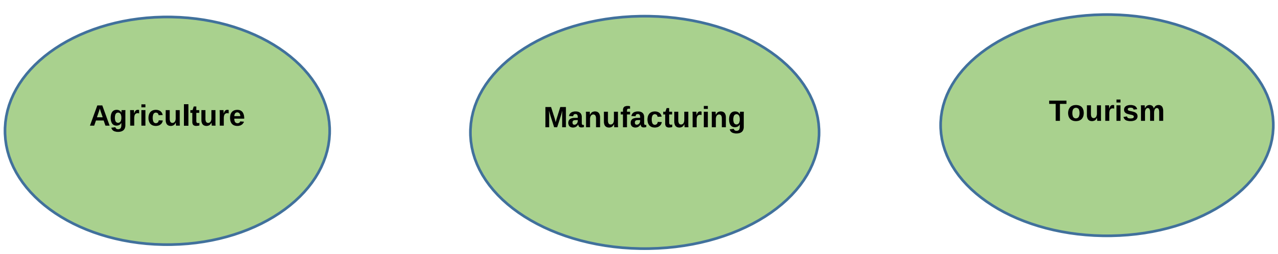
The all-volunteer writing team has wrestled with as many as six plan goals over the past several months but ultimately determined that the number one priority of the plan must be the four counties working together as one region. Without a successful implementation of the strategies supporting the plan's primary goal of building regionalism, industry cluster development within the region cannot and will not happen.

Significant time and energy have been spent on the development of the plan's goal of building an effective and cohesive regional identity. Some, but considerably less, focus was given to the region's targeted industry cluster development in the original submission of the plan. The SET V process, discussed in-depth in the Regional Economic Data section of this plan, uncovered some surprising industry data on this region as well as on neighboring counties. This process resulted in the team strategizing around three industry clusters: Agriculture, Manufacturing, and Tourism. However, as of the date of submission of this plan to USDA for High Quality Plan review, complete action steps and evaluation measures had not yet been identified for these clusters.

NC Foothills Region C Goal Development



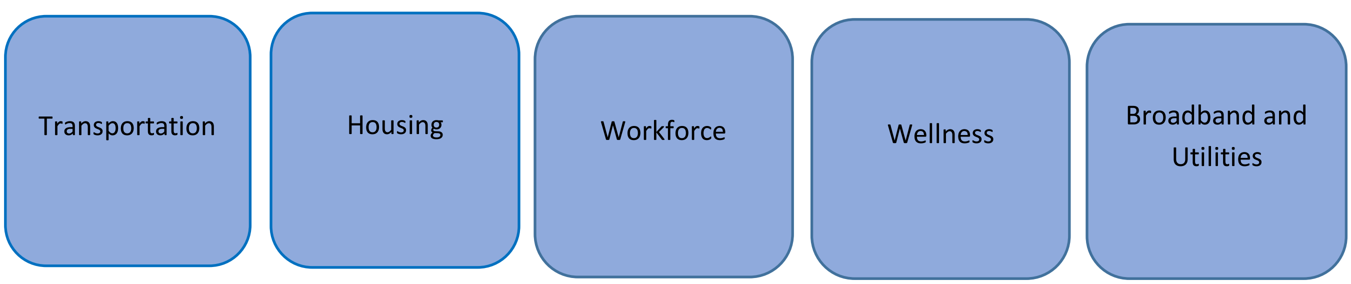
Targeted Industry Cluster Development



The plan's original tiered focus recognized that in time we would be able to fill in the action steps and evaluation measures for the development of Agriculture, Manufacturing, and Tourism in our region. It also made our SET V plan a living document that will be visited and revisited over the next several months as we pursue our strategy to secure NC Isothermal Region C's Economic Development District designation from the EDA. The SET V process has netted some of the assignable players and timeframes for the strategies under these Industry Cluster Targets. In order to make this SET V plan the living document that our team desires, we feel we will need the EDD Regional Structure in place in order to add the buy-in necessary to complete the strategies that have been identified in each. We believe that we can fill in these assignments as we develop the EDD Regional Structure.

We also believe that we have the ability to move the regionalism goal forward in a relatively short timeframe (Spring 2017) and in such a way as to commit a group of regional leaders to the work of convening the balance of the groups and players in the three targeted industry clusters. This initial steering group will also host several regional convenings to examine and begin the work on certain foundational elements important to the work of regional economic development including transportation, housing, workforce, wellness, and broadband and utilities, all of which must be addressed in the Comprehensive Economic Development Strategies (CEDS) required for the EDD designation.

Pathways to Economic Foundations



REGIONAL ECONOMIC DEVELOPMENT PLAN

The short-term primary focus of this plan is to implement the three strategies supporting the achievement of Goal 1: building regionalism and effective regional development within NC Isothermal Region C's 4-county region.

Complimenting this effort will be a second goal to continue convenings of stakeholders on the further development of goals, strategies, action steps, and evaluation measures for NC Isothermal Region C's Targeted Industry Clusters: Agriculture, Manufacturing, and Tourism.

Finally, as Goal 3, regional stakeholders must identify a process that will explore economic foundational elements required in the CEDS plan. In this SET V plan, we are calling this identification process a series of "pathways" that are not yet fully examined but will be described as a "next step" in the SET V planning process. In effect, NC Isothermal Region C's SET V planning process has laid the groundwork for the CEDS plan and EDD designation.

Goal 1 – Build Regionalism

By 2022, develop a regional collaborative that promotes economic development, cooperation, and success for NC Isothermal Region C through networking, branding, marketing, and leveraging assets.

The purpose of a regional collaborative is to create a neutral zone in which to discuss, study, explore, and Recommend policy improvements and investments, Foster cooperation among government and private organizations, Coordinate issues and solutions that have a multi-jurisdictional impact, and Facilitate innovation throughout the Region.

Regional Economic Benefits

NC Isothermal Region C consists of 4 counties today who have not developed a true sense of regionalism. This goal, which envisions the creation of a regional collaborative, will lead to a collaboration of regional partners, including community colleges, chambers of commerce, nonprofit organizations, economic developers, municipal and county governments, and tourism development authorities, who will continue the work they have begun through the SET process. This collaborative will result in:

- *Organized connection of resources and funding into and across the region*
- *Regional recruitment of new and better industry which leads to better jobs*
- *Greater awareness of job and workforce needs, for both employer and employee*
- *Potential to eliminate competing public goods by sharing them*
- *Promotion of regionalism amongst industry, suppliers, and workforce*
- *Pass-through dollars spurring second tier or support businesses*
- *Improved promotion of the region through a shared sense of identity*
- *Collaborative regional marketing creating a larger pool of potential customers, users, and businesses*
- *Shared costs and benefits of others' success*
- *Potential to become a national model of economic ecosystems*

- *Putting the region on the map as good place to work, live, play, and have a successful business*
- *A more efficient system of funding streams*

Regional Assets (Community Capitals)

Assets within the region that will help us attain this goal include:

- **Financial**-McNair Foundation, RHI Legacy, Polk Foundation PCCF, Kate B. Reynolds Charitable Trust, Cooperative Credit Union CDFI, Mountain Bizworks, Small Business Centers, SBA, Businesses, County and Municipal financing structures for financial and investment purposes

- **Politica**l-Business oriented boards, City and Town Councils, County Commissioners, Legislators, Prosperity Zones (3), Existing Regional Boards (IPDC), Regional Authorities, (Broad River, Cleveland Sanitary),

- **Social**-Young Professionals Association

- **Human**-Carolina Common Enterprise, Opportunity Threads, Carolina Textile District

- **Natural**-Bridge between Piedmont and Mountains, Isothermal region—mild temperature, nature and scenery

- **Location**-Overlapped by 4 major economic regions (Asheville, Greenville/Spartanburg, Charlotte, Hickory, Lenior), Carolina Foothills Crescent, I-26, I-40, I-85, CSX and Norfolk Southern lines, Potential of 74/221 connection, GSP, AVL, CLT, Proximity to Atlanta

Goal 1 Outcomes

NC Isothermal Region C desires this goal to have the following outcomes for the region:

Attitude, Knowledge, or Skills needed to change behaviors (Short-Term – 12 months)

- *State-to-state collaborative effort (NC/SC, NC/VA, NC/TN).*
- *General willingness to cooperate and share.*
- *Better understanding of where we live and work.*
- *Openness to new collaboration.*
- *Knowledge of best practices in industry, education, service delivery.*
- *Learn and understand benefit of collaboration. "What's in it for me?"*

Behavior changes needed to reach conditions (Intermediate Term – 1-2 years)

- *Tearing down the walls/boundaries.*
- *Willingness to enter into collaboration.*
- *Sharing of information including businesses and government.*
- *Constant Connection between players.*
- *Building trust and core competencies in various institutions.*
- *Businesses promote other businesses within region.*
- *Educators building consortiums.*

Conditions (Long Term –3-5 years)

- *A regional brand and identity is developed for the region.*
- *An organization that is known to be a clearinghouse for economic advancement is launched.*
- *System of regional business recruitment and expansion is implemented.*
- *A regional governance structure is supported by partners.*
- *Adequate funding is obtained for regional economic development projects and initiatives.*
- *Lower cost structure per jurisdiction exists.*

- *Increased number of new industries.*
- *Regional communication system established to broker assets and funding.*
- *Regional leadership development is accepted.*

In order to achieve the outcomes expressed above, NC Isothermal Region C has designed three strategies:

Strategy 1.1 – *Establish a regional economic development structure made up of a network of communities, institutions, and businesses within and outside of the region.*
Strategy 1.2 – *Create a brokerage entity that increases communication between the safety-net entities, coordinates resources, and coordinates the referral process with clients.*
Strategy 1.3 – *Establish and fund a Regional Leadership Program focused on Economic and Community Development.*

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Strategy 1.1: **Establish a regional economic development structure made up of a network of communities, institutions, and businesses within and outside of the region.**

Target Outcomes:

Short Term (within 12 months):

1. Establish an Economic Development District (EDD) that includes the four counties by September 2017.
2. Strategic Partners adopt SET V HQP

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Approve new CEDS document aligned with SET V HQP.	IPDC	Steve Lockett	March 31, 2017
2. Create a regional governance structure to manage the EDD. Convene regional partners to include local government, non-profit organizations, and businesses to establish a governance structure.	IPDC	Scott Dadson and IPDC Attorney	September 2017
3. Convene strategic partners to begin the process of aligning organizational plans and goals with the SET V HQP.	IPDC	Steve Lockett, Sarah Morse, and Josh Kennedy	December 2017

Intermediate (1-3 years):

1. Regional economic development initiative(s) that support local economic development efforts are developed.

2. A pilot project that includes intra- and inter-region participation, e.g., an employee-owned cooperative or an educational consortium, is launched.
3. An inventory of regional public assets and programs that will be used to identify opportunities for cooperation and shared services that result in efficiencies and reduced costs is maintained.

Action Step: The EDD will build relationships with at least two outside regions, organizations, or development districts by 2020.

Action Step: The EDD will explore the potential for joint operations and delivery of public services among local governments and agencies in the Region by 2020.

Action Step: Inventory of regional public assets will be conducted by the EDD, including broadband, transit, housing, or other opportunities as identified by the inventory of public assets and programs.

Long Term (3-5 years):

1. The EDD is recognized as a regional data and resource clearinghouse for economic advancement and is meeting on a regular basis to advance regional prosperity.
2. Organizational structures that guide programs to meet the evolving development needs of the region are established.
3. A regional identity will be recognized and promoted.
4. Broadband coverage will have extended throughout the four county region.

Action Step: The EDD will create an outreach effort on community and economic project development in the region by 2022. This will include the coordination of the EDA, USDA, ARC and State Commerce Schedules for Grant Applications and initiatives.

Action Step: The EDD will perform an inventory of Economic Development programs and product, marketing and workforce education efforts in the Region by 2022. This effort will be conducted as a part of the Regional Clearing House and Data Center.

Action Step: The EDD will conduct an inventory of best practices for regional branding and marketing and will share this information with regional partners by 2022.

Action Step: The EDD will coordinate an awareness campaign to improve the regional image and pride by 2022.

Action Step: The EDD will develop and implement a regional marketing plan by 2022.

Action Step: By 2022, the EDD will create regional legislative goals regarding economic, community, and workforce development.

Evaluation:

Strategy 1.1 Measurement Plan

Strategy 1.1: *Establish a regional economic development structure made up of a network of communities, institutions, and businesses within and outside the region.* ***Participants:*** *Municipal and County Government leaders and staff; private business; educators; economic developers, chambers of commerce, community colleges, and tourists.*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *EDA-designated Economic Development District*	*Verification from EDA*	*EDA, IPDC*	*IPDC will report out upon notification*	*Once, upon completion, by end of 2017*
Behavior (1-3 years) ***Evaluation Measure****: 1-2 regional economic development initiative(s) launched annually.*	*Guiding document(s) for each initiative, e.g. MOUs, budgets.*	*EDD members, IPDC*	*Annual Report*	*Annually*
Evaluation Measure: *A pilot project that includes intra- and inter-region participation, e.g. an employee-owned cooperative or an educational consortium.*	*Guiding document(s) for each initiative, e.g. MOUs, budgets.*	*EDD members, Regional Partners, IPDC*	*Annual Report*	*Annually*
Evaluation Measure*: An inventory of regional public assets and programs.*	*Inventory document*	*EDD, IPDC, Regional Partners*	*Submitted to regional data clearinghouse*	*Once within first 3 years, as needed subsequently.*

Condition (3-5 years) ***Evaluation Measure:*** *The EDD is known to be a regional data and resource clearinghouse for economic advancement and is meeting on a regular basis to advance regional prosperity.*	*Meetings schedule and minutes; data catalogue and record of requests*	*EDD, IPDC*	*Submitted to the regional data clearinghouse, EDD website*	*Ongoing*
Evaluation Measure: *Establish organizational structures that guide programs to meet the evolving development needs of the region.*	*Guiding document(s) for each program, e.g. MOUs, budgets.*	*EDD members, Program Partners, IPDC*	*Annual Report*	*Annually*

Benefits:

NC Isothermal Region C borders several strong economic regions including Charlotte, Asheville, and the South Carolina Upstate. The region exports over 50,000 skilled workers everyday outside of this region. In order to better capture the talent drain, it is clear that a regional effort is necessary to build the workforce and entrepreneurial ecosystems necessary to not only retain the talent, but to grow the business and wealth opportunities for the people and businesses of NC Isothermal Region C. To accomplish this, a regional economic development structure is necessary to assist local economic development efforts, build capacity across political borders and market the region and its assets to the adjoining regions and beyond. The benefit of a regional collaborative is to build capacity, give power to the region as a whole, leverage assets and fill in the programmatic gaps that are evident when there is a scarcity of resources, leadership and perspective.

Strategy 1.2: **Create a brokerage entity that increases communication between Human Service providers both public and private, coordinates resources, and coordinates the referral process with clients.**

Target Outcomes:

Short Term (within 12 months):

1. Identify existing human services collaborative and form an annual workgroup to review existing barriers, strategies, and outcomes.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. The EDD will schedule existing meetings to include dates, locations, attendees, and purpose.	Local DSS Boards, IPDC AAA, Region C Housing Authority, Isothermal RPO	Josh Kennedy	August 2017
2. The EDD will identify common barriers, strategies, and outcomes compiled from engagement with human service providers.		Josh Kennedy and Laura Lynch	June 2017

Intermediate (1-3 years):

1. Develop inter-organizational agreements (MOAs) to increase communication of resource usage and referrals issued.

Action Step: The EDD will develop a draft MOA for organizations to enable multi-jurisdictional groups to work together by December 2019.

Action Step: The EDD will report collected data from the human services collaborative by December 2019.

Long Term (3-5 years):

1. Develop a referral network for partnering organizations.

Action Step: EDD will issue an RFP for a platform to cross-communicate referrals by 2022.

Evaluation:

Strategy 1.2 Measurement Plan

Strategy 1.2: *Create a brokerage entity that increases communication between the Human Service providers, coordinates resources, and coordinates the referral process with clients.* ***Participants:*** *County Health Coalition, County Human Service Agencies, Area Agency on Aging, Workforce Development Board, Housing Authorities, secondary and primary schools, colleges, Non Profits, Transportation Agencies, medical providers, NC Works, faith based organizations, NGO, mental and behavioral health providers, law enforcement, court system.*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure: Identify existing human services collaborative to form an annual workgroup to review existing barriers, strategies, and outcomes.***	Participating contact information, meeting dates, locations, times, meeting details	Participants listed above.	Surveys of local participants	initial
Behavior (1-3 years) ***Evaluation Measure: Develop inter-organizational agreements (MOAs) to increase communication of resource usage and referrals issued.***	Participating organization mission/vision statements, organizational documents, existing MOUs, inventory of services/resources	Participating organizations, IPDC…	Meetings with participating organizations, managing partners, & leaders	On a regular basis during the preparation of the agreements
Condition (3-5 years) ***Evaluation Measure: Develop a referral network for partnering organizations***	Vendor specifications	Returned RFPs	Open procurement process	Once

Benefits: Increasing human services providers' efficiency, cost effectiveness, streamlined and closed loop processes, and avoiding duplication of efforts.

Strategy 1.3: **Establish and fund a Regional Leadership Program focused on Economic and Community Development**.

Target Outcomes:

Short Term (within 12 months):

1. The EDD will determine leadership development needs among participating organizations in the four county region by June 2017.

2. The EDD will implement a regional leadership program that is designed to support the achievement of the goals and strategies established by the SET V HGP.

Short Term Action Steps	**Responsibilities (Organization)**	**Key Contact**	**Completion Date**
1. The EDD staff will work with existing regional local leadership programs, the Rural Center, and State Leadership Program design program.	IPDC, ICC, and McDowell Chamber of Commerce	Sarah Morse and Scott Dadson	4th quarter of 2017 (October 2017)
2. The EDD Board will promote and finance a regional leadership program.	IPDC and McDowell Chamber of Commerce	Steve Lockett and Steve Bush	Designed to begin by 2018

Intermediate (1-3 years):

1. Launch Regional Leadership Program in 2018.

2. Graduate 5 to 7 Regional Leaders per year into Rural Center or NC Leadership programs at the state level.

Action Step 1: The EDD will begin the first regional leadership program with 20 participants in the fall of 2018.

Action Step 2: Develop Scholarships to support 5 regional leaders attendance in the Rural Center or NC Leadership state program.

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Long Term (3-5 years):

1. The Region will have 20 local leaders who understand regional needs and opportunities and are willing to collaborate across political boundaries / advocate for the regional legislative platform (see Strategy 1.3, Intermediate Outcome 1)

Action Step: Develop a board of directors that directs and supports the regional leadership development program through governance, recruitment and funding. The board will include representation from each county in the region.

Evaluation:

Strategy 1.3 Measurement Plan

Strategy 1.3: Establish and fund a Regional Leadership Program focused on Economic and Community Development. ***Participants:***				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *The EDD will determine leadership development needs among participating organizations in the four county region by June 2017..*	Feedback from EDD membership on Leadership needs, other examples of regional leadership programs	Local Leadership Programs, Rural Center, NC Chamber of Commerce	The EDD staff will work with existing regional local leadership programs, the Rural Center, and the State Leadership Program to design program by fourth quarter of 2017	
Evaluation Measure: *The EDD will implement a regional leadership program that is designed to support the achievement of the goals and strategies established by the SET V HGP.*	Commitment from local leadership programs and a list of the first three classes	Local Leadership Programs	By meeting with staff of the local leadership programs	
Behavior (1-3 years) ***Evaluation Measure:*** *Launch Regional Leadership*	Copies of program, staff, budget and co-hort	EDD		

Program in 2018.				
Evaluation Measure: *Graduate 5 to 7 Regional Leaders per year into Rural Center or NC Leadership programs at the state level.*	Copies of the program and final grades or evaluations	EDD and Rural Center	By doing evaluations as the class progresses and being part of graduation	
Condition (3-5 years) ***Evaluation Measure:*** 1. The Region will have 20 local leaders who understand regional needs and opportunities and are willing to collaborate across political boundaries / advocate for the regional legislative platform (see Strategy 1.3, Intermediate Outcome 1)	Acceptance into and evaluations of cohorts who move on to state wide leadership programs			

Benefits: Leadership capacity building is important given our geographic position, limited resources and access to other regional engines. Current leadership programs in the region are primarily locally-focused. Leadership in our public and private institutions that are aware of the region as a whole, can leverage ideas, programs and people to raise the tide for the entire region. The ability to work across political and market barriers improves the opportunities for citizens, businesses and the workforce to maximize their potential.

Goal 2 - Develop Targeted Industry Clusters

While much work has been done on the exploration of the three targeted industry clusters, more work still remains to be done. A second goal of the NC Isothermal Region C SET plan is to complete the planning process for the development of Agriculture, Manufacturing, and Tourism in the region. While “SMART goals” have been written for the development of each of these clusters, the strategies, action steps, and evaluation measures have not been completely conceived or analyzed. In addition, we have not yet successfully engaged all stakeholders in this process, particularly in the private sector, and in order to achieve the necessary buy-in to move forward on the strategies thus far identified for each of these clusters, it is important to have everyone at the table voicing their concerns and objectives.

Target Outcomes:

Short Term (within 6 months):

1. Strategies, action steps, and evaluation measures will have been identified and completed for each of the three industry clusters: Agriculture, Manufacturing, and Tourism and incorporated into this SET V plan.

Action Step: By January 2017 the Executive Director of the Isothermal Planning and Development Commission will identify a primary contact for the working groups for each of the targeted industry clusters to whom responsibility for the completion of this section of the plan will be delegated, including assembling all stakeholders.

Action Step: By March 2017 the primary contact for each of the working groups will have convened its first meeting to complete the missing strategies, action steps, and evaluation measures to achieve the stated goal for each of the three industry clusters.

Action Step: By June 2017 implementation of each of the strategies associated with cluster development will have commenced.

The next section of this plan details work completed on each of the targets to date.

Short Term Action Steps	**Responsibilities (Organization)**	**Key Contact**	**Completion Date**
1. The Executive Director of the Isothermal Planning and Development Commission will identify a primary contact for the working groups for each of the targeted industry clusters to whom responsibility for the completion of this section of the plan will be delegated, including assembling all stakeholders.		Scott Dadson, Bill Robertson	June 2017

2. By July 2017 the primary contact for each of the working groups will have convened its first meeting to complete the missing strategies, action steps, and evaluation measures to achieve the stated goal for each of the three industry clusters.		Steve Lockett, Ben Farmer	July 2017
3. By October 2017 implementation of each of the strategies associated with cluster development will have commenced.		Scott Dadson, Ben Farmer, Josh Kennedy, Steve Lockett and Bill Robertson	October 2017

Target Cluster 1 - Agriculture

By 2022 through a focus on production agriculture, increase the export value of agricultural products in our region by 5%, increase the number of local food outlets by 10%, grow the number of agricultural producers by 10%, and increase collaboration among industry stakeholders.

The **Agribusiness, Food Processing & Tech** industry cluster is a “transforming/declining” cluster in the NC Foothills Region according to 2014 EMSI data. However, while agriculture in the region suffers from many challenges, there are also many positive trends that are not captured by this data. For example, while the number of farms in the region has decreased, the number of acres harvested has increased. The value of animal product and fruit, nut, and berry sales has also increased, as has the number of farms that sell directly to the consumer or through a CSA. Infographics showing this data on both the regional level and the county level are included in the appendix to this plan.

In addition, the equine industry is mushrooming in the region, particularly in Polk County. The construction and opening of the Tryon International Equestrian Center have had a significant impact on the construction industry in Polk County and potential exists to leverage the significant private investment in that complex to strengthen the region’s agricultural industry as well.

In the North Carolina counties of Buncombe, Burke, Gaston, and Henderson that neighbor NC Isothermal Region C, the Agribusiness, Food Processing & Tech cluster is not transforming, but “emerging.” This trend is also true in NC Isothermal Region C and is supported by recent research. In a focus group sponsored by USDA-AMS and facilitated by NC Cooperative Extension Service in September 2016, participants were asked a series of questions related to the state of the regional food system. Overwhelmingly respondents answered that demand for local food is growing in the region, in large part because of a growing awareness of the health benefits of eating fresh, locally-sourced food among consumers. Even retailers and wholesalers are seeking more local farmers to provide food to meet this demand trend.

Because of the projected growth in the region’s local food market, focus group participants were also asked to describe the assets or resources needed in the region to have a strong local food system. Responses included the need for and access to affordable land, the need for more training for beginning farmers, the need for an organized marketing effort to connect farmers to local restaurants, as well as strengthening the infrastructure related to cold storage and processing.

While the impact that the Tryon International Equestrian Center will have on the region’s agricultural industry is not yet known and the continued growth of the local food movement in the region is uncertain, both of these trends promise great potential if properly planned for and addressed. Consequently, the NC Isothermal Region C team has elected to view this industry cluster as an emerging one for the region and has built strategies to position it for future growth.

Regional Economic Benefits

A target focused on strengthening agriculture in the region will result in the following regional benefits:

- *Improved processing and storage and distribution infrastructure*
- *More land in production agriculture*
- *Increased multiplier effect of local demand*
- *Increased opportunity for value added products*
- *Increased local demand for local products*
- *Ensured food security*
- *Reduced regulatory burden for local producers*
- *Ensured long term vitality of production agriculture*
- *Increased awareness of the region's agriculture as a strong economic driver*

Target Participants

Stakeholders to be impacted and involved in the implementation of this Target include federal, state, and local agriculture agencies, county health departments, property owners, producers, educators, realtors, consumers, aggregators, policymakers, agribusiness eco system participants, and economic development partners including tourism, chambers of commerce, and others involved in community and economic development initiatives throughout the region.

Regional Assets (Community Capitals)

Regional assets that will assist in the implementation of this Target's strategies include:

- *Beginning Farmer Program (NCCE Farm School is offered in neighboring counties in 2017*
- *Access to Farmland – NCFarmlink*
- *Growing Rural Opportunities*
- *NC Cooperative Extension Service in all 4 counties*
- *NC Tourism Extension at NC State University*
- *NCDA&CS Agritourism*
- *NC State vet school*
- *Extension's Local Foods effort*
- *SBDCs at Community College*
- *ICC Agriculture/Horticulture Curriculum*
- *Polk County Agriculture Economic Developer*
- *USDA –AMS and RD loan and grant programming*
- *Farmers Markets*
- *NC Growing Together 10% campaign*
- *Tryon International Equestrian Center*
- *Soil & Water Conservation*
- *Fork2Farmer Initiative – Tourism Extension*
- *Sunny Creek Farms*

Target Outcomes

NC Isothermal Region C desires this Target to have the following outcomes for the region:

Attitude, Knowledge or Skills needed to change behaviors (Short-Term – 12 months)

- *Land use knowledge*
- *Regional benefits of agriculture*

- *Producers, increased knowledge of consumer demand*
- *Consumer appreciation and awareness of agriculture products*
- *Producers to have a better understanding of the benefits derived from collaborative approaches to production and marketing*

Behavior changes needed to reach conditions (Intermediate Term – 1-2 years)

- *Become more collaborative and communicative*
- *Keep a focus on Agri-use of property*
- *Understanding the value of agriculture in the region – buy-in*
- *Identifying agriculture zones within region*
- *Increased capital access for agribusiness enterprises*

Conditions (Long Term –3-5 years)

- *Increased amount of acreage in ag production use*
- *Maximized yield and quality from production acreage*
- *Increased number and diversity of agri-tourism venues*
- *Increased sales of local product both inside and outside of the region*

The strategies developed to achieve Target outcomes include the following:

Strategy A.1 – *Create and Market a Brand for Agriculture in the Region*

Strategy A.2 – *Develop Incentives for Agricultural Production, Processing, and Distribution.*

Strategy A.3 – *Build the Food Distribution System in the Region*

Strategy A.4 – *Create an Agriculture Venture Fund*

Strategy A.5 – *Create an Agricultural Purchasing Cooperative*

Strategy A.6 – *Increase Communication and Coordination of Food System Stakeholders throughout the Region*

Strategy A.7 – *Build Connected Communities through Farm to Table Initiatives*

Strategy A.8 – *Provide trainings in production, processing, and marketing for new farmers, succession planning for retiring farmers, and agritourism for all farmers.*

Strategy A.9 – *Address Land Loss and Land Reuse Policies in the Region*

Strategy A.10 – *Hire an Agriculture Economic Developer for each county in the Region*

Strategy A.11 – *Leverage Partnership with Tryon International Equestrian Center*

Strategy A.1: **Create and Market a Brand for Agriculture in the Region.**

Target Outcomes:

Short Term (within 12 months):

1. An agricultural branding initiative has been launched.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Convene a stakeholder group to secure funding to hire a branding consultant.	Polk County Ag Economic Development; County Extension Offices	Dawn Jordan	December 2017
2. Consultant will commence branding research and design.	Polk County Ag Economic Development; County Extension Offices	Dawn Jordan	December 2017

Intermediate Term (1-3 years):

1. A regional brand for agriculture has been identified and marketed.

Action Step: Stakeholder group will secure funding to develop and launch a marketing campaign for regional agricultural products.

Action Step: Extension Directors in each county work with producers of ag products to develop guidelines for regional brand eligibility.

Action Step: Stakeholder group will hire a consultant to negotiate purchasing contracts for regionally branded agricultural goods inside the region.

Long Term (3-5 years):

1. Brand is recognized outside of the region, and export value of agricultural production increases by 5%.

Action Step: Consultant seeks institutional contracts for regionally branded agricultural goods both inside and outside of the region.

Evaluation

Strategy A.1 Measurement Plan

***Strategy A.1**: Create and market a brand for agriculture in the region.* ***Participants**: Polk County Ag Economic Developer; County Cooperative Extension Directors; Farmers; County Governments*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Launch of agricultural branding initiative*	Consultant specializing in agricultural branding	Appalachian Grown Piedmont Grown (NC A&T SU) Got to be NC (NCDA) https://localfood.ces.ncsu.edu/local-food-marketing-markets/local-food-branding/	Phone inquiries	2017

	Funding for consultant	County government IPDC NCCE	Inquiry and research regarding government and foundation funding opportunities	2017
Behavior (1-3 years) **Evaluation Measure:** *Regional Ag Brand marketing campaign is launched*	Funding for marketing campaign	County government IPDC NC Cooperative Extension	Inquiry and research regarding government and foundation funding opportunities	2018
	Brand quality policies	NC Cooperative Extension	Research specs for quality branding	2018
	Potential consultant names for brokering regional products	Appalachian Sustainable Agriculture Program (ASAP)	Phone inquiry	2018
Condition (3-5 years) ***Evaluation Measure:*** *Ag export value increases by 5%*	Ag export value	NCDA	Research NCDA records	2017 (baseline), annually thereafter

Benefits

Creating a brand for the region's agricultural product has a twofold benefit for the region: (1) It builds on the "hyperlocal" movement that is tied to the tourism industry, resulting in more jobs and more dollars circulating within the community, and (2) it builds regional pride and increases consumer spending by the region's residents.

Strategy A.2: **Develop and enact incentives for agricultural production, processing and distribution.**

Target Outcomes:

Short Term (within 12 months):

1. Existing county agricultural incentives are examined for regional application.

2. Other government incentives appropriate for agricultural businesses are researched.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Convene a stakeholder group to conduct research of existing incentives and model incentives.	County Extension Directors	Greg Traywick	December 2017
2. Determine which incentives are appropriate for regional application.	Stakeholder Group	Greg Traywich	December 2017

Intermediate Term (1-3 years):

1. Agricultural incentives are adopted by appropriate government bodies across the region.

2. Regional producers and others are knowledgable about and take advantage of all such incentives as well as other funding streams for production, processing, marketing, and distributing agricultural products.

Action Step: Stakeholder group will advocate for adoption of agricultural incentives by appropriate government bodies.

Action Step: County Extension Directors develop a calendar of grant/incentive opportunities and offer grant/incentive writing workshops for farmers.

Long Term (3-5 years):

1. The number of producers in the region increases due to available incentives.

2. Existing farm operations expand or are diversified, and production increases, resulting in increased export value.

Action Step: County Extension Directors develop calendar and offer workshops on an annual basis.

Evaluation

Strategy A.2 Measurement Plan

***Strategy A.2**: Develop and enact incentives for agricultural production, processing and distribution.* ***Participants**: Cooperative Extension Directors in region; County governments; USDA; ASAP; Community Colleges; IPDC*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:** Model ag incentives are researched*	Case studies on use of incentives for agricultural programs	NC Cooperative Extension/NCSU	Internet research Call to Extension listservs	2017
Behavior (1-3 years) ***Evaluation Measure:** Incentives are adopted in all 4 counties or provided through IPDC*	Process for county or regional approval of incentive programming	County governments IPDC	Phone inquiries to county managers and ED of IPDC	2018
***Evaluation Measure:** Increase in farmer knowledge and use of incentive programs*	Level of farmer knowledge of incentive programs Grantwriting Workshops	Farmers, NC Cooperative Extension (4 counties), NCSU, Community Colleges	Surveys	2017, annually thereafter
Condition (3-5 years) ***Evaluation Measure:** # of farmers in the region increase and operations expand and diversify*	# of farmers in region Level regional agricultural output	NCDA, NC Cooperative Extension	Research data	2017 (baseline), annually thereafter

Benefits

As with any emerging industry, financial incentives are necessary to attract the talent and the time of agricultural entrepreneurs to the region. These entrepreneurs include farmers as well as processors, distributors, and other stakeholders in the local food system.

Strategy A.3: **Build the food distribution system in the region.**

Target Outcomes:

Short Term (within 12 months):

1. The regional food system will be mapped.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Convene a stakeholder group to conduct the asset-mapping.	County Extension Directors	Greg Traywick	December 2017
2. Stakeholder group will secure funding and capacity to conduct mapping project.	Asset-mapping stakeholder group	Greg Traywick	December 2017
3. Stakeholder group will conduct an asset-mapping of the regional food system, including farm locations, farmer's markets, wholesalers, retailers, processors, cold storage, and distribution and their routes.	Asset-mapping stakeholder group	Greg Traywick	December 2017

Intermediate Term (1-3 years):

1. Gaps in the regional food system will be identified and plans to fill the gaps will have commenced.

Action Step: Ag entrepreneurship classes and SBDCs at community colleges will address gaps in the regional food distribution system addressed by the regional asset-mapping. Connect with CEFS for expertise.

Action Step: Ag entrepreneurs addressing the gaps will be connected by SBDCs with incentive programs described in Strategy A.2.

Long Term (3-5 years):

1. Large and small-scale farmers will have access to aggregation and distribution of agricultural products within and outside of the region.
2. Regional Ag export value will increase by 5%.

Action Step: County Extension Directors and Growing Rural Opportunities will update farmers on availability of aggregation and distribution resources.

Action Step: County Extension Directors and Growing Rural Opportunities will encourage farmers to report their sales to appropriate agencies.

Strategy A.3 Measurement Plan

***Strategy A.3**: Build the food distribution system in the region.*

***Participants:** Food Councils, NC Cooperative Extension, Growing Rural Opportunities, CEFS*

What you want to measure	What information you need	Who has the information	How you will get the information	How often/when you will get the information
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:** The regional food system is mapped.*	Existing mapping resources Guide to conducting community food assessment	CEFS (NC LF Supply Chain Infrastructure Map) USDA-AMS Toolkit	Internet research	2017
Behavior (1-3 years) ***Evaluation Measure:** A plan to address regional food system gaps is completed.*	Identification of gaps in the regional food system Resources to help fill the gaps Existing CC ag education curricula	NCCE Local Food Resource Mapping study (Bowen) USDA-RD, USDA-AMS, ARC Community Colleges	Phone inquiries	2018

Condition (3-5 years) ***Evaluation Measure:*** *Farmers are not challenged by access to aggregation and distribution channels.*	Assessment of farmer aggregation and distribution needs	Farmers	Conduct focus group and online survey to follow-up 2016 baseline LFRM study	2020

Benefits

A major challenge for the region's agriculture is bringing product to markets. Whether buyers are wholesale or retail, the logistical burden of connecting buyers to farm product lies with the farmer. An improved distribution system will cut down the time and transportation cost to the farmer, thus improving individual profit margins, as well as ease entry into these markets.

Strategy A.4: **Increase Access to Capital/Create an Agriculture Venture Capital Fund**

Target Outcomes:

Short Term (within 12 months):

1. A stakeholder committee is convened to secure funding and to hire a consultant on the design and development of an Agriculture Venture Capital Fund.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Identify a facilitator and convene a stakeholder meeting to plan for and finance the Venture Capital Fund.	County Extension Directors	Scott Welborn	December 2017
2. Seek grants and other funding to hire a consultant/attorney.	Stakeholder Committee	Scott Welborn	December 2017

Intermediate Term (1-3 years):

1. Guidelines for Agriculture Venture Capital Fund are developed and $2 million in funding is invested.

Action Step: Scott Welborn on behalf of county Extension Directors and Scott Dadson/IPDC Executive Director will supervise consultant on development of fund guidelines and capital campaign.

Long Term (3-5 years):

1. Export value of agricultural products will increase by 5% due to increased investment in viable agriculture projects.

2. Number of producers will increase by 10% due to increased investment in viable agriculture projects.

Evaluation

Strategy A.4 Measurement Plan

***Strategy A.4**: Increase Access to Capital/Create an Agriculture Venture Capital Fund.* ***Participants:** USDA-Rural Development, NCIF, Economic Development offices, NC Farm Credit, NC Rural Center*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Stakeholder committee is formed and consultant is hired*	Names and commitment of stakeholders Names of potential consultants	Participants Counties with agricultural incentive programming	Phone calls	2017
Behavior (1-3 years) ***Evaluation Measure:*** *$2 mm fund is created*	Potential capital resources (grant funding) Guidance on fund investment guidelines	Slow Money NC USDA Counties with agricultural incentive programming Other funders	Research Phone calls	2017-2018

Condition (3-5 years) ***Evaluation Measure:*** *Export value of agricultural products from the region increases 5%*	Value of agricultural products Level of investment from Agricultural Capital Fund	NCDA Manager of Agricultural Capital Fund	Research Email inquiries	After Agricultural Capital Fund is created (est 2019)
Evaluation Measure: *# of producers increases by 10% in region*	Number of producers Level of investment from Agricultural Investment Fund	NCDA US Ag Census Manager of Agricultural Capital Fund	Research Email Inquiries	After Agricultural Capital Fund is created (est 2019)

Benefits

A regional venture capital fund focused on agriculture will provide desperately needed capital to this industry cluster. Access to capital, especially for young farmers, is one of the top challenges faced by farmers in the region. In addition to capital investment through share purchases, the fund will examine a revolving low-interest loan and small grants as fund features.

Strategy A.5: **Create an Agriculture Purchasing Cooperative**

Target Outcomes:

Short Term (within 12 months):

1. Producer interest in cooperative development is assessed.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Conduct an informational workshop on benefits of cooperatives and other collaborations for purchasing needs.	County Extension Directors	Jeff Bradley	12/31/2017
2. Interested farmers will contact Carolina Common Enterprise or other cooperative development specialist for technical assistance.	County Extension directors	Jeff Bradley	12/31/2017

Intermediate Term (1-3 years):

1. A producer cooperative is formed to enhance purchasing power for seed, fertilizer, equipment, and other agricultural inputs.

Action Step: Cooperative Development specialist will provide organizational development technical assistance and trainings in governance.

Long Term (3-5 years):

1. Input costs are reduced, thus increasing profitability to farmers.

Evaluation

Strategy A.5 Measurement Plan

Strategy A.5: *Create an Agriculture Purchasing Cooperative* **Participants:** *Carolina Common Enterprise, NC Cooperative Extension, Growing Rural Opportunities*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Informational workshop on cooperatives is held*	Planning for workshop topics Speakers Marketing materials	Carolina Common Enterprise NCSU – CRD (Bowen) NC Cooperative Extension	Phone calls Email inquiries	2017
Behavior (1-3 years) ***Evaluation Measure:*** *A purchasing cooperative is formed in the region.*	Interested producers Legal requirements	NC Cooperative Extension Carolina Common Enterprise, or other legal service provider	Phone calls Meetings	2018

Condition (3-5 years) ***Evaluation Measure:*** *Reduction of input costs*	Input costs if purchased individually versus bulk purchasing costs of cooperative	To-be-formed cooperative	Phone calls by NCCE	After purchasing cooperative is formed

Benefits

Input costs of agricultural production are a significant expense, especially for small scale producers. By forming a purchasing cooperative, members can reduce these costs, thus increasing their profit margin.

Strategy A.6: **Increase Communication and Coordination of Food System Stakeholders throughout the Region**

Target Outcomes:

Short Term (within 12 months):

1. Awareness of the benefits of a regional food system is increased.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Facilitate a meeting with interested food system stakeholders to discuss the results of the Local Food Resource Mapping focus group.	Local Food Resource Mapping focus group	Dawn Jordan	December 2017
2. Create a directory of regional food system stakeholders.	Stakeholder group	Dawn Jordan	December 2017

Intermediate Term (1-3 years):

1. A Regional Food Council will have formed.

Action Step: Stakeholder group will connect with CEFS for guidance on food council formation.
Action Step: Stakeholder group will research actions of other food policy councils in the state.

Long Term (3-5 years):

1. The Regional Food Council communicates regularly in the region about the food system.

Evaluation

Strategy A.6 Measurement Plan

Strategy A.6: *Increase communication and coordination of food system stakeholders throughout the region.* ***Participants:*** *Polk Ag Economic Director, County Directors of Cooperative Extension, CEFS, County Health Departments, Community Colleges, Nonprofits engaged in food system work, Producers, Processors, Distributors, Storage*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *A stakeholder group is formed.*	Names of potential stakeholders	NC Cooperative Extension Community Colleges NCGT Infrastructure Map Growing rural Opportunities	Emails Phone Calls	2017
Evaluation Measure: *A directory of stakeholders is published.*	Contact information on stakeholders Online platform	NCGT Infrastructure Map NC Cooperative Extension Growing Rural Opportunities	Internet Research with telephone confirmation	2017

Behavior (1-3 years) ***Evaluation Measure:*** *A food council is formed.*	Guide on food council development Legal requirements	CEFS – Community Food Strategies	Phone call to Abbey Piner	2018
Condition (3-5 years) ***Evaluation Measure:*** *Regular communications regarding the regional food system are distributed broadly.*	Newsletters Emails Flyers Other communications	To be formed Regional Food council	Email inquiries	2019-2020

Benefits

Increased communication and coordination of food system stakeholders will result in increased consumer education as well as more marketing outlets for small scale producers, including supplying food pantries throughout the region. There is a growing body of evidence to suggest that community health and economic vitality are directly correlated (communities that reduce chronic disease through improved diet and physical activity are more prosperous). Supplying this internal source of food demand will capture a larger share of the food dollar, keep those dollars circulating within the regional economy, and benefit producers financially.

This strategy is also intended to connect the agricultural community with the Tryon International Equestrian Center, whose impact on agriculture in the region is yet to be determined.

Strategy A.7: **Build connected communities through farm to table initiatives**

Target Outcomes:

Short Term (within 12 months):

1. Consumer and Institutional Buyer awareness of the value of local food is increased.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Facilitate regular meetings with other food system stakeholders to increase farm-to-table events in the region.	County Extension Directors	Molly Sandfoss	December 2017

Intermediate Term (1-3 years):

1. Connections between growers and institutional buyers/retailers will increase.
2. Farms with GAP certifications will increase.
3. Warehouse aggregation points along distribution routes will be established.

Action Step: Molly Sandfoss on behalf of County Extension Directors will work with the branding/marketing consultant to identify institutional buyers/retailers and host grower/buyer events throughout the region.

Action Step: County Extension Directors will facilitate GAP trainings and research Group GAP certifications for farmers.

Action Step: County Extension Directors will meet with distributors and farmers to determine ideal warehouse aggregation points.

Long Term (3-5 years):

1. Ease of aggregation and distribution of regional agriculture products results in a 5% increase in export value of agricultural products increases by 5%.

Evaluation

Strategy A.7 Measurement Plan

Strategy A.7: *Build connected communities through farm to table initiatives* ***Participants:*** *Polk County Ag Economic Development, County Directors Cooperative Extension, NC State Tourism Extension, farm to table restaurants, nonprofit food system stakeholders*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Increased consumer and institutional buyer awareness of regional agriculture*	Level of knowledge and awareness of regional food system assets by consumers and institutional buyers Public Meeting Schedule	Consumers Institutional Buyers, Restaurants NC Cooperative Extension	2016 LFRM Focus Group and Survey Baseline surveys	2017

Behavior (1-3 years) ***Evaluation Measure:*** *Increased # of grower/buyer events*	# of grower/buyer events	NC Cooperative Extension Polk Co Ag Ec Dev Growing Rural Opportunities	Email inquiries	2017 Baseline Annually thereafter
Evaluation Measure: *# of GAP certified farms*	# of GAP certified farms	NCDA NC Cooperative Extension	Research Email inquiries	2017 Baseline Annually thereafter
Evaluation Measure: *Warehouse aggregation points are established*	Distribution Routes Food Hub Locations	Distributors	NC Growing Together Phone Calls Cooperative Extension	2017 Baseline Annually thereafter
Condition (3-5 years) ***Evaluation Measure:*** *Export value of agricultural products*	Value of agricultural products	NCDA US Ag Census	Research	2017 Baseline Annually thereafter

Benefits

Farm to table events will not only create more outlets for producers, but also build connections between farms and the communities they serve. Farm to table events also create additional tourism opportunities, thus bringing outside dollars into the region.

Strategy A.8: **Provide trainings in production, processing, and marketing for new farmers, succession planning for aging farmers, and agritourism for all farmers.**

Target Outcomes:

Short Term (within 12 months):

1. Training opportunities are formalized.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Coordinate marketing of 2017 Farm School programs throughout the region.	County Extension Directors	Molly Sandfoss	December 2017
2. Research succession planning trainings and arrange for a regional training in succession planning. County Extension Directors will market the training to aging farmers in their counties.	County Extension Directors	Greg Traywick	December 2017
3. Arrange for regional agritourism trainings through Tourism Extension.	County Extension Directors	Molly Sandfoss	December 2017

Intermediate Term (1-3 years):

1. 50% of graduates of new farmer training programs will start farming.

2. 50% of attendees of succession planning trainings will develop a succession plan that will result in their land staying in production.

3. 25% of attendees at agritourism trainings will launch an agritourism opportunity.

Action Step: County Extension Directors will continue to offer trainings on an annual basis.

Action Step: County Extension Directors will work with regional stakeholders to establish an incubator farm.

Long Term (3-5 years):

1. Number of producers increases by 10%.

Evaluation

Strategy A.8 Measurement Plan

Strategy A.8: *Provide trainings in production, processing, and marketing for new farmers as well as succession planning for aging farmers.* ***Participants:*** *SBDCs, NC Cooperative Extension, Growing Rural Opportunities*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Farmer Trainings are developed*	Curricula on new farmer, succession planning, and agritourism Trainers Marketing materials Training Sites	NCCE CFSA RAFI	Phone Calls	2017 Annually thereafter
Behavior (1-3 years) ***Evaluation Measure:*** *# of new farmers*	Number of people attending new farmer training Number of farmers vs number of new farmers	NCDA	Research	2017 Annually thereafter
Evaluation Measure: *# of farms with succession plans*	Number of people attending succession planning training Succession planning intentions	Farmers	Pre and post surveys	2018 Annually thereafter

***Evaluation Measure:** # of agritourism activities*	Number of people attending training Number of agritourism activities	Farmers	Pre and post surveys	2018 Annually thereafter
Condition (3-5 years) ***Evaluation Measure:*** *Number of producers in the region increases by 10%*	Baseline number of farmers	NCDA US Ag Census NC Cooperative Extension	Research	2017 Baseline Annually thereafter

Benefits

Building knowledge on the latest production, processing, and marketing techniques will increase profitability to area farmers. Succession planning is important to keep working lands in production. Agritourism trainings will diversify farm operations, thus increasing farm viability and making farming more attractive to the younger generation.

Strategy A.9: **Address Land Loss and Land Reuse Policies in the Region.**

Target Outcomes:

Short Term (within 12 months):

1. Existing farmland protection plans and programs within the region are reviewed.
2. Model plans are researched.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Facilitate a stakeholder group on land loss and land reuse policies in the region.	County Extension Directors	Greg Traywick	December 2017
2. Research costs and benefits of a regional plan.	Stakeholder Group	Greg Traywick	December 2017

Intermediate Term (1-3 years):

1. Regional farmland protection plan is adopted by all 4 counties.

Action Step: Stakeholder group seeks funding for plan preparation.
Action Step: Farmland protection plan is written and adopted by all 4 counties.

Long Term (3-5 years):

1. # of acres in production stabilizes

Evaluation

Strategy A.9 Measurement Plan

Strategy A.9: *Address land loss and land reuse policies in the region.* ***Participants:*** *Cleveland County Farmland Protection Plan, County government, County Directors of Cooperative Extension*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Research on farmland protection plans is completed.*	Cleveland Farmland Protection Plan Other model plans	NC Cooperative Extension County Websites	Internet Research	2017
Behavior (1-3 years) ***Evaluation Measure:*** *Regional farmland protection plan is adopted.*	Funding Consultant to prepare plan	NC Cooperative Extension County governments	Phone calls	2018
Condition (3-5 years) ***Evaluation Measure:*** *Stabilization of acres in producion*	Number of acres in production	NCDA US Ag Census	Internet research	Baseline at time of plan adoption Annually thereafter

Benefits

Land prices are booming in parts of the region, particularly in Polk County with its increasing number of “second home” buyers and the arrival of the Tryon International Equestrian Center. The absentee landowner is particularly challenging for the region because of their lack of support of local businesses. With prices already high and getting higher, it is difficult for new and younger farmers to get into the business of farming, so a model needs to be developed for small scale farm operators to farm on absentee landowner property.

Strategy A.10: **Hire an Agriculture Economic Developer for each county in the Region**

Target Outcomes:

Short Term (within 12 mos):

1. A plan of action is developed for this strategy.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Convene a stakeholder group to develop a plan of action for this strategy.	IPDC, Polk County Ag Ec Development	Dawn Jordan	December 2017

Intermediate Term (1-3 years):

1. Assess the impact to the agriculture industry in NC counties with an Agriculture Economic Developer.

Action Step: The stakeholder group will survey and conduct interviews of county officials in counties with ag economic developers (Orange and Polk) or economic development offices with an agricultural focus.

Action Step: The stakeholder group will prepare a report that gives a cost-benefit analysis of the position.

Action Step: The stakeholder group will communicate the report’s results to the county officials of each county in the region for action.

Long Term (3-5 years):

1. An Agriculture Economic Developer is hired in each county in the region.

2. The agriculture industry is strengthened.

Evaluation

Strategy A.10 Measurement Plan

Strategy A.10: *Hire an Agriculture Economic Developer for each County in the Region* ***Participants:*** *Polk County Agriculture Economic Developer, County Cooperative Extension Directors, County Officials*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *A plan is developed.*	Strategies for strengthening agricultural policy at the local level.	Carolina Farm Stewardship Association (Rochelle Sparko)	Meetings	2017
Behavior (1-3 years) ***Evaluation Measure:*** *Complete an assessment of the value of the position*	Impacts of ag economic development	Orange County Polk County (others)	Interviews	2018
Condition (3-5 years) ***Evaluation Measure:*** *Each county has hired an ag economic developer*	County job descriptions	Each county in the region	Phone call to County Manager	2018
Evaluation Measure: *Agriculture is strengthened regionwide, evidenced by increase in agriculture product sales*	Value of agricultural product sales for region	NCDA	Internet research	2017, baseline Annually thereafter

Benefits

A county position dedicated to the development of agriculture as an economic driver in the region will increase collaboration among industry stakeholders, as well as support the implementation of other strategies for this Target.

Strategy A.11: **Leverage Partnership with Tryon International Equestrian Center (TIEC) to Strengthen Regional Agriculture**

Target Outcomes:

Short Term (within 12 months):

1. Determine the feasibility of an equine research center.

Short Term Action Steps	**Responsibilities (Organization)**	**Key Contact**	**Completion Date**
1. Secure funds, assemble a stakeholder group, and hire a consultant to research the feasibility of developing an equine research center to support the operational needs of the TIEC.	Isothermal Community College	Sarah Morse	December 2017
2. Conduct interviews with TIEC, farmers, Cooperative Extension, equine-related businesses, and others – research successful models, etc. to determine feasibility of an equine research center as well as make recommendations regarding its structure.	Hired Consultant – NC State	Craig Brookings	December 2017

Intermediate Term (1-3 years):

1. Strengthen regional agricultural supply to TIEC operations.

2. Strengthen regional agritourism opportunities for visitors to TIEC

3. If feasible, Equine Research Center will be constructed and staffed.

Action Step: County Cooperative Extension Directors and County Economic Developers will assess TIEC needs and encourage regional businesses to negotiate contracts to fill TIEC operational needs.

Action Step: NC Cooperative Extension and Extension Tourism will provide agritourism trainings to farmers in the region.

Action Step: IPDC, County Economic Development Directors, County Tourism Directors, and NC Cooperative Extension will develop a trail system of agritourism opportunities and market it to TIEC for further distribution to TIEC visitors.

Long Term (3-5 years):

1. Sales of agricultural products within the region increases.
2. Revenue from agritourism activities increases.

Action Step: County Economic Development Directors will encourage farmers in the region to create agritourism opportunities to attract TIEC visitors and others.

Action Step: County Tourism Directors will include agritourism opportunities in its regional marketing efforts.

Evaluation

Strategy A.11 Measurement Plan

Strategy A.11: *Leverage partnership with Tryon International Equestrian Center* ***Participants:*** *Polk County Agriculture Economic Developer, NC Cooperative Extension County Extension Directors, NCSU Vet School, Tourism Extension, NC 10% Campaign, County Tourism Offices, ICC, IPDC*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Feasibility of Equine Research Center is determined*	Level of community support for project	Community members, businesses, farmers	Interviews Focus Groups Surveys	2017
Behavior (1-3 years) ***Evaluation Measure:*** *Value of regional agriculture purchases by TIEC*	Regional ag purchases	TIEC	Pre-negotiated request determined through feasibility study	2017

Evaluation Measure: *# of agritourism opportunities in region*	# of farms offering agritourism activities (on-farm sales, etc.)	NC Cooperative Extension Farmers NC Tourism Extension	Surveys	2017, baseline Post-survey following trainings in 2017, 2018
Condition (3-5 years) ***Evaluation Measure:*** *Value of in-region sales*	In-region sales of local foods	NC 10% Campaign NC Cooperative Extension NCDA	Internet research	2017, baseline Annually thereafter
Evaluation Measure: *Value of agritourism revenue*	Directory of agritourism operators Value of agritiourism sales	NC Tourism Extension NCDA	Surveys	2017, baseline Annually thereafter

Benefits

The true impact of the Tryon International Equestrian Center has yet to be determined in the region. How does the equine industry fit into regional agriculture? Should growers be growing hay and grains? How can regional farmers supply the food needs of thousands of visitors? These and other questions need to be addressed in order to properly leverage the value TIEC brings to the region.

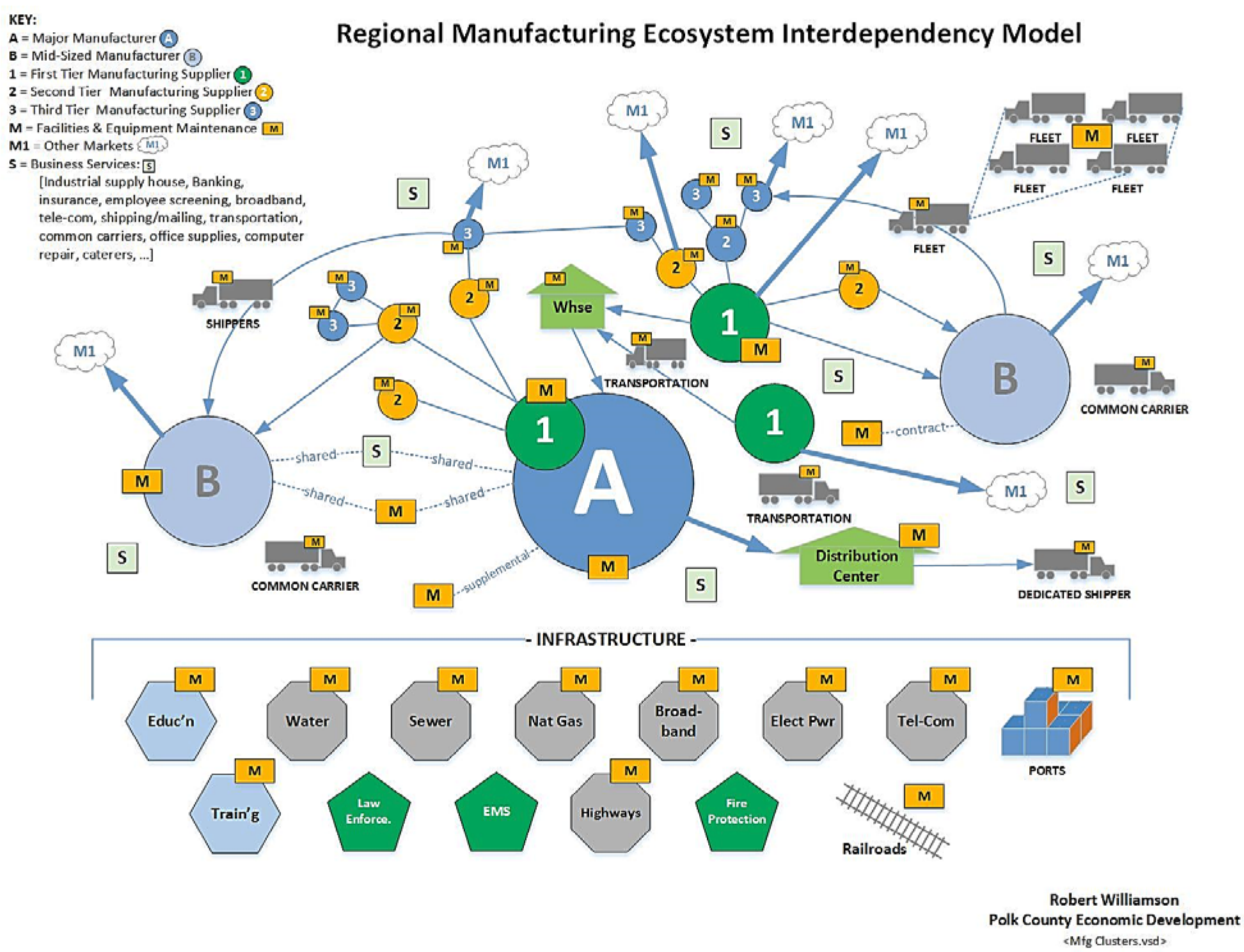
Target Cluster 2 - Manufacturing

Develop a manufacturing ecosystem by 2022 that attracts, creates and/or expands businesses within industry networks so that there is a 5% increase in their export value or 5% decrease in their regional leakage (using 2014 data as the baseline measurement).

A Manufacturing Ecosystem is a network of businesses and service providers that fosters efficient and effective manufacturing operations. This network of interdependent entities enables efficient workforce development, gainful employment, and regional industry growth and innovation as well as supply chain integration. The Manufacturing Ecosystem also contributes to a well-planned and developed infrastructure of utility systems (water, sewer, natural gas, electric power, broadband, telecommunications), transportation systems (roads, highways, interstate access, railroads) and public services (law enforcement, emergency medical, fire protection, transportation).

Public and private education and training providers provide the overarching requirements for entry-level through advanced skills development to meet the collective needs of the businesses and service providers in the Ecosystem.

The manufacturing ecosystem also positions the region for encouraging entrepreneurial startups and small business growth because of the relationships among businesses, education/training providers, and multiple supply chain opportunities. In addition, banking/finance institutions, insurance providers, wholesale and retail suppliers provide the much needed business services that contribute to the local and regional economies.



The diagram above shows the relationships within a Regional Manufacturing Ecosystem.

NC Isothermal Region C is nestled in a unique part of the State with the foothills of the Blue Ridge Mountains to the north and rolling hills to flat lands to the east and south, bordering the state of South Carolina. With the major transportation corridors of I-26, I-40, and highway 74 the region is connected to the center of the most prosperous mega-regions in the U.S. – the Piedmont-Atlantic Mega Region.

Manufacturing in the four-county NC Foothills region is transitioning from textile and furniture products to a very diverse discrete manufacturing economy. The largest industry clusters and numbers of jobs in this region are shown below:

Industry Cluster	Jobs in 4 County Region (2014)	Cluster Strength
Biomed/Biotechnical (Life Sciences)	**12,583**	**Mature Cluster**
Business & Financial Services	**6,094**	**Emerging Strength Cluster**
Advanced Materials	**5,425**	**Star Cluster: Strong & growing**
Manufacturing Supercluster	**5,204**	**Star Cluster: Strong & growing**
Chemicals/Chemical Based Products	**4,403**	**Star Cluster: Strong & growing**
Energy (Fossil & Renewable)	**4,041**	**Emerging Strength Cluster**
Apparel & Textiles	**3,657**	**Star Cluster: Strong & growing**
Transportation & Logistics	**3,583**	**Mature Cluster**
Forest & Wood Products	**3,035**	**Star Cluster: Strong & growing**
Agribusiness, Food Processing Tech	**2,818**	**Transforming Cluster**
Arts, Entertainment, Recreation, Tourism	**2,400**	**Transforming Cluster**

The concentration of industry clusters and jobs in the four-county NC Foothills Region is comparable to the four surrounding North Carolina counties and the three Upstate South Carolina counties.

Based on this information, the Regional Team determined that it should build on the strong manufacturing presence to the South and West by developing an ecosystem that supports manufacturing.

Regional Economic Benefits

The benefits of a well-developed Manufacturing Ecosystem extend well beyond the manufacturing businesses and their direct service providers to the regional communities, residents, and governmental entities. Anticipated benefits include the following:

- *The Ecosystem of the region will connect and support the interdependence of business relationships*
- *Increased regional collaboration among colleges to support economies of scale for cost and expand access to affordable education and training*
- *Increased export of locally made products*
- *Increased targeted employment opportunities*
- *Increased supply chain business opportunities within the region*
- *Increased profitability for local businesses*
- *Increased sales tax revenues*
- *Increased property tax revenues from capital investments*
- *Increased manufacturing efficiencies and cost effectiveness*
- *Increased number of employees and residents in career and vocational education*
- *Improved or increased collaboration between industry and education*
- *Increased health for the population (access to healthcare, food and active lifestyles)*
- *Increased availability of higher wage jobs for local residents*
- *Increased access to affordable capital*
- *Increased entrepreneurship*
- *Targeted clusters include businesses identified as Advanced Materials, Textiles, Fabricated and Primary Metal Manufacturing, Chemicals, and Forestry and Wood Products.*

Target Participants

In order to achieve the target of a manufacturing ecosystem a wide variety of collaborating organizations from across the region will be required. Specific participating organizations and individuals will be identified for each of the Strategies associated with this goal. The preliminary list of organizations aligned with this target are as follows:

- *Government leaders and politicians*
- *Business & industry leaders*
- *Industry Professional Associations and Groups*
- *Business Associations*
- *Small Business Owners, Employee Owned Business, Independent Business Owners*
- *Chambers of commerce*
- *Citizens/residents (Potential employees)*
- *Secondary & post-secondary, public & private educators*
- *Economic Development Commissions*
- *Workforce Development Board*
- *Utilities Managers and Leaders*
- *Financial Institutions*
- *Foundations, Granters, Community/Angel Investors*
- *State and Federal Government Agencies*
- *City and Local Planners*
- *NC Works Office*

- *Up State Alliance (South Carolina)*
- *IPDC*
- *ARC/EDA/USDA-RD*

Regional Assets (Community Capitals)

Assets within the region that will help us attain this goal include:

- **Financial –** Golden Leaf Foundation; WNC Foundation; Polk County Community Foundation; Home Trust Bank (Tryon Federal); NC Main Street; Economic Development Administration; Alliance Ban); Bank of Ozarks**)**
- **Political –** City Commissioners and Town Councils; County-wide Water System; Tryon Downtown Development Association; County & Municipal Economic Development Directors; Federal Legislators; NC Legislators; City and County elected officials
- **Social –** Young professionals; Rotary; Kiwanis
- **Professional –** Chambers of Commerce
- **Human –** Cooperative Extension; SCORE; ICC/MTCC/CCC
- **Built –** Fiber Optic Broadband /Pangaea; Polk County Industrial Park, Riverstone Business Park; Accessible Energy; Community College Industrial Training Programs; Gateway Park; Good road system

In addition, we are rural and have an excellent location, good people, good infrastructure, green industry parks, diversity, workforce, intermodal, small independent business people, and are exploring employee ownership as a path to prosperity for small manufacturers and other businesses.

Target Manufacturing Outcomes

NC Isothermal Region C desires the Manufacturing Target to have the following outcomes for the region:

Attitudes, Knowledge, and Skills needed to change behaviors (Short-Term – 12 months)

- *Open mindedness about manufacturing businesses*
- *Embracing change from traditional manufacturing, employers, and jobs*
- *Knowledge of benefits, opportunities, and "what's in it for me"*
- *Connecting education and training to business needs*
- *Manufacturing jobs today are good/great jobs with career potential*

Behaviors needed to change to reach Conditions (Intermediate Term – 1-3 years)

- *Residents desire and apply for jobs in targeted business*
- *Less provincial, more regional paradigms*
- *Collaboration among education and training providers and businesses*
- *Investment in workforce development (incumbent workers)*
- *Valuing higher level skill sets for manufacturing jobs/careers*

Conditions (Long Term - 3-5 years)

- *5% increase in export value and/or 5% decrease in regional leakage*

- *Growing availability of qualified employees*
- *Increased capital investment*
- *Growing availability of higher/living wage jobs for local and regional residents*

The Strategies developed to achieve the Manufacturing Target outcomes include the following:

Strategy M.1 – *Create Regional Venture Capital Fund.*

Strategy M.2 – *Provide incentives for innovation.*

Strategy M.3 – *Grow regional manufacturing supply chain ecosystem.*

Strategy M.4 – *Develop foothills consortium among colleges and private education providers.*

Strategy M.5 – *Develop career pathways for the regional manufacturing ecosystem.*

Strategy M.6 - *Develop a regional transit system that can transfer human resources throughout the four county area that would operate on a traditional 3 shift manufacturing schedule.*

Strategy M.7- *Develop public/private partnerships to enhance and develop desirable housing hubs that will aid in facilitating local source of employees.*

Strategy M.8- *Increase the number of successful student transfers from k-12 to further education.*

Strategy M.9- *Increase the number of successful student transfers to direct employment.*

Strategy M.1: **Establish a Regional Venture Capital Fund Supportive of the Manufacturing Ecosystem.**

Small businesses, entrepreneurs, and transitioning operations frequently require an injection of capital to accomplish specific goals. Securing affordable financing can be challenging at times. A regional venture capital fund should be established to make regional decisions for regional businesses and keep the financial transactions within the regional economy. This will benefit the businesses as well as the lenders/investors.

Regional venture capital funds can take many forms from investors to a revolving loan fund or a public-private financial lending organization. The goal of this strategy is to explore the options, the opportunities, and the mechanisms to establish a unique regional financial resource.

Target Outcomes

Short Term (within 12 months):

1. Regional Economic Development Collaborative recommends a model venture capital model.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Form an exploration group to evaluate venture capital models and opportunities.	IPDC	Scott Dadson	August 2017
2. Recommend a model to the Regional Economic Development Collaborative (EDD).	Exploration Group	Scott Dadson	December 2017

Intermediate Term (1-3 years):

1. Local venture capital fund will be established and capitalized with funds from regional investors.

Action Step: Exploration Group will establish fund structure and identify terms and conditions by June 2018.

Action Step: Exploration Group will recruit board of directors by June 2018.

Action Step: Board of Directors will identify regional fund manager by August 2018.

Action Step: Board of Directors will launch investor campaign by January 2019.

Action Step: Board of Directors will develop a user campaign/marketing strategy by January 2019.

Long Term (3-5 years):

1. Venture Capital funds are invested in local business startup, attraction or expansion of manufacturing enterprises. Sustainable access to capital is available to local manufacturing business.

Evaluation

Strategy M.1 Measurement Plan

Strategy M.1: *Establish a Regional Venture Capital Fund supportive of the Manufacturing Ecosystem* ***Participants:*** *Industry leaders (Short, Mid, Long term), Small Business Owners, Employee Owned Business, Independent Business Owners (S, M, L), SBDCs/SBTDCs (S, M, L), Economic Development Commissions (S, M, L), Utilities Managers and Leaders (M, L), Financial Institutions (S, M, L), Foundations, Granters, Community/Angel Investors (L), Up State Alliance (S), IPDC (S, M, L), ARC/EDA/USDA-RD (L)*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**

Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Venture Capital model is recommended*	Survey of business in Region C as to need Coordinating meeting with current financial providers Committee set up with Region C EDD	EDA SBA Federal Reserve ARC	Request it	Once, initially and then annual survey
Behavior (1-3 years) ***Evaluation Measure****:* *Venture Capital Fund is established and capitalized*	Articles of incorporation of Region C EDD Fundraising Effort Marketing Plan	Region C EDD	Request progress reports	Semi-Annually, beginning 2018
Condition (3-5 years) ***Evaluation Measure:*** *Venture Capital Fund invests in local manufacturing enterprises*	Staff or Partner hired Loans report	Region C EDD	Request progress reports	Semi-Annually, beginning 2020
Evaluation Measure: *Local manufacturing enterprises invest in Venture Capital Fund*	Staff or Partner hired Fund Balance Report	Region C EDD	Request progress reports	Semi-Annually, beginning 2020

Benefits: A Venture Capital Fund creates a local lending source which invests in the capitalization of local startups and matches with outside investment for a fuller portfolio

Strategy M.2: **Provide Incentives for Innovation among Manufacturing Ecosystem Partners.**

Innovation requires an investment of time and money on the part of manufacturers. Small manufacturers tend to have very limited resources to invest in research, development, and innovation. Innovative work processes can lead to sizeable improvements in production processing efficiency and cost effectiveness. Local and regional governmental units have a variety of incentives to offer new and expanding businesses.

Various forms of financial incentives in the State of North Carolina are available to local and county governmental units assisting new and expanding businesses. These incentives include a variety of discretionary grants, building reuse grants, public infrastructure grants, transportation grants, and workforce recruiting and development assistance.

Financial incentives available to businesses that qualify include a variety of targeted Tax Exemptions. Foreign Trade Zone #57 (Cleveland, Polk, Rutherford counties) offers several economic advantages for companies involved in international trade.

While some innovation may be product or process specific there are work process innovations that are more generic: Lean manufacturing tools, total productive maintenance (TPM), six sigma quality, teamwork & leadership, etc. Non-financial incentives for innovation can range from local professional consultants, seminars and workshops, to services provided by colleges and universities in the region and the state.

Additional local grants and incentives may be available from the municipalities and/or the county in which the business operates.

Target Outcomes

Short Term (within 12 months):

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Existing incentive programs applicable to manufacturing ecosystem businesses have been identified, compiled, and regionally promoted	IPDC	Ben Farmer	December 2017
2. Model manufacturing incentive programming, not currently available regionally, will be identified and studied for effectiveness	IPDC	Ben Farmer	December 2017
3. Explore existing county incentives.	EDC's	Ben Farmer	August 2017
4. Discuss pooling of incentives.	EDC's	Steve Lockett	August 2017

5. Promote existing incentives.	EDC's	Steve Lockett	Continuing Basis
6. Research other forms of incentives for manufacturing.	Region C EDD	Scott Dadson	August 2017

Intermediate Term (1-3 years):

1. Model incentive program "Guidelines" have been published and distributed to regional economic developers and related administrative offices.

2. 100 % of county economic development offices will have adopted model incentive programs.

<u>Action Step</u>: Region C EDD will develop criteria for model regional incentives by December 2017.

<u>Action Step</u>: County governments will identify regional administrator of any pooled funds by June 2018.

Long Term (3-5 years):

1. 5% increase in export value or 5% reduction in leakage within manufacturing ecosystem in the region.

<u>Action Step</u>: Region C EDD will solicit and evaluate incentive recipients on an ongoing basis.

<u>Action Step</u>: Region C EDD will monitor and report back to County governments on incentive recipients' progress on an ongoing basis.

<u>Action Step</u>: Region C EDD will accumulate and distribute success stories nationally on an ongoing basis.

Assets

NC Isothermal Region C currently has access to the following resources in support of this strategy:

- *Workforce Development: Incumbent Worker training Program, jointly administered by Region C & NC Dept. of Commerce*
- *Workforce Development: On-Job Training (OJT) Program – Wage subsidy, administered by Region C Workforce Development Board*
- *Job Development Investment Grant (JDIG) - Performance-based, discretionary, incentive grants to new and expanding companies*
- *One North Carolina Fund - Discretionary cash-grant program allows the Governor to respond quickly to competitive job creation projects.*
- *Community Development Block Grant, (CDBG) - Building Reuse Program provides funds for renovation and up-fitting of vacant industrial and commercial buildings for economic development purposes.*

- *Rural Division, Building Reuse Program - Grants to units of local government for three purposes: renovation of vacant buildings; renovation or expansion of a building occupied by an existing North Carolina company wishing to expand in its current location; and renovation, expansion or construction of health care entities.*
- *Community Development Block Grant, Economic Development Program - Provides grants to units of local government for public infrastructure development.*
- *Utility Account - Provides infrastructure grants to units of local government in Tier 1 and Tier 2 counties in the state.*
- *Rural Division, Economic Infrastructure Program - Provides grants to local governments to assist with public infrastructure projects that will lead to the creation of new, full-time jobs.*
- *Commerce and Transportation, Joint Economic Development Program - Department of Transportation and Department of Commerce provide transportation improvements and infrastructure that expedites industrial/commercial growth and provides new jobs or job retention.*
- *Department of Transportation Rail Industrial Access Program - Program uses state funds to assist in constructing or refurbishing railroad spur tracks required by a new or expanding industry to encourage economic development.*
- *Tax Exemptions:*
    - *Data Centers Sales & Use Tax Exemptions: Exemptions for Qualifying Data Centers, Eligible Internet Data Centers and Computer Software at Data Centers.*
    - *Historic Preservation Tax Credit: Available for the rehabilitation of income-producing historic properties and owner-occupied historic residences.*
    - *Manufacturing: Sales and use tax exemptions for manufacturing machinery and equipment; electricity, fuel and natural gas for manufacturing facilities, raw material for manufacturing, and inventories.*
    - *Pollution Control and Abatement & Recycling: Property tax exclusions on pollution control and abatement equipment and recycling. It also offers a sales and use exemption for pollution control and abatement equipment.*
- *Foreign Trade Zone #57 – The Greater Charlotte Zone administered by the Charlotte Regional Partnership.*
- *Biotechnology Center, Economic Development Award - Provides performance-based grants to local units of government in support of life science company projects.*

Evaluation

Strategy M.2 Measurement Plan

Strategy M.2: *Provide Incentives for Innovation among Manufacturing Ecosystem Partners* ***Participants:*** *EDA, ARC, EDC's, Financial Institutions, County's, City's, Chambers, State of NC Dept. of Commerce, EDPNC*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Promotion of existing incentive programs*	Compiles list of current incentives	EDC's, Dept of Commerce, EDPNC	Request in Writing	Annually
Evaluation Measure: *Model incentive programs are evaluated*	Survey Best Practices around State of NC	EDPNC, Dept of Commerce, School of Government	Request in Writing	August 2017
Behavior (1-3 years) ***Evaluation Measure:*** *Guidelines on new incentives are published and distributed*	Work with Region C EDD to develop portfolio	EDC's, Dept of Commerce, EDPNC	Request in writing	December 2017
Evaluation Measure: *100% of county ED offices have adopted new incentives*	County and City EDC's in Region C to be part of EDD	EDC's, Region C EDD	County EDC report	December 2017

Condition (3-5 years) ***Evaluation Measure:*** *There is a 5% increase in export value from mfg businesses*	Export Value reports on Region C	NC Dept of Commerce	Request in writing	Once per year
Evaluation Measure: *There is a 5% decrease in leakage*	Leakage Value Report for Region C	NC Dept of Commerce	Request in writing	Once per year

Benefits: This strategy creates a central clearinghouse of information regarding incentives and ties them to the benefits of increased export and decreased leakage.

Strategy M.3: **Grow a Regional Manufacturing Ecosystem Supply Chain.**

Manufacturers depend on an integrated supply chain from raw materials and sub components to finished goods distribution. The closer and more aligned the supply chain the more efficient and cost effective the operation. Locating suppliers and manufacturers in close proximity to each other can be mutually beneficial. Sharing suppliers among local and regional manufacturers can also improve the larger business community.

Growing a regional supply chain that builds on existing manufactures, customer/supplier relationships is a starting point. Reduced transportation distances and costs, inventory availability, and economies of scale are some of the benefits of an integrated manufacturing supply chain.

Target Outcomes

Short Term (within 12 months):

1. Regional supply chain ecosystem industry clusters and suppliers have been identified and are listed in the regional “NC Isothermal Region C Manufacturing Ecosystem Directory.”

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Identify targeted manufacturing industry clusters with supply chain enhancement opportunities.	Region C EDD	Steve Lockett	December 2017
2. Identify local suppliers and industries served in the region.	Region C EDD	Steve Lockett	December 2017
3. Identify regional supply chain gaps.	Region C EDD	Steve Lockett	February 2018

Intermediate Term (1-3 years):

1. The “NC Isothermal Region C Manufacturing Ecosystem Roadmap” showing supply chain partners has been published.

Action Step: Conduct Information Sessions on Supply Chain reports, Region C EDD

Action Step: Seek Feedback on modifying list on a yearly basis

Long Term (3-5 years):

1. Manufacturing export value has increased by 5%.

Action Step: Collect stats on export value in Region C and Leakage reports on same

Action Step: Conduct Information Session and seek feedback loops on same

Assets

NC Isothermal Region C has access to the following resources in support of this strategy:

- *Chambers of Commerce: Carolina Foothills, Rutherford County, Hickory Nut Gorge, Cleveland County, McDowell County*
- *Business & Professional Associations*
- *Manufacturing operations managers, purchasing/procurement managers*
- *NC Manufacturing Extension Partnership (NCMEP at NC State University)*
- *Manufacturing/Industrial Suppliers:*

  Grainger Industrial (Charlotte, Greenville, Asheville,), Bearing Distributors (Spartanburg, Duncan), Motion Industries (Spartanburg, Greenville, Arden), Industrial motion (Mooresville), MSC (Charlotte, Davidson), Fastenal (Forest City, Marion, Shelby), Spartan Industrial (Spartanburg), Allied Industrial (Marion), Burke industrial (Morganton), First industrial (Spindale), Dixie Industrial (Shelby), Industrial Distribution Group (Greenville), Randolph Industrial (Gaffney), Applied Industrial Technologies (Gastonia)
- *Community Colleges: Academics, Continuing Education*
- *Private Education & Training providers*

Evaluation

Strategy M.3 Measurement Plan

Strategy M.3: *Grow a Regional Manufacturing Ecosystem Supply Chain* ***Participants:*** *Chambers in Region C; EDC Members in Region C; NC Manufacturing Extension Partnership; Suppliers*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Mfg. Ecosystem Directory is published*	Mfg. Eco System List for Directory Publisher Funding to develop	NC Dept. of commerce	Report Region C Staff to collate	Once per year
Behavior (1-3 years) ***Evaluation Measure****: Mfg Ecosystem Supply Chain Roadmap is published*	Directory of Ecosystem	Region C EDD	Survey	Once per year
Condition (3-5 years) ***Evaluation Measure:*** *Supply chain leakage is reduced by 5%*	Leakage Reports for Region C	NC Dept of Commerce	Compile reports	Once per year

Benefits: Data bank is produced so EDPNC and local EDC's can focus, modify, and advance recruitment and retention efforts.

Strategy M.4: **Develop the NC Isothermal Region C Consortium of Education and Training Providers.**

Access to an available workforce facilitates business expansion within the region and business recruitment to the region. Regionally available education and training for jobs and careers in the Manufacturing Ecosystem is a critical success factor in providing a skilled and available workforce. Eight community colleges serve the larger region. The immediate four-county NC Isothermal Region C is served by three Community Colleges. Private training providers may also be available to deliver elements of the workforce development processes.

Manufacturing ecosystem jobs often fall into occupational clusters with shared skill sets and bodies of knowledge while some jobs require very specific skills and knowledge. A well-functioning consortium of education and training providers effectively delivers the needed skills and knowledge to potential employees and job incumbents. An efficient consortium provides and interdependent matrix of courses and programs to potential employees and job incumbents with little to no duplication of efforts.

The NC Isothermal Region C Consortium of education and training providers will build on the findings and products of *Strategy 3.5 - Develop Career Pathways for the Regional Manufacturing Ecosystem*.

Target Outcomes

Short Term (within 12 months):

1. The Manufacturing Ecosystem Advisory Committee(s) have identified applicable jobs, Occupational clusters and employment information (See Strategy 3.5)

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Identify regionally available education and training programs relating to the Manufacturing Ecosystem jobs/careers.	WIOA	Bill Robertson	December 2017

Intermediate Term (1-3 years):

1. Local and regional education and training providers have collaborated on programs for targeted occupational clusters and have developed a matrix of classes, locations, and schedules.

Action Step: Community Colleges will determine education/training options by January 2019: a. On campus or off campus; b. Curriculum or continuing education; c. Academic calendar or on demand; d. Identify admissions requirements

Action Step: Community Colleges will develop marketing/promotional materials by June 2019.

Long Term (3-5 years):

1. Manufacturing ecosystem partners have increased their hiring local and regional education and training programs for new employees and job incumbent development.

<u>Action Step:</u> WIOA will develop career pathway matrices by June 2020.

Assets

NC Isothermal Region C currently has access to the following resources in support of this strategy:

- *Manufacturing Ecosystem Career Pathways Advisory Committee*
- *Community college representatives from:*
    - *Isothermal Community College (Spindale, Rutherford County; Columbus, Polk County)*
    - *McDowell Technical Community College (Marion, McDowell County)*
    - *Cleveland Community College (Shelby, Cleveland County)*
    - *Blue Ridge Community College (Flat Rock, Henderson County)*
    - *Western Piedmont Community College (Morganton, Burke County)*
    - *Asheville-Buncombe Technical Community College (Asheville, Buncombe County)*
    - *Spartanburg Community College (Spartanburg, South Carolina)*
    - *Greenville Technical College (Greenville, South Carolina)*
- *Private education and training providers including:*
    - *Carolina Common Enterprise (employee-owned business training)*

Evaluation

Strategy M.4 Measurement Plan

Strategy M.4: *Develop the NC Isothermal Region C consortium of Education and Training Providers* ***Participants:*** *Region C WIOA Board, Isothermal Community College, McDowell Tech, Cleveland Community College*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Mfg Ecosystem jobs/occupations has been published*	List of job/skills requirements for industry List of programs for skill development offered	Industry, DOL Community colleges WIOA	Request it by interviews with Industry and Educational providers	Once, then maintain yearly after that

Behavior (1-3 years) ***Evaluation Measure****: Mfg Ecosystem education/training programs are launched*	Eco System agreements with Providers, WIOA and Industry	Community Colleges	Report	June 2019
Condition (3-5 years) ***Evaluation Measure:*** *Mfg Ecosystem employers are hiring from the region*	Job Ads Mfg., Numbers	NC Dept of Commerce WIOA	Survey	Annually, beginning 2020

Benefits Creates an inventory available to industry, education providers and skill seekers of the places to get skilled up. Creates opportunities for educational providers to share resources, create consortiums, and serve their areas. Creates a workforce that is valued, well compensated and desired and becomes a virtuous cycle.

Strategy M.5: **Develop Career Pathways for the Regional Manufacturing Ecosystem.**

A vibrant economy depends on manufacturing and the many diverse interdependent businesses and service providers. And, a skilled and knowledgeable workforce is required for manufacturing to succeed – from front line workers and supervisors, to professional and technical employees, senior leadership, and top level management.

Manufacturing ecosystem jobs often fall into occupational clusters with shared skill sets and bodies of knowledge while some jobs require very specific skills and knowledge. Regardless, students and learners of all ages who pursue Manufacturing Ecosystem Career Pathways have increased employment opportunities in the region. Employers also have a larger pool of potential employees with employable skill sets. Careers in *front-line supervision* and *industrial maintenance and repair* represent a “shared” skill set for a regional manufacturing ecosystem.

Manufacturing ecosystem career awareness includes not only manufacturing careers but also careers in related supply chain businesses and service providers. Students in regional high schools, home schoolers, and community college students can benefit from knowing about and pursuing jobs and careers in the regional manufacturing ecosystem. Adults interested in employment opportunities and advancement can also benefit from the career pathways for entry level jobs as well as higher level employment and opportunities for advancement.

Many good employees have not only the skills and knowledge required to perform their job but also have careers in mind. Jobs and careers in a growing manufacturing ecosystem can be very rewarding both financially and in job satisfaction. Unfortunately, over the past two decades, jobs and careers in manufacturing have been discouraged because of a history of downsizing, off-shoring, and many myths about the future of manufacturing jobs in America.

Manufacturing Career Pathways are education/training models that combine classroom with hands-on learning in combination with structured work-based learning experiences provided by local employers. Work-based learning spans the learning process – from career awareness through industrial tours to mentored internships and apprenticeships.

Target Outcomes

Short Term (within 12 months):

An advisory committee is established to develop a certified career pathway for advanced manufacturing in the four-county region.

Short Term Action Steps	**Responsibilities (Organization)**	**Key Contact**	**Completion Date**
1. Identify regional community colleges & manufacturing ecosystem related offerings	Community Colleges	Thad Harrill	On-going
2. Identify targeted industry clusters & suppliers	Economic Development Commissions/Chambers of Commerce	Robert Williamson Clark Poole	December 2017
3. Identify job/career opportunities and requirements	Workforce Development Board	Diane Hodge	July 2017
4. Establish regional manufacturing ecosystem advisory committee(s)	NC Division of Workforce Solutions	Tim Mathis	July 2017
5. Identify common (shared) manufacturing ecosystem skill sets	Workforce Development Board	Drew Radford	July 2017
6. Identify industry-specific manufacturing ecosystem skill sets (skills & knowledge)	Career and Technical Education Programs (secondary Ed.)	Charlie Freeman/Committee Chair	
7. Develop career pathways for targeted jobs/careers	Workforce Development Board	Diane Hodge	July 2017
8. Develop Career Pathway matrices	Workforce Development Board		

9. Align with K-12 education & career pathways	Career and Technical Education/Community Colleges/Workforce Development Bard/Advisory Committee		July 2017
10. Align with University education & career pathways	Western Carolina University Engineering Program	Amber Thompson	July 2017
11. Identify education & training delivery points	Career Pathways Advisory Committee	Steve Brown	July 2017
12. Develop career pathways promotional materials	Career Pathway Advisory Committee	Steve Brown	July 2017
13. Disseminate Manufacturing Ecosystem Career pathway information	Career Pathway Advisory Committee	Steve Brown	July 2017

Action Steps:

Intermediate Term (1-3 years):

Certified Career Pathways for manufacturing jobs in the region are developed and launched.

Action Step:

Long Term (3-5 years):

Students and training/job seekers have taken advantage of the system improving their opportunities for employment in the sector, and the talent pipeline has increased capacity to meet the needs of regional industry, resulting in increased hiring within the region.

Assets

NC Isothermal Region C currently has access to the following resources in support of this strategy:

- *County secondary public school systems:*
    - *Cleveland*
    - *McDowell*
    - *Polk*
    - *Rutherford*

- *Charter schools (K-12):*
    - *Thomas Jefferson Classical Academy*

- *Pinnacle Classical Academy*

- *Private Secondary Schools*
    - *Anath Christian Academy*
    - *Liberty Christian Academy*
    - *Word of Faith Christian School*
    - *Ambassadors Baptist Academy*
    - *Grace Christian Academy*
    - *12 Oaks Academy*
    - *Marion Christian Academy*
    - *New Manna Christian School*

- *North Carolinians for Home Education (NCHE) Regions 1, 2 & 4:*
    - *Cleveland County Homeschool Association*
    - *Heart4homeschooling (Cleveland)*
    - *Learning 4 Life Home Educators (Cleveland)*
    - *AGAPE - Acting on God's Authority as Parent Educators (McDowell)*
    - *Western NC Home Schoolers (McDowell & Polk)*
    - *S.T.A.N.D. Homeschoolers (McDowell & Rutherford)*
    - *Carolina Superschoolers (Polk & Rutherford)*
    - *HARC (Homeschool Association of Rutherford/Polk Counties)*
    - *Henderson County Homeschool Association (Polk)*

- *Community College representatives from:*
    - *Isothermal Community College (Spindale, Rutherford County; Columbus, Polk County)*
    - *McDowell Technical Community College (Marion, McDowell County)*
    - *Cleveland Community College (Shelby, Cleveland County)*
    - *Blue Ridge Community College (Flat Rock, Henderson County)*
    - *Western Piedmont Community College (Morganton, Burke County)*
    - *Asheville-Buncombe Technical Community College (Asheville, Buncombe County)*
    - *Spartanburg Community College (Spartanburg, South Carolina)*
    - *Greenville Technical College (Greenville, South Carolina)*

- *Workforce Development Board (Workforce Innovation and Opportunity Act Programs)*
    - *Individual Training Accounts (Tuition Assistance)*
    - *On-the-Job Training (training reimbursements to employers)*
    - *Incumbent Workforce Development Training Program*

- *Educational:*
    - *ACT, National Career Readiness Certificate (NCRC)*
    - *ACT Work Ready Communities*

- *Educational/Industrial: Manufacturing Skills Standards Council (MSSC)*
    - *Certified Production Technician (CPT)*
    - *Certified Logistics Technician (CLT)*
    - *Green Production Certification*

- *Professional/Technical: Society of Maintenance & Reliability Professionals (SMRP) certifications:*
    - *Certified Maintenance & Reliability Technician (CMRT)*
    - *Certified Maintenance & Reliability Professional (CMRP)*

- *Professional/Technical: Association for Facilities Engineering (AFE)*
    - *Certified Plant Supervisor (CPS)*

- *Certified Plant Maintenance Manager (CPMM)*

- *Manufacturing Skills Institute:*
  - *Manufacturing Technician Level 1 Certification*
  - *Manufacturing Specialist (MS) Certification*

- *National Institute for Metalworking Skills (NIMS) – Spartanburg Community College*
  - *Machining Levels I, II, III; Metalforming Level I; Stamping Level II, III; Machine Maintenance Service & Repair II, III…*

- *American Welding Society (AWS): Various Professional Certifications*

- *National Center for Construction Education and Research (NCCER)*
  - *70+ Craft areas training & assessment*
  - *Carolinas AGC Foundation, Charlotte, NC*

- *North American Die Casting Association (NACDA): Level I, II, III certifications*

- *International Fluid Power Society:*
  - *Fluid Power Certified Mechanic*
  - *Fluid Power Certified Technician*
  - *Fluid Power Certified Connector & Conductor*

- *PMMI-The Association for Packaging & Processing Technologies: PMMI Mechatronics Technician Certifications Level 1 & 2*

- *Society of Manufacturing Engineers (SME):*
  - *Certified Manufacturing Technologist (CMfgT)*
  - *Lean Certificates: Bronze, Silver, Gold*

Evaluation

Strategy M.5 Measurement Plan

What you want to measure	What information you need	Who has the information	How you will get the information	How often/when you will get the information
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Establish Advisory Committee*	EDD published minutes WIOA Region C Career Pathway	Region C EDD WIOA Local Community Colleges Industry HR	Report	December 2017

Behavior (1-3 years) ***Evaluation Measure****: Certified Career Pathways in Manufacturing are launched*	Curricula	Region C EDD WIOA Local Community Colleges Industry HR	Report	December 2018
Condition (3-5 years) ***Evaluation Measure:*** *Mfg Ecosystem employers are hiring through the Certified Career Pathways*	Job Placements	Industry HR Community Colleges	Report	December 2019, annually thereafter

Benefits

Certified Career Pathways will provide access to a systematic process for 1) individuals to understand and undertake the steps necessary to achieve occupational and career goals and for 2) regional businesses to fill positions that are evolving with new skill requirements and to replace skilled workers who are retiring or leaving the workforce. Over time the partnership will exhibit long-term commitment in the pathway system by helping to identify knowledge, skills, and abilities needed to work in the industry sector; identify learning outcomes; help design education and training components; and participate in well-established work-based learning activities.

Strategy M.6: **Develop a Regional Transit System that can transfer human resources throughout the four county area and would operate on a traditional 3 shift manufacturing schedule.**

Target Outcomes

Short Term (within 12 months):

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Transportation Committee is formed and workforce transportation needs are assessed.	Isothermal RPO	Steve Lockett, Josh Kennedy, Karyl Fuller, and Ben Farmer	December 2017
2. Coordinate with GMPO, NC Transit, and NCPTA to form a Blue Ribbon Committee to study Region C Transportation/Public Transportation for workforce and tourism.	Isothermal RPO	Karyl Fuller	On-going
3. Conduct surveys of industry and workforce and public input sessions on “Ride to Work” status, needs wants.	Joint Committee	Ben Farmer	December 2017

Intermediate Term (1-3 years):

Workforce transportation needs are coordinated with public/tourism transportation needs.

Action Step: Joint Committee creates a Plan for Workforce/Tourism Transportation Region C Plan

Action Step: Joint committee on Transportation participates in Tourism Asset Mapping.

Long Term (3-5 years):

Workforce and tourism transportation plan is implemented.

Action Step: Implementation of a Region C Workforce and Tourism Public Transportation Plan.

Assets

- IRPO
- GMPO
- NCPTA
- NC Transit
- Region C Public Transportation Directors

Evaluation

Strategy M.6 Measurement Plan

Strategy M.6: *Develop a Regional Transit System for Manufacturing Ecosystem* ***Participants:*** *IRPO, GMPO, NC Transit, NCPTA, Region C Public Transportation Directors, IPDC Staff, TDA Staff*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Transportation Committee is formed*	Region C Transportation Committee Public Meetings and Input Journey to work information	Region C EDD	Report	December 2017

Behavior (1-3 years) ***Evaluation Measure****:* *Transportation Plan is created*	RFQ for Full study of Workforce and Tourism Transportation Tourism Asset Mapping Journey to Work	Region C EDD	Report	December 2019
Condition (3-5 years) ***Evaluation Measure:*** *Transportation Plan is implemented*	Implementing Action of Region C Transportation Plans	Region C EDD	Report	December 2021

Benefits: This strategy creates a Regional Transportation System that has customers and clientele in order to have adequate ridership.

Target Cluster - Tourism

By 2021, increase visitor spending 10% through regional partnerships that attract new visitors, extend stays, increase product offerings, and create jobs.

Our location, between the piedmont area of the Carolinas and the base of the Blue Ridge Mountains, is attractive to residents, farms, and industry. Criss-crossing our region are I-85, I-40, I-26, Hwy 74 and Hwy 221, which connects our region to two states and the economic engines of Asheville, Charlotte, Hickory, and the SC Upstate including Greenville and Spartanburg.

We have a strong history of manufacturing and agriculture, but our heritage also includes rich tourism attractions like great small towns, entertainment venues, lakes, restaurants, second homes, parks and equine venues. Our region also hosted the filming of such Hollywood greats as “Last of the Mohicans” and “Dirty Dancing.”

In addition to the breathtaking beauty of our region’s natural landscapes, we have a cultural heritage that includes textile mills, saw mills, and moonshine. The emerging craft distillery industry is an emerging opportunity to draw tourists to the region.

One of the newest visitor attractions is the Tryon International Equestrian Center in Polk County. TIEC is a year round venue and is the world’s premiere Equestrian Lifestyle Destination showcasing some of the top riders in the Hunter/Jumper, Dressage, and Eventing disciplines. The FEI World Equestrian Games will be held at TIEC in 2018, making the region a destination for thousands of international tourists. This venue is expected to draw visitors for many years to come, positioning the region to strength the tourism industry throughout all 4 counties.

Regional Economic Benefits

A strong tourism economy will provide the following benefits to the region:

- *Job creation*
- *Prosperity to Local / small business*
- *Diversification of area economy*
- *More outside money coming into the local economy*
- *Businesses that complement the tourism industry*
- *Increased tax base due to sales and hospitality tax revenue*
- *Increased overnight stays*
- *Makes visitors aware of what “we” have to offer*

Target Participants

In order to achieve the goal of strong tourism economy a large number and variety of collaborating organizations from across the region will be required. Specific participating organizations and individuals will be identified for each of the Strategies associated with this goal. The preliminary list of organizations aligned with this goal are as follows:

- *Local attractions*
- *Regional attractions*
- *Small/Local business*

- *Tourism Partners – Large and small*
- *Local Government*
- *Main street programs*
- *Existing business/Potential business*
- *Local Downtown communities*
- *Multiregional*
- *TDA Partners-Chambers-ETC…. (regionally)*
- *Marketing Host Groups- (Blue Ridge, High Country, Smokey Mountain)*
- *Board of Realtors*
- *Community Colleges; School Systems*

Regional Assets (Community Capitals)

- *Outdoor recreational opportunities*
- *Historic sites*
- *Wine/food trails*
- *Vacation rentals*
- *Music (Earl Scruggs/Don Gibson)*
- *Tryon International Equestrian Center*

Attitude, Knowledge or Skills needed to change behaviors (Short-Term – 12 months)

- *Local awareness / knowledge of regions tourism assets*
- *Increase community and regional*
- *List assets – put in groups*
- *Foster positive attitudes/welcoming attitudes/hospitality*
- *Develop Entrepreneurial skills*
- *Provide a platform for regional talent to showcase and enable buy-in*
- *Willingness to "share" the tourist/value the regional products*

Behavior changes needed to reach conditions (Intermediate Term – 1-2 years)

- *Residents become ambassadors and business owners/staff*
- *Improve customer service (retail, restaurant service, accommodations, etc.…)*
- *Market-driven hours*
- *Regional Campaign/Travel team*
- *Desire to implement community pride*
- *Open businesses to fill market opportunities (to complement the tourism industry)*
- *Education at community college and public schools (hospitality, equestrian, etc.…)*
- *Cross pollination of existing groups (sharing data, stories, resources)*

Conditions (Long Term –3-5 years)

- *Young adults return or do not leave – start business*
- *See a measurable increase in tourism*
- *Inclusiveness*
- *Successful small businesses – locals spend more money*
- *Storefronts housing a variety of businesses / Residential close to town*
- *Grassroots arts organizations thriving*
- *Transportation to regional/local destinations*
- *Expanded tourism marketing / promotional spending*
- *Increased local investment in tourism*
- *Wage Growth*

The Strategies developed to achieve the Tourism Target outcomes include the following:

Strategy T.1 – *Coordinate Workforce Development with the Tourism Industry.*

Strategy T.2 – *Increase Entrepreneurship focused on Regional Tourism Opportunities.*

Strategy T.3 – *Conduct a Regional Asset Mapping of the Tourism Industry.*

Strategy T.4 – *Conduct a public awareness campaign on regional tourism opportunities.*

Strategy T.5 – *Develop a regional transit service to shuttle tourists between highlighted areas and lodging within the four county region.*

Measurements

- **Increase in Occupancy Tax and Sales Tax (visitors)**
- **Increase in Tourism Economic Impact (statewide model study)**
- **New Tourism Businesses**
- **Average Daily Rate increase and occupancies**
- **Employees wage earnings growth**
- **Employees benefit growth**
- **Decreased unemployment**
- **More healthy businesses in our downtowns**
- **Visitor spending**
- **Visitor Surveys (coordinated)**
- **Coordinating data: Place and coordinator needed**

Strategy T.1: **Coordinate Workforce Development with the Tourism Industry.**

- **Pathways to Jobs**
- **Skills Development**
- **Entrepreneurial**
- **Wellness**
- **Customer Service Training**
- **Orientation as to where they are and service area**
- **Hospitality Consortium**
- **Coordinating the market place**
- **Healthcare Costs**
- **Workforce Housing**
- **Increase awareness of and value for customer service across all businesses (hospitality and services)**
- **Develop collaborative customer service training (share knowledge)**
- **FAM tours for current front line employees and virtual FAM tours**

Target Outcomes

Short Term (within 12 months):

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. An advisory committee (the Region C Tourism Consortium) is established to coordinate workforce development programs with the tourism industry in the four-county region.	IPDC	Steve Lockett	12/31/2017
2. Establish a committee to develop a career pathway with WIOA staff and partners.	Region C Workforce Development Board	Steve Lockett	December 2017
3. Develop and conduct survey of Regional Hospitality Industry on workforce, entrepreneurial development, housing, wellness and transportation in the Tourism Industry within the region.	Region C Tourism Consortium	Steve Lockett	12/31/2017

Intermediate Term (1-3 years):

1. Tourism industry skill sets are identified and assimilated into needed trainings throughout the region.

Action Step: Based upon survey outcomes, a Hospitality Education Training Consortium is established region wide.

Action Step: Tourism Consortium develops a marketing plan based upon workforce for future workforce pipeline and tourism-related business.

Long Term (3-5 years):

1. Tourism businesses are filling their workforce needs through regional recruitment efforts.

2. Repeat and extended stays are increased throughout the region.

3. Average wage in tourism/hospitality industry grows throughout the region.

Action Step: Tourism Consortium spins off to a separate nonprofit led by the Tourism Industry.

Assets

NC Isothermal Region C currently has access to the following resources in support of this strategy:

- **Education/trainings providers**
- **Region C Workforce Board**
- **TDA of each County and City within Region C**
- **Chambers of Commerce in each county**
- **Tryon Equestrian Center**

Evaluation

Strategy 4.1 Measurement Plan

Strategy 4.1: *Coordinate Workforce Development with the Tourism Industry.* ***Participants:*** *Tourism Partners, Existing and Emerging Tourism Businesses, Community Colleges and School Systems, Workforce Development boards*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Hospitality Consortium is launched*	Number of Tourism Related Operations in Region C Consortium Status	Region C Tourism Consortium leader, IPDC	Report to IPDC and/or minutes/notes from consortium meeting(s)	Once, when launched.
Behavior (1-3 years) ***Evaluation Measure****: Tourism/hospitality trainings are developed and implemented*	# of Students enrolled in Hospitality Programs # of Certificates in Hospitality and Entrepreneurship Programs	Community Colleges, high schools, and other education and training providers	Education and training providers will submit reports to Region C Tourism Consortium regularly	Annually or each semester.
Condition (3-5 years) ***Evaluation Measure:*** *Tourism businesses are recruiting locally*	# of graduates in Hospitality Programs # of Graduates placed in Jobs in Tourism Industry in Region C and Beyond	Community Colleges, high schools, and other education and training providers; Tourism Employers	Reports to Region C Tourism Consortium sent regularly; Outreach to employers and graduates	Annually or each semester.

Evaluation Measure: *Repeat and extended stays increase throughout the region*	Region C REV/PAR Occupancy and Sales Tax	NC Department of Revenue	Reports to Region C Tourism consortium	Annually
Evaluation Measure: *Average wage in tourism/hospitality industry increases*	Wage Rates and Job Placement	NC Department of Commerce	Reports to Region C Tourism consortium	Annually

Benefits:

Enhancing workforce development programming will benefit the regional tourism industry and the job seeker by allowing more employment choices in the marketplace and creating a stable workforce for the tourism sector.

Strategy T.2: **Increase Entrepreneurship Focused on Regional Tourism Opportunities.**

- **ESOP/Employee Co-ops**
- **Cultivate interest/Development- Additional rooms/hotels**
- **Mentor program**
- **Make them aware of state incentives/grants**
- **Tax incentives for entrepreneurs/start-up businesses**
- **Downtown Development (apartments and businesses)**
- **Events to showcase entrepreneurs regionally**

Target Outcomes

Short Term (within 12 months):

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. All four county TDAs receive a comprehensive report identifying regional entrepreneurship-related gaps, opportunities, and recommendations in the tourism industry.	Region C Tourism Consortium	Steve Lockett	12/31/2017

2. Research all existing entrepreneurship trainings, hospitality programs, and other resources in the region to assess their effectiveness in the tourism industry.	Region C Tourism Consortium	Steve Lockett	12/31/2017
3. Research innovative tourism, entrepreneurship trainings, hospitality programs and models offered outside of the region to assess their effectiveness in the tourism industry.	Region C Tourism Consortium	Steve Lockett	12/31/2017
4. Produce a report of research findings that identify entrepreneurship-related gaps and opportunities in the regional tourism industry and include recommendations for programming and trainings to be offered regionally.	Region C Tourism Consortium	Steve Lockett	12/31/2017

Intermediate Term (1-3 years):

1. Tourism entrepreneurship programming is offered regionally.

Action Step: Based on the gaps, opportunities, and recommendations outlined in the report mentioned above, the Region C Tourism Consortium will work with the Hospitality Education Training Consortium (see T.1) to facilitate the development of entrepreneurship programming in collaboration with each TDA, community college and other subject matter experts.

Action Step: The Region C Tourism Consortium and the Hospitality Education Training Consortium, in partnership with key stakeholders, will facilitate the launch of regional entrepreneurship programming.

2. Hospitality trainings are offered throughout the region.

Action Step: Based on the gaps, opportunities, and recommendations outlined in the report mentioned above, the Region C Tourism Consortium will work with the Hospitality Education Training Consortium (see T.1) to facilitate the development of hospitality training programs in collaboration with each TDA, community college and other subject matter experts.

Action Step: The Region C Tourism Consortium and the Hospitality Education Training Consortium, in partnership with key stakeholders, will facilitate the launch of regional hospitality training programs.

Long Term (3-5 years):

1. Increase in the number of small and employee-owned tourism/hospitality businesses in every county.

Action Step: The Region C Tourism Consortium will outline a regional network of technical assistance providers for small tourism/hospitality businesses, including the Small Business Centers at each community college, community development financial institutions (CDFIs) or other non-traditional lenders, legal advisors, consultants, etc.

Action Step: The Region C Tourism Consortium will connect entrepreneurship program participants and hospitality training completers with the regional technical assistance network

Action Step: When gaps or weaknesses are identified in the technical assistance network, the Region C Tourism Consortium will work to strengthen the network by recruiting additional participants, supporters, and funders.

Assets

NC Isothermal Region C currently has access to the following resources in support of this strategy:

- *Entrepreneurship trainings*
    - *Isothermal Community College*
    - *McDowell Technical Community College*
    - *Cleveland Community College*
- *Western Carolina University*
- *People 1st Tourism*
- *NC State Tourism Extension Leadership Programming*
- *Carolina Common Enterprise cooperative development center*
- *NC Rural Center*
- *SBDCs*
- *Chambers of Commerce*
- *Tourism Development Authorities*
- *Main Street Programs*

Evaluation

Strategy T.2 Measurement Plan

Strategy T.2 *Increase Entrepreneurship focused on Regional Tourism Opportunities* ***Participants:*** *Local Government, Main Street Programs, Small Business Centers, TDA Partners-Chambers, Universities, Community Colleges*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Report with recommendations is made available to TDAs*	Final report and presentation.	Region C Tourism Consortium and county TDAs.	Report will be made available online through IPDC and/or TDA websites.	Once, when report is complete, within 12 months.

Behavior (1-3 years) ***Evaluation Measure****:* *Tourism entrepreneurship programming is offered*	List of programs offered with websites or contact information.	Region C Tourism Consortium, TDAs, Community Colleges.	Consortium member(s) will be assigned to gather information from program providers.	Annually.
Evaluation Measure*:* *Hospitality trainings are offered region-wide*	List of programs offered with websites or contact information.	Region C Tourism Consortium, TDAs, Community Colleges, other training providers.	Consortium member(s) will be assigned to gather information from training providers.	Annually.
Condition (3-5 years) ***Evaluation Measure:*** *Increase in number of small and employee-owned tourism/hospitality businesses in every county*	Count of small and employee-owned tourism/ hospitality-related businesses in each county.	Economic Development Partnership of NC Tourism Division, County Chambers of Commerce	Consortium member or team will compile data.	Annually.

Benefits: Entrepreneurship and worker-owned companies (concept of ownership vs employment, more accountability) create opportunities for individuals in the marketplace to build upon the investment of existing and larger players in the Tourism economy and to create value to both the industry and themselves. Read these articles:
http://www.usnews.com/opinion/blogs/economic-intelligence/2012/05/31/why-we-need-more-employee-owned-businesses

http://billmoyers.com/2013/03/22/how-worker-owned-companies-work/

Strategy T.3: **Conduct a Regional Asset Mapping of the Tourism Industry.**

- Parks/Lakes/Trails/Climbing (outdoor)
- Existing regional groups working together (hosts, TDAs, heritage area and in relation to large attractions: ex. Biltmore, TIEC, etc…)
- Generate product improvements
- Packaging similar or enhancing activities, venues, events, etc.
- What are the competitive marketplaces
- Promote our central location and lower cost for same/similar experience

Target Outcomes

Short Term (within 12 months):

1. Cooperation and collaboration among county TDAs to promote regionalism.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Create the Region C Tourism Consortium	IPDC Board	Scott Dadson	September 2017
2. Create an RFQ, raise funds and engage in a regional asset mapping survey	Region C Tourism Consortium	Scott Dadson	Spring of 2018

2. Regional Asset Mapping is completed.

Action Step: The Tourism Consortium develops a strategic plan for tourism product, product enhancement, development and investment.

Action Step: The Tourism Consortium develops and funds a marketing plan for Tourism Assets.

Intermediate Term (1-3 years):

1. Tourism destinations throughout region are linked and shared at outlets in all counties.

Action Step: The Tourism Consortium develop a Regional Marketing Strategy that connects all the TDAs, Regional Assets, and Workforce Partners with each other and outside Region C.

Long Term (3-5 years):

1. Visitor spending in the region increases by 10%.

Action Step: Tourism Consortium establishes a Regional Evaluation Tool to measure impact of the Hospitality & Tourism Industry in Region C.

Assets

- Historic sites
- Wine/Food Trails
- TIEC
- Hotels
- Restaurants
- Downtowns
- State Parks
- Rail/Trail
- Private Recreation Facilities
- View sheds
- Rivers
- Hiking Trails
- Pacolet Conservancy

Evaluation

Strategy T.3 Measurement Plan

Strategy T.3 *Conduct a Regional Asset Mapping of the Tourism Industry* ***Participants:*** *Local Attractions, Regional Attractions, Small/Local Business, Tourism Partners, Main Street Program, Local Downtown Communities*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *Cooperation and collaboration among county TDAs to promote regionalism.*	Status of Consortium RFQ for Asset Mapping	Region C Tourism Consortium	Consortium meeting agendas and minutes and RFQ will be stored in central cloud-based repository, e.g. Google docs	Quarterly or annually, depending on frequency of meetings. RFQ: once, when complete.
Evaluation Measure: *Regional Asset Mapping is completed.*	Results of Asset Mapping RFQ Marketing Plan for Region C Assets	Region C Tourism Consortium	Asset map and marketing plan RFQ will be stored in central cloud-based repository	Once, when complete.

Behavior (1-3 years) ***Evaluation Measure****: Tourism destinations throughout region are linked and shared at outlets in all counties.*	Marketing Piece on Regional Assets and linkages in Region C	Region C Tourism Consortium, Tourism businesses	Region C Tourism Consortium will conduct a review of tourism businesses to assess use of Marketing Piece.	Annually.
Condition (3-5 years) ***Evaluation Measure:*** *Visitor spending in the region increases by 10%*	Baseline visitor spending amount; annual visitor spending amount	TDAs; NC Department of Commerce	Quarterly and annual spending reports.	Quarterly and annually.

Benefits: By mapping and connecting regional assets, all counties can leverage the tourism market created by TIEC and other large tourist draws in the region.

Strategy T.4: **Conduct a Public Awareness Campaign on Regional Tourism Opportunities**

Target Outcomes

Short Term (within 12 months):

1. County tourism stakeholders hold regular regional meetings.

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. Develop a list of tourism stakeholders in each county, conduct outreach to each county, and establish a schedule for regular meetings throughout the region focused on public awareness.	Region C Tourism Consortium	Don Cason	December 2017
2. Call meetings, coordinate meeting sites, plan meeting agendas, follow up with attendees on action items, and otherwise facilitate ongoing collaboration focused on public awareness.	Region C Tourism Consortium	Don Cason	December 2017

3. Advertising and funding for regional marketing is planned	Regional Tourism Stakeholder Group	Ben Farmer	December 2017
4. Develop a regional marketing platform and public awareness campaign	Regional Tourism Stakeholder Group	Ben Farmer	First goal of Regional Tourism Stakeholder Group
5. Outline an advertising strategy and secure funding for the public awareness campaign	Regional Tourism Stakeholder Group	Ben Farmer	Second goal of Regional Tourism Stakeholder Group

Intermediate Term (1-3 years):

1. Regional marketing pieces are developed

Action Step: Based on the input of the regional tourism stakeholders gathered during their regular meetings, and with the direction and expertise of marketing professionals, the Region C Tourism Consortium will coordinate the development of regional marketing pieces.

Action Step: These marketing pieces will be made available to tourism stakeholders and will be accompanied by the regional public awareness campaign outline and regional marketing guidelines and protocols for dissemination to the public.

2. Public Awareness Campaign is launched.

Action Step: The Region C Tourism Consortium will strategically engage tourism stakeholders throughout the region to implement the public awareness campaign in a coordinated manner.

Action Step: The Region C Tourism Consortium will continue to support and promote the public awareness campaign by incorporating feedback and updates into the marketing pieces and guidelines, and will share changes with all stakeholders.

Long Term (3-5 years):

1. Over 50% of the tourism-related businesses in the region will use the regional tourism brand formed through the marketing and public awareness campaign to promote their business.

Action Step: Regional marketing pieces and guidelines will be continually updated and shared with existing and new tourism-related businesses.

Action Step: The Region C Tourism Consortium will encourage tourism-related businesses to incorporate the regional tourism identity/brand into their individual marketing plans, materials, and outreach.

Assets

- **Public speaking engagements across county lines - rotary, town councils, organizations, etc.**
- **Cross promote press releases**
- **Creating regional events**
- **Cross promotion of events**
- **“Bundling” of efforts/events**
- **Digital/Media outlets**
- **Cooperation between existing regional groups**
- **Advocates for the area, product and tourism**
- **Opportunities to reach the market**
- **Leadership programs (regional hospitality)**

Evaluation

Strategy T.4 Measurement Plan

Strategy T.4 *Conduct a Public Awareness Campaign on Regional Tourism Opportunities* ***Participants:*** *Region C Tourism Consortium, Tourism Stakeholders, Marketing Experts*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *County tourism stakeholders hold regular regional meetings.*	Meeting dates, agendas, and minutes	Region C Tourism Consortium	Agendas and minutes will be stored in central cloud-based repository, e.g. Google docs	Quarterly or annually, depending on frequency of meetings
Evaluation Measure: *Advertising and funding for regional marketing is planned.*	1. Advertising/ public awareness campaign outline 2. Proof of funding	Region C Tourism Consortium	Advertising outline and funding receipts will be stored in central repository.	Once, when complete, and as necessary thereafter, when new information is available.
Behavior (1-3 years) ***Evaluation Measure****:* *Regional marketing pieces are developed*	Marketing pieces in digital format.	Region C Tourism Consortium	Digital files will be stored in central repository	Once, when complete, and as necessary thereafter, when pieces are updated.

***Evaluation Measure**: Public Awareness Campaign is launched.*	Evidence of dissemination of marketing pieces in online and print format – links, printed materials, etc.	Region C Tourism Consortium, Tourism Stakeholders	Region C Tourism Consortium members and Tourism Stakeholders will submit links to online pages/posts and copies of print materials.	Monthly throughout campaign, and as necessary thereafter, when pieces are updated and re-published.
Condition (3-5 years) ***Evaluation Measure:*** *Over 50% of the tourism-related businesses in the region will use the regional tourism brand formed through the marketing and public awareness campaign to promote their business.*	Count of tourism-related businesses using regional tourism branding compared to total number of tourism-related businesses in region.	Economic Development Partnership of NC Tourism Division, County Chambers of Commerce, Tourism Businesses	Region C Tourism Consortium will conduct a review of tourism business marketing to assess use of regional branding.	Annually.

Benefits: A public awareness campaign will build awareness of the regional tourism assets with both residents and persons outside of the region, thus increasing tourism revenue throughout the region.

Strategy T.5: **Develop a Regional Transit Service to shuttle tourists between popular areas and lodging within the 4-county region.**

Target Outcomes

Short Term (within 12 months):

Short Term Action Steps	Responsibilities (Organization)	Key Contact	Completion Date
1. A Blue Ribbon Committee studies Region C transportation system(s) and produces a report on Transportation for Tourism	Isothermal RPO	Karyl Fuller	December 2017

2. Coordinate with GMPO and NC Transit and NCPTA to form a blue Ribbon Committee to study Region C Transportation/Public Transportation for Workforce and Tourism.	Isothermal RPO	Karyl Fuller	December 2017
3. Conduct surveys of industry and workforce and public input sessions on “Ride to Work” status, needs and wants.	Joint Committee	Ben Farmer and ICC Tourism Director	December 2017

Intermediate Term (1-3 years):

1. The Region C Workforce and Tourism Public Transportation Plan is produced.

Action Step: Joint Committee creates a Plan for Workforce/Tourism Transportation in Region C.

Action Step: Joint committee on Transportation participates in Tourism Asset Mapping.

Long Term (3-5 years):

1. The Region C Workforce and Tourism Public Transportation Plan is implemented.

Action Step: Region C Tourism Consortium members, the Blue Ribbon Committee, and other stakeholders will form an implementation team tasked with first engaging the region in taking ownership of the Region C Workforce and Tourism Public Transportation Plan.

Action Step: The implementation team will secure public-private support and funding for the Transportation Plan.

Action Step: The implementation team launch and monitor implementation of the Transportation Plan, in partnership with various municipalities, town and county governments, NC DOT, US DOT, etc.

Assets

- IRPO
- GMPO
- NCPTA
- NC Transit
- Region C Public Transportation Directors

Evaluation

Strategy T.5 Measurement Plan

Strategy T.5 *Develop a Regional Transit Service for Tourists* ***Participants:*** *Region C Transportation Committee, NC Transit, GMPO, NCPTA, IRPO*				
What you want to measure	**What information you need**	**Who has the information**	**How you will get the information**	**How often/when you will get the information**
Attitudes/Knowledge/ Skills (within 12 months) ***Evaluation Measure:*** *A Blue Ribbon Committee studies Region C transportation system(s) and produces report on Transportation for Tourism.*	Transportation Report, developed from Public Meetings and Input and Journey to work information	Region C Transportation Committee	Digital files will be stored in central repository	Once, when complete.
Behavior (1-3 years) ***Evaluation Measure****: The Region C Workforce and Tourism Public Transportation Plan is produced.*	RFQ for Full study of Workforce and Tourism Transportation Tourism Asset Mapping Journey to Work	Region C Transportation Committee	Digital files will be stored in central repository	Once, when complete.
Condition (3-5 years) ***Evaluation Measure:*** *The Region C Workforce and Tourism Public Transportation Plan is implemented.*	Status of funding and progress on plan components or recommendations	Region C Transportation Committee, Implementation Team	Regular reports to full Region C Tourism Consortium	Annually.

Benefits: A regional transit service for tourists will create ease of access to destinations throughout the region, thus generating more tourism dollars in the region.

Goal 3 - Create Pathways to Economic Foundations

A region's economic vitality is measured through a variety of different indicators, among them tax revenues, tourism, employment by industry, diversity of industry, unemployment rate, and average weekly earnings. We believe that Goals 1 and 2 of this SET V plan address these indicators of growth and provide strategies to prosperity for the region.

However, we believe that quality of life and other elements of economic foundation still need further examination. Such elements include access to transportation, educational success, workforce development, and infrastructure, which while addressed to a certain extent in each of the three targeted industry clusters, still need further examination and discussion. We have also not discussed housing and wellness and believe that both of these foundational elements must be addressed.

Target Outcomes:

Short Term (within 12 months):

1. Strategies, action steps, and evaluation measures will have been identified and completed for each of the five pathways to economic foundations: Transportation, Wellness, Workforce Development and Education, Housing, and Broadband and Utilities and incorporated into this SET V plan.

Action Step: By January 2017 the Executive Director of the Isothermal Planning and Development Commission will identify a primary contact for the working groups for each of the pathways to whom responsibility for the completion of this section of the plan will be delegated, including assembling all stakeholders.

Action Step: By March 2017 the primary contact for each of the working groups will have convened its first meeting to complete the strategies, action steps, and evaluation measures to achieve a stated goal for each of the five pathways.

Action Step: By August 2017 each of the working groups will have completed its goals, strategies, action steps, and evaluation measures for each of the five pathways.

Action Step: By December 2017 implementation of each of the strategies associated with cluster development will have commenced.

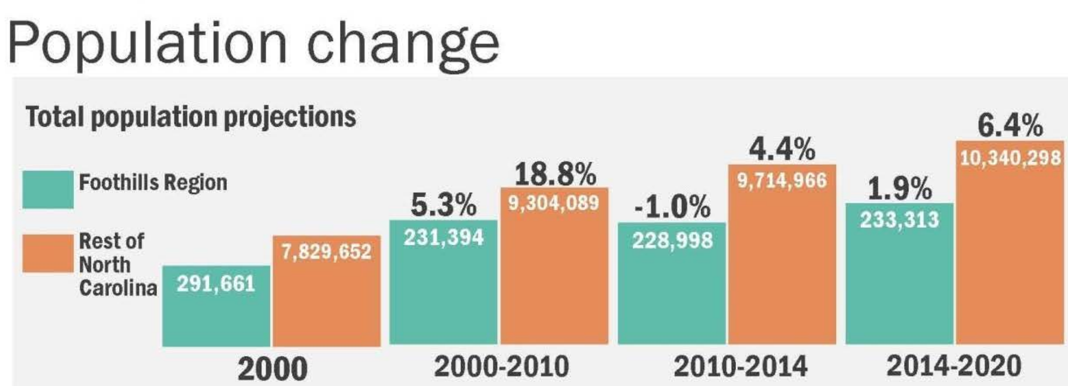
Short Term Action Steps	**Responsibilities (Organization)**	**Key Contact**	**Completion Date**
1. By January 2017 the Executive Director of the Isothermal Planning and Development Commission will identify a primary contact for the working groups for each of the pathways to whom responsibility for the completion of this section of the plan will be delegated, including assembling all stakeholders.	IPDC	Scott Dadson	December 2017

2. By March 2017 the primary contact for each of the working groups will have convened its first meeting to complete the strategies, action steps, and evaluation measures to achieve a stated goal for each of the five pathways.			
3. By August 2017 each of the working groups will have completed its goals, strategies, action steps, and evaluation measures for each of the five pathways		Josh Kennedy	August 2017
4. By December 2017 implementation of each of the strategies associated with cluster development will have commenced.		Josh Kennedy	December 2017

Evidence Basis for Plan

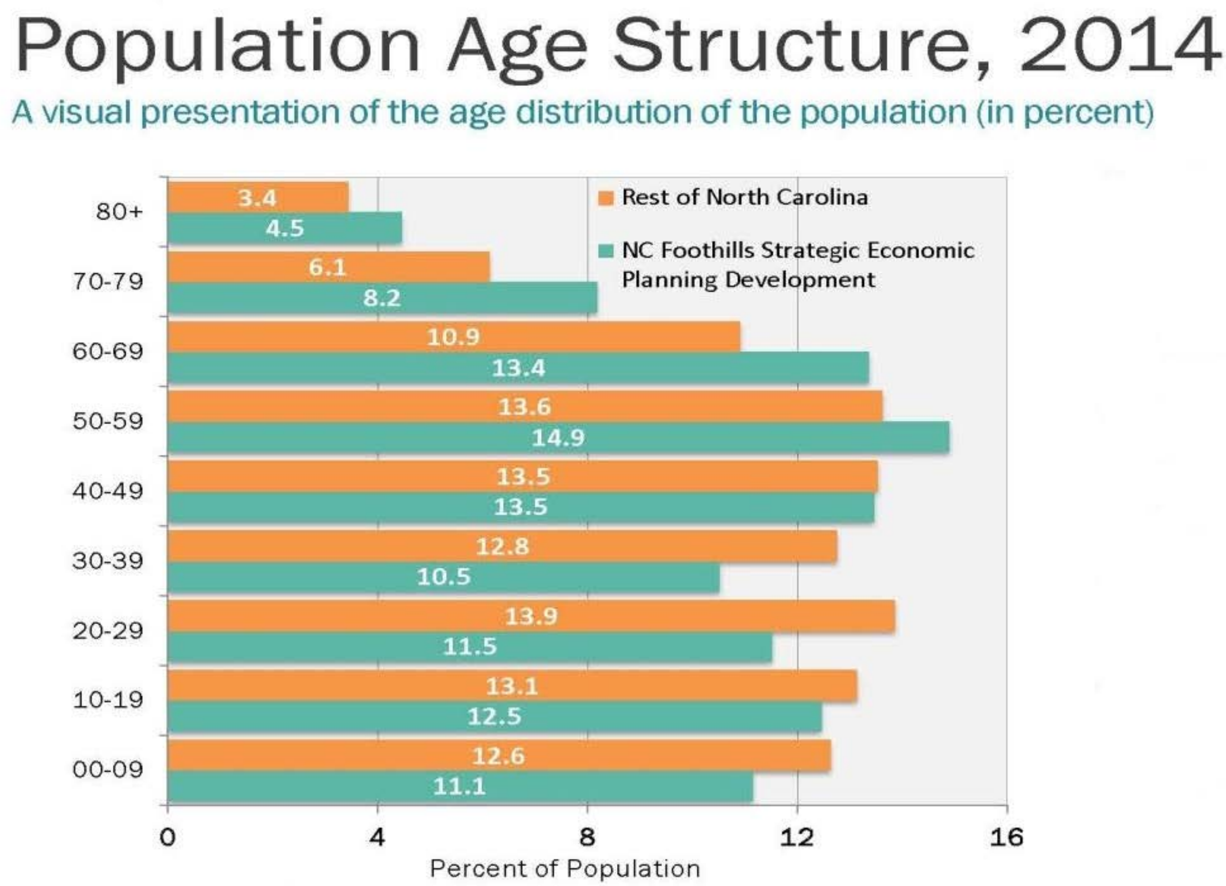
Regional Demographic Data

The U.S Census Bureau estimated the 2014 population of the NC Foothills Region at 228,998. This was a decline of 1% from the 2010 population. The natural growth (births minus deaths) in each county in the Region was negative during that period, and in-migration slowed due to economic factors. Population growth has lagged the rest of the State since 2000, and projections to 2020 show that the Region will grow by less than 2%, roughly a third of the growth rate for the remainder of the State.



The Region's age distribution indicates that much of the population stagnation is the result of an aging population. The Great Recession caused many families with younger children to leave the Region in search of better employment opportunities. As shown below, each segment aged 50 and above represents a larger percentage of the population than those of the remainder of the State.

From 2003 to 2013 the poverty rate in the Foothills Region grew from 14.1% to 20.8%. Childhood poverty (age 0 – 17) increased from 21.2% to 31.7%. By comparison, the North Carolina overall poverty rate in 2013 was 17.8%, and childhood poverty stood at 25.1%. Overall poverty rates within the Region ranged from a high of 23.9% in Rutherford County to a low of 14.7% in Polk County. Cleveland County had a rate of 19.6% and in McDowell County the rate was 21.9%.



Median household income in the Region declined from $42,974 in 2003 to $38,633 in 2013. The State median of $45,946 in 2013 was 18.9% higher than that of the Region. Within the Region, Rutherford County had the lowest median household income ($35,544) and Polk County had the highest ($43,665).

These income trends closely track the performance of the Region's economy. In 2003 the Region was still experiencing the impacts of the loss of manufacturing jobs, which began in the late 1990s. By 2008, parts of the Region were benefitting from growth in the housing sector and efforts to attract a more diversified manufacturing base; however, most employment growth occurred in the services and retail sectors. The housing crisis which began in 2008 was a major blow to the Region, and many workers were forced to relocate or seek employment outside the Region. In 2013, approximately 7,000 more residents of the Region commuted to jobs outside the four counties than worked within the Region. There were approximately 19,000 more out-commuters than in-commuters.

Educational attainment in the Region generally lags the State as a whole. Data from the U.S. Census Bureau's American Community Survey (2010-2014) (ACS 2014) show that the percentage of adults age 25 and over with a high school degree or greater ranges from 80.3% in Rutherford County to 88.4% in Polk County. North Carolina's rate was 85.4%. High school graduation rates in the Region are improving as school systems are placing greater emphasis on dropout prevention. The percentage of adults with a bachelor's degree or higher in each of the Region's counties were: Cleveland – 16.5%, McDowell – 13.9%, Polk – 30.0% and Rutherford – 16.4%. The State rate was 27.8%.

Because of the economic dislocations of the past two decades and the associated declines in household incomes, housing affordability has become an increasing obstacle to the economic wellbeing of more of the Region's residents. Workforce housing and housing options for older adults are of particular concern. A generally accepted measure of housing insecurity is housing costs (rent or mortgage expense, utilities, taxes and insurance) which exceed 30% of household income. Data from the ACS reveal that 14.7% of owner-occupied housing units and 42.8% of renter-occupied units spend 30% or more of household income on housing. As expected, lower-income households experience the greatest affordability obstacles. Among households with annual incomes below $35,000, 11% of homeowners and 41% of renters spend 30% or more on housing. The lack of affordable housing options makes it more difficult for employers to attract workers for entry-level and lower-wage jobs. For example, many school systems and local governments are finding it hard to recruit teachers and public safety employees. In addition, sub-standard housing quality conditions in many lower-cost housing units can lead to health or safety problems for residents, especially children and senior citizens.

Income and poverty

	2003	2008	2013
Total Population in Poverty	14.1%	16.3%	20.8%
Minors (Age 0-17) in Poverty	21.2%	24.2%	31.7%
Real Median Household Income* ($ 2013)	$42,974	$41,730	$38,633

Labor force

Journey to Work

Population	2013 Jobs	Proportion
Employed in Region	72,135	100.0%
Employed in Region but Living Outside	30,071	41.7%
Employed and Living in Region	42,064	58.3%

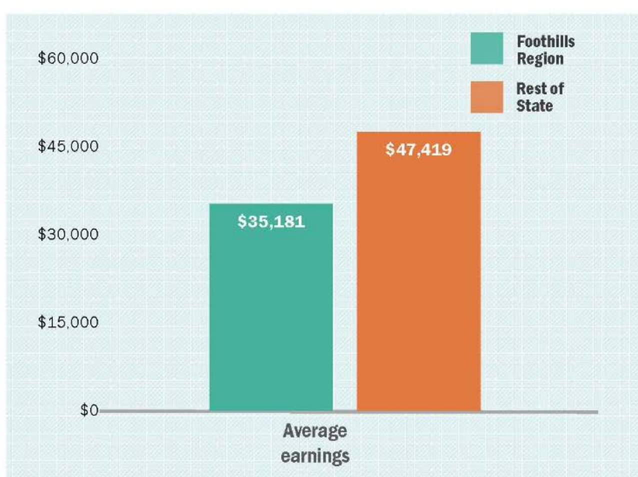
Population	2013 Jobs	Proportion
Region Residents	91,315	100.0%
Employed Outside Region but Living in Region	49,251	53.9%
Employed and Living in Region	42,064	46.1%

Regional Economic Data

The Region's labor force averaged 101,824 in 2010 at the height of the Great Recession, and the unemployment rate was 14.6%. Unemployment rates fell in each year thereafter; and in 2015 the annual rate stood at 6.5%. The labor force numbered 100,996 at that time. The latest monthly data (July, 2016 – not seasonally adjusted) show the labor force at 101,026 with unemployment at 5.5%. As shown below, annual earnings per worker in 2014 averaged $35,181. This amount was over $8,000 below the average for the remainder in that year.

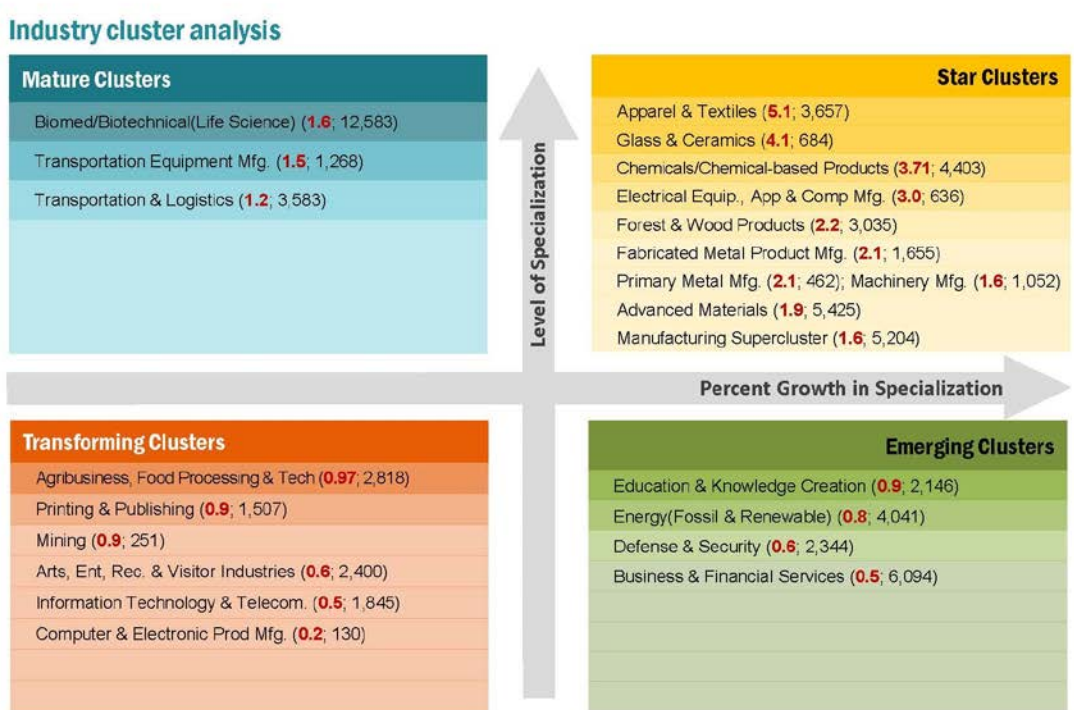
Earnings per worker in 2014

NOTE: Earnings include wages, salaries, supplements and earnings from partnerships and proprietorships



The industry clusters in the NC Foothills Region that have a competitive advantage over other parts of the nation (a Location Quotient in excess of 2.0) and having significant employment numbers in the region ("Star Clusters") are: (1) **Apparel & Textiles** (5.1 LQ, 3,657 workers), (2) **Chemicals/Chemical-based Products** (3.71 LQ, 4,403 workers), (3) **Forest & Wood Products** (2.2 LQ, 3,035 workers), (4) **Advanced Materials** (1.9 LQ, 5,425 workers), and (5) **Fabricated Metal Manufacturing** (2.1 LQ, 1,655 workers)**.** These results were based on research conducted by Purdue University using 2014 EMSI data. Information concerning these clusters is in the Appendix to this plan. **Biomedical/Biotechnical (Healthcare)**, one of the largest employers (12,583 workers), and **Transportation & Logistics** (3,583 workers) are considered mature clusters in the region (meaning they are not projected to grow further), and **Agribusiness, Food Process & Tech** (2,818 workers) and **Arts, Ent, Rec & Visitor Industries** (2,400 workers) are considered transforming/declining clusters, based on the 2014 EMSI data.

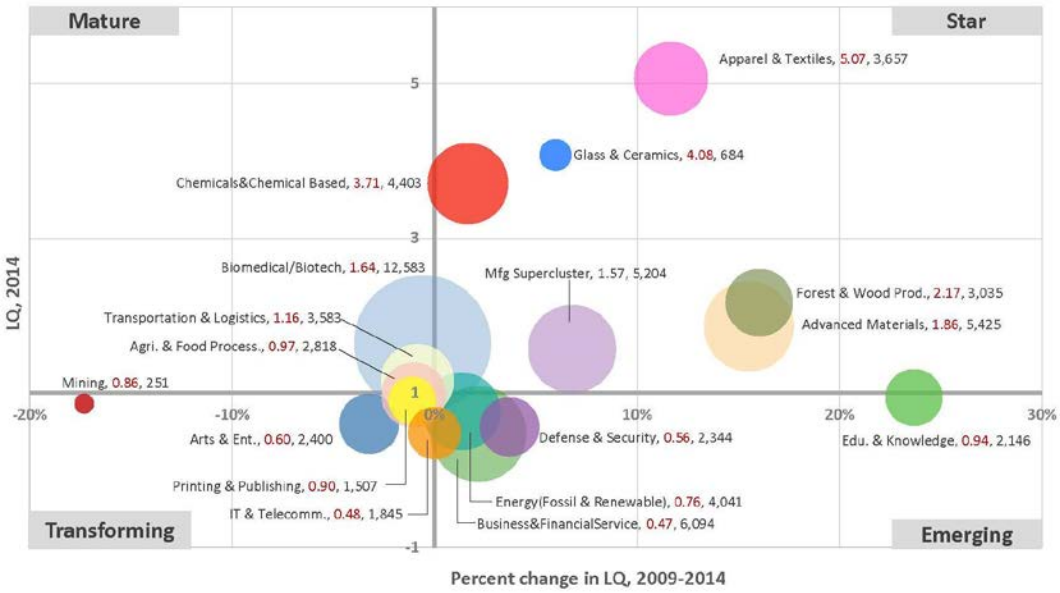
The following graphic depicts an analysis of the industry clusters present in the Region. This analysis examines each cluster's potential for growth, its location quotient, the degree to which the cluster exports goods or services outside the region, the growth trend over the five-year period from 2009 to 2014, and the number of people employed in each cluster. The first number in parentheses by each cluster indicates the location quotient, and the second denotes the employment (full and part-time) in that cluster. The clusters are segmented into four groups which reflect the degree of specialization of each industry sector and the growth rate of specialization for that cluster.



The charts below indicate the relative employment size of each industry cluster. The vertical axis indicates the location quotient as of 2014, and the horizontal axis depicts the five-year growth rate. (The second chart gives a further breakdown of the manufacturing supercluster).

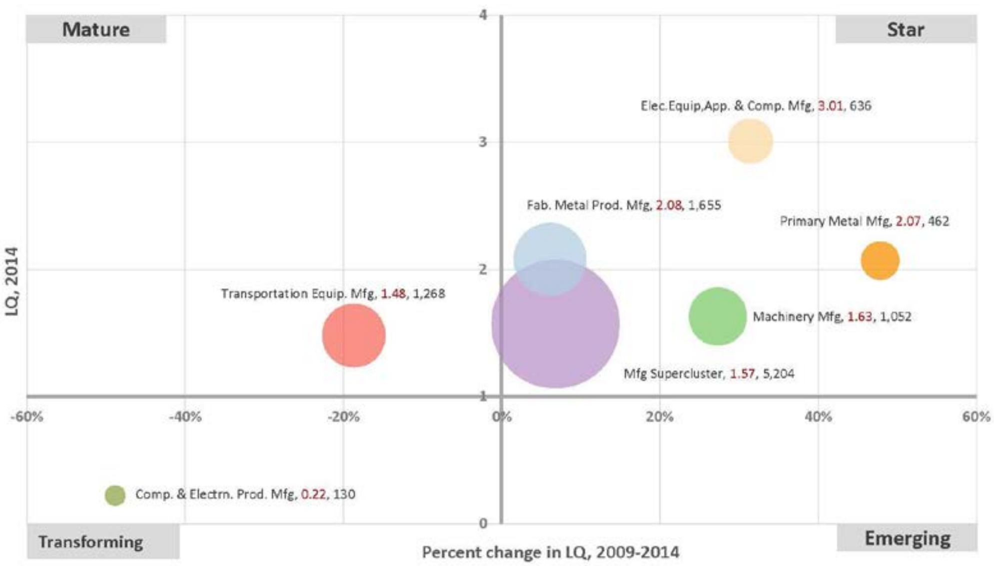
Industry and occupation

Industry cluster bubble chart



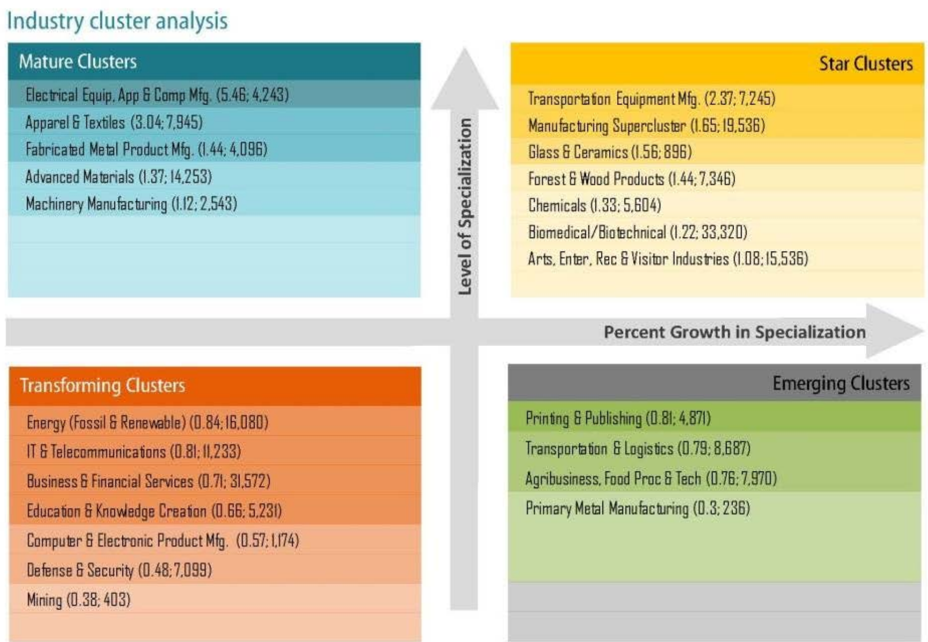
Industry and occupation

Manufacturing sub-cluster bubble chart



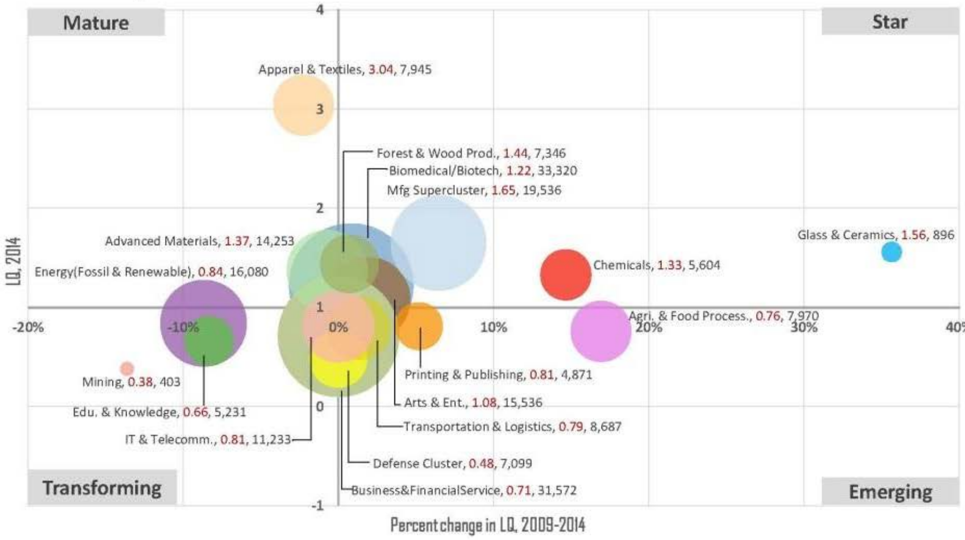
In order to broaden the analysis as suggested by participants in the community planning meetings, the four NC counties surrounding the Region and the three adjacent upstate SC counties were also examined. The following charts display this analysis.

Surrounding NC Counties – Buncombe, Burke, Gaston and Henderson



Industry and occupation

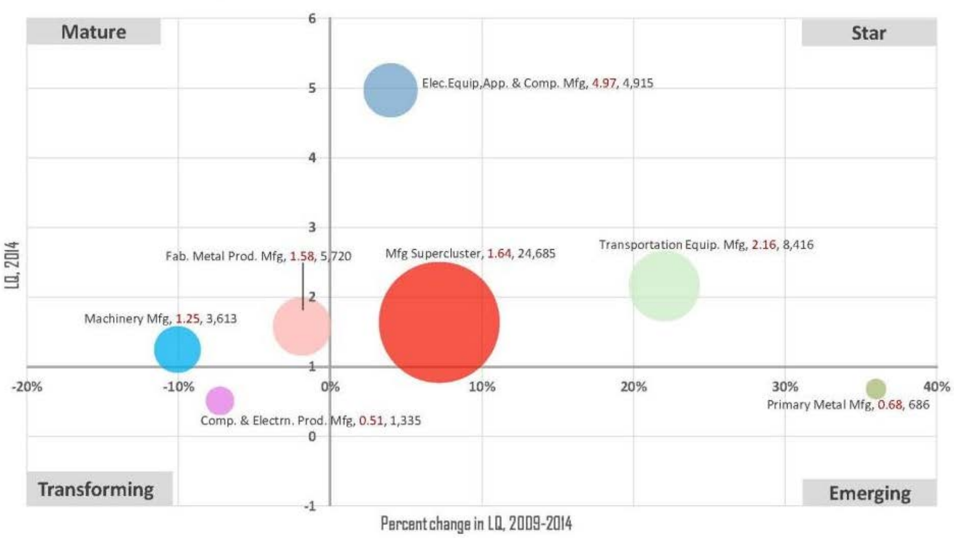
Industry cluster bubble chart



Note: Label includes cluster name, LQ in 2014, and Employment in 2014

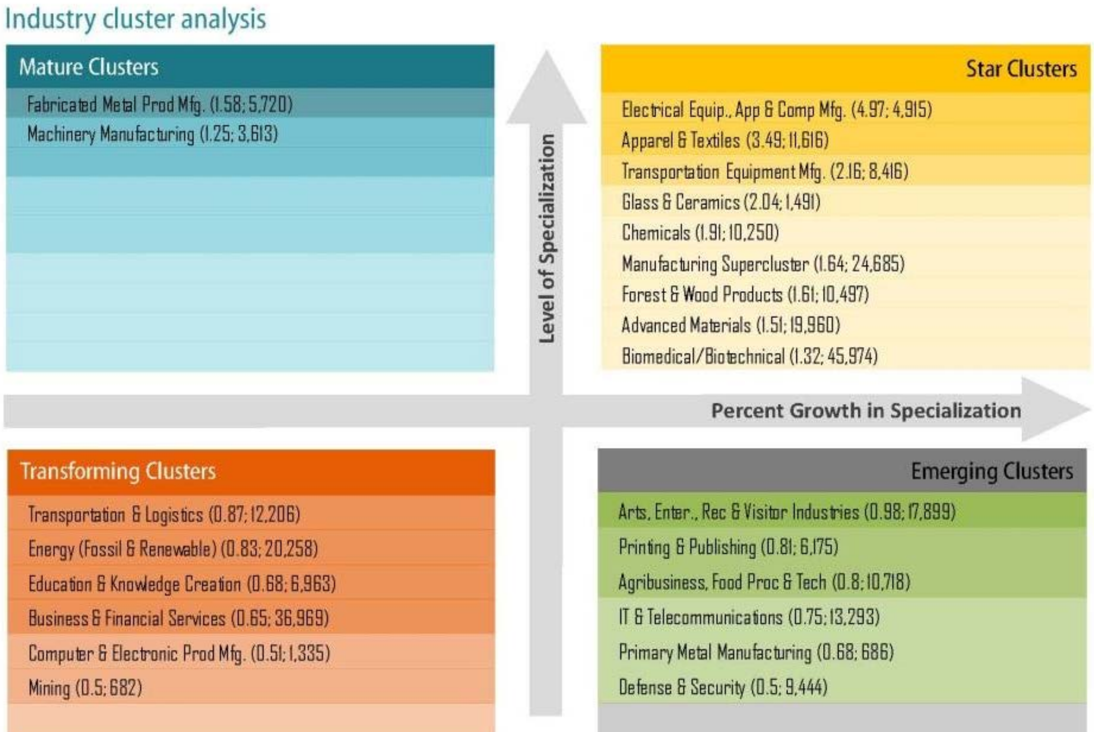
Industry and occupation

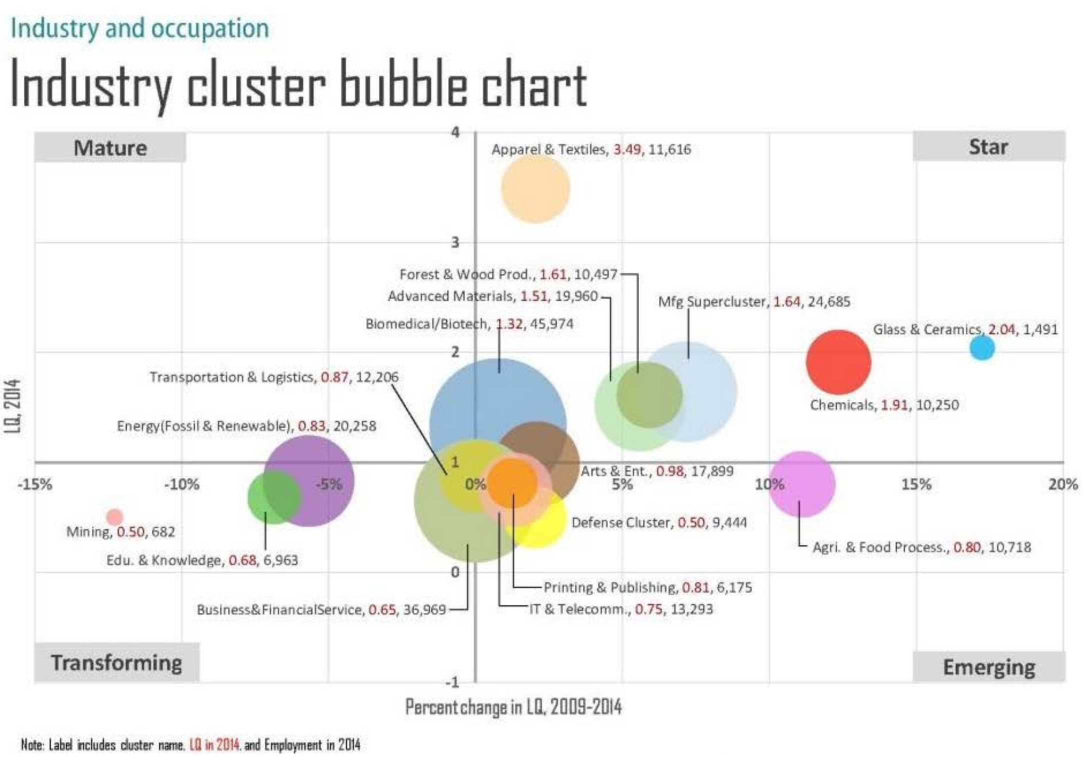
Manufacturing sub-cluster bubble chart



Note: Label includes cluster name, LQ in 2014, and Employment in 2014

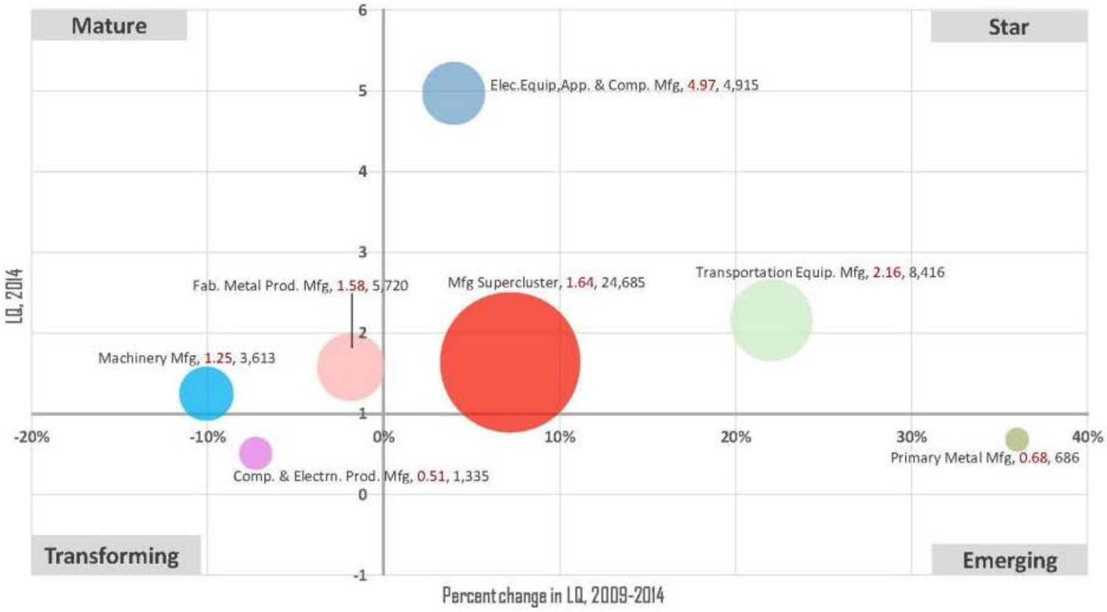
NC Foothills Region Plus Surrounding NC Counties





Industry and occupation

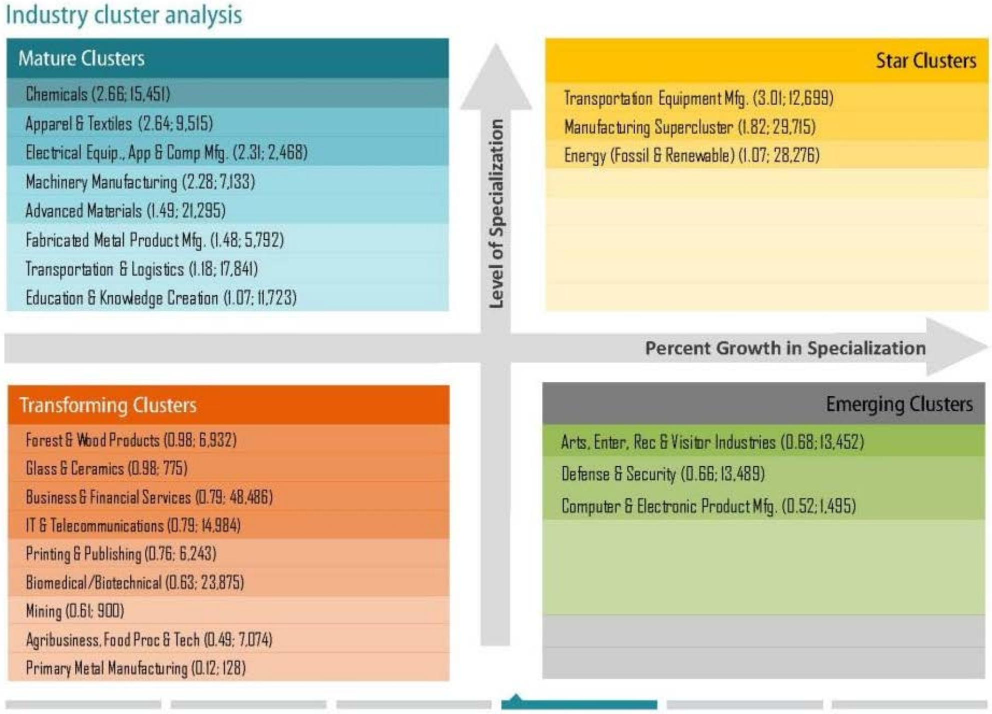
Manufacturing sub-cluster bubble chart



Note: Label includes cluster name, LQ in 2014, and Employment in 2014

Upstate SC Counties – Cherokee, Greenville and Spartanburg

Industry cluster analysis

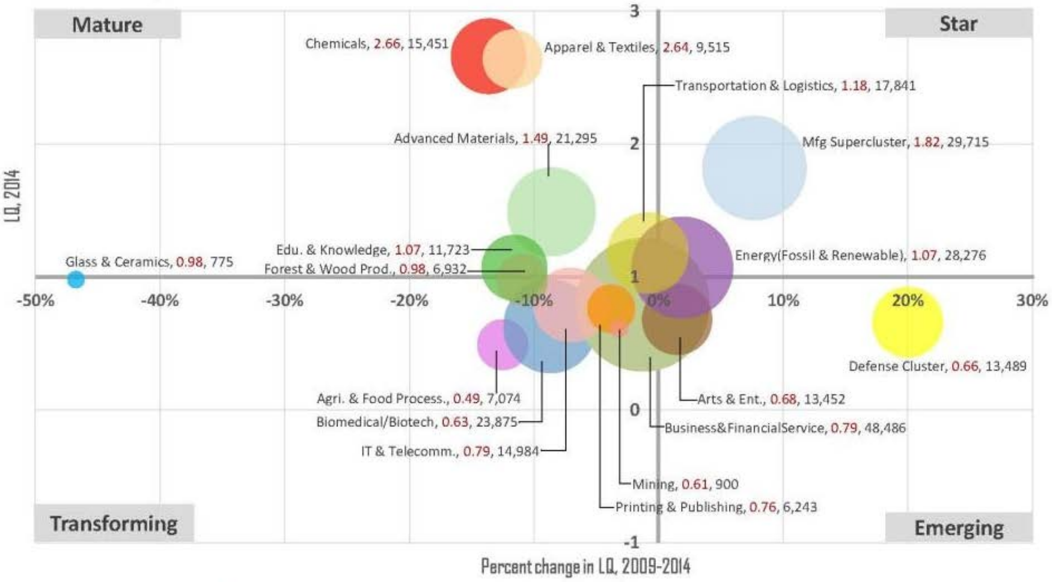


section 04

NOTE: The first number after each cluster represents its location quotient while the second number represents the number of total jobs (full and part time jobs by place of work) in that cluster in the region in 2014. The clusters are sorted in decreasing order by location quotient

Industry and occupation

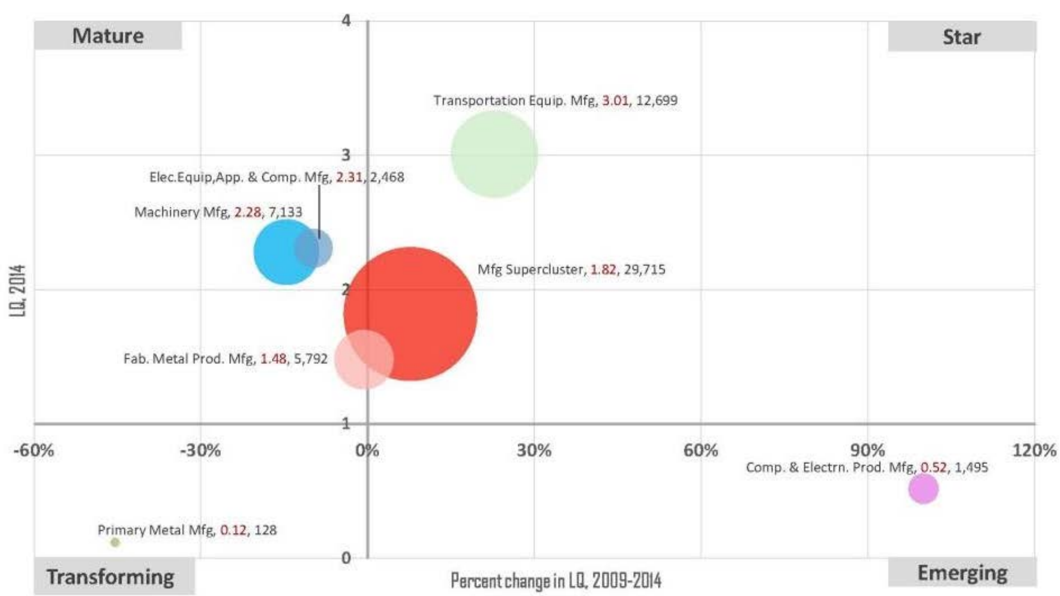
Industry cluster bubble chart



Note: Label includes cluster name, LQ in 2014, and Employment in 2014

Industry and occupation

Manufacturing sub-cluster bubble chart



Note: Label includes cluster name, LQ in 2014, and Employment in 2014

With the identification of the most promising clusters for further economic growth and employment, the analysis then looked more closely at these clusters in terms of shift share analysis, export value, dollar inputs, leakage, and occupational information. This data is included in the Appendix to this plan. Based on this information, the following recommendations for economic development were made:

- **Apparels and Textiles**, though a star cluster in the NC Foothills Region, is a mature cluster in both the SC counties and the surrounding NC counties. It also has the historical baggage of off-shoring, when towns throughout the region lost major employers. No one in the SET planning process has wanted to brainstorm about this cluster. Nonetheless there may be opportunities in niche markets that deserve a closer look and some exploration of this cluster with university researchers may be a plan strategy. There are 72 businesses in this cluster in the region. Although wages are higher than average, they lag behind the other starred clusters, with the possible exception of Forestry and Wood Products.
- ***Forestry & Wood Products** is a star cluster in the NC Foothills region and its surrounding NC counties. Given the high interest at the Civic Forum in preserving the natural amenities of the region and the fact that there was some interest in the room on developing strategies to strengthen this cluster (e.g., forestry management), it was determined to be considered for plan focus. There are 115 businesses in this cluster in the region and it is present in all 4 counties.
- **Transportation Equipment Manufacturing** is not a star cluster in the region (it is considered "mature" with a LQ of 1.48 and 1,268 workers), but it is a star cluster in the surrounding NC counties and in the SC counties. ***Fabricated and Primary Metal Manufacturing** is a star cluster in the region, which may support the Transportation Equipment Manufacturing cluster in the neighboring counties. Focus on these clusters will support the economies in McDowell and Cleveland Counties, in particular. There are 45 businesses in this cluster in the region, and it is present in all 4 counties.
- ***Advanced Materials** is a star cluster in the region and is mature in the surrounding NC counties and in the SC counties. It has extremely high export value and is present in all 4 counties, primarily in McDowell County. There are 78 businesses in this cluster in the region, which have higher than average earnings (addressing Civic Forum concerns).
- ***Chemicals**, a star cluster in the region, is also a star in the surrounding NC counties, and is mature in the SC counties. It has extremely high export value, 42 businesses, and is present in all 4 counties. It also has higher average earnings, which addresses Civic Forum concerns.
- **Agribusiness, Food Processing & Tech** is a transforming/declining cluster in the region according to the 2014 EMSI data, but the local food movement and the equine industry are both mushrooming in the region, particularly in Polk County. This cluster is also an emerging cluster in the neighboring NC counties. The regional team has chosen to develop strategies to support this cluster, because there is evidence to support projected growth. Wage levels, however, lag behind the other clusters.
- **Arts, Ent, Rec & Visitor/Tourism** is a transforming/declining cluster in the region according to the 2014 EMSI data, but is an emerging industry in the SC counties and a star industry in the neighboring NC counties. Given the input at the Civic Forum that natural and recreational areas are a strength of the region, this industry cluster was also given weight in plan strategies, especially because it aligns with quality of life initiatives, including downtown revitalization strategies. Wage levels, however, lag behind the other clusters.
- **Biomedical/Biotechnical (Healthcare)** is one of the largest employers (behind education) in the region, but is considered a mature industry in the region according to the 2014 EMSI data. While it is not an exporting industry, it is nonetheless critical to the region's foundation for economic growth. The region's aging population, as well as influx of retirees due to its beautiful natural amenities and lower cost of living, make this cluster signigicant for the region's growth, but it is not a focus of this plan.

Regional Assets

The location of the NC Foothills region, between the NC and SC piedmont and the base of the Blue Ridge mountains, is attractive for residents, farms, and industry.

Access to I-85, I-40 and I-26 defines the region and is heightened by a cross bifurcation throughout the region with Hwy 74 and Hwy 221 as well as Norfolk Southern and CSX railways. This makes the NC Foothills Region part of the larger region, two states and the economic engines of Asheville, Charlotte, Hickory, and the SC Upstate including Greenville and Spartanburg.

The Region is blessed with a historical manufacturing tradition, both within the region and as an exporter of talented workforce, an agricultural base, including a deep equine history, and a tourism history with great small towns, entertainment venues, lakes, restaurants, second homes, parks and equine venues. There are educational alliances that work to advance the needs of the worker and employer. The Region is further blessed with a lower cost of living than the surrounding metro regions.

Potential Barriers and Related Strategies

The NC Foothills Region faces the cumulative outcomes of two very severe economic downturns – the offshoring of manufacturing which began in the late 1990s and the Great Recession -- and their effects on workforce and exportable products from regional producers. The Region has a stagnant and aging population, lower than state average median income and a higher poverty rate than the neighboring economic regions.

The Region imports 30,000 employees and circulates 42,000 within Polk, Rutherford, McDowell and Cleveland counties. It exports 50,000 people outside of the Region to the economic engines of Charlotte, Henderson County, Burke County, Gaston County and the SC Upstate and beyond. And while the Region has overcome unemployment rates of 19% or better down to a regional 6% average, the real median income is 20% below the state average of $47.419, The Region faces a rising need for a willing and talented workforce with existing industry and tourism and "last mile issues" with the unemployed and underemployed that social issues, lower wages, and lack of certain education has not been able to yet effect.

The Region has an inconsistent and narrow band of broadband access which affects industry, students, retail and households in their ability to participate in the larger economy, educational opportunities and marketing. Further, the Region can sometimes act in inconsistent and insular ways, and there tends to be siloed strategic planning at the regional level. And finally, the Region lacks a regional brand and identity. While many business and communities within the Region have branding and identity efforts, a regional effort has yet to come to fruition and is seen as a challenge by employer's, investors, and public agencies.

From conversations with regional leaders, there is a recognition that there are threats to achieving success in the area of regional economic development. Some of the threats identified in the public input sessions were the regional population in poverty, which has risen from 14% to 21%, an aging population, a decrease in household income, lower wages, and a perception that a large outflow of workers has a negative effect on local participation in the governance, local retail sales, club participation and educational attainment.

Appendix

This Appendix includes the following information:

1. List of individuals and organizations who participated in the SET V planning process for NC Isothermal Region C.

2. Dates and description of NC Isothermal Region C's SET V plan vetting process.

3. Definitions and data supporting NC Isothermal Region C's Industry Cluster Analysis.

4. Agriculture Infographics for NC Isothermal Region C and for McDowell, Rutherford, Polk, and Cleveland Counties.

INDIVIDUALS AND ORGANIZATIONS PARTICIPATING IN NC ISOTHERMAL REGION C'S SET V PLANNING PROCESS

Primary Contacts

Scott Dadson, IPDC
Kim Gold, Isothermal Community College

Civic Forum Participants

Cathy Ruth, Polk County Planning Department
Marche Pittman, Polk County
Scott Welborn, Polk County Cooperative Extension
Suzanne Stickland, OCF
Mindy Wiener, OCF
Scott Webber, Spindale
Mickey Bland, Spindale
Bob Montgomery, ThermalBelt HFH
Sonja Bristol, IPDC
Bob Keith, Lake Lure
Tommy Hartzon, Lake Lure
John Condrey, Forest City
Marie Hunnicutt, BRWA
Mark Franklin, ICC
John Gossett, MTCC
Melinda Massey, Polk County
Danny Searcy, Rutherford
Drew Radford, IPDC
Dawn Jordan, Polk County
Ken Mooney, Cleveland Community College
Bruce Mack, Cleveland Community College
Jim Wright, Tryon
Doug Lawing, Kings Mountain
Max Hoffner, Earl
Don Hofmann, Polk County
Robert Williamson, Polk County
Tony Fogleman, Cleveland County Schools
Omer Causey, Rutherford EDC
Molly Sandfoss, McDowell County Cooperative Extension
Terry Thomas, Forest City
Tim Blackwell, Personnel Services Unltd
Jimmy Dancy, Rutherfordton
Fred Baisden, Saluda
Jonathan Cannon, Saluda
Walter Dalton, ICC
Judd Daniel, TDDA
Thad Hamill, ICC
Stephen Matheny, ICC
Jamie Carpenter, TDDA
Harriet Smith, MEDA
Ronald Harmon, McDowell County
Becky Sain, Cleveland CC
Walter Scharer, Shelby
Cindy Buck, RRHS
Brian Oliver, McDowell County Schools
Paula Kempton, Tryon
Kim Karaman, TDDA
Lou Parton, Polk DSS
Don Cason, TDA Chimney Rock
Barbara Meliski, Chimney Rock
Birgit Dilgert, Rutherford EDC
Steve Garrison, Rutherford County
Clark Poole, Rutherford Chamber
Bill Robertson, IPDC
John King, ICC
David Pharr, Region C WDB
Bob Boyette, Marion
Van Hollifield, McDowell
Matthew Crawford, McDowell
Joshua Kennedy, McDowell
Janet Sciacca, CFCOC
Eden Isbell, Trelleborg
Sarah Morse, ICC

Planning and Writing Sessions

John Condrey	*Patrick McLendon*
Steve Killian	*Steve Killian*
Mike Gavin	*Bill Robertson*
David Pharr	*Greg Traywick*
Marche Pittman	*Drew Radford*
Cathy Ruth	*Joshua Kennedy*
Robert Williamson	*Jessica Trotman*
Jon Cannon	*Matt Blackwell*
John Gossett	*Bob Boyette*
Sarah Morse	*Freddie Killough*
Dawn Jordan	*Walt Scharer*
Bryan Wilson	
Chuck Abernathy	
Doug Grondahl	
Kimberly Gold	
Walter Dalton	
Molly Sandfoss	
Scott Welborn	
Shannon Kennedy	
Thad Harrill	
Don Hofmann	
Clarke Poole	
Scott Dadson	

SET V Coaches

Becky L. Bowen, NCSU Cooperative Extension
Susan S. Jakes, NCSU Cooperative Extension
Jonathan Baros, NCSU Cooperative Extension
Brian Queen, USDA Rural Development

DATES AND DESCRIPTION OF NC ISOTHERMAL REGION C SET V PLAN'S VETTING PROCESS

A close to final draft of the SET plan was developed over Summer 2016. This draft had 6 goals and was vetted through a series of input sessions. These sessions included input sessions that focused on the entire plan as well as specific goal sessions. General sessions were held on the dates at locations in each of the 4 counties: Monday, August 22, 2-5, Tryon Town Hall, Monday, August 29, 2-5pm, Police Department Training Room Marion, Thursday September 1 City of Shelby Town Hall, and Thursday September 8 , 2-5pm, Rutherford Town Hall. In each session feedback was received regarding the overall mission and vision of the plan as well as the 6 specific goals. At this point in the planning process the draft plan contained 3 economic goals and 3 quality of life goals. Each of these goals were discussed with the participants at each input session. Each session included a quick review of the planning process, a review of the input collected through the civic forum and a draft of the vision, goals and strategies. Attendees were asked two focused questions: 1. Does a stronger region create stronger communities, 2. Do you believe these goals and strategies support this vision. This vetting process helped to refine the goals further and affirmed that all counties supported the primary goal of developing a regional approach to economic development and shared public goods.

During the same time frame, sessions were held with subject matter experts to further define each of the specific goal action plans. Draft Goal 1 focused on agribusiness and was chaired by Scott Welborn and Dawn Jordan and included Agriculture Extension Agents from all 4 counties and agriculture economic development for Polk County. Draft Goal 2 focused on the manufacturing eco-system and was chaired by Robert Williamson, Director of Economic Development for Polk County. This group met on July 29th and provided input to the further development and refinement of strategies strengthening this target industry. Draft Goals 3 and 4 focused on quality of life issues and education. Josh Kennedy, Assistant Health Director for the regional health department chaired both of these goal groups which met on September 14th. The Tourism group was chaired by Don Casson and met on August 29th. Draft Goal 6 focused on building a regional collaborative was chaired by Scott Dadson and Kim Gold, met on three occasions, July 28th, August 24th and October 18th. These meetings included a team of representatives including Richard Williamson, Josh Kennedy, Sarah Morse, Tim Mathis, John Cannon, Kim Gold and Scott Dadson.

Draft Goal 1 (Agriculture)
Chairs: Dawn Jordan, Agriculture Economic Development, Polk County and Scott Wellborn, Cooperative Extension Polk County
Team Members: Agriculture Extension Agents for each of the 4 counties: Molly Sandfoss (McDowell), Jeff Bradley (Rutherford County), Gregory Trawick (Cleveland County)

Draft Goal 2 (Manufacturing Ecosystem) (Chair: Robert Williamson, Director Polk Economic Development)
EDC Directors from the 4 County Region
Workforce Investment Board members
Economic Development members of IPDC

Draft Goals 3 (Pathways to Better Jobs) and 4 (Quality of Life) (Chair: Josh Kennedy, Assistant Health Director, Rutherford, Polk, McDowell Health Department)

Name	Agency/Employer	Subject Field
Shannon Kennedy	CCC	Higher Education
Steve Bush	McDowell Chamber	Economic Development
John Gosset	MTCC	Higher Education
Donna Meyer	Baxter	Industrial Employer
Jerry Broome	IPDC	Workforce Development
Mark Earley	Baldor	Industrial Employer
Clark Poole	Rutherford Chamber	Economic Development
Kim Gold	ICC	Higher Education
Carol Wolfenberger	McDowell Hospital	Healthcare
Ray McKesson	McDowell Health Coalition	Local Health Non-Profit
Bruce Brown	Bruce's Fabulous Food	Restaurant Owner
Jim Bross	St. Luke's Hospital	Healthcare
James Atkinson	Rutherford Hospital	Healthcare
Tracey Davis	NC Coop (Ruth)	Agri/Business
Mark Garrett	McDowell County Schools	K-12 Education
Terry Evans	McDowell DSS	Human Services
Aaron Greene	Polk County Schools	K-12 Education
Lou Parton	Polk DSS	Human Services
John Carrol	Rutherford County DSS	Human Services
David Sutton	Rutherford County Schools	K-12 Education
Joshua Kennedy	RPMHD	Public Health
Scott Dadson	IPDC	Economic Development
Karyl Fuller	IPDC	Economic Development

Draft Goal 5 (Tourism) (Chair: Don Cason, Rutherford County TDA Board member)
Team members from the 4 county region:
TDA Directors
Chamber Directors
Main Street Directors

Draft Goal 6 (Regional Collaborative)
(Chairs: Scott Dadson (Director IPDC), Kim Gold (Isothermal Community College)
Team members:
Richard Williamson, Josh Kennedy, Sarah Morse, Tim Mathis, John Cannon, Kim Gold and Scott Dadson.

DEFINITIONS AND SUPPORTING DATA FOR NC ISOTHERMAL REGION C INDUSTRY CLUSTER ANALYSIS

List of Current Industry Clusters

Over the last 15 to 20 years, cluster analysis has emerged as a new way of looking at economic development, integrating regional differences in development and economic specialization. An increasing number of states and regions in the United States and overseas have modified their economic development strategies to focus and capitalize on the business and industry clusters where they have, or would like to have, a competitive advantage. In adopting a cluster strategy, states and regions hope to maximize their competitive advantage in existing industries and to build new strengths in the emerging industries that will replace older, declining sectors. [*Purdue Center for Regional Development, Regional Decision Maker*]

Most authors attribute at least four characteristics to clusters:

(a) A geographically bounded concentration of similar, related, or complementary businesses;
(b) Active channels for transactions and communications among these businesses;

(c) Shared and specialized infrastructure, labor markets, and services; and

(d) Common competitive opportunities and threats

It is important to understand that economic clusters are not mutually exclusive in terms of the industry-specific names that comprise them. The driver industries are the target and provide the name for the cluster, while the supporting industries may span the typical categories of economic sectors. These sectors are united in their foundational support of the driver industries.

How clusters are defined: The research team defined 17 clusters at the six-digit NAICS level. One of these clusters, the manufacturing supercluster, was subsequently disaggregated into six more- specialized sub-clusters. Although there is no universally defined or accepted set of clusters, the basic principles underlying the cluster concept were used to specify the 17 used in this study.

1. Advanced Materials 2. Agribusiness, Food Processing and Technology 3. Apparel and Textiles 4. Arts, Entertainment, Recreation and Visitor Industries 5. Biomedical/Biotechnical (Life Sciences) 6. Business and Financial Services 7. Chemicals and Chemical-Based Products	12. Glass and Ceramics 13. Information Technology and Telecommunications 14. Manufacturing Supercluster, including: • Primary Metals • Fabricated Metal Products • Machinery • Computer and Electronic Products • Electrical Equipment, Appliance and Components

8. Defense and Security	• Transportation Equipment
9. Education and Knowledge Creation	15. Mining
10. Energy (Fossil and Renewable)	16. Printing and Publishing
11. Forest and Wood Products	1Transportation and Logistics

AGGREGATED INDUSTRY CLUSTER DEFINITIONS

To minimize the problems caused by data suppression in the nationwide county analysis, the research team revised the six-digit cluster definitions to use three-digit NAICS sectors wherever possible, minimizing reliance upon more-detailed NAICS levels as much as possible. The following list provides the complete industry definitions for each of the 17 clusters.

NAICS	1. ADVANCED MATERIALS
212325	Clay and ceramic and refractory minerals mining
316211	Rubber and plastics footwear manufacturing
322221	Coated and laminated packaging paper and plastics film manufacturing
322299	All other converted paper product manufacturing
324191	Petroleum lubricating oil and grease manufacturing
3251	Basic chemical manufacturing
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing
32532	Pesticide and other agricultural chemical manufacturing
3254	Pharmaceutical and medicine manufacturing (except 325411)
3255	Paint, coating, and adhesive manufacturing
3256	Soap, cleaning compound, and toilet preparation manufacturing
326112	Plastics packaging film and sheet (including laminated) manufacturing
326113	Un-laminated plastics film and sheet (except packaging) manufacturing
326121	Un-laminated plastics profile shape manufacturing
32614	Polystyrene foam product manufacturing
326199	All other plastics product manufacturing
32629	Other rubber product manufacturing
327112	Vitreous china, fine earthenware, and other pottery product manufacturing
327113	Porcelain electrical supply manufacturing
327124	Clay refractory manufacturing
327125	Non-clay refractory manufacturing
32742	Gypsum product manufacturing
327910	Abrasive product manufacturing
327992	Ground or treated mineral and earth manufacturing
327993	Mineral wool manufacturing
3311	Iron and steel mills and ferroalloy manufacturing
3312	Steel product manufacturing from purchased steel
3313	Alumina and aluminum production and processing (except 331311)
3314	Nonferrous metal (except aluminum) production and processing
3315	Foundries
332111	Iron and steel forging
332116	Metal stamping
332117	Powder metallurgy part manufacturing
332313	Plate work manufacturing
332322	Sheet metal work manufacturing
332618	Other fabricated wire product manufacturing
33271	Machine shops
332812	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers
332813	Electroplating, plating, polishing, anodizing, and coloring

332911	Industrial valve manufacturing
332991	Ball and roller bearing manufacturing
332995	Other ordnance and accessories manufacturing
332997	Industrial pattern manufacturing
332999	All other miscellaneous fabricated metal product manufacturing
333298	All other industrial machinery manufacturing
333313	Office machinery manufacturing
333319	Other commercial and service industry machinery manufacturing
3335	Metalworking machinery manufacturing (except 333512, 6)
333912	Air and gas compressor manufacturing
334119	Other computer peripheral equipment manufacturing
334220	Radio and television broadcasting and wireless communications equipment manufacturing
334290	Other communications equipment manufacturing
3344	Semiconductor and other electronic component manufacturing
3345	Navigational, measuring, electro-medical, and control instruments manufacturing (except 334516, 8)
33511	Electric lamp bulb and part manufacturing
335314	Relay and industrial control manufacturing
335921	Fiber optic cable manufacturing
335931	Current-carrying wiring device manufacturing
336322	Other motor vehicle electrical and electronic equipment manufacturing
336399	All other motor vehicle parts manufacturing
336419	Other guided missile and space vehicle parts and auxiliary equipment manufacturing
339111	Laboratory apparatus and furniture manufacturing
339112	Surgical and medical instrument manufacturing
339113	Surgical appliance and supplies manufacturing
339991	Gasket, packing, and sealing device manufacturing
54138	Testing laboratories
5417	Scientific research and development services

NAICS	**2. AGRIBUSINESS, FOOD PROCESSING AND TECHNOLOGY**
111	Crop production
112	Animal production
1141	Fishing
1151	Support activities for crop production
1152	Support activities for animal production
311	Food manufacturing
312	Beverage and tobacco product manufacturing
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing
33311	Agricultural implement manufacturing
333294	Food product machinery manufacturing
42382	Farm and garden machinery and equipment merchant wholesalers
4245	Farm product raw material merchant wholesalers
42491	Farm supplies merchant wholesalers

NAICS	**3. APPAREL AND TEXTILES CLUSTER**
313	Textile mills
314	Textile product mills
315	Apparel manufacturing
323113	Commercial screen printing
32513	Synthetic dye and pigment manufacturing
32522	Artificial and synthetic fibers and filaments manufacturing
32791	Abrasive product manufacturing
33791	Mattress manufacturing
337121	Upholstered household furniture manufacturing
339993	Fastener, button, needle, and pin manufacturing
4243	Apparel, piece goods, and notions merchant wholesalers (except 42434)
54143	Graphic design services
54149	Other specialized design services

54184	Media representatives
54185	Display advertising
54186	Direct mail advertising
54187	Advertising material distribution services
54189	Other services related to advertising

NAICS	**4. ARTS, ENTERTAINMENT, RECREATION AND VISITOR INDUSTRIES**
33992	Sporting and athletic goods manufacturing
33993	Doll, toy, and game manufacturing
42391	Sporting and recreational goods and supplies merchant wholesalers
487	Scenic and sightseeing transportation
512	Motion picture and sound recording industries
515	Broadcasting (except internet)
5615	Travel arrangement and reservation services
711	Performing arts, spectator sports, and related industries
712	Museums, historical sites, and similar institutions
713	Amusement, gambling, and recreation industries
7211	Traveler accommodation
7212	RV (recreational vehicle) parks and recreational camps

NAICS	**5. BIOMEDICAL/BIOTECHNICAL (LIFE SCIENCES)**
3254	Pharmaceutical and medicine manufacturing
333314	Optical instrument and lens manufacturing
334510	Electro-medical and electrotherapeutic apparatus manufacturing
334516	Analytical laboratory instrument manufacturing
334517	Irradiation apparatus manufacturing
3391	Medical equipment and supplies manufacturing
42345	Medical, dental, and hospital equipment and supplies merchant wholesalers
446	Health and personal care stores
5417	Scientific research and development services
562112	Hazardous waste collection
562211	Hazardous waste treatment and disposal
621	Ambulatory health care services (except 6211, 6212, 6213)

NAICS	**6. BUSINESS AND FINANCIAL SERVICES CLUSTER**
323115	Digital printing
323116	Manifold business forms printing
518	Internet service providers, web search portals, and data processing services
5222	Non-depository credit intermediation
5223	Activities related to credit intermediation
523	Securities, commodity contracts, and other financial investments and related activities
524	Insurance carriers and related activities
525	Funds, trusts, and other financial vehicles
5313	Activities related to real estate (except 531320)
533	Lessors of nonfinancial intangible assets (except copyrighted works)
5411	Legal services
5412	Accounting, tax preparation, bookkeeping, and payroll services
5413	Architectural, engineering, and related services
5414	Specialized design services
5415	Computer systems design and related services
5416	Management, scientific, and technical consulting services
5418	Advertising and related services
54191	Marketing research and public opinion polling
541922	Commercial photography

NAICS	**7. CHEMICALS**
325	Chemical manufacturing
326	Plastics and rubber products manufacturing

327	Nonmetallic mineral product manufacturing
4246	Chemical and allied products merchant wholesalers
4247	Petroleum and petroleum products merchant wholesalers

NAICS	**8. DEFENSE AND SECURITY**
212291	Uranium-radium-vanadium ore mining
23713	Power and communication line and related structures construction
32592	Explosives manufacturing
332912	Fluid power valve and hose fitting manufacturing
332992	Small arms ammunition manufacturing
332993	Ammunition (except small arms) manufacturing
332994	Small arms manufacturing
332995	Other ordnance and accessories manufacturing
33429	Other communications equipment manufacturing
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing
3364	Aerospace product and parts manufacturing
3366	Ship and boat building
336992	Military armored vehicle, tank, and tank component manufacturing
339113	Surgical appliance and supplies manufacturing
4231	Motor vehicle and motor vehicle parts and supplies merchant wholesalers
423860	Transportation equipment and supplies (except motor vehicle) merchant wholesalers
5415	Computer systems design and related services
541710	Research and development in the physical, engineering, and life sciences
5616	Investigation and security services
81149	Other personal and household goods repair and maintenance
922	Justice, public order, and safety activities
92612	Regulation and administration of transportation programs
927	Space research and technology
928	National security and international affairs

NAICS	**9. EDUCATION AND KNOWLEDGE CREATION**
611	Educational services
51111	Newspaper publishers
51112	Periodical publishers
51113	Book publishers
516	Internet publishing and broadcasting
519	Other information services

NAICS	**10. ENERGY (FOSSIL AND RENEWABLE)**
211	Oil and gas extraction
2121	Coal mining
213	Support activities for mining **(except 213115)**
212291	Uranium-radium-vanadium ore mining
2211	Electric power generation, transmission and distribution
2212	Natural gas distribution
22133	Steam and air-conditioning supply
2371	Utility system construction
2379	Other heavy and civil engineering construction (includes dams and hydroelectric facilities)
23821	Electrical contractors
23822	Plumbing, heating, and air-conditioning contractors
32411	Petroleum refineries
324199	All other petroleum and coal products manufacturing
32511	Petrochemical manufacturing
32512	Industrial gas manufacturing
325191	Gum and wood chemical manufacturing (include coke and charcoal)
325192	Cyclic crude and intermediate manufacturing
325193	Ethyl alcohol manufacturing (includes ethanol manuf.)
33241	Power boiler and heat exchanger manufacturing

33242 Metal tank (heavy gauge) manufacturing
33313 Mining and oil and gas field machinery manufacturing
333414 Heating equipment (except warm air furnaces) manufacturing (includes solar and hydronic heating equipment manufacturing)
333611 Turbine and turbine generator set units manufacturing
334413 Semiconductor and related device manufacturing
334519 Other measuring and controlling device manufacturing
3353 Electrical equipment manufacturing
3359 Other electrical equipment and component manufacturing
42352 Coal and other mineral and ore merchant wholesalers
42361 Electrical apparatus and equipment, wiring supplies, and related equipment merchant wholesalers
42369 Other electronic parts and equipment merchant wholesalers
42372 Plumbing and heating equipment and supplies (hydronics) merchant wholesalers
4247 Petroleum and petroleum products merchant wholesalers
447 Gasoline stations
45431 Fuel dealers
486 Pipeline transportation
52391 Miscellaneous intermediation (includes mineral and oil royalties dealing)
523999 Miscellaneous financial investment activities (includes oil and gas lease brokers)
532412 Construction, mining, and forestry machinery and equipment rental and leasing
533 Lessors of nonfinancial intangible assets (except copyrighted works)
54133 Engineering services
54136 Geophysical surveying and mapping services
54138 Testing laboratories
54162 Environmental consulting services
54169 Other scientific and technical consulting services
54171 Research and development in the physical, engineering, and life sciences
92613 Regulation and administration of communications, electric, gas, and other utilities

NAICS 11. FOREST AND WOOD PRODUCTS

113 Forestry and logging
1153 Support activities for forestry
23813 Framing contractors
23817 Siding contractors
23833 Flooring contractors
23835 Finish carpentry contractors
23816 Roofing contractors
321 Wood product manufacturing
322 Paper manufacturing
323117 Books printing
325191 Gum and wood chemical manufacturing
3255 Paint, coating, and adhesive manufacturing
32791 Abrasive product manufacturing
332213 Saw blade and handsaw manufacturing
33321 Sawmill and woodworking machinery manufacturing
333291 Paper industry machinery manufacturing
333991 Power-driven hand tool manufacturing
337 Furniture and related product manufacturing (except 337124, 337125, 337214)
339992 Musical instrument manufacturing
339995 Burial casket manufacturing
4232 Furniture and home furnishing merchant wholesalers
4233 Lumber and other construction materials merchant wholesalers

NAICS 12. GLASS AND CERAMICS

3271 Clay product and refractory manufacturing
3272 Glass and glass product manufacturing
3273 Cement and concrete product manufacturing
327992 Ground or treated mineral and earth manufacturing

327999 All other miscellaneous nonmetallic mineral product manufacturing
3328 Coating, engraving, heat treating, and allied activities

NAICS 13. INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS
23821 Electrical contractors
333613 Mechanical power transmission equipment manufacturing
333295 Semiconductor machinery manufacturing
3341 Computer and peripheral equipment manufacturing
3342 Communications equipment manufacturing
3343 Audio and video equipment manufacturing
3344 Semiconductor and other electronic component manufacturing
334512 Automatic environmental control manufacturing for residential, commercial, and appliance use
334513 Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables
334515 Instrument manufacturing for measuring and testing electricity and electrical signals
334516 Analytical laboratory instrument manufacturing
334518 Watch, clock, and part manufacturing
3346 Manufacturing and reproducing magnetic and optical media
3353 Electrical equipment manufacturing
3359 Other electrical equipment and component manufacturing
42343 Computer and computer peripheral equipment and software merchant wholesalers
42369 Other electronic parts and equipment merchant wholesalers
5112 Software publishers
517 Telecommunications (except 5175)
518 Internet service providers, web search portals, and data processing services
5415 Computer systems design and related services
541618 Other management consulting services
5417 Scientific research and development services
92613 Regulation and administration of communications, electric, gas, and other utilities

NAICS 14. MANUFACTURING SUPERCLUSTER
331 Primary metal manufacturing
332 Fabricated metal product manufacturing (except 332992, 3, 4, 5)
333 Machinery manufacturing
334 Computer and electronic product manufacturing
335 Electrical equip, appliance and component manufacturing
336 Transportation equipment manufacturing

NAICS 15. MINING
2122 Metal ore mining
2123 Nonmetallic mineral mining and quarrying
213114 Support activities for metal mining
213115 Support activities for nonmetallic minerals
482 Rail transportation
532412 Construction, mining, and forestry machinery and equipment rental and leasing

NAICS 16. PRINTING AND PUBLISHING
323 Printing and related support activities
325910 Printing ink manufacturing
339950 Sign manufacturing
511 Publishing industries (except Internet)
51511 Radio broadcasting
51521 Cable and other subscription programming
516 Internet publishing and broadcasting
51911 News syndicates
51919 All other information services

54143	Graphic design services
541613	Marketing consulting services
5418	Advertising and related services
54191	Marketing research and public opinion polling
541922	Commercial photography

NAICS	**17. TRANSPORTATION AND LOGISTICS**
481	Air transportation
482	Rail transportation
483	Water transportation
484	Truck transportation
485112	Commuter rail systems
4855	Charter bus industry
485999	All other ground passenger transportation
486	Pipeline transportation
488	Support activities for transportation
492	Couriers and messengers
493	Warehousing and storage

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NAICS – North American Industrial Classification System

SOURCE: Unlocking Rural Competitiveness: The Role of Regional Clusters, Appendix I
https://www.statsamerica.org/innovation/industry_clusters.html

Prepared by Robert Williamson, Polk County Economic Development
2.5 Developed with Bill Robertson 15 Aug 2016

TOP NC ISOTHERMAL REGION C INDUSTRY CLUSTERS

Shift-Share Analysis by Top Industry Sectors

Apparel and Textiles Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Broadwoven Fabric Mills	986	44	-86	-42	301	↑ **343**
Carpet and Rug Mills	414	29	-105	-76	-43	↑ **33**
Fiber, Yarn, and Thread Mills	383	35	-51	-16	-169	-153
Upholstered Household Furniture Manufacturing	264	7	-1	6	160	↑ **154**
Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills	233	12	-23	-11	47	↑ **58**
Artificial and Synthetic Fibers and Filaments Manufacturing	206	5	-8	-3	130	↑ **133**
Textile and Fabric Finishing Mills	205	21	-89	-68	-120	-52
All Other Miscellaneous Textile Product Mills	171	5	-2	3	97	↑ **94**
Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	103	5	-1	4	18	↑ **14**
Fabric Coating Mills	101	5	14	19	24	↑ **5**
Nonwoven Fabric Mills	96	3	1	4	51	↑ **47**
Men's and Boys' Cut and Sew Apparel Manufacturing	85	4	-12	-8	19	↑ **27**
Commercial Screen Printing	75	2	3	5	45	↑ **40**
Outdoor Advertising	62	3	1	4	12	↑ **8**
Knit Fabric Mills	61	9	-15	-6	-71	-65

Note: Upward arrow (↑) indicates regional competitiveness.

Top Industry Sectors

Apparel and Textiles Cluster

Industries	Exports 2013 ($ Millions)	Jobs 2013	Export per job 2013 ($)	LQ 2014
Broadwoven Fabric Mills	$195.4	921	$212,262	64.3
Carpet and Rug Mills	$101.7	396	$256,981	24.6
Fiber, Yarn, and Thread Mills	$106.4	396	$268,875	24.9
Upholstered Household Furniture Manufacturing	$18.4	109	$168,778	8.6
Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills	$52.6	264	$199,401	70.3
Artificial and Synthetic Fibers and Filaments Manufacturing	$78.8	184	$428,795	14.9
Textile and Fabric Finishing Mills	$23.4	202	$115,682	14.3
All Other Miscellaneous Textile Product Mills	$12.3	131	$93,810	8.6
Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	$14.6	110	$132,070	6.2
Fabric Coating Mills	$15.3	101	$151,693	21.2
Nonwoven Fabric Mills	$38.9	133	$292,331	14.0
Men's and Boys' Cut and Sew Apparel Manufacturing	$7.3	110	$66,459	5.2
Commercial Screen Printing	$6.7	80	$82,843	1.7
Outdoor Advertising	$5.2	58	$88,836	2.3
Knit Fabric Mills	$19.4	75	$258,466	16.0

Note: Sorted similarly as the shift-share analysis slide

Top 15 Inputs by Dollars

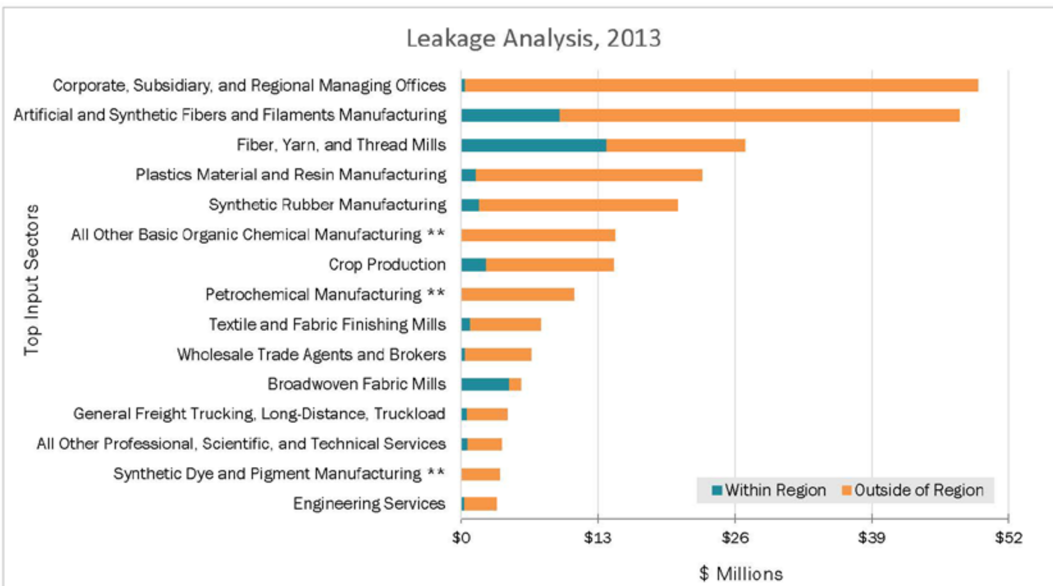
Apparel and Textiles Cluster

Industries	Estimated Input ($ Millions), 2013	% In-Region	% Out of Region
Corporate, Subsidiary, and Regional Managing Offices	$49.05	1%	99%
Artificial and Synthetic Fibers and Filaments Manufacturing	$47.35	20%	80%
Fiber, Yarn, and Thread Mills	$26.96	51%	49%
Plastics Material and Resin Manufacturing	$22.88	6%	94%
Synthetic Rubber Manufacturing	$20.58	8%	92%
All Other Basic Organic Chemical Manufacturing **	$14.66	0%	100%
Crop Production	$14.52	17%	83%
Petrochemical Manufacturing **	$10.73	0%	100%
Textile and Fabric Finishing Mills	$7.56	11%	89%
Wholesale Trade Agents and Brokers	$6.60	7%	93%
Broadwoven Fabric Mills	$5.71	81%	19%
General Freight Trucking, Long-Distance, Truckload	$4.36	14%	86%
All Other Professional, Scientific, and Technical Services	$3.86	17%	83%
Synthetic Dye and Pigment Manufacturing **	$3.66	0%	100%
Engineering Services	$3.37	10%	90%

Note: ** industry sector is not present in the region.

Top 15 Inputs by Dollars

Apparel and Textiles Cluster



Note: ** industry sector is not present in the region.

Top Occupations

Apparel and Textiles Cluster

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	398	-6%	$11.7	High school diploma or equivalent
Textile Knitting and Weaving Machine Setters, Operators, and Tenders	335	14%	$12.0	High school diploma or equivalent
Sewing Machine Operators	286	14%	$10.1	Less than high school
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	169	29%	$17.9	High school diploma or equivalent
First-Line Supervisors of Production and Operating Workers	137	17%	$23.9	Postsecondary non-degree award
Textile Bleaching and Dyeing Machine Operators and Tenders	112	-12%	$11.8	High school diploma or equivalent
Inspectors, Testers, Sorters, Samplers, and Weighers	109	6%	$15.6	High school diploma or equivalent
Packers and Packagers, Hand	106	-5%	$10.5	Less than high school
Textile, Apparel, and Furnishings Workers, All Other	91	11%	$12.1	High school diploma or equivalent
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	89	16%	$22.8	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	82	4%	$11.3	Less than high school
Maintenance and Repair Workers, General	73	18%	$15.7	High school diploma or equivalent
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	69	-1%	$15.3	High school diploma or equivalent
Shipping, Receiving, and Traffic Clerks	65	10%	$13.4	High school diploma or equivalent
Helpers--Production Workers	59	18%	$10.2	Less than high school

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.

Shift-Share Analysis by Top Industry Sectors

Chemicals Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Pharmaceutical Preparation Manufacturing	3,068	142	-246	-104	855	↑ **959**
Other Pressed and Blown Glass and Glassware Manufacturing	482	31	-32	-1	2	↑ **3**
All Other Plastics Product Manufacturing	211	22	7	29	-133	-162
Artificial and Synthetic Fibers and Filaments Manufacturing	206	5	-8	-3	130	↑ **133**
Plastics Bottle Manufacturing	106	3	-5	-2	66	↑ **68**
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	67	8	-5	3	-53	-56
Rubber and Plastics Hoses and Belting Manufacturing	59	8	4	12	-67	-79
All Other Rubber Product Manufacturing	47	1	0	1	27	↑ **26**
Industrial Gas Manufacturing	47	1	-1	0	25	↑ **25**
Plastics Material and Resin Manufacturing	46	8	-3	5	-86	-91
Ready-Mix Concrete Manufacturing	45	4	-7	-3	-11	-8
All Other Miscellaneous Chemical Product and Preparation Manufacturing	40	14	2	16	-176	-192
Plastics Bag and Pouch Manufacturing	33	4	-4	0	-23	-23
Cut Stone and Stone Product Manufacturing	33	2	3	5	0	-5
Plastics Materials and Basic Forms and Shapes Merchant Wholesalers	26	4	-1	3	-32	-35

Note: Upward arrow (↑) indicates regional competitiveness.

Top Industry Sectors

Chemicals Cluster

Industries	Exports 2013 ($ Millions)	Jobs 2013	Export per job 2013 ($)	LQ 2014
Pharmaceutical Preparation Manufacturing	$738.2	2,448	$301,594	27.5
Other Pressed and Blown Glass and Glassware Manufacturing	$105.4	537	$196,118	48.6
All Other Plastics Product Manufacturing	$52.5	197	$266,405	1.4
Artificial and Synthetic Fibers and Filaments Manufacturing	$78.8	184	$428,795	14.9
Plastics Bottle Manufacturing	$32.8	110	$297,588	6.5
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	$6.1	70	$86,095	1.9
Rubber and Plastics Hoses and Belting Manufacturing	$11.6	63	$183,187	4.6
All Other Rubber Product Manufacturing	$5.8	32	$181,814	3.5
Industrial Gas Manufacturing	$18.2	44	$410,973	4.7
Plastics Material and Resin Manufacturing	$69.5	62	$1,129,280	1.5
Ready-Mix Concrete Manufacturing	$5.6	38	$146,572	0.9
All Other Miscellaneous Chemical Product and Preparation Manufacturing	$25.4	52	$484,625	1.9
Plastics Bag and Pouch Manufacturing	$11.7	28	$421,725	2.0
Cut Stone and Stone Product Manufacturing	$2.1	38	$56,763	2.0
Plastics Materials and Basic Forms and Shapes Merchant Wholesalers	$4.4	28	$160,704	2.1

Note: Sorted similarly as the shift-share analysis slide

Top 15 Inputs by Dollars

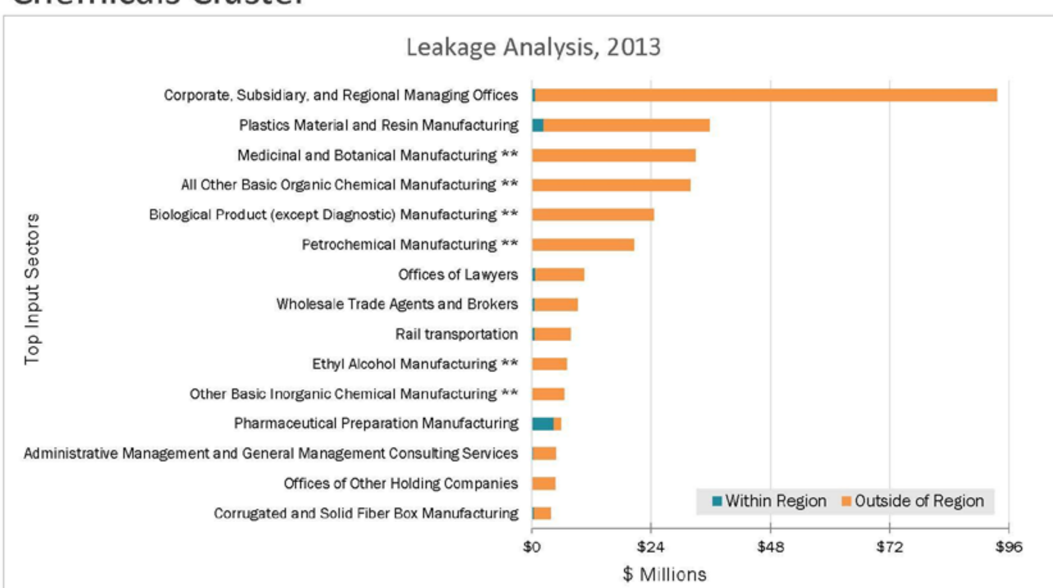
Chemicals Cluster

Industries	Estimated Input ($ Millions), 2013	% In-Region	% Out of Region
Corporate, Subsidiary, and Regional Managing Offices	$93.55	1%	99%
Plastics Material and Resin Manufacturing	$35.83	7%	93%
Medicinal and Botanical Manufacturing **	$32.94	0%	100%
All Other Basic Organic Chemical Manufacturing **	$31.97	0%	100%
Biological Product (except Diagnostic) Manufacturing **	$24.51	0%	100%
Petrochemical Manufacturing **	$20.62	0%	100%
Offices of Lawyers	$10.55	8%	92%
Wholesale Trade Agents and Brokers	$9.21	8%	92%
Rail transportation	$7.80	9%	91%
Ethyl Alcohol Manufacturing **	$7.10	0%	100%
Other Basic Inorganic Chemical Manufacturing **	$6.58	0%	100%
Pharmaceutical Preparation Manufacturing	$5.95	74%	26%
Administrative Management and General Management Consulting Services	$4.79	6%	94%
Offices of Other Holding Companies	$4.70	1%	99%
Corrugated and Solid Fiber Box Manufacturing	$3.88	10%	90%

Note: ** industry sector is not present in the region .

Top 15 Inputs by Dollars

Chemicals Cluster



Note: ** industry sector is not present in the region.

Top Occupations

Chemicals Cluster

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Packaging and Filling Machine Operators and Tenders	429	35%	$15.1	High school diploma or equivalent
Inspectors, Testers, Sorters, Samplers, and Weighers	253	33%	$15.6	High school diploma or equivalent
First-Line Supervisors of Production and Operating Workers	215	19%	$23.9	Postsecondary non-degree award
Mixing and Blending Machine Setters, Operators, and Tenders	175	13%	$16.6	High school diploma or equivalent
Packers and Packagers, Hand	170	21%	$10.5	Less than high school
Team Assemblers	160	-2%	$12.1	High school diploma or equivalent
Maintenance and Repair Workers, General	160	23%	$15.7	High school diploma or equivalent
Chemical Equipment Operators and Tenders	117	15%	$14.2	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	93	6%	$11.3	Less than high school
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	89	46%	$21.8	High school diploma or equivalent
Shipping, Receiving, and Traffic Clerks	80	14%	$13.4	High school diploma or equivalent
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	80	1%	$13.7	High school diploma or equivalent
Industrial Engineers	77	22%	$33.4	Bachelor's degree
General and Operations Managers	72	6%	$42.4	Bachelor's degree
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	72	-14%	$17.5	High school diploma or equivalent

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.

Shift-Share Analysis by Top Industry Sectors

Forest And Wood Products Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Nonupholstered Wood Household Furniture Manufacturing	333	21	-61	-40	-2	↑ 38
Sawmills	327	9	2	11	180	↑ 169
Hardwood Veneer and Plywood Manufacturing	309	19	-18	1	18	↑ 17
Wood Kitchen Cabinet and Countertop Manufacturing	296	3	-6	-3	243	↑ 246
Upholstered Household Furniture Manufacturing	264	7	-1	6	160	↑ 154
Logging	253	13	23	36	53	↑ 17
Wood Container and Pallet Manufacturing	237	12	6	18	53	↑ 35
Finish Carpentry Contractors	201	14	-19	-5	-14	-9
Folding Paperboard Box Manufacturing	187	12	-28	-16	-5	↑ 11
Flooring Contractors	109	10	-14	-4	-48	-44
Corrugated and Solid Fiber Box Manufacturing	104	9	-16	-7	-42	-35
Cut Stock, Resawing Lumber, and Planing	76	2	0	2	44	↑ 42
Roofing Contractors	75	7	-3	4	-32	-36
Framing Contractors	74	4	-6	-2	12	↑ 14
Siding Contractors	52	4	-10	-6	-19	-13

Note: Upward arrow (↑) indicates regional competitiveness.

Top Industry Sectors

Forest And Wood Products Cluster

Industries	Exports 2013 ($ Millions)	Jobs 2013	Export per job 2013 ($)	LQ 2014
Nonupholstered Wood Household Furniture Manufacturing	$21.4	345	$62,123	14.4
Sawmills	$60.6	310	$195,529	6.7
Hardwood Veneer and Plywood Manufacturing	$70.2	270	$259,677	37.0
Wood Kitchen Cabinet and Countertop Manufacturing	$36.6	352	$104,007	4.5
Upholstered Household Furniture Manufacturing	$18.4	109	$168,778	8.6
Logging	$16.6	226	$73,112	3.8
Wood Container and Pallet Manufacturing	$30.8	230	$133,984	6.7
Finish Carpentry Contractors	$5.5	202	$27,147	1.0
Folding Paperboard Box Manufacturing	$43.3	235	$184,439	12.8
Flooring Contractors	$3.3	104	$31,920	1.1
Corrugated and Solid Fiber Box Manufacturing	$52.9	105	$503,256	2.1
Cut Stock, Resawing Lumber, and Planing	$6.1	71	$86,368	8.8
Roofing Contractors	$2.2	86	$25,225	0.6
Framing Contractors	$1.0	54	$18,922	1.2
Siding Contractors	$1.1	47	$24,030	1.4

Note: Sorted similarly as the shift-share analysis slide

Top 15 Inputs by Dollars

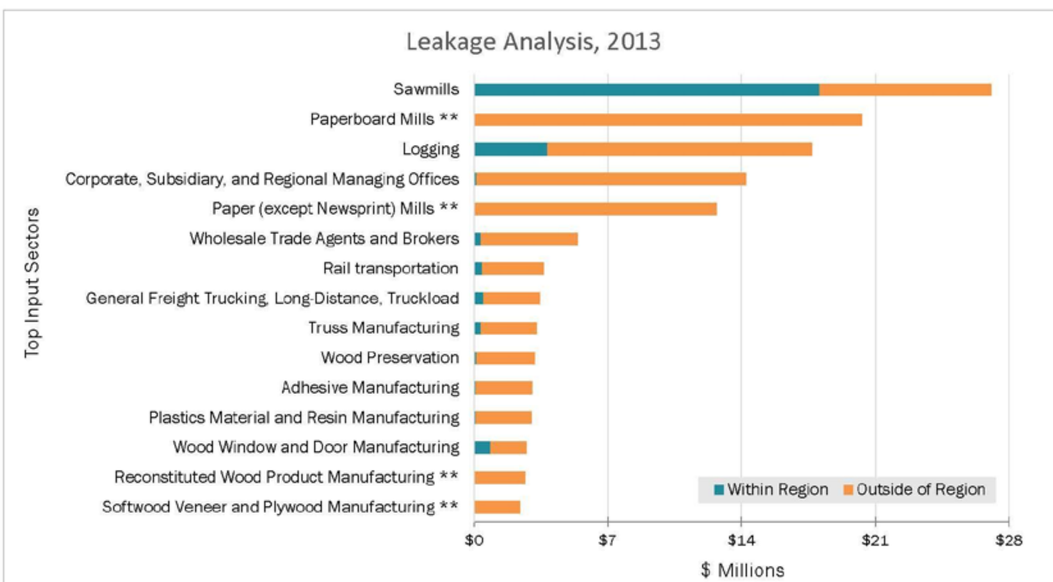
Forest And Wood Products Cluster

Industries	Estimated Input ($ Millions), 2013	% In-Region	% Out of Region
Sawmills	$27.06	67%	33%
Paperboard Mills **	$20.32	0%	100%
Logging	$17.71	22%	78%
Corporate, Subsidiary, and Regional Managing Offices	$14.23	1%	99%
Paper (except Newsprint) Mills **	$12.69	0%	100%
Wholesale Trade Agents and Brokers	$5.41	7%	93%
Rail transportation	$3.65	12%	88%
General Freight Trucking, Long-Distance, Truckload	$3.46	14%	86%
Truss Manufacturing	$3.28	10%	90%
Wood Preservation *	$3.20	4%	96%
Adhesive Manufacturing	$3.04	4%	96%
Plastics Material and Resin Manufacturing	$3.01	3%	97%
Wood Window and Door Manufacturing	$2.76	31%	69%
Reconstituted Wood Product Manufacturing **	$2.66	0%	100%
Softwood Veneer and Plywood Manufacturing **	$2.42	0%	100%

Note: * industry sector has less than 10 jobs as calculated by EMSI; ** industry sector is not present in the region.

Top 15 Inputs by Dollars

Forest And Wood Products Cluster



Note: ** Industry sector is not present in the region.

Top Occupations

Forest And Wood Products Cluster

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	291	35%	$11.6	High school diploma or equivalent
Team Assemblers	188	13%	$12.1	High school diploma or equivalent
Carpenters	141	-8%	$13.0	High school diploma or equivalent
Cabinetmakers and Bench Carpenters	140	73%	$15.9	High school diploma or equivalent
Sawing Machine Setters, Operators, and Tenders, Wood	136	60%	$11.8	High school diploma or equivalent
Logging Equipment Operators	116	25%	$13.0	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	104	37%	$11.3	Less than high school
Construction Laborers	99	9%	$10.9	Less than high school
First-Line Supervisors of Production and Operating Workers	83	22%	$23.9	Postsecondary non-degree award
Fallers	72	36%	$16.5	High school diploma or equivalent
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	65	67%	$15.3	High school diploma or equivalent
Heavy and Tractor-Trailer Truck Drivers	62	41%	$16.9	Postsecondary non-degree award
Packers and Packagers, Hand	57	30%	$10.5	Less than high school
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	56	14%	$22.8	High school diploma or equivalent
Helpers--Production Workers	55	12%	$10.2	Less than high school

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.

Shift-Share Analysis by Top Industry Sectors

Fabricated Metal Product Manufacturing Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Other Metal Valve and Pipe Fitting Manufacturing	368	24	-43	-19	-5	**14**
Machine Shops	247	19	42	61	-42	-103
Ball and Roller Bearing Manufacturing	193	12	-11	1	4	**3**
Fabricated Structural Metal Manufacturing	171	3	-1	2	123	**121**
Fluid Power Valve and Hose Fitting Manufacturing	165	15	40	55	-63	-118
Sheet Metal Work Manufacturing	145	3	2	5	94	**89**
All Other Miscellaneous Fabricated Metal Product Manufacturing	137	7	2	9	32	**23**
Fabricated Pipe and Pipe Fitting Manufacturing	51	0	2	2	44	**42**
Ornamental and Architectural Metal Work Manufacturing	47	1	-1	0	30	**30**
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	38	0	0	0	35	**35**
Electroplating, Plating, Polishing, Anodizing, and Coloring	34	1	1	2	12	**10**
Plate Work Manufacturing	15	2	2	4	-21	-25

Note: Upward arrow ( ) indicates regional competitiveness. EMSI does not show sufficient jobs for Iron and Steel Forging; Prefabricated Metal Building and Component Manufacturing; and Saw Blade and Handtool Manufacturing.

Top Industry Sectors

Fabricated Metal Product Manufacturing Cluster

Industries	Exports 2013 ($ Millions)	Jobs 2013	Export per job 2013 ($)	LQ 2014
Other Metal Valve and Pipe Fitting Manufacturing	$83.9	329	$255,042	42.9
Machine Shops	$25.4	294	$86,419	1.5
Ball and Roller Bearing Manufacturing	$41.4	194	$213,506	13.1
Fabricated Structural Metal Manufacturing	$29.8	162	$184,445	3.5
Fluid Power Valve and Hose Fitting Manufacturing	$33.5	198	$169,669	8.0
Sheet Metal Work Manufacturing	$20.5	132	$155,233	2.6
All Other Miscellaneous Fabricated Metal Product Manufacturing	$12.9	138	$93,807	3.2
Fabricated Pipe and Pipe Fitting Manufacturing	$3.3	37	$87,649	2.5
Ornamental and Architectural Metal Work Manufacturing	$7.0	49	$145,015	2.2
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	$5.5	31	$177,471	1.2
Electroplating, Plating, Polishing, Anodizing, and Coloring	$3.8	31	$122,512	1.0
Plate Work Manufacturing	$2.0	14	$140,755	0.6

Note: Sorted similarly as the shift-share analysis slide

EMSI does not show sufficient jobs for Iron and Steel Forging; Prefabricated Metal Building and Component Manufacturing; and Saw Blade and Handtool Manufacturing.

Top 15 Inputs by Dollars

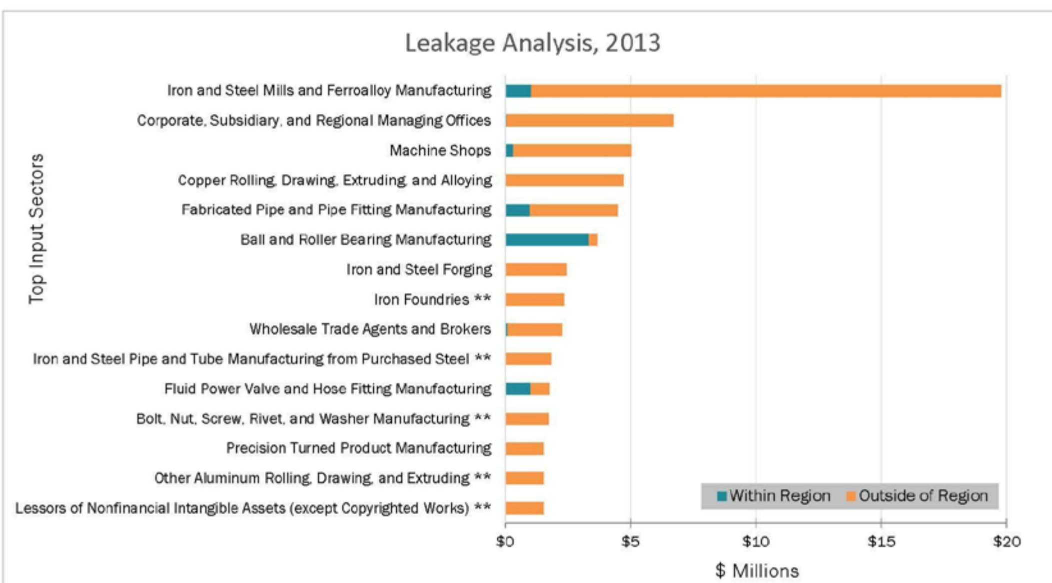
Fabricated Metal Product Manufacturing Cluster

Industries	Estimated Input ($ Millions), 2013	% In-Region	% Out of Region
Iron and Steel Mills and Ferroalloy Manufacturing	$19.76	5%	95%
Corporate, Subsidiary, and Regional Managing Offices	$6.71	1%	99%
Machine Shops	$5.05	7%	93%
Copper Rolling, Drawing, Extruding, and Alloying *	$4.71	0%	100%
Fabricated Pipe and Pipe Fitting Manufacturing	$4.49	22%	78%
Ball and Roller Bearing Manufacturing	$3.68	91%	9%
Iron and Steel Forging *	$2.46	0%	100%
Iron Foundries **	$2.37	0%	100%
Wholesale Trade Agents and Brokers	$2.29	6%	94%
Iron and Steel Pipe and Tube Manufacturing from Purchased Steel **	$1.85	0%	100%
Fluid Power Valve and Hose Fitting Manufacturing	$1.76	59%	41%
Bolt, Nut, Screw, Rivet, and Washer Manufacturing **	$1.73	0%	100%
Precision Turned Product Manufacturing *	$1.55	0%	100%
Other Aluminum Rolling, Drawing, and Extruding **	$1.54	0%	100%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) **	$1.54	0%	100%

Note: * industry sector has less than 10 jobs as calculated by EMSI; ** industry sector is not present in the region .

Top 15 Inputs by Dollars

Fabricated Metal Product Manufacturing Cluster



Note: ** industry sector is not present in the region.

Top Occupations

Fabricated Metal Product Manufacturing Cluster

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Team Assemblers	155	8%	$12.1	High school diploma or equivalent
Machinists	137	-2%	$18.6	High school diploma or equivalent
Welders, Cutters, Solderers, and Brazers	98	36%	$16.3	High school diploma or equivalent
First-Line Supervisors of Production and Operating Workers	63	19%	$23.9	Postsecondary non-degree award
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	63	24%	$13.4	High school diploma or equivalent
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	61	30%	$15.3	High school diploma or equivalent
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	61	7%	$17.1	High school diploma or equivalent
Inspectors, Testers, Sorters, Samplers, and Weighers	53	10%	$15.6	High school diploma or equivalent
Structural Metal Fabricators and Fitters	43	115%	$17.6	High school diploma or equivalent
Computer-Controlled Machine Tool Operators, Metal and Plastic	42	11%	$17.8	High school diploma or equivalent
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	33	-11%	$10.4	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	30	25%	$11.3	Less than high school
Helpers--Production Workers	29	38%	$10.2	Less than high school
Sales Representatives, Wholesale and Mfg. , Except Technical and Scientific Products	29	26%	$22.8	High school diploma or equivalent
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	28	-7%	$18.9	High school diploma or equivalent

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.

Shift-Share Analysis by Top Industry Sectors

Primary Metal Manufacturing Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Iron and Steel Mills and Ferroalloy Manufacturing	169	1	0	1	155	↑ **154**
Rolled Steel Shape Manufacturing	139	0	0	0	138	↑ **138**
Nonferrous Metal Die-Casting Foundries	74	8	29	37	-52	-89
Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	69	0	0	0	68	↑ **68**

Note: Upward arrow (↑) indicates regional competitiveness. EMSI does not show any jobs for Copper Rolling, Drawing, Extruding, and Alloying and other industries.

Top Industry Sectors

Primary Metal Manufacturing Cluster

Industries	Exports 2013 ($ Millions)	Jobs 2013	Export per job 2013 ($)	LQ 2014
Iron and Steel Mills and Ferroalloy Manufacturing	$76.6	117	$656,639	3.4
Rolled Steel Shape Manufacturing	$35.1	109	$322,394	12.2
Nonferrous Metal Die-Casting Foundries	$19.6	96	$204,497	5.2
Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	$12.0	17	$722,471	11.8
Copper Rolling, Drawing, Extruding, and Alloying	$6.0	11	$562,465	0.0

Note: Sorted similarly as the shift-share analysis slide

Top 15 Inputs by Dollars

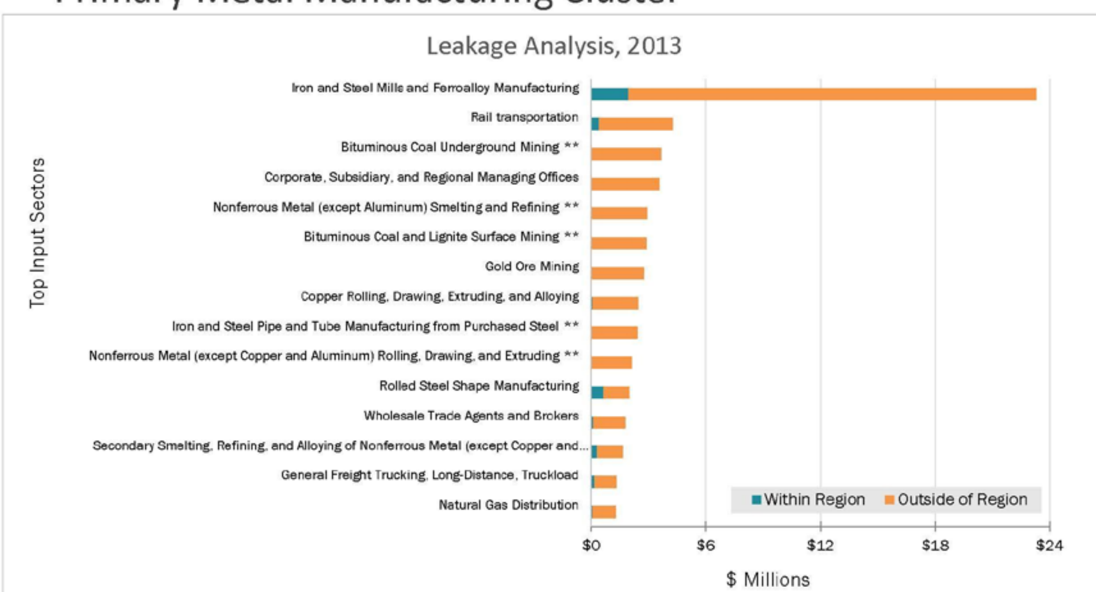
Primary Metal Manufacturing Cluster

Industries	Estimated Input ($ Millions), 2013	% In-Region	% Out of Region
Iron and Steel Mills and Ferroalloy Manufacturing	$23.28	8%	92%
Rail transportation	$4.26	9%	91%
Bituminous Coal Underground Mining **	$3.66	0%	100%
Corporate, Subsidiary, and Regional Managing Offices	$3.58	1%	99%
Nonferrous Metal (except Aluminum) Smelting and Refining **	$2.93	0%	100%
Bituminous Coal and Lignite Surface Mining **	$2.89	0%	100%
Gold Ore Mining *	$2.76	0%	100%
Copper Rolling, Drawing, Extruding, and Alloying *	$2.46	2%	98%
Iron and Steel Pipe and Tube Manufacturing from Purchased Steel **	$2.42	0%	100%
Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding **	$2.14	0%	100%
Rolled Steel Shape Manufacturing	$2.00	33%	67%
Wholesale Trade Agents and Brokers	$1.76	6%	94%
Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	$1.63	18%	82%
General Freight Trucking, Long-Distance, Truckload	$1.30	14%	86%
Natural Gas Distribution *	$1.30	5%	95%

Note: ** industry sector is not present in the region.

Top 15 Inputs by Dollars

Primary Metal Manufacturing Cluster



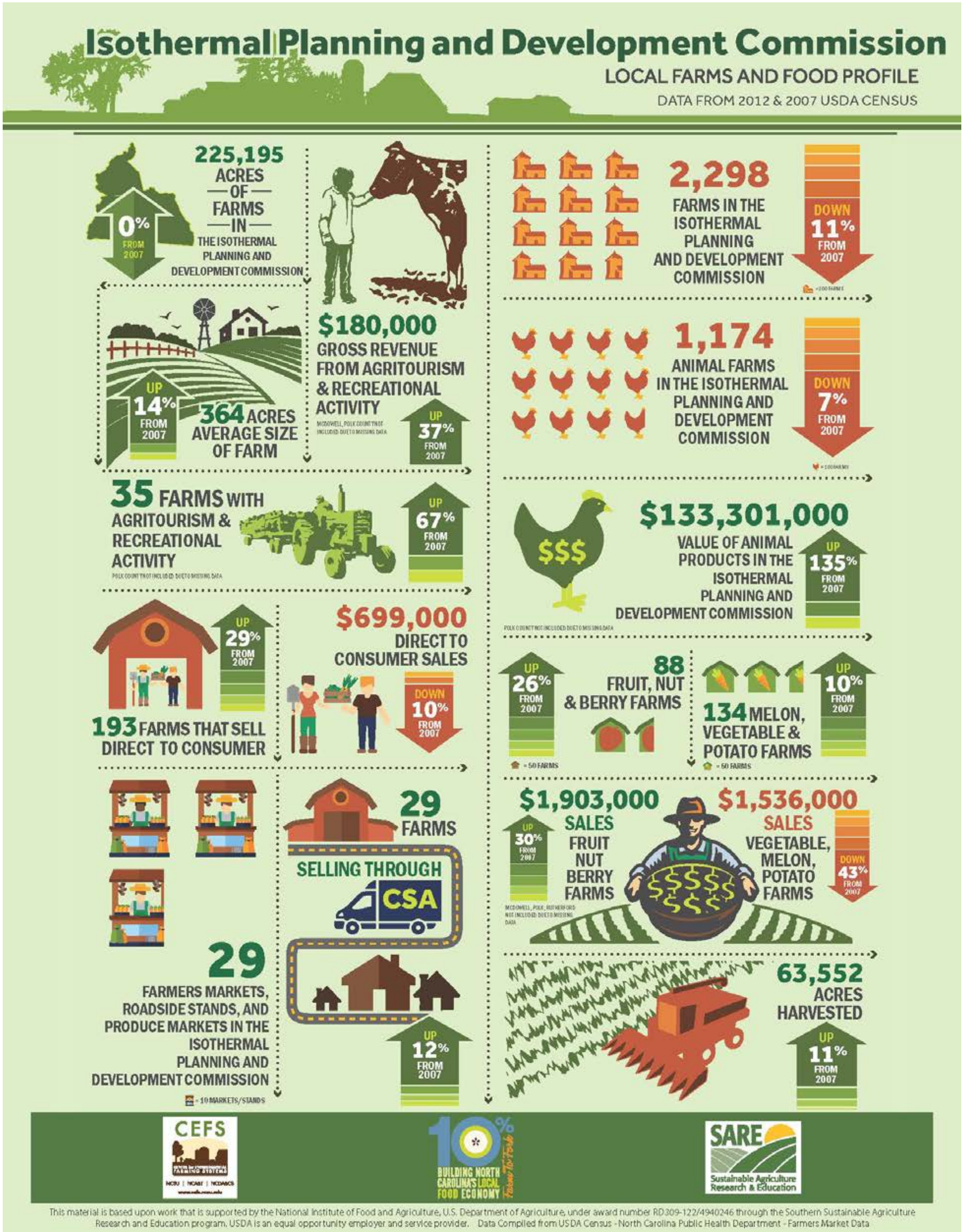
Note: ** industry sector is not present in the region.

Top Occupations

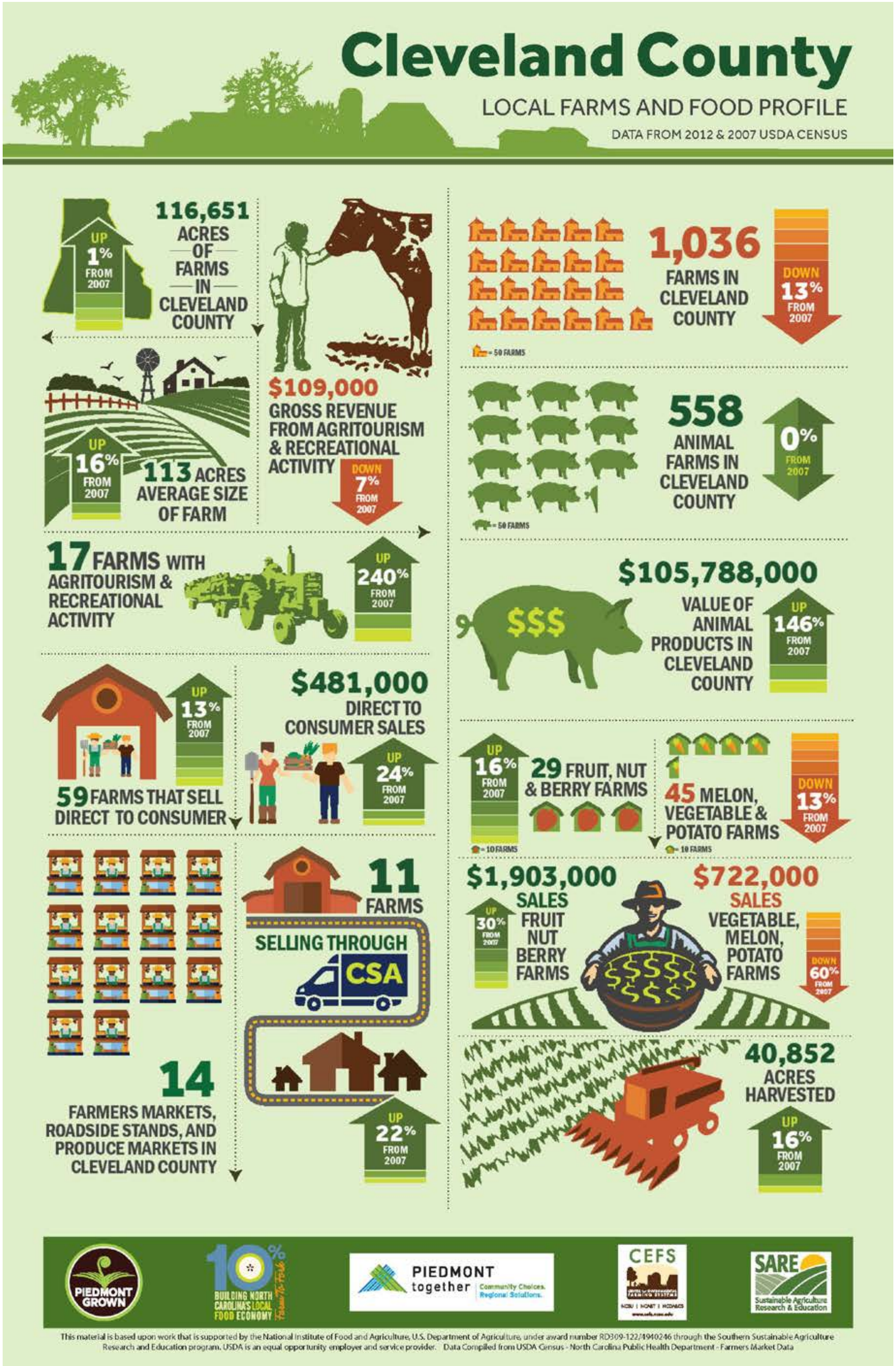
Primary Metal Manufacturing Cluster

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	32	52%	$17.5	High school diploma or equivalent
First-Line Supervisors of Production and Operating Workers	22	83%	$23.9	Postsecondary non-degree award
Metal-Refining Furnace Operators and Tenders	20	33%	$16.4	High school diploma or equivalent
Inspectors, Testers, Sorters, Samplers, and Weighers	17	70%	$15.6	High school diploma or equivalent
Maintenance and Repair Workers, General	17	113%	$15.7	High school diploma or equivalent
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	16	0%	$17.1	High school diploma or equivalent
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	15	150%	$13.4	High school diploma or equivalent
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	14	-30%	$14.2	High school diploma or equivalent
Helpers--Production Workers	13	63%	$10.2	Less than high school
Industrial Machinery Mechanics	13	225%	$19.6	High school diploma or equivalent
Welders, Cutters, Solderers, and Brazers	12	200%	$16.3	High school diploma or equivalent
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	12	500%	$14.4	High school diploma or equivalent
Industrial Truck and Tractor Operators	12	140%	$14.4	Less than high school
Pourers and Casters, Metal	11	0%	$12.6	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	10	150%	$11.3	Less than high school

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.



Isothermal Planning and Development Commission
LOCAL FARMS AND FOOD PROFILE
DATA FROM 2012 & 2007 USDA CENSUS
225,195 ACRES —OF— FARMS —IN— THE ISOTHERMAL PLANNING AND DEVELOPMENT COMMISSION
0% FROM 2007
$180,000 GROSS REVENUE FROM AGRITOURISM & RECREATIONAL ACTIVITY
UP 37% FROM 2007
UP 14% FROM 2007
364 ACRES AVERAGE SIZE OF FARM
2,298 FARMS IN THE ISOTHERMAL PLANNING AND DEVELOPMENT COMMISSION
DOWN 11% FROM 2007
1,174 ANIMAL FARMS IN THE ISOTHERMAL PLANNING AND DEVELOPMENT COMMISSION
DOWN 7% FROM 2007
35 FARMS WITH AGRITOURISM & RECREATIONAL ACTIVITY
UP 67% FROM 2007
$133,301,000 VALUE OF ANIMAL PRODUCTS IN THE ISOTHERMAL PLANNING AND DEVELOPMENT COMMISSION
$$$
UP 135% FROM 2007
UP 29% FROM 2007
193 FARMS THAT SELL DIRECT TO CONSUMER
$699,000 DIRECT TO CONSUMER SALES
DOWN 10% FROM 2007
UP 26% FROM 2007
88 FRUIT, NUT & BERRY FARMS
134 MELON, VEGETABLE & POTATO FARMS
UP 10% FROM 2007
29 FARMS SELLING THROUGH CSA
UP 12% FROM 2007
29 FARMERS MARKETS, ROADSIDE STANDS, AND PRODUCE MARKETS IN THE ISOTHERMAL PLANNING AND DEVELOPMENT COMMISSION
= 10 MARKETS/STANDS
$1,903,000 SALES FRUIT NUT BERRY FARMS
UP 30% FROM 2007
$1,536,000 SALES VEGETABLE, MELON, POTATO FARMS
DOWN 43% FROM 2007
63,552 ACRES HARVESTED
UP 11% FROM 2007
CEFS
SARE Sustainable Agriculture Research & Education
10% BUILDING NORTH CAROLINA'S LOCAL FOOD ECONOMY
This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number RD309-122/4940246 through the Southern Sustainable Agriculture Research and Education program. USDA is an equal opportunity employer and service provider. Data Compiled from USDA Census - North Carolina Public Health Department - Farmers Market Data



Cleveland County
LOCAL FARMS AND FOOD PROFILE
DATA FROM 2012 & 2007 USDA CENSUS
116,651 ACRES OF FARMS IN CLEVELAND COUNTY
UP 1% FROM 2007
$109,000 GROSS REVENUE FROM AGRITOURISM & RECREATIONAL ACTIVITY
DOWN 7% FROM 2007
UP 16% FROM 2007
113 ACRES AVERAGE SIZE OF FARM
17 FARMS WITH AGRITOURISM & RECREATIONAL ACTIVITY
UP 240% FROM 2007
1,036 FARMS IN CLEVELAND COUNTY
DOWN 13% FROM 2007
= 50 FARMS
558 ANIMAL FARMS IN CLEVELAND COUNTY
0% FROM 2007
= 50 FARMS
$105,788,000 VALUE OF ANIMAL PRODUCTS IN CLEVELAND COUNTY
$$$
UP 146% FROM 2007
UP 13% FROM 2007
59 FARMS THAT SELL DIRECT TO CONSUMER
$481,000 DIRECT TO CONSUMER SALES
UP 24% FROM 2007
UP 16% FROM 2007
29 FRUIT, NUT & BERRY FARMS
= 10 FARMS
45 MELON, VEGETABLE & POTATO FARMS
DOWN 13% FROM 2007
= 10 FARMS
14 FARMERS MARKETS, ROADSIDE STANDS, AND PRODUCE MARKETS IN CLEVELAND COUNTY
11 FARMS SELLING THROUGH CSA
UP 22% FROM 2007
$1,903,000 SALES FRUIT NUT BERRY FARMS
UP 30% FROM 2007
$722,000 SALES VEGETABLE, MELON, POTATO FARMS
DOWN 60% FROM 2007
40,852 ACRES HARVESTED
UP 16% FROM 2007
PIEDMONT GROWN
10% BUILDING NORTH CAROLINA'S LOCAL FOOD ECONOMY
PIEDMONT together Community Choices. Regional Solutions.
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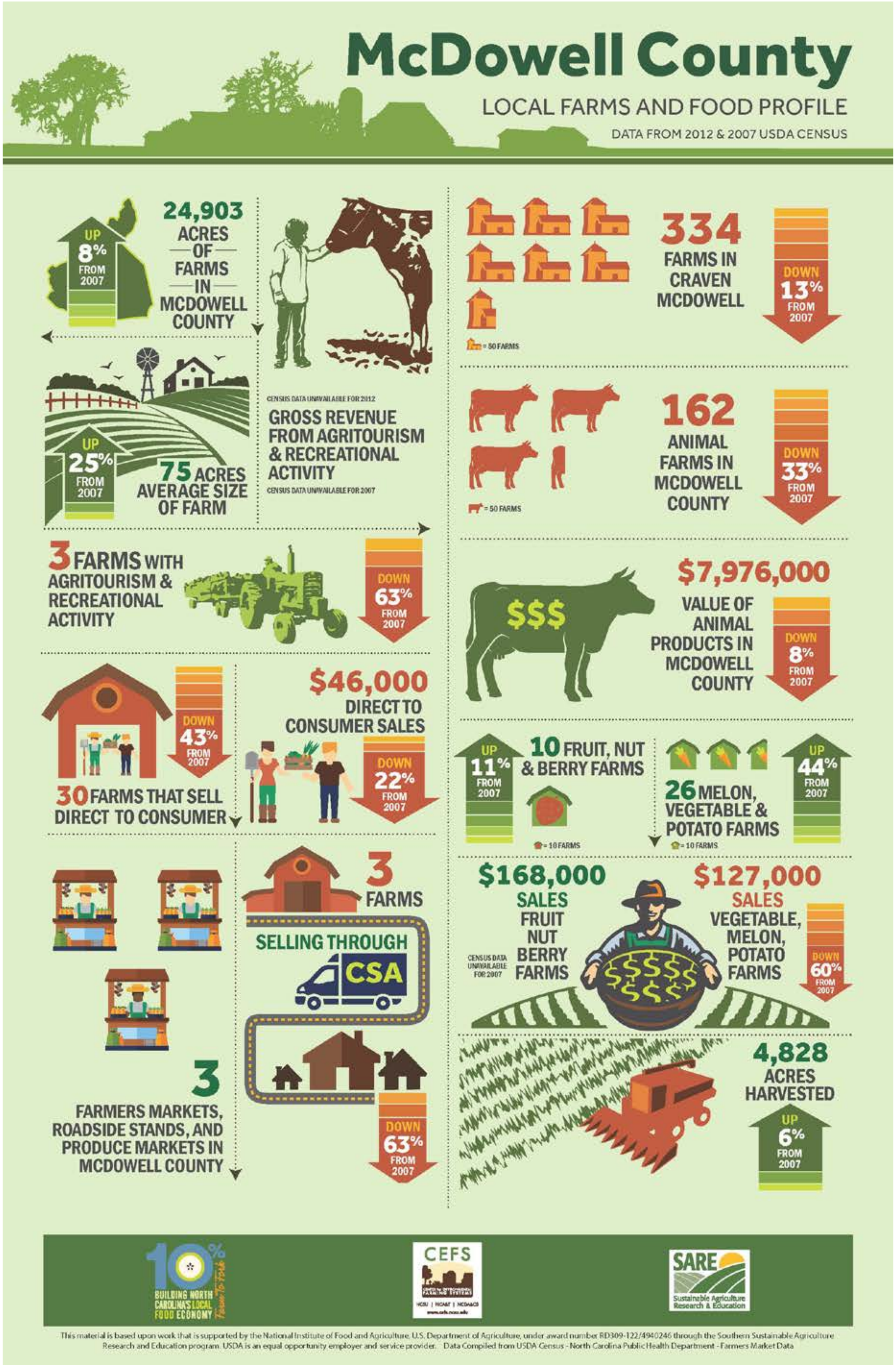
McDowell County
LOCAL FARMS AND FOOD PROFILE
DATA FROM 2012 & 2007 USDA CENSUS
UP 8% FROM 2007
24,903 ACRES OF FARMS IN MCDOWELL COUNTY
334 FARMS IN CRAVEN MCDOWELL
DOWN 13% FROM 2007
= 50 FARMS
CENSUS DATA UNAVAILABLE FOR 2012
GROSS REVENUE FROM AGRITOURISM & RECREATIONAL ACTIVITY
CENSUS DATA UNAVAILABLE FOR 2007
UP 25% FROM 2007
75 ACRES AVERAGE SIZE OF FARM
162 ANIMAL FARMS IN MCDOWELL COUNTY
DOWN 33% FROM 2007
= 50 FARMS
3 FARMS WITH AGRITOURISM & RECREATIONAL ACTIVITY
DOWN 63% FROM 2007
$$$
$7,976,000 VALUE OF ANIMAL PRODUCTS IN MCDOWELL COUNTY
DOWN 8% FROM 2007
DOWN 43% FROM 2007
30 FARMS THAT SELL DIRECT TO CONSUMER
$46,000 DIRECT TO CONSUMER SALES
DOWN 22% FROM 2007
UP 11% FROM 2007
10 FRUIT, NUT & BERRY FARMS
= 10 FARMS
26 MELON, VEGETABLE & POTATO FARMS
UP 44% FROM 2007
= 10 FARMS
3 FARMS
SELLING THROUGH CSA
3 FARMERS MARKETS, ROADSIDE STANDS, AND PRODUCE MARKETS IN MCDOWELL COUNTY
DOWN 63% FROM 2007
$168,000 SALES FRUIT NUT BERRY FARMS
CENSUS DATA UNAVAILABLE FOR 2007
$127,000 SALES VEGETABLE, MELON, POTATO FARMS
DOWN 60% FROM 2007
4,828 ACRES HARVESTED
UP 6% FROM 2007
BUILDING NORTH CAROLINA'S LOCAL FOOD ECONOMY
Farm To Fork
CEFS
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Polk County
LOCAL FARMS AND FOOD PROFILE
DATA FROM 2012 & 2007 USDA CENSUS
24,101 ACRES OF FARMS IN POLK COUNTY
UP 15% FROM 2007
290 FARMS IN POLK COUNTY
DOWN 6% FROM 2007
= 50 FARMS
GROSS REVENUE FROM AGRITOURISM & RECREATIONAL ACTIVITY
CENSUS DATA UNAVAILABLE FOR 2012 & 2007
83 ACRES AVERAGE SIZE OF FARM
UP 22% FROM 2007
119 ANIMAL FARMS IN POLK COUNTY
UP 11% FROM 2007
= 50 FARMS
CENSUS DATA UNAVAILABLE FOR 2012
FARMS WITH AGRITOURISM & RECREATIONAL ACTIVITY
FARMS IN 2007
3
$$$
CENSUS DATA UNAVAILABLE FOR 2012 & 2007
VALUE OF ANIMAL PRODUCTS IN POLK COUNTY
UP 41% FROM 2007
31 FARMS THAT SELL DIRECT TO CONSUMER
$49,000 DIRECT TO CONSUMER SALES
UP 75% FROM 2007
UP 4% FROM 2007
26 FRUIT, NUT & BERRY FARMS
= 10 FARMS
16 MELON, VEGETABLE & POTATO FARMS
DOWN 11% FROM 2007
= 10 FARMS
9 FARMS
SELLING THROUGH CSA
UP 125% FROM 2007
8
FARMERS MARKETS, ROADSIDE STANDS, AND PRODUCE MARKETS IN POLK COUNTY
CENSUS DATA UNAVAILABLE FOR 2012
SALES FRUIT NUT BERRY FARMS
CENSUS DATA UNAVAILABLE FOR 2007
$116,000
SALES VEGETABLE, MELON, POTATO FARMS
DOWN 27% FROM 2007
5,829 ACRES HARVESTED
UP 33% FROM 2007
10% BUILDING NORTH CAROLINA'S LOCAL FOOD ECONOMY Farm To Fork
CEFS
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