Economic Development Strategic Plan

economic development consulting

April 2015

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Executive Summary

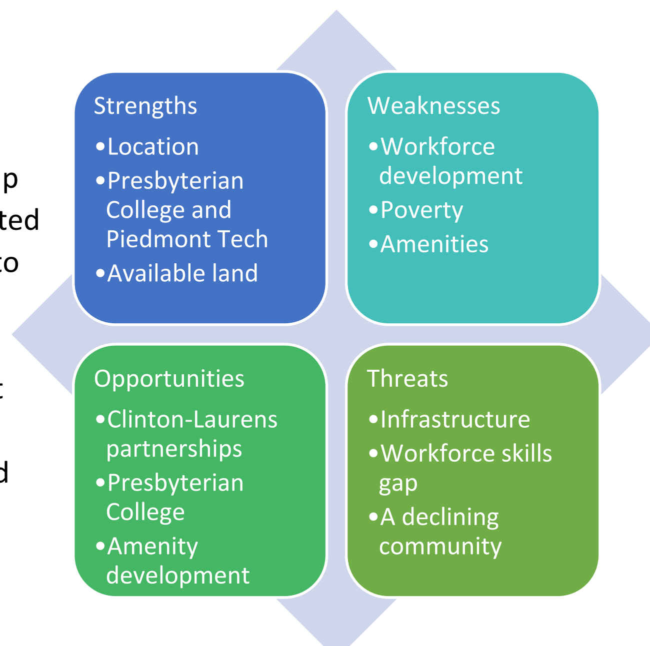
In 2002, a headline in *The Charlotte Observer* read, "Town's foundation crumbles. Clinton, S.C., struggles to survive economically and emotionally." The article goes on to read, "Trains don't stop here anymore. Police officers roll through the mill village scanning for trouble. And about the only place getting busier is the food bank." After losing hundreds in the textile industry, Clinton was struggling to recover. Like so many small towns once dependent upon textiles, Clinton needed to develop a new path for economic growth.

Since the loss of textiles in the late 1990s and early 2000s, Clinton and Laurens County have made significant progress in transforming the economy. Manufacturing employment is once again growing, wages are increasing, and unemployment is declining. The City of Clinton initiated this economic development strategic planning process to guide city policy and investments in economic development during the economic recovery.

Clinton engaged Creative Economic Development Consulting to facilitate the strategic planning process. The consulting firm completed a SWOT (strengths, weaknesses, opportunities, and threats) Analysis, economic and demographic trend analysis, target industry analysis, and engaged the community in setting goals and developing an action plan. We encourage a detailed reading of this document to understand the context of the recommendations summarized below.

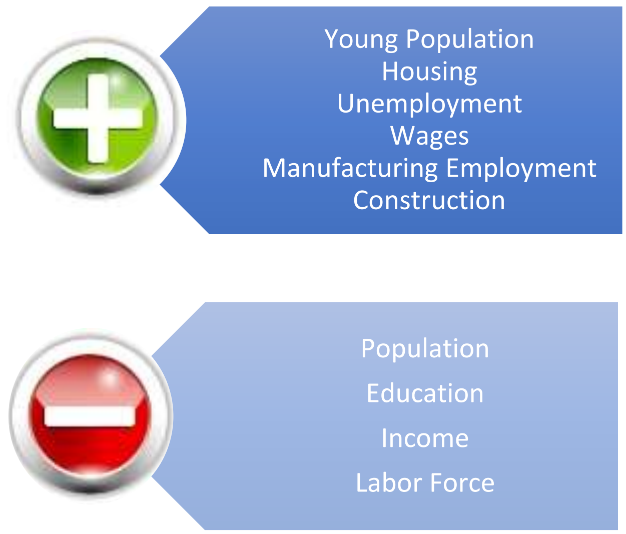
SWOT Analysis

The SWOT Analysis was performed with leadership and citizen input through focus group meetings and surveys. The consulting team visited Clinton and conducted a site selector's review to add professional expertise to the SWOT. The summary on the right includes highlights from the SWOT Analysis. Citizens had a long list of strengths and opportunities that support industrial, commercial, residential, tourism, and amenity development. Clinton's strengths and opportunities far outweigh its weaknesses and threats.



Economic and Demographic Trends

The economic and demographic trend analysis benchmarked Clinton against Laurens County, the Upstate region, and South Carolina. The good news is that wages and manufacturing employment are growing and unemployment is declining. There is still work to be done in income growth, labor force growth, and overall population growth. These growth issues are common among most small, rural towns in the Southeast. The strategic plan recommends amenities that will attract more people to Clinton.



Target Industry Analysis

The purpose of the Target Industry Analysis is to review, identify, update and validate promising industry sectors for Clinton. We recommend that Clinton rely on its marketing partners, Laurens County Development Corporation and the Upstate Alliance, to carry out its external marketing program. These allies need to know which industry sectors are a good fit for Clinton's assets (workforce, transportation, infrastructure, etc.).

Automotive

- Fuel Cell Technology
- Batteries
- Electronics/Sensors
- Engines and Parts
- Interiors

Advanced Materials

- Plastics
- Primary Metals
- Fabricated Metal Products

Distribution

- Warehousing and Storage
- Ecommerce / Large Retail Distribution

Life Sciences

- Pharmaceuticals and Medicines
- Analytical Laboratory Instruments
- Medical, Dental, and Hospital Equipment and Supplies Wholesalers

Implementation

The strategic plan is designed to be implemented over a five year period. Priorities for 2015 include a speculative building development, existing business survey, development of an arts council, workforce development video, downtown development staff, internal marketing, and restructuring the Clinton Economic Development Corporation to lead implementation of the strategic plan. The speed of implementation will depend upon the City's allocation of resources, including human capital and financial resources.

Clinton Economic Development Strategic Plan Summary

New Business Recruitment

- Focus on product development
- Leverage LCDC and Upstate Alliance for external marketing

Product Development & Infrastructure

- Site plan for Clinton Corp. Center I
- Grade a pad, signage, landscaping Clinton Corp. Center III
- Spec building at Clinton 26 North
- Upgrade telecommunications and sewer at Clinton 26 North and South
- Relocate DOT maintenance facility

Existing Business Support

- Survey of business needs
- Continue to participate in county BRE program
- Integrate Key Accounts program into BRE

Presbuterian College

- Recruit future expansions

Amenity Development

- Support the creation of an Arts Council for joint projects such as arts venues in downtown.
- Parks and recreation facility development
- Relocate library to downtown and expand services.
- Special events in partnership with allies (music, art, festivals)

Education and Workforce Development

- "Work in Laurens County" video
- Support expanded career counselors in schools
- Explore technical high school like RD Anderson Applied Technology Center in Spartanburg

Downtown, Small Business, and Entrepreneurship

- Special service district, downtown business incentives
- Downtown development staff
- Revolving loan fund
- Inventory downtown properties

Leveraging Partners

- Develop positive coopeition with Laurens and Laurens County

Marketing and Communications

- Public information officer
- City web portal

Organizational Development

- Increase staff capacity
- Focus the Community and Economic Development position on strategic plan implementation
- Re-structure Clinton Development Corporation and lead strategic plan implementation

SWOT Analysis

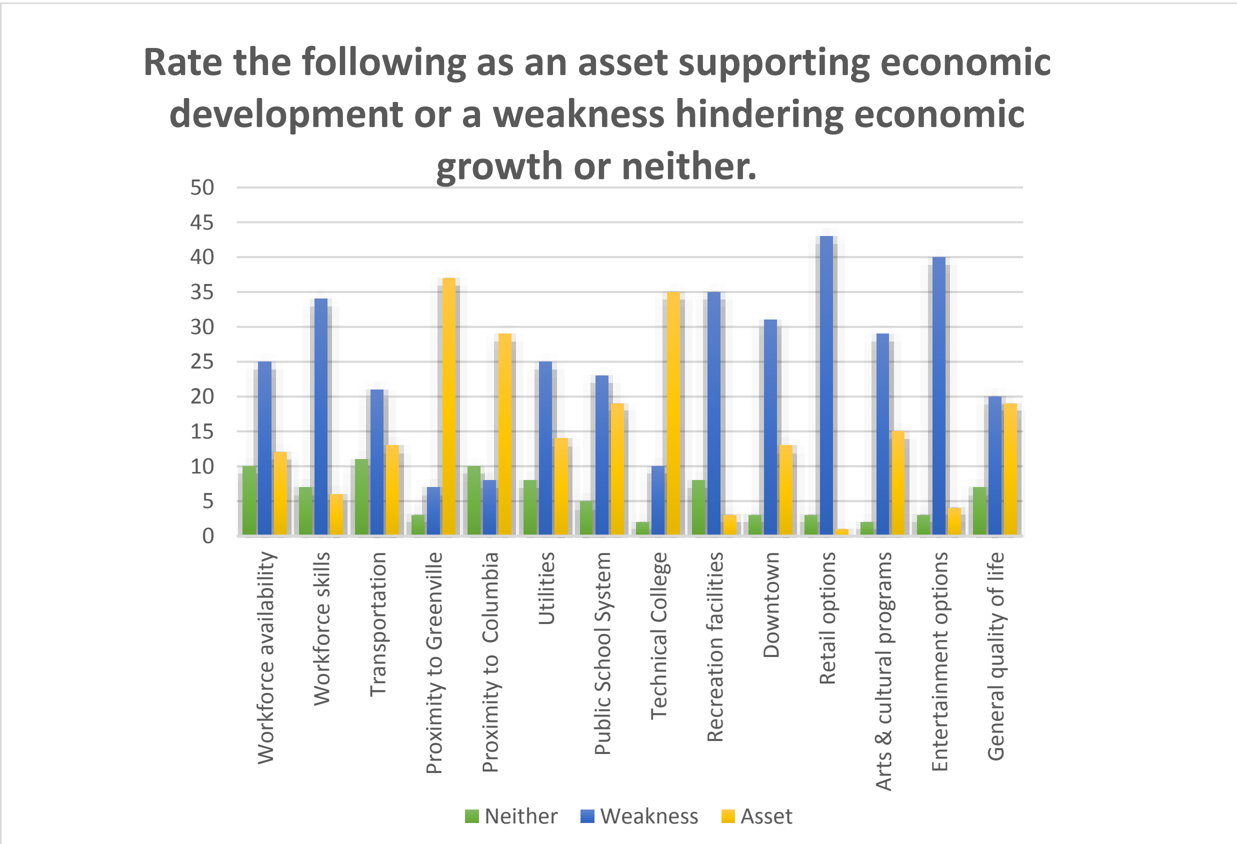
A sound SWOT Analysis is the foundational building block for a sustainable economic development strategy. An asset-based approach to economic development has proven to be the most successful. We gathered SWOT input from leadership focus groups and a community survey of citizens. It is important to note that many of the assets of Clinton are shared by Laurens County, the Upstate region, and South Carolina. Also, many of the weaknesses are not unique to the City. One example is workforce challenges, which plague the country and rural America in particular.

Business Climate

More than 50% of Clinton citizens rated the business climate as a four or five out of a possible five points. The majority also said that the business climate today is better than before the recession. The results show that citizens generally feel good about the economy, and feel they are better off than before the Great Recession.

Assets and Weaknesses

The most highly rated assets are proximity to Greenville and Columbia, Piedmont Technical College, public schools, and the quality of life in Clinton. On the other side weaknesses identified are retail options, entertainment options, recreation facilities, and a thriving downtown.



Strengths

The listing of strengths came from both the citizen survey and a leadership focus group meeting. Strengths are assets that not only draw people and businesses to your community, but keep them there. The strengths are listed in no particular order.

- Presbyterian College and the Pharmacy School
- Piedmont Technical College
- Location with interstate access
- Diversity of businesses, including agriculture
- Utility system, including high pressure natural gas, municipal electric system, and utility reliability
- Strong sense of community
- Rail transportation system
- Thriving tourism: trails, history, hunting, cycling, fishing, motorcycle events, state park, golf, recreation, arts
- Downtown
- Available land for business development
- Hospital and health care system
- Public school system
- Thornwell Home for Children
- City staff, management, and public safety
- Reputation of community among economic development allies such as the Upstate region and the state
- Low unionization rates
- Close to big industrial centers in Greenville, Spartanburg, and Columbia
- Low cost of doing business and low cost of living
- Internships and apprenticeships through schools
- Performing arts center

Weaknesses

We prefer to think of weaknesses as challenges, with a mindset that challenges can be overcome.

- High poverty rate, areas of blight, and transient population
- Low educational attainment, skills of the workforce do not match job openings, and a small laborshed area
- Lack of good product – sites are not shovel ready and there is no spec building
- Lack of financial resources at the city, county, and economic development organizations
- High cost of utilities, specifically electricity
- Diversity of businesses, people, and leadership

- Work ethic issues, including drug issues and ability to show up for work
- Lack of technical skills and skills training in high school
- Lack of mid-level housing stock
- Lack of entertainment, retail, and activities, especially for Presbyterian College students
- Failing to inspire investors to invest locally
- Location between Greenville and Columbia means that dollars are pulled out of the local economy and pumped into the regional economy
- Small tax base
- Perception of distance to BMW when, in fact, it is minutes
- Jobs are needed to support retail and restaurants
- Clinton needs to tell their story through local media
- Expanded downtown business hours needed
- Water and sewer capacity issues
- Low tax rates lead to little reinvestment in the community
- Lack of vision and leadership for economic development
- Dilapidated buildings
- Crime
- Lack of zoning in Laurens County
- City gateways
- Lack of cooperation with Laurens
- Brain drain and an aging population

Opportunities

Opportunities are waiting to be captured by Clinton. Much of the success that comes in economic development is a direct result of the right opportunity at the right time. The challenge for Clinton will be to prioritize its many opportunities and focus its resources.

- Strategic plan needs an implementation structure
- Resources needed for implementation
- Laurens and Clinton partnering on county sports development and attracting tournaments, potential collaboration with YMCA and Presbyterian College
- Increase collaboration between schools, Piedmont Technical College, Presbyterian College in workforce development
- Clinton could be a central point for collaboration between University of South Carolina and Clemson University
- Redevelopment of properties – vacant mill redevelopment
    - Joanna area, Lydia mall, Clinton Mill 1 &2 examples
- Implement a public relations program
- Center for advanced manufacturing is bringing back the manufacturing skills certificate program, next they are developing a welding certificate

- More cooperation between Laurens & Clinton
- Growth is expanding to the interstate area – Clinton 26 North and South industrial park area
- Pharmacy school as a foundation for pharmaceutical as a target
- Thornwell vacant buildings for rehabilitation
- Proximity to national forest
- Extension of Swamp Rabbit Trail
- Presbyterian College
- Spin off from Newberry County megasite development
- SC Hwy 72/ SC Hwy 56
- Remove maintenance shed at interstate in Clinton 26 industrial park
- Railroad could provide additional funding and support for site development
- Downtown development
- Tourism development
- Youth engagement
- STEM education, technical high school
- Arts development, Newberry example
- Housing, student housing

Threats

Threats often loom on the horizon. If threats materialize, they can stall progress. Threats in economic development are often external and hard to mitigate. Nonetheless, it is important to identify and prepare to avoid threats.

- Partisan politics
- Lack of reliable water
- Workforce, major issues with skills gap, retention of young people, creating a talent pipeline for skilled labor
- Leadership development
- Becoming irrelevant, declining community, lack of state influence
- Presbyterian College growth and retention
- State regulations, funding, priorities, unfunded mandates, taxes, annexation
- Limits to what city can do to combat blight
- People following jobs to other places
- Inadequate school system
- Failure to develop I-26 exits, business park land

Economic and Demographic Trends Analysis

Creative EDC performed a ten-year trend analysis of economic and demographic data to determine how Clinton and Laurens County are growing. We benchmarked the City and County with the region and state. The full data set can be found in Appendix B.

Negative trends were found in population declines, low education levels, less than average income levels, and a declining labor force. Positive growth trends were found in the cost of housing, high percentage of young and working age population, decreasing unemployment, job creation, rising wages, and new construction. The strategic plan action steps are designed to take advantage of the positive trends and combat the negative trends. One example is to capitalize on the young population in the City.

- Declining population – Both Laurens County and Clinton had population declines from 2000 to 2010; however, Clinton rebounded with population growth in 2012 while the county continued to lose population. The region and state saw population gains during all periods.

- Greater under 35 population – Clinton has more younger, working-age people than the county, region and state as a percent of the total population.

- Less educated than the region and state – Overall, Clinton has a higher percentage of college graduates than Laurens County, but both the city and county lag behind the region and state in educational attainment.

- Low SAT scores – Both school districts' SAT scores fall short of the state and national averages.

- Low income – Both per capita and median household income in Clinton ($14,900 and $30,991) and Laurens County ($19,636 and $38,820) lag behind the region ($24,231 and $43,724) and state ($23,906 and $44,623).

- Low cost of housing – Median home values are lower in the city and county, making homes more affordable than the region and state.

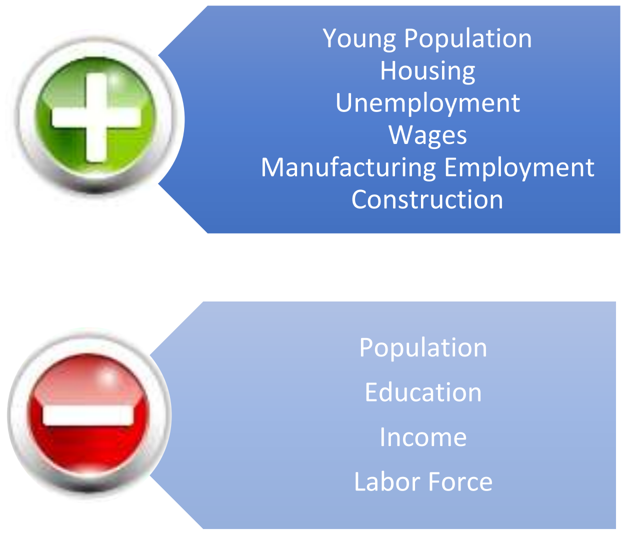
- Declining labor force – The labor force in the county has been flat and declining while the labor force in the region has rebounded from the recession.

- Declining unemployment – Unemployment has been falling across the county, region, and state as the economy recovers from the recession. The rate was 5.1% in May 2014.

- Growing manufacturing employment – At a time when many communities are continuing to lose manufacturing jobs, Laurens County has seen its manufacturing workforce grow by more than 1,200 jobs in the last three years.

- Increasing wages – Wages have grown by almost 9% over the last three years. The average weekly manufacturing wage now stands at $878.

- Increasing building permits in the County – Building construction is now positive in the county after declines following the recession.



Target Industry Analysis

The purpose of the Target Industry Analysis is to review, identify, update, and validate promising industry sectors for Clinton, South Carolina. Before implementing a target marketing and lead generation campaign, it is critically important that proper analysis and research be done to match the strengths and assets of Clinton with the needs of expanding companies.

Creative EDC engaged strategic partner Applied Marketing to carry out the target industry analysis. The firm is a national leader in industry analysis and data mining for economic development. Based on Applied Marketing's research and analysis, we recommend the following target industry sectors for Clinton:

- Automotive
    - Fuel Cell Technology
    - Batteries
    - Electronics/Sensors
    - Engines and Parts
    - Interiors
    - Metal Stampings
    - Transmissions
- Advanced Materials
    - Plastics
    - Primary Metals
    - Fabricated Metal Products
- Distribution
    - Warehousing and Storage
    - ECommerce / Large Retail Distribution
- Life Sciences
    - Pharmaceuticals and Medicines
    - Analytical Laboratory Instruments
    - Medical, Dental, and Hospital Equipment and Supplies Wholesalers

Automotive

Clinton has existing assets that will be attractive to automotive manufacturers:

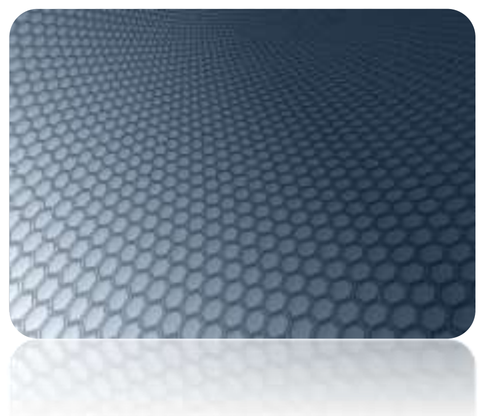
- Proximity to major U.S. markets and the eastern 1/3 of the US population
- Proximity to Greenville and the BMW facility
- Strong transportation network, I-26 connecting to I-85 and I-40
- Existing available sites
- Existing workforce
- Existing and developing training and educational support for needed skills
- Existing industry cluster

Over the next several years, hybrid and fuel-efficiency vehicles will be driving the automotive industry. The car and automobile assembly industry is projected to continue to grow with an expected average, annual industry growth rate of 3.3% through 2019.

Advanced Materials

Reasons for recommending Advanced Materials are similar to those for the Automotive industry:

- Proximity to industries in Greenville, Spartanburg, and Columbia, as well as Charleston
- Strong transportation network, I-26 connecting to I-85 and I-40
- Existing available sites
- Existing workforce
- Existing and developing training and educational support for needed skills
- Existing industry cluster



Advanced materials can support a variety of industries including automotive, aerospace, medical devices, construction, and others, many of which have forecasted growth over the next five years.

Distribution

Clinton has existing assets that will be attractive to distributors:

- Proximity to major U.S, markets and the eastern 1/3 of the U.S. population
- Strong transportation network, I-26 connecting to I-85 and I-40
- Existing available sites
- Existing industry cluster

Strong manufacturing, wholesaling, and retail trade will support industry growth in warehousing and distribution. The industry is projected to continue growing, with an expected average, annual industry growth rate of 2.6% through 2019.

Life Sciences

While Clinton may not currently have a wealth of assets for Life Sciences, we believe the industry is an attainable, desirable goal for their targeting. Area assets that could be built upon to attract this industry include:

- Proximity to major US markets and the eastern 1/3 of the US population
- The Pharmacy School at the Presbyterian College
- Genetics Research Institute and Research Institute for Birth Defects in neighboring Greenwood County
- Existing hospital system

Targeting and Marketing Recommendations

When marketing to companies within the recommended industry sectors, we recommend a target marketing approach that focuses on those companies of a size that likely indicates a significant expansion or relocation opportunity. We would further recommend focusing on companies that are likely to be in an expansion, consolidation, or relocation mode based upon recently reported business events. These events include sales growth, employment growth, mergers and acquisitions, executive changes, new product announcements, etc. By focusing on these companies, Clinton can prioritize its marketing efforts to effectively target companies that are most likely to have an active project.

The table below outlines the estimated number of companies: 1) within the entire universe, regardless of size; 2) within the target universe (at least 100 employees or $10m in annual sales); and 3) within the target universe experiencing events likely to indicate a company with an expansion, relocation, or consolidation need.

Target Industry	Total Universe	Target Universe	Target Universe w/Growth and/or Events
Automotive	3,611	525	192
Advanced Materials	52,193	3,802	1,035
Distribution	69,284	2,540	600
Life Sciences	48,652	2,318	785
Total	**173,740**	**9,185**	**2,612**

We estimate there are approximately 2,612 companies that Clinton should consider for proactive targeting. We recommend a Business Development Program approach that qualifies target companies through direct contact to set up face-to-face or phone meetings with decision makers. This programmatic approach would build your pipeline over time and track qualified leads as they develop into opportunities and projects. Business development is about consistent communications and relationship building in order to position Clinton as a resource for growing and expanding companies.

Business Development Program

A business development program may take advantage of several marketing vehicles. We recommend a combination of lead qualification, email marketing, and mission trips to meet with prospects, visit trade shows, and meet with site selectors. Clinton can and should take advantage of their participation in LCDC and the Upstate Alliance regional group to fulfill target marketing activities.

Lead Qualification

We would recommend that Clinton work in partnership with the County and region to develop a lead qualification program that focuses on setting phone appointments between economic development personnel and company executives within the targeted sectors. The advantage to this approach is that by not focusing on a particular geographic market, Clinton can target the best companies regardless of location. Once an opportunity is identified, then LCDC or the Alliance can develop a trip around that particular opportunity, or invite the prospect in for a visit. This type of program takes consistent prospecting activity, good lead tracking, and patience. The leads will take time to develop into opportunities and projects. The economic development organization should commit to contacting a certain number of companies each and every month, to keeping good notes in a database (such as SalesForce, Executive Pulse, or LeadTracker), and following up as necessary to nurture leads. Lead Qualification takes a *dedicated* effort. Lead qualification can be outsourced to a lead generation firm to support and maintain efforts.

Email Marketing

We would recommend that Clinton work with LCDC to develop an email campaign to reach the target audience within its target industries. While we recommend direct contact with the 2,162 prospects, there are another 9,185 that meet the target criteria (minimum size parameters). A custom email campaign can be a cost-effective and powerful way to build relationships with potential customers as well as to build brand awareness.

Marketing Trips (Companies and Site Selectors)

We would recommend that LCDC, on behalf of Clinton, continue to participate in regional or state initiatives to visit with target companies and site selectors. Many companies and site location advisors prefer to meet with regions or states, as they or their clients may be at a point in the process where they are considering regions, and not necessary specific sites. Meeting face-to-face with a prospective company is always a great way to establish a relationship, but setting a specific number of qualified leads willing to meet on a specific date in a specific city can be an unrealistic goal. However, you can mitigate the cost of marketing trips by participating with your regional group or state.

Trade Shows

LCDC may also wish to consider participating in trade shows within its target industries. Again, you may be able to share the marketing efforts and cost with your region or state. Trade shows can be a cost-effective way to meet with a large number of companies at one time. On the other hand, often the attendees are business development contacts and not the appropriate contacts for making location decisions. Trade shows can be a great first step in the lead generation process, but be prepared for the follow-up and nurturing that comes after the show. Trade shows to consider include:

- SAE Convergence 2012 (automotive)
- North American International Auto Show (automotive)
- BIO International (life sciences)
- U.S. Manufacturing Summit (advanced materials, distribution)
- Council of Supply Chain Management Professional Annual Conference (distribution)
- Thermoplastic Composites for Automotive (advanced materials)

Methodology

SWOT Analysis

Applied Marketing reviewed the SWOT Analysis performed by Creative EDC. Of specific interest for the target industry analysis were transportation, workforce, training programs, educational institutions, existing business clusters, and unique assets of the region.

Analysis of Existing Clinton (Laurens County) Businesses

Using U.S. Bureau of Labor Statistics (BLS) data, we evaluated Laurens County's existing businesses. Based on this analysis, Laurens' largest sector, by far, is manufacturing, with 5,749 jobs. Manufacturing, Information, Professional/Technical Services, Management of Companies and Health care/Social Assistant pay the highest wages - all above $40,000.

Annual Industry Distribution of Jobs and Avg. Wage in 2013 (NAICS)	Establishments	Jobs	Pct Dist. in County	Annual Average Wage Per Job
Total Covered Employment and Wages	885	18,571	100.00%	$35,593
Private	827	14,756	79.50%	$35,812
Agri., forestry, hunting	9	D	D	D
Mining	1	D	D	D
Construction	72	447	2.40%	$33,224
Manufacturing	80	5,749	31.00%	$45,673
Wholesale trade	37	D	D	D
Retail trade	164	1,676	9.00%	$23,083
Transportation, warehousing	30	1,362	7.30%	$38,332
Utilities	6	162	0.90%	$39,385
Information	14	138	0.70%	$41,344
Finance and Insurance	52	256	1.40%	$33,570
Real Estate, rental, leasing	13	32	0.20%	$27,055
Professional, technical services	54	400	2.20%	$49,229
Mgmt. of companies, enterprises	3	12	0.10%	$74,812
Administrative, waste services	32	962	5.20%	$20,212
Educational services	23	1,336	7.20%	$35,319
Health care, social assistance	76	525	2.80%	$48,673
Arts, entertainment, recreation	11	211	1.10%	$14,758
Accommodation and food services	79	1,099	5.90%	$12,386
Other services, exc. public admin.	102	262	1.40%	$25,737
Public administration	28	923	5.00%	$27,113

Source: U.S. Bureau of Labor Statistics (BLS)
D = Not shown to avoid disclosure of confidential information.
N/A = This item is not available.
Note: Average wage may not match published numbers due to rounding.

Comparison of Laurens County to South Carolina and the United States

We analyzed the distribution of business by major NAICS sectors to compare and contrast Laurens County with South Carolina and the U.S. as a whole. Based on this analysis, Laurens County has a much higher concentration of Manufacturing employment (31%) compared with both South Carolina (12.2%) and the U.S. (9%). Laurens County also has a larger concentration of Transportation/Warehousing employment (7.3%) compared to South Carolina (3.1%) and the U.S. (3.9%).

Industry Distribution of Jobs: % Distribution in 2013	Laurens County, SC	South Carolina	United States
Total Covered Employment and Wages	100.00%	100.00%	100.00%
Private	79.50%	81.90%	84.30%
Agri., forestry, hunting	D	0.60%	0.90%
Mining	D	0.10%	0.60%
Construction	2.40%	4.30%	4.50%
Manufacturing	31.00%	12.20%	9.00%
Wholesale trade	D	3.60%	4.30%
Retail trade	9.00%	12.60%	11.30%
Transportation, warehousing	7.30%	3.10%	3.90%
Utilities	0.90%	0.80%	0.60%
Information	0.70%	1.50%	2.10%
Finance and Insurance	1.40%	3.60%	4.20%
Real Estate, rental, leasing	0.20%	1.50%	1.50%
Professional, technical services	2.20%	4.50%	6.10%
Mgmt. of companies, enterprises	0.10%	0.90%	1.60%
Administrative, waste services	5.20%	7.80%	6.20%
Educational services	7.20%	8.90%	9.10%
Health care, social assistance	2.80%	13.00%	14.50%
Arts, entertainment, recreation	1.10%	1.50%	1.80%
Accommodation and food services	5.90%	10.60%	9.10%
Other services, exc. public admin.	1.40%	2.60%	3.10%
Public administration	5.00%	5.90%	5.40%

Source: U.S. Bureau of Labor Statistics (BLS)
D = Not shown to avoid disclosure of confidential information.
N/A = This item is not available.
Note: Average wage may not match published numbers due to rounding.

Manufacturing Analysis

Since Laurens County has a high concentration of manufacturing, we analyzed the existing manufacturing business in the County by 3-digit NAICS code. Based on the analysis, the majority of Laurens County's manufacturing is found in plastics, fabricated metal, and transportation equipment.

NAICS Sub Sector	2008 Emp	2013 Emp	Emp Change	Percentage Change
NAICS 321 Wood product manufacturing	657	413	(244)	-37.14%
NAICS 323 Printing and related support activities	219	274	55	25.11%
NAICS 325 Chemical manufacturing	225	219	(6)	-2.67%
NAICS 326 Plastics and rubber products manufacturing	1,049	1,490	441	42.04%
NAICS 327 Nonmetallic mineral product manufacturing	233	228	(5)	-2.15%
NAICS 331 Primary metal manufacturing	127	144	17	13.39%
NAICS 332 Fabricated metal product manufacturing	1,062	870	(192)	-18.08%
NAICS 333 Machinery manufacturing	167	35	(132)	-79.04%
NAICS 336 Transportation equipment manufacturing	-	639	639	639.00%
NAICS 337 Furniture and related product manufacturing	9	-	(9)	-100.00%

Sources: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages
U.S. Bureau of Labor Statistics, Quarterly Census of Wages

Industry Cluster Analysis

We analyzed Laurens County by industry cluster to take a closer look at those clusters where the Location Quotient (LQ) was greater than 1, indicating the County is producing more goods or services than it is consuming, therefore exporting and creating value. The industry clusters that have a Location Quotient greater than 1 include:

- Advanced Materials
- Apparel & Textiles
- Life Sciences
- Chemicals and Chemical Based Products (including Plastics)
- Energy
- Forest & Wood Products
- Primary Metal
- Fabricated Metal Products
- Machinery
- Transportation Equipment

Industry Description	QCEW Cluster - Establishments 2012	Industry Cluster Establishment LQ	QCEW Cluster - Employment 2012	Industry Cluster Employment LQ
Total All Industries	860	1	17,223	1
Advanced Materials	28	2.29	1,832	3.28
Agribusiness, Food Processing & Technology	7	0.54	307	0.78
Apparel & Textiles	6	1.02	211	2.51
Arts, Entertainment, Recreation & Vistor Industries	31	1.24	373	0.55
Biomedical/Biotechnical (Life Sciences)	37	1.17	1,765	0.93
Business & Financial Services	84	0.61	413	0.27
Chemicals & Chemical Based Products	18	2.99	1,824	7.36
Defense & Security	14	0.42	126	0.13
Education & Knowledge Creation	11	0.89	820	1.26
Energy (Fossil & Renewable)	48	1.26	533	0.68
Forest & Wood Products	16	2.73	651	4.07
Information Technology & Telecommunications	9	0.27	237	0.36
Transportation & Logistics	23	1.11	1,124	2.15
Manufacturing Supercluster	19	1.79	643	1
Primary Metal Mfg	2	6.71	34	1.33
Fabricated Metal Product Mfg	12	2.36	342	2.09
Machinery Mfg	4	2.09	70	0.63
Transportation Equipment Mfg	1	0.99	197	1.2
Mining	1	0.86	30	1.12
Printing & Publishing	15	0.83	234	0.87

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Evaluation of Current Regional Target Industries

We evaluated Laurens County and the Upstate Alliance’s current target industries to look at anticipated trends and forecasts for the next five years. This process was done to 1) validate the area’s existing targets; 2) identify promising sectors within the industries; and 3) prioritize the current targets for proactive marketing for Clinton.

Key Automotive Manufacturing Trends

- All manufacturers are expected to focus production on environmentally-friendly vehicles over the next 5 years.
- Hybrid and fuel-efficient cars will be the primary focus.
- The industry is steadily returning to growth with an average annual growth rate of 3.3% expected.
- Continued improvements in credit availability and disposable income will eventually encourage consumers to spend more on new vehicles.
- The industry fits well with Clinton’s assets as evident with existing industry.

Key Advanced Materials Trends

- Advanced materials are used in a variety of industries including automotive, aerospace, medical devices, construction, and others.
- Specific areas existing in Clinton include plastics, primary metals, and fabricated metal products.

Key Life Sciences Trends

- Health care reform and a focus on biologic drugs will drive demand in the industry.
- Contract pharmaceutical manufacturers will see growth in generics, due to patent expirations.

- The aging U.S. population will continue to drive growth within the industry, particularly for diagnostic products used to determine age related diseases.

Key Aviation/Aerospace Trends

- Reduced military spending will offset gains from the private sector
- Rising domestic and international demand for air travel will create strong demand for commercial aircraft and parts.
- Airlines will seek to replace older models with newer, fuel efficient models.
- A shrinking domestic defense market, coupled with an emphasis to control costs on the commercial side, will encourage companies to merge and consolidate.

Key Distribution Trends

- Strong manufacturing, wholesaling and retail trade will support industry growth, forecasted at 2.6% annually through 2019.
- There has been a shift towards vertically integrated logistics networks that provide a full range of supply chain solutions.
- The industry is seeing growth in developing innovative cost-reduction solutions through technology such as voice recognition, radio frequency identification (RFID) and other material handling activities.

Key Energy Trends

- Higher fuel prices will spur modest growth as global demand rises
- Operators will need to cope with the new costs of renewable fuel mandates, which will help bolster alternative energies like wind and solar.
- Tough environmental regulations will limit new refinery development
- Biofuels are expected to grow in importance over the next five years.
- Clinton, however, does not have a current site that would support a heavy industry like chemicals.

Economic Development Strategic Plan

"To improve is to change; to be perfect is to change often." - **Winston Churchill**

The Clinton Economic Development Strategic Plan brings together the vision of citizens, City Council, and economic development partners with best practices and vetted strategies into an actionable plan. Citizens were clear – they want to see investments to improve the community they love. City Council is clear too – they want to see a growing and thriving community. This Strategic Plan offers direction. It is important to capitalize on the momentum generated by the strategic planning process and put these words into action.

New Business Recruitment

The most effective tool Clinton can develop to recruit new business is product development. When Creative EDC interviewed regional and state economic development allies, each one cited product as the number one obstacle for new business development. There are no industrial buildings available in the City and no shovel-ready sites. Laurens County is well-known across the state for having an aggressive product development program. This is the most-often noted factor in their success. Clinton has the expertise in their partner, LCDC, and should use it to aid with product development.

Goal: Recruit new businesses to the City of Clinton.

Action Steps:

- Leverage LCDC and Upstate marketing with viable product. Laurens County and the Upstate Alliance have sophisticated external marketing programs and established marketing budgets. We recommend supporting their efforts by giving them something to market in Clinton. See the product development recommendations below.

- Map Clinton's under-utilized and vacant properties to identify opportunities for redevelopment in areas where infrastructure already exists. Include dilapidated buildings for redevelopment

Invest in Infrastructure and Product Development

Infrastructure and product development go hand in hand. Clinton has lacked sites with infrastructure, due diligence, and preparations to make shovel-ready. In the product development assessment performed as part of this study, we found that sewer capacity is lacking to some sites as well as extensions of water and sewer to other sites.

Goal: Focus resources on quality infrastructure extensions and site enhancements.

Action Steps:

- Water and sewer system enhancements and extensions should have areas near the interstate, business parks, and future business areas as priorities. One example is running sewer along Clinton 26 North at exit 54.
- Mow and maintain the Thomason II Site to aid with marketability.
- Develop a site plan for part of Clinton Corporate Center I and market the remainder for commercial development.
- Clear and grade a pad, install signage, and landscape the entrance of Clinton Corporate Center III.
- Upgrade telecommunications and sewer, forge an agreement with the owner of Clinton 26 North and South, and install quality signage and a rough-cut road.
- Construct a building pad in year 1, then a virtual building in years 2 - 3, and finally a spec building in years 4 - 5. We recommend location on 20 +/- acres in Clinton 26 North. Even though it did not score the highest of the sites reviewed, it is the best location for future growth. We recommend gas utility profits as a funding source.
- Remove Department of Transportation maintenance shed at the I-26 interchange to enhance Clinton 26 South.

Existing Business Support

Existing businesses make up approximately 75% of all new investment and job creation in a community. The recent CCL Industries announcement of a $30 million investment and 98 new jobs is a good example. LCDC has a business retention and expansion (BRE) program that helps companies grow locally. We recommend Clinton continue to be a strong partner in the BRE program by participating in regular company visits.

CCL Industries Inc.

Goal: Retain and Grow Existing Businesses

Action Steps:

- Survey existing businesses – in partnership with the LCDC BRE program – on City regulatory process. Troubleshoot hurdles faced by businesses. One of the most effective ways to help existing businesses is to remove regulatory hurdles.

- Continue to regularly participate in BRE visits with LCDC and other allies. These visits can make the City aware of expansion obstacles in time to help find a solution.

- Include visits to small businesses and others that may not be included in the LCDC BRE program to formalize the City's BRE efforts.

- Integrate the City's utility Key Accounts Program into BRE efforts. For example, the Key Accounts program identifies increases in and decreases in utility usage, which can indicate growth or contraction in a company.

Presbyterian College

Presbyterian College is the largest employer and largest utility customer of the City. It should be a key focal point of the City's BRE efforts. Often a community will focus its BRE program solely on manufacturing, when in fact; its largest employer may be an educational institution, as is the case in Clinton, or a hospital or other service industry. Presbyterian College has potential for growth by developing new programs and increasing enrollment. Clinton should actively work to keep expansions local.

Goal: Retain future expansions of Presbyterian College

Action Step:

- Include Presbyterian College in all BRE outreach efforts. Identify obstacles to future growth, such as expansion sites, student housing, and student lifestyle amenities.

Amenity Development

Clinton has many of the pieces needed to create the unique sense of place needed in vibrant small towns. It has unique historical structures, a concentrated downtown area, and young people living in and near downtown. The pieces need to be tied together, and linkages created, to further create a sense of a unique place.

Goal: Invest in amenities that impact the quality of life for citizens.

Action Steps:

- Support the development of a city-focused arts council that can be leveraged to work in partnership with the City and Presbyterian College. Joint projects could include a performing arts venue in downtown that could serve the needs of the college and attract student involvement. Other examples are the development of shared gallery space and community arts programs which could be partnerships with the college.

- Clinton has abundant natural resources to develop parks and recreation facilities that will not only service students and citizens, but also could be used to attract tourists and sporting events.
  - Plan for walking and biking trails that connect Presbyterian College to downtown and other areas of the City.
  - Several citizens commented on the importance of connecting Clinton to regional trail systems under development, such as the Swamp Rabbit Trail.
  - Develop sports facilities in partnership with Laurens and the college.
  - Enhance City gateways to better market the City. One example is to transform the interstate gateways. Clinton could become the “Gateway to the Upstate” thus connecting the area to the metro region.

- In small towns, libraries are a central hub for the community. Libraries offer programs that connect a community through cultural arts, educational programming, and technology. Our recommendation is to relocate the library to a downtown location. This will draw more people to downtown, furthering the vibrancy of downtown. The library could be expanded to include a technology/workforce development center and even business incubation space.

- The City does not have to lead all special events in the community, but it can be the catalyst to initiate events with partners. For example, working with the Chamber, newly-formed arts council, Presbyterian College, and Laurens County, the City can spin off new special events such as music in the park, galley crawls, progressive dining, public art exhibits, and others.

Education and Workforce Development

At Creative EDC, we believe that workforce development is the number one challenge in economic development. Whether you are in small town USA or an urban core, finding, retaining, and retraining talent is the number one issue of all companies. However, we recognize that the City of Clinton is not a leader of workforce development programs. The leadership role belongs to the schools and their stakeholders.

Goal: Focus on workforce development partnerships with allies to ensure a talent pipeline skilled and ready for work.

Action Steps:

- We recommend the City work in partnership with the schools and Laurens County to develop a similar video to one developed in Henderson County, N.C. Review the video at the following link: www.youtube.com/watch?v=SYRHwDmpb4Q A "Work in Laurens County" video could be a joint project with the schools to help change the perception of local careers.

- The schools are already adding additional career counselors to the high schools. This project is similar to one pioneered at Central Carolina Community College, Lee County, N.C. Currently, the ratio in Laurens County schools has been several hundred students to one counselor. The project seeks to add enough counselors to really make a difference with career pathway decisions for young people.

- Several respondents to the online survey cited the R.D. Anderson Applied Technology Center in Spartanburg as a best practice in technical education at the high school level.

Downtown, Small Business Development, and Entrepreneurship

Downtowns are the heart and soul of a community, and the foundation of downtowns is small businesses. Small business development programs are often led by chambers of commerce. Here we recommend a few initiatives the City can undertake to support small businesses, as well as investments in downtown that will make it an attractive location for business.

Goal: Focus on supporting new and existing small businesses.

Action Steps:

- More communities are using targeted downtown and small business incentives to encourage growth in the central business district. Continue a façade grant to enhance the esthetics of downtown and consider utility incentives for new and expanding small businesses.

- Many cities, Laurens included, establish downtown municipal service districts (special service districts in South Carolina) to generate revenue to reinvest in downtown. Examples of improvements that can be done with the revenue include streetscape improvements, pocket parks, signage, marketing of events in downtown, and beautification projects.

- Downtown development staff is desperately needed to implement downtown development and redevelopment programs. Many communities have a Main Street Coordinator, Downtown Development Manager, or other staff to focus on the priorities of downtown improvements.

- Revolving loan funds can be a useful tool for small business development. The loans are made to existing businesses that need capital for expansion or for new, start-up entrepreneurial ventures. Often seed funding for the loan program can be obtained through a grant.
- Engage the recommended newly-formed arts council to create window displays for vacant buildings to support downtown.
- The City economic development staff should formally maintain an inventory of retail, service, and small business properties. This is done informally now, but a more formal system will aid small businesses in finding suitable space.

Leveraging Partners

Economic development is a team sport, not an individual one. When a company locates in Laurens County it benefits Clinton, Laurens, and the whole Upstate. It is rare when next-door communities compete for businesses. Most likely, your competition is in another state or region. We have developed a new phrase in economic development that describes our kind of positive competition – coopetition. We are most often cooperating partners rather than competitors.

Goal: Focus on leveraging partnerships through positive competition.

Action Steps:

- Looks for ways to include partners in projects such as workforce development, arts and cultural amenities, sports facilities, etc.

Internal Communications

Every person we spoke with in the course of this strategic planning project said that Clinton needed to tell its own story. Too often negative press and naysayers get the most attention when, in fact, the majority of news to tell is positive.

Goal: Tell the Clinton story.

Action Steps:

- Create a position for a City public information officer, or contract public relations services, or designate an existing staff person as the public information officer. Someone needs to be responsible for telling the Clinton story. Tell it in traditional media, eblasts, and social media.

  - Maintain the city Facebook page with current information.
  - Create LinkedIn groups for areas businesses and committees involved with economic development.
  - Utilize Twitter for community events.

- The City would benefit from a main web portal which include citizen services, a community calendar, and tourism information. It could become a communications hub for "What's Up in Clinton," a community website used in many communities.

- Update the City's economic development website with more information on the About Us page that sells Clinton, and link to LCDC.

- Post the strategic plan on the city website to maintain support.

- Post videos now on the City website on You Tube.

Organizational Development

This strategic plan is meant to be implemented over a five year period. In order to accomplish the action steps, the City must commit resources, both financial and staff.

Goal: Dedicate adequate financial and staff resources to implement the strategic plan.

Action Steps:

- Many of the action steps will require staff time. We have recommended the creation of staff for downtown development, recreation, and public information. For the short-term, some of these duties could be assigned to existing staff; however, it has been our experience that there is no unused staff capacity. Thus, it will be necessary to increase staff capacity soon.

- We recommend that the City's Community and Economic Developer focus on implementing the strategic plan and reassign other duties to other City staff. The position has, in some ways, become a catch-all, which dilutes the effort on community and economic development.

- With some organizational modifications, the Clinton Economic Development Corporation can take on overseeing implementation of this strategic plan. We recommend the following:
  - Reduce the board size to approximately 12 - 15.

- Add 2 - 3 members of City Council to the board for communication back to the City.
- Add permanent seats for the school district, Presbyterian College, and Laurens County.
- Broaden the CEDC to become an economic development tool and an agent for the City in matters of development and redevelopment.
- Formalize the CEDC as an economic development advisory board to the City of Clinton. Request the organization approve the strategic plan and lead implementation. CEDC should report annually on its progress to the City.

Implementation

The strategic planning process often creates pent-up demand for action, immediate action. It is important to note here that implementation of a long-range strategic plan should be tackled over time. We present the action steps, broken out by year of recommended implementation. Some items cannot be accomplished in one year and others can be done in a few weeks. Creative EDC recommends the Clinton Economic Development Corporation develop an annual plan of work, taking a few items from the strategic plan each year for implementation.

Strategic Plan Implementation Timeline

	Year 1	Years 2 - 3	Years 4 - 5
New Business Recruitment	Focus on product development	Focus on product development	Focus on product development
	Leverage LCDC and Upstate Alliance for external marketing	Leverage LCDC and Upstate Alliance for external marketing	Leverage LCDC and Upstate Alliance for external marketing
Product Development & Infrastructure		Site plan for Clinton Corp. Center I	
		Grade a pad, signage, landscaping Clinton Corp. Center III	
	Pad-ready site	Virtual building	Spec building construction at Clinton 26 North
			Upgrade telecommunications and sewer at Clinton 26 North and South
			Relocate DOT maintenance facility
Existing Business Support	Survey of business needs Develop City BRE program		
	Continue to participate in county BRE program	Continue to participate in county BRE program	Continue to participate in county BRE program
	Integrate Key Accounts program into BRE	Integrate Key Accounts program into BRE	Integrate Key Accounts program into BRE
Presbyterian College	Recruit future expansions	Recruit future expansions	Recruit future expansions

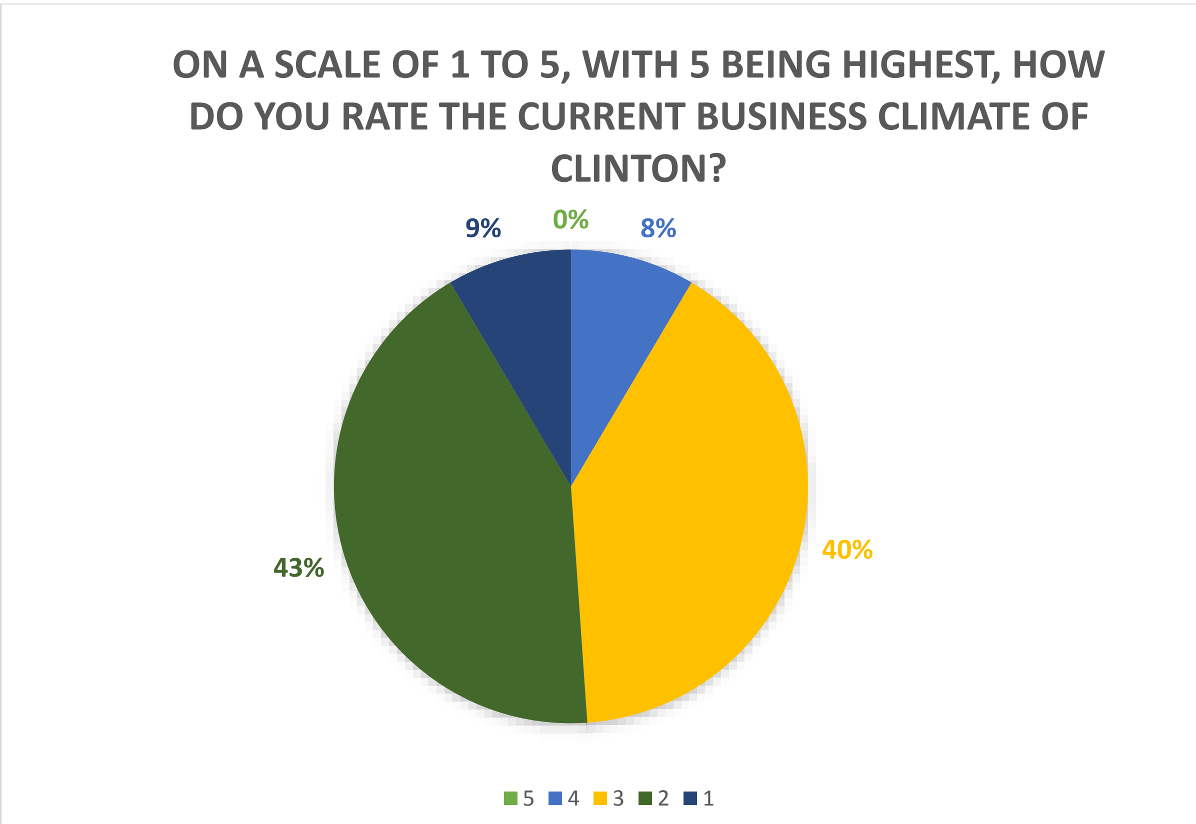
Amenity Development	Support the creation of an arts council for joint projects such as arts venues in downtown.		
		Parks and recreation facility development	
		Relocate library to downtown and expand services.	
	Special events in partnership with allies (music, art, festivals)	Special events in partnership with allies (music, art, festivals)	Special events in partnership with allies (music, art, festivals)
Education and Workforce Development	"Work in Laurens County" video		
	Support expanded career counselors in schools	Support expanded career counselors in schools	Support expanded career counselors in schools
			Explore technical high school like RD Anderson Applied Technology Center in Spartanburg
Downtown, Small Business, and Entrepreneurship	Downtown development staff	Special service district, downtown business incentives	Revolving loan fund
	Inventory downtown properties		
Leveraging Partners	Develop positive co-opetition with Laurens and Laurens County	Develop positive co-opetition with Laurens and Laurens County	Develop positive co-opetition with Laurens and Laurens County
Marketing and Communications		Public information officer	
		City web portal	
Organizational Development	Increase staff capacity	Increase staff capacity	
	Focus the Community and Economic Development position on strategic plan implementation		
	Restructure Clinton Development Corporation and lead strategic plan implementation	Restructure Clinton Development Corporation and lead strategic plan implementation	Restructure Clinton Development Corporation and lead strategic plan implementation

The budget for Year 1 is estimated to be approximately $455,000 with the majority, $385,000, allocated for the spec building pad. Years' 2 - 3 budget is projected to be $655,000 and includes adding a staff position for public information, a graded pad in Clinton III, and a parks and recreation master plan. It does not include the cost of a new library facility. The budget for Years 4 - 5 can range from $1.5M up depending upon spec building construction and infrastructure extensions. There may be grants or other funding opportunities for some items.

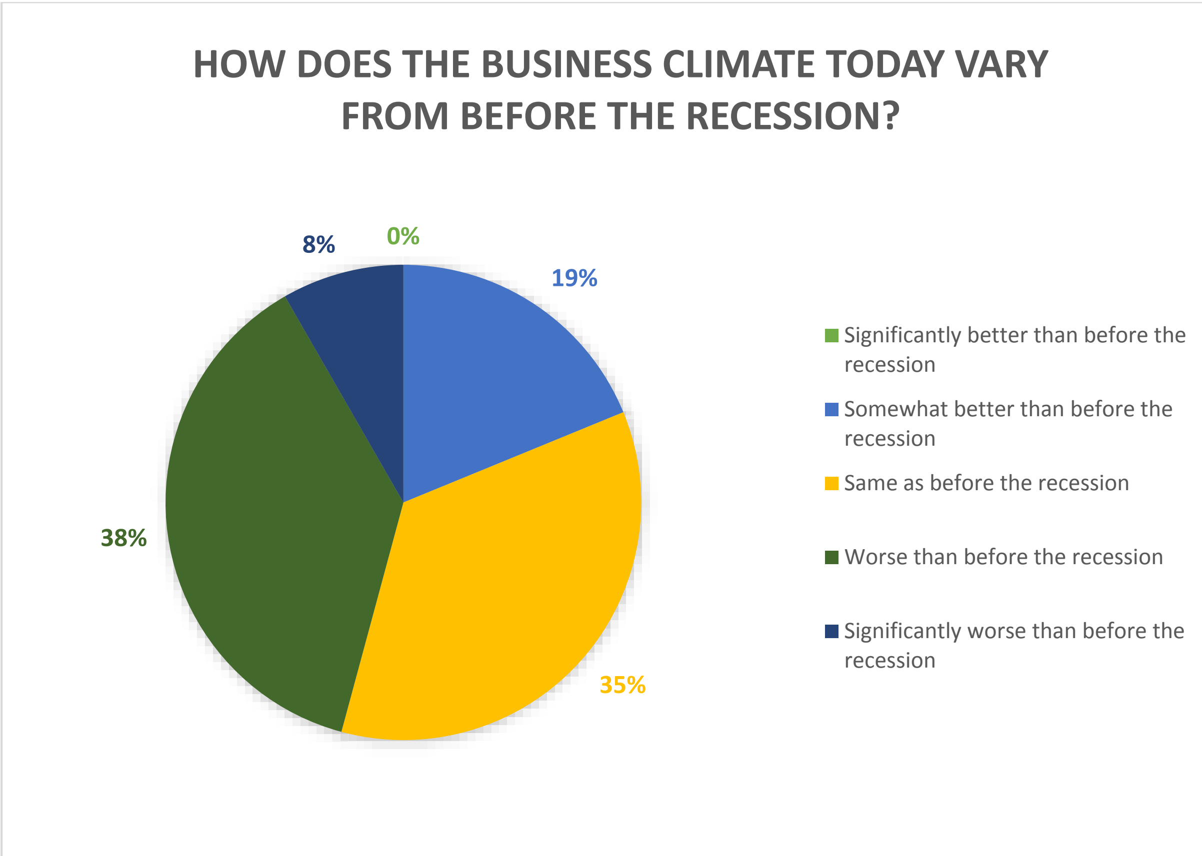
Appendix A: Survey Results

Creative EDC developed a community survey to gather citizen input into the economic development strategic plan. The survey was available online and was promoted via the City of Clinton website.

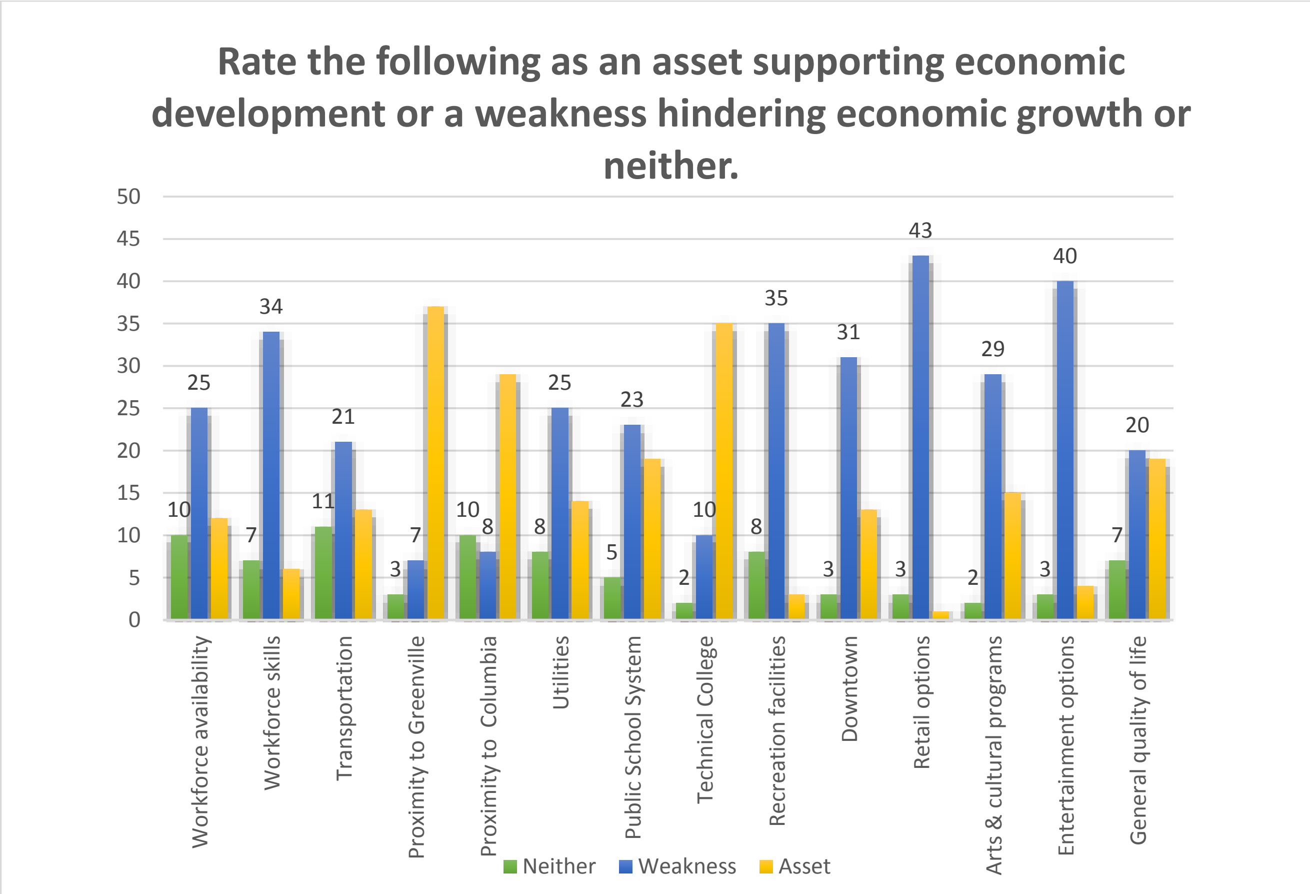
On a scale of 1 to 5, with 5 being highest, how do you rate the current business climate of Clinton?



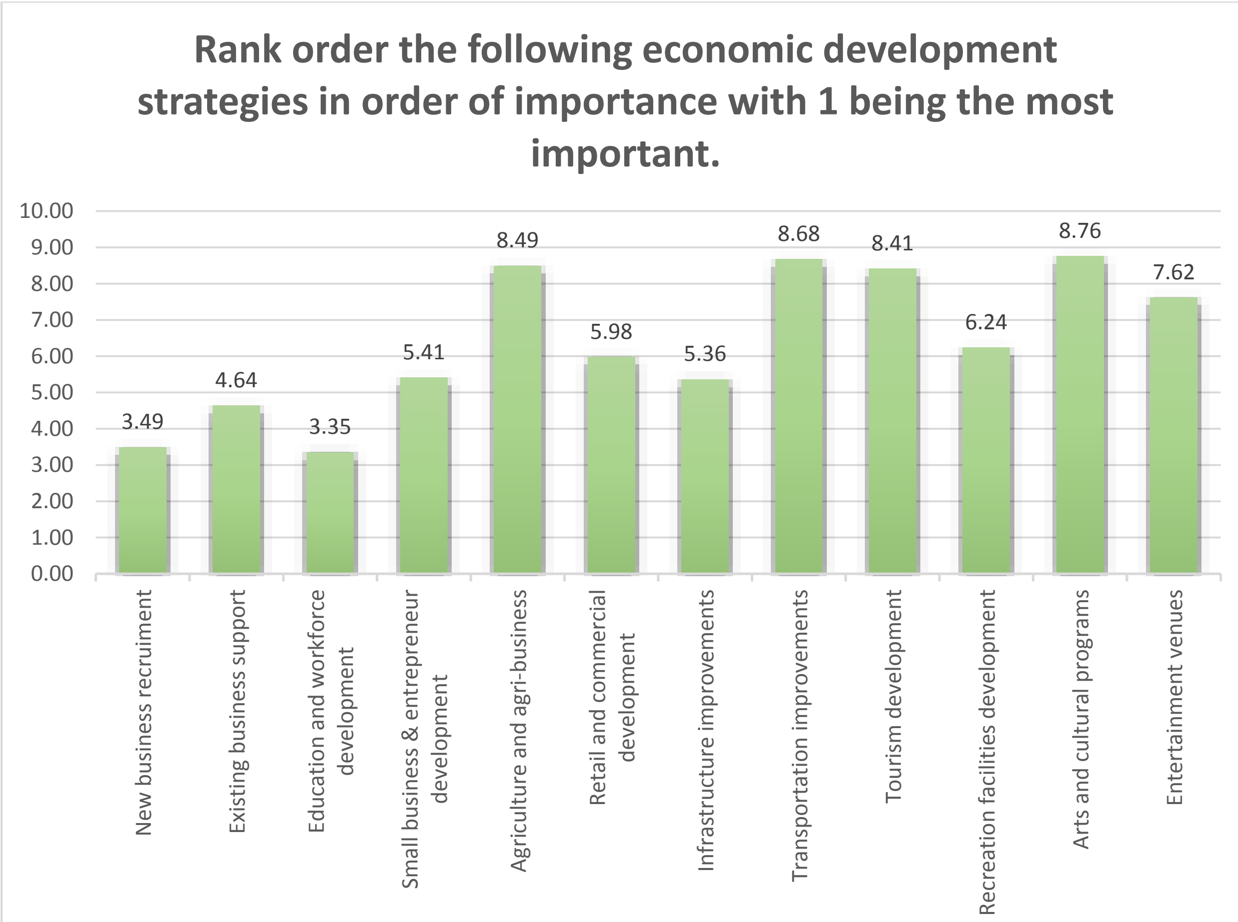
How does the business climate today vary from before the recession?



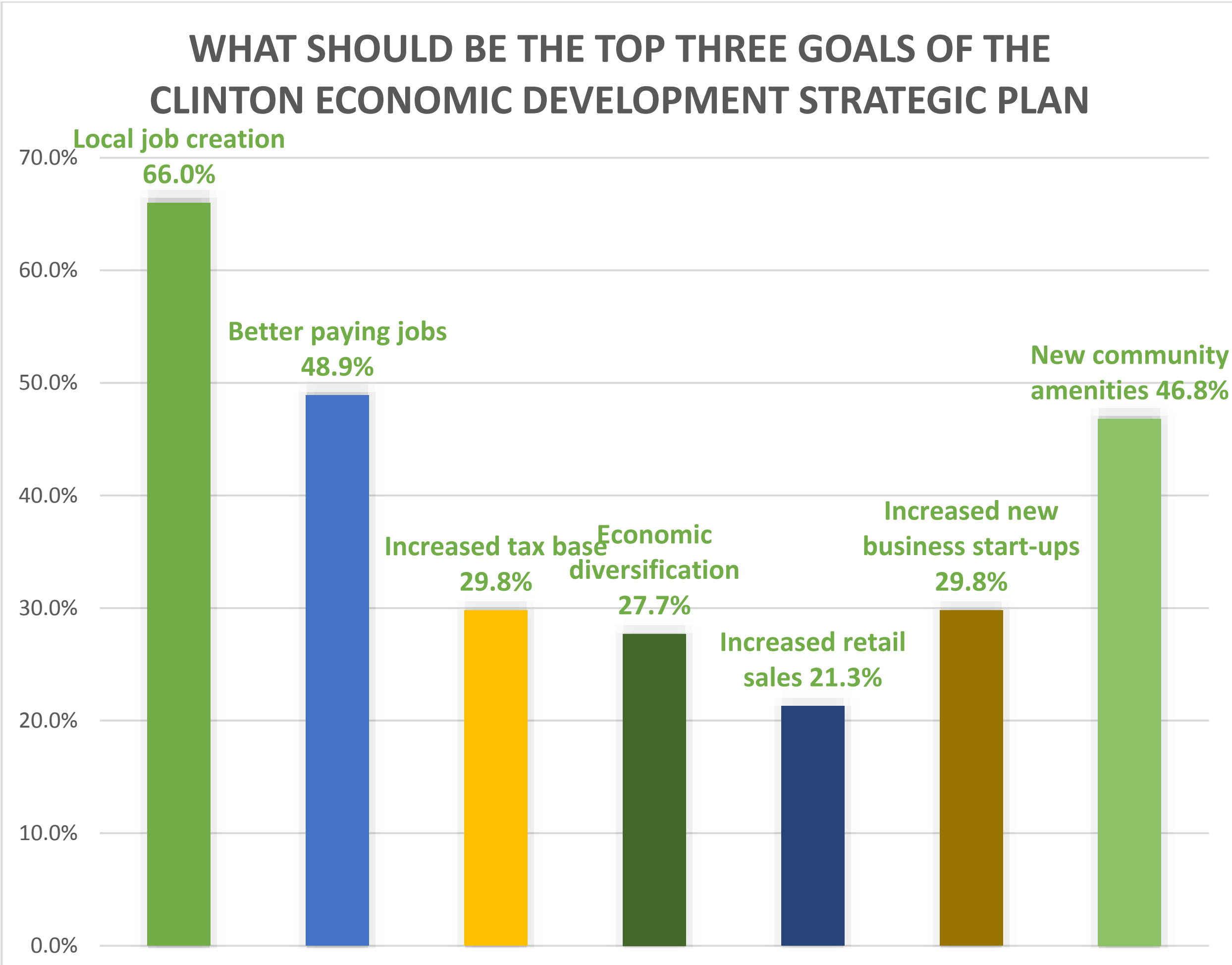
Rate the following as an asset supporting economic development or a weakness hindering economic growth or neither.



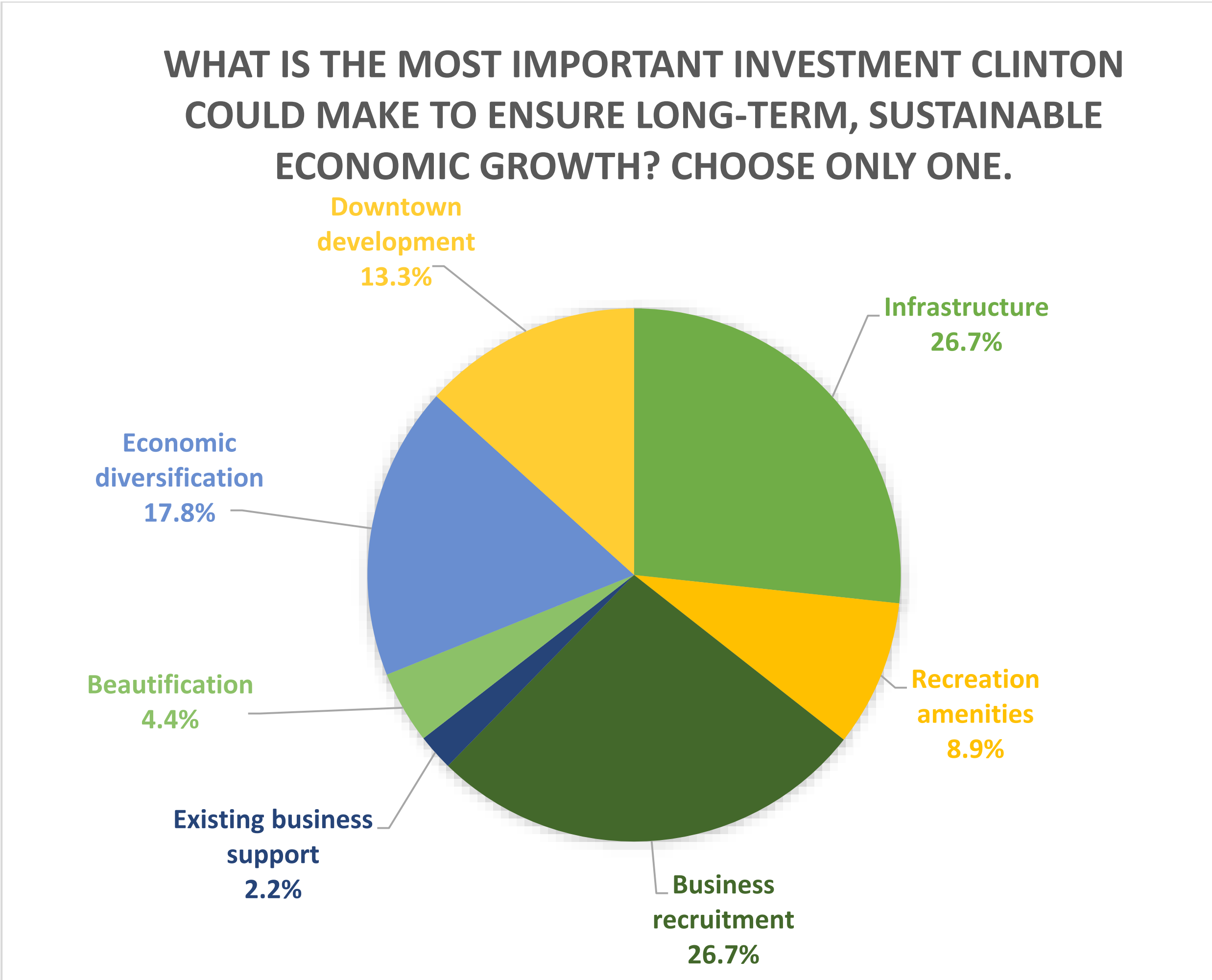
Rank order the following economic development strategies in order of importance with 1 being the most important. Note: The list will re-order as you rank.



What should be the top three goals of the Clinton economic development strategic plan? CHOOSE THREE.



What is the most important investment Clinton could make to ensure long-term, sustainable economic growth? CHOOSE ONLY ONE.

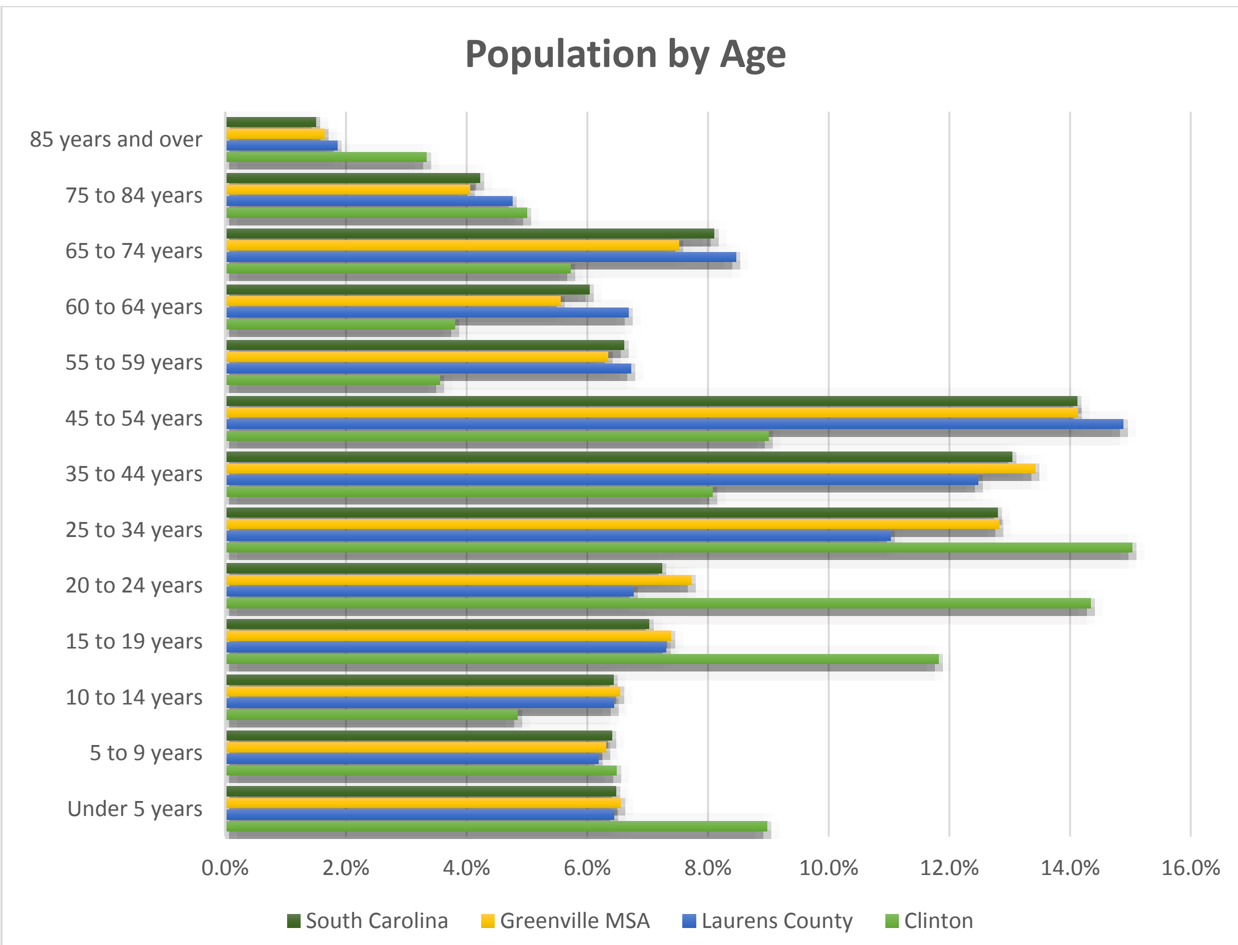


Appendix B: Economic and Demographic Data

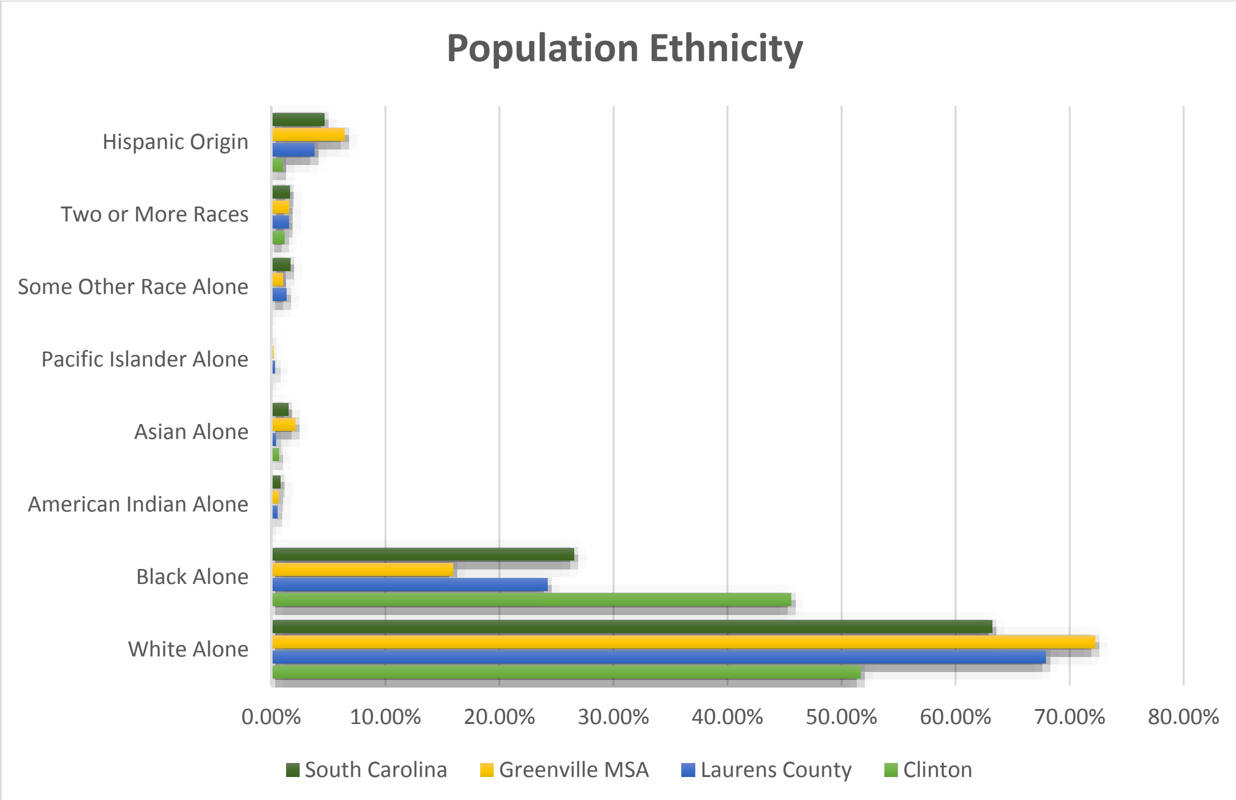
Population

Location	2000	2010	% Change 2000 - 2010	Most current/2012
Clinton	8820	8,490	-3.74%	8,503
Laurens County	69567	66,537	-4.36%	66,234
Greenville MSA	559940	636,986	13.80%	638,721
South Carolina	4,012,012	4,625,364	15.29%	4,723,417

Source: US Census

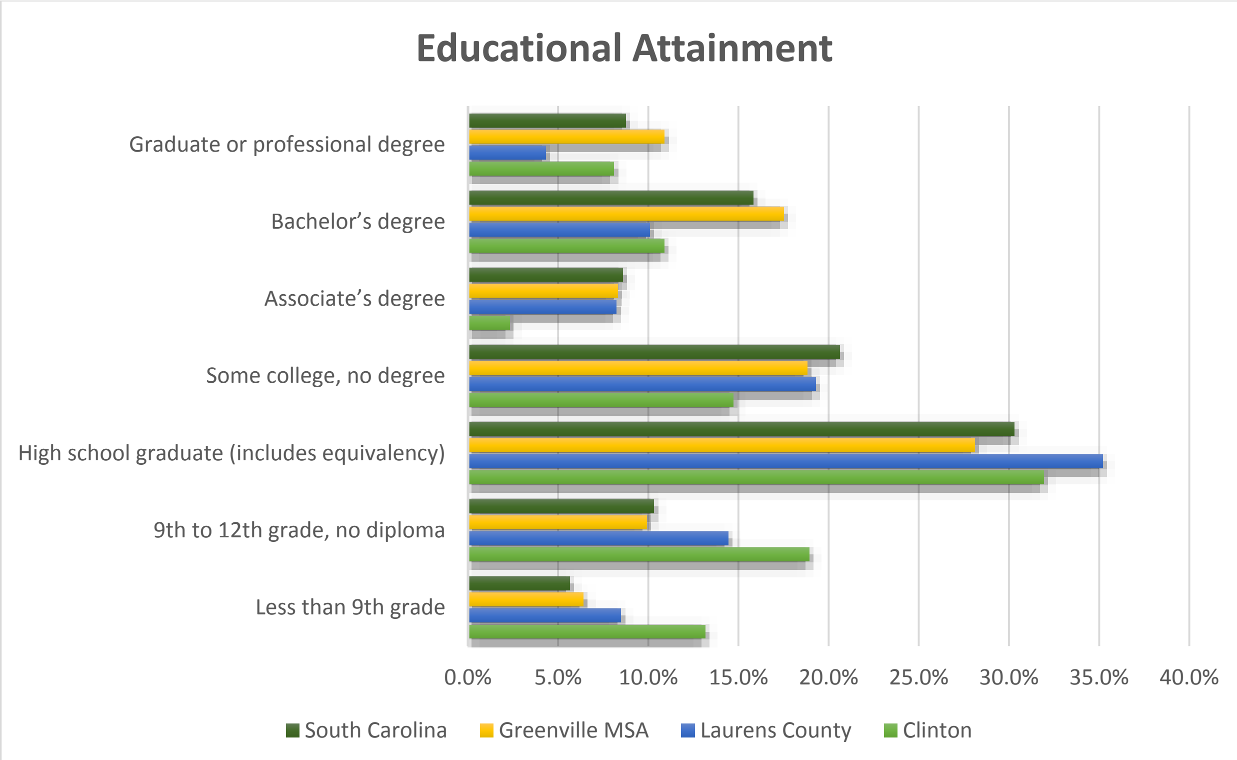


Source: U.S. Census

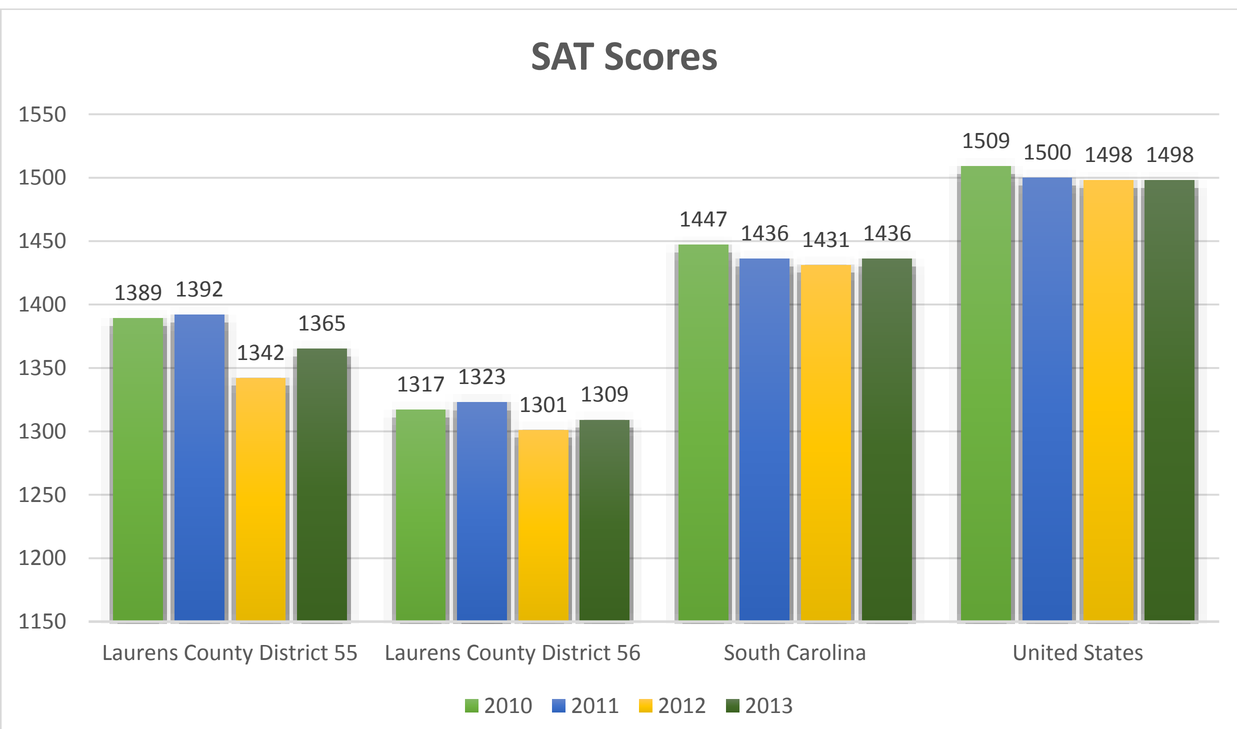


Source: U.S. Census

Education

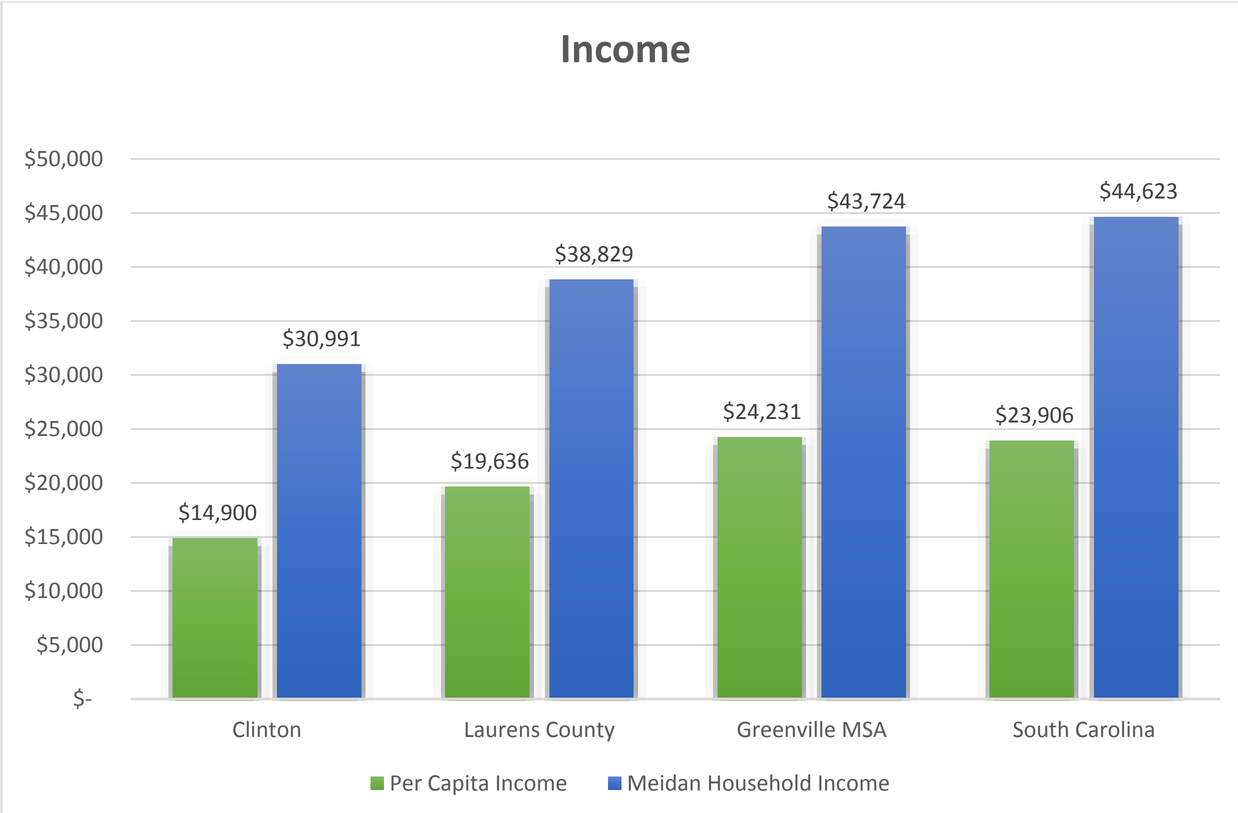


Source: U.S. Census

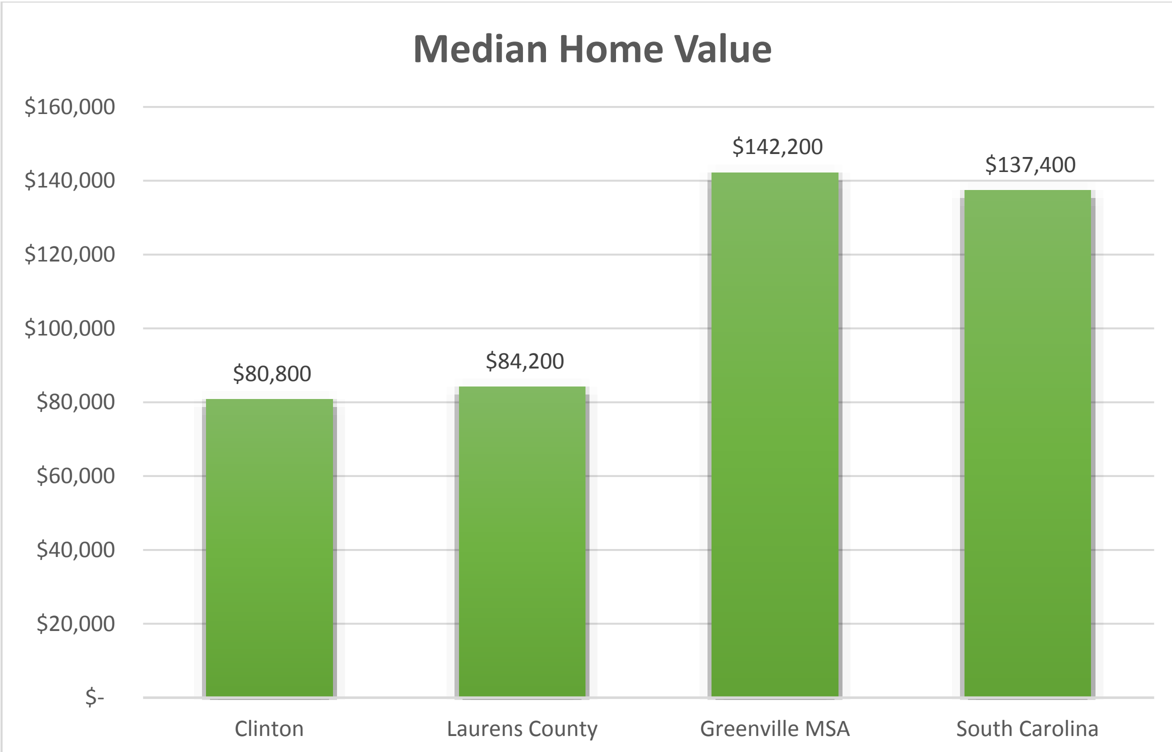


Source: U.S. Census

Income



Source: U.S. Census

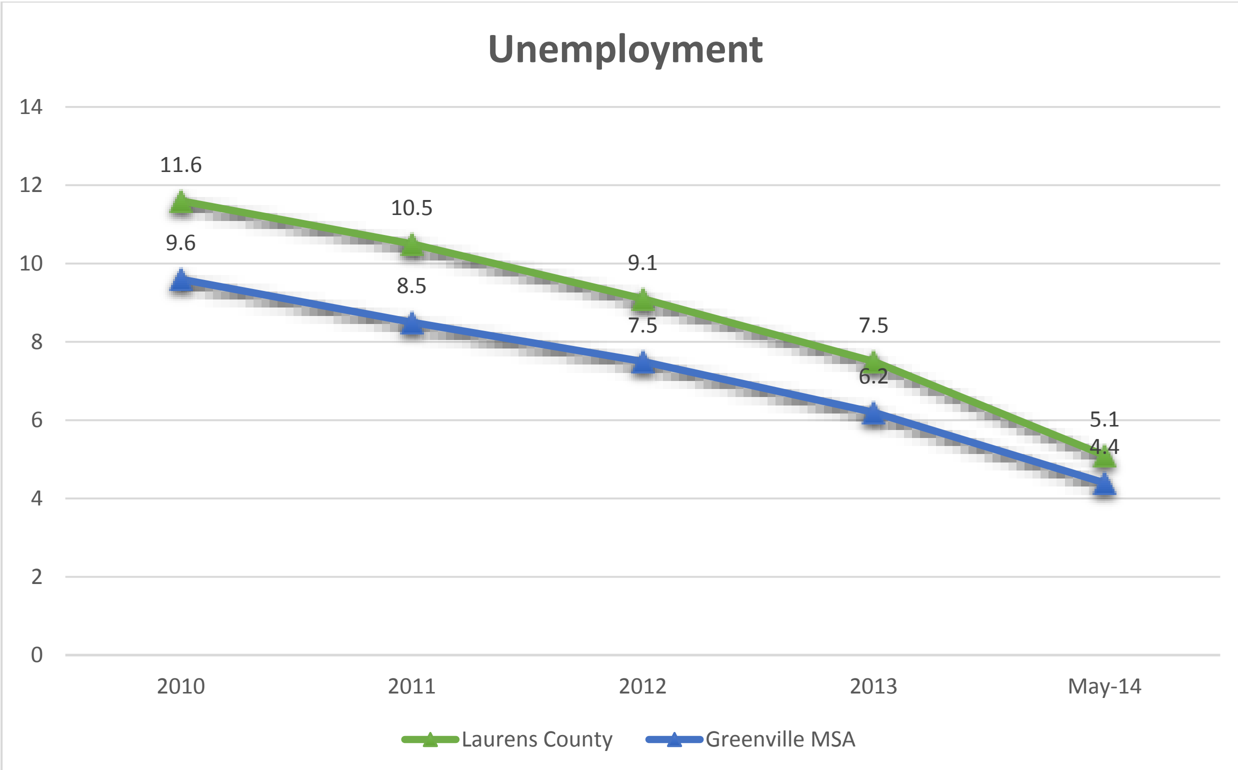


Source: U.S. Census

Labor Force

Location	2010	2011	2012	2013	May 2014
Laurens County	30,847	30,785	30,045	29,953	29,945
Greenville MSA	313,880	218,644	316,515	317,040	318,754

Source: Bureau of Labor Statistics



Source: Bureau of Labor Statistics

Employment by Industry

Industry	2010	2011	2012	2013
Total, All Industries	16,794	17,228	17,223	18,571
Total, Private	12,878	13,483	13,474	14,756
Goods Producing	5,049	5,635	5,233	6,277
Natural Resources and Mining	110	431	89	81
Construction	412	409	415	447
Manufacturing	4,527	4,796	4,728	5,749
Service Providing	7,829	7,847	8,241	8,479
Trade Transportation and Utilities	2,973	2,972	3,117	3,273
Information	297	298	275	138
Financial Activities	33	299	278	288
Professional and Business Services	795	818	1,198	1,374
Education and Health Services	1,774	1,728	1,754	1,833
Leisure and Hospitality	1,247	1,447	1,305	1,311
Other Services	430	286	315	262
Unclassified Establishments				

Source: Bureau of Labor Statistics

Wages

Industry	2010	2011	2012	2013
Total, All Industries	$629	$635	$655	$684
Total, Private	$631	$634	$655	$689
Goods Producing	$785	$764	$819	$859
Natural Resources and Mining	$751	$423	$662	$735
Construction	$635	$668	$653	$639
Manufacturing	$799	$803	$836	$878
Service Providing	$533	$541	$550	$562
Trade Transportation and Utilities	$590	$600	$612	$624
Information	$913	$935	$944	$795
Financial Activities	$611	$664	$631	$632
Professional and Business Services	$490	$473	$482	$560
Education and Health Services	$622	$658	$655	$661
Leisure and Hospitality	$235	$235	$245	$246
Other Services	$388	$427	$468	$495
Unclassified Establishments	$0	$0	$0	$0

Source: Bureau of Labor Statistics

Closings and Layoffs

Employer Name	Location	SIC	Major Product	Eff Date	Jobs Lost	Closing or Layoff
PAPS	Gray Court	34	Ornamental Iron/Aluminum	2009	8	Closing
US Fibers	Laurens	28	Ornamental Iron/Aluminum	2009	15	Closing
Asten	Clinton	22	Papermakers'wet felt	2010	3	Layoff
Toptec	Fountain Inn	5	Tents and related products	2010	31	Closing
Emitec	Fountain Inn	34	Catalyic Converters	2012	10	Layoff
Fanzi Screw	Clinton	34	Extrusion Screws	2012	3	Closing
Fisher Barton	Fountain Inn	34	Metal stampings & Welded assemblies	2012	10	Layoff
Jostens	Laurens	22	Cap & Gowns	2013	63	Layoff
Total					**143**	

Source: Laurens County Development Corporation

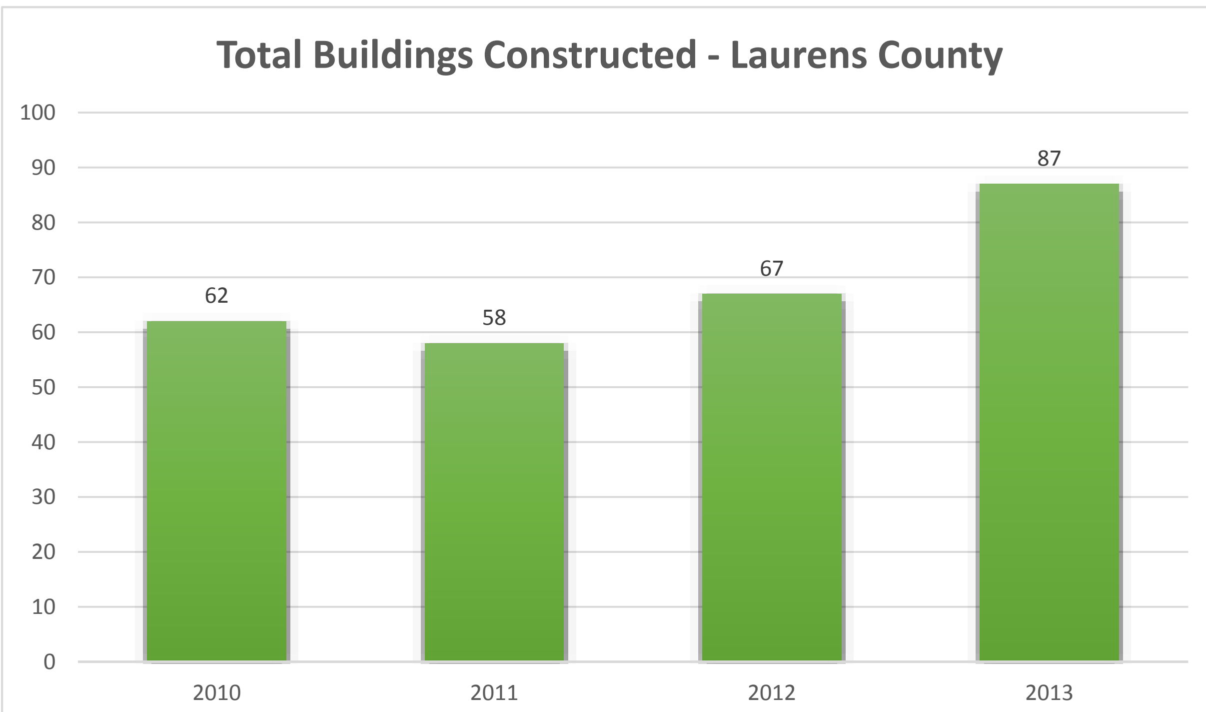
New Business/Expansion for Laurens County, SC

Company	Jobs	Investment	Year
ZF Group	450	175M	2013
Alupress AG	57	$19.9M	2013
FlameSpray	45	$9.1M	2013
CeramTec North America Corporation	40	$13.2M	2014

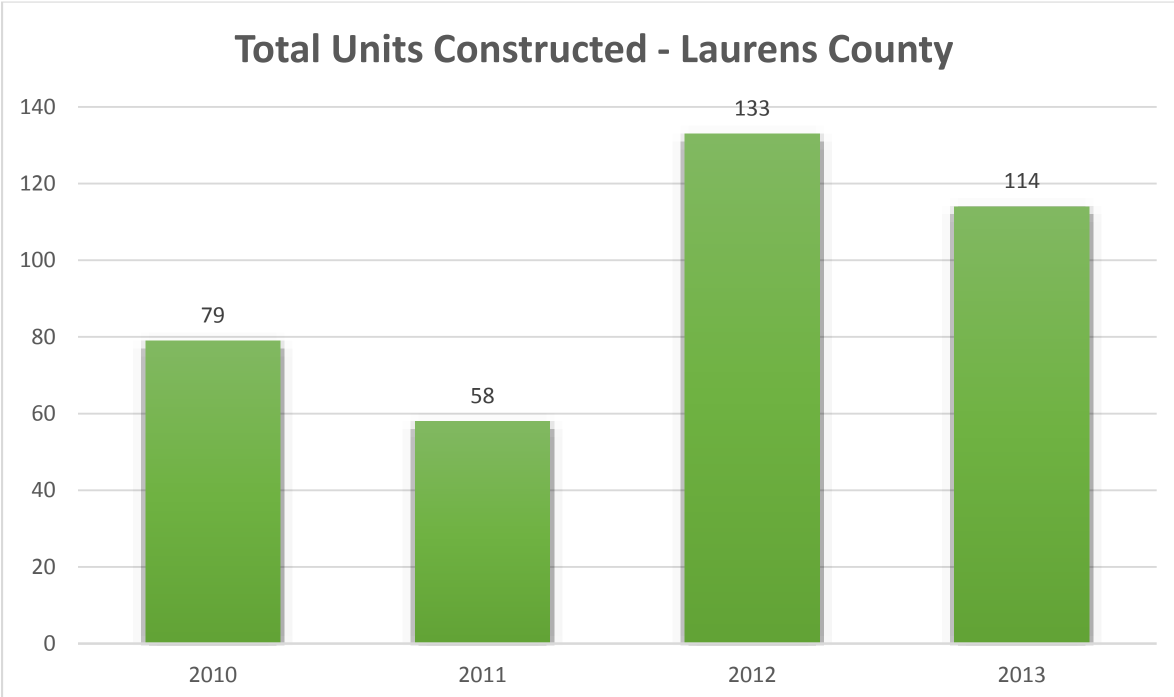
Source: Bureau of Labor Statistics

Building Permits

The City of Clinton had a total of $23,009,630 in new building construction as registered by new building permits from 2010 – 2014.



Source: U.S. Census



Source: U.S. Census

Largest Employers for Laurens County, SC
ACCUFORCE HR SOLUTIONS LLC
ANDERSON HARDWOOD FLOORS INC
ASTEN JOHNSON, INC
D & W FINE PACK LLC
FAURECIA INTERIOR SYSTEMS INC
FEHRER SOUTH CAROLINA LLC
JOSTENS INC
LAURENS COUNTY
LAURENS COUNTY DISABILITIES & SPECI
LAURENS COUNTY HEALTH CARE SYSTEM
LAURENS COUNTY SCHOOL DISTRICT #55
LAURENS COUNTY SCHOOL DISTRICT #56
MARATHON STAFFING INC
NATIONAL HEALTH CORPORATION
PRESBYTERIAN COLLEGE
PRESBYTERIAN HOME OF SC
SC DEPT OF DISABILITIES & SPECIAL N
STERILITE CORPORATION
TEKNOR APEX COMPANY
WAL-MART ASSOCIATES INC

Source: Laurens County Development Corporation

Appendix C: Product Assessment

Introduction

The City of Clinton launched an economic development planning process in June 2014 to create a vision for long-term, sustainable economic growth. Creative Economic Development Consulting was engaged by the City of Clinton to facilitate the economic development strategic plan. The scope of work includes a SWOT analysis (strengths, weaknesses, opportunities, and threats), economic profile, product assessment, and target industry analysis. The strategic planning project is underway and will be complete in September.

This Product Assessment is an interim report. As an interim report, we caution against drawing conclusions about the overall strategic plan while it remains under development. This report only addresses an evaluation of sites, parks, and buildings, and recommendations for speculative (spec) building development. It does not address marketing, target sectors for recruitment, or other important elements to a successful economic development program. Economic development is much more than real estate, and we look forward to addressing the full picture in the strategic plan.

Product Assessment

In the field of economic development, there is an old adage – you cannot sell from an empty wagon. It refers to the need to develop sites and buildings in order to attract new and expanding companies. Even though today most companies make a final site location decision based on labor force, often what initially attracts a company to a community is real estate. Companies will search for buildings within a specific square footage range or sites within a range of acres. Having quality product (sites, parks, buildings) is the first step to getting in the site selection matrix.

Due to the Great Recession, the industrial real estate market was flooded with industrial buildings as companies closed and downsized. Throughout the economic recovery, we have seen companies focus on existing buildings, given advantageous purchase and lease prices.

Now building inventories are shrinking as the economy picks up. At the same time, speculative development has been slow to return. This situation has resulted in an increase in inquiries for available sites as well as heightened interest in the few remaining quality buildings available. Now is a good time for Clinton to focus on site and spec building development. The economy is growing and there are fewer available buildings on the market. Companies are looking for spec buildings and prepared sites.

Sites and Parks

As noted above, recently there has been an increase in the number of companies searching for sites. However, the overwhelming majority of new and expanding companies (65% +/-) still request a building due to cost savings, lower risk, and shorter time frame to become operational.

Creative EDC reviewed available sites and parks in the Clinton area. The following sites and parks are listed on the S.C. Department of Commerce website and featured on the Laurens County Development Corporation website's list of parks and sites. There may be additional vacant land that may be appropriate for industrial or business development; however, we reviewed the sites and parks that are currently marketed.

Available Sites in Clinton

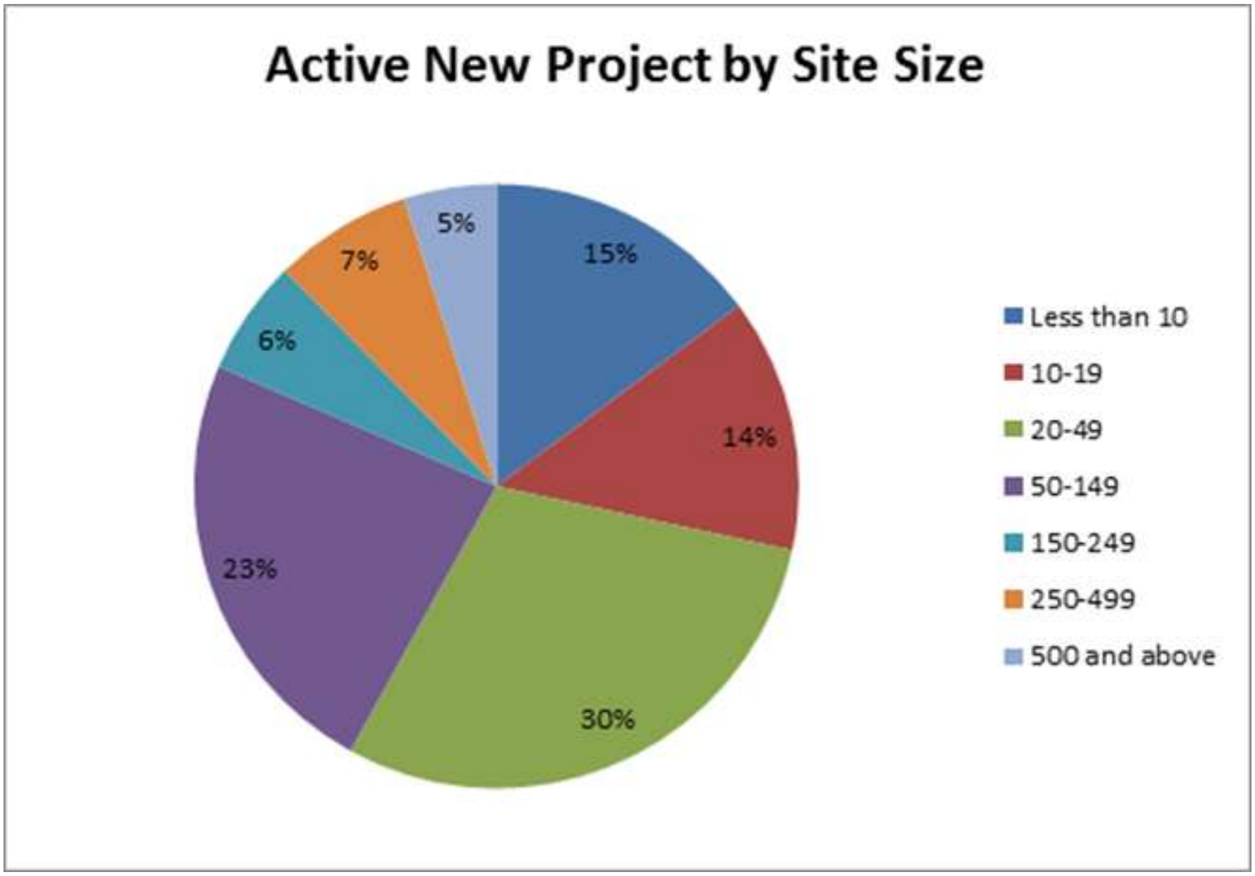
Site Name	Acreage	Price	Features	
Anderson Farm Industrial Site	24.07	$10,000 per acre	Preliminary geotechnical	Phase 1 EPA Site Assessment
Clinton 26 Corporate Park: North	404	$20,000-$30,000 per acre		
Clinton 26 Corporate Park: South	56	$20,000-$30,000 per acre		
Clinton Corporate Center I	40	$15,000 per acre		
Clinton Corporate Center III	200.55	$15,000 per acre		Completed Due Diligence Items 7 out of 8 (Wetlands Delineation incomplete)
Clinton Sycamore Site	441.90	$25,000 per acre	Wetlands Approximation	
Thomason II Industrial Site	108.40	$10,000 per acre		

Source: S.C. Department of Commerce

In order to analyze how the Clinton site and park inventory stacks up with prospect inquiries, Creative EDC gathered state-level site inquiry data. The S.C. Department of Commerce tracks site inquiries by the amount of acreage requested by the new or expanding business.

The majority of inquiries were for sites in the 20 - 49 acre category, followed by sites in the 50 - 149 acre category. The fewest inquiries were for sites above 150 acres.

The data reinforces the trend in economic development projects, which is that the majority are small to medium sized. The very large projects are few and far between. Laurens County has been fortunate to land significantly large projects in recent years but the overall trend is for small to medium sized expansions and locations.

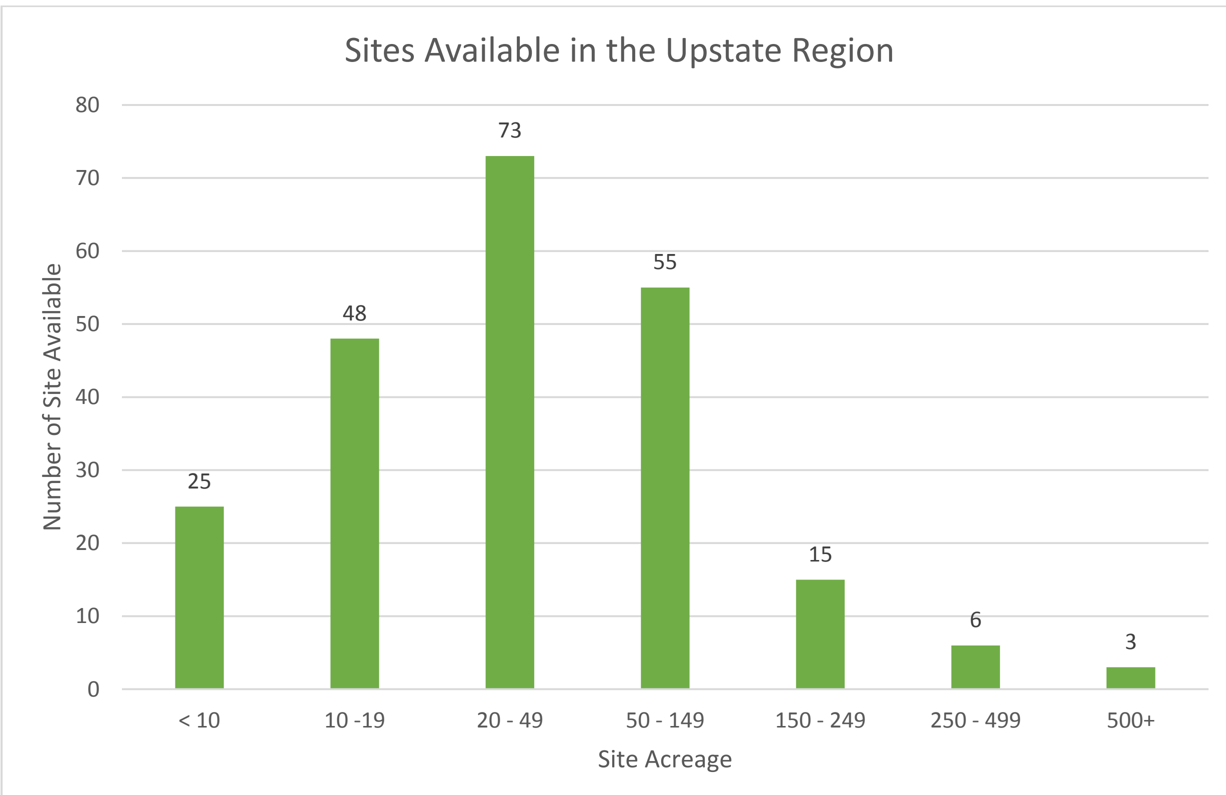


Source: S.C. Department of Commerce

Upstate Alliance Regional Site Inventory

Creative EDC researched the Upstate Alliance regional inventory of available sites and parks. The ten-county region includes Laurens County and Clinton. The regional site inventory is important because often a project will begin a location search with specific regions under consideration such as Greenville, Charlotte, and Atlanta along the I-85 corridor. As the site selection process progresses, the company will eventually narrow site choices to focus on sites within a specific county or city. In order for Clinton to develop product that will attract projects considering the Greenville region, it must understand the regional inventory.

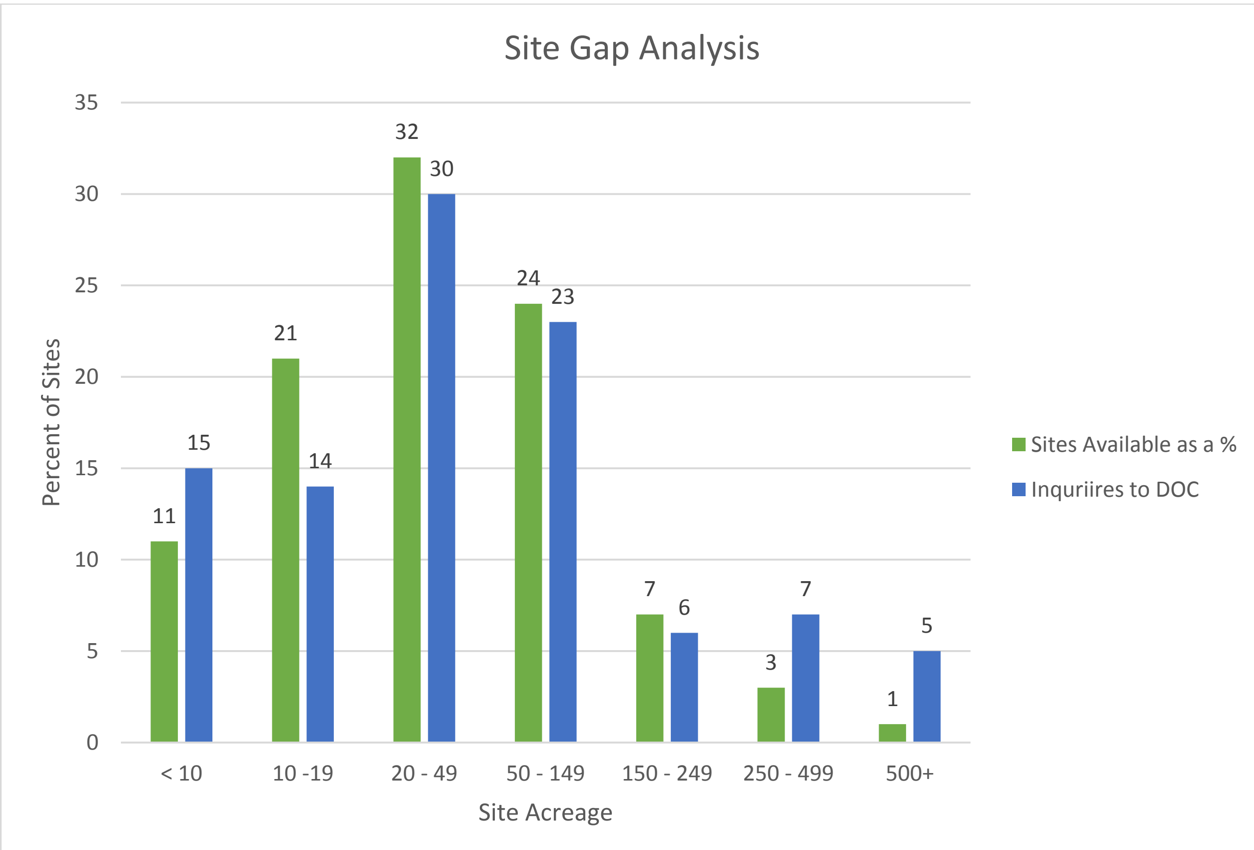
In the region, the 20 - 49 acre category has the most sites available, followed by the 50 – 149 and 10 - 19 acreage categories. There are only nine sites in excess of 250 acres in the region.



Source: S.C. Department of Commerce

Site and Park Gap Analysis

Creative EDC placed site inquires at the state level by percent against available sites in the region by percent in order to analyze potential gaps in the inventory. Overall, there are more inquiries for smaller sites and fewer inquiries for larger sites. There are more inquiries than sites, as a percentage, for small sites and large sites. The middle categories of site acreage are on par with site inquiries. Based on this rough analysis, communities should focus on marketing small sites and large acreage sites, such as Clinton's large acreage parks.



Source: Creative EDC Analysis based on S.C. Department of Commerce data.

Recommended Site Improvements

Creative EDC toured each site and park with the City of Clinton Director of Community and Economic Development and completed a desktop GIS review. We evaluated each location with our proprietary site assessment tool, **CreativeSiteAssessment.com**. Our team interviewed Laurens County Development Corporation about prospect activity, why sites have been eliminated in the past, and current trends in site location activity. In addition, we incorporated what we have learned from the Department of Commerce, real estate brokers, and industry representatives. The recommended site improvements below are based on this body of research and our own experiences developing sites and leading site location projects.

Sites Inside Clinton City Limits

Clinton Corporate Center I – This park scored the lowest of all sites, and significantly lower than Clinton Corporate Center III, because it is farther from the substation, lacks rail, and lacks some due diligence.

This site, even though zoned for industrial use, is along a commercial corridor. It would require significant grading on part of the site to accommodate an industrial development. Some of the acreage is adjacent to a hotel/restaurant development. The acreage near the hotel development can be promoted to commercial developers. Clinton serves the site with water, sewer, and electric. Sewer capacity in this area needs improvement. The 432,000 gallons of excess capacity is insufficient. This is the case for Clinton III and Clinton 26 North and South.

Clinton Corporate Center III – This site was certified by McCallum and Sweeney, but the certification status was not renewed. The primary reason given was that the site is too close to a school. Even though certification was not renewed, we recommend keeping the due diligence up to date, meaning that if any land is disturbed, renew the Phase 1.

The park scored the highest of all of Clinton's parks in our Creative Site Assessment evaluation. Due to the access route and other proposed industrial development in the area, we believe this park has potential for light manufacturing and assembly. We would not recommend siting a heavy industry or large distribution facility. However, this park has been promoted for ten years with no activity. If industrial activity does not occur on or near this site within two years, we recommend Clinton consider other development options.

There is an industrial development under consideration for this general area. If that development takes place, we recommend clearing and grading a pad in Clinton III. We recommend a pad of approximately 30-40 acres. The park would also benefit from signage and entrance landscaping. The latter is relatively inexpensive and would make the park show better. Currently, the entrance road does not signify this is a premier business park. Clinton serves the site with water, sewer, and electric.

Clinton 26 Corporate Park North – Our team really likes this park. It is near I-26. Halfway inside the City, it is served with municipal water, sewer, and partial electric. Water is at the site and sewer is very close. We recommend it for the spec building development discussed below. Even though it was not the highest scoring site, it has the most potential for future development. To improve this property, we recommend extending sewer the 686 feet so it can be listed as "on site."

Telecommunications infrastructure needs improvement. There is currently only copper service to Clinton 26 North and South, whereas the other sites and parks are served with fiber. This is a significant gap. There is fiber across the interstate. We recommend working with the telecommunications provider to extend service. In the meantime, engineer a plan to include a timetable to extend service. It will be important to show prospects you have a plan and timeline for telecommunications improvements.

As mentioned with the other parks in this area, sewer capacity needs improvement. The excess capacity is insufficient for long-term industrial development. This park is in private ownership. We recommend an option agreement or public-private partnership to secure control.

Clinton 26 Corporate Park South – This site scored a little higher in our Creative Site Assessment program than Clinton 26 North. The few additional points were likely due to the topography being a little flatter and no flood plain on the site.

As with Clinton 26 North, improvements in telecommunications and sewer capacity are needed. Extensions of fiber from across the interstate are recommended. It is served with City water, sewer and electric.

With a spec building recommended across the street in Clinton 26 North, this property would benefit from clearing and eventually grading a pad. The spec building will attract prospects that may decide to build on a nearby lot.

Sites Outside Clinton City Limits

Thomason II Site – This site scored second highest using the Creative Site Assessment program. The main reason it scored so high is that it is rail served – a key advantage. Clinton provides water to the site.

The one recommendation that could be made for this site is to keep it accessible. By mowing and maintaining a driving path, prospects can better see how the site can be developed. According to LCDC, this has been an issue showing the site in the past. Grounds maintenance is inexpensive and can improve the showing of the site.

The fact that sewer is 0.7 miles from the site is also an issue. Companies and site selectors prefer that water and sewer already be to the site to eliminate the risk of extension issues (funding, excavation, permitting). If there are grant funds available, we recommend extending sewer to the site. LCDC already has conceptual development plans for the site.

Anderson Farm Site – Even though outside the City, Clinton serves the site with water. This site scored in the middle using our site assessment tool. The main reason for the average score is rail service, on site sewer, and public ownership. Some drawbacks to the site are lack of due diligence and small size. We recommend spending no additional funds on this site. It is not a high priority site and basic due diligence (Phase 1 and geotechnical study) have already been performed. It is a good site, but it lacks the long-term development potential of the parks and larger sites.

Site Assessment Summary

Site	Site Assessment Score	Utilities Score	Transportation Score	Site Characteristics Score	Key Features
Clinton Corp. Center III	76.5	36	14	26.5	On-site utilities, rail, and due diligence.
Thomason II	75.5	36.5	14	25	Rail, T-1 service, and due diligence.
Anderson Farm	73.5	38	14	21.5	Rail, utilities, and public ownership.
Clinton 26 Corp. Park South	72	31.5	12	28.5	Due diligence, no flood plain, interstate access.
Clinton 26 Corp. Park North	71	34.5	12	24.5	Due diligence, interstate access.
Clinton Corp. Center I	67	36.5	9	21.5	On site utilities, public ownership.

Buildings

As noted above, the majority of new and expanding companies seek an existing building. Creative EDC regularly uses the standard statistic known to economic developers that approximately 65% of all new and expanding companies search for an existing building. The S.C. Department of Commerce reported that in 2013, 35% of active projects requested a building only. Forty-three percent requested a building or a site. The remaining 21% requested a site only. For the South Carolina market, the total percentage of prospects searching for a building is 78%. Without quality buildings, Clinton will be overlooked by the majority of new, prospective companies.

There are no available industrial buildings in Clinton listed with the S.C. Department of Commerce. The fact that Clinton has no industrial building puts it at a clear disadvantage for business recruitment.

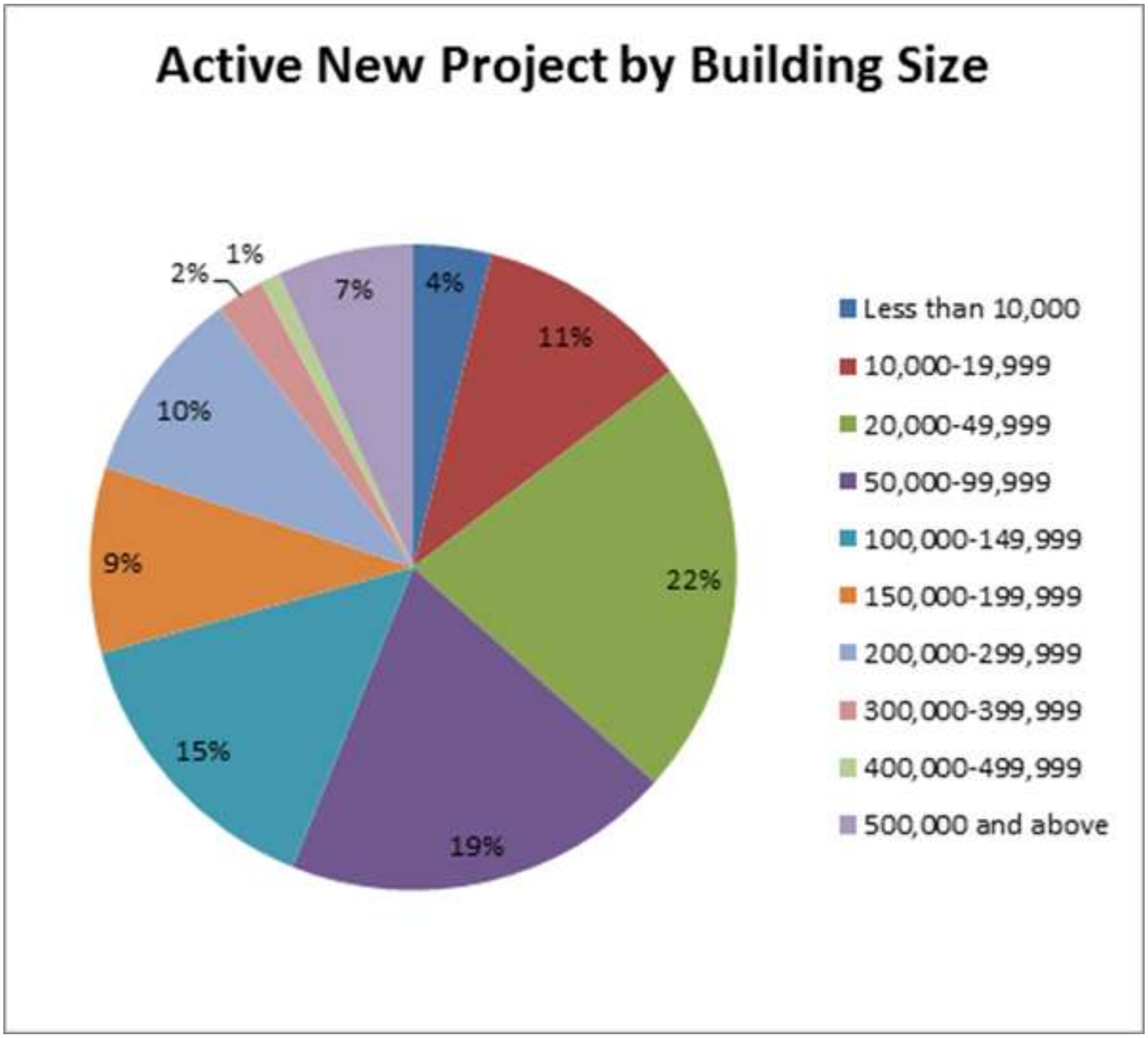
Outside of Clinton, Laurens County has four industrial buildings available. The buildings range from 15,000 SF to 91,264 SF. The Britt Building 1 is the only building with a ceiling height less than 20 feet. Low ceiling height is often an issue with previous manufacturing buildings. That is not the case in Laurens County. The four that are actively marketed by the Department of Commerce have adequate height. The Owings Spec Building, 50,000 SF, is getting good prospect activity. It is expandable to 400,000 SF and has 28-foot ceilings.

Available Buildings in Laurens County

Building Name	Building SF	Property Acreage	Zoning	Sale Price	Former Use
Britt Building 2	15,000	5 (10 additional available)	No Zoning Present	Lease Only	Manufacturing
Britt Building 1	24,840	5 (10 additional available)	No Zoning Present	Lease Only	Manufacturing
Owings Park Industrial Spec Building	50,000	27 Acres (21 additional available)	No Zoning Present	$1.85	Unoccupied
BBA Industrial Buildings	91,264	19 (104 additional available	Manufacturing	$3.1M	Manufacturing

Source: S.C. Department of Commerce

The S.C. Department of Commerce tracks project inquiries by the building square footage requested, like presented above with site inquiries. The majority of inquiries were made for buildings in the 20,000 - 49,999 SF range followed by the 50,000 - 99,999 SF range. The fewest inquiries were for very large buildings, over 300,000 SF, and small buildings, less than 10,000 SF. Added together, 10,000 - 99,999 SF represents over 50% of inquiries.

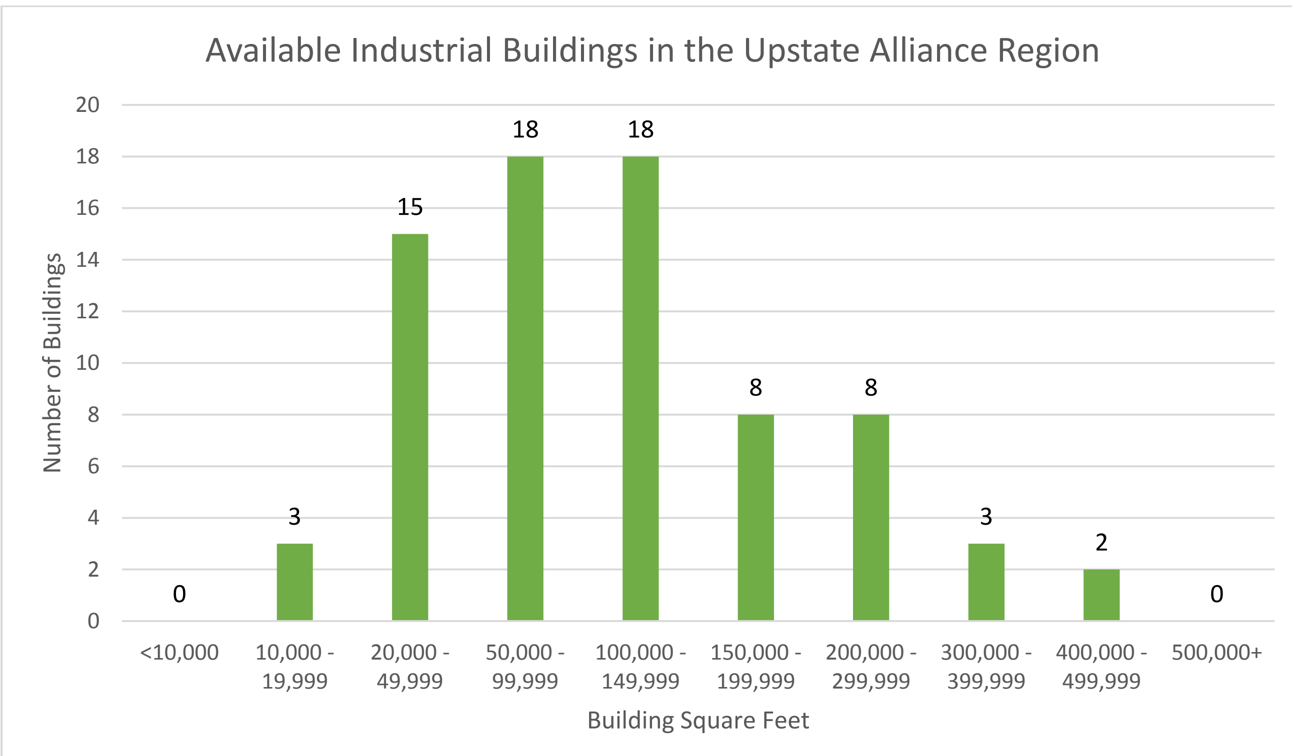


Source: S.C. Department of Commerce

Upstate Alliance Regional Building Inventory

Creative EDC researched the inventory of available industrial buildings in the Upstate Alliance region. We used the SC Department of Commerce online database to review buildings across the region. There are likely additional buildings available in the regional market; however, the Commerce database offers a good snapshot of availability. We conducted this research for the same reason described above in the regional site analysis – companies often start a site search at the regional level.

The majority of buildings in the region are between 50,000 SF and 150,000 SF. The fewest number of buildings are in the 10,000 SF - 19,999 SF and the 400,000 SF - 499,999 SF range. There are no buildings less than 10,000 SF or greater than 500,000 SF listed for the region.

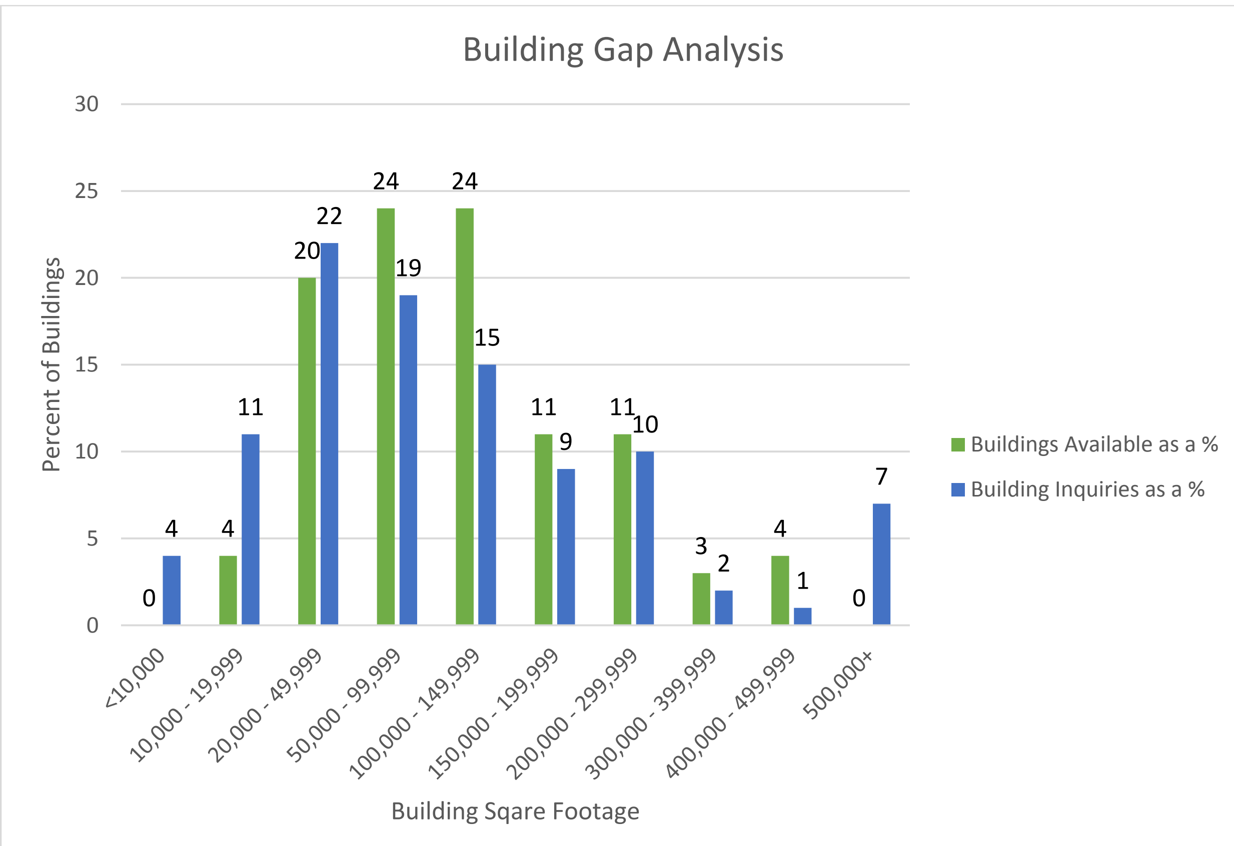


Source: S.C. Department of Commerce

Building Gap Analysis

Following the inventory review, Creative EDC analyzed the gap between the percent of building inquiries and available buildings in the region by percent of total. From the chart below, it can be seen that inquiries exceed availability in the 10,000 - 19,999 SF, 20,000 - 49,999 SF, and over 500,000 SF categories. As a percentage there are more buildings than inquiries in the 50,000 SF through 499,999 SF ranges.

There is more demand for smaller buildings and an opportunity to develop a spec building that can capture several of the square footage ranges.



Source: Creative EDC Analysis based on S.C. Department of Commerce data.

Spec Building Feasibility

Spec, short for speculative, or shell buildings are an economic development tool. In locations where the private sector is not building speculative industrial buildings, often the public sector will develop spec buildings or form a public-private partnership to develop sites and construct buildings. Public entities and partnerships build spec buildings to attract prospects that request an existing available building.

The fact that Clinton does not have any quality industrial buildings available is a red flag in the product development assessment. In addition, Laurens County only markets four industrial buildings. The LCDC spec building is garnering a good deal of prospect activity and is expected to be filled within a short time. With more than two-thirds of all prospects requesting an available building, Clinton is missing out on a large percentage of prospects.

Companies prefer a quality existing building and the regional inventory is low. Creative EDC recommends Clinton develop a spec building because of the current lack of quality buildings in the marketplace. We recommend a three-phase approach to the spec building development.

- Phase 1 – Pad-Ready Site – Grade and prepare a site to accommodate up to a 200,000 SF building. The current quote for development of a pad is $385,600.

- Phase 2 – Virtual Spec Building – Develop a virtual spec building that can help in marketing the graded pad. The engineering work that goes into the virtual building can be used for the construction of a bricks-and-mortar spec.

- Phase 3 – Spec Building Construction.

Spec Building Specifications

There are gaps between inquiries and availability in the smaller square footage ranges. Building a spec building, like the Owings Spec at 50,000 SF, would capture the smaller market while the ability to expand to 200,000 SF can draw interest from much larger projects. It is a rule of thumb that specs should be built to quadruple in size. The Owings Spec goes beyond that and can be expanded to 400,000 SF.

There may be questions of competition with the Owings Spec building. That building is getting a lot of prospect activity and is well on its way to being occupied. By the time Clinton designs and constructs a spec building, it may very well be that the Owings Spec is off the market. Even if it is not, companies looking along the I-26 corridor will be drawn to the Clinton area building and companies wanting a location closer to Greenville will be attracted to the Owings Spec.

We recommend the spec be constructed on a site of at least 20 acres. We generally recommend one acre for every 10,000 SF of building. If the spec can be expanded to 200,000 SF, a site of at least 20 acres is desirable.

In addition to the square footage range, we recommend a ceiling height of at least 28 feet. Either tilt-up construction with a metal expansion wall or a masonry front with metal expansion walls is recommended.

Location

In terms of location, we recommend Clinton 26 Corporate Park North for a spec building development. It is the closest location to the interstate. Also, a spec building at this location would open the park for other development. Even though it was not the top scoring site, it has the most potential for future development. We recommend working with an engineering firm to determine where in the overall park layout is the best lot for the spec building. Visibility from SC 72 may be important; however, creating a cut off of 72 directly into the park may not be ideal. For example, the best lot may be on a newly constructed entrance road.

Funding

Creative EDC will address an overall budget for the strategic plan in the full report. Here, we make limited comments on funding availability for product.

A new tool available to South Carolina communities is the Santee Cooper loan program for product development. Other communities have accessed this loan program for water and sewer infrastructure to sites and parks as well as spec buildings. Clinton and LCDC had previous discussions about a partnership that could access the loan program. We recommend revisiting those discussions. In the strategic plan, we will expand on the importance of leveraging partnerships in economic development. This is especially true for the high cost of product development.

Some communities have formed bank consortiums to finance spec buildings. In these arrangements, often a local government or nonprofit economic development corporation takes out the loan, but there is a period of time where interest is deferred by the consortium. Ideally, interest is deferred until the building sells.

There is also a wide range of public-private partnerships used for spec building development. In this case, the City will own the land. It could partner with a private developer to construct the building. The developer could use the City’s land as equity, paying for the land when the building sells or leases.

There are also local governments that own and finance spec buildings. If Clinton chooses to be the developer, we recommend the building be owned by its nonprofit economic development corporation in order to insulate the City from liability.

Clinton has a funding stream from gas utility profits. That revenue stream can be used in year 1 of the strategic plan to develop a building pad, a virtual building in years 2 - 3, and construction in years 4 –-5.

Summary

Clinton has invested in sites and parks. It has a large number of acres, almost 1,275, marketed as industrial sites and parks, some of which is owned by the City. What has been lacking is prepared sites and quality available buildings. It is not the amount of product a community promotes that wins the deal – it is the quality of that product. That is what has been missing from the Clinton inventory. Our recommendations are to enhance the investments already made to make Clinton's product of a higher quality:

- Mow and maintain the Thomason II Site.
- Develop a site plan for part of Clinton Corporate Center I and market the remainder for commercial development.
- Clear and grade a pad, install signage, and landscape the entrance of Clinton Corporate Center III.
- Upgrade telecommunications and sewer, forge an agreement with the owner of Clinton 26 North and South, and install quality signage and a rough-cut road.
- Construct a spec building on 20 +/- acres of Clinton 26 North.

Our preliminary recommendations in this Product Assessment are meant to close the gaps and enhance the quality of the inventory. We recommend a reading of the full strategic plan to place these recommendations within the context of Clinton's overall long-range economic development goals.

Appendix D: Target Industry Profiles

Automotive

Definition

The companies within this industry manufacture automotive parts and components.

33591 – Storage Battery Manufacturing

33631 – Motor Vehicle Engines and Engine Parts Manufacturing

33632 – Motor Vehicle Electrical and Electronic Equipment Manufacturing

33635 – Motor Vehicle Transmission and Power Train Parts Manufacturing

33636 – Motor Vehicle Seating and Interior Trim Manufacturing

33637 – Motor Vehicle Stamping

Representative Companies

- Johnson Controls, Inc.
- Lear Corporation
- Thyssenkrupp North America
- East Penn Manufacturing Company
- Tower Automotive
- Borgwarner Transmission Systems, Inc.

Industry Vitals

NAICS	Description	Revenue ($bn)	Profit ($bn)	Annual Growth 09-14 (%)	Annual Growth 14-19 (%)	Revenue per Employee ($'000)	Wages % of Revenue	Emp. per Estab.	Average Wage ($)
33591	Batteries	12.9	0.6	5.3	1.8	499.2	11.2	133.7	55,984.30
33631	Automobile engines and parts	28.2	1.4	9.7	2.4	599.9	10.6	54.4	63,842.00
33632	Automobile electronics	18.8	1.1	4.8	0.9	376.0	15.7	69.4	59,037.20
33635	Automobile transmissions	37.1	1.6	8.2	2.1	685.4	9.7	106.8	66,812.00
33636	Automobile interiors	20.3	1.2	7.5	1.1	441.3	10.4	105.0	46,067.60
33637	Automobile metal stamping	29.1	1.1	2.1	2.4	358.2	16.6	100.6	59,589.00

Key External Drivers for the Industry

- Average age of vehicle fleet
    - As vehicles age, their components need to be updated or replaced. The average age of the vehicle fleet is expected to increase during 2014.
- Consumer confidence index
    - Increases in consumer confidence indicate a higher willingness to spend, spurring demand throughout the industry.
- Demand from car and automobile manufacturing
    - Demand from downstream motor vehicle manufacturers is expected to increase in 2014, posing a potential opportunity for the industry.
- Price of nonferrous metals
    - Zinc and lead are two of the major raw materials required to manufacture batteries. Over the five years to 2014, increased demand from emerging countries has increased the price of nonferrous metals.
- Trade weighted index
    - Companies in this industry operate in an intensely competitive, globalized market. When the U.S. dollar is relatively weak, domestically produced auto parts are more affordable than foreign-produced parts. The trade-weighted index is expected to increase during 2014, although the overall value of the dollar is still relatively weak.
- World price of crude oil
    - When gas prices are high, consumers tend to avoid purchasing gas-powered vehicles.
- World price of steel
    - Industry operators use several different metals as raw inputs, but steel is by far the most widely used. The world price of steel is expected to decrease in 2014.

Competitive Landscape / Key Success Factors

- Ability to control stock on hand
- Ability to meet or accommodate environmental regulations
- Access to automated manufacturing technology
- Access to highly skilled workforce
- Access to the latest available and most efficient technology and techniques
- Economies of scale
- Effective cost controls
- Effective quality control
- Degree of globalization
- Having a large supply contract
- Mitigating volatility of input prices by entering into contracts
- Undertaking technical research and development
- Use of lean manufacturing techniques

Prospect Counts

Industry Segment	Total Universe	Target Universe (100+ emps or $10m+ sales)	Target Universe w/Growth and/or Events
33591 – Battery mfg	437	63	22
33631 – Automobile engine and parts mfg	716	77	27
33632 – Automobile electronics mfg	1,066	115	46
33635 – Automobile transmission mfg	430	70	25
33636 – Automobile interior mfg	271	50	19
33637 – Automobile metal stamping	691	150	53
Total	**3,611**	**525**	**192**

Outlook

Battery Manufacturing

Nearly every U.S. household uses batteries. From the battery that starts (or sometimes even powers) the family car to the one that keeps the laptop running, batteries are an essential item in today's age. Mobile electronics, such as tablets, are becoming increasingly commonplace, thus increasing demand for batteries. Moreover, growing demand from automobile manufacturers is expected to boost revenue for the Battery Manufacturing industry at an annualized rate of 5.2% over the five years to 2014 to $12.9 billion, growing 2.1% in 2014.

The proliferation of rechargeable batteries has siphoned an increasing percentage of demand for primary battery manufacturers. Original equipment manufacturers are opting to use secondary, rechargeable batteries in smartphones, tablets and other electronic devices they produce. This has reduced battery turnover and, therefore, production volumes over the past five years. Moreover, many consumer electronic products are produced overseas and use batteries produced in their respective country, further limiting demand. As a result, industry growth is primarily attributable to growing demand from domestic automobile manufacturers.

Despite growing demand, rising input costs have challenged industry operators over the period. Refined lead and similar metals used to manufacture batteries have become increasingly scarce as emerging countries continue to develop their manufacturing sectors. In response to growing demand and scarce supply, nonferrous metal prices are expected to rise at an average annual rate of 8% in the five years to 2014. However, manufacturers were able to offset only part of the rise in metal prices by increasing battery prices, causing average profit to contract from 4.6% of revenue in 2009 to an estimated 4.3% in 2014.

Economic recovery over the five years to 2019 will continue to charge the Battery Manufacturing industry. As discretionary income rises, consumer spending will increase the number of battery purchases. Increasing environmental concerns and skyrocketing gasoline prices will also push demand for hybrid electric vehicles that use hybrid batteries, which provide more favorable returns than traditional batteries. However, slowing demand from the automobile industry and rising low-cost imports from countries such as China will hamper growth in the next five years. As a result, industry revenue is forecast to grow over the period at an annualized rate of 1.8% to $14.1 billion in 2019.

Automobile Engines and Parts Manufacturing

Revenue for the Automobile Engine and Parts Manufacturing industry is expected to trend higher over the five years to 2014. Leading up to the recession, high gasoline prices deterred consumers from purchasing new vehicles, and the economic downturn only exacerbated the industry's poor performance. Light-vehicle sales fell to an all-time low in 2009, and major companies General Motors and Chrysler underwent bankruptcy reorganization, requiring a bailout by the government. However, recently the automotive sector has been recovering as the economy improves. As a result, the industry's revenue rebounded, soaring 36.3% in 2010. Revenue is estimated to grow another 4.2% during 2014. Consequently, IBISWorld expects industry revenue to increase at an annualized rate of 9.7% to $28.2 billion over the five years to 2014.

Engine efficiency has been a hot topic across the entire automotive sector, fueled by changing consumer preferences and looming legislative standards. Generally, consumers have shifted from light trucks and sport utility vehicles (SUVs) to more compact, fuel-efficient cars. Initially, major automakers suffered from the loss of sales, but most have since made strides in improving the fuel efficiency of their engines. Engine efficiency improvements also come on the heels of updates to Corporate Average Fuel Economy standards. These rules are expected to alter engine production over the next five years toward even stronger fuel economy. Overall, industry performance will be enhanced if developers continue improving gasoline engine efficiency. However, the industry will be threatened by the growing trend toward hybrid and electric engine technologies, which are not included in this industry.

A new threat to industry demand was created when the Chevrolet Volt and Nissan Leaf entered the market in 2011. These electric vehicles (EVs) eliminate the need for a gasoline engine by running on an electric motor and a high-powered lithium-ion battery. Despite EV sales expanding dramatically in 2011, they are still miniscule compared with overall vehicle sales. Nonetheless, more rapid EV growth could undermine demand for engine manufacturing in the next five years. In response, the industry's lineup of fuel-efficient gasoline engines is growing, and the continued success of these engines is forecast to support industry revenue growth at an annualized rate of 2.4% to $31.7 billion over the five years to 2019.

Automobile Electronics Manufacturing

The Automobile Electronics Manufacturing industry has grown at a steady rate over the past five years. The industry's success is largely explained by the recovery of the motor vehicle manufacturing sector, the primary downstream market for industry products. As the economy has recovered over the past five years, employment rates and consumer confidence have grown as well. As consumers and businesses have found themselves in a better financial situation, their purchases of durable goods, including motor vehicles, have increased. Consequently, according to data sourced from the Bureau of Transportation Statistics, new car sales are forecast to grow at an annualized 9.1% over the five years to 2014. As new car sales have increased, so have automobile electronics sales, boosting industry revenue.

Given that automobile electronics are small and light and thus inexpensive to transport, the Automobile Electronics Manufacturing industry has struggled to compete with low-cost imports. The industry has also been forced to deal with historically high prices for important inputs, such as copper, which has had a negative influence on profit margins. Conversely, however, the restructuring of the domestic automotive sector following the crisis means that many industry operators, previously mostly tied to their parent automobile manufacturing companies, have been able to secure a variety of new supply contracts with a diverse range of automobile manufacturers. Given that many of these automobile manufacturers are located abroad, industry exports have grown over the past five years. Overall, revenue for the Automobile Electronics Manufacturing industry is forecast to grow at an annualized rate of 4.7% over the five years to 2014. In 2014, industry revenue is expected to grow 5.1% to $18.8 billion.

The Automobile Electronics Manufacturing industry is anticipated to continue to grow over the five years to 2019. Continued improvement in consumer confidence and growth in new car sales will likely lead to increased demand for industry products, boosting industry revenue. Technological advancements in the production of motor vehicles is anticipated to expand the number of electronics used per vehicle, raising industry revenue per motor vehicle sold. However, import competition will likely continue to rise as the U.S. dollar appreciates. As a result, industry revenue is expected to grow at a slower annualized rate of 0.9% over the five years to 2019 to $19.7 billion.

Automobile Transmission Manufacturing

The fortunes of the Automobile Transmission Manufacturing industry are closely linked to the performance of motor vehicle manufacturers. Over the five years to 2014, domestic car and light truck production in the United States took a bumpy road as consumer demand ebbed and flowed with the economy. High gasoline prices, dwindling discretionary income and a lack of financing opportunities drove consumers away from new vehicle purchases during the recession. However, steady economic improvement since 2010 facilitated greater vehicle purchases, creating higher demand for transmissions as automakers ramped up production. Over the five years to 2014, industry revenue is expected to soar at an annualized rate of 8.2% to $37.1 billion. Additionally, sustained demand from consumers for new cars is keeping production active, facilitating higher demand for transmissions and ushering in expected revenue growth of 1.2% during 2014.

Automakers combated the demand shortage for vehicles during the recession by offering more compact and fuel-efficient automobiles. According to *Ward's Auto*, a leading automotive news and analysis publication, consumer preferences have shifted toward fuel-efficient vehicles, benefiting demand for transmission manufacturing. Over the next five years, transmission manufacturers are expected to develop products to complement these new, fuel-efficient engines with enhanced vehicle performance. For example, industry player Schaeffler Group is developing an entire line of automated transmission gearboxes, which are intended to work well with high-efficiency engines. Over the next five years, more manufacturers will invest in similar technology to accommodate changing trends in automobile production.

In the five years to 2019, the Automobile Transmission Manufacturing industry will put the volatility of the past five years in the rearview mirror. Automakers are increasing demand for transmission parts and will continue to do so as consumer sentiment rises and vehicle sales increase. Additionally, most major players in this industry have significantly trimmed pension liabilities and long-term debt, vastly stabilizing their operating costs and improving profitability. This renewed downstream demand will, in turn, lift revenue at an annualized rate of 2.1% to $41.2 billion over the five years to 2019.

Automobile Interior Manufacturing

Historically, automakers have been the main drivers of demand for the Automobile Interior Manufacturing industry, a relationship that became this industry's downfall during the recession. As demand for automobiles fell and the Car and Automobile Manufacturing industry was in disarray, demand for interior parts crashed. However, the industry was able to make a quick turnaround when the economy started to recover in 2010 and 2011, facilitating growth in vehicle production. Over the five years to 2014, revenue is expected to increase at an annualized rate of 7.5% to $20.3 billion, supported by an estimated increase of 0.6% in 2014. The industry is expected to grow significantly over the five-year period, which is primarily due to the relatively low starting base from the effects of the recession.

Industry profit fluctuated drastically over the past five years. Even as demand and revenue from downstream manufacturers fell, firms initially failed to combat rising costs, yielding lower profit margins. After margins sunk to a historic low in 2009, operators enacted cost-cutting strategies to mitigate financial pressure from the recession and regain profit. In 2014, profit margins are expected to account for 5.7% of revenue, up from 0.3% in 2009. Still, the increased costs of expansion and downward price pressures from downstream automobile manufacturers will likely calm profit margins down to historical norms by 2019.

Over the five years to 2019, the automotive sector is expected to further globalize as industry operators expand in emerging economies to take advantage of more affordable labor costs. Furthermore, growth in worldwide manufacturing activity and ongoing appreciation of the U.S. dollar will fuel sales from foreign markets. Nevertheless, as the domestic economy continues recovering from the economic downturn, demand for big-ticket purchases, such as new vehicles, is expected to trend higher, bolstering industry revenue. As a result, revenue is anticipated to rise at an annualized rate of 1.1% to $21.4 billion in 2014.

Automobile Metal Stamping

Revenue for the Automobile Metal Stamping industry is expected to increase at an annualized rate of 2.1% to $29.1 billion over the five years to 2013; this rate, however, masks a wild ride in the industry's performance over the period. Because automakers are the industry's largest market, demand for this industry's products closely follows demand for finished vehicles, which faltered during the recession. In 2008, demand for domestic automakers' most popular products, light trucks and sport-utility vehicles (SUVs), fell due to high gas prices and deteriorating economic conditions. As such, industry revenue fell 18.0% that year, and subsequently plummeted 27.5% the following year as economic conditions worsened.

Though the recession had a damaging effect on the industry's financial performance over the past five years, economic improvements since 2010 have benefited the industry. With more consumers returning to work, income levels have grown and financing availability has widened, spurring many consumers to unleash pent-up demand for new car purchases that they had delayed during the downturn. In response, automakers have ramped up production, a trend that has been a boon to automobile metal stampers. According to *Ward's Auto*, a leading automotive analysis publication, automobile production soared 38.8% during 2010. With higher car production, demand for automobile metal stamping followed suit, facilitating a 38.7% boost in industry revenue that same year. Lifted by strong demand from car and automobile manufacturing, IBISWorld expects industry revenue to grow 0.6% in 2013.

Over the next five years, industry revenue is poised to continue trending higher, backed by strong car sales and more efficient production from automakers. However, potential speed bumps are expected to hamper industry revenue growth. Instead of SUVs, automakers are producing smaller, more fuel-efficient cars and crossover-utility vehicles to meet changing preferences. The potential threat that comes with this trend, however, is that these smaller vehicles require less steel per vehicle. Moreover, regulations regarding fuel efficiency encourage automakers to save weight at every point of the supply chain, which includes using less metal. These trends may ultimately subdue the potential for higher revenue growth and profitability within the industry. Nevertheless, the industry is forecast to grow at an annualized rate of 2.4% to $32.7 billion over the five years to 2018.

Source: IBISWorld Industry Reports

Advanced Materials

Definition

The companies within this industry cover a wide range of materials including plastics, primary metals, and fabricated metals.

32612 – Plastics Pipe, Pipe Fitting, and Unlaminated Profile Shape Manufacturing

32613 – Laminated Plastics Plate, Sheet, and Shape Manufacturing

32619 – Other Plastics Product Manufacturing

33111 – Iron and Steel Mills and Ferroalloy Manufacturing

33121 – Iron and Steel Pipe and Tube Manufacturing

33122 – Rolling and Drawing of Purchased Steel

33131 – Alumina and Aluminum Production and Processing

33152 – Nonferrous Metal Foundries

33211 – Forging and Stamping

33231 – Plate Work and Fabricated Structural Product Manufacturing

33261 – Spring and Wire Product Manufacturing

33271 – Machine Shops

33272 – Turned Product and Screw, Nut and Bolt Manufacturing

33281 – Coating, Engraving, Heat Treating and Allied Activities

33299 – All Other Fabricated Metal Product Manufacturing

Representative Companies

- Nucor Corporation
- Illinois Tool Works
- Novelis, Inc.
- International Automotive Components Group
- Ferro Corporation
- Nypro, Inc.
- Titan International
- SKF USA, Inc.

Industry Vitals

NAICS	Description	Revenue ($bn)	Profit ($bn)	Annual Growth 09-14 (%)	Annual Growth 14-19 (%)	Revenue per Employee ($'000)	Wages % of Revenue	Emp. per Estab.	Average Wage ($)
32612	Plastic pipe and parts	14.7	0.9	6.7	1.9	378.0	12.9	44.2	48,820.10
32613	Laminated plastics	3.7	0.2	5.6	2.7	349.5	15.1	46.7	52,560.40
32619	Plastic products misc.	91.0	4.1	3.4	1.4	279.5	15.6	47.0	43,639.30
33111	Iron and steel mfg	115.7	8.6	10.5	2.9	1,153.8	6.9	188.8	79,119.20
33121	Metal pipe and tube mfg	16.6	0.8	18.8	2.1	802.7	8.0	76.2	64,482.20
33122	Steel rolling and drawing	12.1	0.7	4.7	1.8	567.4	9.0	49.4	51,219.50
33131	Aluminum mfg	35.0	1.7	4.7	3.4	730.0	7.6	97.8	55,518.40
33152	Nonferrous metal foundry products	15.0	1.3	8.5	3.5	272.4	17.8	51.1	48,524.00
33261	Wire and spring mfg	10.7	0.7	4.0	2.9	283.6	16.2	28.8	45,917.10
33271	Machine shops	54.7	4.3	11.1	4.5	208.2	26.4	12.2	54,879.60
33272	Screw, nut and bolt mfg	26.2	1.3	4.8	3.5	197.5	26.5	29.9	52,358.20
33281	Metal plating and treating	31.3	2.2	7.1	2.5	264.4	17.8	20.4	47,106.50
33299	Ball bearing mfg	7.5	0.6	3.5	3.1	336.0	16.2	129.7	54,379.10

Key External Drivers for the Industry

- Demand from car and automobile manufacturing
  - Demand from downstream motor vehicle manufacturers is expected to increase in 2014, posing a potential opportunity for the industry.
- Industrial production index
  - The industrial production index (IPI), a measure of output in the mining, manufacturing, electric and gas sectors, is a primary indicator of U.S. manufacturing activity. Therefore, an increasing IPI generally translates to higher laminated plastic sales. The IPI is expected to increase in 2014.
- Price of electric power
  - The price of electric power is expected to increase over 2015, representing a potential threat to the industry.
- Price of nonferrous metals
  - The prices of nonferrous metals such as copper, nickel, cobalt and titanium, determine the costs of inputs and the prices of products for nonferrous metal foundries. The price of nonferrous metals is forecast to fall in 2014, posing a potential threat to the industry.
- Price of plastic materials and resins
  - A sustained increase in the cost of plastic resin will negatively affect industry revenue. The price of plastic resin is expected to increase in 2014, representing a potential threat for the industry revenue and margins.
- Trade weighted index
  - Companies in this industry operate in an intensely competitive, globalized market. When the U.S. dollar is relatively weak, domestically produced auto parts are more affordable than foreign-produced parts. The trade-weighted index is expected to increase during 2014, although the overall value of the dollar is still relatively weak.
- Value of construction
  - Population growth, government expenditure on infrastructure projects, and low interest rates stimulate construction activity. The value of construction is expected to increase over 2015, representing a potential opportunity for the industry.
- World price of aluminum
  - The world price of aluminum moves in response to demand and supply trends. When prices rise as a result of increasing demand, manufacturers can pass on some of the higher costs to customers. Conversely, when prices deteriorate during periods of weak demand, industry operators lose revenue as a result of lower sales and lower selling prices. The world price of aluminum is anticipated to decline in 2014.
- World price of steel
  - The world price of steel shifts in response to global demand and supply trends for steel and its inputs, primarily iron and coal. Industry operators typically benefit from rising steel prices because they can raise selling prices for industry products. The world price of steel is projected to rise over 2015.

Competitive Landscape / Key Success Factors

- Ability to quickly adopt new technology
- Ability to pass on cost increases
- Ability to vary services to suit different needs
- Access to high quality inputs
- Access to multi-skilled and flexible workforce
- Access to the latest available and most efficient technology and techniques
- Degree of globalization in the firm
- **Development of new products**
- **Easy access for clients**
- Economies of scale
- Effective cost controls
- Effective quality control
- Financial structure of the company
- Having a diverse range of clients
- Marketing of differentiated products
- Output is sold under contract
- Proximity to key suppliers and markets
- Supply contracts in place for key inputs
- The ability to comply with environmental requirements
- **Undertaking technical research and development**

Prospect Counts

Industry Segment	Total Universe	Target Universe (100+ emps or $10m+ sales)	Target Universe w/Growth and/or Events
32612 – Plastic pipe and parts	404	105	32
32613 – Laminated plastics	437	47	16
32619 – Plastics products misc.	9,053	1,280	320
33111 – Iron and steel mfg	2,486	258	77
33121 – Metal pipe and tube mfg	509	118	35
33122 – Steel rolling and drawing	1,110	146	44
33131 – Aluminum mfg	864	206	62
33141 – Nonferrous metal foundries	529	51	15
33261 – Wire and spring mfg	1,876	252	76
33271 – Machine shops	19,407	439	88
33272 – Screw, nut, and bolt mfg	2,253	198	59
33281 – Metal plating and treating	6,692	302	91
33299 – Fabricated metal products misc.	6,573	400	120
Total	**52,193**	**3,802**	**1,035**

Outlook

Plastics Pipe and Parts

After significant revenue declines in 2008 and 2009, demand from downstream industries, most notably construction and automobile manufacturing, have helped revenue recover from recessionary losses. In 2009, dramatic reductions in revenue occurred across the board, leading to major job losses. The decline was dramatic, but short-lived; by 2011 downstream industries were recovering, helping to drive a rebound in demand. Over the same period, the industry has been buoyed by the utilities and agriculture industry. Rising population rates have increased the need for plastic pipes to replace older infrastructure and efficiently distribute water to farms. Improved downstream demand spurred by favorable government policies and the replacement of old infrastructure have helped drive growth over the five years to 2014. Revenue increased at an annualized rate of 6.7% to $14.7 billion over the period. While growth has been strong over the past five years, figures are slightly distorted by the steep declines that occurred at the onset of the period.

Industrial manufacturing and construction account for an estimated 77.2% of the industry's revenue. The domestic automotive manufacturing market, which makes up most industrial sales, has recovered strongly since the recession and is expected to grow 2.9% in 2014. The construction industry has been slower to recover, as credit contracted and both consumers and businesses hesitated to make large capital investments. However, thanks to low interest rate policies and tax incentives, construction has begun to recover, spurring demand for plastic pipes and parts. The value of construction is expected to grow 7.6% in 2014, pushing revenue up 0.9% in 2014.

Companies have consolidated to achieve greater operating efficiencies in an increasingly competitive economic climate. For instance, major player Advanced Drainage Systems made three acquisitions from 2010 to 2013. As a result of acquisition activity, the number of industry operators declined at an estimated annualized rate of 0.4% per year to 674 over the five years to 2014. In the coming years, growth in the utilities and agriculture markets will help offset volatility in demand from other markets, leaving industry operators less vulnerable to market conditions outside their control. Over the five years to 2019, IBISWorld forecasts revenue will grow at an annualized rate of 1.9% per year to $16.2 billion.

Laminated Plastics

Laminated plastic manufacturers produce sheets, shapes, plates, and rods that are sold to multiple manufacturing sectors that produce everything from modern electronics to interior automobile trim. Because of its dependence on downstream purchases, the Laminated Plastics Manufacturing industry is sensitive to changes in consumer and producer demand for its products.

The Laminated Plastics Manufacturing industry steadily expanded in the five years to 2014, with revenue expected to increase at an average annual rate of 5.6% to $3.7 billion, which includes 1.2% growth in 2014. Starting in 2010, rising housing starts and commercial construction led to a boost in demand for high-pressure decorative laminated plastics commonly used in kitchen, bathroom, and office furniture. At the same time, increasing consumer confidence and spending, caused consumer goods manufacturers, such as electronic and appliance producers to increase production and orders of laminated plastics. However, industry revenue remains below pre-recession levels, as fluctuations in economic conditions and the rising price of resin, a vital input for laminated plastic manufacturing, have increased industry uncertainty and purchasing costs during this period.

In the five years to 2019, the industry is projected to experience higher demand from car manufacturers and construction sectors. Automotive manufacturers account for an estimated 38% of industry revenue. Laminated plastics are used for the plastic console, engine components, and interior trim in automobiles. However, new car sales are expected to increase at a more tepid pace compared to the last few years, indicating modest future revenue growth for laminated plastics manufacturers. A marginal anticipated increase in resin prices will continue to raise purchasing costs, but healthy demand from downstream customers as a result of increased consumer spending should offset future input price increases. As a result, industry revenue is forecast to increase at an annualized rate of 2.7% to total $4.2 billion in the five years to 2019.

Plastics Products Miscellaneous Manufacturing

The global recession bent the Plastic Products Miscellaneous Manufacturing industry out of shape, causing declines in demand from nearly all sectors of the industry's markets. However, the industry has rebounded strongly from recessionary shocks, and revenue is expected to grow at an annualized rate of 3.4% to $91.0 billion in the five years to 2014, including growth of 2% in 2014 alone. Miscellaneous plastic product demand is projected to increase in the future, as consumer spending climbs. Consequently, the industry is expected to experience annualized revenue growth of 1.4% to $97.3 billion over the five years to 2019.

Operators rely heavily on several key industries to purchase their products. For example, automotive manufacturers, which account for 30.1% of revenue, use plastic in vehicle interiors and in some engine components. However, the collapse of the domestic automotive industry during the recession caused demand for new cars to plummet, reducing the need for plastic components used in the car-manufacturing process. Similarly, the meltdown of the housing market and the subsequent decrease in demand for construction and renovations resulted in considerably less revenue from plastic flooring, construction, and plumbing fixture sales, which account for about 38.4% of industry revenue. However, since 2010 and 2011, both industries have started to rebound and are expected to continue growing in 2014. Growth in these downstream markets have been aided by historically low interest rates, which have encouraged big-ticket purchases, such as cars and houses.

In addition to slowed downstream demand, overseas competition is constraining revenue growth. Since 2001, the United States has imported more plastic products than it has exported. Import competition has gained momentum due to looser regulations and lower labor costs in these regions relative to domestic manufacturers. As a result, the amount of imports satisfying domestic demand has increased over the five years to 2014, and is expected to continue doing so in the next five-year period. Industry participants have combated rising imports by investing in research and development to provide innovative, high-value solutions for downstream customers. Consequently, exports as a percentage of revenue have increased over the five years to 2014 and will continue to rise in the coming five years.

Iron and Steel Manufacturing

The global economic crisis dramatically reduced production of iron and steel as the industry's largest end-use markets, construction and automobile manufacturing, contracted along with access to credit, business investment, and consumer spending. After the recession, demand for automobiles, which are primarily composed of steel, began to rebound as the economy improved. Recovering motor vehicle production bolstered demand for steel, leading to double-digit revenue increases over 2010 and 2011. However, revenue began to decline in 2012 as the slow upturn of nonresidential construction, deceleration in emerging markets and continued uncertainty in developed economies impacted the demand and price for steel. Despite this slump, revenue is forecast to increase at an annualized rate of 10.5% from a recessionary base of $70.2 billion in 2009 to $115.7 billion in 2014.

Industry revenue follows fluctuations in the world price of steel, which reflects global supply and demand trends. As downstream manufacturers ramped up production to meet renewed demand after the recession, particularly in China and other emerging economies, the world price of steel soared over 2010 and 2011. Operators benefited from higher sales volumes and higher average selling prices for industry products. However, excess capacity and supply of steel started to surpass demand for steel in 2012, as growth slowed in emerging markets and remained uncertain in debt-ridden economies. Consequently, revenue declined in 2012 and again in 2013 as these issues persisted. Fortunately for the industry, increased output in response to greater manufacturing and construction activity, combined with moderately rising steel prices, is expected to propel revenue up 4.4% in 2014.

Over the five years to 2019, import competition will continue to increase, contributing to industry consolidation. As larger producers acquire smaller steel mills to expand operations and benefit from economies of scale, the number of enterprises will fall further, although not as rapidly as compared with the past five years. In addition, volatile, but generally increasing steel prices, stronger downstream demand and higher exports will drive industry growth. Revenue is forecast to rise at an annualized rate of 2.9% over the period to reach $133.7 billion in 2019. This increase will be minimal, however, compared with the iron and steel manufacturing industries of competing nations.

Metal Pipe and Tube Manufacturing

The Metal Pipe and Tube Manufacturing industry's performance is tightly correlated with the highly volatile world price of steel. As steel prices plummeted during the recession and subsequently skyrocketed, so too has revenue for industry operators. After contracting to almost half its previous level in 2009, revenue surged over the five years to 2014. Demand for metal pipes and tubes rebounded along with manufacturing activity and steel prices over 2010 and 2011, returning revenue to growth. Moreover, the recovery of the housing market in 2012 helped bolster sales by double-digits over the year. Consequently, industry revenue is anticipated to increase at an annualized rate of 18.8% from 2009 to 2014 to reach $16.6 billion. However, revenue growth is expected to slow to 3.5% in 2014 as competition from imports and substitutes intensifies.

Operators are stand-alone producers of metal pipes and tubes, and therefore obtain the steel used in production from outside sources. As the industry's primary input, steel prices have a significant impact on the performance of industry operators. From 2009 to 2014, steel prices are estimated to rise at an annualized rate of 3.9%, however, this modest increase hides extreme fluctuations, including double-digit growth rates in 2010 and 2011 preceding declines in 2012 and 2013. In general, steel prices have been on an upward trend for more than a decade, fueled by rapidly growing demand from emerging economies. Operators have reacted to this trend by passing the additional expenses on to customers. Still, price volatility over the past five years made this a difficult practice. As a result, industry operators were forced to absorb some of the higher input costs, limiting growth in profit.

Over the five years to 2019, demand for metal pipes and tubes is expected to increase as rising oil and gas prices cause downstream buyers to boost production, increasing the need for industry products. Additionally, sustained growth in automobile manufacturing will increase demand for metal pipes and tubes. In this climate of rising demand, industry revenue is forecast to grow at an annualized rate of

2.1% to reach $18.4 billion in 2019. However, increasing competition from substitutes and imports and climbing input prices will temper profit margins, despite declining labor intensity.

Steel Rolling and Drawing

The Steel Rolling and Drawing industry manufactures plates, sheets, strips, rods, bars, and wires from purchased steel. The industry does not include integrated steel manufacturers or metal service centers that process and distribute steel products. Over the five years to 2014, industry revenue is forecast to rise at an annualized rate of 4.7% to $12.1 billion, primarily due to strong growth in 2010. Coming close to collapse during the recession, the automotive industry, the industry's largest market, bounced back as economic conditions and consumer spending improved in 2010. In addition, steel prices surged in response to accelerating industrial activity in China and other emerging markets. For these reasons, industry revenue rebounded 47.9% over that year.

However, the slow recovery of the construction sector has hindered industry growth by depressing demand for steel products and putting downward pressure on steel prices. Persisting debt issues in developed economies, such as those in Europe, and slowing growth in emerging economies, such as China, have lowered demand and prices in the global steel market. As demand for steel weakened, falling steel prices eroded inventory values, forcing operators to lower selling prices for industry products. As a result, industry revenue started to decrease in 2011. While this decline continued through 2013, stronger demand from developed economies is expected to bolster the world price of steel over 2014, propelling industry up 2.0% this year. Nevertheless, to maintain profitability over the period, some companies have closed facilities and cut staff, while others have been absorbed by larger steel manufacturers or forced out of the industry entirely.

Over the next five years, continued consolidation will reduce the number of industry participants, benefiting overall profit margins. Larger operators that have more resources to invest in research and development will improve industry products and delivery systems. As companies are able to produce higher quality rolled and drawn steel products at lower costs, they will be better positioned to compete with international operators. Furthermore, rising construction and manufacturing activity worldwide will boost demand for steel. As global economic conditions improve and put upward pressure on steel prices, industry revenue is projected to increase at an annualized rate of 1.8% to $13.2 billion.

Aluminum Manufacturing

The Aluminum Manufacturing industry has endured significant volatility over the past five years due to fluctuations in aluminum prices, which reflect global supply and demand trends. While higher prices raise the cost of refining purchased aluminum, cost increases are generally passed on to customers and usually result in higher industry revenue. Aluminum prices surged after the recession in response to rapidly rising demand from manufacturers, especially in emerging economies. Higher prices for aluminum products and rebounding demand from major markets, namely the automotive industry, bolstered revenue over 2010 and 2011.

Industry revenue declined in 2012 as persisting debt issues in developed economies and slowing growth in emerging markets delayed large-scale construction projects and limited demand for aluminum. Industry inventory went unsold and overproduction led to an excess supply of aluminum, alleviating upward pressure on prices. For these reasons, aluminum prices dropped in 2012 and continued to trend downward in recent years. However, strengthening demand is expected to offset fluctuations in aluminum prices in 2014, modestly boosting revenue 0.8% to $38.2 billion. Despite recent declines, industry revenue is forecast to grow at an annualized rate of 6.5% over the five years to 2014.

Weakened demand from major markets and volatility in aluminum prices contributed to a more competitive environment over the past five years. Many operators exited the industry or were acquired by larger manufacturers. Furthermore, companies continued to expand operations overseas and merge with foreign manufacturers to take advantage of stronger demand and lower labor costs in developing economies. As a result, exports have generated a rising share of revenue, while imports have satisfied a significant portion of domestic demand.

The industry is expected to continue to globalize as U.S. and global construction and manufacturing markets gain strength. In particular, rising demand from automakers will be a major driver of industry growth. Since aluminum is a lighter alternative to other metals, car manufacturers are increasingly using it for building motor vehicle bodies and parts to meet growing fuel-efficiency standards. As automakers expand production of lightweight vehicles, this growing market will support higher demand and prices for aluminum. Over the five years to 2019, industry revenue is forecast to increase at an average annual rate of 2.7% to $43.6 billion.

Nonferrous Metal Foundry Products Manufacturing

The Nonferrous Metal Foundry Products Manufacturing industry produces inputs for motor vehicles, aircraft, machinery and other industrial markets. Foundries manufacture castings for these industries by melting nonferrous metals and alloys, pouring the liquid into a mold of a desired shape and removing the casting once the liquid has solidified. Nonferrous metals, such as aluminum and copper, are distinguished from ferrous metals (iron and steel), in that they do not contain iron. Nonferrous metals are usually alloyed with other metals to emphasize the physical or chemical properties of each element, such as strength or corrosion resistance. As lighter alternatives to iron and steel, nonferrous metal castings can replace their ferrous counterparts in applications where weight is important, such as motor vehicle and aircraft manufacturing.

In addition to downstream demand, the industry is greatly impacted by changes in nonferrous metal prices because foundries purchase, process, and resell these metals. Operators typically pass on changes in input costs to customers through raw material surcharges, and deteriorating prices can dampen revenue as foundries are forced to lower selling prices, particularly during periods of weakened demand. The price of aluminum and other nonferrous metals have been highly volatile over the past five years, surging over 2010 and 2011 and tumbling since 2012. Lower prices in recent years, while hurting revenue growth, have also helped to bolster the competitiveness of nonferrous metals, which are more expensive than steel and plastic substitutes. As a result, industry revenue is forecast to grow at an annualized rate of 8.5% from a low in 2009, rising 7.0% to $15.0 billion in 2014.

The industry will continue to globalize and consolidate to meet the mounting needs of its customers in the coming years. Growth in downstream demand will support moderately rising prices for nonferrous metals, benefiting industry revenue. Furthermore, the automotive and aerospace industries are increasingly using lighter nonferrous metals, such as aluminum and magnesium, to reduce motor vehicle and aircraft weight. As a result, industry revenue is forecast to grow at an annualized rate of 3.5% to $17.8 billion over the five years to 2019.

Wire and Spring Manufacturing

The recession strained the Wire and Spring Manufacturing industry, causing operators to buckle under the pressure; revenue dropped by 21.1% in 2009 alone. However, the industry has rebounded, with revenue growing every year since 2010. Consequently, over the five years to 2014, revenue is expected to increase at an annualized rate of 4.0% to $10.7 billion, including growth of 2.6% in 2014. The recovery of this industry is largely due to improving economic conditions and an increasingly robust housing market.

The industry relies heavily on several key downstream industries. For example, automotive manufacturers use springs in vehicle interiors and for vehicle suspensions. The collapse of the domestic automotive industry into 2009 caused demand for new cars to plummet, thereby reducing demand for industry products. However, the auto industry rebounded, performing strongly in 2010 and continuing to grow since. Similarly, the meltdown of the construction market resulted in considerably less demand for wire used in concrete-based construction. Furniture and furnishing wholesalers, which use springs in many of their products, were similarly affected by the decline in home sales and by decreased disposable income, reducing the number of purchases from these industries. The construction and home furnishing markets were slow to recover from the recession due to their dependence on a strong housing market, however, these markets have gained traction over the past several years.

Improving demand for wire and spring products is expected to continue over the five years to 2019. Over the past five years, imports have satisfied an increasing portion of domestic demand, and this trend is expected to continue over the next five years. The United States is a net importer of industry products, with imports expected to reach nearly $2.8 billion in 2014. Currently, the United States receives about 30% of its imports from China. Relatively lower production costs in China enable operators to realize higher profit margins. As globalization increases, domestic companies will continue to offshore manufacturing operations to obtain lower production costs, and foreign imports will continue to present a threat to the viability of domestic manufacturing. As a result, industry revenue is projected to grow at a slower average annual rate of 2.9% per year to $12.3 billion over the five years to 2019.

Machine Shops

Revenue in the Machine Shop Services industry has experienced robust growth during the five years to 2014, overcoming the negative impact of the recession. After a poor performance in 2009, the industry posted revenue growth in each of the past five years. As the industry's major markets, including commercial aerospace and transportation manufacturing, picked up in 2010 and 2011, industry revenue expanded by 15.2% and 15.5%, respectively. Nearly all of this industry's downstream markets have thrived recently and are currently operating with improved market conditions. As a result, industry revenue is expected to increase at an annualized 11% to $54.7 billion during the five years to 2014. Machinists' post-recessionary recovery has been strong and is expected to continue trending upward, with revenue forecast to increase 7.3% in 2014.

Technological advancement in machining is largely driven by the defense and aerospace markets. These markets require parts that are as light as possible, made to exceptionally tight tolerances and shaped into complex geometries. Industry operators serving these markets have increased their investment in computer numerical control (CNC) machines that increase automation and precision during the past five years, prompting a sizeable increase in capital investment for many machinists. As defense spending has tapered off due to the United States' withdrawal from Iraq and scaling back in Afghanistan, many of these operators' machines have been repurposed to satisfy growing demand from the manufacturing sector. Consequently, productivity improvements driven by high-tech markets have aided industry operations. Higher productivity has allowed for a smaller industry workforce. Consequently, industry wages as a proportion of revenue are expected to shrink from 31.8% of revenue in 2009 to 26.4% in 2014.

During the five years to 2019, operators will devote further resources to satisfying growing demand from manufacturers in industries like automobile manufacturing, commercial aircraft manufacturing and metal forging. Demand from medical device manufacturers is also expected to increase, due to a progressively aging U.S. population with an increasing need for medical care. This, in turn, will heighten the need for micromachined products. As a result, industry revenue is forecast to grow at an annualized rate of 4.5% to $68.3 billion during the next five years.

Screw, Nut, and Bolt Manufacturing

The Screw, Nut, and Bolt Manufacturing industry produces metal fasteners for use in machinery manufacturing in the aerospace, defense, automotive, and other industrial markets. Over the past five years, the industry has benefited from improved demand conditions in downstream markets and the irreplaceability of fasteners in manufacturing operations. However, ongoing challenges include import penetration and volatile raw material prices, including the price of steel. In the five years to 2014, IBISWorld estimates that industry revenue has grown an estimated 4.8% to $26.2 million. This includes a forecast decline of 4.4% in 2014, however, due to falling world steel prices and lower fastener selling prices.

Two distinct product segments characterize this industry: generic fastening products and more advanced precision manufactured fastening products. Generic fasteners are standardized in production and have varied applications, while precision turned fasteners tailor to specific standards and uses. Revenue from generic fastening products has been falling due to product standardization, with increasing competition from low-cost, low-priced imports produced in China and elsewhere. In contrast, the precision fastening products segment has been growing steadily and its sales are becoming more significant to the overall performance of the industry. The importance of precision-turned products, such as aerospace fasteners, is reflected in the product development and acquisition strategies of major players like Precision Castparts.

The world price of steel has also been influential to industry performance. Although steel represents a major purchase cost for operators, high steel prices reflect periods of low supply and inflexible demand for steel products. As a result, operators are able to pass the cost increase to downstream markets through higher selling prices, boosting revenue. Over the past five years, the price of steel has been volatile, triggered by shifts in supply from China, the world's largest supplier.

Going forward, the industry is expected to benefit from persistent demand for fasteners by downstream markets and rising world steel prices. However, import penetration will continue to pose a threat to the domestic provision of generic fasteners. Overall, IBISWorld expects revenue to increase an annualized 3.5% to $31.2 billion in the five years to 2019.

Metal Plating and Treating

The recession caused the Metal Plating and Treating industry to lose some of its luster. In 2009, the recession caused the downstream Metal Stamping and Forging industry and Steel Framing industry to fall 26.2% and 5.5%, respectively. Consequently, the industry sharply contracted over the same year, with revenue falling 27.5%. Since then, however, revenue has recovered strongly, as economic growth picked up and demand rebounded. In the five years to 2014, IBISWorld expects revenue to grow an annualized 7.1% to $31.3 billion, including growth of 2.6% in 2014.

Industry performance is highly contingent on the performance of downstream industries; as a result, industry revenue surged 17.5% and 10.1% in 2010 and 2011, respectively, thanks to rebounding industries increasing demand for industry services. Furthermore, the industrial production index, which measures the performance of most downstream industries that use this industry's services, has increased an annualized 3.8% over the five-year period, further indicating that growth in these downstream industries will continue to underpin industry demand. Additionally, the world price of zinc, a major input for industry operators, has increased since 2009. Increases in the price of zinc typically represent an increase in revenue for industry operators in the form of raised prices. Consequently, higher zinc prices over the period are expected to bolster industry revenue, as operators pass on these cost increases by raising prices.

Downstream markets outsource metal-finishing services to the industry because of the high regulatory costs and savings associated with outsourcing these activities. As a result, there is significant potential for revenue growth with the recovery of consumer and business confidence. As consumers and businesses become more confident in the health of the economy, they are likely to increase demand for products manufactured by key downstream industries. For example, the downstream Metal Stamping and Forging industry, which manufactures forgings for a wide array of consumer products, and the Steel Rolling and Drawing industry, which rolls and draws steel for a variety of construction applications, are anticipated to grow in the next five years. Furthermore, industrial production is forecast to continue expanding, which will stimulate demand for industry services. As a result, industry revenue is projected to increase an annualized 2.5% to $35.4 billion in the five years to 2019.

Ball Bearing Manufacturing

This industry manufactures roller and ball bearings that reduce rotational friction and control movement between two or more rotating parts. Roller and ball bearings are needed for the manufacture of vehicles in the transportation, defense and aerospace sectors and for other industrial equipment manufacturing. As a result, the industry's performance depends on developments in the transport and manufacturing markets as well as on global markets, which generate close to one-fourth of the industry's revenue. In the five years to 2014, revenue is expected to grow an annualized 3.4%, commensurate with improving demand from industrial buyers. This includes forecast growth of 3.1% during 2014, bringing total revenue to $7.5 billion for the year.

Because the industry services high value-added markets, profit margins are generally high and are expected to reach 7.7% of revenue by 2014. Exports, encouraged by a depressed U.S. dollar and by high levels of industrial activity in emerging economies, have further bolstered performance and provided respite in periods of depressed domestic demand. Over the past five years, global demand has become an increasingly important source of revenue, since a significant portion of domestic demand is captured by imports. Imports, half of which come from Japan and China, currently satisfy close to one-third of domestic demand and exert pricing pressures on domestic operators. Notably, import competition has reinforced this industry's consolidation; the number of companies has fallen almost every year with fewer companies generating a greater share of total revenue.

Persistent demand for roller and ball bearings promises to buoy operator revenue in the five years to 2019. However, IBISWorld expects import penetration to intensify over the period and to subdue industry growth. Consequently, industry revenue is expected to grow at an annualized 3.1% to $8.7 billion over the five years to 2019. Still, continued consolidation and expanding economies of scale are likely to keep profit margins high at about 8.0% of revenue in 2019.

Source: IBISWorld Industry Reports

Distribution

Definition

Companies within this industry supply storage and logistics solutions to the manufacturing, wholesale and retail sectors.

45411 – Electronic Shopping and Mail-Order Houses

48851 – Freight transportation arrangement

49311 – General warehousing and storage

49312 – Refrigerated warehousing and storage

Representative Companies

- Amazon
- CVS Health Corporation
- C.H. Robinson
- J.B. Hunt Transportation Services
- QVC
- Hub Group, Inc.

Industry Vitals

NAICS	Description	Revenue ($bn)	Profit ($bn)	Annual Growth 09-14 (%)	Annual Growth 14-19 (%)	Revenue per Employee ($'000)	Wages % of Revenue	Emp. per Estab.	Average Wage ($)
45411	Electronic shopping & mail order	297.9	21.2	10.3	5.9	1,119.9	6.2	1.9	69,549.60
48851	Freight transportation arrangement	102.4	6.2	5.9	4.5	353.80	14.0	4.0	49,584.60
49311	General warehousing & storage	20.0	1.8	3.1	2.6	127.50	29.7	22.3	37,847.20
49312	Refrigerated warehousing & storage	4.4	0.64	3.2	3.4	129.00	31.8	33.0	41,077.30

Key External Drivers for the Industry

- Consumer spending
    - An increase in consumer spending underpins industry growth because demand for freight forwarding and customs brokering services depends on consumer demand for goods.
- Demand from brand name pharmaceutical manufacturing
    - Pharmaceutical manufacturers use refrigerated storage to keep products at safe temperatures and prevent spoilage. When consumers demand more pharmaceutical and medicine products, such as over-the-counter cold and flu medication, demand for this industry's services increases.
- Demand from manufacturing
    - The manufacturing sector frequently uses warehousing facilities. When manufacturing activity increases, demand for public storage and warehousing facilities rises.
- Demand from retail trade
    - Demand for third-party storage by retailers influences industry revenue. Strong retail demand increases the need for higher stock levels and, in turn, boosts industry revenue.
- Industrial production index
    - The industrial production index (IPI) indicates the level of output from the mining, manufacturing, and utility sectors. Industry services benefit from rising industrial activity because most industries require freight forwarders and customs brokers to transport raw materials and other semifinished products at various points in their supply chain.
- Internet traffic volume
    - Consumers are also more likely to make online purchases due to the ease and convenience of online shopping.
- Per capita disposable income
    - Per capita disposable income is a deciding factor in determining the quantity and quality of online purchases.
- Total trade value
    - Operators in this industry provide storage and warehousing services for imported and exported goods.
- World price of crude oil
    - Increases in oil prices hurt the profitability of upstream manufacturers and transportation operators.

Competitive Landscape / Key Success Factors

- Ability to alter mix of inputs in-line with cost
- Ability to control stock on hand
- Ability to quickly adopt new technology
- Access to quality personnel
- Automation - reduces costs, particularly those associated with labor
- Having a loyal customer base
- Having contacts within key markets
- Optimum capacity utilization
- Output is sold under contract - incorporate long-term sales contracts
- Production of premium goods/services
- Provision of appropriate facilities
- Provision of superior after-sales service
- Understanding government policies and their implications
- Use of most efficient work practices

Prospect Counts

Industry Segment	Total Universe	Target Universe (100+ emps or $10m+ sales)	Target Universe w/Growth and/or Events
45411 - Electronic shopping and mail order	21,572	599	179
48851 - Freight transportation arrangement	26,285	1,295	259
49311 - General warehousing & storage	20,021	512	128
49312 - Refrigerated warehousing & storage	1,406	134	34
Total	**69,284**	**2,540**	**600**

Outlook

Electronic shopping and mail order

Every year, more time-strapped consumers are being lured by offers of free shipping to purchase goods from online retail marketplaces, one of the fastest-growing industries in the United States. In 2013, the National Retail Federation estimated 140 million shoppers have fled from brick-and-mortar malls to shop from the comfort of their own living rooms (latest available data). Over the past five years, E-Commerce and Online Auctions industry revenue has grown at an exceptional rate, outperforming most retail industries, due in part to higher levels of disposable income and increasing internet traffic volume. Despite the brief recession-induced slowdown in 2009, industry revenue is expected to rise at an average annual rate of 10.3% in the five years to 2014, including growth of 4.3% in 2014, to reach $297.9 billion. As a result of this steady growth, average industry profit margins have also improved, increasing from 5.3% of revenue in 2009 to an estimated 7.1% in 2014.

As internet traffic increases and online shopping becomes more popular, retailers are expanding the products they carry to include common household goods such as CDs, DVDs, Blu-rays, books, clothing, footwear and even grocery and cleaning products. Hard-to-find niche products or products that are no longer being produced have also found a place in online markets. Shopping from home has never been easier, and consumers are relishing the opportunity to multitask by combining necessary shopping and family time. As product ranges have grown, so has the number of industry operators. The number of enterprises is anticipated to grow at an average annual rate of 11.7% in the five years to 2014, to 131,447 operators.

In the next five years, continued economic recovery is expected to drive industry's strong growth, but as the industry becomes more established over the next five years, revenue growth is anticipated to temper. Rising disposable income and declining unemployment will improve consumer confidence, increasing consumers' likelihood and ability to buy. Additionally, internet traffic volume will continue to flourish over the next five years, boosting consumers' accessibility to online retailers. Together, IBISWorld forecasts that these factors will cause industry revenue to grow at an average annual rate of 5.9% over the five years to 2019, to total $397.2 billion.

Freight transportation arrangement

The Freight Forwarding Brokerages and Agencies industry transports goods using third-party trucks, trains, ships, and planes, and helps importers and exporters clear goods through customs. Operators generate revenue by acting as middlemen between shipping customers and third-party transportation carriers and assisting exporters and importers with trade documentation. As a support industry, freight forwarders and customs brokers are vulnerable to the health of upstream markets. Consequently, participants need to maintain strong business and customer contacts in order to compete in this industry.

During times of strong economic growth, demand for freight transportation services rises as consumers and businesses purchase more goods that need to be shipped. This growth in demand increases freight tonnage, which boosts industry revenue. Conversely, slow economic activity leads to a reduction in trade values and service fees, which diminishes demand for freight transportation, hurting industry revenue. In addition, businesses may attempt to cut costs by moving forwarding and customs functions in house as opposed to outsourcing these activities to industry operators, amplifying the impact of reduced demand on industry revenue.

The recession decimated consumer demand and industrial production, resulting in lower trade volumes and putting pressure on industry operators to reduce prices to attract customers, which caused revenue to contract in 2009. Conditions recovered markedly in 2010 and 2011, but industry growth has slowed in recent years due to economic uncertainty and global supply chain disruptions. Nevertheless, revenue is expected to increase 1.7% to $102.4 billion in 2014, contributing to an annualized increase of 5.9% over the past five years due to a strong recovery in freight transportation.

Freight forwarders and customs brokers benefit from rising international trade, which bolsters demand for industry services and, thereby, revenue. Increasing globalization, particularly in supply chains, will drive industry growth over the next five years as manufacturers outsource freight transportation and logistics to industry operators. As industrial production picks up and international trade improves, the industry will continue expanding. During this period, revenue is forecast to increase at an average annual rate of 4.5% to $127.6 billion by 2019. Additionally, the number of companies and employees will grow in order to handle the increasing number of shipments.

General warehousing & storage

The fate of the Public Storage and Warehousing industry has been closely tied to the health of its major downstream markets: manufacturing, wholesale, and retail. As these markets rebounded from the recession, so did demand for the industry's storage and warehousing services. Industry growth has also been fueled by rising international trade, which necessitates goods storage and outsourcing to third-party logistics providers. While these third-party companies are able to provide the value-added services that customers seek in addition to warehousing and storage services, their growth has accelerated industry competition. In the five years to 2014, industry revenue is expected to grow at an annualized rate of 3.1%.

In response to declining demand during the recession, operators in the manufacturing, wholesale, and retail sectors reduced their inventories, in turn reducing demand for warehousing services. As demand for the industry's major downstream markets returned during the post-recessionary period, so did demand for warehousing services. Higher production levels among manufacturers, increasing retail trade driven by an uptick in disposable income and a surge in international trade resulted in rising inventory levels, necessitating industry warehousing and storage services. As a result, industry revenue is expected to grow 2.1% to $20.0 billion in 2014, marking five consecutive years of growth.

The growth of warehouse automation and an increasing reliance on technological systems has caused costs to rise, especially for large operators. Although the recession briefly stymied this development, warehouses will continue to develop more advanced tracking and picking systems to increase productivity over the next five years. The return to growth has spurred entry into the industry, with both the number of enterprises rising 0.8% per year on average in the five years to 2014.

Industry revenue is forecast to grow steadily in the next five years, supported by a stronger economy, rising manufacturing production, higher retail stock turnover and increased outsourcing to third-party logistics providers. As such, industry revenue is forecast to grow an average of 2.6% annually to reach $22.8 billion in 2019. In line with rising revenue, the number of industry operators and employment levels are expected to increase.

Refrigerated warehousing and storage

The Refrigerated Storage industry has fared relatively well in the past five years, benefiting from a spike in trade activity at the beginning of this period. Repressed disposable income in 2010 dampened demand for refrigerated storage services from food manufacturers, retailers, and wholesalers. However, a double-digit growth in the total trade value and greater storage capacity helped boost industry revenue by 15.0% in 2010. As the global and domestic economy improved, demand for refrigerated storage from key downstream markets recovered. The total trade value continued to increase in the years following the recession as new food trends helped boost demand for exotic ingredients and new flavors. As a result, overall industry revenue is anticipated to grow an annualized 3.2% to $4.4 billion in the five years to 2014, including a decline of 0.3% in 2014.

The number of industry establishments is expected to grow more slowly than industry revenue, increasing at an average annual rate of 1.1% over the five years to 2014. Increased capital requirements have made it more difficult for prospective companies to enter the industry. Companies have invested in new tracking and monitoring systems and in larger warehouses with a variety of temperate-controlled rooms, boosting the efficiency of existing operations. Moreover, the industry consolidated during this period as the leading companies acquired smaller operators to expand their market share. Increased use of technology and the consolidation of operations have helped raise industry profitability.

The industry is forecast to grow in the next five years, supported by heightened demand from downstream markets and greater refrigerated storage capacity. Higher disposable income levels will allow consumers to purchase more goods through a variety of retail channels. Additionally, greater total trade activity will also cause manufacturers and wholesalers to demand more refrigerated storage space. As a result, over the five years to 2019, industry revenue is projected to grow at an average annual rate of 3.4% to $5.2 billion. Additionally, greater demand and lower costs realized through improved efficiency are expected to bolster industry profitability.

Source: IBISWorld Industry Reports

Life Sciences

Definition

Companies within this cover the pharmaceutical industry as well as medical supplies and laboratory equipment.

32541 – Pharmaceutical and Medicine Manufacturing

334516 – Analytical Laboratory Instrument Manufacturing

33911 – Medical Equipment and Supplies

42345 – Medical, Dental, and Hospital Equipment and Supplies Wholesalers

Representative Companies

- Novartis Pharmaceuticals
- 3M Company
- Pfizer, Inc.
- Owens & Minor, Inc.
- Mylan, Inc.
- Becton, Dickinson and Company
- Patterson Companies
- Perrigo Company

Industry Vitals

NAICS	Description	Revenue ($bn)	Profit ($bn)	Annual Growth 09-14 (%)	Annual Growth 14-19 (%)	Revenue per Employee ($'000)	Wages % of Revenue	Emp. per Estab.	Average Wage ($)
32541a	Brand name pharmaceuticals	163.5	33.4	-1.8	2.0	839.6	13.8	117.7	115,691.10
32541b	Generic pharmaceuticals	42.7	6.3	6.8	4.8	888.2	13.4	26.3	118,708.20
33911	Medical instruments and supplies	96.4	10.1	2.5	3.6	363.3	17.2	15.1	62,338.20
42345	Medical supplies wholesaling	154.7	8.7	4.0	4.8	816.6	11.3	15.2	92,648.60

Key External Drivers for the Industry

- Federal funding for Medicare and Medicaid
  - Federal funding for Medicare and Medicaid is expected to increase in 2015, representing an opportunity for the industry.
- Median age of the population
  - As the U.S. population ages, more people will demand industry products for treatment. The median age of the U.S. population is expected to increase slowly over 2015.
- Number of people on private health insurance
  - As private health insurance increases, industry products become more affordable for consumers with this coverage. As a result, demand for brand-name pharmaceuticals increases. Although the number of people with private health insurance declined due to the recession's layoffs, the number of people with private health insurance will increase in 2015.
- Number of physician visits
  - The number of physician visits is expected to rise significantly in 2015, resulting in a potential opportunity for the industry.
- Research and development expenditure
  - As R&D increases, the industry has more opportunities to discover products that generate revenue. R&D expenditure is expected to increase in 2015.

Competitive Landscape / Key Success Factors

- Ability to alter goods and services produced in favor of market conditions
- Ability to control stock on hand
- Control of distribution arrangements
- Control of ingredient development
- Degree of globalization in the firm
- Economies of scale
- Guaranteed supply of key inputs
- Having an extensive distribution/collection network
- Having contacts within key markets
- Maintenance of a good reputation
- Timely development of new products
- Undertaking pharmaceutical and medicine R&D

Prospect Counts

Industry Segment	Total Universe	Target Universe (100+ emps or $10m+ sales)	Target Universe w/Growth and/or Events
32541 – Pharmaceuticals and medicines	8,221	892	351
334516 – Analytical laboratory instruments	1,456	125	44
33911 – Medical equipment and supplies	20,800	810	243
42345 – Medical supplies wholesaling	18,175	491	147
Total	**48,652**	**2,318**	**785**

Outlook

Brand Name Pharmaceutical Manufacturing

Brand-name pharmaceutical manufacturers have grappled with one of the largest waves of drug patent expirations in history. As the patent cliff occurred from 2010 to 2012, many blockbuster drugs lost patent exclusivity, which allowed low-price generic drugs to inundate the market. Due to this trend, many brand-name pharmaceutical manufacturers have dealt with intensifying competition from generic manufacturers, which has cut into revenue growth. In response, many industry operators have consolidated and entered into agreements with generic drug manufacturers, such as licensing the right for generic drug manufacturers to sell generics that are identical to brand-name drugs that have lost their patent. Furthermore, many brand-name manufacturers have moved toward including biotechnology, particularly biologic drugs, in their product portfolio.

While some companies have struck deals with generic drug providers, government and health insurance providers have attempted to stimulate generic drug use by setting favorable reimbursement rates for generic drugs because of mounting health care costs, threatening overall industry growth. For example, generic drugs make up 64% of Medicaid prescriptions, yet account for 18% of Medicaid drug spending, according to US Pharmacist, hampering industry revenue growth. In the five years to 2014, industry revenue is expected to decline at an annualized rate of 1.8% to $163.5 billion, including 0.9% growth in 2014. Profit is expected to rise from 17.0% of industry revenue in 2009 to 20.4% in 2014, as pharmaceutical manufacturers have focused on high-margin biologic drugs, which have a 12-year patent exclusivity period. Also, consolidation and merger and acquisition activity have boosted profitability, as more manufacturers had the financial resources to invest in research and development (R&D) and share development risk.

In the five years to 2019, industry revenue is forecast to grow at an annualized rate of 2% to $180.7 billion. Many pharmaceutical manufacturers will likely derive sales volumes from biological drugs, while also contending with the entrance of biosimilar, or generic biological drugs, into the market. Investing in R&D that will generate a high return on investment will occur as many pharmaceutical manufacturers strengthen their drug pipeline with orphan drugs, which typically have a smaller disease population, lower requirement for the number of patients needed during clinical trials.

Generic Pharmaceutical Manufacturing

The $42.7 billion Generic Pharmaceutical Manufacturing industry is expanding rapidly, with annualized revenue growth of 6.8% expected in the five years to 2014, and projected growth of 4.8% in the next five years, to reach $53.9 billion by 2019. An aging population with more chronic illnesses is driving demand for industry products, while regulatory provisions of the Patient Protection and Affordable Care Act expand consumer access to prescription insurance and provide increased opportunities for product development. Industry revenue is expected to grow 4.8% in 2014 alone.

In the past five years, industry revenue growth has outpaced revenue growth for the Brand-Name Pharmaceutical Manufacturing industry (see IBISWorld report 32541a). Many brand-name manufacturers lost patent protection for such blockbuster drugs as Lipitor and Plavix beginning in 2010, and demand for generics subsequently grew, as consumers demanded affordable versions of these high-profile products. Moreover, average industry profit margins are high, representing 14.7% of revenue in 2014. This high profitability, coupled with steady demand growth and increased opportunities for new product development, has enticed companies to enter the industry in the past five years, with industry enterprises rising at an annualized rate of 2.1%. Some of this growth represents brand-name pharmaceutical firms entering the generic industry in an attempt to stay profitable and competitive as their marquee products lose patent protection.

These trends will likely continue in the next five years, and IBISWorld expects the total number of industry operators to increase 1.9% per year on average during the five years to 2019. However, while patent expirations have benefited industry revenue, they have also induced brand-name manufacturers to cut costs, including research and development (R&D) spending. Lower R&D spending by brand-name manufacturers decreases the total number of new pharmaceutical products, which threatens the long-term viability of generics. In response, generic manufacturers are both exploring new product lines (such as biosimilars, drugs developed from living things such as antibodies) and expanding into new markets (such as emerging markets, where consumers can only afford generics). Healthcare reform will further benefit the industry, through expanded insurance coverage for prescription drugs, an improved generic drug approval process and an established approval pathway for biosimilars.

Medical Instruments and Supplies

The $96.4 billion Medical Instrument and Supply Manufacturing industry is a mature, consolidating industry with relatively high profit margins. As such, the industry was largely resilient during the recession, and IBISWorld expects its revenue to continue growing in coming years. Revenue is expected to rise 5.1% in 2014, in line with average annual growth of 2.5% over the five years to 2014. Increased public and private health spending, continued technological innovation and new product introductions have contributed to growing demand for medical instruments and supplies, and the industry has benefited from favorable demographic trends as well. The aging population requires more health care procedures, which necessitate medical instruments and supplies, and rising obesity and diabetes rates have boosted the need for devices that address these issues. Moreover, the burgeoning home health care market has provided opportunities for new product development.

The industry's five largest companies, which currently account for about 23.0% of industry revenue, have all expanded during the past five years, and their market share will likely continue to grow through 2019. This growth is due in part to consolidation, as industry conglomerates acquired many small firms during the recession, despite rising revenue. As a result, since 2009, the number of industry companies has declined 1.4% per year on average to 15,429 in 2014. Consolidation has helped the industry sustain average profit margins of 10.5%, with larger companies able to achieve margins closer to 20% due to their ability to control pricing.

Favorable demographic and technological trends will continue to support product development and industry sales. In the five years to 2019, IBISWorld expects industry revenue to grow an annualized 3.6% to $114.9 billion. Healthcare reform will further drive demand for industry products as an estimated 32.0 million Americans gain access to health insurance coverage, boosting physician visits and the use of medical supplies. However, the newly enacted excise tax on the sale of medical devices will likely cut into operators' margins. Although the long-term effect of the tax remains unclear, many companies are already preparing for additional costs by reducing jobs, slashing budgets and delaying expansion plans. At the same time, innovation and product development will introduce new products to market, buoying industry revenue in the coming years.

Medical Supplies Wholesaling

The Medical Supplies Wholesaling industry distributes dental and medical supplies and equipment intended to improve or maintain health. Demand for wholesale activities associated with these products is highly correlated with demand for the products themselves. The median age of the population has risen over the past five years; as a result, the number of age-related non-elective procedures performed in the United States increased as well. Accordingly, the Medical Supplies Wholesaling industry has exhibited robust revenue growth in the five years to 2014, with the exception of a temporary decline during the recession. In particular, demand for medical devices used in elderly care (including neurological and cardiovascular products) has increased over this period and is expected to continue rising during the next five years.

In addition to increased demand, rising product prices have also contributed to industry growth. Over the past five years, industry revenue is expected to increase an annualized rate of 4% to total $154.7 billion, including a 4.1% increase during 2014. However, rising product prices are largely a result of increasing input prices. Due to these more expensive inputs, as well as stringent government regulations, average industry profit margins have remained relatively flat in the past five years and are expected to account for 5.6% of revenue in 2014.

Over the five years to 2019, IBISWorld expects industry revenue to grow at an average annual rate of 4.8% to $195.9 billion. Revenue is projected to rise as healthcare providers that delayed major medical purchases during the recession begin to invest in newer equipment. New product development by medical device manufacturers will also contribute to industry growth by offering solutions to previously unsolved health issues. Mergers and acquisitions among medical device manufacturers will cause wholesalers to consolidate in order to maintain negotiating power and meet the demands of newly expanded customers. While consolidation will help industry firms reduce costs, profitability is still expected to suffer moderately from healthcare reform legislation, which imposed a 2.3% excise tax on medical device manufacturers beginning in January 2013.

Source: IBISWorld Industry Reports

Clinton 26 Corp. Park North

Assessment Report

Creative Site Assessment prioritizes sites so smart investments can be made in infrastructure, site certification, marketing, and development. This report shows the assessment of your site. Rank this site against other sites in your community to find out which one is your top priority site.

Product Development Outside the Box

Site Description: Clinton 26 Corp. Park North - Clinton 26 Corporate Park North is a 400 acre site on SC Hwy 72 at the I-26 interchange. It is served with water, sewer, electric, and natural gas.

Clinton 26 Corp. Park North

Overall Score: 71 out of a possible 100 points

0 — 100
71

Bonus questions on rail service and proximity to port can push a score above 100.

Category Scores

Utilities: 34.5 out of a possible 46.5 points

0 — 46.5
34.5

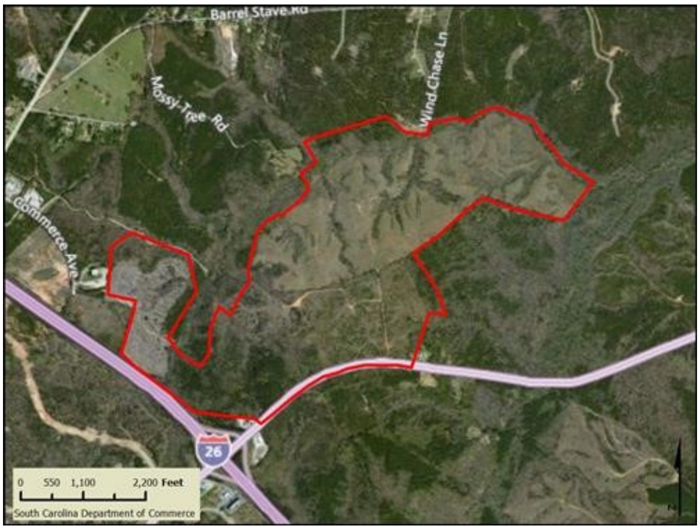
Transportation: 12 out of a possible 17 points

0 — 17
12

Bonus questions on rail service and proximity to port can push a transportation score above 17.

Site Characteristics: 24.5 out of a possible 36.5 points

0 — 36.5
24.5



Clinton 26 Corp. Park North

What does my score mean?

The higher the score, the greater the development potential. Scores are relative to other site scores in your community. Creative Site Assessment finds your best opportunity. Where does your site excel and where does it fall short?

- **Utilities** - If the score is less than 20, it falls significantly short in access to utilities and capacity.
- **Transportation** - Without rail or immediate port access, the maximum score is 17. Sites scoring less than 10 do not have a transportation advantage.
- **Site Characteristics** - Sites scoring less than 15 need to focus on preparation and due diligence.

Site Strengths - Utilities on site, proximity to interstate
Site Weaknesses - Limited excess sewer capacity, limited telecommunications services

Report Contact: Crystal Morphis, Creative Economic Development Consulting, LLC, cmorphis@creativeedc.com

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If you want a more in-depth analysis for your site contact:

PO Box 706, Elkin, NC 28621
336.526.1332
www.creativeedc.com

Clinton 26 Corp. Park South

Assessment Report

site assessment

Creative Site Assessment prioritizes sites so smart investments can be made in infrastructure, site certification, marketing, and development. This report shows the assessment of your site. Rank this site against other sites in your community to find out which one is your top priority site.

Product Development Outside the Box

Site Description: Clinton 26 Corp. Park South - Clinton 26 Corporate Park South is a 56 acre site on SC Hwy 72 across from Clinton 26 Corporate Park North. It is near the I-26 interchange.

Clinton 26 Corp. Park South

Overall Score: 72 out of a possible 100 points

0 100

72

Bonus questions on rail service and proximity to port can push a score above 100.

Category Scores

Utilities: 31.5 out of a possible 46.5 points

0 46.5

31.5

Transportation: 12 out of a possible 17 points

0 17

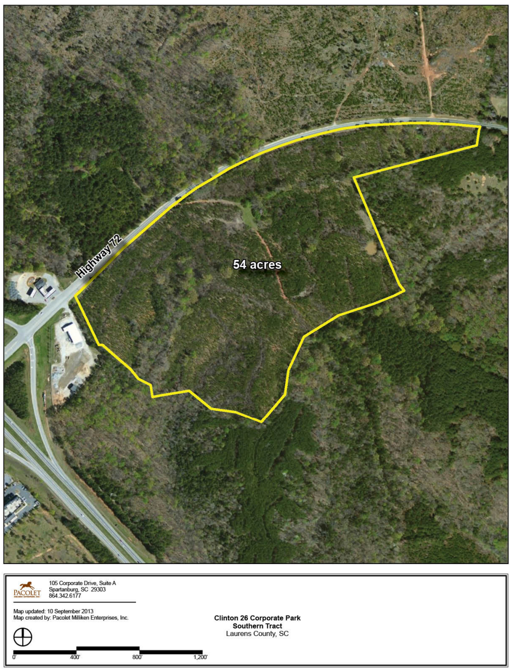
12

Bonus questions on rail service and proximity to port can push a transportation score above 17.

Site Characteristics: 28.5 out of a possible 36.5 points

0 36.5

28.5



Clinton 26 Corp. Park South

What does my score mean?

The higher the score, the greater the development potential. Scores are relative to other site scores in your community. Creative Site Assessment finds your best opportunity. Where does your site excel and where does it fall short?

- **Utilities** - If the score is less than 20, it falls significantly short in access to utilities and capacity.
- **Transportation** - Without rail or immediate port access, the maximum score is 17. Sites scoring less than 10 do not have a transportation advantage.
- **Site Characteristics** - Sites scoring less than 15 need to focus on preparation and due diligence.

Site Strengths - Near I-26

Site Weaknesses - Limited excess sewer capacity, distance to natural gas

Report Contact: Crystal Morphis, Creative Economic Development Consulting, LLC, cmorphis@creativeedc.com

If you want a more in-depth analysis for your site contact:

Creative economic development consulting

PO Box 706, Elkin, NC 28621
336.526.1332
www.creativeedc.com

Clinton Corporate Center I

Assessment Report

Creative Site Assessment prioritizes sites so smart investments can be made in infrastructure, site certification, marketing, and development. This report shows the assessment of your site. Rank this site against other sites in your community to find out which one is your top priority site.

Product Development Outside the Box

Site Description: Clinton Corporate Center I - Clinton Corporate Center I is a 40 acre site in the southern quadrant of the I-26/SC 72 interchange at exit 54. It is a publicly owned site by the City of Clinton.

Clinton Corporate Center I

Overall Score: 67 out of a possible 100 points

0 100
67

Bonus questions on rail service and proximity to port can push a score above 100.

Clinton Corporate Center I

Category Scores

Utilities: 36.5 out of a possible 46.5 points

0 46.5
36.5

Transportation: 9 out of a possible 17 points

0 17
9

Bonus questions on rail service and proximity to port can push a transportation score above 17.

Site Characteristics: 21.5 out of a possible 36.5 points

0 36.5
21.5

What does my score mean?

The higher the score, the greater the development potential. Scores are relative to other site scores in your community. Creative Site Assessment finds your best opportunity. Where does your site excel and where does it fall short?

- **Utilities** - If the score is less than 20, it falls significantly short in access to utilities and capacity.
- **Transportation** - Without rail or immediate port access, the maximum score is 17. Sites scoring less than 10 do not have a transportation advantage.
- **Site Characteristics** - Sites scoring less than 15 need to focus on preparation and due diligence.

Site Strengths - City owned, in a developed area, near I-26
Site Weaknesses - Limited excess sewer capacity

Report Contact: Crystal Morphis, Creative Economic Development Consulting, LLC, cmorphis@creativeedc.com

If you want a more in-depth analysis for your site contact:

PO Box 706, Elkin, NC 28621
336.526.1332
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Clinton Corporate Center III

Assessment Report

Creative Site Assessment prioritizes sites so smart investments can be made in infrastructure, site certification, marketing, and development. This report shows the assessment of your site. Rank this site against other sites in your community to find out which one is your top priority site.

Product Development Outside the Box

Site Description: Clinton Corporate Center III - Clinton Corporate Center III is a 200 acre site on the SC Highway 56/72 Bypass, 1.2 Miles from I-26. The site is publicly owned by Clinton Economic Development.

Clinton Corporate Center III

Overall Score: 76.5 out of a possible 100 points

0 100
76.5

Bonus questions on rail service and proximity to port can push a score above 100.

Category Scores

Utilities: 36 out of a possible 46.5 points

0 46.5
36

Transportation: 14 out of a possible 17 points

0 17
14

Bonus questions on rail service and proximity to port can push a transportation score above 17.

Site Characteristics: 26.5 out of a possible 36.5 points

0 36.5
26.5

Clinton Corporate Center III

What does my score mean?

The higher the score, the greater the development potential. Scores are relative to other site scores in your community. Creative Site Assessment finds your best opportunity. Where does your site excel and where does it fall short?

- **Utilities** - If the score is less than 20, it falls significantly short in access to utilities and capacity.
- **Transportation** - Without rail or immediate port access, the maximum score is 17. Sites scoring less than 10 do not have a transportation advantage.
- **Site Characteristics** - Sites scoring less than 15 need to focus on preparation and due diligence.

Site Strengths - Large acreage site, publicly owned, near I-26
Site Weaknesses - Limited excess sewer capacity

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Thomason II Site

Assessment Report

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Product Development Outside the Box

Site Description: Thomason II Site - Thomason II is a 108 acre site 0.5 mi north of SC 72/SR 46 junction. The site is near an existing industrial area and is adjacent to rail service.

Thomason II Site

Overall Score: 75.5 out of a possible 100 points

0 100
75.5

Bonus questions on rail service and proximity to port can push a score above 100.

Category Scores

Utilities: 36.5 out of a possible 46.5 points

0 46.5
36.5

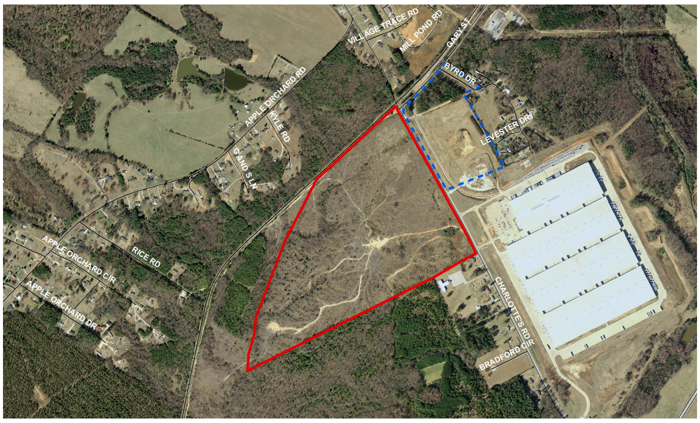
Transportation: 14 out of a possible 17 points

0 17
14

Bonus questions on rail service and proximity to port can push a transportation score above 17.

Site Characteristics: 25 out of a possible 36.5 points

0 36.5
25



Thomason II Site

What does my score mean?

The higher the score, the greater the development potential. Scores are relative to other site scores in your community. Creative Site Assessment finds your best opportunity. Where does your site excel and where does it fall short?

- **Utilities** - If the score is less than 20, it falls significantly short in access to utilities and capacity.
- **Transportation** - Without rail or immediate port access, the maximum score is 17. Sites scoring less than 10 do not have a transportation advantage.
- **Site Characteristics** - Sites scoring less than 15 need to focus on preparation and due diligence.

Site Strengths - Rail service, industrial area
Site Weaknesses - Access, curb appeal

Report Contact: Crystal Morphis, Creative Economic Development Consulting, LLC, cmorphis@creativeedc.com

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Anderson Farm Site

Assessment Report

Creative site assessment

Creative Site Assessment prioritizes sites so smart investments can be made in infrastructure, site certification, marketing, and development. This report shows the assessment of your site. Rank this site against other sites in your community to find out which one is your top priority site.

Product Development Outside the Box

Site Description: Anderson Farm Site - Anderson Farm Site is a 24 acre, publicly owned tract in an existing industrial area. It is located in the northeast quadrant of the SC 72/SR 46 intersection.

Anderson Farm Site

Overall Score: 73.5 out of a possible 100 points

0 100
73.5

Bonus questions on rail service and proximity to port can push a score above 100.

Category Scores

Utilities: 38 out of a possible 46.5 points

0 46.5
38

Transportation: 14 out of a possible 17 points

0 17
14

Bonus questions on rail service and proximity to port can push a transportation score above 17.

Site Characteristics: 21.5 out of a possible 36.5 points

0 36.5
21.5

Anderson Farm Site

What does my score mean?

The higher the score, the greater the development potential. Scores are relative to other site scores in your community. Creative Site Assessment finds your best opportunity. Where does your site excel and where does it fall short?

- **Utilities** - If the score is less than 20, it falls significantly short in access to utilities and capacity.
- **Transportation** - Without rail or immediate port access, the maximum score is 17. Sites scoring less than 10 do not have a transportation advantage.
- **Site Characteristics** - Sites scoring less than 15 need to focus on preparation and due diligence.

Site Strengths - Publicly owned, in an industrial area
Site Weaknesses - Natural gas, curb appeal

Report Contact: Crystal Morphis, Creative Economic Development Consulting, LLC, cmorphis@creativeedc.com

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