



One Amherst

Economic Development Strategic Plan
Amherst County, VA



July 2016

Table of Contents

Executive Summary	2
Economic and Demographic Overview	4
SWOT Analysis	6
Business Survey	11
Strategic Plan	12
Appendices	
A: CVTC Redevelopment	33
B: EDA Program of Work	36
C: Ally Initiatives	40
D: Economic and Demographic Trends	43
E: Community Survey Results	57
F: Business Survey Results	66
G: Incubators in Virginia	77
H: Leadership Programs in Virginia	78
I: Target Industry Analysis	79
J: Funding Partners	154

Executive Summary

One Amherst, the vision for this strategic plan, will bring together the whole community working in unison to create a stronger economy.

This economic development strategic planning effort was precipitated by the announced closures of the Central Virginia Training Center (CVTC) and Sweet Briar College, although the latter rescinded closure plans. Together, the jobs and multiplier jobs at these two institutions make up approximately 25% of employment in Amherst County. Even though job losses at CVTC will have a dramatic impact on the economy, the true economic crisis brewing in Amherst County did not make a formal announcement. Population decline, loss of young people, limited community investments, and low educational attainment will all impact the economy in the future. It is easy to react after a crisis, but hard to muster a reaction when the crisis is looming. This strategic plan is a call to action by the more than 600 Amherst County residents who participated in the process.

The strategic planning process included an economic and demographic overview, community engagement, SWOT Analysis, target industry analysis, and the identification of five initiatives for the Economic Development Authority. The economic and demographic overview found what one might expect in a small, rural community: declining and aging population, low educational attainment, shrinking labor force, and stagnant wages. We also found declining unemployment, a strong manufacturing sector, low crime, and reasonably priced housing.

“Amherst County is a wonderful place to live, and I would love to see it thrive.”

Survey Quote

The surprise in this process came during the community engagement tasks. Online surveys were completed by 533 citizens and businesses. Three community meetings were filled with local leaders. More than 30 individuals were interviewed. What we heard was that Amherst County cannot continue to do business as it has in the past. There is an appetite, no, a hunger, for change. Change is wanted in education, job quality, telecommunications, public investment, and economic diversity.

Citizens clearly expressed their desire for the Board of Supervisors to lead and be forward-thinking rather than hold back the county. The time is right to harness this appetite into action for the good of *One Amherst*.

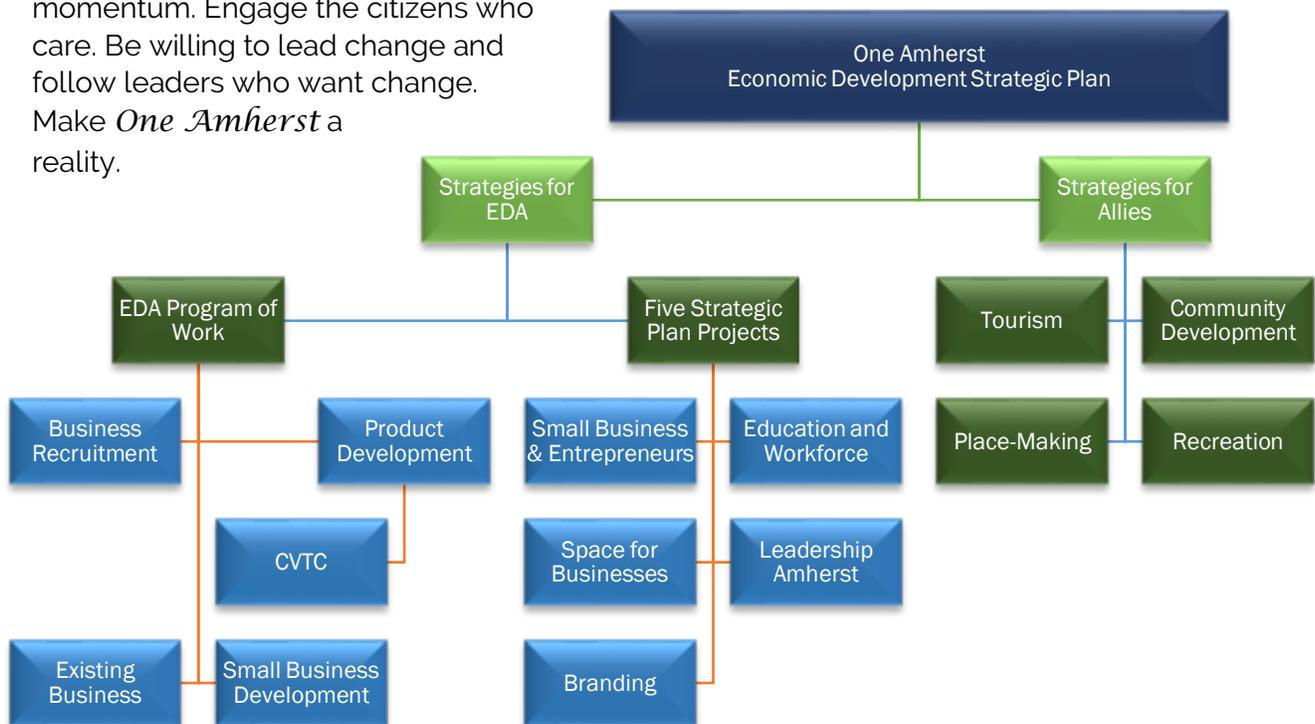
The target industry analysis identified precision parts manufacturing, plastics and packaging, health care, retail and recreation, and education and knowledge services as promising sectors for economic growth. These sectors align with clusters of existing businesses, regional assets, and workforce potential. These are the types of jobs needed to replace those lost at CVTC, but also the types of jobs that will keep Amherst County's best and brightest home.

One Amherst is divided into four sections. First, the Amherst County Economic Development Authority (EDA) tasked the consulting team to identify four initiatives. We recommend five projects in the areas of branding, space for businesses to grow, small business and entrepreneur development, education and workforce development, and leadership development. Each addresses a critical need; thus, we exceeded the task of identifying four initiatives. Second, we address redevelopment of the Central Virginia Training Center. Third, we recommend best practices in the regular program of work areas of the EDA including business

recruitment, product development, business retention and expansion, and small business development. Finally, we recommend initiatives for areas not within the program of work of the EDA for allies to tackle: tourism, recreation, community development, and place-making. These areas are critical to sustainable economic growth in Amherst County but not the responsibility of the EDA. The strategic plan aligns with the county comprehensive plan recommending growth within designated growth boundaries and uses sustainable development practices.

One Amherst is designed to be implemented over three to five years. We include timelines, cost, benefit, funding, and measurements. Most tasks in economic development take longer than we anticipate for two reasons: 1) because of the need to form partnerships and 2) many projects are grant dependent. Even though partnerships take time, we find that the collaboration produces a superior end product. We commend the Amherst County Board of Supervisors for increasing funding to the EDA in FY2017 to implement projects in this strategic plan. This funding is critical to addressing the second hurdle. We recommend the EDA annually revisit the strategic plan to benchmark progress and make course corrections. An economy is dynamic, always changing. There will be updates each year to this document to keep it relevant and meaningful.

We believe the only difference between economically successful communities and those that are not is leadership. We heard from more than 600 citizens that want change. Tap the momentum. Engage the citizens who care. Be willing to lead change and follow leaders who want change. Make *One Amherst* a reality.



Economic and Demographic Overview

The economic and demographic data analysis of Amherst County is a call to action. The county's population has declined by almost 440 people from 2010 to 2015, compared to substantial growth in the regional and commonwealth population. Even though some of the decline can be attributed to reductions at CVTC, the trend is negative. Economic growth is not sustainable with a declining population.

In addition to a general decline in population, Amherst County is losing young people. The percentage of millennials in the 20 – 34 age group is less than the region and commonwealth. When the millennials make up 75% of the workforce in 2025, Amherst County will be at a serious disadvantage.

With a declining population and the loss of young people, Amherst County is losing its labor force at the rate of almost 1% per year. This trend is mirrored in the region but not across the commonwealth where the labor force has been growing at a rate of 1.3% per year.

The unemployment rate in Amherst County has dropped significantly since 2010. A large part of the drop can be attributed to a declining labor force and the inability to recruit young workers to the county. The rate in 2015 - 4.1% - is widely considered to be a full employment rate. The figure indicates a very tight labor market. The rate is so low that employers have a difficult time finding quality employees. Whereas some may think an unemployment rate this low is good, it can actually hurt business growth. The unemployment rates in the region (4.3%) and commonwealth (4.2%) were similar at the end of 2015.

The jobs of today require more education than jobs of even a decade ago. The future workforce will need to be skilled and prepared for lifelong learning.

• Unemployment
• Strong Goods Producing Sector
• Overall Cost of Housing
• Crime

Positives

• Population Decline
• Aging Population
• Diversity
• Educational Attainment
• Income
• Labor Force
• Stagnant Wages

Negatives

Amherst County SAT scores fall short of the average in Virginia (91%) and the U.S. (95%). Overall educational attainment lags behind benchmarks in the region and commonwealth. The greatest gap is in bachelor degrees and higher, as well as a larger population with less than a high school diploma. Some of this can be attributed to a less educated aging population and the inability to retain more highly educated youth. Lower educational

attainment leads to lower per capita and median household income, which negatively impacts quality of life.

The fact that Amherst County spends the second highest per capita on education compared to surrounding counties means money is not the only answer. The community survey results below indicate that the public wants more spending on education; however, spending may not be the only answer to Amherst County's educational attainment gap. Retaining the educated youth is part of the equation.

A positive sign in the economy is the high percentage of jobs that are in the goods-producing sector (28%). These jobs have higher multiplier rates than most service jobs, creating additional wealth in the county and surrounding area. Most people are employed in small firms with 1 – 9 employees, which make up approximately 90% of all businesses in the county.

25% of employment
is in sole
proprietorships, 90%
in businesses with
1-9 employees.

Tourism is an important part of the economy in Amherst County; however, the highest wages are paid in manufacturing and high-end service industries such as information and technology. The average weekly wage has remained relatively flat. This is not unique to the county, as the nation has been in a period of stagnant wage and income growth.

It is less expensive to own a home in Amherst County where home values are about 10% below those in the Lynchburg MSA, an important consideration in a state that has an overall higher cost of housing. Even though housing is less expensive, citizens cite a lack of housing options and especially a lack of housing for young professionals. Another important quality of life factor, commute time, is positive in Amherst County. Most people travel about 10 minutes for work. Crime is also low in Amherst County compared to neighboring counties and Lynchburg.

All of the data analyzed for economic and demographic trends can be found in Appendix D.

SWOT Analysis

The SWOT (strengths, weaknesses, opportunities, and threats) Analysis was compiled with information gathered from a community survey (Appendix E), business survey (Appendix F), community engagement meetings, and interviews with public and private sector leadership. Well over 600 people had input into the strategic planning process. **This is the highest level of community engagement we have ever had in a planning project and indicates the priority and urgency the community places on these efforts.**

Over 600 Amherst County citizens participated in the strategic plan.

Citizens are most concerned with education, job creation, youth retention, and the sectors of the economy that support quality of life. Under those wide topic areas there are the specifics of investment in school facilities, creating jobs that will attract young people, developing the tourism economy, investing in recreation, etc. Citizens also noted the need

“Our county is dying. Jobs are leaving, businesses are leaving, and people are leaving. The county needs to be resuscitated.”

Survey Quote

for the County Board of Supervisors to make substantial investments in the community. In the summary of strengths, weaknesses, opportunities, and threats, some items such as education are listed as both a strength and a weakness. In this example, citizens noted the high quality of teachers but the lack of long-term investment in facilities and programming. Even though Amherst County has invested in education, the public states in this survey they want more.

The graphic represents the most often discussed and noted topics and issues impacting Amherst County's economy.



Summary of Strengths

Quality of Life

- Friendliness of the people
- Low cost of living
- Arts
- Festivals
- Safe community
- Housing price

Natural Resources

- James River
- Agriculture
- Blue Ridge Mountains
- Outdoor recreation
- National Forest

Sweet Briar College

Business

- Low cost of doing business
- Amelon Commerce Center
- Land available for business development
- Independent business owners
- Large industry like Glad and Grief
- Small-business base

Location

- Near Lynchburg and Charlottesville
- Proximity to D.C. and Richmond

Workforce

- Available workers
- Strong work ethic

Education

- Public schools
- Training opportunities at Central Virginia Community College

Transportation

- Hwy 29 Bypass
- Intersection of Highways 60 and 29
- Bus routes

Government

- Economic Development Authority
- Stable tax base

Central Virginia Training Center

Virginia Center for the Creative Arts

Infrastructure

- Low ongoing cost of utilities

Summary of Weaknesses

Leadership <ul style="list-style-type: none">• Resistance to change• Lack of vision, leadership, and innovation• Closed thinking• Anti-growth sentiment
Government <ul style="list-style-type: none">• Not open for business• Town, county politics
Business <ul style="list-style-type: none">• Well-paying jobs• Cost of utilities, hook-up fees• Lack of incentives supporting existing and small businesses• Local regulations, ordinances• Loss of Central Virginia Training Center, threat of losing Sweet Briar College
Education <ul style="list-style-type: none">• Lack of investment, noted in the citizen survey• High illiteracy rate
Quality of Life <ul style="list-style-type: none">• Lack of retail, entertainment, and cultural amenities• Appearance• Affordable housing options• Aging community
Telecommunications <ul style="list-style-type: none">• High speed internet• Cell phone coverage
Workforce <ul style="list-style-type: none">• Lack of education and skills• Youth retention
Community Development <ul style="list-style-type: none">• Investments in Madison Heights as a transition town from Lynchburg
Marketing <ul style="list-style-type: none">• Lack of promotion of recreation and tourism destinations
Tourism <ul style="list-style-type: none">• Recreation and hospitality destinations
Recreation <ul style="list-style-type: none">• Lack of public parks and recreation venues
Transportation <ul style="list-style-type: none">• Lack of interstate
Location

Summary of Opportunities

Business

- Recruit large companies that pay well
- Retail and dining options, shopping
- Development and redevelopment along Bus 29 and Hwy 29 Bypass
- Develop Hwy 210 corridor
- Invest in Madison Heights
- Availability of business development land
- Leveraging railroad to attract businesses

Tourism

- Lodging
- Destination attractions
- Capitalize on natural resources, James River
- Agri-tourism, farm-to-table tourism

Education

- Investment in public schools, specifically specialized programs
- Vocational or training school
- Central Virginia Community College satellite campus expansion

Small Businesses

- Expanding markets beyond Amherst County
- Help small business start-ups

Central Virginia Training Center

- Redevelopment

Telecommunications

- Investments in broadband

Sweet Briar College

- Increased collaboration in arts, business, and student engagement

Quality of Life

- Youth activities
- Housing developments
- Upscale dining, craft breweries, wineries
- More special events and festivals
- Long-term care facility

Downtown Development

- Focus on downtown Amherst as a destination

Cultural Arts

- Second Stage impact on cultural arts

Recreation

- Sportsplex development, facility investments

Infrastructure

Leadership

- Leadership development program

Location

- Leveraging proximity to Lynchburg and Charlottesville

Summary of Threats

Leadership

- Board of Supervisors
- Opposition to change
- Anti-growth
- Unwillingness to invest for the future: schools, infrastructure, transportation

Business

- Economic stagnation
- Taxes and utility fees
- Unfriendly business climate
- Financing alternatives
- Development of Madison Heights area, 210 Connector and Bus 29
- Few job opportunities
- Small population for retail business market

Education

- Under-performing schools
- Low educational attainment
- Lack of funding for schools

Quality of Life

- People relocating out of Amherst County
- Lack of cultural amenities
- Decline in population
- Not growing the downtown area
- People desiring modernization will not find it in Amherst County
- Desire to maintain rural area

Government

- Business policies, restrictions of zoning and public service authority

Central Virginia Training Center closure

Threat of Sweet Briar closing

Workforce

- Lack of skilled labor

Tourism

- Lack of lodging

Perception

- Internal perception
- External perception of businesses, events, tourism destinations

Environmental

- Air and water pollution
- Logging, pipeline, and fracking destroying natural beauty

Business Survey

There were 88 responses to the online business survey (Appendix F), a very large number given the small business base in the county. The profile of respondents was business owners who live in Amherst County. Most have been in business more than 10 years and employ 1 – 10 people. The sectors most represented are Education, Business and Professional Services, and Manufacturing.

One question we asked business respondents is if they did not already live in Amherst County would they consider moving to Amherst County. Of the 20 responses to this question, four said yes. The “nos” said that personal connections to other areas, lack of sense of community, schools, and Amherst County being stuck in the past would keep them from considering moving to the area. This reinforces the desire for change as well as a focus on education.

We learned that incentives, tax breaks, and grants are important to companies. It was the category that ranked the highest among the categories of support needed. Other assistance that businesses want includes marketing, business planning, and local regulatory support. This information supports a strong, proactive business retention and expansion (BRE) program. Another factor that supports a strong BRE program is that 28% of businesses reported they plan to expand at their current location.

Businesses are most unsatisfied with local government policies, quality of life, business climate, and transportation assets. Specific comments include: not business friendly, zoning restrictions on outdoor advertising, lack of housing options, lack of quality dining and shopping, ability to attract young talent, and business license annual renewal process. Later in the survey, 81% rated the business climate either a two or three out of a scale of one to five, where five is the highest. They see schools, community college, utilities, and workforce availability as strengths. The labor force is rated almost equally as a positive and a negative.

Forty-one percent reported telecommunications as the main challenge to sustaining and growing their business. That far exceeded other categories of national economy (35%), sales (26%), and workforce availability (26%). This supports our recommendation to focus on telecommunications expansion.



41% of business report telecommunications as their #1 hurdle.

“Long-term employees are loyal.” *Survey Quote*

Overall, we learned that Amherst County's value position should include work ethic, community college, and utility service. The BRE program should focus support services on connecting businesses to agencies, like the Small Business Development Center, that can help with marketing and business planning as well as helping companies navigate the regulatory environment. And most importantly, Amherst County should invest in telecommunications - the number one hurdle to business expansion.

Strategic Plan

The development of a local economy, especially one in a rural community with many challenges, can seem like a daunting task. The investment needed is high, the projects are complex, and many partners are required. However, Amherst County does not have a choice whether or not to invest in economic development. Its population and labor force are declining. Young people are moving away. Local businesses are struggling. Without aggressive action, the county will continue to decline.



This strategic plan identifies five projects for the Amherst County Economic Development Authority to implement that will directly address challenges and opportunities. The branding project will bring together all of Amherst County under a unified image and marketing approach. It can be used to market the community to businesses, tourists, and new residents. When creating space for businesses to grow, the focus is on both large and small businesses. The focus on small business and entrepreneurs is the bread and butter of Amherst County – 90% of companies employ less than 10 people. The proposed incubator will help more businesses get off the ground so they can grow in Amherst County. The proposed training center will tackle

workforce skills deficits as well as youth retention. Finally, the items under leadership development will unify the town, county, and private sector and groom the next generation of Amherst County leaders.

By adopting this strategic plan and implementing a few action items each year, over time Amherst County will turn the tide. Economic development is a long-term process, not a one-time event. The real work developing the Amherst County economy starts when the planning process concludes.

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it’s the only thing that ever has.” – Margaret Mead



Initiative 1: Brand Amherst County

The need to market Amherst County was identified in each and every point of community engagement - marketing for business, tourism, and residential growth. The EDA is the lead marketing organization for business attraction in Amherst County; however, there is no clear brand identity to leverage. There is no consistency among all organizations in how Amherst County is portrayed and marketed. A branding process will continue the unification effort started by *One Amherst*.

Time is of the essence for the branding project. A branding company can utilize the information gathered in this planning process to reduce cost and avoid duplication. Delaying the project too long will outdate the information gathered for the strategic plan and cost efficiencies will be lost.

A branding process typically includes background information gathering, community familiarization, branding workshop(s), and the development of a brand, logo, tagline, style guide, templates, and usage guidelines.

Goal: Create a brand that will connect people and companies to Amherst County.

Strategy: Engage the community and stakeholders in a branding process that will result in a brand that can be used not only by the EDA but the county, town, and allies such as education and the arts.

Action Steps:

- ⦿ Engage a marketing/branding firm to lead the development of an Amherst County brand.
 - A branding process will result in a logo, tag line, theme, and imagery to be used in a wide range of marketing activities.
- ⦿ Utilize the SWOT Analysis and other assessments from this strategic planning process in the branding process so the consultant will not have to duplicate those steps.
- ⦿ Ask the consulting team to assess the previous brand used by the county - "Virginia's Most Civilized Wilderness" - to determine whether it is still viable and only a refresh is needed.
- ⦿ Implement the brand using all of the EDA's marketing tools: website, social media, materials, promotions, etc.
- ⦿ Seek support, endorsement, and agreements with allies to use the brand.
 - Develop user guidelines to ensure brand integrity is maintained.
 - Gain support from the town and county to use the brand, including it on communications to residents, government publications, and official websites.



Cost

- \$25,000 - \$35,000 for consultant services

Benefit

- Raise awareness of Amherst County as a premier destination.
- More companies will relocate or start in Amherst County. One new small business could bring \$500,000 in new taxable investment. Larger businesses invest millions, with the average being \$2.5M in Brockman and Amelon parks.
- Increase tourists. 2014 tourism impact in Amherst County was \$23.54M (VATC). Increasing tourism by only 1% would increase impact by \$235,400 annually.
- Other revenue increases will be realized: business license fees, machinery and tools tax, lodging tax, etc.

Funding

- EDA implementation budget.

Measurement

- Repeat a market awareness survey with businesses, tourists, and citizens about Amherst County's market image every two years to gauge changes in market perceptions.

Initiative 2: Create Space for Businesses to Grow

Every business, small or large, needs a home. The town and county recognized the importance of product development and invested in business parks that have attracted businesses and industries. However, neither park is full after many years of effort. Economic development has grown more competitive since these parks were started. Each park and site needs a little enhancement in order to compete in today's marketplace. We recommend product development strategies that align with the county comprehensive plan and within designated growth corridors.

Goal: Create first-class business sites and buildings to attract new and retain existing businesses.

Strategy 1: Complete due diligence in Brockman Business and Industrial Park, Amelon Commerce Center, and the Hermle Site (Zane Snead Industrial Park).

Action Steps:

- ③ Amelon Commerce Center
 - Complete the following due diligence tasks:
 - Phase 1
 - Geotech
 - Threatened/Endangered Species/Archeological/Historical Review
 - Infrastructure Planning
 - The available 300,000 gallons of excess water capacity is a concern for long-term development. The limitation is the corresponding sewage pumping capacity. A Phase 2 expansion could increase capacity to 600,000 GPD. Complete an engineering study to determine how excess capacity can be increased, the cost, and a timeline.
 - Grade a pad-ready site on Lots 5 and 6.
 - After completing the geotechnical assessment, seek estimates in FY2017 for grading the site.
 - Develop a conceptual building, complete with an electronic rendering that can be used on the website on the pad-ready site.
- ③ Brockman Business & Industrial Park
 - Transfer ownership of the park to the EDA with the IDA/EDA merger (see more on this below).
 - Complete the following due diligence tasks:
 - Threatened/Endangered Species/Archeological/Historical Review
 - Infrastructure Planning
 - The available 350,000 gallons of excess sewer capacity is a concern for long-term development. Complete an engineering study to determine how excess capacity can be increased, the cost, and a timeline.
 - Grade a pad-ready site on Site 15, the "Hollingsworth Site."



- The geotechnical study has already been completed on this site. Seek grading estimates to make pad-ready.
 - Develop a conceptual building, complete with an electronic rendering that can be used on the website, on the pad-ready site.
 - Plan for a public-private partnership spec building development.
 - Spec building partnerships take many forms. Since the land will be owned by the EDA, we recommend letting a developer use the land (post pad-ready grading) at no charge until the building sells or leases. We recommend the EDA always have a spec building in some phase of development (planning, virtual, or construction).
- ◎ Hermle North America Site (Zane Snead Industrial Park)
 - This site is in private ownership. We recommend developing an agreement whereby the EDA pays for the noted due diligence and is repaid when the land is sold. In essence it is a zero-interest loan to the company.
 - Complete the following due diligence tasks:
 - Phase 1
 - Geotech
 - Threatened/Endangered Species/Archeological/Historical Review
 - Complete a site plan with rail siding cost estimate. This should be done at no charge by the railroad company.
 - The available 350,000 gallons of excess sewer capacity is a concern for the long-term. Complete an engineering study to determine how excess capacity can be increased, the cost, and a timeline.
- ◎ It should be noted that Amherst County Service Authority owns over 1.5 MGD of unutilized wastewater treatment capacity at the Lynchburg Regional Wastewater Treatment Facility. This allows for future wastewater collection system expansion to those areas where it is most needed, industrial, commercial, and residential.

Cost

- Hermle agreement - \$2,500
- Due diligence - \$10,000
- Infrastructure studies done in-house.
- Hermle rail plan typically done at no charge by railroad company.
- Conceptual buildings typically done at no charge by contractors.
- Grading cost estimates unknown until engineer assessment.

Benefit

- Increase in jobs and taxable investment.
- Based on the target sector of precision manufacturing, a company employing 25 people will equate to a total of 38.75 direct, indirect, and induced jobs in the economy. There are roughly 20 sites in Brockman, Amelon, and the Hermle site. These sites could yield a total new employment in the county of 775. With an average weekly wage of \$652, that equates to over \$26M in annual new payroll.
- Another way to measure impact on industrial parks is property tax revenue. The three companies in Brockman Park represent approximately \$9.5M in taxable investment or almost \$58,000 in revenue each year. The three companies in Amelon Commerce Center represent \$5.6M and \$34,000 in annual tax revenue. This is only property tax revenue. Business, personal property, and machinery and tools tax revenue can be as impactful as property tax revenue.
- Additional contributions to public revenues will derive from additional sales taxes generated by the additional wages paid by these new employers, which are not included in this example.

Funding

- Hermle agreement and due diligence funded by EDA implementation budget.
- Grading grants typically not available.
- Spec buildings can be funded through bank consortiums, public-private partnerships, or grant sources such as CDBG. We have seen examples of utility partners investing in spec buildings.

Measurement

- Conduct an economic impact analysis of projects locating in the parks, on sites, and in buildings to gauge return on investment.

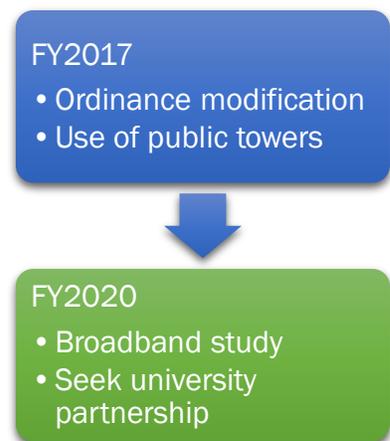
Strategy 2: Invest in telecommunications.

Forty-one percent of the respondents to the business survey said that telecommunications was the number one obstacle to growing and sustaining their business. Telecommunications was rated as a greater obstacle than the national economy, workforce availability, and sales. Investing in telecommunications will help every business, large and small. The EDA intends to use some of its funds to provide gap funding for telecommunications needs of businesses in industrial parks but a countywide expansion of broadband and cellular service is imperative.

Beyond supporting business growth, broader telecommunications service is needed by students. In a focus group of high school students, they talked about having to drive to locations with better internet coverage in order to complete homework assignments.

Action Steps:

- ⦿ Modify ordinances and policies to encourage improved cellular coverage. This is a paramount business and quality of life issue.
- ⦿ Continue to explore the use of public towers to expand broadband coverage.
- ⦿ Link opportunities to expand telecommunications with the expansion of broadband to schools and through a partnership with Sweet Briar College.
- ⦿ After the county completes the first three action steps, reassess the gaps in broadband through a broadband needs study. If success is found in the first three action steps, there may be limited gaps to fill.



Cost

- Ordinance modifications - \$0
- Broadband Study - Possibly no cost if completed by a university. See this article on Virginia Tech and the Virginia Center of Innovative Technology assisting King William County <http://www.dailypress.com/tidewater-review/news/dp-king-william-supervisors-consider-broadband-options-20160510-story.html>. If a private contractor is used, the cost will likely exceed \$30,000.

Benefit

- Increase in new businesses and expansions by eliminating the number one hurdle to business growth.
- The average investment in the industrial parks is \$2.5M. One new company could offset the cost of cellular and broadband expansion.
- 25% of Amherst County businesses are self-employed small businesses. Most, if not all, require internet and cellular service in order to do business. One new small business as a result of better telecommunications could bring \$500,000 in new taxable investment.
- Better telecommunications coverage will also attract more residents.

Funding

- Seek university partnerships to offset the cost of a broadband study.
- CDBG Planning Grants are available for telecommunications planning up to \$30,000 (no match); however, the program states that community telecommunications studies often exceed that amount.

Measurement

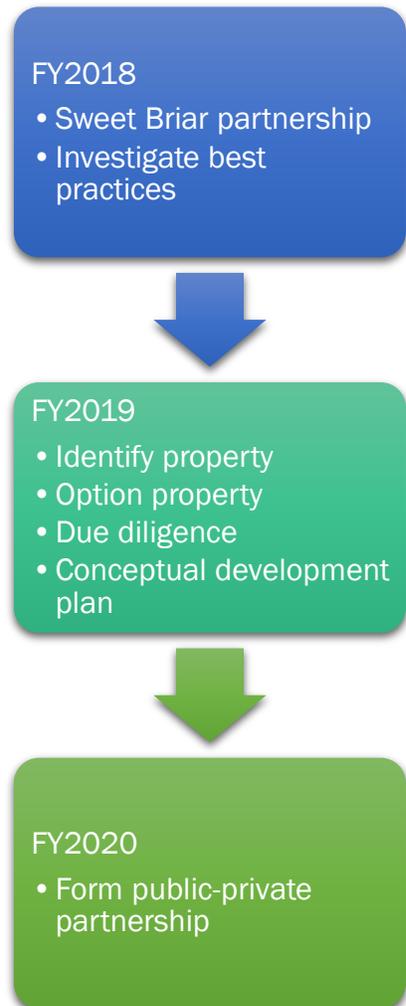
- Include a customer satisfaction question about telecommunications in the Business Retention and Expansion Program in order to track how satisfied businesses are with telecommunications services. The investments made to improve services should be reflected in the survey over time.

Strategy 3: Create a unique business park development that leverages Sweet Briar College.

Beyond the current site inventory, Amherst County needs to look to the future and plan for long-term business development. Given that one of its greatest assets is Sweet Briar College, we recommend a business park development aligned with niche specialties of the college such as engineering and sciences.

Action Steps:

- ⦿ Investigate Sweet Briar College's interest in a partnership to leverage the engineering and sciences (biochemistry, biology, chemistry, environmental science, etc.) programs in a business park development.
 - There are many examples of university partnerships in business park developments. Investigate the Institute for Advanced Learning and Research model in Danville.
- ⦿ Identify a large tract of land (200+ acres) for the future business park development.
 - The site should be on a major highway, near existing water and sewer service, served with broadband, and easily accessible to Sweet Briar College.
 - Consider using a third-party to prioritize and analyze potential properties.
- ⦿ Complete due diligence items such as:
 - Phase 1
 - Geotech
 - Threatened/Endangered Species/Archeological/Historical Review
 - Conceptual Site Plan (phased development) with Development Cost Estimates
- ⦿ Control in a public-private partnership.
 - Often business parks are developed in a public-private partnership. The economic development organization options property and pays the owner as land is sold on an acreage release basis. Other examples are equity participation whereby the landowner delays payment up front in exchange for a higher per acre sales price post public improvements.



Cost

- Option - Possibly \$0 with landowner participation
- Due diligence - \$25,000 - \$35,000
- Conceptual development plan - \$10,000
- Total development cost is unknown until conceptual development plan is complete

Benefit

- If built out at 15 companies employing an average of 25 workers at each, total employment would be 375. If we assume that the jobs would be in a mix of target sectors of education and knowledge services and light manufacturing, the multiplier effect of jobs could equal 510 total jobs in Amherst County.
- Given the average investment of companies in Brockman and Amelon at \$2.5M, 15 new companies could represent \$37.5M in taxable investment or \$229,000 in new property tax revenue annually. Business personal property, machinery and tools, business licenses, and other revenues will be realized.

Funding

- Fund the due diligence and conceptual development plan out of the EDA implementation budget.
- Infrastructure funding can come from a variety of sources: CDBG, U.S. EDA, and USDA Rural Development.

Measurement

- Conduct an economic impact analysis of companies locating in the new park to determine return on investment.

Strategy 4: Invest in Highway 210.

Investments in Hwy 210 are important because of future CVTC redevelopment, growth from Lynchburg, and the bypass. Developing this corridor could connect the bypass and jail property to a redeveloped CVTC site.

Action Steps:

- Ⓞ Make the Highway 210 corridor a priority development area in the comprehensive land use update.
- Ⓞ Plan to connect the bypass and jail area to CVTC via mixed-use development.
- Ⓞ Align this new development area with the target sectors of Education and Knowledge Services and Health Care.
- Ⓞ Include this area in future infrastructure planning, along with CVTC upgrades, as warranted by redevelopment opportunities.

FY2020+

- Long-term and dependent upon CVTC redevelopment

Cost

- Land use planning cost will be included with the comprehensive land use update.
- EDA requested \$300,000 from the state to conduct a comprehensive redevelopment plan for CVTC and surrounding properties. Some of this planning work could include the Hwy 210 corridor.

Benefit

- Development of this area should be tied to the redevelopment of CVTC. A mixed-use development of this size will expand the current \$350M retail market, spur housing, commercial, light industrial, and services development.
- We project 364 jobs with a payroll that exceeds \$10.5M annually on a mixed-use redeveloped CVTC property. Similar impacts can result from development of the Hwy 210 corridor.

Funding

- Through the county's investment in the land use plan update and potential planning funds from the state.

Measurement

- Conduct an economic impact analysis of all new developments in the area.

Initiative 3: Education and Workforce Development

The number one challenge in economic development is workforce development. Even though employers raved about loyalty and work ethic, they expressed concern about skills and availability. A high school education is no longer enough to work in most industries. The target sectors identified for Amherst County require some post-high school education either in the form of degrees, certificates, or training.

There is a best practice model in Lee County, NC – the Innovation Center. Caterpillar formed a partnership with the community college and public school system to develop an apprenticeship program. Students spend part of the school day training on equipment at the Innovation Center. They spend their summer interning at Caterpillar. At the end of the program, students have earned a Career Readiness Certificate, industry certification, a high school diploma, and a guaranteed interview with Caterpillar. Another best practice model is the Regional Center for Advanced Technology and Training in Danville, VA. This facility includes prototyping space for companies.

Goal: Create a pipeline of talent.

Strategy: Develop a state-of-the-art workforce training system.

Action Steps:

- ⦿ Establish a task force to include CVCC, public schools, Region 2000 Workforce Development Board, and Sweet Briar College.
- ⦿ Review best practice models such as the Innovation Center in Lee County, NC, and the Regional Center for Advanced Technology and Training in Danville, VA.
- ⦿ Review potential alignment with the new state program to fund noncredit training at the community colleges and the mobile lab for manufacturing skills training.
- ⦿ Identify common skills needed among top employers through surveys and interviews.
 - This would be an ideal project for an intern from Sweet Briar College.
- ⦿ Seek industry partners to develop a training curriculum and fund training equipment that could be co-located with the incubator facility.
 - Review the best practice partner program with Caterpillar at the Innovation Center in Lee County, NC.
- ⦿ Seek education partners to host new programs. This could be high schools, CVCC, or area institutions of higher learning.
 - Part of the school day is training through a dual enrollment program.
- ⦿ Seek company partners to guarantee a summer work experience.
- ⦿ Upon graduation from the training program, students are guaranteed an interview with a local company.



Cost

- Skills survey could cost \$0 if done in-house.
- Training programs are funded through the community college system and Workforce Development Board.
- Total project cost depends on whether a facility is needed, and if so, size, location, availability of existing buildings, etc.

Benefit

- Increasing educational attainment and workforce skills.
- Retention of skilled youth.
- Attraction of new companies and expansion of existing businesses due to the availability of skilled labor.
- If 20 students are served annually by the new workforce training system, those 20 jobs would equate to approximately 31 total jobs in the economy and over \$1M in new payroll.

Funding

- If the project becomes regional (two or more units of government), then the Virginia Department of Housing and Community Development, Building Collaborative Communities Program Grant may be available for capacity building (up to \$25,000), regional planning (up to \$40,000), and regional projects (up to \$75,000) with a 25% match.
- If the project is located in a former industrial facility, the Virginia Department of Housing and Community Development, Industrial Revitalization Fund provides up to \$600,000 of grant or loan (1:1 match) to acquire, rehabilitate, or repair a former industrial facility as part of an economic development strategy.
- Similar training centers have been funded jointly by community colleges, USDA, WDB, and other state and federal sources. Appalachian Regional Commission also has workforce training funds. RCATT in Danville was funded in part by the General Assembly.

Measurement

- Educational attainment.
- Number of graduates, degrees, and certifications.
- Employer study of workforce skills gaps.

Initiative 4: Small Businesses and Entrepreneur Development

Small businesses are the foundation of the Amherst County economy. Almost 90% of the companies in the county employ less than 10 people. Twenty-five percent are sole proprietors. The EDA supports small business growth and connects entrepreneurs to regional resources. A gap in the small business network is start-up nurturing space, especially for manufacturers.

Goal: Develop the talent and culture of entrepreneurship needed for sustained economic growth.

Strategy: Develop an Incubator Facility.

Action Steps:

- ⦿ Form a partnership with Central Virginia Community College, Amherst County Schools, and Sweet Briar College to provide services to the incubator.
 - Central Virginia Community College hosts the Small Business Development Center, which provides customized counseling and education for business owners.
 - Sweet Briar College has a new focus on entrepreneurship with classes in Entrepreneurship and Innovation and Business Strategies for Entrepreneurs.
 - Amherst County has an entrepreneurship program for high school students and a Young Entrepreneurs Academy.
- ⦿ Form a Task Force under the EDA to include the partners above and other stakeholders.
- ⦿ Align the incubator with target sectors to support the growth of these clusters.
- ⦿ The Governor's new Council on Youth Entrepreneurship may have synergies.
- ⦿ As an interim step, consider a virtual incubator. Virtual incubators provide similar services to incubators, without the bricks and mortar. Examples of services include business planning through the Small Business Development Center, mentoring, networking with other entrepreneurs, financing connections, etc.
- ⦿ Investigate a location at Amelon Commerce Center including the vacant building owned by the EDA.
- ⦿ Visit best practice models in Virginia. We include a list of incubators in Virginia in Appendix G.
- ⦿ Create a phased development plan for a facility that will house an incubator.
 - Review this best practice article on a manufacturing incubator in Abbeville, SC.
<http://www.creativeedc.com/growing-small-ideas-into-big-business/>



- ⊙ Make sure the incubator has a mandatory graduation date. Like children, the goal is to raise them to leave the nest.
 - Consider the difference between market rate rent and the subsidized incubator rent as a forgivable loan if the company stays in Amherst County for three years following graduation.

Cost

- The budget for the incubator will vary depending upon size and whether an existing building is upfitted or a new building constructed. As a guide, the incubator in Abbeville County, SC, which houses four small manufacturing bays, cost \$1.45M to construct. This project was funded in part through a grant from the U.S. Economic Development Administration.

Benefit

- 25% of Amherst County businesses are sole proprietorships. New small business is big business to Amherst County.
- The multiplier for the management of companies and enterprises is one of the highest in Amherst County. For every new business owner in the county, approximately 1.5 additional jobs are created.
- If each new small business represents only \$500,000 in new investment in the county, tax revenue would increase by \$3,050 per business started.

Funding

- Virginia Department of Housing and Community Development, Building Entrepreneurial Economies planning (no match) and implementation grants (1:4 match) can pay for research, market assessment, capacity development, and implementation of entrepreneurial strategies.
- The Virginia Department of Housing and Community Development, Industrial Revitalization Fund provides up to \$600,000 of grant or loan (1:1 match) to acquire, rehabilitate, or repair a former industrial facility as part of an economic development strategy.

Measurement

- New business starts.
- Small business expansions.
- Business expansions out of the incubator.

Initiative 5: Leadership Development

Leadership is the defining factor of success in economic development. With a declining population, less diversity, and the loss of young people, Amherst County must be proactive in developing its future crop of leaders.

Goal 1: Develop new leadership talent that will impact the public and private sectors of Amherst County.

Amherst County is losing leadership talent. As the baby boomers retire and young people leave the county, it is harder and harder to find volunteers and people to take on leadership roles. During the strategic planning process we saw many of the same faces in meetings. In order to lead the county through the changes that are necessary to sustain the economy, more leaders are needed, with more diversity.

Strategy 1: Launch Leadership Amherst - a leadership development program.

Action Steps:

- ⦿ Investigate leadership development program models. We list an inventory of programs across Virginia in Appendix H. Leadership Lynchburg is a good model in Amherst County's backyard.
- ⦿ Create a committee under the EDA to lead the development of Leadership Amherst. Potential partners include:
 - Town, county, Region 2000, chamber, 4H and FFA, and businesses.
- ⦿ Form a partnership with Sweet Briar College to assist with program structure, curriculum, and measurement.
 - Most programs meet once a month for 8-9 months and include programming such as an economic development day, local government day, history day, etc. along with leadership development programming.
 - Include a class community service project as one of the requirements.
- ⦿ Create a budget model that includes a tuition paid by participants.
 - Consider a scholarship program in the first year of the program. This will generate interest in the pilot initiative and prove its value to companies.



Cost

- Similar programs cost \$1,000 - \$1,500 per participant. If Amherst County has a class of 15, the cost will be \$15,000 - \$22,500 annually. Depending upon the tuition level set by the committee, the program may be self-sustaining or cost a few thousand dollars a year. In year one, use the EDA implementation budget to award scholarships as a pilot initiative.
- "People power" is one of the costs of implementing a leadership development program because it is time intensive.

Benefit

- New, diverse leadership.
- More community volunteers and a higher level of citizen engagement.
- More unity among citizens and leaders.
- Nationally, a volunteer hour is estimated to be valued at \$22.55. The 15 class participants volunteering 10 hours over the course of the program will be worth over \$3,000 in volunteer value.

Funding

- Fund out of the EDA implementation budget and participant dues. As the program matures, private sector sponsorships may be solicited.

Measurement

- Conduct a survey every three years of Leadership Amherst graduates to gauge their level of community involvement compared to service levels pre-program.

Goal 2: Structure for Success

Strategy 2: Unify the economic development efforts of the town and county.

The Town of Amherst Industrial Development Authority was created at a time when the county did not have an economic development program. Now the EDA and IDA overlap in mission and activities. There are efficiencies to be gained by merging the organizations, as well as a higher level of partnership and alignment between the town and county economic development efforts.

Action Steps:

- ⦿ Merge the Town of Amherst Industrial Development Authority and Amherst County Economic Development Authority for better efficiencies, integrated efforts, and partnership.
 - Create a Task Force for Merger made up of three representatives each of the IDA and EDA.
 - Update EDA charter/bylaws to include representation from the town. Representation should be reflective of funding sources. For example, the more funds the town is investing in the EDA the more board representation. .
 - Transfer of assets, such as Brockman Park, to the newly reconstituted EDA.
 - The IDA will go inactive and may not renew its charter.
 - To encourage a high level of collaboration, include town representatives on some of the task forces recommended in this strategic plan.
 - ⦿ The town and county should adopt guidelines for EDA board appointments. The position warrants specific talents and expertise and not a general appointment. We recommend the following guidelines:
 - Knowledge of economic and business development in Amherst County.
 - Private sector experiences that translate to being a resource for the county. Examples are finance, marketing, manufacturing, real estate development, business management, etc.
 - Knowledge of the growth sectors in the local economy.
 - Experience with local and regional organizations that support economic development.
 - Experience leading community organizations in Amherst County, such as a recent chairman or officer.
 - Board members must be able to adhere to the EDA's Conflict of Interest and Confidentiality Policies, placing the good of the organization before personal interest.
 - Board members should be able to effectively communicate the economic development mission to the general public and community organizations.
 - Board members should live and/or work in Amherst County.
-
- ```
graph TD; FY2017["FY2017
• Form task force
• Update EDA bylaws
• Seek town/county endorsement"] --> FY2018["FY2018
• Merge
• Transfer assets"]
```

## Cost

- Approximately \$5,000 for legal review of bylaws.

## Benefit

- Increased collaboration between the town and county.
- Efficiencies in product development, site planning, marketing, and project management.
- Consolidation of industrial park assets.

## Funding

- Fund from the EDA implementation budget.

## Measurement

- Qualitative measurement as part of annual evaluation of the EDA's performance.

# Implementation Timeline

*One Amherst* is designed to be implemented over three to five years. Some tasks, such as branding and site due diligence, can be completed in FY2017. Most tasks will be initiated, explored, or studied further in FY2017, with implementation starting in FY2018. Most tasks in economic development take longer than we anticipate for two reasons: 1) because of the need to form partnerships and 2) many projects are grant dependent. Even though partnerships take time, we find that the collaboration produces a superior end product. We commend the Amherst County Board of Supervisors for increasing funding to the EDA in FY2017. Those funds will support several project implementation items.



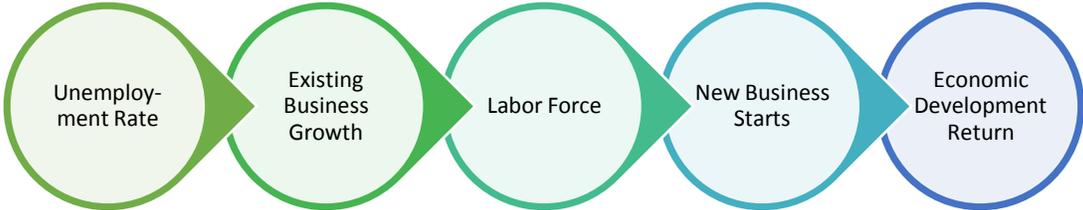
## Staff Resources Needed for Implementation

The most important resource for implementation is people power. Much of economic development is the time-consuming task of forming partnerships and facilitating projects. The EDA functioned with one part-time staff person for a few years, and now has one full-time and one part-time staff. The organization needs at least two full-time equivalents to implement this strategic plan, in addition to contractors. We recommend a portion of the EDA's FY2017 budget increase be devoted to additional staff to support implementation strategic plan initiatives. Without adequate staff, meeting the timelines for the strategic plan is unrealistic.

# Dashboard

The EDA should measure its activities to report to stakeholders as well as to assist with internal decision-making regarding allocation of resources. We recommend a dashboard be reported on the website and in internal marketing. The dashboard should be just a few data points that capture the results of the EDA's activities.

We recommend the following data points be tracked on a dashboard at least annually. New business starts will capture small business and entrepreneurial activity, associated with Initiative 4. Changes in unemployment and labor force are outcomes of Initiatives 1, 2, and 3. Tracking existing business growth will support Initiatives 2 and 3. The outcomes can be summarized in a return on investment for economic development. Part of the return on investment can be quantified through an impact analysis of companies expanding, growing, and creating jobs. Another part of the return can be quantified through business satisfaction assessed in the BRE program. Furthermore, activities that will generate future benefit to the county can be quantified.



# Appendix A: CVTC Redevelopment

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The pending closure of the Central Virginia Training Center (CVTC) was one of the events that triggered this strategic planning project. The other event was the announced, then rescinded, closure of Sweet Briar College. The total jobs lost, 1,200 jobs at CVTC and 300 jobs at Sweet Briar College, plus the multiplier jobs represent approximately 25% of the total employment in the county. CVTC has already begun to reduce its workforce as it finds new care facilities for residents. Workforce reductions will continue until the facility is closed in 2020.

The consulting team evaluated several potential reuses for the property. Our analysis included a wide-range of uses such as recreation, summer camp, residential, health care, retirement community, industrial park, and others. Several of these potential reuses were eliminated because they would not generate the necessary jobs and tax base required to replace the economic impact of CVTC. A sole industrial development was eliminated because of the natural beauty of the site and its connection to the Riveredge Park area.

After we completed our analysis, we concur with the EDA's vision of a mixed-use development. The site is large and has assets that will support housing, services, commercial, and light industrial development. The areas closest to the James River would be ideal for housing. Tracts closest to Hwy 210 could be developed into light industrial or commercial. Areas in between and to the east could be developed for services. Earlier we recommended planning to connect the CVTC property, development potential along Hwy 210, and the jail site.

The redevelopment of the CVTC property will depend upon many factors which are unknown at the time of this strategic planning process. The property will not be declared as surplus property until 2020. Even at that time, the state's intention for redevelopment, sale, or reuse may not be known. Thus, we did not complete further analysis beyond the general determination that the site should be developed as mixed-use in order to yield a similar economic return as CVTC. One important consideration in redevelopment, is the estimated \$14,000,000 in water and sewer replacement needs at the site. The EDA Course of Action will result in detailed planning.

The EDA has garnered local and regional support of resolutions supporting adaptive reuse of the property. The Course of Action approved by the Board of Supervisors and supported by the Lynchburg Regional Business Alliance and Region 2000 includes a request for the state to fund environmental assessments and provide \$300,000 for a comprehensive redevelopment plan for CVTC and surrounding properties. The environmental assessments and redevelopment plan are critical in order to market the property. We concur with the EDA's Course of Action.

We analyzed the impact of CVTC from the 2013 *Estimated Economic and Fiscal Impact of the Central Virginia Training Center* by Magnum Economic Consulting, LLC, and workforce information gathered by Region 2000. These two documents provide a wealth of information about the impact of the job losses.

Of the 1,196 jobs at CVTC, approximately 30%, or 364, reside in Amherst County. The average wage of the jobs is \$29,089. About 40% of workers have a high school diploma or less education.

We used the wage breakdown in the Region 2000 report to estimate the number of jobs in each wage category that will be needed to replace jobs lost at CVTC. The chart below shows, for example, that 54 jobs earning \$30,000 - \$40,000 will be needed. Next we aligned the wage sectors with average wages in the target sectors identified in this study to determine what types of jobs will be needed. Therefore, approximately 15 jobs will be needed in Management and Information to replace the 15 jobs lost at CVTC in that same wage range.

| Region 2000 Analysis          | Replacing Jobs in Amherst County | Potential Industry Sectors for Replacement Jobs |
|-------------------------------|----------------------------------|-------------------------------------------------|
| 29% earn less than \$20,000   | 106                              | Retail, Services                                |
| 37% earn \$20,000 - \$30,000  | 135                              | Education, Health Services                      |
| 15% earn \$30,000 - \$40,000  | 54                               | Construction, Manufacturing                     |
| 15% early \$40,000 - \$70,000 | 54                               | Manufacturing                                   |
| 4% earn more than \$70,000    | 15                               | Management, Information                         |

Even though the CVTC property is not taxed, it has a taxable value of \$43,623,700. That same value, if held in the private sector, would yield approximately \$244,292 in annual property tax revenue to Amherst County. We propose a minimum target is to replace the tax value of CVTC.

| Total        | Property Tax Revenue Goal |
|--------------|---------------------------|
| \$43,623,700 | \$244,292.70              |

Thus, in order to simply maintain the current economic impact, the redevelopment of CVTC will need to be a mix of uses totaling \$43M in taxable investment and employing 364 jobs paying an average wage of \$29,000. We advocate for jobs that pay a higher wage in order to meet Amherst County's goal of raising income levels.

In the future, we recommend Amherst County engage a lobbyist to advocate for state support of the reinvestment levels stated above. We learned from other state facility closures that having a lobbyist to monitor the project can be critical. Amherst County would

lose a golden opportunity for economic development if the property was re-purposed into a government facility and kept off the property tax rolls.

# Appendix B: EDA Program of Work

*One Amherst* identified five new initiatives for the EDA. Outside of those five projects, the EDA will maintain its regular program of work in the areas of business recruitment, business retention and expansion, product development, and small business development. In this section of the report, we note those activities to reinforce their importance and offer some guidance on best practices.



## Business Recruitment & Marketing

The EDA relies on the Lynchburg Regional Business Alliance for external marketing. The regional alliance schedules marketing trips, consultant events, and trade show exhibits, as well as advertising and other promotion. Given the huge expense of external marketing, we recommend the continued reliance on the region for these activities and spending the local marketing budget where it has greater impact.

- ⦿ The EDA website is well done. Most economic development organizations will perform a review and major update every couple of years. In the next review, consider reducing the verbiage and using more infographics. Also, increase community data available on the site. One of our favorite sites is <http://petalumastar.com/>.
- ⦿ The website is linked to Facebook, but no other social media platforms. We typically see profiles in LinkedIn and Twitter. There are programs that allow for an update in

one place that is pushed out to other platforms. This could be outsourced to a firm due to limited staff time.

- ⦿ Add information on target sectors to the website. A page on each could include assets supporting the sector and examples and testimonials from existing businesses in the sector. This information could be used to develop target sector brochures for each industry.
- ⦿ Invest in a photography library for Amherst County. Every agency and organization needs quality photography for websites, marketing materials, public relations, and events. During the course of this strategic planning project we had difficulty finding quality photography for this report.

## Business Retention and Expansion (BRE)

Even with limited staff time, we could see how the BRE program is making a difference in Amherst County. On more than one company visit we were told that staff had been there recently to offer assistance. In small communities like Amherst County, as much as 80% of all new investment and job creation comes from existing businesses.

- ⦿ Most BRE programs set a goal for annual visits. Determine a reasonable goal for the small EDA staff. We recommend visiting two business each month.
- ⦿ Recently, the EDA started networking meetings for business and industry. We heard positive reviews during our interviews. A best practice for Lunch-n-Learn types of programs is to provide quality programming about three times a year.
- ⦿ Beyond face-to-face networking, some communities are connecting existing businesses via social media channels such as LinkedIn discussion groups.
- ⦿ The EDA currently does not have customer relations management software. In reality, it is not needed at this time. The project flow and base of industry is small enough that data can be managed using Excel. We do recommend in the future looking into a program such as Salesforce.
- ⦿ During our business interviews we heard about the loyalty and work ethic of the workforce. The comments were the most positive we have ever heard in our economic development careers. A 1995 regional workforce study sponsored by Region 2000 surveyed businesses about work ethic, along with many other factors. We recommend a repeat of this study because this can support one of Amherst County's value propositions.

## Product Development

One of the project initiatives is space for businesses to grow. Beyond those special projects in product development, there is the day-to-day work of marketing properties and matching them with new, expanding, and start-up businesses.

- ⦿ Maintain a building and site inventory. The website lists featured sites and buildings; however, the focus is on larger, industrial properties. Expand the list to include smaller and commercial properties to serve a wider audience.

- ⊙ In the future, consider adding a GIS function to the EDA website that allows sites and buildings to be directly linked to GIS information.
- ⊙ There are few available buildings in the county. There are some vacant and under-utilized commercial buildings in Amherst County. Consider implementing a vacant building grant that will encourage the re-use of facilities.
- ⊙ We often find that counties and towns own properties that people forget about. A best practice is to analyze all government owned properties from a highest and best use perspective.
- ⊙ Another good exercise is an infill analysis to identify vacant land and under-utilized properties already on existing infrastructure.

## Small Business Development

The EDA supports small business because in Amherst County small business is big business. Approximately 90% of businesses employ less than 10 people. Amherst County will launch into the Certified Entrepreneurial Community® Program after the strategic planning project is wrapped up. That process will identify two action items for entrepreneurship and support two task teams to accomplish an action plan. In addition, we offer a few best practices for the regular program of work.

- ⊙ We recommend the county consider a new incentive grant for businesses to offset the cost of water and sewer availability fees. For every business, but especially a mom-and-pop locally owned and grown business, those few thousand dollars can make a huge impact. Because Amherst County wants to grow locally-owned businesses and attract new businesses, an incentive that reduces the initial start-up cost will be beneficial.
- ⊙ Consider a revolving loan program seeded by a USDA Rural Development Grant or through local investors. Check out this invest local program in Asheville, NC: <http://www.mountainbizworks.org/local-investing-asheville-wnc/>.
- ⊙ The First Steps information on the website could be organized into starter-kits for specific types of businesses.
- ⊙ The Resources page on the website could be organized into a matrix by what the organization does. It is hard to tell from some agencies listed how they can help a small business.
- ⊙ Develop a Come Home Campaign for Amherst County high school graduates and graduates of Sweet Briar College – Come Home to What Amherst Could Be.
  - A partnership with Amherst County Public Schools Education Foundation, Sweet Briar College, and private secondary schools in order to access their alumni databases could be formed.
  - Create a database of Amherst County High School graduates and Sweet Briar graduates from the region and Virginia.
  - Launch a marketing campaign to Come Home to Amherst County to start a business.

## Organizational Development

The public and private sectors in Amherst County are splintered. Bringing them together under the common purpose of economic development will further unify the county. It will also give the EDA access to private sector leadership and expand funds available for economic development.

### **Action Steps:**

- ⦿ Create an Economic Development Foundation, a private sector, 501c3 nonprofit organization.
  - The Foundation will be funded by the private sector. Most communities use a multi-year fundraising strategy, raising funds every five years through a campaign.
  - The Foundation will be administered by EDA staff.
  - The board of directors of the Foundation will be elected from the private sector members. We recommend a board of nine to twelve members.
  - Funds will be used for expenditures not allowed by, or palatable for, public funds. Examples include travel, client meetings, and fast-turnaround studies such as Phase 1s on sites.
  - We recommend a voting seat on the newly restructured EDA board for the chairman of the Foundation to ensure consistency of efforts between the two groups.

# Appendix C: Ally Initiatives

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The program of work for the Economic Development Authority (EDA) is limited to new business recruitment, business retention and expansion, and small business development. However, there are many more aspects to developing the Amherst County economy than those three strategies. We do not want to lose sight of the opportunity to impact the economy with other strategies outside of the EDA's program of work. Even though the EDA will not be a team leader in these areas, it will be a team player and supporter.

## Goal: Develop Tourism Destinations and Market Amherst County

One of the most discussed topics in the community engagement meetings was tourism. It is perhaps the greatest under-developed economic development asset in Amherst County. All of the right ingredients are in place. Leadership, coordination, and funding are what is needed.

Strategy: Designate a Tourism Director

### Action Steps:

- ⦿ Lead coordination and collaboration with tourism assets, businesses, agencies, etc.
  - A good place to start is by conducting an asset inventory.
- ⦿ Develop a common calendar of events.
  - This can be hosted on a central website and linked to the county, EDA, and many other partners. The calendar does not have to be elaborate. Check out this one maintained by a downtown coordinator:  
<http://www.whatsupinelkinnc.com/elkin-monthly-events-by-catagory.php>.
- ⦿ Develop a marketing plan.
  - Charge the tourism director with developing a comprehensive, countywide marketing plan. The plan should include a visitor website, advertising (which can be co-opted with businesses), and a visitor guide.
- ⦿ Advocate for destination development.
  - A tourism director can apply for grants for facilities such as a band shell for music events, historic markers, walking trail signage, campground sites, etc.
- ⦿ Fund with lodging tax.
  - Use all of the lodging tax to fund county-wide tourism promotion. The lodging tax generates approximately \$30,000 a year; thus, additional revenue will be needed.

## Goal: Redevelop Madison Heights

Economic activity from Lynchburg will continue to grow north if facilitated. Currently, the Madison Heights area creates a barrier for economic growth due to blight. In addition to an economic barrier, citizens noted a social divide between the Madison Heights area and other parts of the county. Focusing on community redevelopment in Madison Heights will not only bring the community together but facilitate an economic bridge to Lynchburg.

## Strategy: Transform to a County Planning and Community Development Department

### Action Steps:

- ⦿ Rename and repurpose the Amherst County Planning Department to the Planning and Community Development Department. This will lead to a new focus on community development.
- ⦿ Conduct an ordinance review for ways to encourage redevelopment.
  - Have the department staff conduct a best practices review of ordinances across the commonwealth designed to impact blight and transitional neighborhoods. One such ordinance used is an Active Storefront Ordinance. This limits where buildings can be used only for storage.
- ⦿ Integrate streetscape planning into the next comprehensive plan.
- ⦿ Enact incentives and grants for landscaping, façade enhancements, beautification, murals, public art, etc.
  - Hickory, NC, has an award-winning grant program that tackles blighted areas with matching grants for vacant building redevelopment, landscaping, and beautification.
  - Many towns and counties will partner with businesses to invest in murals and/or façade enhancements. These are typically matching grants up to a total of \$1,000 or more.

## Goal: Create the Amherst County Experience

"Place-making" is a relatively new term in economic development; however, the strategy has been used for decades. We used to simply refer to it in general terms about investing in quality of life. The reason place-making has become prominent in economic development is the need for communities to attract footloose millennials. Baby boomers moved to areas where the jobs were. Millennials move to where they want to live and then find a job. Companies today, much more focused on talent than companies were before, will follow those talented millennials.

## Strategy: Place-Making and Arts & Cultural Programming

### Action Steps:

- ⦿ Support Second Stage efforts in place-making. Second Stage is well underway with a place-making strategy for Amherst County. The group, even though young, has proven itself to provide strong leadership in an area that needs it – arts and cultural development.
- ⦿ Support Town of Amherst downtown redevelopment efforts.
  - Downtowns are the beating heart of a community. Amherst has made consistent investments in downtown development.
- ⦿ Create a County Appearance Commission to advise on appearance standards.
  - The Appearance Commission would be staffed by the Planning and Community Development Department.
  - The Commission would advise on public building renovations and construction, streetscape, and design standards.
- ⦿ Create a public art program.
  - Given the location of the Virginia Center for Creative Arts and the arts culture of Amherst County, the county should start a public art program. Public art

- programs provide art in parks, outside/inside public buildings, along walking/biking paths, and other places. Public art programs are often supported by grants, as well as public and private dollars.
- Charlottesville, VA, has a well-recognized public art program.

## Goal: Invest in Recreation Asset Development

Above we mentioned that in our opinion tourism is the most under-developed economic development asset in Amherst County. Recreation is a close second, if not tied, given the interdependency of tourism and recreation in the county. The county recreation department operates on a very limited budget with three staff. The natural resources of the county lend themselves well to attract outdoor enthusiasts of all ages, especially young people who like the types of recreation the area has to offer.

Even though the county has Coolwell Park, Monacan Park, and Riveredge Park, citizens want more. They want small parks in town and neighborhood parks. They want more amenities in the current parks such as music venues, special event space, playground equipment, and trails to name a few,

### Strategy: Recreation Asset Development

#### **Action Steps:**

- ◎ Complete a recreation facilitates study with citizen input.
  - Hire a consulting firm to lead charrettes across the community to learn citizen's top priorities for recreation facilities.
- ◎ Integrate the recreation study with place-making strategies (pocket parks, public art).
  - By leveraging grant opportunities in recreation, tourism, and community development, investments in recreation can support a multitude of interests. For example, include a work of public art into a pocket park design.

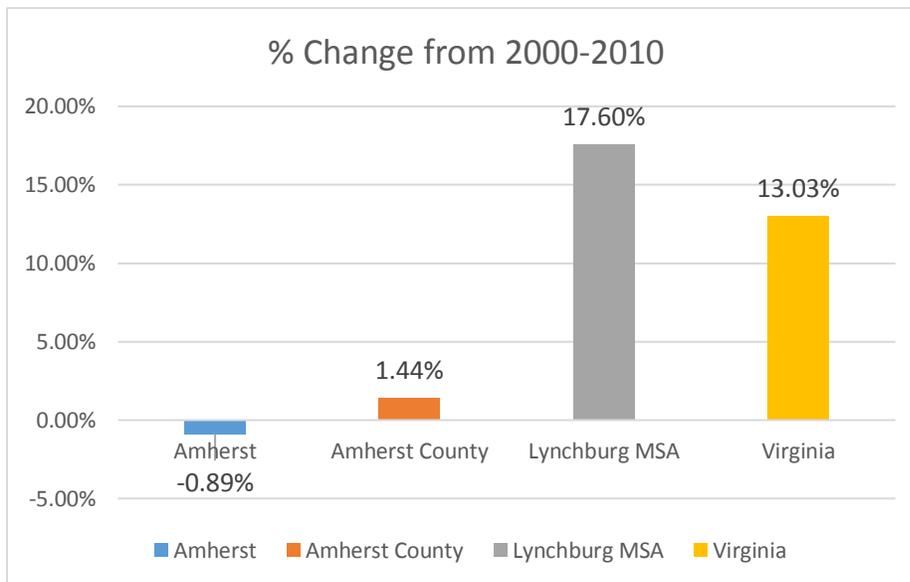
# Appendix D: Economic and Demographic Profile

## Population

Amherst County has a population of 31,914, a decline from the 2010 Census count of 32,353. The Town of Amherst has seen its population grow (currently at 2,643) after a decline in the previous decade. The county and MSA lag the state's growth rate in the last few years.

|                       | 2010      | 2015           | 2010-2015 % Change |
|-----------------------|-----------|----------------|--------------------|
| <b>Amherst</b>        | 2,231     | 2,643 (2014)   | 18.5%              |
| <b>Amherst County</b> | 32,353    | 31,914         | -1.4%              |
| <b>Lynchburg MSA</b>  | 248,742   | 255,440 (2014) | 2.7%               |
| <b>Virginia</b>       | 8,001,024 | 8,382,993      | 4.8%               |

Source: U.S. Census



The population of the metropolitan statistical area (MSA) grew at a rate that outpaced the State of Virginia (17.6%) in 2000 – 2010. Amherst County's population growth rate from 2000-2010 lagged the state and region significantly at only 1.44%. The Town of Amherst showed a population decline for the ten-

year period of -0.89%, but has since rebounded.

Source: U.S. Census

## Population by Age

Amherst County is a relatively small county in a mid-sized region of Virginia. The age of metro area residents is older, relative to the Commonwealth, and Amherst County residents' ages trend even older than the region.

In the strategic plan we are concerned with working age people, ages 20 – 64. In Amherst County, that represents 58.2% of the population. In the Lynchburg MSA working age people are 58.8% of population, and they make up 61.5% of the Commonwealth's population.

The millennial age groups of 15 - 34 make up 24% of the Amherst County population, 27.9% of the MSA's population, and 27.8 of the Commonwealth's population. We are interested in the trends of millennials because they are quickly making up the largest portion of the workforce age demographic.

| Age Groups              | Amherst County |        | Lynchburg MSA |         | Virginia  |           |
|-------------------------|----------------|--------|---------------|---------|-----------|-----------|
|                         | 2010           | 2014   | 2010          | 2014    | 2010      | 2014      |
| <b>Total population</b> | 32,353         | 32,237 | 252,634       | 255,440 | 8,001,024 | 8,185,131 |
| <b>Under 5</b>          | 5.4%           | 5.3%   | 5.5%          | 5.3%    | 6.4%      | 6.2%      |
| <b>5 to 9</b>           | 5.4%           | 5.1%   | 5.7%          | 5.5%    | 6.4%      | 6.3%      |
| <b>10 to 14</b>         | 6.4%           | 6.1%   | 6.1%          | 6.1%    | 6.4%      | 6.3%      |
| <b>15 to 19</b>         | 7.5%           | 7.7%   | 8.0%          | 7.7%    | 6.9%      | 6.7%      |
| <b>20 to 24</b>         | 6.8%           | 6.4%   | 8.5%          | 9.2%    | 7.2%      | 7.2%      |
| <b>25 to 29</b>         | 5%             | 4.9%   | 5.6%          | 5.8%    | 7.1%      | 7.1%      |
| <b>30 to 34</b>         | 5%             | 5%     | 5.1%          | 5.2%    | 6.6%      | 6.8%      |
| <b>35 to 39</b>         | 5.9%           | 5.6%   | 5.8%          | 5.2%    | 6.7%      | 6.4%      |
| <b>40 to 44</b>         | 6.6%           | 6.3%   | 6.2%          | 6.1%    | 7.1%      | 7%        |
| <b>45 to 49</b>         | 7.8%           | 7.3%   | 7.3%          | 6.6%    | 7.8%      | 7.3%      |
| <b>50 to 54</b>         | 8%             | 8.1%   | 7.5%          | 7.4%    | 7.4%      | 7.4%      |
| <b>55 to 59</b>         | 7.2%           | 7.3%   | 6.8%          | 6.9%    | 6.4%      | 6.5%      |
| <b>60 to 64</b>         | 6.6%           | 7.3%   | 6.2%          | 6.4%    | 5.5%      | 5.8%      |
| <b>65 to 69</b>         | 5.3%           | 6.2%   | 4.9%          | 5.1%    | 4%        | 4.4%      |
| <b>70 to 74</b>         | 4.1%           | 4%     | 3.7%          | 4.2%    | 2.9%      | 3.2%      |
| <b>75 to 79</b>         | 3%             | 3.2%   | 2.9%          | 3%      | 2.2%      | 2.2%      |
| <b>80 to 84</b>         | 2.2%           | 2.2%   | 2.1%          | 2.1%    | 1.6%      | 1.6%      |
| <b>85 &amp; over</b>    | 1.8%           | 2%     | 2.0%          | 2.1%    | 1.5%      | 1.6%      |

Source: U.S. Census

## Population by Race

The racial composition of the metro area and of Amherst County is less diverse than for Virginia as a whole. The racial profile of Amherst County is nearly identical to the surrounding metro area. We are interested in the racial and ethnic make-up of the community because of Sweet Briar College's efforts to recruit more international students and the overall ability to recruit a more diverse workforce.

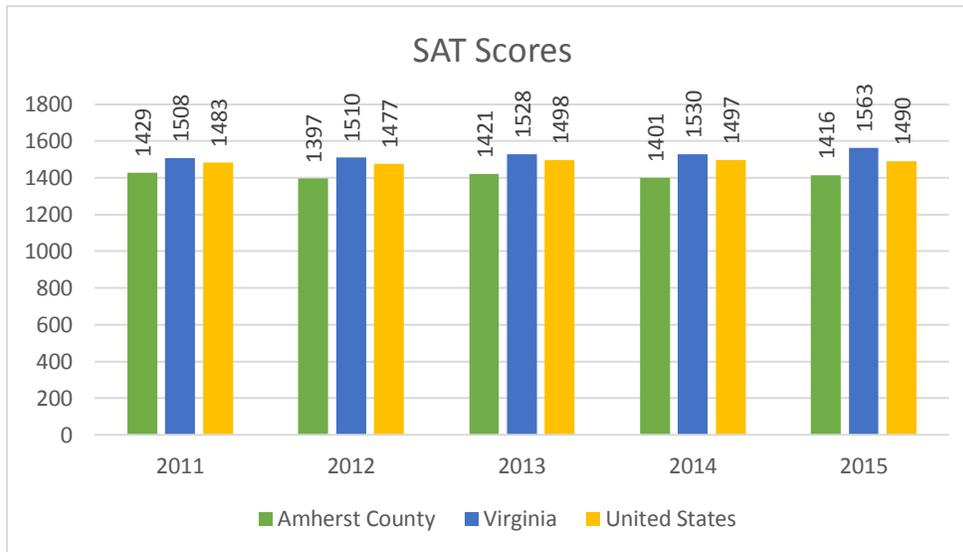
|                               | Amherst County |       | Lynchburg MSA |       | Virginia |       |
|-------------------------------|----------------|-------|---------------|-------|----------|-------|
|                               | 2010           | 2014  | 2010          | 2014  | 2010     | 2014  |
| <b>White Alone</b>            | 76.7%          | 76.8% | 78.2%         | 78.3% | 68.6%    | 69.3% |
| <b>Black Alone</b>            | 19%            | 18.6% | 17.5%         | 17.1% | 19.4%    | 19.3% |
| <b>American Indian Alone</b>  | 0.9%           | 0.8%  | 0.4%          | 0.3%  | 0.4%     | 0.3%  |
| <b>Asian Alone</b>            | 0.5%           | 0.7%  | 1.3%          | 1.5%  | 5.5%     | 5.8%  |
| <b>Pacific Islander Alone</b> | 0%             | 0%    | 0%            | 0%    | 0.1%     | 0.1%  |
| <b>Some Other Race Alone</b>  | 0.7%           | 0.8%  | 0.8%          | 0.6%  | 3.2%     | 2.2%  |
| <b>Two or More Races</b>      | 2.1%           | 2.2%  | 1.8%          | 2.3%  | 2.9%     | 3.2%  |
| <b>Hispanic Origin</b>        | 1.9%           | 2.1%  | 2.1%          | 2.3%  | 7.9%     | 8.4%  |

Source: U.S. Census

## Education

### SAT Scores

The Scholastic Achievement Test scores for students in Virginia have outpaced the average scores in the United States for at least six years. In 2015, this difference increased to an

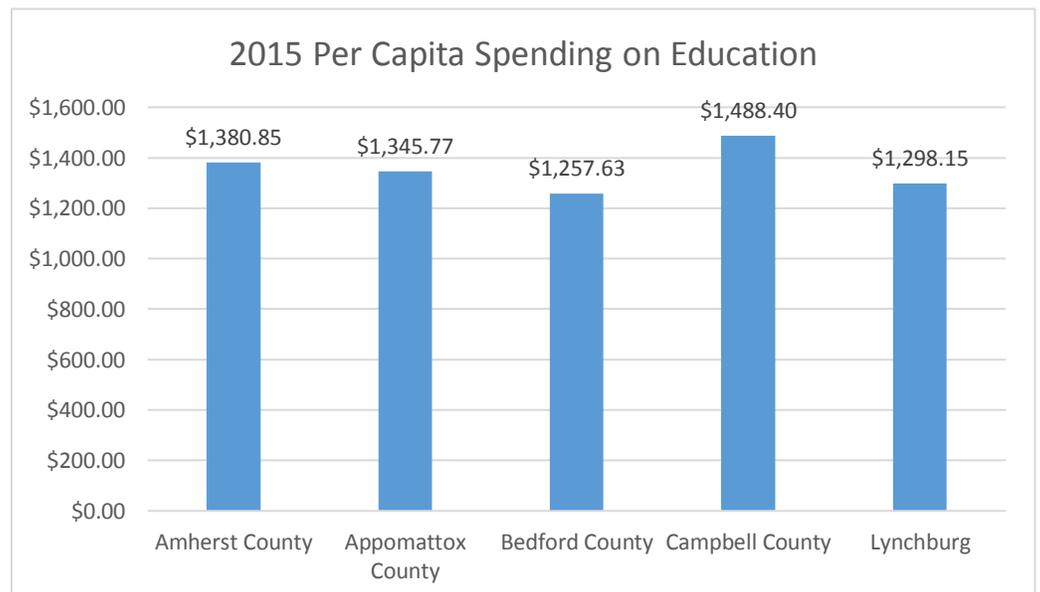


average advantage of 73 points for Virginia students.

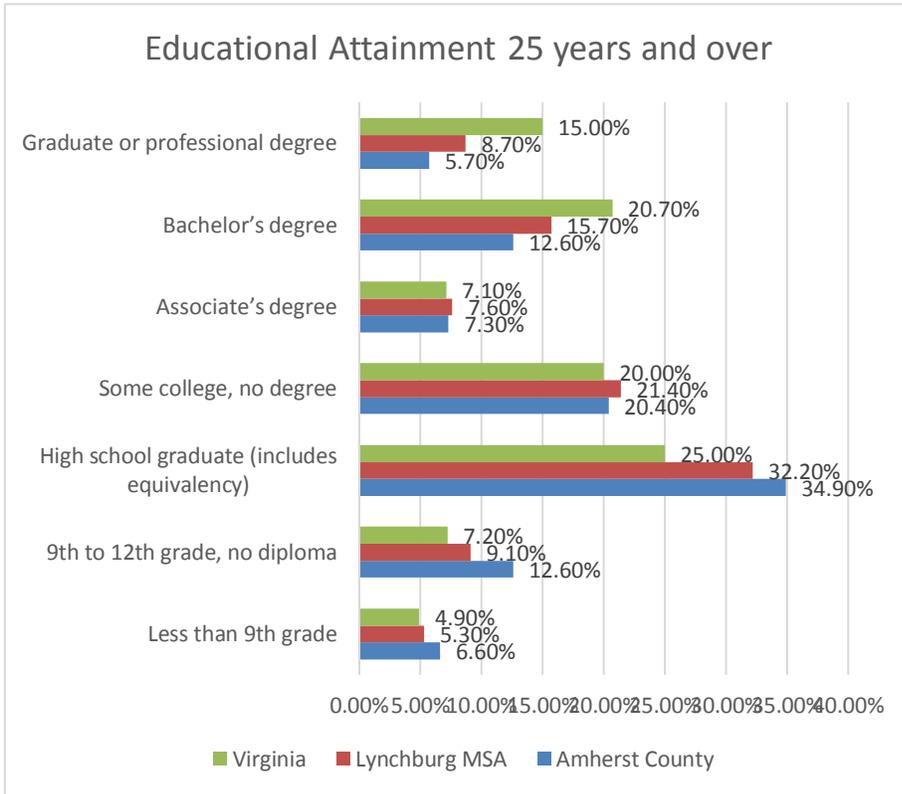
Amherst County schools lag the state and nation in SAT scores. The 2015 county score was 147 points below, or 91% of, the state average.

Source: Virginia Department of Education

In 2015, Amherst County spent \$44,844,503 on education. This equated to \$1,380.85 per capita and was second highest in the comparative group, below Campbell County and slightly higher than Appomattox County.



Source: Virginia Auditor of Public Accounts, 2015 Comparative Report of Local Government Revenues and Expenditures.

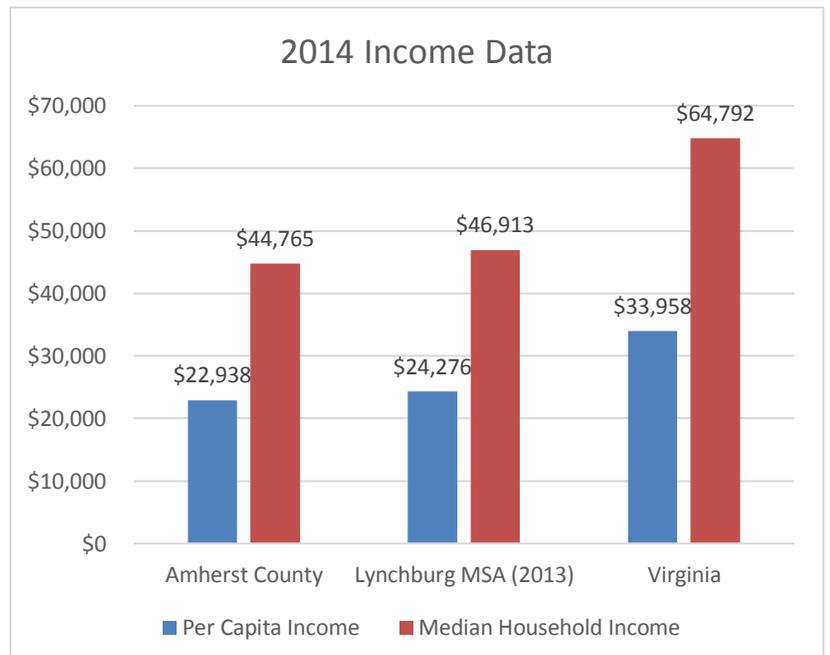


Both the metro area and Amherst County lag behind Virginia in educational attainment. The percentage of adults with bachelor's or graduate degrees in Amherst County is just about half that of the state as a whole.

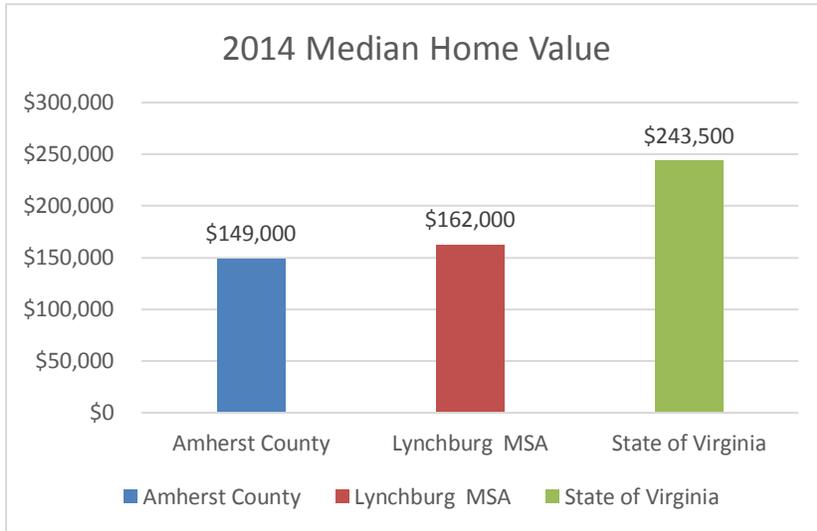
Source: U.S. Census

Source: U.S. Census

Median Household (\$44,765) and Per Capita (\$22,938) Income levels for Amherst County are slightly below that of the Lynchburg MSA (\$46,913/\$24,276). Both Amherst County and the MSA lag Virginia considerably. This metric tracks closely the educational attainment metric, where the region also lags behind the state.



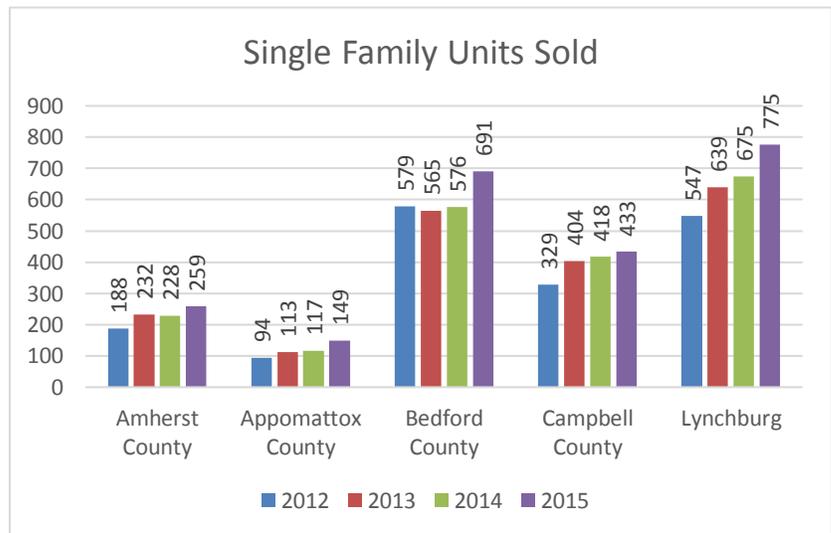
Source: U.S. Census



Home values in Amherst County are about 10% below those in the Lynchburg MSA. Home values in the State of Virginia are considerably higher than the county and the MSA. In 2014, values in the state were 63% higher than in Amherst County

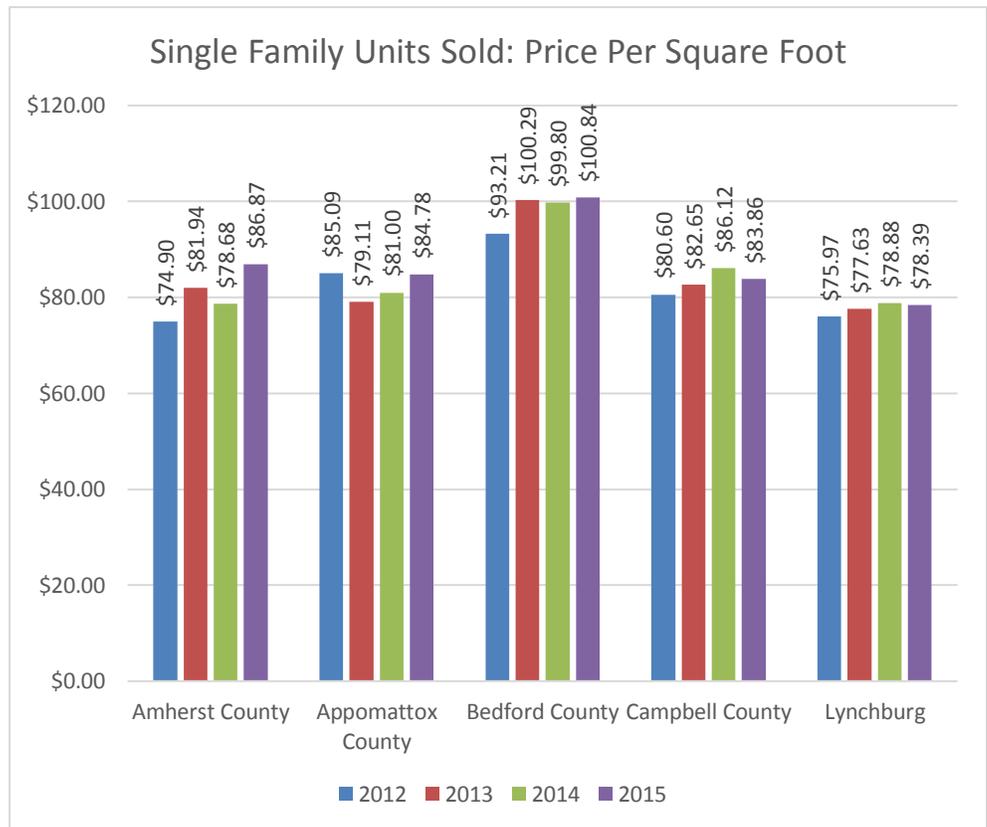
Source: U.S. Census, ACS 2010-2014

Data provided by the Lynchburg Multiple Listing Service shows that home sales have been increasing since 2012 across the region. The fastest growth in home sales has been in the City of Lynchburg. In 2015, 259 units were sold in Amherst County.



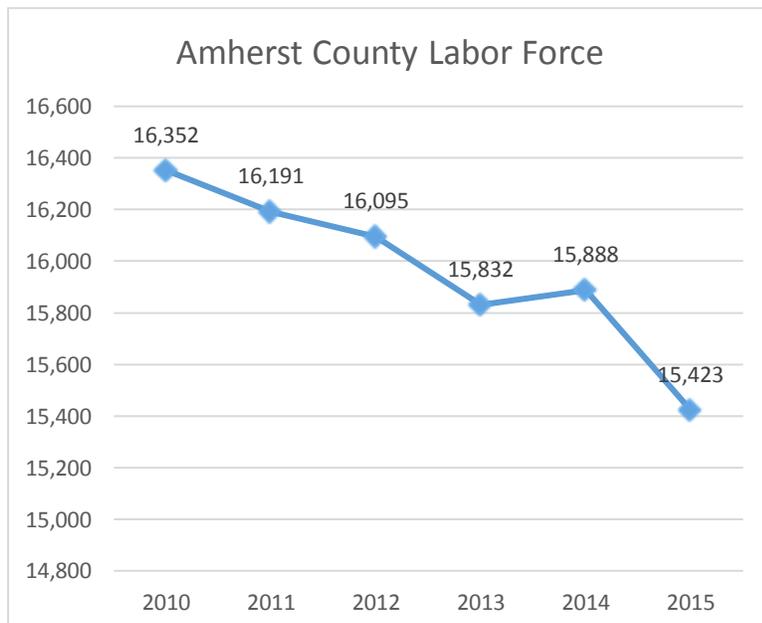
Source: Lynchburg Multiple Listing Service

Another indicator of affordability is sales price per square foot. The Lynchburg market is very affordable, with the average price per square foot of \$78.39. The average price per square foot in Amherst County was \$86.87.



Source: Lynchburg Multiple Listing Service

The labor force in Amherst County has declined slightly (approximately 1% per year) over the last six years. This shift could reflect residents aging out of the workforce, choosing to remain unemployed due to perceived lack of employment opportunity, or a decline in new residents moving to the county.



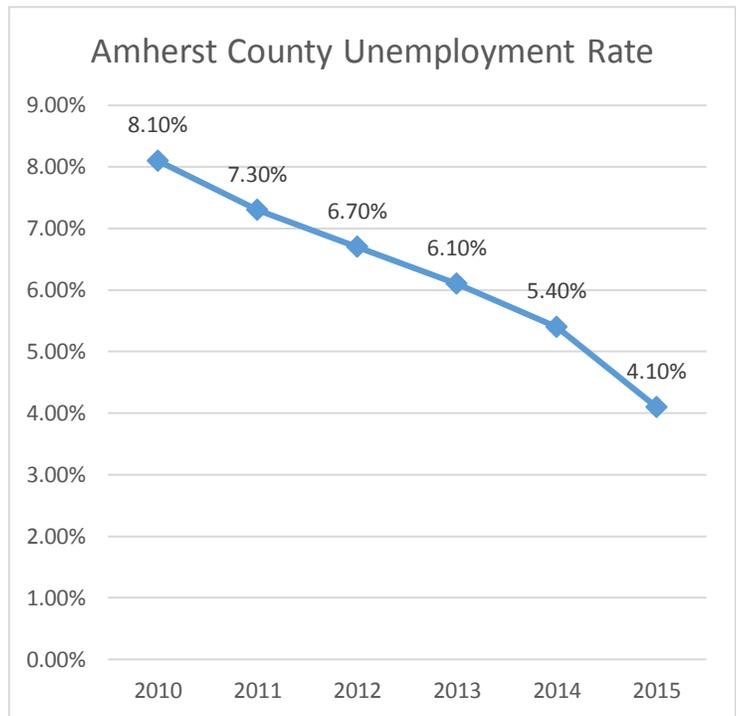
Source: BLS

perceived lack of employment opportunity, or a decline in new residents moving to the county.

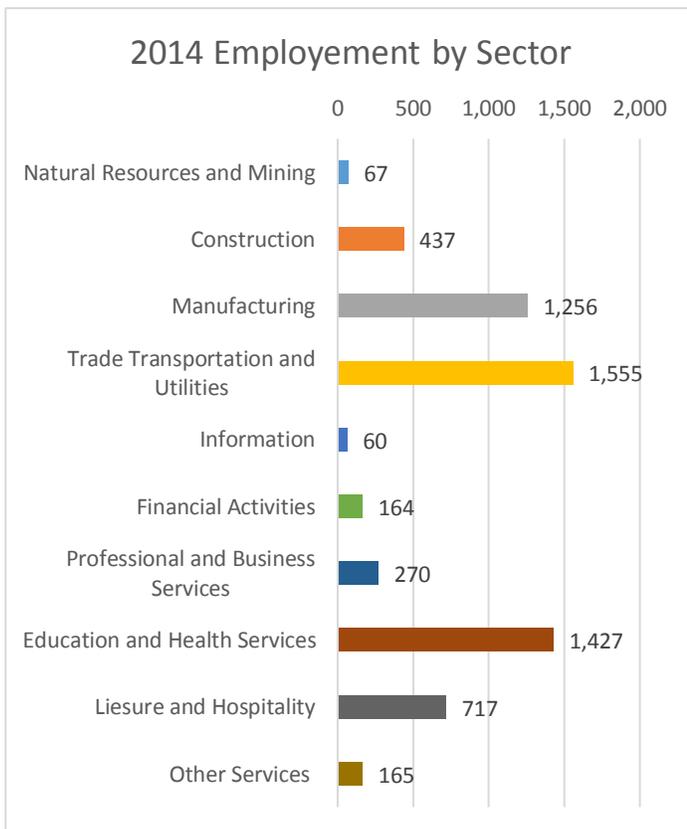
In the Lynchburg MSA, the labor force has also declined from 125,895 in 2010 to 121,367 in 2015. Conversely, the labor force has been growing across Virginia at a rate of 1.3% a year for the last five years.

Source: BLS

The unemployment rate in Amherst County has dropped significantly since 2010. The rate in 2015 – 4.1% - is widely considered to be a full employment rate. The figure could indicate a tight labor market. The unemployment rates in the region, 4.3%, and commonwealth, 4.2%, were similar at the end of 2015.



Source: BLS



Source: BLS

Amherst County employment includes a strong "goods producing" sector – more than 28%. These jobs tend to pay higher wages and to return more economic impact to the county and region. Within the "service producing" sector, Transportation and Utilities and Education and Health Services are the largest sectors.

## Amherst County by Establishment Employment Size

Self-employed establishments made up 25% of total businesses in Amherst County in 2013, the last year for which this source is available. Self-employment declined from 2009 to 2013 by 6.1%. This is most likely due to an improving economy. Self-employment is sometimes an alternative to unemployment during poor economic times.

An overwhelming 64.2% of businesses employ 2-9 people. That figure, combined with self-employment, results in almost 90% of Amherst County businesses employing less than 10 people.

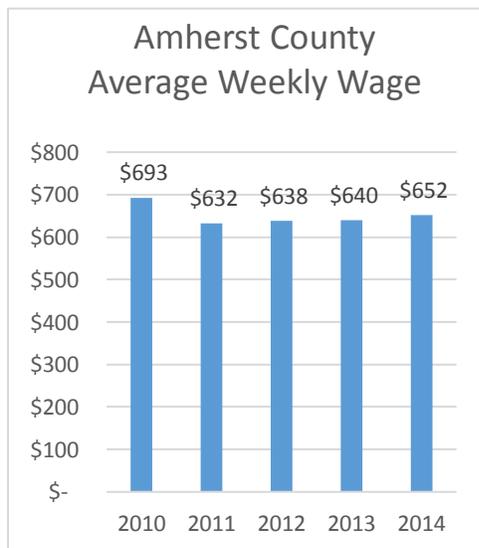
Small business means big business in Amherst County.

| ESTABLISHMENTS    | 2009  | % of TOTAL | 2013  | % of TOTAL |
|-------------------|-------|------------|-------|------------|
| ALL               | 1,782 | 100%       | 1,840 | 100%       |
| Self-Employed (1) | 554   | 31.1%      | 460   | 25%        |
| Stage 1 (2-9)     | 1,054 | 59.1%      | 1,182 | 64.2%      |
| Stage 2 (10-99)   | 160   | 9%         | 185   | 10.1%      |
| Stage 3 (100-499) | 14    | 0.8%       | 13    | 0.7%       |
| Stage 4 (500+)    | 0     | 0          | 0     | 0          |

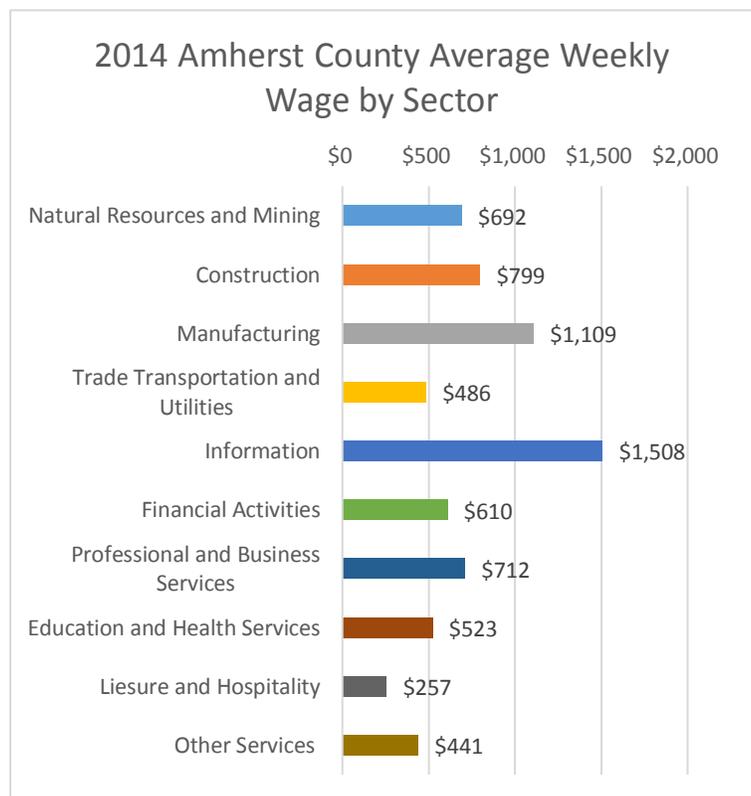
Source: YourEconomy.org

## Wages

An analysis of average weekly wage by industry sector shows that the Information sector is the highest-paying sector at \$1,508. Manufacturing is the next-highest paying sector in the county at \$1,109. There is a significant difference between the highest and lowest (Leisure and Hospitality) sectors in the county.



Source: BLS



Source: BLS

## Retail Leakage

| Summary Demographics                |           |                                 |                          |              |                               |                         |
|-------------------------------------|-----------|---------------------------------|--------------------------|--------------|-------------------------------|-------------------------|
| 2015 Population                     |           |                                 |                          |              |                               | 32,857                  |
| 2015 Households                     |           |                                 |                          |              |                               | 12,809                  |
| 2015 Median Disposable Income       |           |                                 |                          |              |                               | \$34,900                |
| 2015 Per Capita Income              |           |                                 |                          |              |                               | \$21,517                |
| Industry Summary                    | NAICS     | Demand<br>(Retail<br>Potential) | Supply<br>(Retail Sales) | Retail Gap   | Leakage<br>/Surplus<br>Factor | Number of<br>Businesses |
| Total Retail Trade and Food & Drink | 44-45,722 | \$392,250,281                   | \$346,338,012            | \$45,912,269 | 6.2                           | 222                     |
| Total Retail Trade                  | 44-45     | \$356,678,784                   | \$321,361,496            | \$35,317,288 | 5.2                           | 175                     |
| Total Food & Drink                  | 722       | \$35,571,497                    | \$24,976,516             | \$10,594,981 | 17.5                          | 47                      |

| Industry Group                        | NAICS | Demand<br>(Retail<br>Potential) | Supply<br>(Retail Sales) | Retail Gap    | Leakage<br>/Surplus<br>Factor | Number of<br>Businesses |
|---------------------------------------|-------|---------------------------------|--------------------------|---------------|-------------------------------|-------------------------|
| Motor Vehicle & Parts Dealers         | 441   | \$85,870,192                    | \$43,971,842             | \$41,898,350  | 32.3                          | 33                      |
| Automobile Dealers                    | 4411  | \$72,191,504                    | \$31,527,456             | \$40,664,048  | 39.2                          | 19                      |
| Other Motor Vehicle Dealers           | 4412  | \$8,997,617                     | \$4,724,784              | \$4,272,833   | 31.1                          | 3                       |
| Auto Parts, Accessories & Tire Stores | 4413  | \$4,681,071                     | \$7,719,602              | (\$3,038,531) | -24.5                         | 11                      |
| Furniture & Home Furnishings Stores   | 442   | \$10,501,492                    | \$5,045,415              | \$5,456,077   | 35.1                          | 9                       |
| Furniture Stores                      | 4421  | \$6,210,802                     | \$3,967,702              | \$2,243,100   | 22                            | 5                       |
| Home Furnishings Stores               | 4422  | \$4,290,690                     | \$1,077,713              | \$3,212,977   | 59.8                          | 4                       |
| Electronics & Appliance Stores        | 443   | \$13,867,553                    | \$4,242,518              | \$9,625,035   | 53.1                          | 7                       |

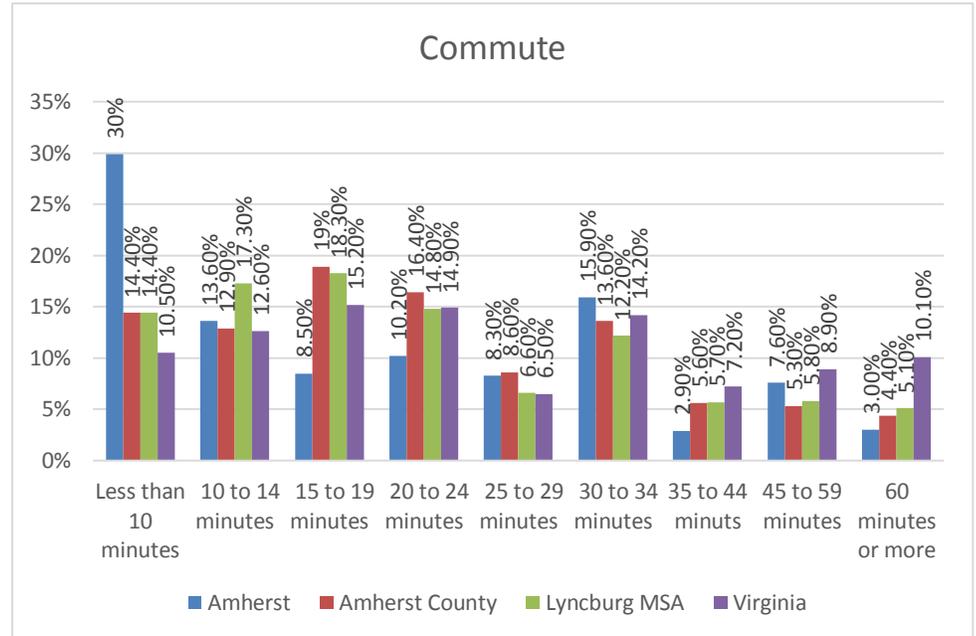
| Industry Group                                | NAICS    | Demand<br>(Retail<br>Potential) | Supply<br>(Retail Sales) | Retail Gap     | Leakage<br>/Surplus<br>Factor | Number of<br>Businesses |
|-----------------------------------------------|----------|---------------------------------|--------------------------|----------------|-------------------------------|-------------------------|
| Bldg Materials, Garden Equip. & Supply Stores | 444      | \$17,252,528                    | \$22,502,711             | (\$5,250,183)  | -13.2                         | 19                      |
| Bldg Material & Supplies Dealers              | 4441     | \$15,427,403                    | \$21,440,452             | (\$6,013,049)  | -16.3                         | 13                      |
| Food & Beverage Stores                        | 445      | \$68,135,708                    | \$51,727,062             | \$16,408,646   | 13.7                          | 29                      |
| Grocery Stores                                | 4451     | \$63,831,262                    | \$47,819,062             | \$16,012,200   | 14.3                          | 22                      |
| Specialty Food Stores                         | 4452     | \$1,954,278                     | \$1,256,804              | \$697,474      | 21.7                          | 4                       |
| Beer, Wine & Liquor Stores                    | 4453     | \$2,350,168                     | \$2,651,196              | (\$301,028)    | -6                            | 3                       |
| Health & Personal Care Stores                 | 4464,461 | \$20,395,626                    | \$24,819,070             | (\$4,423,444)  | -9.8                          | 11                      |
| Gasoline Stations                             | 4474,471 | \$26,065,443                    | \$57,248,256             | (\$31,182,813) | -37.4                         | 16                      |
| Clothing & Clothing Accessories Stores        | 448      | \$16,680,957                    | \$4,906,445              | \$11,774,512   | 54.5                          | 6                       |
| Clothing Stores                               | 4481     | \$12,045,049                    | \$1,316,141              | \$10,728,908   | 80.3                          | 3                       |
| Shoe Stores                                   | 4482     | \$1,939,201                     | \$3,238,724              | (\$1,299,523)  | -25.1                         | 2                       |
| Jewelry, Luggage & Leather Goods Stores       | 4483     | \$2,696,707                     | \$351,580                | \$2,345,127    | 76.9                          | 1                       |
| Sporting Goods, Hobby, Book & Music Stores    | 451      | \$9,341,579                     | \$6,077,366              | \$3,264,213    | 21.2                          | 12                      |
| Sporting Goods/Hobby/Musical Instr Stores     | 4511     | \$7,622,247                     | \$5,394,341              | \$2,227,906    | 17.1                          | 11                      |
| Book, Periodical & Music Stores               | 4512     | \$1,719,332                     | \$683,025                | \$1,036,307    | 43.1                          | 1                       |
| General Merchandise Stores                    | 452      | \$65,671,644                    | \$83,343,721             | (\$17,672,077) | -11.9                         | 7                       |
| Department Stores Excluding Leased Depts.     | 4521     | \$49,896,583                    | \$76,482,165             | (\$26,585,582) | -21                           | 2                       |
| Other General Merchandise Stores              | 4529     | \$15,775,061                    | \$6,861,556              | \$8,913,505    | 39.4                          | 5                       |
| Miscellaneous Store Retailers                 | 453      | \$12,194,093                    | \$15,131,438             | (\$2,937,345)  | -10.7                         | 25                      |
| Florists                                      | 4531     | \$703,635                       | \$170,385                | \$533,250      | 61                            | 1                       |
| Office Supplies, Stationery & Gift Stores     | 4532     | \$3,338,365                     | \$262,587                | \$3,075,778    | 85.4                          | 2                       |

| Industry Group                          | NAICS | Demand<br>(Retail<br>Potential) | Supply<br>(Retail Sales) | Retail Gap    | Leakage<br>/Surplus<br>Factor | Number of<br>Businesses |
|-----------------------------------------|-------|---------------------------------|--------------------------|---------------|-------------------------------|-------------------------|
| Used Merchandise Stores                 | 4533  | \$1,563,060                     | \$2,789,869              | (\$1,226,809) | -28.2                         | 11                      |
| Other Miscellaneous Store Retailers     | 4539  | \$6,589,033                     | \$11,908,597             | (\$5,319,564) | -28.8                         | 11                      |
| Nonstore Retailers                      | 454   | \$10,701,969                    | \$2,345,652              | \$8,356,317   | 64                            | 1                       |
| Electronic Shopping & Mail-Order Houses | 4541  | \$7,263,424                     | \$0                      | \$7,263,424   | 100                           | 0                       |
| Vending Machine Operators               | 4542  | \$570,593                       | \$0                      | \$570,593     | 100                           | 0                       |
| Direct Selling Establishments           | 4543  | \$2,867,952                     | \$2,345,652              | \$522,300     | 10                            | 1                       |
| Food Services & Drinking Places         | 722   | \$35,571,497                    | \$24,976,516             | \$10,594,981  | 17.5                          | 47                      |
| Full-Service Restaurants                | 7221  | \$19,383,469                    | \$13,199,898             | \$6,183,571   | 19                            | 27                      |
| Limited-Service Eating Places           | 7222  | \$15,228,879                    | \$11,750,145             | \$3,478,734   | 12.9                          | 19                      |
| Special Food Services                   | 7223  | \$709,539                       | \$26,473                 | \$683,066     | 92.8                          | 1                       |
| Drinking Places - Alcoholic Beverages   | 7224  | \$249,610                       | \$0                      | \$249,610     | 100                           | 0                       |

Source: ESRI

## Commuting

The amount of time residents spend travelling to work each day varies somewhat by where they live. A large share of Amherst town residents travel less than 10 minutes to work. The rates of Amherst County, Lynchburg MSA, and Virginia residents with a less-than-ten-minute commute is roughly the same at 10-14%. Generally, the range of commute times shows a mobile workforce with access to transportation and employment beyond their immediate homes.

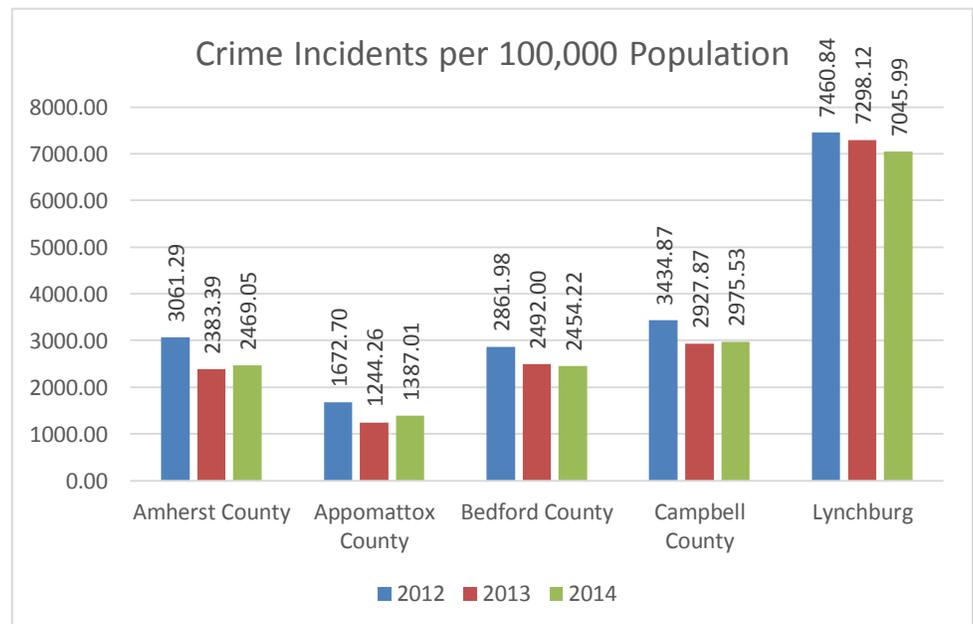


Source: Census, ACS 2010-2014

## Crime

In surveys, residents and businesses reported "low crime" as an asset in Amherst County. We gathered crime incidents per 100,000 in population. Amherst County actually has a higher crime rate than Appomattox County, but slightly lower than Bedford and Campbell Counties. Lynchburg's crime rate is much higher than the surrounding counties, as is the case with most cities.

The statistic is reported as incidents per 100,000. The actual number of incidents in Amherst County in 2014 was 809 (combined sheriff's office and state police).



Source: Department of State Police, Crime in Virginia Reports, 2012-2014

A roster of major employers in the area shows the dominance of the Central Virginia Training Center in the area. Another major employer, Sweet Briar College, was at risk of shedding high-skilled jobs.

### Top Manufacturing Employers in Amherst County 2016

| Name                   | Business Type                        | # of Employees |
|------------------------|--------------------------------------|----------------|
| Clorox / Glad Plant    | Plastic Bags                         | 319            |
| Greif                  | Paper Mill, Containerboard           | 280            |
| Buffalo Air Handling   | Air Handling Equipment               | 160            |
| England's Stove Works  | Wood Burning Stoves                  | 175            |
| Lynchburg Steel        | Structural Steel                     | 100            |
| S&S / TruBall          | Metal Fabrication, Archery Equipment | 90             |
| Shibuya Hoppman        | Packaging Machinery                  | 75             |
| Quality Archery Design | Archery Equipment                    | 40             |
| Hermle North America   | Clocks, Furniture                    | 30             |

Source: Amherstvabusiness.com

### Top Non-Manufacturing Employers in Amherst County 2016

| Name                             | Business Type                                           | # of Employees |
|----------------------------------|---------------------------------------------------------|----------------|
| Central Virginia Training Center | Residential Facility for People with Mental Retardation | 1180           |
| Sweet Briar College              | Higher Education                                        | 330            |
| Commercial Steel Erection        | Heavy duty cranes, Construction Metal Fabricators       | 200            |
| Old Dominion Job Corps           | Residential Training Program                            | 130            |
| Harris Trucking                  | Transportation                                          | 75-100         |
| H.T. Hackney                     | Wholesale Food Distributor                              | 72             |
| Black Box                        | Communication Services                                  | 40             |
| Old Dominion Footwear            | Shoe Distributor                                        | 15             |

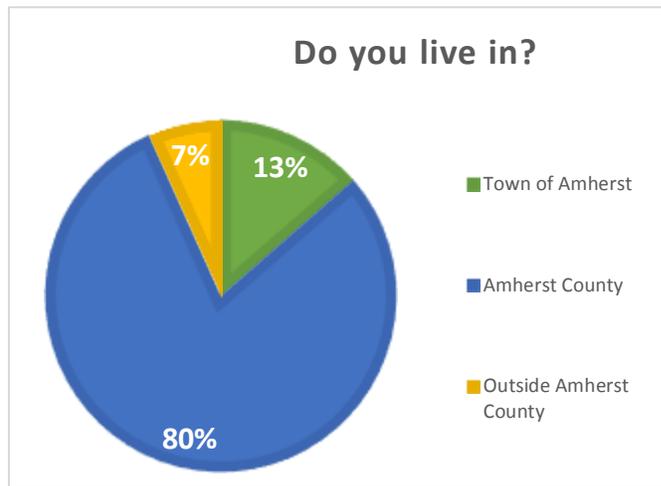
Source: Amherstvabusiness.com

# Appendix E: Amherst County Strategic Plan Community Survey

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The online community survey was completed by 450 individuals. The survey link was distributed by the Economic Development Authority of Amherst County and posted on their website.

## 1. Do you live in?

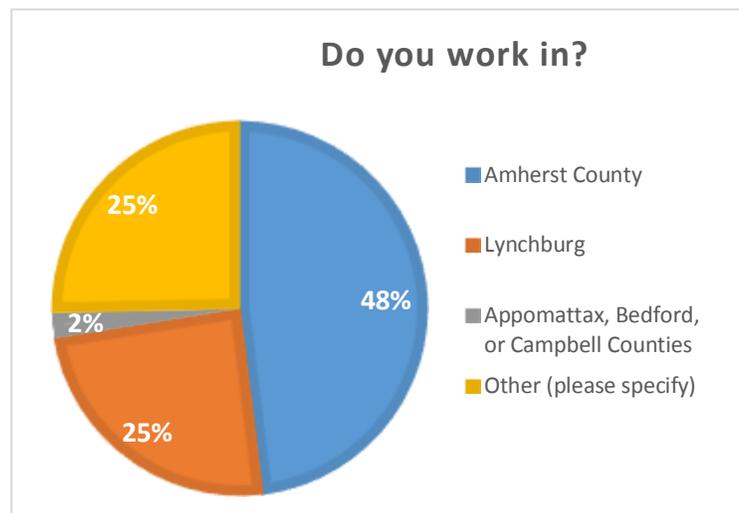


## 2. If you live outside Amherst County, would you consider moving here? Why or why not?

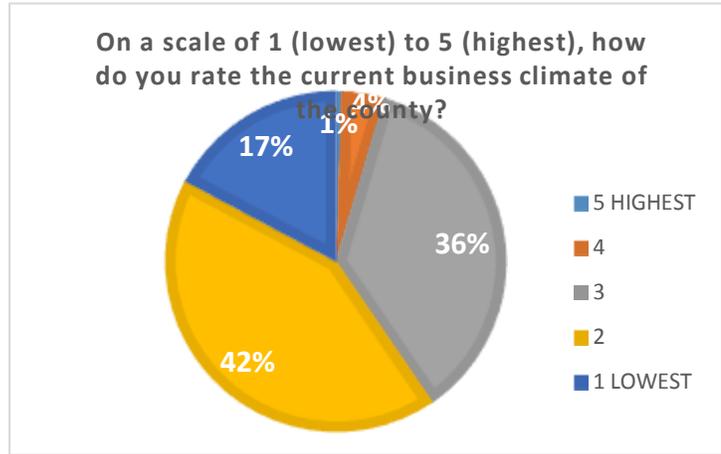
Out of 37 responses, 13 said they would consider moving to Amherst County. The 24 that said they would not consider moving to Amherst County cited the lack of entertainment, amenities, progressive leadership attitude, and jobs. The responses also included answers such as they are rooted elsewhere in a nearby community.

## 3. Do you work in?

The majority of the 25% that responded "other" specified that they are retired, semi-retired, disabled, student, unemployed, or homemaker. Of those that work in a different location, the majority responded that they work in Charlottesville.

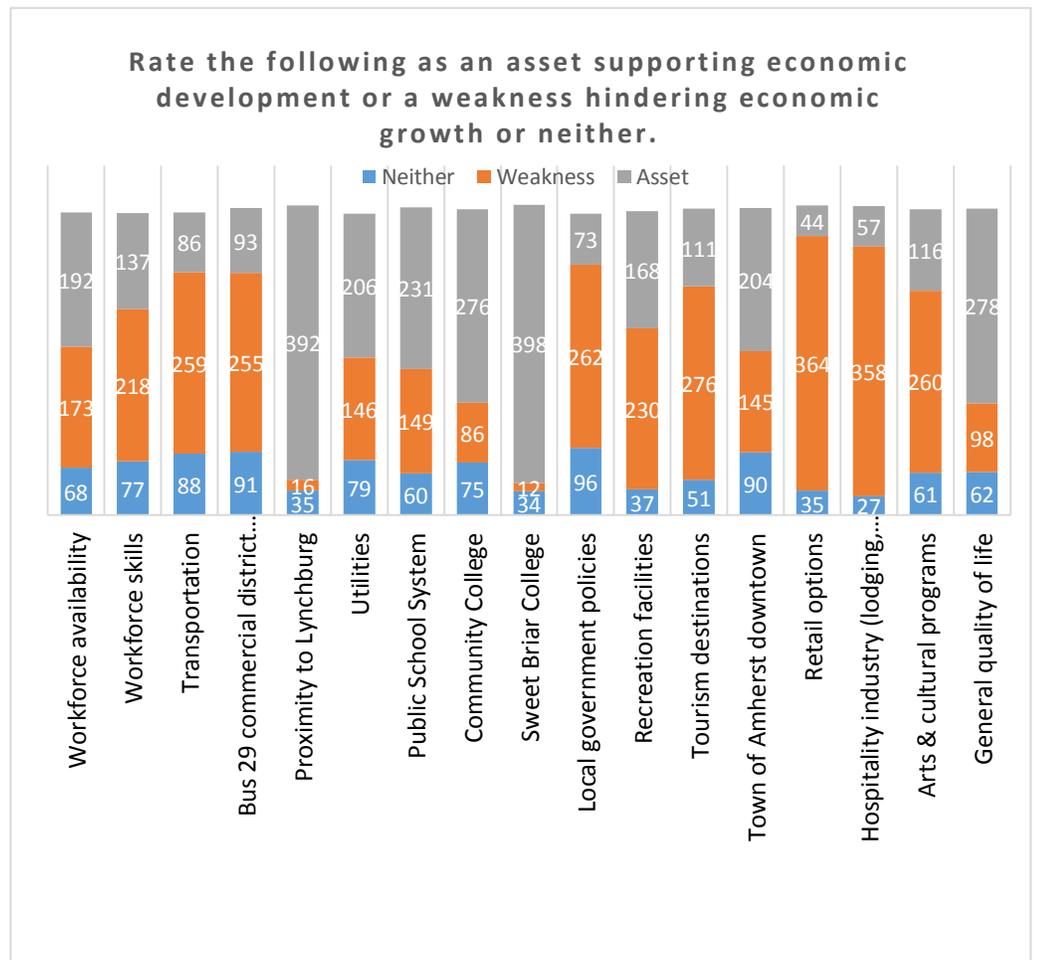


4. On a scale of 1 (lowest) to 5 (highest), how do you rate the current business climate of the county?



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

The top four assets are: Sweet Briar College, proximity to Lynchburg, general quality of life, and Central Virginia Community College. The top four weaknesses are: retail options, hospitality industry, tourism destinations, and local government policies.



## 6. What is Amherst County's most significant asset supporting economic growth?

We grouped the 450 responses to this question by major categories and compiled them based on similar comments.

- Business
  - Low cost of doing business
  - Amelon Industrial Park
  - Land available for business development
  - Tourism
  - Independent business owners
  - Large industry like Glad and Grief
  - Small-business base
- Location
  - Near Lynchburg and Charlottesville
  - Proximity to DC and Richmond
- Government
  - Economic Development Authority
  - Tax base
- Workforce
  - Available workers
  - Work ethic
- Retail
  - Walmart
- Quality of Life
  - Beautiful place to live
- Friendliness
- Low cost of living
- Arts
- Festivals
- Safe community
- Housing
- Infrastructure
  - Low cost of utilities
- Education
  - Public schools
  - Training opportunities at Central Virginia Community College
- Transportation
  - Hwy 29 bypass
  - Intersection of Rt. 60 and Hwy 29
  - Bus routes
- Sweet Briar College
- Virginia Center for the Creative Arts
- Central Virginia Training Center
- Natural Resources
  - James River
  - Farming
  - Blue Ridge Mountains
  - Outdoor recreation
  - National Forest

## 7. What is Amherst County's most significant challenge to economic growth?

The 450 responses to this question were grouped by major categories and compiled based on similar comments.

- Business
  - Well-paying jobs
  - Retail spending outside the county
  - Cost of utilities, hook-up fees
  - Lack of investors
  - Lack of incentives support existing and small businesses
  - Local regulations, ordinances
- Loss of Central Virginia Training Center, threat of losing Sweet Briar College
- Government
  - Not open for business
  - Town, county politics
- Quality of Life
  - Lack of well-known restaurants
  - Lack of entertainment options

- Retail diversity
- Cultural amenities
- Appearance of the town and community
- Lack of family resources: education, recreation, transportation
- Lack of diversity
- Affordable housing
- Aging community
- Workforce
  - Lack of education
  - Youth retention
  - Skills
- Leadership
  - Board of Supervisors
  - Inability to change, resistance to change
  - Lack of vision, leadership, and innovation
  - Closed thinking
  - Anti-growth sentiment
- Community Development
  - Investments in Madison Heights as a transition town from Lynchburg
- Blighted areas, vacant buildings
- Tourism
  - Recreation and hospitality destinations
- Recreation
  - Lack of public parks
  - Public recreation venues like a YMCA
- Marketing
  - Lack of promotion of recreation and tourism offerings
- Transportation
  - Lack of interstate
- Telecommunications
  - High speed internet
  - Cell phone coverage
- Location
- Education
  - Public schools
  - Lack of investment
  - High illiteracy rate

### **8. What is Amherst County's most significant opportunity for economic growth?**

The 450 responses to this question were grouped by major categories and compiled based on similar comments.

- Business
  - Recruit large companies that pay well
  - Retail and dining options, outlet shopping mall
  - Development and redevelopment along Bus 29 and Hwy 29 bypass
  - Develop 210 corridor
  - Invest in Madison Heights as a business location
  - Availability of business development land
  - Leveraging rail to attract businesses
- Downtown Development
  - Focus on downtown Amherst
- Cultural Arts
  - Second Stage
- Tourism
  - Hospitality
  - Lodging
  - Destination attractions
  - Capitalize on natural resources
    - James River
  - Agri-tourism, farm-to-table tourism
- Small Businesses
  - Expanding markets beyond Amherst County
  - Help small business start-ups

- Central Virginia Training Center
  - Redevelopment
- Education
  - Investment in public schools
  - Vocational school
  - Central Virginia Community College satellite campus expansion
- Infrastructure
- Telecommunications
  - Investments in internet
- Sweet Briar College
  - Increased collaboration in arts, business, and internships
- Quality of Life
  - Youth activities
- Housing developments similar
- Upscale dining, craft breweries, wineries
- More special events
- Long-term care facility
- Recreation
  - Sportsplex development
- Leadership
  - Leadership development programs
- Location
  - Leveraging proximity to Lynchburg and Charlottesville

### 9. What is the greatest threat to economic growth?

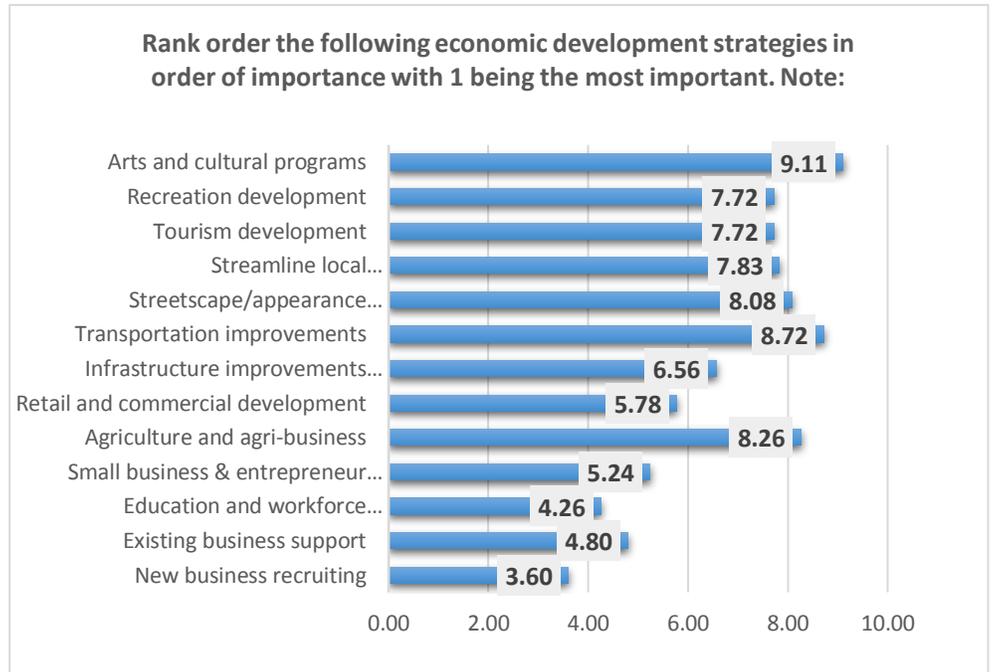
The 450 responses to this question were grouped by major categories and compiled based on similar comments.

- Workforce
  - Lack of skilled labor
- Leadership
  - Board of Supervisors
  - Opposition to change
  - Anti-growth
  - Unwillingness to invest for the future: schools, infrastructure, transportation
- Business
  - Economic stagnation
  - Taxes and utility fees
  - Unfriendly business climate
  - Financing alternatives
  - Development of Madison Heights area, 210 Connector and Bus 29
  - Few job opportunities
  - Small population for retail business market
- Education
  - Under-performing schools
- Low educational attainment
- Lack of funding for schools
- Government
  - Business policies, restrictions from zoning and public service authority
- Central Virginia Training Center closure
- Threat of Sweet Briar closing
- Tourism
  - Lack of lodging
- Quality of Life
  - People relocating out of Amherst County
  - Lack of cultural amenities
  - Decline in population
  - Not growing the downtown area
  - People desiring modernization will not find it in Amherst County
  - Desire to maintain rural area

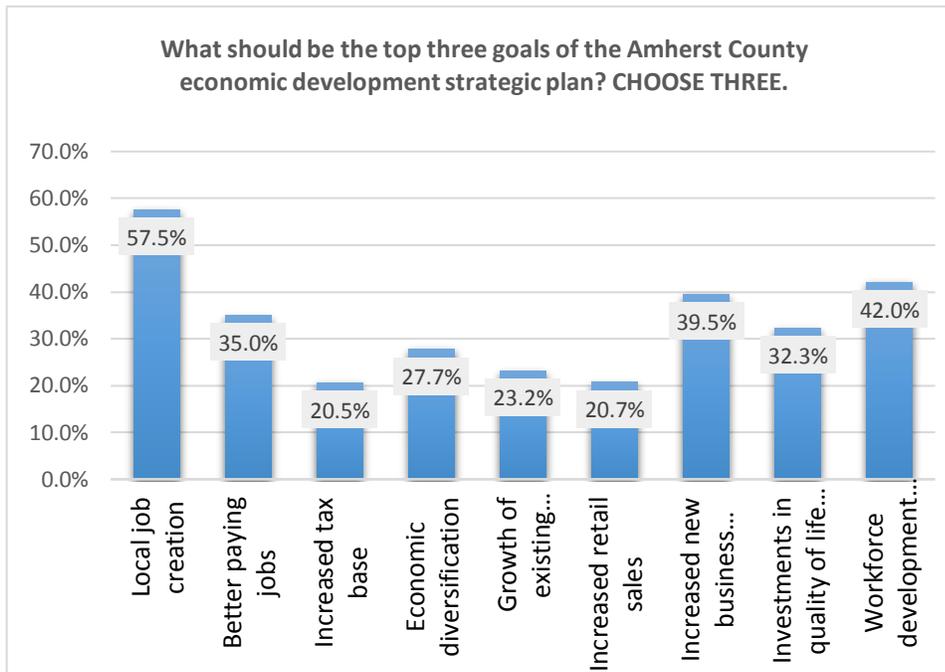
- Environmental
  - Air and water pollution
  - Logging, pipeline, and fracking destroying natural beauty
- Perception
  - Internal perception
  - External perception of businesses, events, tourism destinations

**10. Rank order the following economic development strategies in order of importance, with 1 being the most important.**

Note that the lower the number the higher the priority. The top priorities are new business recruiting, education and workforce development, existing business support, and small business and entrepreneur development.



**11. What should be the top three goals of the Amherst County economic development strategic plan? CHOOSE THREE.**



The top four goals are local job creation, workforce development, increased new business start-ups, and better paying jobs.

Other (please specify):

The responses in the "other" category included education, utilities, telecommunications, public transportation, housing, tourism, and arts and culture.

## 12. What is an outcome you would like to see from the strategic plan?

We grouped the responses by category:

- Action
- Direction
- Funding for implementation
- Change
- Short and long-term goals
- Focus on Amherst County's unique qualities, adopt an identity
- Focus on schools
- Progressive, cohesive leadership
- Tourism promotion
- Economic growth
- Grow the population
- Retain young people
- Improved appearance, clean up blighted areas
- Jobs
- Industry, retail, service, entertainment businesses
- Leveraging natural beauty and resources
- Maintain character, small town feel
- Better utilities, internet, cell phone coverage
- Build a stronger, engaged, cohesive community
- More housing stock, affordable housing in town
- Recreation opportunities
- Agribusiness
- Entrepreneurship
- Expand the community college

### 13. Please make any additional comments here.

CVTC--look into creating a combination residential, art, commercial center. Also, look into extending the Blackwater Creek Natural Area with access from CVTC. It would allow traffic from Lynchburg to CVTC by cycle and also could open the trail along the river across Amherst making it one of if not the best cycle trail in the state. This would create a strong draw from cyclist community, it could also include other trails and off road activity for both cyclists and 4 wheeler, motocross (this would be major draw in Amherst)--terrain would be perfect and there's enough space to separate it from residential. Terrain is also great for something like the zip lines that could actually cross or access the river. Old Dairy area at CVTC could be great as a children's zoo. Specialized camping could be created. Access to boating and reestablish a canoe livery. I was thinking that there might be many crafts people who would like to live in and sell crafts in the community. Might look into a small airfield for wealthier customers--Northern VA etc. Could be a commuter location if air access but might be OK given proximity to Falwell and LYH.

Some of the buildings offer accessibility features that would be very desirable for people with physical challenges for permanent living--could easily add pools and accessible trails and shopping.

Museum -- many ways to build this feature including museum about CVTC itself bad/good history.

Use the gym to have a Y annex in Amherst--could easily add pool in some of the buildings. \

Rent business space in some buildings.

Create a restaurant in Bradford with great view--best in the city. Amherst would love a buffet.

Maybe UVA would like a satellite location--

Private mental health treatment/substance abuse

Specialized spa destinations

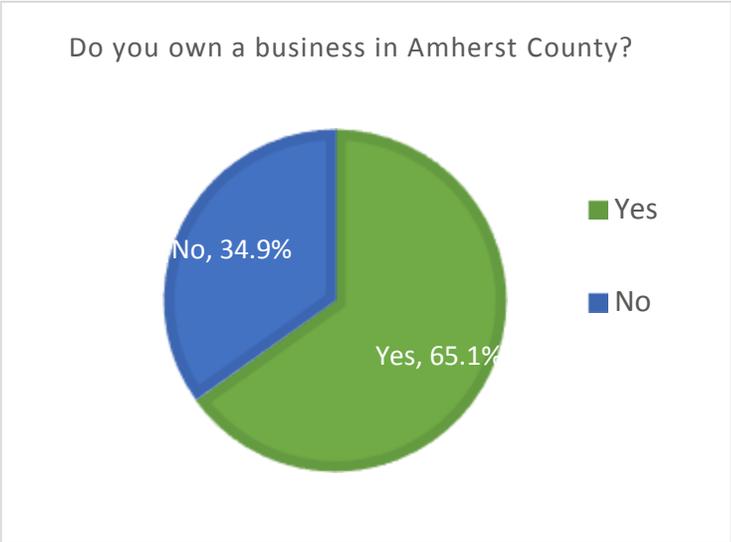
Create a training/development service for agencies serving people with disabilities--could draw from some of the staff.

Short term crisis living support for people with disabilities and/or mental health emergency residential need. Plenty of providers could do this.

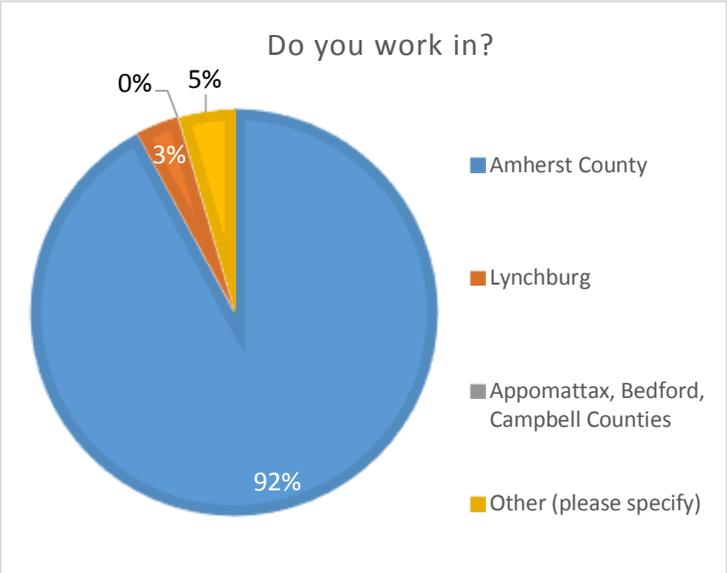
# Appendix F: Amherst County Business Survey

There were 88 responses to the online business survey. The profile of respondents were business owners who live in Amherst County. Most have been in business more than 10 years and employ 1 – 10 people. The sectors most represented are Education, Business and Professional Services, and Manufacturing.

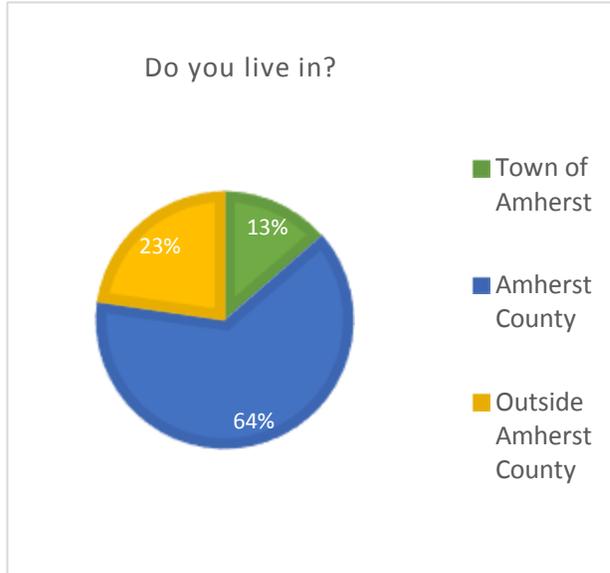
**1. Do you own a business in Amherst County?**



**2. Do you work in?**



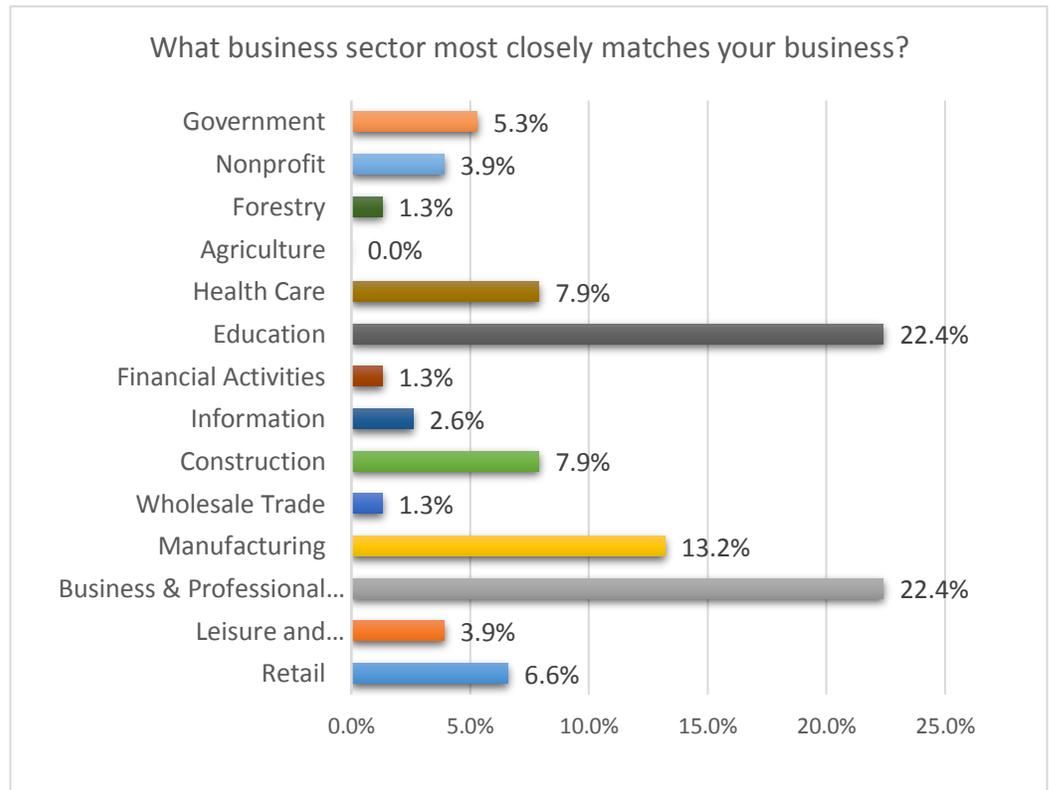
**3. Do you live in?**



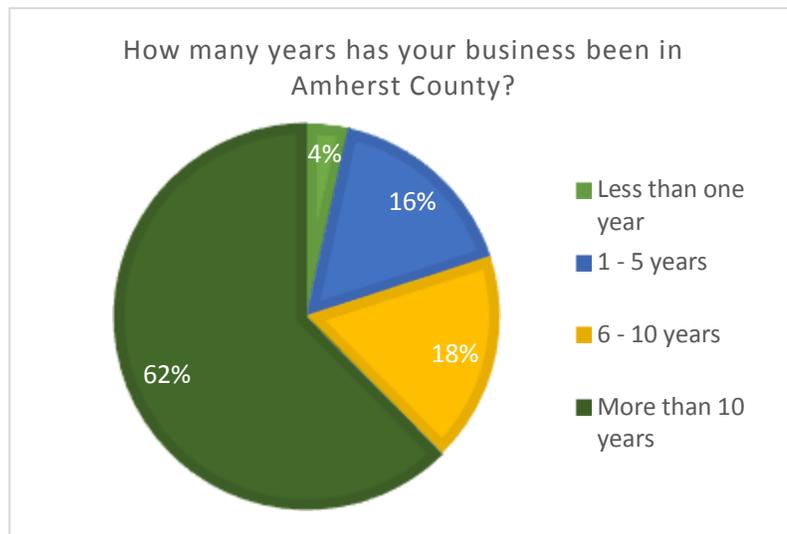
**4. If you live outside Amherst County, would you consider moving here? Why or why not?**

Of the 20 responses to this question, four said yes. The "nos" said that personal connections to other areas, lack of sense of community, schools, and Amherst County being stuck in the past would keep them from considering moving to the area.

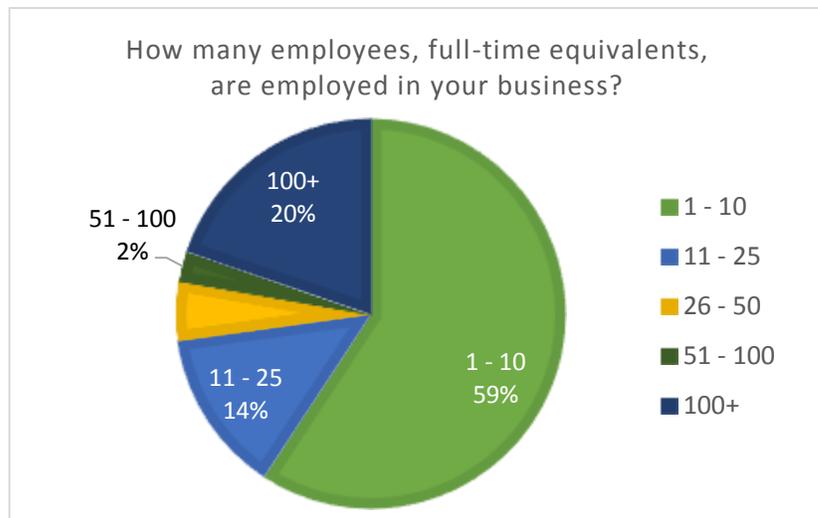
**5. What business sector most closely matches your business?**



**6. How many years has your business been in Amherst County?**

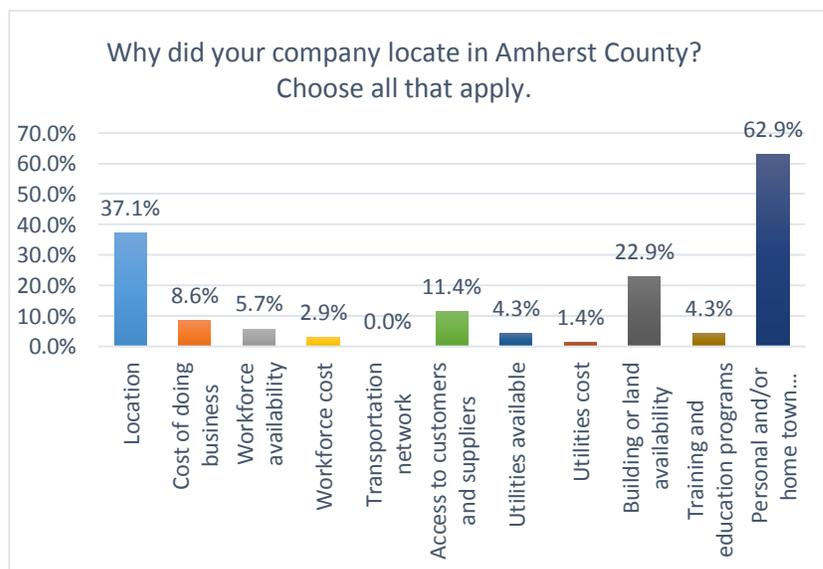


**7. How many employees, full-time equivalents, are employed in your business?**



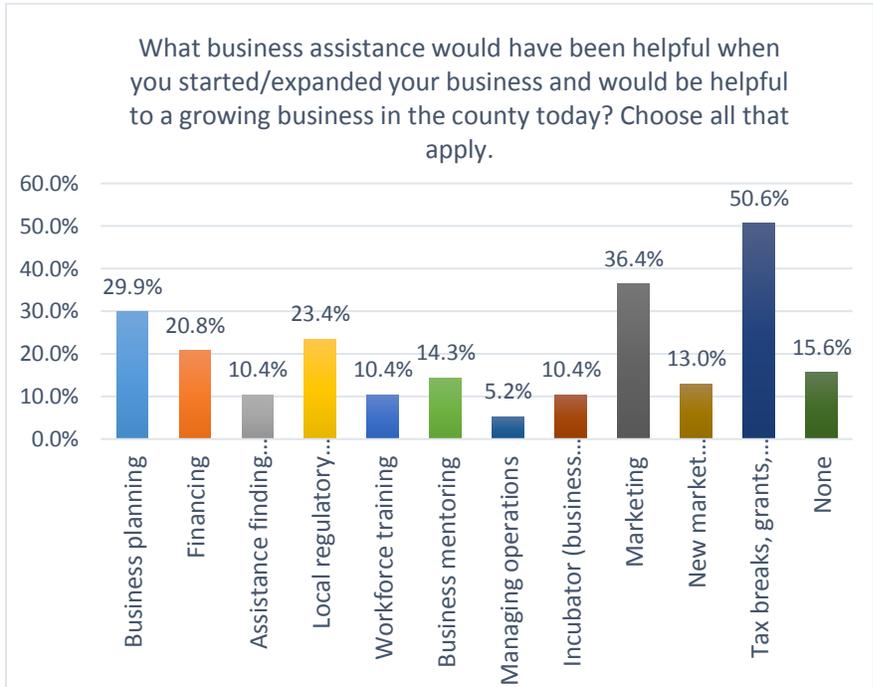
**8. Why did your company locate in Amherst County? Choose all that apply.**

An overwhelming number of companies reported locating in Amherst County because of personal and/or home town connections. Other responses included the location, building or land availability, or access to customers and suppliers.



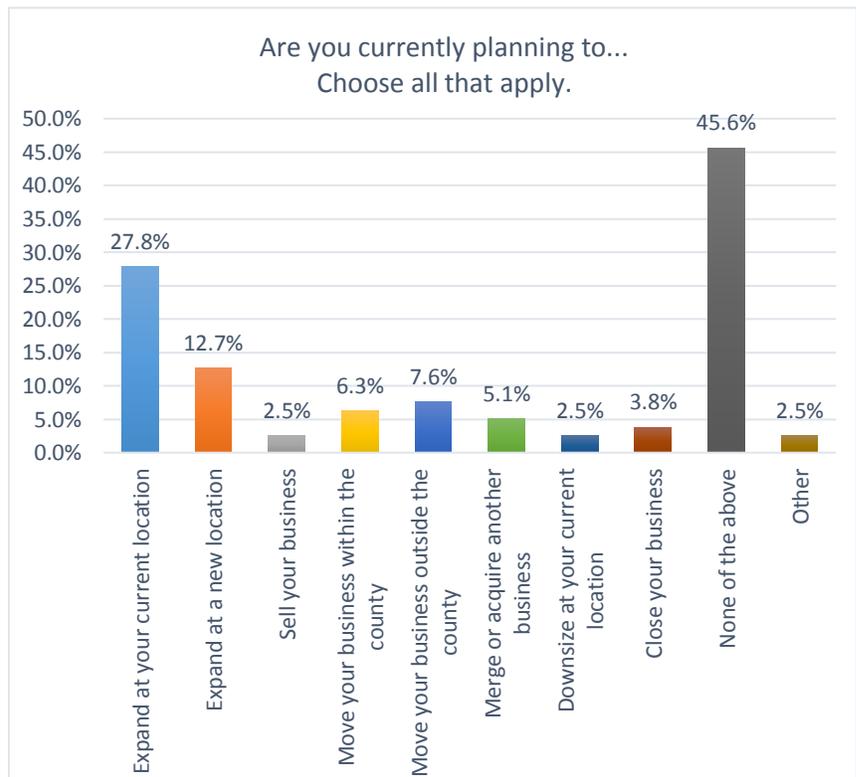
**9. What business assistance would have been helpful when you started/expanded your business and would be helpful to a growing business in the county today? Choose all that apply.**

The most often cited assistance needed was tax breaks, followed by marketing, business planning, and regulatory assistance.



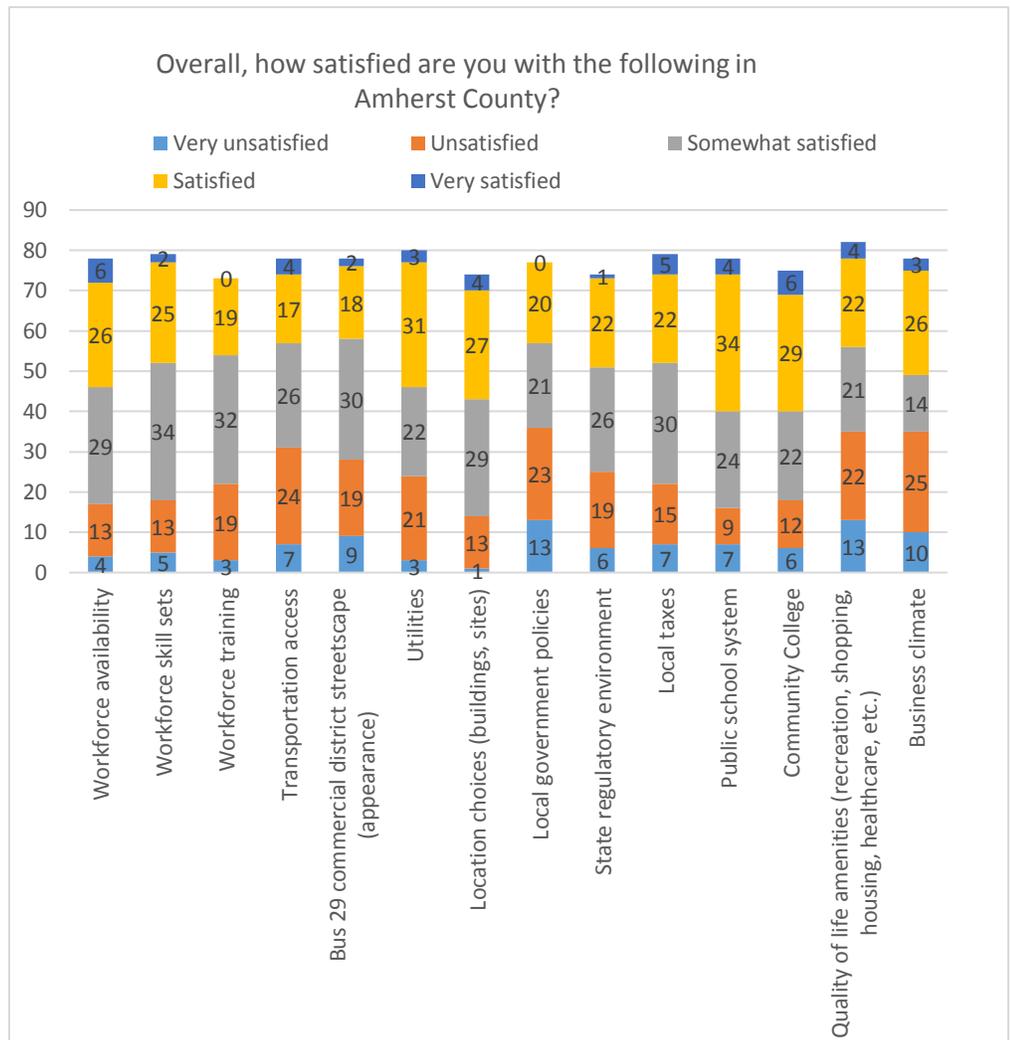
**10. Are you currently planning to... Choose all that apply.**

Almost one-third of companies are plan to expand at their current location.



**11. Overall, how satisfied are you with the following in Amherst County?**

Amherst County strengths include schools, community college, utilities, and workforce availability. Weaknesses include local government policies, quality of life, business climate, and transportation access.

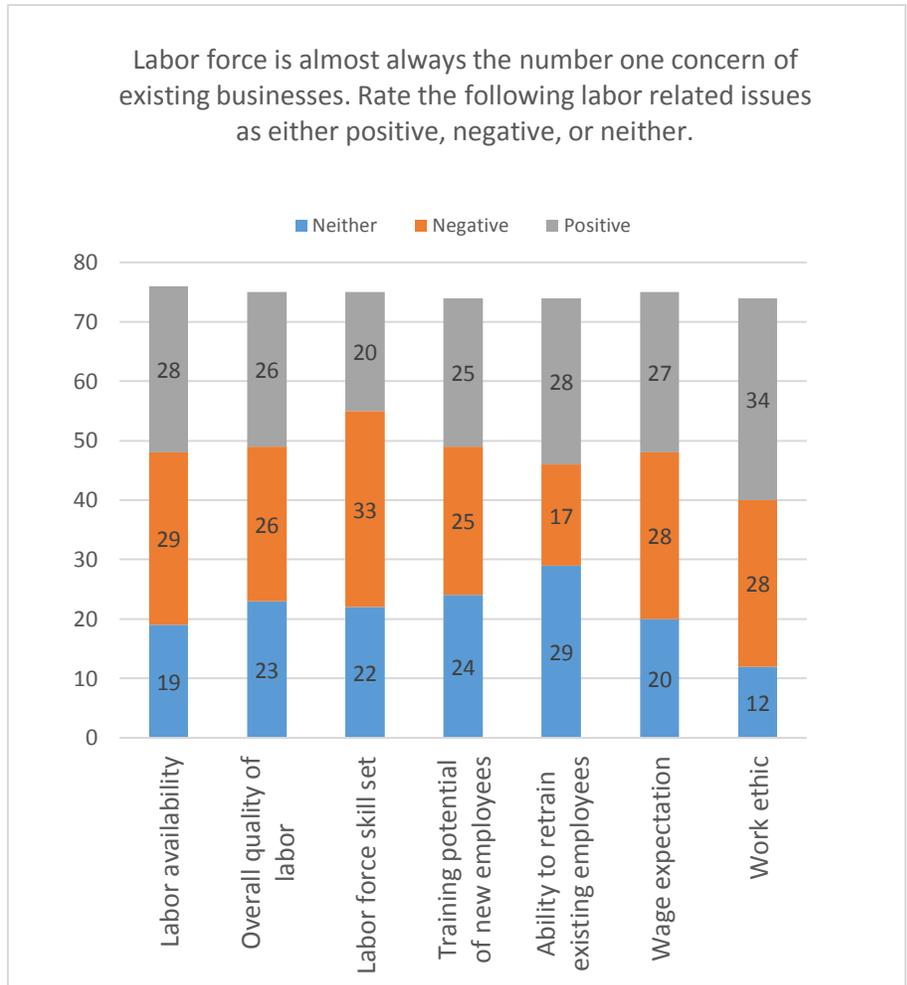


**12. Please comment on any of the above with which you are unsatisfied or very unsatisfied.**

We summarized the comments to this question into like categories.

- Not business friendly
- Zoning restrictions on outdoor advertising does not support local businesses
- Lack of affordable housing, public transportation
- Establish enterprise zones
- Lack of quality dining and shopping
- Ability to attract young talent
- Annual business license renewal process, the cost with lack of return from public services
- Bring back industrial electricity program at CVCC
- Streetscape improvements to Hwy 29 corridor
- Lack of widespread fiber optic for internet services
- Lack of priority on funding education

**13. Labor force is almost always the number one concern of existing businesses. Rate the following labor related issues as either positive, negative, or neither.**



**14. What are the benefits of operating a business in Amherst County?**

- Small-town feel, friendly place with good people, slow pace of communities
- Taxes
- Location, convenient to major highways, proximity to Lynchburg and Charlottesville
- Natural beauty and scenery
- Low crime
- Work ethic, loyal workforce, available workers
- Low cost of living
- Good government, county services
- Good schools
- Low traffic congestion, good travel times
- Available water
- Inexpensive land value, available for development
- Stable economic conditions
- Close to our home
- Low business overhead
- Supportive chamber and opportunities to network
- Sweet Briar College
- Good community to be active in
- Low cost of living

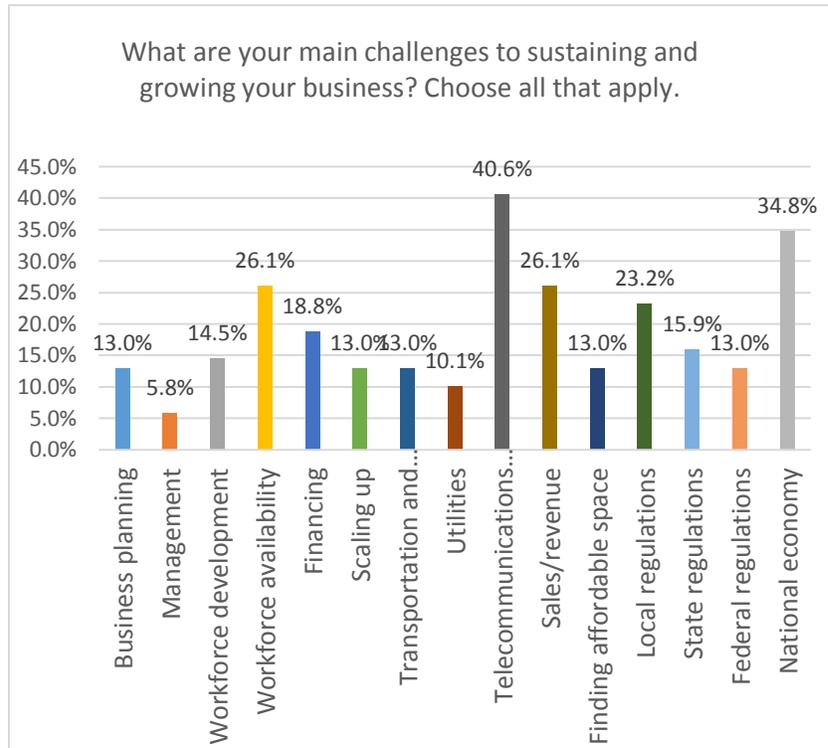
## 15. What are challenges to operating a business in Amherst County?

- Workforce: retention, training, skills, work ethic in youth, competition with larger markets
- Finding skilled employees
- Telecommunications, lack of fiber, internet access
- Not business friendly, government professionalism, perception that only certain businesses are wanted
- Leadership: supervisors, school board, small town politics
- Lack of support for education
- Shortage of technical trades (mechanical, electrical)
- Annual business license based on gross receipts, water and sewer fees, taxes on business-owned equipment
- Lack of available business sites, commercial real estate for rent
- Transportation, interstate access, public transportation
- Business financing
- Distance from major cities
- Small population with limited disposable income
- Aging population
- Congestion on Bus 29 at certain times of day
- Minimal professional services
- Not being included in Greater Lynchburg promotions
- Lack of affordable housing
- Tourism tax
- Lack of resources for small and start-up companies
- Zoning regulations that impact at-home operation of a business
- Support of local vendors, local support for marketing
- Aging infrastructure systems

**16. What types of companies are missing from the county and would be a good fit, such as companies that complement your business?**

| Response Text                                                                                                                                                                                                                                                                                                                                    | Response Text                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hotels, restaurants, industrial parts, truck service                                                                                                                                                                                                                                                                                             | We need larger companies that will bring more revenue and residents to the county.                                                                                                                      |
| More health food stores. Food options other than fast food.                                                                                                                                                                                                                                                                                      | Entertainment open later than 6pm. Drop-in recreation for our youth (such as arcade, coffee house, Chuck e Cheese). Complimenting my business would be clothing consignment shop and hobby/craft store. |
| Coffee shop, book store                                                                                                                                                                                                                                                                                                                          | Quality Lodging, Restaurants                                                                                                                                                                            |
| More restaurants                                                                                                                                                                                                                                                                                                                                 | Medical supply company                                                                                                                                                                                  |
| Not sure                                                                                                                                                                                                                                                                                                                                         | Catering                                                                                                                                                                                                |
| Another grocery store, better shopping options                                                                                                                                                                                                                                                                                                   | Hotels, restaurant, tourism related businesses                                                                                                                                                          |
| Financial service, insurance, startups, technology, environmental, nonprofits, etc.                                                                                                                                                                                                                                                              | Hotels                                                                                                                                                                                                  |
| Manufacturing facilities                                                                                                                                                                                                                                                                                                                         | We need all kinds of companies that can provides jobs that would attract people to the County. This could spark growth for the County.                                                                  |
| Other manufacturing.                                                                                                                                                                                                                                                                                                                             | More restaurants and taverns, small business in general, outdoor park or gathering place, better signage and wayfinding                                                                                 |
| Manufacturing                                                                                                                                                                                                                                                                                                                                    | QUALITY HOTELS, bigger chain restaurants, campgrounds, grocery stores other than Walmart and Food Lion - we want competition!!                                                                          |
| Amherst needs a mall of some sort or at least a large restaurant or a second grocery store type.                                                                                                                                                                                                                                                 | Walgreens to compete with CVS, any restaurant                                                                                                                                                           |
| Wholesalers that need distribution and storage facilities                                                                                                                                                                                                                                                                                        | Hotels and grocery stores                                                                                                                                                                               |
| Hotels and food establishments besides fast food                                                                                                                                                                                                                                                                                                 | More education based institutions, medical care and grocery stores                                                                                                                                      |
| Large OEM's                                                                                                                                                                                                                                                                                                                                      | Machinery Repair Companies                                                                                                                                                                              |
| A YMCA would be great for families and would attract more families to the area. More recreational activities, especially a discount movie theater. A better choice in restaurants instead of fast food or chains.                                                                                                                                | Quality hotels, more shops, restaurants                                                                                                                                                                 |
| Nice sit down restaurant like a steakhouse                                                                                                                                                                                                                                                                                                       | Recreation for children to attract people to want to buy here, amenities for the same reason                                                                                                            |
| Coffee/sandwich                                                                                                                                                                                                                                                                                                                                  | We need proper lodging. Our "motels" are not safe and import a criminal element. We could use more nice restaurants. I think a better selection would bring people from Lynchburg to the county.        |
| Sit down restaurants                                                                                                                                                                                                                                                                                                                             | Packaging, web design/management, sales & marketing                                                                                                                                                     |
| Housing/building/Commercial building                                                                                                                                                                                                                                                                                                             | Restaurants                                                                                                                                                                                             |
| Good Restaurant, Any Eco-Friendly companies that will bring employment in county.                                                                                                                                                                                                                                                                | Organic and holistic companies, entertainment companies, industrial companies                                                                                                                           |
| Truck repair/ mechanic shop, parts suppliers,                                                                                                                                                                                                                                                                                                    | Large, comprehensive tack store, store like Southern States or a bigger Tractor Supply, Outdoor outfitters                                                                                              |
| Beauty supply store, coffee shop                                                                                                                                                                                                                                                                                                                 | Restaurants, Trader Joes                                                                                                                                                                                |
| Can't think of any                                                                                                                                                                                                                                                                                                                               | Anything that creates jobs                                                                                                                                                                              |
| Another auto parts store,                                                                                                                                                                                                                                                                                                                        | Food                                                                                                                                                                                                    |
| Restaurants                                                                                                                                                                                                                                                                                                                                      | Hospitality, recreation                                                                                                                                                                                 |
| Look to Nelson, we are the same Geographic/ Demographic...They have done an excellent job bringing in the wineries, the breweries, and with them more restaurants...Bed and Breakfasts...Promote the Mountains, and the outdoors...All of the natural things people from Richmond to Washington go the Nelson and pay money to participate in... |                                                                                                                                                                                                         |
| Printer and copy machine only available Monday through Thursday.                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                         |
| Good restaurants, a major chain hotel, a store such as Target                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                         |

**17. What are your main challenges to sustaining and growing your business? Choose all that apply.**

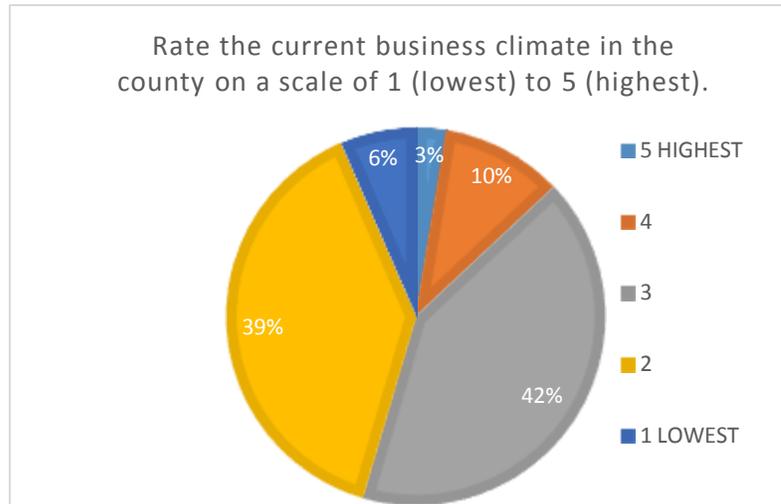


**18. What, if anything, would cause you to consider moving your business out of Amherst County?**

| Response Text                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------|
| More business friendly zoning like Bedford County                                                                                              |
| Nothing                                                                                                                                        |
| Nothing                                                                                                                                        |
| Better property options.                                                                                                                       |
| Any space available in the area                                                                                                                |
| The lack of support from the people of the county and the county. Going out of the county to buy products that can be found within the county. |
| Continued lack of workforce                                                                                                                    |
| Raising taxes would make me consider moving.                                                                                                   |
| Lower rent and better internet services                                                                                                        |
| Nothing                                                                                                                                        |
| Large tax increase. High crime                                                                                                                 |
| Getting a contract with a large commercial company                                                                                             |
| Not planning to move.                                                                                                                          |
| A more welcoming business environment, availability of warehouse/manufacturing space                                                           |
| Affordability                                                                                                                                  |
| Not applicable                                                                                                                                 |
| Who would want to start a business here? We aren't growing!                                                                                    |
| I have considered moving to Nelson for the business license savings. My children attend Amherst High School, which keeps me rooted             |

| Response Text                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| here. One graduates this year, the other in 2 years. I will seriously consider moving in 2 years due simply to the egregious business license tax in Amherst.                                          |
| If my husband lost his job (I cannot make a living with my business) and was unable to find work within a one hour radius, forcing us to move. He does senior budget analytics for large corporations. |
| Current lack of support from local government                                                                                                                                                          |
| Won't                                                                                                                                                                                                  |
| We won't move                                                                                                                                                                                          |
| The county has poor traffic, poor schools, and no real reason to bring to the county. The 29 by-pass has hurt a lot of businesses as well and has taken traffic off the business corridor.             |
| Not considering this                                                                                                                                                                                   |
| Building location in another locality that seems to be growing                                                                                                                                         |
| Lack of local leadership.                                                                                                                                                                              |
| Nothing.                                                                                                                                                                                               |
| More sales                                                                                                                                                                                             |
| Poor internet service                                                                                                                                                                                  |
| Poor economy and lack of new residential development                                                                                                                                                   |

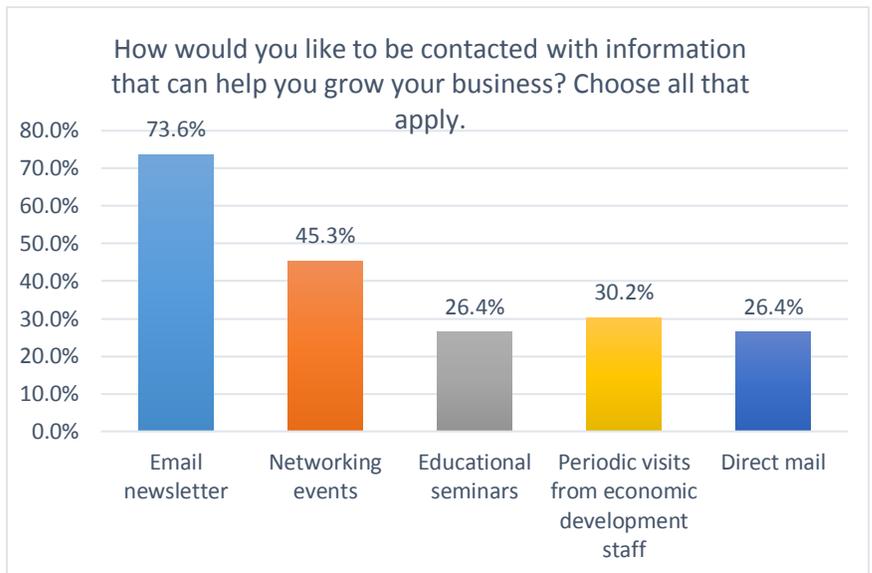
**19. Rate the current business climate in the county on a scale of 1 (lowest) to 5 (highest).**



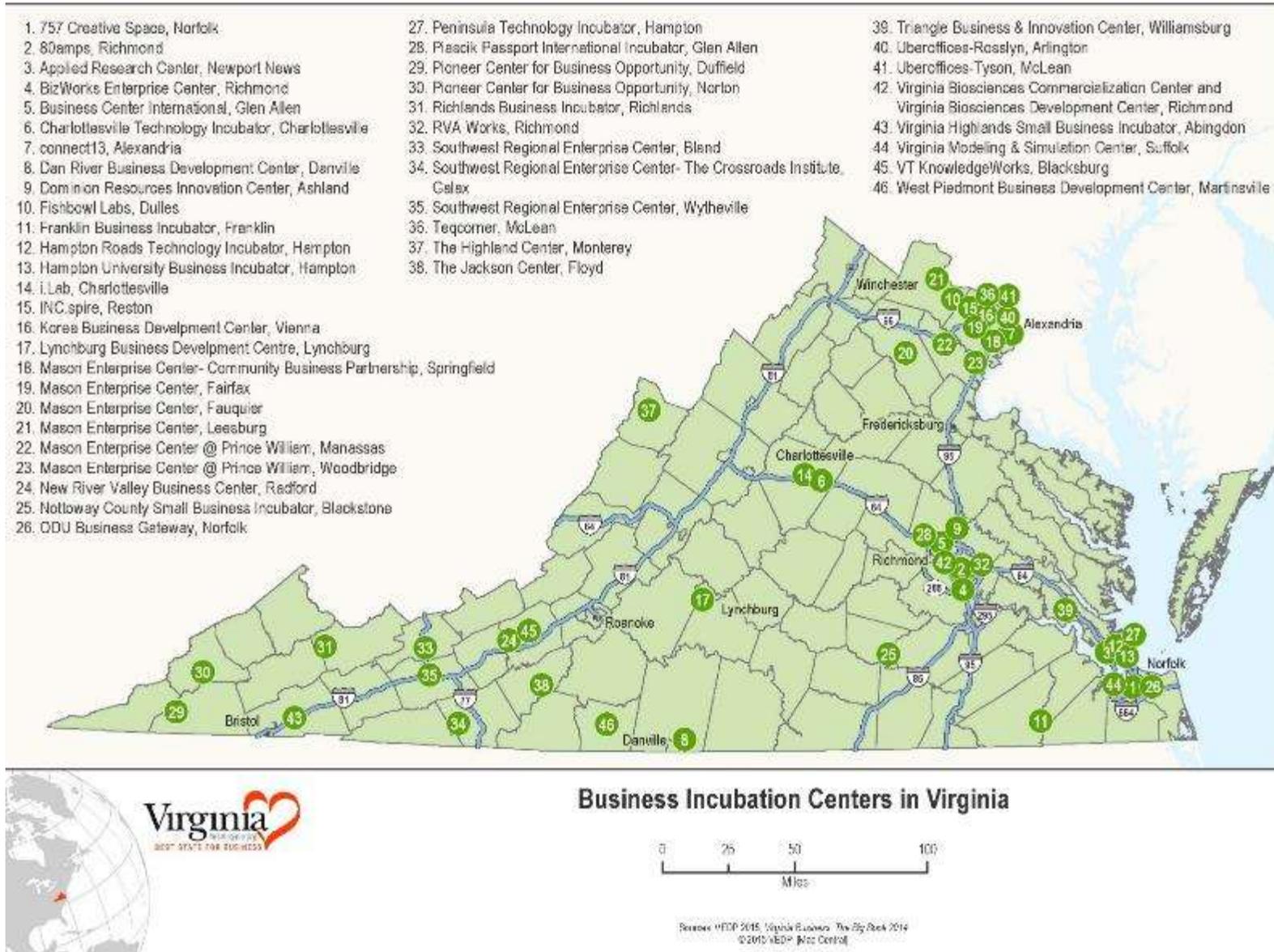
**20. Rank order the following economic development strategies in order of importance, with 1 being the most important.**



**21. How would you like to be contacted with information that can help you grow your business? Choose all that apply.**



# Appendix G: Map of Business Incubators Center in Virginia



# Appendix H: Virginia Leadership Programs

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## CIVIC

Forward Wise County Leadership  
Development Program  
The Grace E. Harris Leadership Institute  
Goochland Leadership Enterprise  
Leadership Arlington  
Leadership Bedford County  
Lead Bristol  
Lead Culpeper  
Leadership Emporia-Greenville  
Leadership Fairfax  
Leadership Farmville  
Leadership Fredericksburg  
Leadership Front Royal – Warren County  
Leadership Greater Augusta  
Leadership Greater Washington  
Leadership Halifax County  
Lead Hampton Roads  
Leadership Harrisonburg – Rockingham  
LEAD Historic Triangle  
Leadership Institute of the Peninsula  
Leadership Isle of Wight Institute  
Leadership Loudoun  
Leadership Lynchburg  
Leadership Martinsville-Henry County  
Leadership Mecklenburg

Leadership Mercer-Tazewell  
Leadership Metro Richmond  
Leadership New River Valley  
Leadership Nottoway  
Leadership Prince William  
Leadership Roanoke Valley  
Leadership Southside  
Leadership Washington County  
LEAD VIRGINIA  
Performance Management Group (VEI, CMI)  
Senior Executive Institute  
Sorensen Institute for Political Leadership  
This is Rockbridge  
Top of Virginia Regional Chamber  
Community Leadership  
Twin County Leadership Institute  
Virginia Agriculture Leaders Obtaining  
Results (VALOR)  
Virginia Leadership Institute  
Virginia Peninsula Leadership Institute  
Virginia Natural Resources Leadership  
Institute  
Wytheville-Wythe-Bland Leadership  
Development Institute

# Appendix I: Target Industry Analysis

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The purpose of the Target Industry Analysis is to identify the promising industry sectors for Amherst County. Before implementing a business attraction program, it is critically important that proper analysis and research is done. Matching the strengths and assets of Amherst County with the needs of growing and expanding companies is vital to the success of targeting. For this study, we looked at area advantages the county can build upon to expand the economic base.

We factored in economic and demographic trends, industry growth trends, and existing industries in the region, as well as the viewpoints of county and business leaders. In addition, we evaluated industry and company types that would find Amherst County attractive based upon existing and growing industries.

Amherst County possesses many assets and strengths, including a loyal and reliable workforce, relatively low business costs, competitive tax rates, and a family-friendly community atmosphere. We also want to recognize the natural beauty of the area and overall quality of life. Overall, our objective is not only to find the most feasible industries, but also the most desirable to recommend for Amherst County.

Based on our research and analysis, we recommend the following target industry sectors.

- ⦿ Precision Manufacturing
- ⦿ Plastics and Packaging
- ⦿ Health Care
- ⦿ Retail and Recreation
- ⦿ Education and Knowledge Services

## Recommended Targets

### Precision Manufacturing

Precision Manufacturing is present in both Amherst County and the region. Manufacturing, in general, is robust in the region; therefore, metals, machinery, and other precision manufacturing industries will grow and support this strong base. Various segments have experienced healthy growth over the past few years and are forecasted to continue to grow into the future. This cluster will be attracted to the available and reliable workforce in Amherst County, as well as the affordable business climate and available infrastructure. The cluster includes fabricated metal production like stamping, forging, machinery, machine shops, and metal plating.

### Plastics and Packaging

Like Precision Manufacturing, this manufacturing industry cluster already has a presence in the region. Many segments are forecasted to continue to grow over the next five years. Plastics and packaging will also support the manufacturing base supplying parts and packaging for goods such as medical equipment, electronics, electrical equipment, food, and beverage. The assets attractive to this cluster are the available and reliable workforce and the relatively low business operating costs. This cluster will include all types of plastics products such as plastic

film, sheet and bags, plastic bottles, plastic pipes, and other laminated parts. Additionally, this cluster contains packaging materials such as cardboard boxes and coated or laminated paper.

## **Health Care**

Health care needs will grow on all fronts and well into the future. The aging population will drive the demand for products and services. The history and the workforce from the Central Virginia Training Center will support this industry. The presence of this industry and the local educational assets will stream a talent pool to sustain and grow the industry. This industry cluster includes medical supplies, laboratory services, outpatient centers, specialty hospitals, retirement communities, nursing homes, and other health care services.

## **Retail and Recreation**

Through interviews with local business owners, more retail and recreation opportunities would be welcome amenities in Amherst County. More sit-down dining and higher-scale shopping options are desirable to the people and employment base in the county. We can include natural amenities as part of the attraction in this category, with the beautiful landscape in Amherst County such as the James River, area lakes, parks, and trails. Targeting this industry will be less about recruiting and attracting in the traditional economic development sense and more about fostering entrepreneurship and promoting the region to retail development, visitors, retirees, and graduating students. However, naming Retail and Recreation as a target for Amherst County allows focus to be put on the industry for growth and expansion opportunities. It also aligns with mixed-use development opportunities such as redevelopment of CVTC. Factors that will encourage the establishment of service-focused businesses will be quality of life, area promotion, community support, transportation infrastructure, and access to small business support.

## **Education and Knowledge Services**

Amherst County and the region is rich in educational resources, colleges, universities, and schools. There is an opportunity to build on this reputation and expand this industry. Quality of life plays an important role in this cluster as business owners, entrepreneurs, and knowledge workers tend to look for the place they want to live and then find work. This cluster includes educational services, universities, technical schools, and testing and educational support, as well as knowledge services such as book publishing, software publishing, and other internet and information services.

## Targeting and Marketing Recommendations

### Targeting Criteria

Defining the targeting criteria allows us to estimate the market size across the industry sectors. For Amherst County, we recommend a target marketing approach focusing on mid-sized, regional, and national companies for direct outreach and lead generation activities.

#### **Targeting Parameters for Precision Manufacturing and Plastics and Packaging**

*Geography:* National  
*Company Size:* Mid-Sized (50 to 1,000 employees)  
*Company Type:* Headquarters

#### **Targeting Parameters for Health Care**

*Geography:* National  
*Company Size:* Greater than 100 employees  
*Company Type:* Headquarters

#### **Targeting Parameters for National Retail and Recreation**

*Geography:* National  
*Company Size:* Large Chains (500+ employees)

*Company Type:* Headquarters

#### **Targeting Parameters for Regional Retail and Recreation**

*Geography:* Regional (100-mile radius around Amherst)  
*Company Size:* Greater than 10 employees  
*Company Type:* Headquarters and Independently Owned

#### **Targeting Parameters for Regional Education and Knowledge Services**

*Geography:* Regional (Virginia and surrounding states)  
*Company Size:* Greater than 100 employees  
*Company Type:* Headquarters

Research should then be used to factor in the corporate footprint, growth, and company events (such as mergers/acquisitions, product development, executive changes, raising of funds, and other predictive factors) as listed below to narrow the leads further for direct outreach and lead generation activities. By focusing on these companies, the EDA can prioritize its outreach efforts to effectively target companies most likely to find the region attractive and be most likely to expand or relocate.

The table below outlines: 1) the estimated number of companies within the target universe for each defined Target Group and 2) the estimated number of companies within the target universe experiencing events likely to indicate a company with an expansion, relocation, or consolidation need. The industry clusters are defined by North American Industrial Classification System (NAICS) codes within the Profile supplied in Appendix G. It will be especially important that the EDA not rely solely on NAICS codes to develop leads for their marketing and business development. Our recommendations on finding associations and other sources are included for each industry in the Profiles.

| Target Industry                                    | National Target Group Universe | Est. National Target Group Universe with Growth/Events |
|----------------------------------------------------|--------------------------------|--------------------------------------------------------|
| <b>Precision Manufacturing (National)</b>          | 4,804                          | 1,201                                                  |
| <b>Plastics and Packaging (National)</b>           | 1,420                          | 351                                                    |
| <b>Health Care (National)</b>                      | 4,778                          | 955                                                    |
| <b>Retail and Recreation (National)</b>            | 626                            | 188                                                    |
| <b>Retail and Recreation (Regional)</b>            | 1,897                          | 380                                                    |
| <b>Education and Knowledge Services (Regional)</b> | 404                            | 121                                                    |
| <b>TOTAL</b>                                       | <b>13,929</b>                  | <b>3,196</b>                                           |

**Proactive Business Development Program**

A business development program may take advantage of several marketing vehicles. We recommend a combination of lead qualification, email marketing, trips to meet with prospects, and trade shows. The EDA might consider partnering with the region or the state in some of the target marketing activities, such as trade show visits. Specific recommendations for an approach to each sector is included in the Industry Profiles.

*Lead Generation/Business Attraction Programs*

Lead generation takes a *dedicated* effort. It is not a one-time activity, nor is it without cost. It can take significant resources to start and maintain over time. This type of program takes consistent prospecting activity, good lead tracking, consistent reporting, and patience. The leads can take time, sometimes years, to develop into opportunities and projects. The EDA should commit to contacting a certain number of companies 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 generation and business attraction efforts can be outsourced to a lead generation firm.

We would recommend the EDA develop a lead generation program focusing on setting phone appointments between EDA personnel and company executives within the targeted sectors.

Metrics and annual goals can then be set after the initial six to nine-month program is completed and results can be measured. Going forward, the EDA should have a good idea of the expected results from efforts.

*Email Marketing*

Our email marketing recommendation is for the EDA to consider developing a campaign to reach the target audience. This program can be built consistently over time. The EDA can start with one industry or a cross section of industries with a narrower focus in geography and company size to create smaller batches, such as 500 or 1,000 at a time. A custom email campaign can be a cost-effective and powerful way to build relationships with potential

customers, as well as build brand awareness for Amherst County. The EDA should ensure they have an informative website, industry-focused landing pages, and appropriate email messaging content to reach each industry cluster.

### ***Trade Shows***

The EDA may wish to consider participating in trade shows within its target industries. Marketing efforts and costs may be shared with neighboring counties in your region or state, if objectives are aligned. Trade shows can be a cost effective way to meet with a 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 of leads after the show. Visiting the trade show is step one in the process.

### ***Marketing Trips (Meeting Face-to-Face with Companies and Site Selectors)***

Marketing trips are another possible lead generation technique. Meeting face-to-face with prospective companies is a great way to establish a relationship. However, setting a specific number of appointments with qualified leads willing to meet, on a specific date, in a specific city, can be an unrealistic goal. Costs of marketing trips can be shared by participating with neighboring counties, the region, or a state organization. We would not recommend this approach to the EDA given the time and money it takes to execute a successful marketing trip solo and the unlikelihood of immediate return. Many companies and site location advisors prefer to meet with regions or states and not necessary specific localities.

## Summary of Analyses

The analysis began with examining the base industries in Amherst County and the surrounding counties and cities, along with Virginia as comparison. Total employment, percentage of employment by sector, and location quotient was performed at this base industry level. Manufacturing, along with education and health services, were recognized as a strong industry base in Amherst and the region.

A location quotient by industry cluster was then completed by establishment, employment, and wages. Industry location quotient is a way of quantifying how "concentrated" an industry is in a region compared to a larger geographic area, such as the state or nation. The basic uses of location quotient include: 1) determining which industries make the regional economy unique; 2) identifying the "export orientation" of an industry and identifying the most export-oriented industries in the region; and 3) identifying emerging export industries beginning to bring money into the region. Strong industry clusters identified through this process were education and knowledge creation; forest and wood products; glass and ceramics; primary metal manufacturing; fabricated metal product manufacturing; and electrical equipment, appliance, and component manufacturing.

A deeper look was then taken, at the employment levels, by 3-digit NAICS Codes to understand the specific opportunities in manufacturing, logistics, and services. Information was analyzed from the U.S. Department of Labor Statistics and Dun & Bradstreet. At this level of analysis, focus on specific clusters were reinforced around metals, machinery, plastics, health services, and educational services.

Another consideration was the forecasted growth by industry segment. While growth factors were studied across all industries, the fastest growing segments were included in the tables below. Growing segments were found among many of the industry clusters being considered for Amherst County. This part of the analysis identified retail and health care services for consideration given the various segments of this industry included in the fastest growing industries.

Tables representing the studied information are included, in the following pages.

## Comparison of Amherst to Virginia and the Region, 2014 (BLS)

The distribution of business, by major sectors, was analyzed to compare and contrast Amherst County with their neighboring areas of Lynchburg, Appomattox County, Bedford County, Campbell County, Nelson County, and Rockbridge County, along with Virginia and the United States.

Based on this analysis, Amherst County has a significantly higher percentage of job distribution in manufacturing, as well as, education and health services. It should be noted the county has a comparable or slightly higher percentage of job distribution in trade, transportation and utilities; construction; and leisure and hospitality. The industries significantly below state and national percentages are information; financial activities; and professional and business services.

### Employment Calculated from Quarterly Census of Employment and Wages Data - 2014 (BLS)

| Industry                             | Virginia --<br>Statewide | Amherst<br>County | Lynchburg | Appomattox<br>County | Bedford<br>County | Campbell<br>County | Nelson<br>County | Rockbridge<br>County |
|--------------------------------------|--------------------------|-------------------|-----------|----------------------|-------------------|--------------------|------------------|----------------------|
| Base Industry: Total, all industries | 2,969,283                | 6,116             | 46,361    | 2,215                | 15,603            | 14,010             | 3,226            | 4,370                |
| Natural resources and mining         | 19,772                   | 67                | ND        | 85                   | 121               | 214                | 299              | 116                  |
| Construction                         | 178,197                  | 437               | ND        | 247                  | 1,382             | 1,650              | 241              | 372                  |
| Manufacturing                        | 231,422                  | 1,256             | 6,365     | 110                  | 2,040             | 4,720              | 487              | 990                  |
| Trade, transportation, and utilities | 636,284                  | 1,555             | 9,645     | 723                  | 3,737             | 2,718              | 407              | 1,155                |
| Information                          | 71,494                   | 60                | 494       | ND                   | ND                | 144                | 27               | 38                   |
| Financial activities                 | 181,446                  | 164               | 3,070     | ND                   | ND                | 407                | 87               | 74                   |
| Professional and business services   | 678,464                  | 270               | 7,179     | 169                  | 2,783             | 1,329              | 249              | 259                  |
| Education and health services        | 465,609                  | 1,427             | 11,198    | 453                  | 2,179             | 1,137              | 363              | 425                  |
| Leisure and hospitality              | 370,824                  | 717               | 5,340     | 276                  | 1,586             | 1,332              | 834              | 821                  |
| Other services                       | 131,334                  | 165               | 1,443     | 86                   | 866               | 358                | 232              | 131                  |

Footnotes:

(NC) Not Calculable, the data does not exist or it is zero

(ND) Not Disclosable

Source: U.S. Bureau of Labor Statistics

### Percentage of Employment Calculated from Quarterly Census of Employment and Wages Data

| Industry                             | United<br>States | Virginia | Amherst<br>County | Lynchburg | Appomattox<br>County | Bedford<br>County | Campbell<br>County | Nelson<br>County | Rockbridge<br>County |
|--------------------------------------|------------------|----------|-------------------|-----------|----------------------|-------------------|--------------------|------------------|----------------------|
| Base Industry: Total, all industries | 100.00%          | 100.00%  | 100.00%           | 100.00%   | 100.00%              | 100.00%           | 100.00%            | 100.00%          | 100.00%              |
| Natural resources and mining         | 1.79%            | 0.67%    | 1.10%             | ND%       | 3.84%                | 0.78%             | 1.53%              | 8.27%            | 0.0265               |
| Construction                         | 5.29%            | 6.00%    | 7.15%             | ND%       | 11.15%               | 8.86%             | 11.78%             | 7.47%            | 8.51%                |
| Manufacturing                        | 10.52%           | 7.79%    | 20.54%            | 13.73%    | 4.97%                | 13.07%            | 33.69%             | 15.10%           | 22.43%               |
| Trade, transportation, and utilities | 22.58%           | 21.43%   | 25.43%            | 20.80%    | 32.64%               | 23.95%            | 19.40%             | 12.62%           | 26.43%               |
| Information                          | 2.36%            | 2.41%    | 0.98%             | 1.07%     | ND%                  | ND%               | 1.03%              | 0.84%            | 0.87%                |
| Financial activities                 | 6.64%            | 6.11%    | 2.60%             | 6.62%     | ND%                  | ND%               | 2.91%              | 2.70%            | 1.69%                |
| Professional and business services   | 16.50%           | 22.85%   | 4.41%             | 15.48%    | 7.63%                | 17.84%            | 9.49%              | 7.72%            | 5.93%                |
| Education and health services        | 17.80%           | 15.68%   | 23.33%            | 24.15%    | 20.45%               | 13.97%            | 8.12%              | 11.25%           | 9.73%                |
| Leisure and hospitality              | 12.66%           | 12.49%   | 11.72%            | 11.52%    | 12.46%               | 10.16%            | 9.51%              | 25.85%           | 18.79%               |
| Other services                       | 3.66%            | 4.42%    | 2.70%             | 3.11%     | 3.88%                | 5.55%             | 2.56%              | 7.19%            | 3.00%                |

Footnotes:

(NC) Not Calculable, the data does not exist or it is zero

(ND) Not Disclosable

Percentage of Employment: Ratio of industry employment to base-industry employment times 100.

Source: U.S. Bureau of Labor Statistics

## Location Quotients calculated from Quarterly Census of Employment and Wages Data

| Industry                             | Virginia | Amherst County | Lynchburg | Appomattox County | Bedford County | Campbell County | Nelson County | Rockbridge County |
|--------------------------------------|----------|----------------|-----------|-------------------|----------------|-----------------|---------------|-------------------|
| Base Industry: Total, all industries | 1.00     | 1.00           | 1.00      | 1.00              | 1.00           | 1.00            | 1.00          | 1.00              |
| Natural resources and mining         | 0.37     | 0.61           | ND        | 2.14              | 0.43           | 0.85            | 5.17          | 1.48              |
| Construction                         | 1.14     | 1.35           | ND        | 2.11              | 1.68           | 2.23            | 1.41          | 1.61              |
| Manufacturing                        | 0.74     | 1.95           | 1.31      | 0.47              | 1.24           | 3.20            | 1.44          | 2.13              |
| Trade, transportation, and utilities | 0.95     | 1.13           | 0.92      | 1.45              | 1.06           | 0.86            | 0.56          | 1.17              |
| Information                          | 1.02     | 0.41           | 0.45      | ND                | ND             | 0.43            | 0.35          | 0.37              |
| Financial activities                 | 0.92     | 0.40           | 1.00      | ND                | ND             | 0.44            | 0.41          | 0.26              |
| Professional and business services   | 1.38     | 0.27           | 0.94      | 0.46              | 1.08           | 0.57            | 0.47          | 0.36              |
| Education and health services        | 0.88     | 1.31           | 1.36      | 1.15              | 0.78           | 0.46            | 0.63          | 0.55              |
| Leisure and hospitality              | 0.99     | 0.93           | 0.91      | 0.98              | 0.80           | 0.75            | 2.04          | 1.48              |
| Other services                       | 1.21     | 0.74           | 0.85      | 1.06              | 1.51           | 0.70            | 1.96          | 0.82              |

### Footnotes:

Base Area is the United States

(NC) Not Calculable, the data does not exist or it is zero

(ND) Not Disclosable

Location Quotient: Ratio of analysis-industry employment in the analysis area to base-industry employment in the analysis area divided by the ratio of analysis-industry employment in the base area to base-industry employment in the base area.

Source: U.S. Bureau of Labor Statistics

## Industry Cluster Analysis/Location Quotient

Amherst County was analyzed, by industry cluster, to evaluate the clusters where the Location Quotient (LQ) was greater than one, indicating the area is producing more goods or services than it is consuming; therefore, exporting and creating value. The industry clusters having a Location Quotient greater than one in establishments or employment and require further target consider include:

- Advanced Materials
- Biomedical/Biotechnical
- Chemical and Chemical Based Products
- Education and Knowledge Creation
- Forest and Wood Products
- Glass and Ceramics
- Transportation and Logistics
- Primary Metal Manufacturing
- Fabricated Metal Product Manufacturing
- Electrical Equipment, Appliance, and Component Manufacturing
- Transportation Equipment Manufacturing

| Description                                          | QCEW Cluster -<br>Establishments | Industry Cluster<br>Establishment LQ | QCEW Cluster -<br>Employment | Industry Cluster<br>Employment LQ | QCEW Cluster -<br>Wages | Industry Cluster<br>Annual Wages LQ |
|------------------------------------------------------|----------------------------------|--------------------------------------|------------------------------|-----------------------------------|-------------------------|-------------------------------------|
| Total All Industries                                 | 708                              | 1                                    | 9,044                        | 1                                 | \$300,216,024           | 1                                   |
| Advanced Materials                                   | 11                               | 1.09                                 | 238                          | 0.81                              | \$15,297,489            | 1.03                                |
| Agribusiness, Food Processing & Technology           | 8                                | 0.75                                 | 29                           | 0.14                              | \$1,085,660             | 0.20                                |
| Arts, Entertainment, Recreation & Visitor Industries | 20                               | 0.97                                 | 180                          | 0.50                              | \$5,159,940             | 0.58                                |
| Biomedical/Biotechnical (Life Sciences)              | 18                               | 0.69                                 | 1,209                        | 1.22                              | \$57,664,389            | 1.74                                |
| Business & Financial Services                        | 64                               | 0.57                                 | 191                          | 0.24                              | \$12,380,513            | 0.26                                |
| Chemicals & Chemical Based Products                  | 3                                | 0.61                                 | 186                          | 1.43                              | \$8,063,132             | 1.39                                |
| Defense & Security                                   | 20                               | 0.73                                 | 257                          | 0.52                              | \$14,232,596            | 0.57                                |
| Education & Knowledge Creation                       | 9                                | 0.89                                 | 594                          | 1.73                              | \$29,410,877            | 2.47                                |
| Energy (Fossil & Renewable)                          | 26                               | 0.83                                 | 387                          | 0.95                              | \$19,465,728            | 0.90                                |
| Forest & Wood Products                               | 23                               | 4.77                                 | 348                          | 4.14                              | \$21,262,006            | 7.86                                |
| Glass & Ceramics                                     | 2                                | 2.99                                 | 18                           | 1.15                              | \$839,531               | 1.62                                |
| Information Technology & Telecommunications          | 18                               | 0.64                                 | 322                          | 0.93                              | \$27,840,940            | 1.21                                |
| Transportation & Logistics                           | 22                               | 1.28                                 | 339                          | 1.23                              | \$13,167,766            | 1.44                                |
| Manufacturing Supercluster                           | 18                               | 2.06                                 | 549                          | 1.62                              | \$32,623,956            | 2.05                                |
| Primary Metal Mfg                                    | 1                                | 4.07                                 | 21                           | 1.56                              | \$1,356,810             | 2.62                                |
| Fabricated Metal Product Mfg                         | 11                               | 2.62                                 | 127                          | 1.47                              | \$5,986,766             | 2.02                                |
| Machinery Mfg                                        | 3                                | 1.91                                 | 232                          | 4.00                              | \$13,583,486            | 5.40                                |
| Computer & Electronic Product Mfg                    | 1                                | 0.75                                 | 11                           | 0.16                              | \$843,173               | 0.18                                |
| Electrical Equipment, Appliance & Component Mfg      | 1                                | 1.81                                 | 114                          | 4.60                              | \$8,846,812             | 9.12                                |
| Transportation Equipment Mfg                         | 1                                | 1.20                                 | 44                           | 0.51                              | \$2,006,909             | 0.48                                |
| Printing & Publishing                                | 7                                | 0.47                                 | 136                          | 0.96                              | \$6,780,151             | 1.00                                |

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

## Manufacturing Analysis

Looking deeper into the industries, at the county and regional level, we analyzed the employment, by 3-digit NAICS Industry Code, for Amherst County, Lynchburg, Appomattox County, Bedford County, Campbell County, Nelson County, and Rockbridge County.

Manufacturing industries of note existing Amherst County or the region include:

- Fabricated metal product manufacturing (Amherst/region)
- Machinery manufacturing (Amherst/region)
- Chemical manufacturing (region)
- Food manufacturing (region)
- Plastics and rubber products manufacturing (region)

### Employment Calculated from Quarterly Census of Employment and Wages Data (2014)

| Industry                                                | Virginia – Statewide | Amherst County | Lynchburg | Appomattox County | Bedford County | Campbell County | Nelson County | Rockbridge County | Regional Totals |
|---------------------------------------------------------|----------------------|----------------|-----------|-------------------|----------------|-----------------|---------------|-------------------|-----------------|
| NAICS 311 Food manufacturing                            | 29,064               | 10             | 751       | NC                | 55             | ND              | ND            | ND                | 816             |
| NAICS 312 Beverage and tobacco product manufacturing    | 7,696                | ND             | ND        | NC                | ND             | NC              | 341           | ND                | 341             |
| NAICS 313 Textile mills                                 | 3,863                | NC             | NC        | NC                | ND             | ND              | NC            | NC                | -               |
| NAICS 314 Textile product mills                         | 3,114                | NC             | NC        | NC                | ND             | NC              | NC            | ND                | -               |
| NAICS 315 Apparel manufacturing                         | 1,421                | NC             | NC        | NC                | NC             | ND              | NC            | NC                | -               |
| NAICS 316 Leather and allied product manufacturing      | 279                  | NC             | NC        | ND                | NC             | ND              | ND            | NC                | -               |
| NAICS 321 Wood product manufacturing                    | 13,659               | 60             | ND        | ND                | 80             | 240             | ND            | 157               | 537             |
| NAICS 322 Paper manufacturing                           | 7819                 | ND             | ND        | ND                | ND             | ND              | NC            | ND                | -               |
| NAICS 323 Printing and related support activities       | 10,240               | ND             | 454       | 11                | 244            | ND              | NC            | NC                | 709             |
| NAICS 324 Petroleum and coal products manufacturing     | 599                  | NC             | NC        | NC                | NC             | NC              | NC            | NC                | -               |
| NAICS 325 Chemical manufacturing                        | 14,477               | NC             | 891       | NC                | 80             | ND              | NC            | ND                | 971             |
| NAICS 326 Plastics and rubber products manufacturing    | 15,658               | ND             | 740       | NC                | ND             | ND              | NC            | ND                | 740             |
| NAICS 327 Nonmetallic mineral product manufacturing     | 8,394                | ND             | 95        | NC                | 78             | 37              | NC            | NC                | 210             |
| NAICS 331 Primary metal manufacturing                   | 3,698                | ND             | ND        | NC                | ND             | NC              | NC            | NC                | -               |
| NAICS 332 Fabricated metal product manufacturing        | 18,144               | 136            | 632       | 36                | 172            | 2616            | ND            | 59                | 3,651           |
| NAICS 333 Machinery manufacturing                       | 15,581               | 202            | 1112      | ND                | 260            | 11              | ND            | ND                | 1,585           |
| NAICS 334 Computer and electronic product manufacturing | 11,302               | ND             | 267       | NC                | 214            | ND              | NC            | NC                | 481             |
| NAICS 335 Electrical equipment and appliance mfg.       | 7,804                | ND             | ND        | NC                | 7              | ND              | NC            | NC                | 7               |
| NAICS 336 Transportation equipment manufacturing        | 42,152               | NC             | ND        | NC                | ND             | ND              | ND            | NC                | -               |
| NAICS 337 Furniture and related product manufacturing   | 9,468                | 14             | 346       | NC                | 288            | ND              | ND            | ND                | 648             |
| NAICS 339 Miscellaneous manufacturing                   | 6991                 | ND             | ND        | ND                | 38             | ND              | ND            | ND                | 38              |

Footnotes:

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

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

Manufacturing industries growing in the region include:

- Beverage and tobacco product manufacturing
- Printing and related support activities
- Chemical manufacturing
- Plastics and rubber products manufacturing
- Computer and electronic product manufacturing
- Miscellaneous manufacturing

**Employment Growth Calculated from Quarterly Census of Employment and Wages Data (2009-2014)**

| Industry                                                | Amherst County 2014 | Amherst County 2009 | Amherst County 2009-2014 Growth Rate | Regional Totals 2014 | Regional Totals 2009 | Regional 2009-2014 Growth Rate |
|---------------------------------------------------------|---------------------|---------------------|--------------------------------------|----------------------|----------------------|--------------------------------|
| NAICS 311 Food manufacturing                            | 10                  | 9                   | 11.11%                               | 816                  | 735                  | 11.02%                         |
| NAICS 312 Beverage and tobacco product manufacturing    | ND                  | ND                  |                                      | 341                  | 83                   | 310.84%                        |
| NAICS 313 Textile mills                                 | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 314 Textile product mills                         | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 315 Apparel manufacturing                         | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 316 Leather and allied product manufacturing      | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 321 Wood product manufacturing                    | 60                  | 72                  | -16.67%                              | 537                  | 575                  | -6.61%                         |
| NAICS 322 Paper manufacturing                           | ND                  | ND                  |                                      | -                    | -                    |                                |
| NAICS 323 Printing and related support activities       | ND                  | ND                  |                                      | 709                  | 549                  | 29.14%                         |
| NAICS 324 Petroleum and coal products manufacturing     | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 325 Chemical manufacturing                        | NC                  | NC                  |                                      | 971                  | 775                  | 25.29%                         |
| NAICS 326 Plastics and rubber products manufacturing    | ND                  | ND                  |                                      | 740                  | 596                  | 24.16%                         |
| NAICS 327 Nonmetallic mineral product manufacturing     | ND                  | ND                  |                                      | 210                  | 201                  | 4.48%                          |
| NAICS 331 Primary metal manufacturing                   | ND                  | ND                  |                                      | -                    | -                    |                                |
| NAICS 332 Fabricated metal product manufacturing        | 136                 | 138                 | -1.45%                               | 3,651                | 3,653                | -0.05%                         |
| NAICS 333 Machinery manufacturing                       | 202                 | 276                 | -26.81%                              | 1,585                | 1,489                | 6.45%                          |
| NAICS 334 Computer and electronic product manufacturing | ND                  | ND                  |                                      | 481                  | 265                  | 81.51%                         |
| NAICS 335 Electrical equipment and appliance mfg.       | ND                  | ND                  |                                      | 7                    | 11                   | -36.36%                        |
| NAICS 336 Transportation equipment manufacturing        | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 337 Furniture and related product manufacturing   | 14                  | 17                  | -17.65%                              | 648                  | 325                  | 99.38%                         |
| NAICS 339 Miscellaneous manufacturing                   | ND                  | 70                  |                                      | 38                   | 75                   | -49.33%                        |

Footnotes:

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

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

## Wholesale/Retail/Transportation Analysis

Looking deeper into the industries at the county and regional level, we analyzed the employment, by 3-digit NAICS Industry Code, for Amherst County, Lynchburg, Appomattox County, Bedford County, Campbell County, Nelson County, and Rockbridge County.

Wholesale, retail, or transportation industries existing Amherst County or the region include:

- General merchandise stores (Amherst/region)
- Merchant wholesalers, durable goods (region)
- Food and beverage stores (region)
- Motor vehicle and parts dealers (Amherst/region)
- Building material and garden supply stores (Amherst/region)
- Truck transportation (Amherst/region)
- Merchant wholesalers, nondurable goods (region)

### *Employment Calculated from Quarterly Census of Employment and Wages Data (2014)*

| Industry                                               | Virginia –<br>Statewide | Amherst<br>County | Lynchburg | Appomattox<br>County | Bedford<br>County | Campbell<br>County | Nelson<br>County | Rockbridge<br>County | Regional<br>Totals |
|--------------------------------------------------------|-------------------------|-------------------|-----------|----------------------|-------------------|--------------------|------------------|----------------------|--------------------|
| NAICS 423 Merchant wholesalers, durable goods          | 57,921                  | 43                | 1200      | 48                   | 422               | 380                | ND               | 20                   | 2,113              |
| NAICS 424 Merchant wholesalers, nondurable goods       | 33,150                  | ND                | 333       | ND                   | 648               | 154                | 9                | 29                   | 1,173              |
| NAICS 425 Electronic markets and agents and brokers    | 19,715                  | ND                | 29        | ND                   | 105               | 15                 | 8                | 10                   | 167                |
| NAICS 441 Motor vehicle and parts dealers              | 52,340                  | 114               | 630       | 59                   | 449               | 300                | ND               | 17                   | 1,569              |
| NAICS 442 Furniture and home furnishings stores        | 13,377                  | 13                | 209       | ND                   | 47                | ND                 | ND               | NC                   | 269                |
| NAICS 443 Electronics and appliance stores             | 12,487                  | 13                | ND        | ND                   | 24                | 15                 | ND               | ND                   | 52                 |
| NAICS 444 Building material and garden supply stores   | 32,257                  | 201               | 448       | 70                   | 214               | 110                | 19               | 151                  | 1,213              |
| NAICS 445 Food and beverage stores                     | 73,670                  | ND                | 818       | 112                  | 483               | 279                | 94               | 61                   | 1,847              |
| NAICS 446 Health and personal care stores              | 24,028                  | 55                | 176       | 45                   | 147               | 144                | ND               | 36                   | 603                |
| NAICS 447 Gasoline stations                            | 28,491                  | 156               | 295       | ND                   | 277               | 289                | 72               | 381                  | 1,470              |
| NAICS 448 Clothing and clothing accessories stores     | 32,584                  | 21                | 546       | ND                   | 67                | 14                 | NC               | NC                   | 648                |
| NAICS 451 Sports, hobby, music instrument, book stores | 16,969                  | ND                | 414       | 19                   | 32                | ND                 | NC               | ND                   | 465                |
| NAICS 452 General merchandise stores                   | 88,144                  | 334               | 1573      | 227                  | 351               | 356                | 15               | 296                  | 3,152              |
| NAICS 453 Miscellaneous store retailers                | 22,108                  | 37                | 418       | 11                   | 100               | 85                 | 10               | 10                   | 671                |
| NAICS 454 Nonstore retailers                           | 17,034                  | ND                | ND        | ND                   | 66                | 24                 | 25               | 41                   | 156                |
| NAICS 481 Air transportation                           | 13,591                  | NC                | ND        | NC                   | ND                | ND                 | NC               | NC                   | -                  |
| NAICS 482 Rail transportation                          | ND                      | ND                | ND        | ND                   | ND                | ND                 | ND               | ND                   | -                  |
| NAICS 483 Water transportation                         | 1,463                   | NC                | NC        | NC                   | ND                | NC                 | NC               | NC                   | -                  |
| NAICS 484 Truck transportation                         | 29,725                  | 227               | 313       | 6                    | 240               | 337                | 17               | 34                   | 1,174              |
| NAICS 485 Transit and ground passenger transportation  | 7,972                   | NC                | 125       | NC                   | NC                | ND                 | NC               | NC                   | 125                |
| NAICS 486 Pipeline transportation                      | 441                     | NC                | NC        | ND                   | ND                | NC                 | NC               | ND                   | -                  |
| NAICS 487 Scenic and sightseeing transportation        | 319                     | NC                | NC        | NC                   | 17                | ND                 | NC               | ND                   | 17                 |
| NAICS 488 Support activities for transportation        | 16,499                  | ND                | ND        | NC                   | ND                | ND                 | ND               | ND                   | -                  |
| NAICS 491 Postal service                               | ND                      | ND                | ND        | ND                   | ND                | ND                 | ND               | ND                   | -                  |
| NAICS 492 Couriers and messengers                      | 12,277                  | ND                | 183       | NC                   | 18                | 11                 | ND               | ND                   | 212                |
| NAICS 493 Warehousing and storage                      | 18,978                  | ND                | 190       | NC                   | ND                | ND                 | ND               | NC                   | 190                |

Footnotes:

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

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

Wholesale, retail, or transportation industries growing in the region include:

- Electronic markets and agents and brokers
- Motor vehicle and parts dealers
- Building material and garden supply stores
- Health and personal care stores
- General merchandise stores
- Nonstore retailers
- Couriers and messengers

**Employment Growth Calculated from Quarterly Census of Employment and Wages Data (2009-2014)**

| Industry                                               | Amherst County 2014 | Amherst County 2009 | Amherst County 2009-2014 Growth Rate | Regional Totals 2014 | Regional Totals 2009 | Regional 2009-2014 Growth Rate |
|--------------------------------------------------------|---------------------|---------------------|--------------------------------------|----------------------|----------------------|--------------------------------|
| NAICS 423 Merchant wholesalers, durable goods          | 43                  | 90                  | -52.22%                              | 2,113                | 2,191                | -3.56%                         |
| NAICS 424 Merchant wholesalers, nondurable goods       | ND                  | 157                 |                                      | 1,173                | 1,198                | -2.09%                         |
| NAICS 425 Electronic markets and agents and brokers    | ND                  | ND                  |                                      | 167                  | 106                  | 57.55%                         |
| NAICS 441 Motor vehicle and parts dealers              | 114                 | 106                 | 7.59%                                | 1,569                | 1,408                | 11.43%                         |
| NAICS 442 Furniture and home furnishings stores        | 13                  | 14                  | -7.14%                               | 269                  | 320                  | -15.94%                        |
| NAICS 443 Electronics and appliance stores             | 13                  | 10                  | 30.00%                               | 52                   | 56                   | -7.14%                         |
| NAICS 444 Building material and garden supply stores   | 201                 | 168                 | 19.64%                               | 1,213                | 1,044                | 16.19%                         |
| NAICS 445 Food and beverage stores                     | ND                  | 148                 |                                      | 1,847                | 2,081                | -11.24%                        |
| NAICS 446 Health and personal care stores              | 55                  | ND                  |                                      | 603                  | 518                  | 16.41%                         |
| NAICS 447 Gasoline stations                            | 156                 | 172                 | -9.30%                               | 1,470                | 1,489                | -1.28%                         |
| NAICS 448 Clothing and clothing accessories stores     | 21                  | 26                  | -19.23%                              | 648                  | 671                  | -3.43%                         |
| NAICS 451 Sports, hobby, music instrument, book stores | ND                  | ND                  |                                      | 465                  | 470                  | -1.06%                         |
| NAICS 452 General merchandise stores                   | 334                 | ND                  |                                      | 3,152                | 2,201                | 43.21%                         |
| NAICS 453 Miscellaneous store retailers                | 37                  | 32                  | 15.63%                               | 671                  | 617                  | 8.75%                          |
| NAICS 454 Nonstore retailers                           | ND                  | NC                  |                                      | 156                  | 131                  | 19.08%                         |
| NAICS 481 Air transportation                           | NC                  | ND                  |                                      | -                    | -                    |                                |
| NAICS 482 Rail transportation                          | ND                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 483 Water transportation                         | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 484 Truck transportation                         | 227                 | 283                 | -19.79%                              | 1,174                | 1,199                | -2.09%                         |
| NAICS 485 Transit and ground passenger transportation  | NC                  | NC                  |                                      | 125                  | 147                  | -14.97%                        |
| NAICS 486 Pipeline transportation                      | NC                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 487 Scenic and sightseeing transportation        | NC                  | NC                  |                                      | 17                   | -                    |                                |
| NAICS 488 Support activities for transportation        | ND                  | NC                  |                                      | -                    | 6                    | -100.00%                       |
| NAICS 491 Postal service                               | ND                  | NC                  |                                      | -                    | -                    |                                |
| NAICS 492 Couriers and messengers                      | ND                  | ND                  |                                      | 212                  | 179                  | 18.44%                         |
| NAICS 493 Warehousing and storage                      | ND                  | NC                  |                                      | 190                  | 257                  | -26.07%                        |

Footnotes:

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

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

## Services Analysis

Looking deeper into the industries, at the county and regional level, we analyzed the employment, by 3-digit NAICS Industry Code, for Amherst County, Lynchburg, Appomattox County, Bedford County, Campbell County, Nelson County, and Rockbridge County.

Services industries in Amherst or the region include:

- Food services and drinking places (Amherst/region)
- Professional and technical services (region)
- Ambulatory health care services (region)
- Administrative and support services (region)
- Nursing and residential care facilities (Amherst/region)
- Insurance carriers and related activities (region)
- Educational services (region)
- Management of companies and enterprises (region)
- Social assistance (Amherst/region)

### *Employment calculated from Quarterly Census of Employment and Wages Data (2014)*

| Industry                                                | Virginia – Statewide | Amherst County | Lynchburg | Appomattox County | Bedford County | Campbell County | Nelson County | Rockbridge County | Regional Totals |
|---------------------------------------------------------|----------------------|----------------|-----------|-------------------|----------------|-----------------|---------------|-------------------|-----------------|
| NAICS 511 Publishing industries, except internet        | 15,839               | ND             | ND        | ND                | 28             | ND              | ND            | NC                | 28              |
| NAICS 512 Motion picture and sound recording industries | 4,778                | NC             | ND        | NC                | ND             | ND              | NC            | NC                | -               |
| NAICS 515 Broadcasting, except internet                 | 7,891                | ND             | 123       | NC                | ND             | ND              | NC            | NC                | 123             |
| NAICS 517 Telecommunications                            | 28,031               | ND             | 173       | ND                | 36             | ND              | ND            | 20                | 229             |
| NAICS 518 Data processing, hosting and related services | 11,130               | ND             | 7         | NC                | 144            | NC              | NC            | NC                | 151             |
| NAICS 519 Other information services                    | 3,827                | NC             | ND        | NC                | ND             | ND              | NC            | ND                | -               |
| NAICS 521 Monetary authorities - central bank           | ND                   | ND             | ND        | ND                | ND             | ND              | ND            | ND                | -               |
| NAICS 522 Credit intermediation and related activities  | 68,846               | 93             | 622       | 27                | 213            | 216             | 31            | 44                | 1,246           |
| NAICS 523 Securities, commodity contracts, investments  | 12,280               | ND             | ND        | ND                | 54             | 8               | ND            | ND                | 62              |
| NAICS 524 Insurance carriers and related activities     | 46,726               | ND             | 1,588     | ND                | 159            | 73              | ND            | ND                | 1,820           |
| NAICS 525 Funds, trusts, and other financial vehicles   | ND                   | ND             | ND        | ND                | ND             | ND              | ND            | ND                | -               |
| NAICS 531 Real estate                                   | 39,434               | ND             | 377       | 10                | 175            | 89              | 27            | 5                 | 682             |
| NAICS 532 Rental and leasing services                   | 11,796               | ND             | 320       | ND                | ND             | 23              | ND            | 17                | 360             |
| NAICS 533 Lessors of nonfinancial intangible assets     | 323                  | NC             | NC        | NC                | NC             | NC              | ND            | NC                | -               |
| NAICS 541 Professional and technical services           | 389,205              | ND             | 3,153     | 70                | 1247           | 484             | 153           | ND                | 5,107           |
| NAICS 551 Management of companies and enterprises       | 74,304               | ND             | 1,595     | ND                | 73             | 78              | ND            | ND                | 1,746           |
| NAICS 561 Administrative and support services           | 206,735              | ND             | 2,356     | 19                | 1431           | 748             | ND            | ND                | 4,554           |
| NAICS 562 Waste management and remediation services     | 8,220                | ND             | 75        | ND                | 33             | 20              | NC            | ND                | 128             |
| NAICS 611 Educational services                          | 60,468               | ND             | 1,687     | ND                | 43             | 46              | ND            | 4                 | 1,780           |
| NAICS 621 Ambulatory health care services               | 161,749              | ND             | 3,395     | 210               | 780            | 432             | 124           | 127               | 5,068           |
| NAICS 622 Hospitals                                     | 98578                | NC             | ND        | NC                | ND             | NC              | NC            | NC                | -               |
| NAICS 623 Nursing and residential care facilities       | 73,054               | 239            | 2,045     | 129               | ND             | 326             | ND            | 239               | 2,978           |
| NAICS 624 Social assistance                             | 71,759               | 657            | ND        | ND                | 501            | 334             | 133           | 56                | 1,681           |
| NAICS 711 Performing arts and spectator sports          | 6,704                | ND             | ND        | NC                | ND             | ND              | 8             | ND                | 8               |
| NAICS 712 Museums, historical sites, zoos, and parks    | 4,988                | ND             | ND        | ND                | ND             | NC              | ND            | 103               | 103             |
| NAICS 713 Amusements, gambling, and recreation          | 37,760               | 44             | 242       | ND                | 229            | ND              | ND            | ND                | 515             |
| NAICS 721 Accommodation                                 | 45,327               | 30             | 447       | ND                | 67             | 69              | ND            | 286               | 899             |
| NAICS 722 Food services and drinking places             | 276,044              | 637            | 4,531     | 237               | 1,756          | 1,100           | ND            | 365               | 8,126           |
| NAICS 811 Repair and maintenance                        | 33,833               | 96             | 370       | 37                | 249            | 184             | 31            | 62                | 1,029           |
| NAICS 812 Personal and laundry services                 | 41,281               | 53             | 528       | 17                | 292            | 95              | 20            | 16                | 1,021           |
| NAICS 813 Membership associations and organizations     | 45,779               | ND             | 478       | ND                | 274            | 58              | 137           | 37                | 984             |

Footnotes:

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

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

Service industries growing in the region include:

- Data processing, hosting, and related services
- Insurance carriers and related activities
- Professional and technical services
- Waste management and remediation services
- Educational services
- Ambulatory health care services
- Social assistance
- Food services and drinking places
- Repair and maintenance
- Personal and laundry services

**Employment Growth Calculated from Quarterly Census of Employment and Wages Data (2009-2014)**

| Industry                                                | Amherst | Amherst | Amherst     | Regional Totals | Regional Totals | Regional    |
|---------------------------------------------------------|---------|---------|-------------|-----------------|-----------------|-------------|
|                                                         | County  | County  | County      | 2014            | 2009            | Growth Rate |
|                                                         | 2014    | 2009    | 2009-2014   |                 |                 | 2009-2014   |
|                                                         |         |         | Growth Rate |                 |                 | Growth Rate |
| NAICS 511 Publishing industries, except internet        | ND      | ND      |             | 28              | 134             | -79.10%     |
| NAICS 512 Motion picture and sound recording industries | NC      | NC      |             | -               | -               |             |
| NAICS 515 Broadcasting, except internet                 | ND      | ND      |             | 123             | -               |             |
| NAICS 517 Telecommunications                            | ND      | 70      |             | 229             | 376             | -39.10%     |
| NAICS 518 Data processing, hosting and related services | ND      | 4       |             | 151             | 4               | 3675.00%    |
| NAICS 519 Other information services                    | NC      | NC      |             | -               | 5               | -100.00%    |
| NAICS 521 Monetary authorities - central bank           | ND      | ND      |             | -               | -               |             |
| NAICS 522 Credit intermediation and related activities  | 93      | 90      | 3.33%       | 1,246           | 1,206           | 3.32%       |
| NAICS 523 Securities, commodity contracts, investments  | ND      | ND      |             | 62              | 180             | -65.56%     |
| NAICS 524 Insurance carriers and related activities     | ND      | ND      |             | 1,820           | 1,632           | 11.52%      |
| NAICS 525 Funds, trusts, and other financial vehicles   | ND      | ND      |             | -               | -               |             |
| NAICS 531 Real estate                                   | ND      | 12      |             | 682             | 670             | 1.79%       |
| NAICS 532 Rental and leasing services                   | ND      | 30      |             | 360             | 568             | -36.62%     |
| NAICS 533 Lessors of nonfinancial intangible assets     | NC      | NC      |             | -               | -               |             |
| NAICS 541 Professional and technical services           | ND      | ND      |             | 5,107           | 4,137           | 23.45%      |
| NAICS 551 Management of companies and enterprises       | ND      | ND      |             | 1,746           | 1,807           | -3.38%      |
| NAICS 561 Administrative and support services           | ND      | ND      |             | 4,554           | 4,713           | -3.37%      |
| NAICS 562 Waste management and remediation services     | ND      | ND      |             | 128             | 86              | 48.84%      |
| NAICS 611 Educational services                          | ND      | ND      |             | 1,780           | 1,504           | 18.35%      |
| NAICS 621 Ambulatory health care services               | ND      | 309     |             | 5,068           | 4,124           | 22.89%      |
| NAICS 622 Hospitals                                     | NC      | NC      |             | -               | -               |             |
| NAICS 623 Nursing and residential care facilities       | 239     | ND      |             | 2,978           | 2,805           | 6.17%       |
| NAICS 624 Social assistance                             | 657     | 413     | 59.08%      | 1,681           | 1,164           | -44.42%     |
| NAICS 711 Performing arts and spectator sports          | ND      | ND      |             | 8               | 108             | -92.59%     |
| NAICS 712 Museums, historical sites, zoos, and parks    | ND      | ND      |             | 103             | 235             | -56.17%     |
| NAICS 713 Amusements, gambling, and recreation          | 44      | 78      | -43.59%     | 515             | 539             | -4.45%      |
| NAICS 721 Accommodation                                 | 30      | 36      | -16.67%     | 899             | 906             | -0.77%      |
| NAICS 722 Food services and drinking places             | 637     | 518     | 22.97%      | 8,126           | 7,290           | 11.47%      |
| NAICS 811 Repair and maintenance                        | 96      | 82      | 17.07%      | 1,029           | 885             | 16.27%      |
| NAICS 812 Personal and laundry services                 | 53      | 54      | -1.85%      | 1,021           | 789             | 29.40%      |
| NAICS 813 Membership associations and organizations     | ND      | ND      |             | 984             | 927             | 6.15%       |

Footnotes:

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

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

## **Current Amherst County Businesses (D&B)**

Using current Dun & Bradstreet company location data, we analyzed the primary industry for companies with five employees or greater (326 companies within Amherst) in manufacturing, wholesale, and services industry. The D&B data confirms the following industries for target cluster development consideration.

- Educational Services
- Health Services
- Business Services
- Social Services
- Motor Freight Transportation and Warehousing
- Lumber and Wood Products
- Wholesale Trade, Non-Durable Goods
- Wholesale Trade, Durable Goods
- Fabricated Metal Products
- Paper and Allied Products
- Industry and Commercial Machinery and Equipment

## Fastest Growing Industries

According to IBISWorld, the following industries are forecast to have 4% or greater growth, in the period from 2015 to 2016.

| Code   | Title                                          | Revenue Growth % (2016) |
|--------|------------------------------------------------|-------------------------|
| 11111  | Soybean Farming in the US                      | 7.55                    |
| 11191  | Tobacco Growing in the US                      | 6.37                    |
| 21111  | Oil Drilling & Gas Extraction in the US        | 22.33                   |
| 21211  | Coal Mining in the US                          | 4.72                    |
| 21221  | Iron Ore Mining in the US                      | 10.41                   |
| 21231  | Stone Mining in the US                         | 5.77                    |
| 22111c | Hydroelectric Power in the US                  | 7.12                    |
| 22111d | Wind Power in the US                           | 9.77                    |
| 22111e | Solar Power in the US                          | 21.81                   |
| 23611b | Apartment & Condominium Construction in the US | 5.97                    |
| 23611c | Housing Developers in the US                   | 8.10                    |
| 23611d | Remodeling in the US                           | 5.90                    |
| 23622a | Commercial Building Construction in the US     | 5.10                    |
| 23712  | Oil & Gas Pipeline Construction in the US      | 7.27                    |
| 23713  | Transmission Line Construction in the US       | 5.83                    |
| 23811  | Concrete Contractors in the US                 | 5.23                    |
| 23814  | Masonry in the US                              | 7.88                    |
| 23815  | Glass & Glazing Contractors in the US          | 6.59                    |

| Code   | Title                                             | Revenue Growth % (2016) |
|--------|---------------------------------------------------|-------------------------|
| 23822b | Plumbers in the US                                | 6.88                    |
| 23831  | Drywall & Insulation Installers in the US         | 4.74                    |
| 23832  | Painters in the US                                | 4.37                    |
| 23833  | Flooring Installers in the US                     | 4.54                    |
| 23834  | Tile Installers in the US                         | 4.09                    |
| 23899b | Swimming Pool Construction in the US              | 6.64                    |
| 23899c | Fence Construction in the US                      | 8.51                    |
| 31191  | Snack Food Production in the US                   | 4.18                    |
| 31213  | Wineries in the US                                | 5.18                    |
| 32111  | Sawmills & Wood Production in the US              | 5.11                    |
| 32121  | Wood Paneling Manufacturing in the US             | 4.12                    |
| 32412  | Asphalt Manufacturing in the US                   | 4.12                    |
| 32519  | Organic Chemical Manufacturing in the US          | 5.18                    |
| 32541a | Brand Name Pharmaceutical Manufacturing in the US | 5.66                    |
| 32541b | Generic Pharmaceutical Manufacturing in the US    | 5.66                    |

| Code   | Title                                                                    | Revenue Growth % (2016) |
|--------|--------------------------------------------------------------------------|-------------------------|
| 32562  | Cosmetic & Beauty Products Manufacturing in the US                       | 7.81                    |
| 32611  | Plastic Film, Sheet & Bag Manufacturing in the US                        | 5.06                    |
| 32731  | Cement Manufacturing in the US                                           | 6.03                    |
| 32742  | Gypsum Product Manufacturing in the US                                   | 6.52                    |
| 32799  | Mineral Product Manufacturing in the US                                  | 5.01                    |
| 33299a | Guns & Ammunition Manufacturing in the US                                | 5.14                    |
| 33313  | Mining, Oil & Gas Machinery Manufacturing in the US                      | 8.72                    |
| 33321  | Woodworking Machinery Manufacturing in the US                            | 4.74                    |
| 33329b | Printing, Paper, Food, Textile & Other Machinery Manufacturing in the US | 5.12                    |
| 33341  | Heating & Air Conditioning Equipment Manufacturing in the US             | 4.24                    |
| 33351  | Metalworking Machinery Manufacturing in the US                           | 4.18                    |

| Code   | Title                                           | Revenue Growth % (2016) |
|--------|-------------------------------------------------|-------------------------|
| 33441a | Semiconductor & Circuit Manufacturing in the US | 6.70                    |
| 33451b | Medical Device Manufacturing in the US          | 4.89                    |
| 33512  | Lighting Fixtures Manufacturing in the US       | 4.60                    |
| 33592  | Wire & Cable Manufacturing in the US            | 4.14                    |
| 33593  | Wiring Device Manufacturing in the US           | 5.53                    |
| 33632  | Automobile Electronics Manufacturing in the US  | 6.74                    |
| 33635  | Automobile Transmission Manufacturing in the US | 4.14                    |
| 33661a | Ship Building in the US                         | 5.84                    |
| 33661b | Boat Building in the US                         | 4.30                    |
| 33711  | Cabinet & Vanity Manufacturing in the US        | 4.86                    |
| 42332  | Stone, Concrete & Clay Wholesaling in the US    | 6.20                    |
| 42351  | Metal Wholesaling in the US                     | 5.23                    |
| 42361  | Electrical Equipment Wholesaling in the US      | 4.97                    |
| 42371  | Tool & Hardware Wholesaling in the US           | 4.77                    |

| Code   | Title                                               | Revenue Growth % (2016) |
|--------|-----------------------------------------------------|-------------------------|
| 42373  | Heating & Air Conditioning Wholesaling in the US    | 4.69                    |
| 42432  | Men's & Boys' Apparel Wholesaling in the US         | 5.37                    |
| 42461  | Plastics Wholesaling in the US                      | 5.10                    |
| 42471  | Gasoline & Petroleum Bulk Stations in the US        | 14.87                   |
| 44122b | Bicycle Dealership and Repair in the US             | 4.93                    |
| 44229  | Home Furnishings Stores in the US                   | 5.52                    |
| 44611  | Pharmacies & Drug Stores in the US                  | 5.56                    |
| 44612  | Beauty, Cosmetics & Fragrance Stores in the US      | 4.92                    |
| 44833  | Handbag, Luggage & Accessory Stores in the US       | 4.52                    |
| 45291  | Warehouse Clubs & Supercenters in the US            | 4.78                    |
| 45399  | Small Specialty Retail Stores in the US             | 5.29                    |
| 45411a | E-Commerce & Online Auctions in the US              | 10.82                   |
| 48111b | Domestic Airlines in the US                         | 4.17                    |
| 48541  | Public School Bus Services in the US                | 4.19                    |
| 48691  | Refined Petroleum Pipeline Transportation in the US | 7.60                    |

| Code   | Title                                                          | Revenue Growth % (2016) |
|--------|----------------------------------------------------------------|-------------------------|
| 48710  | Sightseeing Transportation in the US                           | 4.20                    |
| 48851  | Freight Forwarding Brokerages & Agencies in the US             | 4.22                    |
| 49222  | Couriers & Local Delivery Services in the US                   | 5.37                    |
| 49319  | Specialized Storage & Warehousing in the US                    | 12.84                   |
| 51121  | Software Publishing in the US                                  | 4.23                    |
| 51121a | Operating Systems & Productivity Software Publishing in the US | 5.28                    |
| 51121c | Business Analytics & Enterprise Software Publishing in the US  | 4.54                    |
| 51121d | Design, Editing & Rendering Software Publishing in the US      | 4.58                    |
| 51121e | Video Game Software Publishing in the US                       | 7.87                    |
| 51224  | Audio Production Studios in the US                             | 6.03                    |
| 51711b | Satellite TV Providers in the US                               | 4.59                    |
| 51711e | VoIP in the US                                                 | 10.54                   |
| 51741  | Satellite Telecommunications Providers in the US               | 4.57                    |
| 51821  | Data Processing & Hosting Services in the US                   | 4.61                    |
| 51913a | Search Engines in the US                                       | 7.81                    |

| Code   | Title                                                             | Revenue Growth % (2016) |
|--------|-------------------------------------------------------------------|-------------------------|
| 51913b | Internet Publishing and Broadcasting in the US                    | 6.67                    |
| 52222  | Auto Leasing, Loans & Sales Financing in the US                   | 7.84                    |
| 52232  | Credit Card Processing & Money Transferring in the US             | 5.67                    |
| 52311  | Investment Banking & Securities Dealing in the US                 | 5.76                    |
| 52315  | Commodity Dealing and Brokerage in the US                         | 7.19                    |
| 52321  | Stock & Commodity Exchanges in the US                             | 5.82                    |
| 52391  | Venture Capital & Principal Trading in the US                     | 12.85                   |
| 52392  | Portfolio Management in the US                                    | 8.62                    |
| 52393  | Financial Planning & Advice in the US                             | 6.14                    |
| 52413  | Reinsurance Carriers in the US                                    | 5.02                    |
| 52429  | Third-Party Administrators & Insurance Claims Adjusters in the US | 5.50                    |
| 52512  | Health & Welfare Funds in the US                                  | 4.66                    |
| 52592  | Trusts & Estates in the US                                        | 10.64                   |
| 53113  | Storage & Warehouse Leasing in the US                             | 4.04                    |
| 53121  | Real Estate Sales & Brokerage in the US                           | 4.89                    |

| Code   | Title                                               | Revenue Growth % (2016) |
|--------|-----------------------------------------------------|-------------------------|
| 53231  | Tool & Equipment Rental in the US                   | 4.84                    |
| 53311  | Intellectual Property Licensing in the US           | 4.63                    |
| 54132  | Landscape Design in the US                          | 4.95                    |
| 54135  | Building Inspectors in the US                       | 4.24                    |
| 54136  | Geophysical Services in the US                      | 4.97                    |
| 54137  | Surveying & Mapping Services in the US              | 4.78                    |
| 54161  | Management Consulting in the US                     | 4.59                    |
| 54161b | HR Consulting in the US                             | 4.77                    |
| 54162  | Environmental Consulting in the US                  | 4.85                    |
| 54169  | Scientific & Economic Consulting in the US          | 7.64                    |
| 54171  | Scientific Research & Development in the US         | 5.10                    |
| 54183  | Media Buying Agencies in the US                     | 5.93                    |
| 54187  | Print Advertising Distribution in the US            | 4.07                    |
| 54194  | Veterinary Services in the US                       | 6.63                    |
| 56111  | Human Resources & Benefits Administration in the US | 4.36                    |
| 56133  | Professional Employer Organizations in the US       | 5.24                    |

| Code   | Title                                                    | Revenue Growth % (2016) |
|--------|----------------------------------------------------------|-------------------------|
| 56292  | Recycling Facilities in the US                           | 4.97                    |
| 56299  | Portable Toilet Rental & Septic Tank Cleaning in the US  | 4.44                    |
| 61111a | Public Schools in the US                                 | 4.42                    |
| 62111a | Primary Care Doctors in the US                           | 4.66                    |
| 62132  | Optometrists in the US                                   | 4.04                    |
| 62139a | Podiatrists in the US                                    | 5.46                    |
| 62139b | Alternative Healthcare Providers in the US               | 4.02                    |
| 62161  | Home Care Providers in the US                            | 5.95                    |
| 62191  | Ambulance Services in the US                             | 4.15                    |
| 62199  | Blood & Organ Banks in the US                            | 7.23                    |
| 62231  | Specialty Hospitals in the US                            | 5.52                    |
| 62311  | Nursing Care Facilities in the US                        | 5.59                    |
| 62321  | Residential Intellectual Disability Facilities in the US | 4.47                    |

| Code   | Title                                                 | Revenue Growth % (2016) |
|--------|-------------------------------------------------------|-------------------------|
| 62331  | Retirement Communities in the US                      | 5.79                    |
| 62412  | Elderly & Disabled Services in the US                 | 6.32                    |
| 71121b | Racing & Individual Sports in the US                  | 4.35                    |
| 71141  | Celebrity & Sports Agents in the US                   | 4.18                    |
| 72121  | Campgrounds & RV Parks in the US                      | 4.32                    |
| 81219b | Hair Loss Treatment & Removal in the US               | 6.55                    |
| 81291  | Pet Grooming & Boarding in the US                     | 5.25                    |
| 81299a | Dating Services in the US                             | 4.50                    |
| 81321  | Donations, Grants & Endowment in the US               | 7.36                    |
| 81399  | Homeowners' Associations in the US                    | 4.62                    |
| NN001  | Biotechnology in the US                               | 9.07                    |
| NN005  | Sustainable Building Material Manufacturing in the US | 25.97                   |

## Summary

Profiles were developed for each of the recommended target industries for Amherst County. Profiles are important in taking the next steps in proactively targeting companies and providing insight into each industry cluster and sub-segments. The Profiles will provide understanding of the industry cluster and each industry sub-sector included in the cluster.

The Industry Profiles include the following information:

- ⦿ Definition of the industry by North American Industry Classification System (NAICS) Codes
- ⦿ Targeting recommendations
- ⦿ Industry statistics, by industry sub-segment including
  - Industry revenue
  - Industry profit
  - Historical and forecasted growth
  - Revenue per employee
  - Wages as a percentage of revenue
  - Average employees per establishment
  - Wages per employee
- ⦿ Industry sub-segment summaries and outlooks

## Precision Manufacturing

### Cluster Definition (NAICS Codes)

33211 Metal Stamping & Forging

33231 Structural Metal Product Manufacturing

33232 Sheet Metal, Window & Door Manufacturing

33242 Metal Tank Manufacturing

33251 Hardware Manufacturing

33261 Wire and Spring Manufacturing

33271 Machine Shop Services

33272 Screw, Nut & Bolt Manufacturing

33281 Metal Plating & Treating

33291 Valve Manufacturing

33299 Ball Bearing Manufacturing

33312 Construction Machinery Manufacturing

33321 Woodworking Machinery Manufacturing

33322 Plastics & Rubber Machinery Manufacturing

33329 Printing, Paper, Food, Textile & Other Machinery Manufacturing

33341 Heating & Air Conditioning Equipment Manufacturing

33351 Metalworking Machinery Manufacturing

33391 Pump & Compressor Manufacturing

33392 Forklift & Conveyor Manufacturing

33399 Power Tools & Other General Purpose Machinery Manufacturing

42351 Metal Wholesaling

### Industry Vitals

| Target Sector                  | NAICS | Description                                                    | Revenue (\$bn) | Profit (\$bn) | Annual Growth 10-15 (%) | Annual Growth 16-25 (%) | Revenue per Employee (\$'000) | Wages % of Revenue | Emp. per Estab. | Wages/Employee (\$) |
|--------------------------------|-------|----------------------------------------------------------------|----------------|---------------|-------------------------|-------------------------|-------------------------------|--------------------|-----------------|---------------------|
| <b>Precision Manufacturing</b> |       |                                                                |                |               |                         |                         |                               |                    |                 |                     |
|                                | 33211 | Metal Stamping & Forging                                       | 36.8           | 2.2           | 2.6%                    | 2.4%                    | 310.5                         | 16.8               | 46.9            | 52,236.30           |
|                                | 33231 | Structural Metal Product Manufacturing                         | 45.2           | 2.3           | 2.3%                    | 3.1%                    | 310.5                         | 17.1               | 28.5            | 33,096.70           |
|                                | 33232 | Sheet Metal, Window & Door Manufacturing                       | 40.4           | 2.4           | 1.4%                    | 2.2%                    | 207.6                         | 22.0               | 15.2            | 45,657.70           |
|                                | 33242 | Metal Tank Manufacturing                                       | 10.4           | 0.6           | 6.3%                    | 1.6%                    | 273.8                         | 19.7               | 51.1            | 53,896.30           |
|                                | 33251 | Hardware Manufacturing                                         | 8.2            | 0.5           | 2.3%                    | 2.2%                    | 320.3                         | 15.9               | 43.6            | 51,059.50           |
|                                | 33261 | Wire and Spring Manufacturing                                  | 8.7            | 0.5           | -2.0%                   | 1.7%                    | 249.6                         | 18.5               | 29.2            | 46,056.10           |
|                                | 33271 | Machine Shop Services                                          | 45.5           | 3.1           | 4.6%                    | 3.0%                    | 176.1                         | 28.7               | 13.2            | 50,627.80           |
|                                | 33272 | Screw, Nut & Bolt Manufacturing                                | 31.8           | 2.1           | 5.8%                    | 3.4%                    | 221.8                         | 24.2               | 33.3            | 55,774.70           |
|                                | 33281 | Metal Plating & Treating                                       | 30.4           | 2.6           | 0.8%                    | 2.0%                    | 224.1                         | 20.1               | 13.9            | 45,101.70           |
|                                | 33291 | Valve Manufacturing                                            | 33.7           | 2.4           | 0.9%                    | 1.9%                    | 355.8                         | 16.7               | 70.8            | 59,388.30           |
|                                | 33299 | Ball Bearing Manufacturing                                     | 6.9            | 0.6           | 8.0%                    | 1.6%                    | 287.7                         | 18.4               | 140.6           | 52,973.40           |
|                                | 33312 | Construction Machinery Manufacturing                           | 44.3           | 2.7           | 5.0%                    | 2.8%                    | 606.9                         | 12.7               | 82.8            | 77,947.50           |
|                                | 33321 | Woodworking Machinery Manufacturing                            | 71.6           | 38.4          | 4.9%                    | 1.4%                    | 218.9                         | 24.9               | 14.1            | 54,475.50           |
|                                | 33322 | Plastics & Rubber Machinery Manufacturing                      | 3.3            | 0.2           | 0.7%                    | 1.2%                    | 292.5                         | 23.3               | 24.3            | 68,053.50           |
|                                | 33329 | Printing, Paper, Food, Textile & Other Machinery Manufacturing | 21.5           | 1.6           | 1.9%                    | 2.1%                    | 271.3                         | 24.3               | 28.6            | 65,972.50           |
|                                | 33341 | Heating & Air Conditioning Equipment Manufacturing             | 49.0           | 2.7           | 4.0%                    | 3.5%                    | 371.7                         | 14.4               | 68.8            | 53,386.70           |
|                                | 33351 | Metalworking Machinery Manufacturing                           | 33.6           | 2.2           | 5.1%                    | 1.3%                    | 228.3                         | 26.6               | 22.3            | 60,716.30           |
|                                | 33391 | Pump & Compressor Manufacturing                                | 28.3           | 2.4           | 3.8%                    | 1.7%                    | 405.0                         | 14.6               | 70.0            | 68,047.10           |
|                                | 33392 | Forklift & Conveyor Manufacturing                              | 32.6           | 2.1           | 0.5%                    | 2.4%                    | 177.1                         | 15.4               | 52.8            | 38,139.00           |
|                                | 33399 | Power Tools & Other General Purpose Machinery Manufacturing    | 48.4           | 3.5           | 3.6%                    | 2.2%                    | 342.7                         | 19.2               | 42.8            | 65,923.80           |
|                                | 42351 | Metal Wholesaling                                              | 212.8          | 7.0           | -1.0%                   | 2.4%                    | 1,363.6                       | 4.6                | 15.0            | 62,362.00           |

### Targeting Recommendations

The following avenues are recommendations, as targeting strategies, for Precision Manufacturing:

- ⦿ Email marketing and awareness campaigns to surrounding communities and states in order to create awareness of specific opportunities, within Amherst County, such as industry park developments, available sites, and incentives
- ⦿ National, ongoing lead generation program
- ⦿ Trade show marketing in conjunction with regional or state partners, for an opportunity to meet with companies, as well as, network within the industry

Initial target lists can be built from online resources such as Hoovers, Avention, InfoUSA, and industry associations. As lists are built, we search for companies fitting the target using industry codes and business descriptions. The company research process evaluates each company, as well as, their fit with Amherst assets, benefits and culture.

Selected industry associations relevant to this target include:

- ⦿ Society of Manufacturing Engineers - [www.sme.org](http://www.sme.org)
- ⦿ Fabricators and Manufacturers Association, International - [www.fmanet.org](http://www.fmanet.org)
- ⦿ American Welding Society - [www.aws.org](http://www.aws.org)
- ⦿ Precision Metalforming Association - [www.pma.org](http://www.pma.org)
- ⦿ Precision Machined Products Association - [www.pmpa.org](http://www.pmpa.org)
- ⦿ The Society for Protective Coatings - [www.sspc.org](http://www.sspc.org)
- ⦿ National Tooling and Machining Association - [www.ntma.org](http://www.ntma.org)

## Segment Summaries

### 33211 Metal Stamping & Forging

**DEFINITION** Operators in this industry forge, stamp, and rollform ferrous (iron), and nonferrous metal products for use by other industries. Forged metal is compressed in hot or cold temperatures, while stamped metal is placed into a press to make sheets; rollformed metal is bent into shape on a set of rolls. Operators also manufacture powder metallurgy by blending and compressing fine metal powder into a desired shape.

#### KEY EXTERNAL DRIVERS

- Industrial production index
- World price of steel
- Corporate profit
- Trade-weighted index

#### KEY SUCCESS FACTORS

- Economies of scale
- Effective quality control
- Maintaining strong relationships within key markets
- Having an integrated operation
- Ability to pass on cost increases to consumers

**OUTLOOK** The Metal Stamping and Forging industry is expected to perform well, in the five years to 2020, growing at an estimated 2.4% per year on average to \$41.4 billion. Demand from key markets such as aerospace and industrial machinery manufacturing will drive this growth, as will a forecast resurgence in metal prices. Concurrently, the industry is likely to remain protected from intense import competition because of the premium placed on high-quality products by downstream markets. For these reasons, average profit is also likely to remain high, at an estimated 6.2% of revenue, with substantially greater profit for operators specializing in aerospace forgings and other high-value products.

### 33231 Structural Metal Product Manufacturing

**DEFINITION** Operators in this industry manufacture structural metal products such as reinforcing bars, bar joists, railway bridge sections, dam gates, transmission tower sections, and railroad car racks. They also manufacture metal plate work, such as bins, culverts, hoods, ladles and containment vessels, as well as, prefabricated metal buildings. The majority of industry products are used in nonresidential building and utility construction.

#### KEY EXTERNAL DRIVERS

- Value of private nonresidential construction
- World price of steel
- Government funding of highways
- Value of utilities construction
- Trade-weighted index

#### KEY SUCCESS FACTORS

- Availability of resources
- Ability to vary services to suit different needs
- Having a diverse range of clients
- Economies of scale
- Proximity to key markets

**OUTLOOK** Industry performance is expected to improve over the five years to 2021. Demand for industry products will be propelled by steady nonresidential construction and recovering steel prices. In turn, this is estimated to induce annualized revenue growth of 3.1% through 2021, to

\$52.7 billion. Still, as domestic demand picks up, the industry is likely to face increasing competition from Chinese manufacturers who reside over the largest steel reserves in the world and enjoy highly cost-efficient production. Import competition will propel continuous innovation and restructuring within the industry, including increased attention to cost efficiency and vertical integration.

### **33232 Sheet Metal, Window & Door Manufacturing**

**DEFINITION** Operators in this industry manufacture metal products including metal-framed windows (using purchased glass), metal doors, sheet metal work, and ornamental and architectural metal products. These products are primarily used in building construction, maintenance, and repair.

#### **KEY EXTERNAL DRIVERS**

- Value of private nonresidential construction
- Value of residential construction
- Demand from commercial building construction
- Demand from home improvement stores
- World price of steel

- World price of aluminum

#### **KEY SUCCESS FACTORS**

- Control of distribution networks
- Maintaining a diverse client base
- Automation of factories
- Establishment of brand names
- Management of input costs
- Accurate forecasts of consumer preferences

**OUTLOOK** The Sheet Metal, Window and Door Manufacturing industry is poised for solid growth as demand from the downstream construction sector continues to grow. Revenue is expected to increase, at an annualized rate of 2.0%, to reach \$46.0 billion over the five years to 2021. After enduring challenging operating conditions during and immediately after the recession, significant upswings in the residential and commercial construction industries and increased consumer spending on home renovations and improvements will drive demand for industry products. Rebounds in the price of key inputs such as steel and aluminum may hamper profitability, although these costs are expected to stabilize relative to previous years.

### **33242 Metal Tank Manufacturing**

**DEFINITION** Operators in this industry manufacture tanks, vessels, and other containers by cutting, forming and joining heavy-gauge metals. Industry products include acetylene cylinders, cryogenic tanks, farm storage tanks, fermentation tanks, gas storage tanks, LPG cylinders, oil storage tanks, septic tanks, storage tanks, water tanks, and vats. Operators in this industry also install heavy-gauge metal tanks.

#### **KEY EXTERNAL DRIVERS**

- Demand from heavy engineering construction
- Demand from dairy farms

- Demand from petrochemical manufacturing
- World price of steel
- Trade-weighted index

### KEY SUCCESS FACTORS

- Ability to vary services to suit different needs
- Provision of superior after sales service
- Having a diverse range of clients
- Must comply with required product standards
- Having a wide and expanding product range

**OUTLOOK** The Metal Tank Manufacturing industry is expected to continue its steady growth. IBISWorld forecasts industry revenue to grow, at an annualized rate of 1.6% to total \$11.3 billion, in the five years to 2021, including a 4.5% growth, in 2016 alone. Industrial manufacturing markets are expected to experience solid cyclical expansion over the next five years. This factor will reflect the gradual recovery of private capital investment and the cyclical upswing, in construction of electric power infrastructure, as liquidity returns to global financial markets. Domestic producers have fought against rising import competition for years and many have sent production overseas to take advantage of lower labor costs. This trend is set to continue in the future, with large overseas manufacturing companies welcoming further foreign investment at the cost of US production.

### 33251 Hardware Manufacturing

**DEFINITION** This industry manufactures various forms of metal hardware. Items produced include metal hinges, metal handles, keys and locks, excluding time locks and coin-operated locks.

### KEY EXTERNAL DRIVERS

- Value of residential construction
- Demand from household furniture manufacturing
- Demand from transportation equipment manufacturing
- Import penetration into the manufacturing sector
- Trade-weighted index

### KEY SUCCESS FACTORS

- Economies of scale
- Establishment of brand names
- Having a good technical knowledge of the product
- Having a diverse range of clients
- Development of new products

**OUTLOOK** Over the next five years, the Hardware Manufacturing industry will experience improvements in productivity. In the next three years, industry revenue is projected to increase as the US economy and downstream manufacturers grow; however, increased import competition will cause hardware manufacturers to shrink domestically and move operations abroad. Over the five years to 2020, revenue is forecast to increase at an annualized rate of 2.2% to \$9.1 billion. In 2016, revenue is forecast to grow 3.1% to \$8.5 billion as US hardware production volumes increase in response to the strengthening housing and automotive industries. However, imports will satisfy an increasing share of growth in domestic demand for industry products.

### **33261 Wire and Spring Manufacturing**

**DEFINITION** Operators in this industry manufacture heavy gauge and light gauge springs using steel and drawn wire, in addition to manufacturing other wire-based products such as wire rope, wire mesh, and chain link fencing.

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- World price of steel
- Trade-weighted index
- Demand from automobile engine and parts manufacturing
- Demand from automobile steering and suspension manufacturing
- Demand from furniture and related product manufacturing

#### **KEY SUCCESS FACTORS**

- Upstream vertical integration (ownership links)
- Effective cost control and economies of scale
- Easy access for clients
- Ability to quickly adopt new technology

**OUTLOOK** The Wire and Spring Manufacturing industry is expected to grow slowly over the next five years as rising manufacturing and heavy industrial output drive up demand for spring components and other industry products. While increased demand for fabricated metal products is an encouraging sign for the industry, higher import penetration will continue to pose a threat and likely limit revenue growth over the next five years. IBISWorld forecasts revenue will grow at an annualized rate of 1.7% to \$9.5 billion, over the five years to 2021.

### **33271 Machine Shop Services**

**DEFINITION** The Machine Shop Services industry cuts raw materials into specified shapes and sizes using a variety of tools, such as lathes, milling machines, grinders, and drill presses. Almost all forms of metal product fabrication involve machining and industry operators may also machine plastic and composite materials.

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- Demand for metal stamping and forging
- Demand for car and automobile manufacturing
- Demand for machinery manufacturing
- Aggregate private investment
- World price of steel
- Federal funding for defense

#### **KEY SUCCESS FACTORS**

- Adoption of new technology
- Effective quality control
- Access to multi-skilled and flexible workforce
- Ability to vary services to suit different needs

**OUTLOOK** During the five years to 2020, the Machine Shop Services industry is expected to build on its recent growth due to the continued expansion of most of its major downstream markets. With the exception of defense spending, indicators of downstream demand are forecast to improve over the next five years. As a result, industry revenue is expected to grow

at an annualized rate of 3.0% to \$52.8 billion, during the five years to 2020. Manufacturing growth helps drive revenue gains.

### **33272 Screw, Nut & Bolt Manufacturing**

**DEFINITION** This industry manufactures metal fastening products can be divided into two groups. Precision fastening products are custom made for a particular project or customer. Alternatively, metal bolt, nut, screw, rivet, washer and industrial fastening products are fabricated to an industry standard and are designed for the wider market.

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- Value of construction
- World price of steel
- Trade-weighted index

#### **KEY SUCCESS FACTORS**

- Having a diverse range of clients
- Having links with suppliers
- Effective cost controls
- Development of new products
- Effective quality control
- Degree of globalization in the firm

**OUTLOOK** The Screw, Nut, and Bolt Manufacturing industry has been growing due to the resurgence of key manufacturing and construction industries. In the five years to 2020, growth will continue to be heavily driven by an increase in aircraft and automotive demand and foreign demand for precision products. The shift to precision products will also keep profit healthy despite rising imports and increasing saturation of the domestic and global market for fasteners. IBISWorld expects industry revenue to grow an annualized 3.4% over the period to \$37.7 billion, beginning with 4.0% growth, in 2016, due to recovering steel prices.

### **33281 Metal Plating & Treating**

**DEFINITION** This industry includes companies that perform work on a metal or metal product to alter not only its surface and appearance, but also its physical and chemical properties. This is achieved through applying a coating, engraving or another form of metal treatment. Operators in this industry typically provide services to metal or metal-product manufacturers.

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- Demand from boiler and exchanger manufacturing
- Demand from metal stamping and forging
- Demand from steel framing
- Demand from steel rolling and drawing
- World price of steel
- World price of zinc

#### **KEY SUCCESS FACTORS**

- Availability of resources
- Having a diverse range of clients
- Proximity to key markets
- Ability to vary services to suit different needs
- Effective quality control

**OUTLOOK** In the five years to 2021, demand for industry services will increase due to solid growth in the non-building infrastructure and institutional building markets, as well as, continued growth in the housing market. The downstream Steel Framing industry is forecast to record average revenue growth of 2.2% per year, in the five years to 2021, indicating strong demand for metal plating and treating services. As a result, industry revenue is projected to grow at an annualized rate of 1.9% to \$33.5 billion during the period.

Throughout 2017, the recovering economy will boost the manufacturing sector. All major downstream industries are anticipated to record growth over the year. Revenue for metal stamping and forging companies is projected to increase 4.6%; boiler, tank and container manufacturers are anticipated to expand 4.9%; and steel-framing companies are expected to grow 2.6%. In addition, steady growth in zinc prices are projected to coincide with strengthening downstream demand, enabling industry operators to pass on zinc costs to customers and generate greater revenue. As a result, IBISWorld projects revenue will increase 1.0% in 2017.

### **33291 Valve Manufacturing**

**DEFINITION** Operators in this industry manufacture a variety of industrial and fluid power (e.g. hydraulic and pneumatic) valves, hose fittings and the associated trimming made from metal. This industry also includes miscellaneous and general-purpose flow control devices composed of metal, such as faucets, flash valves and showerheads.

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- Trade-weighted index
- Demand from oil and gas extraction
- Demand from utilities
- Demand from construction
- World price of steel

#### **KEY SUCCESS FACTORS**

- Access to efficient manufacturing technology
- Ability to adhere to specific market requirements
- Having a good technical knowledge of the product
- Having a good reputation

**OUTLOOK** The Valve Manufacturing industry is expected to perform well over the next five years as demand for valves and other flow control devices increases in line with domestic manufacturing activity and continued investment in public infrastructure. Although recent volatility in oil prices is likely to have lingering effects on industry performance during the first half of this five-year period, strong performance in other domestic manufacturing industries and construction will continue to drive demand for the industry's products. In particular, IBISWorld expects industry revenue to increase 3.5%, in 2017, as demand from petroleum production and refining, which fell significantly from late 2014 to 2016, rebounds. Overall, industry revenue is forecast to grow at an annualized rate of 1.9% to \$37.0 billion in the five years to 2021.

### **33299 Ball Bearing Manufacturing**

**DEFINITION** Operators in this industry manufacture ball bearings and roller bearings for use in transportation and industrial equipment manufacturing. Major markets include the

transportation, defense, space, and energy sectors. Operators do not manufacture plain (nonball and nonroller) bearings.

#### KEY EXTERNAL DRIVERS

- Industrial production index
- Trade-weighted index
- Federal funding of defense
- World price of steel

#### KEY SUCCESS FACTORS

- Having a loyal customer base
- Access to high-quality inputs
- Effective quality control
- Having a good technical knowledge of the product
- Ability to vary services to suit difference needs
- Establishment of name brands

**OUTLOOK** Going forward, the industry's performance will remain dependent on demand from transportation, airspace, energy, and general industrial manufacturing markets. Global markets will also remain an important outlet for revenue and profit. Still, competition from Asian manufacturers of bearings will increasingly limit operator presence in both domestic and foreign markets. All things considered, IBISWorld expects the industry's revenue to grow 1.6% per year on average through 2020 to \$7.4 billion, beginning with 1.5% growth in 2016.

### **33312 Construction Machinery Manufacturing**

**DEFINITION** Industry operators manufacture construction machinery and equipment for use in residential, nonresidential, highway, street, and other infrastructure construction.

#### KEY EXTERNAL DRIVERS

- Trade-weighted index
- Value of private nonresidential construction
- Value of residential construction
- Value of utilities construction
- Yield on 10-year Treasury note
- Government funding for highways

#### KEY SUCCESS FACTORS

- Latest available technology and techniques
- Meeting environmental requirements
- Establishment of export markets
- Economies of scope
- A multi-skilled and flexible workforce

**OUTLOOK** Over the next five years, business conditions are expected to strengthen for participants in the Construction Machinery Manufacturing industry. Improvements in domestic economic factors are expected to bode well for manufacturers, as construction companies demand more equipment. Residential home prices are also expected to improve, while increasing corporate profit will spur growth in the nonresidential market. Key markets for the industry will be supported by the private sector, as the government enacts austerity measures. Austerity measures by the federal government will include lower spending on public infrastructure, which will mitigate demand for construction machinery.

The industry is also expected to experience increasing pressure from international manufacturers and rising input costs. This pressure will primarily be due to increasing demand

for construction materials, caused by improving international construction markets. Rising construction material prices are expected to place downward pressure on profitability, as purchases become relatively more expensive. Overall, industry revenue is forecast to rise at an annualized rate of 2.8%, in the five years to 2020, reaching \$50.9 billion, including a 3.6% rise in 2016

### **33321 Woodworking Machinery Manufacturing**

**DEFINITION** Firms in this industry manufacture sawmill and woodworking machinery, excluding handheld power tools. Manufactured machinery includes circular and band sawing equipment, planing machinery, sanding machinery, band saws, circular saws, jigsaws, jointers, lathes, mortises, power-driven bench, table saws and other woodworking machines.

#### **KEY EXTERNAL DRIVERS**

- Housing starts
- Value of private nonresidential construction
- Demand from carpenters
- Trade-weighted index
- Demand from wood product manufacturing

#### **KEY SUCCESS FACTORS**

- Having a diverse range of clients
- Establishment of brand names
- Ability to accommodate environmental requirements
- Ability to quickly adopt new technology

**OUTLOOK** IBISWorld estimates the Woodworking Machinery Manufacturing industry's revenue will continue growing in the next five years. In the five years to 2020, revenue is projected to rise at an annualized rate of 3.4% to \$842.5 million. Downstream customers, such as wood product manufacturers, carpentry contractors, and residential and nonresidential construction industries, will continue to be the major markets for the industry's products, while demand from households will improve as consumer confidence and per capita disposable continue to recover.

### **33322 Plastics & Rubber Machinery Manufacturing**

**DEFINITION** Companies in this industry manufacture machinery used to make or process plastic and rubber products, including equipment for blow molding, calendaring, plastic-compression molding, extruding, injection molding, plastic working, rubber working, tire making, tire recapping, and tire shredding. The receipts received from service and repair work are included in this industry.

#### **KEY EXTERNAL DRIVERS**

- Trade-weighted index
- Demand from plastics and rubber products manufacturing
- Private investment in industrial equipment and machinery

- World price of steel

#### **KEY SUCCESS FACTORS**

- Highly trained workforce
- Having a diverse range of clients
- Ability to vary services to suit different needs
- Having links to suppliers
- Ability to quickly adopt new technology
- Automation – reduces cost, particularly labor related

**OUTLOOK** The Plastics and Rubber Machinery Manufacturing industry is forecast to benefit from the strengthening US economy, in the five years to 2020. While exports are expected to remain an important part of industry revenue, as domestic markets continue to improve, exports' share of revenue will decrease. Domestically, sales will depend on downstream demand from plastic and rubber products manufacturers. In turn, other factors, such as construction activity; trends in food and beverage consumption; automobile production; and prices for plastic, rubber, and metal will dictate activity in these crucial downstream markets. IBISWorld forecasts revenue will increase at an annualized rate of 1.2% to \$3.5 billion in the five years to 2020.

### **33329 Printing, Paper, Food, Textile & Other Machinery Manufacturing**

**DEFINITION** Operators in this industry manufacture diverse industrial machinery, including machinery for food processing (e.g. ovens), sawmills and paper industries (e.g. log splitters), printing industries (e.g. printers) and other industries (e.g. knitting machinery and kilns).

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- Private investment in industrial equipment and machinery
- Trade-weighted index
- World price of steel
- Price of synthetic fiber

#### **KEY SUCCESS FACTORS**

- Having links to suppliers
- Provision of superior after sales service
- Undertaking technical research and development
- Establishment of brand names

**OUTLOOK** Continuing economic stability will support demand for printing, paper, food, textile, and other machinery, as manufacturers enjoy the benefits of increased consumer spending. Strengthening consumer demand will flow up the supply chain, lifting industrial production; in turn, demand for manufacturing machinery will increase. To meet growing consumer demand, private investment in industrial equipment and machinery is forecast to grow an annualized 3.7% in the five years to 2020. Nevertheless, such investment represents a significant slowdown from the 9.1% average annual rate over the previous five-year period. This slowdown is due to declining marginal returns, in machinery investment, as any production shortfalls caused by the initial rebound of the economy have now been fully absorbed by

manufacturers lifting production rates. In light of these trends, IBISWorld forecasts industry revenue to grow an annualized 2.1% to \$23.9 billion over the five years to 2020. Due to the fragmented nature of this industry, these trends will affect some segments more than others and performance will vary, ultimately determined by downstream market conditions.

### **33341 Heating & Air Conditioning Equipment Manufacturing**

**DEFINITION** Companies in this industry manufacture residential, commercial and industrial heating, ventilation, air conditioning and refrigeration (HVACR) equipment. Industry revenue includes miscellaneous receipts for the resale of products without further manufacturing, contract work done for others on respective items and acknowledgements for repair, scrap, and refuse sales.

#### **KEY EXTERNAL DRIVERS**

- Value of private nonresidential construction
- Value of residential construction
- Demand from heating and air-conditioning contractors
- Trade-weighted index
- Demand from refrigeration equipment wholesaling
- World price of steel

#### **KEY SUCCESS FACTORS**

- Availability of resources
- Ability to vary services to suit difference needs
- Ability to accommodate environmental requirements
- Control of distribution agreements
- Establishment of brand names

**OUTLOOK** In the five years to 2020, demand for the industry's heating, ventilation, air conditioning, and refrigeration (HVACR) products is expected to increase, driven by strong residential and nonresidential construction growth. In addition, concerns about climate change and energy consumption will stimulate demand for newer, environmentally friendly systems to replace less efficient ones. Meanwhile, higher per capita disposable income, facilitated by declines in unemployment and rising corporate profit, will further fuel replacement demand. As a result of these trends, IBISWorld expects industry revenue to increase at an annualized rate of 3.5% to \$58.2 billion over the five-year period.

### **33351 Metalworking Machinery Manufacturing**

**DEFINITION** Companies in this industry primarily manufacture power-operated tools used for finishing or shaping metal parts, which are then used to manufacture other machines. Industry products include wire drawing and fabricating machines, metal cutting tools, special dies, and coil handling equipment.

#### **KEY EXTERNAL DRIVERS**

- Industrial production index

- Private investment in metalworking machinery
- Trade-weighted index
- World price of steel

- Access to the latest available and most efficient technology and techniques
- Proximity to key markets
- Having contacts within key markets
- Effective quality control
- Proximity to transport

### KEY SUCCESS FACTORS

**OUTLOOK** The Metalworking Machinery Manufacturing industry is expected to grow moderately during the five years to 2020. Renewed demand from machine shops and an uptick in automobile sales will contribute to moderate growth, particularly early in the period. In 2016, the industry can expect healthy demand growth, with revenue forecast to grow 4.2% as the economy continues to improve and demand for machinery and equipment from downstream domestic manufacturers increases. Private investment in metalworking will taper off later in the period, and so will revenue growth. Export sales growth be challenged as a strengthening US dollar makes US products more expensive internationally. Likewise, producers will continue to face intense foreign competition, as increasing steel prices further encourage downstream markets to opt for lower-cost imports. In the five years to 2020, revenue is projected to increase at an annualized rate of 1.3% to \$35.8 billion.

### *33391 Pump & Compressor Manufacturing*

**DEFINITION** Operators in this industry manufacture pumps and compressors for general use, measuring and dispensing. In addition, the industry manufactures nonagricultural spraying and dusting equipment and provides aftermarket and repair services for customers.

### KEY EXTERNAL DRIVERS

- Industrial production index
- Trade-weighted index
- World price of crude oil
- Value of utilities construction
- World price of steel

### KEY SUCCESS FACTORS

- Use of high volume/low margin strategy
- Access to technology
- Effective cost controls
- Effective quality control
- Access to niche markets
- Proximity to key markets

**OUTLOOK** The Pump and Compressor Manufacturing industry is expected to pick up steam over the five years to 2021, growing at a projected annualized rate of 3.4% to total \$34.4 billion. In addition to the industrial production index (IPI) continuing on its upward trajectory, the world price of crude oil is projected to recover from its recent slump, which will propel industry revenue by 5.2% in 2017. Furthermore, demand from manufacturing and utilities construction will increase, supporting positive trends over the next five years. Profit, however, will be constrained over the period, as the world

price of steel trends upward after a period of significant decline. Steel is used to produce most industry products and represents a significant input cost for most companies. Therefore, increases in the world price of steel will force operators to either raise prices or cut into their margins.

### **33392 Forklift & Conveyor Manufacturing**

**DEFINITION** Operators in this industry manufacture equipment used to lift or move materials. Major products include forklifts; industrial tractors and trucks; escalators and elevators; conveyors; overhead hoists, winches, cranes and monorail systems; and related parts, attachments, and equipment.

- World price of steel

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- Demand from transportation and warehousing
- Trade-weighted index
- Value of private nonresidential construction

#### **KEY SUCCESS FACTORS**

- Access to technology
- Effective quality control
- Access to niche markets
- Effective cost controls

**OUTLOOK** US economic growth is forecast to be moderate but steady in the five years to 2021, and the Forklift and Conveyor Manufacturing industry is thus set to benefit from stronger demand in downstream freight, manufacturing, and construction markets. Companies in the industry will pursue specialized production for niche markets to stay competitive in this fragmented industry. Emerging economies continue to drive infrastructure construction expenditures, which will likely bolster the industry's export markets. Revenue is forecast to increase at an annualized 2.4% and total an estimated \$36.6 billion by 2021, including an expected increase of 3.0% in 2017.

### **33399 Power Tools & Other General Purpose Machinery Manufacturing**

**DEFINITION** Items manufactured under this industry code include: power-driven hand tools, welding and soldering equipment, packaging machinery, industrial-process furnaces and ovens, fluid-power cylinders and actuators, fluid-power pumps and motors, scales and balances, and miscellaneous general purpose machinery.

## KEY EXTERNAL DRIVERS

- Industrial production index
- Value of construction
- Trade-weighted index
- World price of steel

## KEY SUCCESS FACTORS

- Meeting environmental requirements
- An extensive distribution network
- A diverse range of clients
- Ability to quickly adopt new technology
- Development of new products
- Establishment of brand names

**OUTLOOK** IBISWorld expects the Power Tools and Other General Purpose Machinery Manufacturing industry to consolidate recent gains over the next five years, as the economy continues to expand production and demand strengthens, in key downstream sectors. Increased industrial activity, an upturn in the housing market and continued availability of cheap credit are expected to boost revenue for manufacturers in this industry. Growth will be driven by demand from downstream manufacturers and the construction sector, while trade will remain a vital part of the equation. IBISWorld expects industry revenue to increase at an annualized rate of 2.2% to \$53.9 billion in the five years to 2021.

## 42351 Metal Wholesaling

**DEFINITION** Metal wholesaling operators distribute primary metal products, both ferrous and nonferrous, to industrial and construction markets. Operators maintain inventory and may perform functions, such as sawing and cleaning, on a custom basis and as part of the distribution service.

## KEY EXTERNAL DRIVERS

- World price of steel
- Industrial production index
- Value of construction
- World price of aluminum

## KEY SUCCESS FACTORS

- Effective quality control
- Ability to control stock on hand and maintain appropriate inventory levels
- Having links to suppliers
- Access to the latest available and most efficient technology and techniques
- Ability to alter mix of offerings in line with price changes and consumer preference
- Proximity to key markets

**OUTLOOK** Moving forward, industry performance will remain tied to conditions in key industrial markets and to movements in primary metal prices. Sustained need for metals in key manufacturing, mining, and construction industries will propel demand for industry services, especially as disposable income, business investment, and interest rates continue to improve. Meanwhile, the price of steel is expected to trend upward, after its decline in 2015 and 2016, driving industry revenue upward. Overall, revenue is expected to increase at an annualized rate of 2.3% in the five years to 2021 to reach \$239.0 billion.

## Plastics and Packaging

### Cluster Definition (NAICS Codes)

32221 Cardboard Box & Container Manufacturing

32222 Coated and Laminated Paper Manufacturing

32611 Plastic Film, Sheet & Bag Manufacturing

32612 Plastic Pipe & Parts Manufacturing

32613 Laminated Plastics Manufacturing

32615 Urethane Foam Manufacturing

32616 Plastic Bottle Manufacturing

32619 Plastic Products Miscellaneous Manufacturing

42461 Plastics Wholesaling

### Industry Vitals

| Target Sector                 | NAICS | Description                                  | Revenue (\$bn) | Profit (\$bn) | Annual Growth 10-15 (%) | Annual Growth 16-21 (%) | Revenue per Employee (\$'000) | Wages % of Revenue | Emp. per Estab. | Wages/Employee (\$) |
|-------------------------------|-------|----------------------------------------------|----------------|---------------|-------------------------|-------------------------|-------------------------------|--------------------|-----------------|---------------------|
| <b>Plastics and Packaging</b> |       |                                              |                |               |                         |                         |                               |                    |                 |                     |
|                               | 32221 | Cardboard Box & Container Manufacturing      | 62.3           | 2.9           | 2.4%                    | 0.6%                    | 449.3                         | 12.5               | 67.5            | 56,062.30           |
|                               | 32222 | Coated and Laminated Paper Manufacturing     | 20.7           | 0.8           | -0.8%                   | 0.6%                    | 406.5                         | 13.6               | 63.0            | 55,262.99           |
|                               | 32611 | Plastic Film, Sheet & Bag Manufacturing      | 45.2           | 2.7           | 3.9%                    | 3.7%                    | 471.4                         | 11.8               | 71.6            | 55,624.70           |
|                               | 32612 | Plastic Pipe & Parts Manufacturing           | 18.7           | 1.4           | 6.4%                    | 2.1%                    | 466.9                         | 11.1               | 45.5            | 51,724.40           |
|                               | 32613 | Laminated Plastics Manufacturing             | 3.8            | 0.2           | 2.8%                    | 2.9%                    | 359.7                         | 14.9               | 46.8            | 53,549.90           |
|                               | 32615 | Urethane Foam Manufacturing                  | 10.1           | 0.7           | 3.0%                    | 1.9%                    | 364.8                         | 12.5               | 45.4            | 45,682.60           |
|                               | 32616 | Plastic Bottle Manufacturing                 | 12.0           | 0.6           | 0.3%                    | 2.2%                    | 365.5                         | 12.1               | 71.6            | 44,198.00           |
|                               | 32619 | Plastic Products Miscellaneous Manufacturing | 90.5           | 2.2           | 1.2%                    | 2.0%                    | 265.6                         | 16.5               | 58.0            | 43,737.40           |
|                               | 42461 | Plastics Wholesaling                         | 48.5           | 2.1           | 1.8%                    | 2.2%                    | 1,473.0                       | 4.8                | 9.5             | 70,623.10           |

### Targeting Recommendations

The following avenues are recommendations, as targeting strategies, for Plastics and Packaging:

- ⦿ Trade show marketing in conjunction with regional or state partners, for an opportunity to meet with companies as well as network within the industry
- ⦿ National, ongoing lead generation program
- ⦿ Email marketing and awareness campaigns to surrounding communities and states in order to create awareness of specific opportunities within Amherst County, such as industry park developments, available sites, and incentives

Initial target lists can be built from online resources such as Hoovers, Avention, InfoUSA, and industry associations. As lists are built, we search for companies fitting the target using industry codes and business descriptions. The company research process evaluates each company, as well as, their fit with Amherst assets, benefits and culture.

Selected industry associations relevant to this target include:

- ⦿ Fibre Box Association – [www.fibrebox.org](http://www.fibrebox.org)
- ⦿ Association of Independent Corrugated Converters – [www.aiccbbox.org](http://www.aiccbbox.org)
- ⦿ Flexible Packaging Association – [www.flexpack.org](http://www.flexpack.org)
- ⦿ The Plastics Trade Association – [www.plasticsindustry.org](http://www.plasticsindustry.org)
- ⦿ Society of Manufacturing Engineers – [www.sme.org](http://www.sme.org)
- ⦿ Manufacturers Association for Plastics Processors – [www.mappinc.com](http://www.mappinc.com)
- ⦿ Plastics News – [www.plasticsnews.com](http://www.plasticsnews.com)

## Segment Summaries

### *32221 Cardboard Box and Container Manufacturing*

**DEFINITION** This industry converts purchased paper, paperboard and old corrugated containers into cardboard boxes, containers, and similar packaging solutions. The industry produces corrugated and solid cardboard packaging for a range of sectors and industries, including manufacturing, agriculture, wholesale, shipping and retail, among others.

#### KEY EXTERNAL DRIVERS

- Demand from food manufacturing
- External competition for the Cardboard Box and Container industry
- Industrial production index
- Consumer spending
- World price of pulp

#### KEY SUCCESS FACTORS

- Guaranteed supply of key inputs
- Automation – reduces costs, particularly those associated with labor
- Economies of scale
- Having contacts within key markets
- Undertaking technical research and development
- Ability to alter goods and services produced in favor of market conditions

**OUTLOOK** Conditions for the Cardboard Box and Container Manufacturing industry over the next five years will remain dependent upon activity within key downstream industries that use cardboard packaging products. Industrial production is forecast to improve over the five years to 2021 as consumer spending picks up. However, the growth of input prices, particularly the world price of wood pulp, which affects paperboard prices, will hurt average industry profit margins. Furthermore, continued capital expenditure will boost labor productivity and lower operating costs. As a result of these trends, revenue is forecast to increase at an annualized rate of 0.6% over the five-year period, reaching \$62.8 billion in 2021.

Despite expected increases in the industrial production index, the offshoring of manufacturing facilities to countries with lower wage costs will likely continue. This will decrease packaging requirements from domestic downstream manufacturers and contribute to continued consolidation in the industry. Consequently, the number of industry enterprises is forecast to decrease at an annualized rate of 1.1% to 1,095 companies over the five years to 2021. Furthermore, competition from substitutes, such

as plastics, will remain a threat, with gains resulting from making cardboard packaging more environmentally friendly offset by improvement in the quality and durability of substitute packaging.

### **32222 Coated and Laminated Paper Manufacturing**

**DEFINITION** Companies in this industry primarily manufacture products that include coated or laminated paper and packaging, multiwall bags, and laminated aluminum foil for flexible packaging. Operators in this industry also purchase raw materials, such as paper and paperboard, and process them with plastic, clay, latex, and metal to create industry products.

#### **KEY EXTERNAL DRIVERS**

- Demand from paper wholesaling
- Consumer spending
- Trade-weighted index
- Demand from food manufacturing

#### **KEY SUCCESS FACTORS**

- Guaranteed supply of key inputs
- Access to key markets
- Having a large supply contract
- Economies of scale
- Ability to alter mix of in line with cost
- Establishment of export markets

**OUTLOOK** While the Coated and Laminated Paper Manufacturing industry will continue to face a barrage of challenges, industry revenue is expected to rise over the five years to 2021. Although the industry will continue to face stiff import competition, greater growth in consumer spending relative to the prior period will fuel stronger domestic demand for the paper packaging in which many consumer goods are sold. In addition, a continued rise in environmental consciousness among both businesses and consumers will make the industry's customers more likely to choose paper over plastic substitutes to fulfill their increased packaging needs. As a result, the industry is expected to grow modestly, with revenue projected to increase at an annualized rate of 0.6% over the next five years to \$21.3 billion in 2021.

However, profit is expected to decrease slightly, from 4.0% of revenue in 2016 to 3.9% in 2021. Falling profitability is anticipated to stem partially from increasing imported packaging competition. Import growth will consistently put pricing pressures on domestic companies, making it difficult for manufacturers to maintain profit margins. In addition, increasing input costs, such as the price of paper, are also anticipated to constrain industry profit in the years ahead.

Furthermore, merger and acquisition activity is expected to continue over the period, as larger companies attempt to boost profit margins. Consequently, the industry's market share concentration is anticipated to increase from 2016 to 2021. Over the five years to 2021, the total number of establishments in the industry is forecast to slowly decline at an annualized rate of 0.4% to 792 facilities. Similarly, industry employment is

anticipated to stagnate, falling at an annualized rate of less than 0.0% to 50,862 workers. In addition to consolidation, the industry is expected to contract in size due to continued offshoring by domestic manufacturers as they struggle to compete with imports.

### **32611 Plastic Film, Sheet, and Bag Manufacturing**

**DEFINITION** This industry converts plastic resins into various films, sheets, and bags. Industry products are used by manufacturers for packing and storing products, by retailers for transporting merchandise and by consumers for household purposes. Industry operators also form, coat or laminate plastic film and sheets into single-wall or multiwall plastic bags.

#### **KEY EXTERNAL DRIVERS**

- Consumer spending
- Demand from food manufacturing
- Demand from agriculture, forestry, fishing, and hunting
- Demand from construction
- Price of plastics materials and resins
- Trade-weighted index

#### **KEY SUCCESS FACTORS**

- Undertaking technical research and development
- Use of production techniques that add value to base product(s)
- Supply contracts in place for key inputs
- Economies of scope
- Effective cost controls

**OUTLOOK** Over five years to 2021, IBISWorld projects industry revenue will grow at an annualized rate of 3.8% to \$56.5 billion. Increases in consumer spending, industrial production, construction and exports will drive demand for plastic film, sheets, and bags during the period. In the latter part of the period, IBISWorld expects the industry to experience stronger growth due to advances in the use of polyethylene, which is the main ingredient in plastic bags and sheets, and the fifth most frequently used plastic. Advances in biodegradable polyethylene are currently underway but are not used on a commercial scale yet.

### **32612 Plastics Pipe and Parts Manufacturing**

**DEFINITION** This industry manufactures a range of plastic pipes, plastic fittings for plastic pipes, and unlaminated plastic profile shapes, such as rods, tubes, plates, and car parts. This industry does not include plastic hose fixtures, plastic plumbing fixtures or plastic packaging.

#### **KEY EXTERNAL DRIVERS**

- Value of construction
- Demand from water supply and irrigation systems
- Price of plastic materials and resins

- Demand from car and automobile manufacturing
- Trade-weighted index

#### **KEY SUCCESS FACTORS**

- Supply contracts in place for key inputs

- Incorporating long-term sales contracts
- Undertaking technical research and development
- Economies of scale
- Ability to quickly adopt new technology
- Effective quality control

**OUTLOOK** Building on momentum from the previous five-year period, revenue growth will continue in the next five years. However, industry performance is likely to be more subdued as economic growth decelerates and demand from construction stabilizes. Over the five years to 2021, revenue is expected to grow at an annualized rate of 2.1% to \$20.7 billion.

### **32613 Laminated Plastics Manufacturing**

**DEFINITION** Companies within this industry manufacture a range of laminated plastic shapes, plates and sheets. The lamination process generally involves bonding or impregnating profiles with plastics resins and compressing them under heat. Laminated plastic products are used for interior and exterior motor vehicle parts, consumer appliances and construction projects.

#### **KEY EXTERNAL DRIVERS**

- Industrial production index
- Value of construction
- Demand from transportation equipment manufacturing
- Price of plastic materials and resins

#### **KEY SUCCESS FACTORS**

- Supply contracts in place for key inputs
- Effective quality control
- Ability to quickly adopt new technology
- Output is sold under contract – incorporate long-term sales contracts
- Undertaking technical research and development
- Economies of scale

**OUTLOOK** In the five years to 2020, revenue in the Laminated Plastics Manufacturing industry is expected to increase at an average annual rate of 2.9% to \$4.3 billion, as increasing demand from consumer goods markets, construction, and auto manufacturers will cause revenue to expand. However, rising purchasing costs will continue to constrain profit growth during the next five years.

### **32615 Urethane Foam Manufacturing**

**DEFINITION** This industry manufactures plastic foam products (except polystyrene). These products are used to insulate objects or reduce shock. Plastic foam products are used in bedding, packaging, seat cushioning, carpet cushioning, car interiors, fluid filtration systems, anti-noise, and vibration systems in aircraft, medical devices, and a number of consumer applications such as sponges, mops, paint brushes, and cosmetic applicators.

### KEY EXTERNAL DRIVERS

- Demand for furniture and related product manufacturing
- Demand for car and automobile manufacturing
- Price of plastic materials and resins
- Demand from construction
- Demand from packaging and labeling services

### KEY SUCCESS FACTORS

- Undertaking technical research and development
- Must comply with required product standards
- Proximity to key markets
- Economies of scale
- Output is sold under contract – incorporate long-term sales contracts
- Effective cost controls

**OUTLOOK** The Urethane Foam Manufacturing industry is forecast to continue recovering through 2020. Over the next five years, industry revenue is expected to grow at an annualized rate of 1.9% to \$11.2 billion. Downstream demand from residential and nonresidential construction activity is expected to boost sales of urethane products used in insulation, furniture, and carpets. Similarly, demand for cars will increase purchases of urethane used in seats and vehicle insulation. Overall, the industry is expected to return to its pre-recessionary size by 2020, recouping losses from the past decade.

### *32616 Plastic Bottle Manufacturing*

**DEFINITION** Operators in this industry manufacture a range of bottles from various plastic compounds based on their end use. These bottles are then sold to beverage, food, and chemical manufacturers to use as packaging for soft drinks, milk, condiments, and household and automotive chemicals. This industry does not manufacture reusable plastic bottles or other plastic containers.

### KEY EXTERNAL DRIVERS

- Demand from soda production
- Per capita disposable income
- Price of plastic materials and resins
- World price of crude oil

### KEY SUCCESS FACTORS

- Supply contracts for key inputs
- Provision of a related range of goods/services ("one stop shop")
- Undertaking technical research and development
- Effective quality control
- Output is sold under contract - incorporate long-term sales contracts
- Economies of scale

**OUTLOOK** After years of revenue volatility, growth in the Plastic Bottle Manufacturing industry will stabilize over the next five years. As the economy continues to strengthen and consumers escalate their spending, downstream customers will increase their demand for plastic bottles. Consequently, in the five years to 2021, industry revenue is

forecast to increase at an annualized 0.8% to total \$13.2 billion, including a 0.9% growth in 2017.

Similar to the past five years, industry profit margins are expected to remain relatively stable. The price of plastic materials and resin is forecast to rise at an average annual rate of 2.2%, slightly pushing up industry costs. Companies with long-term customer contracts will be able to pass on rising plastic prices to consumers, although profit margins are still expected to shrink over the next five years.

### **32619 Plastics Products Miscellaneous Manufacturing**

**DEFINITION** This industry comprises companies that manufacture a range of plastic products, including housewares, building materials, motor vehicle parts, resilient floor coverings, and appliance parts. This industry excludes plastic film, sheets, bags, profile shapes, pipes, pipe fittings, laminates, foam products, and bottles.

#### **KEY EXTERNAL DRIVERS**

- Demand from car and automobile manufacturing
- Demand from electrical equipment manufacturing
- Demand from tool and hardware manufacturing
- Value of construction
- Price of plastic materials and resins
- Trade-weighted index

#### **KEY SUCCESS FACTORS**

- Favorable supply contracts for key inputs
- Output is sold under contract – incorporate long-term sales contracts
- Undertaking technical research and development
- Economies of scale
- Ability to quickly adopt new technology
- Effective quality control

**OUTLOOK** Revenue for the Plastic Products Miscellaneous Manufacturing industry is expected to continue its trajectory of moderate growth in the next five years. As business confidence improves in the overall economy, the industry is expected to perform well, due to the wide variety of downstream industries that use plastic products. As a result of increased downstream demand, revenue is expected to increase at an average annual rate of 2.0% to \$99.8 billion during the five years to 2020, including a 3.0% boost in 2016 alone.

### **42461 Plastics Wholesaling**

**DEFINITION** This industry wholesales plastics materials and resins, and unsupported plastic film, sheet, sheeting, rod, tube, and other basic forms and shapes. Products sold within the Plastics Wholesaling industry are sold to industrial manufacturers. Manufacturers use plastic products to manufacture durable goods.

#### **KEY EXTERNAL DRIVERS**

- Demand from plastics and rubber products manufacturing

- Price of plastic materials and resins
- Value of construction
- Consumer spending

- Having links with suppliers
- Having a loyal customer base
- Having an extensive distribution/collection network
- Development of new products
- Ability to control stock on hand

### KEY SUCCESS FACTORS

**OUTLOOK** IBISWorld expects the Plastics Wholesaling industry to grow in the five years to 2020. Higher demand from downstream customers will cause revenue to expand, but rising purchasing costs will slightly offset demand increases resulting in stagnant profit margins. From 2015 to 2020, revenue is projected to grow 2.2% per year on average to \$54.2 billion.

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## Health Care

### Cluster Definition (NAICS Codes)

42345 Medical Supplies Wholesaling

42421 Drug, Cosmetic & Toiletry Wholesaling

62142 Mental Health & Substance Abuse Clinics

62149 Emergency & Other Outpatient Care Centers

62151 Diagnostic & Medical Laboratories

62161 Home Care Providers

62199 Blood & Organ Banks

62221 Psychiatric Hospitals

62231 Specialty Hospitals

62311 Nursing Care Facilities

62321 Residential Intellectual Disability Facilities

62331 Retirement Communities

62412 Elderly & Disabled Services

## Industry Vitals

| Target Sector      | NAICS | Description                                    | Revenue (\$bn) | Profit (\$bn) | Annual Growth 10-15 (%) | Annual Growth 16-21 (%) | Revenue per Employee (\$'000) | Wages % of Revenue | Emp. per Estab. | Wages/Employee (\$) |
|--------------------|-------|------------------------------------------------|----------------|---------------|-------------------------|-------------------------|-------------------------------|--------------------|-----------------|---------------------|
| <b>Health Care</b> |       |                                                |                |               |                         |                         |                               |                    |                 |                     |
|                    | 42345 | Medical Supplies Wholesaling                   | 150.7          | 8.4           | 1.3%                    | 1.6%                    | 732.2                         | 14.6               | 9.9             | 106,845.60          |
|                    | 42421 | Drug, Cosmetic & Toiletry Wholesaling          | 937.8          | 53.5          | 5.6%                    | 3.3%                    | 2,833.3                       | 4.3                | 22.9            | 121,774.60          |
|                    | 62142 | Mental Health & Substance Abuse Clinics        | 17.2           | 1.3           | 3.4%                    | 2.4%                    | 72.0                          | 50.0               | 16.1            | 36,018.80           |
|                    | 62149 | Emergency & Other Outpatient Care Centers      | 99.4           | 12.0          | 3.7%                    | 3.3%                    | 161.0                         | 35.8               | 16.3            | 57,647.80           |
|                    | 62151 | Diagnostic & Medical Laboratories              | 54.3           | 9.5           | 0.9%                    | 1.5%                    | 190.3                         | 30.7               | 8.7             | 58,492.80           |
|                    | 62161 | Home Care Providers                            | 83.9           | 5.0           | 4.0%                    | 6.5%                    | 48.3                          | 50.3               | 4.4             | 24,292.50           |
|                    | 62199 | Blood & Organ Banks                            | 24.0           | 1.5           | 2.8%                    | 4.8%                    | 143.4                         | 30.3               | 6.2             | 43,445.40           |
|                    | 62221 | Psychiatric Hospitals                          | 23.0           | 1.7           | 1.9%                    | 2.4%                    | 96.6                          | 53.2               | 364.6           | 51,342.80           |
|                    | 62231 | Specialty Hospitals                            | 50.8           | 5.2           | 5.2%                    | 5.6%                    | 169.9                         | 35.5               | 301.9           | 60,280.20           |
|                    | 62311 | Nursing Care Facilities                        | 132.1          | 9.5           | 2.3%                    | 5.8%                    | 74.4                          | 40.8               | 54.0            | 30,327.40           |
|                    | 62321 | Residential Intellectual Disability Facilities | 26.6           | 0.5           | 2.5%                    | 3.4%                    | 43.3                          | 52.2               | 9.9             | 22,586.70           |
|                    | 62331 | Retirement Communities                         | 61.9           | 3.4           | 3.7%                    | 6.1%                    | 68.1                          | 36.9               | 37.3            | 25,101.10           |
|                    | 62412 | Elderly & Disabled Services                    | 43.3           | 1.5           | 4.3%                    | 6.6%                    | 37.7                          | 48.9               | 9.6             | 18,419.10           |

## Targeting Recommendations

The following avenues are recommendations, as targeting strategies, for Health Care:

- ⦿ Entrepreneurial development and encouraging business start-ups
- ⦿ Email marketing and awareness campaigns to surrounding communities and states in order to create awareness of specific opportunities within Amherst County, such as industry park developments, available sites, and incentives
- ⦿ National, ongoing lead generation program

Initial target lists can be built from online resources such as Hoovers, Avention, InfoUSA, and industry associations. As lists are built, we search for companies fitting the target using industry codes and business descriptions. The company research process evaluates each company, as well as, their fit with Amherst assets, benefits and culture.

Selected industry associations relevant to this target include:

- ⦿ Medical Device Manufacturers Association – [www.medicaldevices.org](http://www.medicaldevices.org)
- ⦿ Health Industry Distributors Association – [www.hida.org](http://www.hida.org)
- ⦿ Healthcare Distribution Management Association - [www.healthcaredistribution.org](http://www.healthcaredistribution.org)
- ⦿ American Clinical Laboratory Association – [www.acla.org](http://www.acla.org)
- ⦿ National Association of Home Care and Hospice - [www.nahc.org](http://www.nahc.org)
- ⦿ American Association on Intellectual and Developmental Disabilities – [www.aamr.org](http://www.aamr.org)

## Segment Summaries

### 42345 Medical Supplies Wholesaling

**DEFINITION** Medical supplies wholesalers purchase medical and surgical equipment, instruments, and supplies, store these items at distribution centers, and deliver these products and related services to medical and dental practitioners, clinics, and hospitals. The industry does not handle instruments and goods that are distributed to ophthalmologists, optometrists, veterinarians and opticians.

## KEY EXTERNAL DRIVERS

- Number of physician visits
- Federal funding for Medicare and Medicaid
- Research and development expenditure
- Number of adults aged 65 and older
- World price of crude oil

## KEY SUCCESS FACTORS

- Guaranteed supply of key inputs
- Having an extensive distribution/collection network
- Complementary services
- Having a good technical knowledge of the product
- Ability to control stock on hand

**OUTLOOK** During the five years to 2021, IBISWorld forecasts Medical Supplies Wholesaling industry performance to largely resemble the industry's performance during the five years to 2016, albeit without the stimulating effect of the influx of newly insured patients from the Patient Protection and Affordable Care Act (PPACA). The overall higher number of insured Americans will likely contribute to steady demand for medical supplies and services, but increased demand will come at a price. Operators will likely experience increasingly aggressive internal competition (as a result of the Centers for Medicare and Medicaid Services implementing a competitive bidding program), a fluctuating network of suppliers, heightened government regulations and a tightened credit market. Moreover, the industry will be operating in a drastically changing healthcare environment, where product lines will multiply, costs will persistently rise and broader healthcare coverage could result in a shortage of warehouse capacity. As a result, revenue is projected to grow at an average annual rate of 2.0% over the next five years to total \$197.9 billion by 2021.

## *42421 Drug, Cosmetic & Toiletry Wholesaling*

**DEFINITION** Drug, cosmetic, and toiletry wholesalers primarily distribute pharmaceutical products intended for internal and external consumption, such as tablets, capsules, vials, ointments, and powders. The industry includes a range of biological and medical products, and botanical drugs and herbs.

## KEY EXTERNAL DRIVERS

- Number of people with private health insurance
- Per capita disposable income
- Research and development expenditure
- Government consumption and investment
- Median age of population
- Price of electric power

## KEY SUCCESS FACTORS

- Guaranteed supply of key inputs
- Having an extensive distribution/collection network
- Having contacts in key markets
- Provision of superior after-sales service
- Ability to control stock on hand

- Access to goods currently favored by the market

**OUTLOOK** Several trends are expected to bode well for the Drug, Cosmetic and Toiletry Wholesaling industry over the five years to 2021. The industry will benefit from a rise in the number of people with access to healthcare and insurance, as well as, rising per capita disposable income, which will enable consumers to better afford health products, discretionary cosmetics and toiletries. Furthermore, as the median age of the population rises, more people will require healthcare, including prescription and over-the-counter drugs. In the coming years industry operators will be adjusting to modified and new contracts with manufacturers as more drug patents expire, and focus will be shifted to selling generic brands and newly developed drugs. Some wholesalers will lose customers, as wholesale bypass strategies and e-commerce retailers that do not utilize wholesalers become more popular cost-saving techniques. Over the five years to 2021, revenue is forecast to increase 3.3% per year on average to \$1.1 trillion.

### **62142 Mental Health and Substance Abuse Clinics**

**DEFINITION** This industry includes establishments with medical staff who primarily provide outpatient services related to the diagnosis and treatment of substance abuse and other mental health disorders.

#### **KEY EXTERNAL DRIVERS**

- Federal funding for Medicare and Medicaid
- Number of people with private health insurance
- Number of adults aged 20-64
- Per capita disposable income
- Federal funding for social services
- Must comply with government regulation
- Proximity to key markets
- Access to highly skilled workforce
- Maintaining good relationships
- Provision of appropriate facilities
- Ability to raise revenue from additional sources

#### **KEY SUCCESS FACTORS**

**OUTLOOK** The improving economic environment is forecast to boost revenue for the Mental Health and Substance Abuse Clinics industry over the five years to 2020. During this period, revenue is projected to increase at an average annual rate of 2.4% to \$19.3 billion. One factor contributing to this positive outlook is the healthcare reform of 2010, which has expanded private and government coverage of industry services and is expected to continue to do so moving forward, thereby bolstering demand. In 2016 alone, revenue is forecast to grow 3.2% due to expanded insurance rolls. Aside from this reform, Medicare, a federal program that pays for certain healthcare expenses for people aged 65 and older, is expected to increase coverage for mental health. The improving economy will also help increase per capita disposable income at an annualized rate of 2.4% in the five years to 2020. Because out-of-pocket payments

make up an estimated 8.0% of industry revenue, rising disposable income will also boost demand.

Despite an improving environment, a shortage of skilled professionals is expected to persist, contributing to rising costs. Additionally, managed-care organizations, which are accountable for the healthcare of an enrolled group of people, and Medicaid, a joint federal and state program funding medical care for low-income individuals and families, are forecast to continue pressuring prices at clinics. The labor shortage and price pressures will contribute to continuing consolidation, as larger operators will be better able to negotiate with managed-care organizations and reduce certain costs. For instance, larger clinics can spread the costs of various administrative functions across several locations or more clients. Companies will continue to enter the industry, but because of increased consolidation, the number of operators is expected to show only slow growth during the next five years. From 2015 to 2020, the number of industry operators is expected to increase at an average annual rate of 2.8% to 11,635 companies. During the same period, industry employment will increase at an annualized rate of 2.5% to 270,691 workers.

### **62149 Emergency and Other Outpatient Care Centers**

**DEFINITION** This industry includes establishments with medical staff primarily engaged in providing emergency, general or specialized outpatient care not included in other industries. This industry also includes centers or clinics with a variety of health practitioners, each with different specializations and operating in different industries, who practice in the same establishment.

#### **KEY EXTERNAL DRIVERS**

- Federal funding for Medicare and Medicaid
- Number of people with private health insurance
- Number of adults aged 65 or older
- Per capita disposable income
- Healthy eating index

#### **KEY SUCCESS FACTORS**

- Access to highly skilled workforce
- Proximity to key suppliers
- Recommendation/accreditation from authoritative source
- Understanding government policies and their implications
- Having a loyal customer base
- Effective product promotion

**OUTLOOK** The Emergency and Other Outpatient Care Centers industry will likely play a large role in the healthcare delivery system over the next five years. With increasing focus on quality, cost and access, consumers, and payers alike will seek out the convenient, cost-effective outpatient setting. Over the five years to 2021, IBISWorld projects industry revenue will rise at an annualized rate of 2.5% to \$112.2 billion; this revenue will increasingly be derived from private health insurance due to government budgetary pressures. Healthcare reform has already begun to provide more consumers with access to affordable insurance and will likely continue to do so in the next five years, driving demand for healthcare services.

Furthermore, the industry will continue to benefit from favorable demographic trends. Over the next five years, the number of US residents aged 65 and older is projected to grow more quickly than the total population. As the population ages, the number of patients suffering from strokes or chronic diseases may increase, raising demand for industry services. Climbing rates of obesity and diabetes will further underpin demand; the Centers for Disease Control and Prevention projects as many as 48.3 million US adults could have diabetes by 2050.

### **62151 Diagnostic and Medical Laboratories**

**DEFINITION** Operators in this industry provide analytic services to identify or determine the nature and cause of a disease or injury, through the evaluation of a patient's history, examination and data. These services are provided to healthcare providers or patients upon referral from health practitioners.

#### **KEY EXTERNAL DRIVERS**

- Number of people with private health insurance
- Total health expenditure
- Federal funding for Medicare and Medicaid
- Number of adults 50 and older
- Technological change for the diagnostic and medical laboratory industry

#### **KEY SUCCESS FACTORS**

- Ensuring pricing policy is appropriate
- Having a good reputation
- Economies of scale
- Proximity to key markets
- Ability to quickly adopt new technology
- Understanding government policies and their implications

**OUTLOOK** Diagnostic and medical laboratories will benefit from healthcare reform over the next five years. As healthcare reform increases the number of insured individuals, demand for industry services will rise in line with lower out-of-pocket costs, enabling more patients to afford laboratory tests. Moreover, the aging US population will bolster demand for laboratory testing due to this demographics' high prevalence of chronic illnesses, which will require frequent monitoring and testing by healthcare providers. In the five years to 2021, industry revenue is forecast to grow at an annualized rate of 1.5% to \$58.5 billion, thanks to the growing number of insured individuals utilizing more healthcare services, including MRI and CT scans, as well as biopsies for irregular screening results. Profit is expected to grow from 17.4% of industry revenue in 2016 to 19.6% in 2021, driven more hospitals outsourcing their laboratories, limiting external competition for the industry.

### **62161 Home Care Providers**

**DEFINITION** Companies in this industry primarily provide services in the home. These services may be medical or nonmedical and include skilled-nursing care, personal care, homemaker and companion services, physical therapy and medical social services. This industry also includes in-home hospice care providers.

#### **KEY EXTERNAL DRIVERS**

- Federal funding for Medicare and Medicaid

- Number of adults aged 65 or older
- Number of people with private health insurance
- Per capita disposable income
- Recommendation/accreditation from authoritative source
- Effective quality control
- Ability to take advantage of government subsidies and other grants
- Proximity to key markets
- Ability to attract local support/patronage and frequent referrals
- Ability to alter goods and services produced in favor of market conditions

## KEY SUCCESS FACTORS

**OUTLOOK** Strong and steady revenue growth seems likely for the Home Care Providers industry over the next five years, as a result of an aging population, increasing interest in home healthcare and expanded access to Medicare and Medicaid under the Patient Protection and Affordable Care Act (PPACA). The aging population will continue to foster revenue growth because this demographic requires more healthcare services compared with other age groups and increasingly prefers home care. Payers will also progressively shift to home care because it is more affordable than inpatient hospital and nursing-home care.

Despite these favorable trends, Medicare and Medicaid reimbursement cuts will continue to be a threat to industry profit, thus encouraging large companies to grow even larger through mergers and acquisitions. In late 2013, the Centers for Medicare and Medicaid Services (CMS) was asked to assess potential reductions to the actual base Medicare payment for home health services. Partly to offset the costs of implementing other PPACA provisions, CMS approved the largest possible reduction of funding to the Home Health Prospective Payment System, equivalent to an annualized 3.5% deduction from 2014 to 2017. Since the announcement and implementation of this reduction, industry operators and the associations that represent their interests have lobbied hard to convince Congress to reconsider or revoke this decision. Nonetheless, neither of these threats is likely to cause revenue declines, but they will change the way operators compete, particularly small and midsize agencies.

Home healthcare will evolve to include more chronic-disease management services, and consolidation will help the industry unite to influence policy change and benefit from larger-scale operations. In light of these projections, revenue is forecast to increase at an annualized rate of 6.5% to \$114.8 billion over the five years to 2020. In 2016, revenue is forecast to jump 6.0%, the strongest growth since 2011.

### *62199 Blood and Organ Banks*

**DEFINITION** This industry includes companies that primarily collect, store and distribute blood, blood products, and human organs.

## KEY EXTERNAL DRIVERS

- Consumer confidence index
- Demand from medical instrument and supply manufacturing
- Number of people on private health insurance
- Number of adults 50 or older
- Number of physician visits
- Private investment in computers and software

**OUTLOOK** Over the five years to 2020, revenue for blood and organ banks will continue to grow as healthcare reform enables more individuals to afford industry services. As federal funding for Medicaid and Medicare expands, more Medicaid and Medicare recipients will receive coverage for their organ transplants, particularly for heart, lung, kidney, pancreas, intestine and liver transplants, which will stimulate industry revenue growth. Comparatively, as more individuals become privately insured, driven by the impact of employer-mandated health insurance, many third-party payers will cover transplants but may not cover immunosuppressive drugs.

As a result, the industry will benefit from more individuals having access to transplants and postoperative treatments, which will cause industry revenue to grow at a forecast annualized rate of 4.8% to \$30.4 billion over the five years to 2020. Profit is expected to continue contracting from 6.4% of industry revenue in 2015 to 5.9% in 2020, due to the industry incurring higher operational costs related to storing biomedical materials, including biological reagents. Indeed, while many industry operators are nonprofit organizations, profit margins enable nonprofits to invest in future disaster preparation and community outreach programs, such as portable blood banks.

## 62221 Psychiatric Hospitals

**DEFINITION** This industry includes establishments licensed to provide diagnostic and medical treatment, as well as monitoring services for inpatients suffering from mental illness or substance abuse disorders. These establishments maintain inpatient beds and a staff of physicians.

## KEY EXTERNAL DRIVERS

- Federal funding for Medicare and Medicaid
- Number of people with private health insurance
- Per capita disposable income
- Number of adults 20 to 64

## ➤ KEY SUCCESS FACTORS

- Access to volunteer labor
- Proximity to key suppliers
- Understanding government policies and their implications
- Having contacts within key healthcare markets
- Control of distribution agreements

## KEY SUCCESS FACTORS

- Recommendation/accreditation from authoritative source
- Access to highly skilled workforce
- Proximity to key markets
- Economies of scale
- Optimum capacity utilization
- Provision of appropriate facilities

**OUTLOOK** In the five years to 2020, the Psychiatric Hospitals industry will largely benefit from increased patient volumes. As the economy continues to grow and consumer disposable income levels increase, more patients will be able to pay for industry services out of pocket, and falling unemployment will likely increase private health coverage, enabling more individuals to afford psychiatric hospital treatment. Moreover, the fully realized effects of expanded public and private healthcare coverage under the Patient Protection and Affordable Care Act (PPACA) will further boost the relative affordability of industry services. Consequently, industry revenue is expected to rise to 2.4% per year on average, to reach \$25.9 billion in 2020. Continued consolidation will likely keep profit margins high for the average industry hospital, but looming cost increases are expected to limit profitability growth somewhat.

### **62231 Specialty Hospitals**

**DEFINITION** This industry includes companies that provide diagnostic and medical treatment to inpatients with a specific type of disease or medical condition. Specialty hospitals include hospitals that primarily provide long-term care for the chronically ill and those that offer rehabilitation and restorative and adjunctive services to physically challenged or disabled people.

#### **KEY EXTERNAL DRIVERS**

- Total health expenditure
- Federal funding for Medicare and Medicaid
- Number of adults 65 and older
- Number of people with private health insurance
- Per capita disposable income

#### **KEY SUCCESS FACTORS**

- Access to highly skilled workforce
- Recommendation/accreditation from authoritative source
- Proximity to key markets
- Understanding government policies and their implications
- Economies of scale
- Optimum capacity utilization

**OUTLOOK** The Specialty Hospitals industry faces a positive but challenging future. A ban on physician-owned specialty hospitals, low Medicare reimbursement levels and mounting competition from home healthcare, will likely suppress revenue in the next few years. However, a growing senior population and expanding access to public and private healthcare insurance will outweigh these factors and push revenue up an annualized 4.0% to \$59.2 billion over the five years to 2021. Revenue is forecast to grow 3.0% in 2017, as access to healthcare coverage continues to significantly expand due to the Patient Protection and Affordable Care Act (PPACA). Moreover, the aging baby-boomer generation will cause Medicare's largest group of contributors to rapidly become the greatest users of healthcare in upcoming years. As people age, they require more medical care, and IBISWorld expects the number of individuals aged 65 and older to increase at an average annual rate of 3.3% during the next five years, to 58.2 million people. This trend will boost industry revenue, particularly for long-term

acute care (LTAC) hospitals. However, it will also burden the Medicare system, which will slow reimbursement increases in the next five years.

### **62311 Nursing Care Facilities**

**DEFINITION** This industry provides living quarters, inpatient nursing, and rehabilitation services for people with a chronic illness or disability. The care is usually provided for an extended period to individuals who require help with day-to-day activities but do not need to be in a hospital.

#### **KEY EXTERNAL DRIVERS**

- Federal funding for Medicare and Medicaid
- Number of adults 65 and older
- Federal expenditure on disability benefits
- Number of people with private health insurance
- Per capita disposable income

#### **KEY SUCCESS FACTORS**

- Access to highly skilled workforce
- Effective quality control
- Proximity to key markets
- Understanding government policies and their implications
- Optimum capacity utilization

**OUTLOOK** Over the next five years, the continued aging of the population will stimulate demand for the Nursing Care Facilities industry. In addition, growth in personal disposable income is expected to accelerate, enabling individuals to purchase private healthcare and nursing care services. Nonetheless, growing demand for industry services will be partially offset by decreasing government reimbursement rates and the continued movement toward at-home managed care services as the government attempts to contain rising healthcare costs. Over the five years to 2021, industry revenue is forecast to rise at an average annual rate of 5.8% to more than \$174.8 billion.

### **62321 Residential Intellectual Disability Facilities**

**DEFINITION** This industry primarily houses and tends to the daily needs of individuals diagnosed with intellectual and developmental disabilities. Industry operators focus on providing room, board, protective supervision, and counseling. Additionally, some form of healthcare may be provided at industry facilities.

#### **KEY EXTERNAL DRIVERS**

- Federal funding for Medicare and Medicaid
- Number of people with private health insurance
- Federal expenditure on disability benefits
- Per capita disposable income

- Number of adults 65 and older

#### **KEY SUCCESS FACTORS**

- Must comply with government regulations
- Proximity to key markets
- Access to highly skilled workforce

- Maintain quality of facilities
- Ability to raise revenue from additional sources
- Access to volunteer labor

**OUTLOOK** Over the five years to 2021, revenue for the Residential Intellectual Disability Facilities industry is forecast to increase at an annualized rate of 3.4% to reach \$31.4 billion, including growth of 2.3% in 2017. According to data from the Congressional Budget Office (CBO), healthcare reform is expected to significantly expand Medicare and Medicaid services and increase the number of people with access to healthcare in the five years to 2021, boosting demand for industry services. As a result of increased demand, industry establishments are expected to grow at an average annual rate of 3.4% in the five years to 2021, to 73,121 facilities. Over the same period, industry profit is forecast to shrink slightly as Medicare and Medicaid payments to industry facilities decrease; wider public healthcare coverage will likely lead to decreased government spending.

### **62331 Retirement Communities**

**DEFINITION** This industry provides residential and personal care services for the elderly and other individuals who are unable to fully care for themselves or who desire to live in a community facility.

#### **KEY EXTERNAL DRIVERS**

- Number of adults 65 and older
- House price index
- Per capita disposable income
- Federal funding for Medicare and Medicaid
- Yield on 10-year Treasury note

#### **KEY SUCCESS FACTORS**

- Superior financial management and debt management
- Being familiar with local tastes and preferences
- Ability to attract local support/patronage
- Realize operating efficiencies
- Ability to provide a broad spectrum of care
- Ability to obtain regulatory approvals

**OUTLOOK** The Retirement Communities industry is forecast to perform strongly in the five years to 2020, generating annualized revenue growth of 6.1% to \$83.1 billion. Revenue is forecast to increase 5.8% in 2016, as demand continues to pick up. In the next five years, a growing economy, an aging population, favorable healthcare reform legislation and new service offerings will support this growth.

### **62412 Elderly and Disabled Services**

**DEFINITION** This industry provides outpatient social assistance services to improve the quality of life for the elderly, the mentally ill, and people with disabilities. Operators

provide services in such areas as day care, nonmedical home care or homemaker services, social activities, group support, and companionship.

### KEY EXTERNAL DRIVERS

- Federal funding for Medicare and Medicaid
- Number of adults 65 and older
- Per capita disposable income

### KEY SUCCESS FACTORS

- Having an integrated operation
- Proximity to key markets
- Must comply with government regulations
- Ability to provide goods/services in diverse locations
- Ability to alter goods and services produced in favor of market conditions
- Access to highly skilled workforce

**OUTLOOK** Demand for the Elderly and Disabled Services industry is expected to remain strong over the five years to 2021, driven by the growing number of adults aged 65 and older. Growth will also be spurred by government initiatives that will encourage more people to seek care at home instead of in an institutional setting. With disposable incomes continuing to rise over the next five years, more people will be able to afford formal care, reducing reliance on family caregivers and driving demand for industry services. Long-term care (LTC) insurance coverage is expected to increase moderately over the period, but additional room for growth in coverage will remain. As a result of these factors, industry revenue is projected to rise at an average annual rate of 7.6% to \$67.3 billion during the five years to 2021, including strong growth of 7.2% in 2017.

As a result of strong demand for industry services, new operators will continue to enter the industry, with the number of enterprises forecast to grow at an average annual rate of 7.5% to 164,422 over the next five years. In addition, the falling unemployment rate will reduce the availability of family caregivers, driving demand for services provided by formal caregivers. To meet rising demand, industry employment is forecast to increase over the period at an annualized rate of 7.7% to more than 1.8 million workers.

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## Retail and Recreation

### Cluster Definition (NAICS Codes)

- 44411 Home Improvement Stores
- 44611 Pharmacies & Drug Stores
- 44619 Health Stores
- 45111 Sporting Goods Stores

- 45211 Department Stores
- 42591 Warehouse Clubs and Supercenters
- 45391 Pet Stores
- 72111 Hotels & Motels

## 72211 Chain Restaurants and Single Location Full-Service Restaurants

### Industry Vitals

| Target Sector                | NACCS | Description                              | Revenue (\$m) | Profit (\$m) | Annual Growth 10-15 (%) | Annual Growth 16-21 (%) | Revenue per Employee (\$'000) | Wages % of Revenue | Emp. per Estab. | Wages/Employee (\$) |
|------------------------------|-------|------------------------------------------|---------------|--------------|-------------------------|-------------------------|-------------------------------|--------------------|-----------------|---------------------|
| <b>Retail and Recreation</b> |       |                                          |               |              |                         |                         |                               |                    |                 |                     |
|                              | 44411 | Home Improvement Stores                  | 164.1         | 15.8         | 4.4%                    | 3.2%                    | 235.2                         | 11.5               | 78.0            | 26,962.00           |
|                              | 44611 | Pharmacies & Drug Stores                 | 264.5         | 14.3         | 1.4%                    | 5.3%                    | 395.1                         | 9.1                | 13.7            | 36,095.50           |
|                              | 44619 | Health Stores                            | 23.3          | 1.4          | 3.1%                    | 1.3%                    | 125.3                         | 19.9               | 2.1             | 24,943.70           |
|                              | 45111 | Sporting Goods Stores                    | 48.5          | 1.6          | 2.3%                    | 2.7%                    | 154.1                         | 12.2               | 6.9             | 18,772.40           |
|                              | 45211 | Department Stores                        | 164.6         | 9.5          | -3.7%                   | -1.8%                   | 167.4                         | 11.7               | 125.5           | 19,560.10           |
|                              | 42591 | Warehouse Clubs and Supercenters         | 449.4         | 23.8         | 2.0%                    | 2.4%                    | 310.6                         | 8.4                | 267.4           | 26,101.40           |
|                              | 45391 | Pet Stores                               | 17.5          | 1.4          | 3.7%                    | 3.1%                    | 147.3                         | 13.6               | 6.9             | 20,073.10           |
|                              | 72111 | Hotels & Motels                          | 171.6         | 27.8         | 4.2%                    | 2.6%                    | 105.5                         | 25.0               | 18.6            | 26,319.60           |
|                              | 72211 | Chain Restaurants                        | 107.6         | 4.8          | 4.3%                    | 2.0%                    | 58.2                          | 32.3               | 57.7            | 18,790.30           |
|                              | 72211 | Single Location Full-Service Restaurants | 181.0         | 8.1          | 3.5%                    | 2.4%                    | 52.3                          | 34.2               | 13.3            | 17,926.00           |

### Targeting Recommendations

The following avenues are recommendations, as targeting strategies, for Retail and Recreation:

- ⦿ Entrepreneurial development and encouraging business start-ups
- ⦿ Ongoing contact with large national retail companies
- ⦿ Email marketing and awareness campaigns to surrounding communities and states in order to create awareness of specific opportunities within Amherst County, such as available retail space

Initial target lists can be built from online resources such as Hoovers, Avention, InfoUSA, and industry associations. As lists are built, we search for companies fitting the target using industry codes and business descriptions. The company research process evaluates each company, as well as, their fit with Amherst assets, benefits and culture.

Selected industry associations relevant to this target include:

- ⦿ North American Retail Hardware Association – [www.nrha.org](http://www.nrha.org)
- ⦿ Healthcare Supply Chain Association - [www.supplychainassociation.org](http://www.supplychainassociation.org)
- ⦿ National Sporting Goods Association – [www.nsga.org](http://www.nsga.org)
- ⦿ National Retail Federation – [www.nrf.com](http://www.nrf.com)
- ⦿ International Council of Shopping Centers – [www.icsc.org](http://www.icsc.org)
- ⦿ American Hotel & Lodging Association – [www.ahla.com](http://www.ahla.com)
- ⦿ National Restaurant Association – [www.restaurant.org](http://www.restaurant.org)
- ⦿ The National Council of Chain Restaurants – [www.nccr.net](http://www.nccr.net)

### Segment Summaries

#### **44411 Home Improvement Stores**

**DEFINITION** Stores in this industry sell a range of home repair and maintenance goods, such as hardware, tools, electrical goods, lumber, and structural material for construction and renovations. Hardware stores, which are generally smaller and consequently sell fewer items, are excluded from this industry. Home improvement companies purchase goods from manufacturers and wholesalers, and sell them to end users, such as do-it-yourself consumers and professional contractors.

#### KEY EXTERNAL DRIVERS

- Per capita disposable income
- Private spending on home improvements
- Housing starts
- Number of households

#### KEY SUCCESS FACTORS

- Having a loyal customer base
- Having a wide and expanding product range
- Ability to control stock on hand
- Experienced work force
- Attractive product presentation
- Links with suppliers

**OUTLOOK** During the five years to 2021, high levels of demand for home improvement equipment and services will continue to drive industry growth. In 2016, IBISWorld expects unemployment to remain low and per capita disposable income to rise; as these macroeconomic conditions improve, general consumer sentiment will likely continue to rise, increasing consumers' willingness and ability to purchase discretionary products. Private spending on home improvement is expected to rise at an annualized rate of 2.9% over the next five years, driving increased demand for industry products and services. As a result, IBISWorld estimates revenue for the Home Improvement Stores industry will increase at an annualized rate of 3.2% to \$192.3 billion over the next five years.

The industry is also expected to remain highly concentrated and competitive over the next five years. As companies engage in significant price competition and hire more skilled workers, high industry concentration and labor cost increases will constrain profit growth. However, as industry players continue to introduce high-margin, high-tech products to their shelves, average industry profit margins are expected to increase slightly, to total 9.8% of industry revenue by 2021.

#### **44611 Pharmacies and Drug Stores**

**DEFINITION** Pharmacies and drug stores retail a range of prescription and over-the-counter medications, health and beauty items, toiletries, and consumable goods directly to consumers on a walk-in basis. Industry companies may also provide basic health and photo processing services. The industry includes retail stores with a pharmacy but excludes mail-order retailers, hospitals and clinics.

## KEY EXTERNAL DRIVERS

- Per capita disposable income
- Number of people with private health insurance
- External competition for the pharmacies and drug industry
- Number of adults aged 65 or older
- Number of physician visits
- Federal funding for Medicare and Medicaid

## KEY SUCCESS FACTORS

- Ability to control stock on hand
- Participation in pharmacy benefit management (PBM) networks
- Superior financial management and debt management
- Easy access for clients
- Proximity to key markets
- Experienced work force

**OUTLOOK** Pharmacies and drug stores will prove to be indispensable over the next five years, as the industry will be an integral component in providing preventive care. As the number of insured individuals is expected to rise over the period due to healthcare reform, many individuals will have lower out-of-pocket costs for prescriptions. This trend, coupled with rising per capita disposable income, will enable more individuals to be compliant with their prescription dosages and refills, thus benefiting the industry.

Over the five years to 2021, industry revenue is forecast to rise at an annualized rate of 6.1% to \$374.2 billion due to the projected shortage of primary care physicians, according to the US Department of Health and Human Services. This trend will enable more pharmacies and drug stores to provide preventive care services. Profit is expected to rise from 3.3% of industry revenue in 2016 to 3.9% in 2021, which can be attributed to the industry dispensing more high-margin drugs, including biologic drugs.

## 44619 Health Stores

**DEFINITION** The Health Stores industry includes retailers that primarily sell health and personal care products. Industry establishments include nutritional supplement stores, convalescent and prosthetic supply stores, and specialized medical supply stores.

## KEY EXTERNAL DRIVERS

- Healthy eating index
- Per capita disposable income
- Median age of the population
- Research and development expenditure
- Percentage of services conducted online

## KEY SUCCESS FACTORS

- Ability to control stock on hand
- Ability to alter goods and services sold in favor of market conditions
- Establishment of brand names
- Easy access for clients
- Experienced work force
- Having a supply contract

**OUTLOOK** Rising demand for dietary supplements, paired with an aging population, will benefit the Health Stores industry's performance over the next five years. Even so, increased competition from e-commerce sites and heightened regulatory constraints are expected to threaten the industry. Consequently, revenue is anticipated to rise a slightly slower annualized 1.3% to \$24.9 billion during the five years to 2021.

### **45111 Sporting Goods Stores**

**DEFINITION** Sporting goods stores primarily retail new sporting goods, including bicycles, camping equipment, exercise and fitness equipment, apparel, footwear, and other goods and accessories. Products are sourced from sporting goods manufacturers and wholesalers and then sold to the general public via retail stores.

#### **KEY EXTERNAL DRIVERS**

- Per capita disposable income
- External competition for the sporting goods stores industry
- Participation in sports
- Number of adolescents ages 10 to 19

#### **KEY SUCCESS FACTORS**

- Production of goods currently favored by the market
- Management of seasonal production
- Attractive product presentation
- Economies of scope
- Having contacts in key markets

**OUTLOOK** Over the next five years, the Sporting Goods Stores industry will grow as an increase in the sports participation rate spurs demand for industry goods. The sports participation rate is anticipated to grow 1.8% in the five years to 2021, causing more individuals to require athletic apparel and footwear for their sporting activities. Furthermore, rising consumer per capita disposable income, coupled with more health-conscious individuals, will stimulate industry revenue growth, as more consumers require sporting goods for their health and fitness regimens.

While more consumers will purchase high-quality, high-margin sporting goods over the next five years, the industry will still contend with intensifying competition from mass merchandisers and department stores, which also include sporting goods in their product portfolio. Nevertheless, industry revenue is forecast to grow at an annualized 2.7% to \$55.4 billion over the five years to 2021, including a 2.9% increase in 2016 thanks to robust demand from adolescents aged 10 to 19, a demographic that typically drives athletic footwear sales. Profit is expected to remain fairly steady as a portion of revenue over the next five years. Industry operators specializing in niche markets and product portfolios, such as attracting active elderly clientele with sporting goods for individuals with osteoporosis and arthritis, will prop up margins. However, these gains will be slightly mitigated by heightening external competition to the average industry sporting goods store, limiting overall average profit growth.

### **45211 Department Stores**

**DEFINITION** Department stores retail a broad range of general merchandise, such as apparel, jewelry, cosmetics, home furnishings, general household products, toys, appliances, and sporting goods. Discount department stores, which are also included in this industry, retail similar lines of goods at low prices.

#### KEY EXTERNAL DRIVERS

- Per capita disposable income
- Percentage of services conducted online
- Population
- World price of crude oil

#### KEY SUCCESS FACTORS

- Ability to control stock on hand
- Experienced work force
- Ability to expand and curtail operations rapidly in line with market demand
- Attractive product presentation
- Having a wide and expanding product range

**OUTLOOK** The Department Stores industry will continue to contract over the five years to 2021, albeit at a slower rate. On the strength of economic recovery, revenue declines are forecast to slow to an annualized rate of 1.8% during the period, totaling \$150.1 billion. Growing competition from online retailers is expected to place further price pressures on industry operators, while even more companies shift to the Warehouse Clubs and Supercenters industry (IBISWorld report 45291). To effectively compete, operators will target niche luxury consumers or expand their outlet store presence.

#### *45291 Warehouse Clubs and Supercenters*

**DEFINITION** This industry includes large stores that primarily retail a general line of grocery products, along with merchandise items (e.g. apparel and appliances). Warehouse clubs offer customers a wide selection of goods, often in bulk, at discounted prices, in exchange for a membership fee paid by each customer. Supercenters are large discount department stores that also sell perishable groceries. However, unlike warehouse clubs, supercenters do not have membership requirements for customers.

#### KEY EXTERNAL DRIVERS

- Corporate profit
- Per capita disposable income
- Percentage of services conducted online
- World price of crude oil

#### KEY SUCCESS FACTORS

- Having a loyal customer base
- Ability to control stock on hand
- Having a wide and expanding product range
- Economies of scale
- Control of distribution

**OUTLOOK** The Warehouse Clubs and Supercenters industry is forecast to continue expanding over the five years to 2020 as the economy expands, with revenue growing at an anticipated annualized rate of 2.4% to \$506.9 billion. Large industry stores will be one of the retail sector's primary beneficiaries of a forecast multi-year rise in spending, which will be supported by growing consumer confidence, business sentiment and disposable income. Moreover, oil prices are expected to rebound over the next five years and will bolster industry revenue through higher gasoline prices. Heightened competition from retailers will nonetheless pose a growing threat to industry operators.

### **45391 Pet Stores**

**DEFINITION** Pet stores sell a variety of pets, including dogs, cats, fish, and birds. Stores also sell pet foods and pet supplies, such as collars, leashes, health and beauty aids, shampoos, medication, toys, pet containers, dog kennels, and cat furniture. Some stores also offer pet services, such as grooming and training.

#### **KEY EXTERNAL DRIVERS**

- Number of pets (cats and dogs)
- Per capita disposable income
- Percentage of services conducted online
- Number of households

#### **KEY SUCCESS FACTORS**

- Attractive product presentation
- Experience work force
- Proximity to key markets
- Economies of scope
- Effective quality control

**OUTLOOK** The Pet Stores industry will continue to fetch a growing share of the consumer dollar over the next five years as pet owners opt to spoil their pets. In addition to rising pet ownership, improving economic conditions will boost consumer spending and encourage customers to purchase price-premium pet products and services. As a result, industry revenue is projected to increase at an annualized rate of 3.1% to \$21.6 billion over the five years to 2021. Despite this growth, the Pet Stores industry will continue to combat strong competition from grocery stores, mass merchandisers, and a growing number of online-only retailers.

### **72111 Hotels and Motels**

**DEFINITION** Operators in this industry provide short-term lodging in hotels, motor hotels, resort hotels, and motels. Establishments may also offer food and beverage services, recreational services, conference room and convention services, laundry services, parking, and other services.

#### **KEY EXTERNAL DRIVERS**

- Domestic trips by US residents
- Consumer Confidence Index

- Consumer spending
- Inbound trips by non-US residents

- Access to a multi-skilled and flexible workforce
- Being part of a franchising chain
- Receiving the benefit of word-of-mouth recommendations
- Proximity to key markets
- Ability to quickly adopt new technology
- Ability to control stock on hand

## KEY SUCCESS FACTORS

**OUTLOOK** The Hotels and Motels industry is expected to experience another five years of consistent growth. The industry will expand as a result of a still-steady global economy, and tourism and business travel rates will increase as a result of improved consumer confidence. Over the five years to 2021, IBISWorld forecasts that revenue will increase at an annualized rate of 2.6% to \$195.3 billion.

Nevertheless, as global markets are still experiencing significant volatility after recent events, particularly within China, resulting from their rapidly expanding economy experiencing a slowdown, demand from international travel could potentially wane somewhat for industry operators within specific regions. Furthermore, recent volatility in commodity prices, coupled with alarming levels of household debt within Canada, as well as ongoing issues within the Eurozone, have also contributed to this recent uncertainty, and could potentially hamper demand from international visitors over the next five years. Families who otherwise would spend liberally on a trip overseas may postpone such plans, choose to travel domestically, or alter their trips abroad to curtail spending, resulting in tempered growth for international tourist arrivals. As a result, operators must remain vigilant, offering deals when possible and encouraging consumers to travel to their establishments over others to maximize revenue growth.

## 72211 Chain Restaurants

**DEFINITION** The industry comprises chain and franchised restaurants that provide food services to patrons who order and are served while seated (i.e. waiter or waitress service), and pay after eating. These establishments may provide this type of food service to patrons in combination with selling alcoholic and other beverages.

## KEY EXTERNAL DRIVERS

- Consumer spending
- Consumer Confidence Index
- Health eating index
- Households earning more than \$100,000

## KEY SUCCESS FACTORS

- Access to a multi-skilled and flexible workforce
- Ability to quickly adopt new technology
- Proximity to key markets
- Ability to control stock on hand
- Fast adjustments made to changing regulations
- Ability to franchise operations

**OUTLOOK** The Chain Restaurants industry will improve in line with the economy over the next five years. A lower unemployment rate and rising per capita income will encourage consumers to increase their spending on small luxuries such as eating out. Consumer spending is forecast to increase at an annualized rate of 2.8% over the next five years. However, full-service chain restaurants will continue to face rising competition from fast food and fast casual restaurants that offer more value-oriented products. As a result, IBISWorld projects that industry revenue will grow at an annualized rate of 2.0% to \$118.6 billion over the five years to 2021.

Despite the industry's continued growth, intense competition will likely persist throughout the next five years. Fierce price-based competition from fast food and fast casual restaurants will place increased emphasis on product development. Chain restaurants will need to continually innovate their menus to stay relevant. Most chain restaurants will expand their current product lines and further shift toward healthy menu items. For example, many operators will emphasize meals options such as fresh salads and gluten-free items as they seek to expand revenue and profit.

### **72211 Single Location Full-Service Restaurants**

**DEFINITION** This industry includes single-location, independent or family-operated restaurants that provide food services to patrons who order and are served while seated (i.e. waiter and waitress service), and pay after eating. These establishments may sell alcoholic and other beverages, in addition to providing food services to guests.

#### **KEY EXTERNAL DRIVERS**

- Consumer spending
- Consumer Confidence Index
- Health eating index
- Households earning more than \$100,000

#### **KEY SUCCESS FACTORS**

- Access to a multi-skilled and flexible workforce
- Ability to quickly adopt new technology
- Attractive product presentation
- Proximity to key markets
- Ability to control stock on hand
- Ensuring pricing policy is appropriate

**OUTLOOK** The Single Location Full-Service Restaurants industry's growth is expected to continue over the next five years as consumers allocate a greater proportion of their budgets to meals outside the home. Restaurants will benefit as the economy improves and unemployment rates decline, leading to more consumer indulgences, such as dining out. Over the five years to 2021, consumer spending is expected to increase at an average annual rate of 3.0%, representing a slightly faster rate of growth than the previous five years. Consumer confidence, a leading indicator for spending patterns, is

also expected to enjoy a healthy uptick over the next five years. However, slightly slower growth in the amount of households earning more than \$100,000 annually could potentially pressure industry operators who cater to demand for more niche, higher-end offerings. As a result of these trends, industry revenue is projected to increase at an average annual rate of 2.4% to \$204.2 billion.

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## Education and Knowledge Services

### Cluster Definition (NAICS Codes)

51113 Book Publishing

51121 Software Publishing

51911 News Syndicates

51913 Search Engines and Internet Publishing and Broadcasting

61131 Colleges & Universities and For-Profit Universities

61151 Trade & Technical Schools

61161 Fine Arts Schools

61163 Language Instruction

61169 Tutoring & Driving Schools

61171 Testing and Educational Support

### Industry Vitals

| Target Sector                           | NAICS | Description                          | Revenue (\$bn) | Profit (\$bn) | Annual Growth 10-15 (%) | Annual Growth 16-21 (%) | Revenue per Employee (\$'000) | Wages % of Revenue | Emp. per Estab. | Wages/Employee (\$) |
|-----------------------------------------|-------|--------------------------------------|----------------|---------------|-------------------------|-------------------------|-------------------------------|--------------------|-----------------|---------------------|
| <b>Education and Knowledge Services</b> |       |                                      |                |               |                         |                         |                               |                    |                 |                     |
|                                         | 51113 | Book Publishing                      | 30.5           | 2.4           | -0.3%                   | 1.8%                    | 330.0                         | 17.3               | 3.2             | 57,006.40           |
|                                         | 51121 | Software Publishing                  | 192.7          | 40.1          | 3.6%                    | 3.0%                    | 430.7                         | 33.8               | 40.3            | 145,432.70          |
|                                         | 51911 | News Syndicates                      | 2.3            | 0.2           | -0.3%                   | 1.9%                    | 287.9                         | 30.0               | 15.8            | 86,393.10           |
|                                         | 51913 | Search Engines                       | 30.7           | 5.0           | 6.2%                    | 5.0%                    | 1,650.9                       | 16.0               | 14.2            | 264,854.30          |
|                                         | 51913 | Internet Publishing and Broadcasting | 39.4           | 9.4           | 9.6%                    | 5.6%                    | 260.0                         | 23.9               | 3.0             | 62,080.60           |
|                                         | 61131 | Colleges & Universities              | 500.6          | 54.6          | 1.6%                    | 2.2%                    | 163.0                         | 55.2               | 1,337.9         | 89,937.90           |
|                                         | 61131 | For-Profit Universities              | 22.7           | 1.9           | -5.6%                   | 1.3%                    | 181.6                         | 47.0               | 94.4            | 85,289.70           |
|                                         | 61151 | Trade & Technical Schools            | 13.5           | 1.3           | -1.3%                   | 1.3%                    | 104.6                         | 37.2               | 14.8            | 38,893.20           |
|                                         | 61161 | Fine Arts Schools                    | 4.3            | 0.2           | 2.0%                    | 2.5%                    | 47.7                          | 33.7               | 6.7             | 16,092.20           |
|                                         | 61163 | Language Instruction                 | 1.6            | 0.1           | 3.3%                    | 1.9%                    | 47.2                          | 31.8               | 2.8             | 15,001.00           |
|                                         | 61169 | Tutoring & Driving Schools           | 9.6            | 0.6           | -1.9%                   | 1.9%                    | 31.5                          | 40.7               | 1.9             | 12,819.10           |
|                                         | 61171 | Testing and Educational Support      | 13.7           | 0.7           | 0.9%                    | 2.5%                    | 119.4                         | 36.9               | 13.9            | 44,064.50           |

### Targeting Recommendations

The following avenues are recommendations, as targeting strategies, for Education and Knowledge Services

- ⊙ National, ongoing lead generation program
- ⊙ Entrepreneurial development and encouraging business start-ups
- ⊙ Networking and partnering with educational institutions
- ⊙ Email marketing and awareness campaigns to surrounding communities and states in order to create awareness of specific opportunities within Amherst County, such as available office space

Initial target lists can be built from online resources such as Hoovers, Avention, InfoUSA, and industry associations. As lists are built, we search for companies fitting the target using industry codes and business descriptions. The company research

process evaluates each company, as well as, their fit with Amherst assets, benefits and culture.

Selected industry associations relevant to this target include:

- 🕒 The Association of American Publisher – [www.publishers.org](http://www.publishers.org)
- 🕒 Independent Book Publishers Association - [www.ibpa-online.org](http://www.ibpa-online.org)

## Segment Summaries

### 51113 Book Publishing

**DEFINITION** The Book Publishing industry edits and designs books. Book publishers also engage in marketing activities and make distribution agreements with operators in the Book, Magazine, and Newspaper Wholesaling industry.

#### KEY EXTERNAL DRIVERS

- E-commerce sales
- Number of college students
- Per capita disposable income
- Price of paper
- Percentage of services conducted online

#### KEY SUCCESS FACTORS

- Management of a high-quality assets portfolio
- Control of distribution agreements
- Establishment of brand names
- Ensuring the pricing policy is accurate

**OUTLOOK** Improving consumer sentiment, rising college enrollment and a new nationwide K-12 standard are expected to generate higher demand for books during the five years to 2021. However, looming threats, such as an industry-wide lawsuit for price fixing, threaten to limit growth in revenue. As a result, IBISWorld forecasts revenue for the Book Publishing industry to increase only slightly in the next five years, at an average annual rate of 1.8% to \$33.3 billion.

### 51121 Software Publishing

**DEFINITION** Software publishers disseminate licenses to customers for the right to execute software on their own computers. Operators in this industry market and distribute software products and may also design the software, produce support materials, and provide support services.

#### KEY EXTERNAL DRIVERS

- Private investment in computers and software
- Number of mobile internet connections
- Corporate profit

- Demand from video games
- Government consumption and investment
- Percentage of households with at least one computer
- Per capita disposable income

## KEY SUCCESS FACTORS

- Undertaking technical research and development
- Protection of patents
- Access to highly skilled workforce
- Access to the latest available and most efficient technology and techniques
- Effective marketing
- Having a high profile in the market

**OUTLOOK** The Software Publishing industry is expected to continue growing over the five years to 2020. As private investment in computers and software continues to increase, and the proportion of households with at least one computer surges to more than 90.0%, software license purchases will follow suit. Increases in government spending and growth in mobile internet connections and smartphone ownership rates will also support industry growth, especially with security software.

In addition, higher corporate profit among downstream industries, such as healthcare and finance, and booming demand for security products and video games are expected to strongly contribute to revenue growth. Consequently, industry revenue is forecast to increase an annualized 3.0% to \$222.9 billion by 2020. Constantly improving technology and falling hardware prices will make computers, cell phones, video games, and, ultimately, software more accessible to more people. Businesses will continue to use information technology to increase efficiency and security. For example, a major feature of the Obama administration's 2010 healthcare reform plan involves supplying tax incentives for health insurers and medical professionals to switch from paper-based record systems to digital records. Finance, insurance, and healthcare companies also increasingly use security software, such as fraud detection, to protect the vast amounts of data they store. Competence in software programs is expected to become a prerequisite to employment in a wide range of industries.

## 51911 News Syndicates

**DEFINITION** This industry includes companies engaged in supplying information on current events like news reports, articles, photography, and features to the news media.

## KEY EXTERNAL DRIVERS

- Demand from publishing industries
- Print advertising expenditure
- External competition for the news syndicates industry
- Percentage of services conducted online
- Corporate profit

## KEY SUCCESS FACTORS

- Prompt deliver to market
- Having marketing expertise
- Ability to quickly adopt new technology
- Controls of distribution arrangements
- Production of premium goods/services

**OUTLOOK** Demand for syndicated news will grow as media outlets continue to seek out online and mobile news content. To meet this demand, syndicates are providing individual publications with timely multimedia packages alongside their traditional printed content. The News Syndicates industry's revenue is forecast to grow at an annualized rate of 1.9% to \$2.5 billion over the five years to 2021. This growth will occur steadily over the next five years, with revenue anticipated to climb 1.9% in 2017.

### **51913 Search Engines**

**DEFINITION** This industry includes enterprises that operate search engines and other types of search-based websites that display advertisements. These search engines typically provide search services for free and earn income when a user clicks on an advertising link, known as a "paid click." Websites may attract users to their search engines by offering a range of additional free services, such as e-mail, news, social networking, entertainment, and other information.

#### **KEY EXTERNAL DRIVERS**

- Number of mobile internet connections
- Consumer spending
- Percentage of services conducted online
- Total advertising expenditure
- Demand from internet publishing and broadcasting

#### **KEY SUCCESS FACTORS**

- Quick adoption of new technology
- Strong branding
- A highly skilled workforce
- Economies of scale
- Effective quality control

**OUTLOOK** As the number of mobile internet connections and the percentage of services conducted online continue to increase, the amount of advertising money spent in the Search Engines industry is expected to rise accordingly. Renewed confidence in consumer spending and the increasing prominence of internet advertising will also contribute to this aggressive shift in advertising expenditure to search engine marketing. Industry revenue is thus expected to increase an annualized 5.0% over the five-year period, reaching \$39.2 billion in 2020, including growth of 7.8% expected in 2016. Large search engines that grow their user bases and continually improve their advertising technology will capture most of this growth. Moreover, Google, Yahoo, and Microsoft, the industry's dominant players, will aggressively compete for users and advertisers in both the PC and mobile search markets.

### **51913 Internet Publishing and Broadcasting**

**DEFINITION** This industry includes organizations and individuals that offer nonphysical products, such as news, music, and video, exclusively through the internet. Revenue in this industry is derived from the sale of advertising space or subscriptions to consumers. In addition, companies may derive revenue from intellectual property licensing and the sale of user information to third parties.

### KEY EXTERNAL DRIVERS

- Number of mobile internet connections
- Total advertising expenditure
- Demand from search engines
- Demand from television broadcasting
- Internet traffic volume

### KEY SUCCESS FACTORS

- Developing a clear niche
- Word of mouth recommendations
- Attracting advertisers
- Protection intellectual property/copyrighting of output

**OUTLOOK** Over the five years to 2020, the Internet Publishing and Broadcasting industry is projected to grow rapidly, as advertisers continue to shift resources toward internet and mobile platforms. This expected growth is largely a result of the influx of mobile internet connections expected to come into existence in the United States over the five-year period. Advertisers are expected to continue aggressively targeting internet users through social media and other content sites and applications. The internet content publishers that will benefit the most from this increased advertising expenditure are the industry's well-established major players and smaller players that develop specialized mobile applications or publish original content that pertains to a niche market. Medium-size operators will struggle to compete with the efficiency of major players' advertising networks and will likely exit the industry or be absorbed by larger players looking to acquire patents or specific skill sets. Over the five years to 2020, industry revenue is anticipated to increase at an annualized rate of 5.6% to \$51.7 billion.

### *61131 Colleges and Universities*

**DEFINITION** This industry includes public and private universities and colleges that offer academic courses and grant baccalaureate or graduate degrees. The requirement for admission is a high school diploma or equivalent general academic training. Instruction is typically provided on physical campuses, although online education and other unorthodox settings are gaining popularity.

### KEY EXTERNAL DRIVERS

- Government funding for universities
- External competition for the colleges and universities industry
- High school retention rate
- S&P 500
- National unemployment rate

### KEY SUCCESS FACTORS

- Experienced professors
- Ability to take advantage of government subsidies and other grants
- Ability to respond to students' needs
- Having a good reputation
- Ability to raise revenue from additional sources
- Effective cost controls

**OUTLOOK** Over the five years to 2021, the Colleges and Universities industry is projected to exhibit steady growth. Labor market improvements will likely cause some individuals to seek employment rather than higher education, though a growing number of new high school graduates will keep college enrollment strong. The growth of online education, through platforms like Coursera, edX, and Udacity, will also enable colleges to offer services to a rising number of nontraditional students. These courses may increase interest in industry institutions, boosting enrollment and revenue. In all, over the five years to 2021, the number of college students is anticipated to increase at an annualized rate of 0.9% to 23.0 million. Government funding for universities is also anticipated to rise as state budget deficits narrow. As a result, IBISWorld forecasts that industry revenue will grow an average 2.2% per year to \$595.2 billion over the five years to 2021.

International student enrollment is anticipated to rise over the five years to 2021. US institutions are still extremely competitive on a global scale, occupying many of the top spots in world university rankings. Universities and colleges will likely make education more accessible to international students by expanding their use of distance education technologies, developing links with other colleges across the world and improving their marketing efforts. Online distance education will enable industry operators to increase enrollment without major facility expansions.

### **61131 For-Profit Universities**

**DEFINITION** This industry includes colleges and universities that offer academic courses at associate, baccalaureate or graduate levels on a for-profit basis. A high school diploma or equivalent general academic training is an admission requirement. Instruction may be provided in a variety of settings, such as educational institutions, the workplace, the home, training facilities and through correspondence, TV, the internet or other electronic or distance-learning means.

#### **KEY EXTERNAL DRIVERS**

- External competition for the for-profit universities industry
- High school retention rate
- National unemployment rate
- Per capita disposable income
- Percentage of services conducted online

#### **KEY SUCCESS FACTORS**

- Ability to take advantage of Title IV programs
- Having a good reputation
- Aggressive marketing and recruiting
- Ability to respond to students' needs
- Accessibility to online users
- Being an accredited institution

**OUTLOOK** In the five years to 2021, IBISWorld forecasts that revenue for the For-Profit Universities industry will increase at an average annual rate of 1.3% to \$24.3 billion. Heightened regulation and scrutiny will keep industry growth slow, especially when compared with the industry's astronomical rise in the years before 2012. Despite increased lobbying efforts, operators are anticipated to have to contend with new rules that oversee admissions standards, gainful employment and access to federal financial aid programs.

Criticism regarding these issues came to a head in 2010, when the US Government Accountability Office and Congress launched investigations into the industry. In response, proposals have recently been drafted and submitted to minimize what is viewed as government waste. Operators have had to modify incentive-based compensation, which will affect the way that for-profit admissions departments are managed. Furthermore, additional standards will likely be implemented, affecting the state authorization process. Operators will need to adhere to these standards, making it more difficult to retain access to Title IV student financial aid programs. Ultimately, the outcomes of new proposals caused by those investigations will determine how the industry operates and to what degree it grows during the five years to 2021.

### **61151 Trade and Technical Schools**

**DEFINITION** This industry includes schools that offer vocational and technical training in a variety of technical subjects and trades. Training often leads to job-specific certification. Instruction may be provided in diverse settings, such as the company's training facilities, the workplace, the home, or through distance-learning methods. Major segments include cosmetology and barber schools, flight training, apprenticeship training, and other technical training.

#### **KEY EXTERNAL DRIVERS**

- Government funding for universities
- National unemployment rate
- Number of adults 20 to 64
- Consumer Confidence Index
- High school retention rate

#### **KEY SUCCESS FACTORS**

- Timely compliance with government regulations
- High prior success rate (including completed prior contracts)
- Ability to alter goods and services produced in favor of market conditions
- Ability to take advantage of government subsidies and other grants
- Accreditation and good reputation
- Strong recruiting networks and industry relationships

**OUTLOOK** Over the five years to 2021, IBISWorld projects the Trade and Technical Schools industry will grow by an annualized 1.3% to \$14.4 billion, including a projected 0.4% increase in 2017. Growth will be determined by continued changes in the makeup of the US economy, affecting demand for training offered by this industry. The industry will also be affected by the increasing high school retention rate and government policies concerning vocational education and higher education in general. With unemployment projected to decrease by only an annualized 0.4% over the period, the steep reduction in demand from the unemployed the industry faced in recent years is expected to subside. Additionally, government funding for universities, combined with the increasing tuition of four-year colleges, will boost enrollment in vocational training. With consumer confidence recovering in stride with the economy and employment,

the memory of the effects of the financial crisis will fade and individuals are expected to re-enter the job market while seeking some training to improve their chances of being hired in a competitive environment.

### **61161 Fine Arts Schools**

**DEFINITION** This industry primarily includes establishments that offer instruction in the arts, including art, dance, drama, music, and photography.

#### **KEY EXTERNAL DRIVERS**

- Demand from donations, grants and endowments
- Federal funding for creative arts
- Corporate profit
- Per capita disposable income
- Number of K-12 students
- Access to volunteer labor
- Ability to attract local support/patronage
- Ability to educate the wider community
- Ability to take advantage of government subsidies and other grants
- Ability to alter goods and services produced in favor of market conditions
- Having a good reputation

#### **KEY SUCCESS FACTORS**

**OUTLOOK** Fine arts schools will continue to face an uphill battle against the slowly recovering economy and government funding cuts over the next five years to 2020. Lingering effects of endowment fund mismanagement and austerity measures will place pressure on the industry to look for outside means to generate revenue. Regardless, the industry will benefit from improving corporate profit and rising per capita disposable income. Revenue is forecast to increase at an annualized 2.5% to \$4.8 billion during the five years to 2020. Growth is projected to start strong at 3.7% in 2016, but will begin decelerating during the remainder of the period.

### **61163 Language Instruction**

**DEFINITION** Language schools offer language instruction ranging from conversational skills for personal enrichment to intensive training courses for career or educational opportunities. Schools teach foreign languages, sign language, and English as a second language.

#### **KEY EXTERNAL DRIVERS**

- Corporate profit
- Number of immigrants
- International trips by US residents
- Time spent on leisure and sports
- Per capita disposable income

#### **KEY SUCCESS FACTORS**

- Easy access for clients
- Provision of a related range of goods/services ("one-stop shop")
- Ability to alter goods and services produced in favor of market conditions

- Having a high profile in the market
- Having a good reputation
- Being part of a franchising chain

**OUTLOOK** Like the previous five years, downstream demand is anticipated to improve in 2016 as outbound tourism, disposable income and corporate profit rise. The Language Instruction industry will also build on its success in the online, corporate and international markets to fuel growth. A growing number of international travelers will boost demand for language schools. Furthermore, steady immigration levels will support long-term demand for English-language courses in the domestic market. Demand for language training will also grow as the US population becomes more diverse and businesses attempt to target the new demographic markets. As a result, in the five years to 2020, IBISWorld projects that revenue will grow an annualized 1.8% to \$1.7 billion, including a 1.4% rise in 2016.

In particular, as the economic recovery quickens, industry operators will benefit from improving corporate profit. Business performance impacts industry growth because corporations are becoming an increasingly important market for language schools. Strong corporate profit growth will allow companies to continue international expansions and employee training programs. As a result, demand for language instruction will increase. Although large operators will be better positioned to service multinational companies, opportunities exist for small operators in niche markets. Intensive language and cultural training will remain popular services, and providers will broaden course offerings to cover a range of business functions, such as human resources and leadership training. By increasing the value of courses, industry operators can charge higher fees, increasing revenue and profitability.

### **61169 Tutoring and Driving Schools**

**DEFINITION** This industry includes exam preparation and tutoring services, automobile driving schools, and various other educational services. Academic schools, colleges, and universities are excluded from this industry, as are schools offering instruction in business, management, computers, technical and trade areas, fine arts, athletics and languages.

#### **KEY EXTERNAL DRIVERS**

- Per capita disposable income
- Government funding for primary and secondary education
- Number of college students
- Number of K-12 students
- Number of employees

#### **KEY SUCCESS FACTORS**

- Being part of a franchising chain
- Understanding government policies and their implications
- Having a high prior success rate (including completed prior contracts)
- Having a high profile in the market
- Having a good reputation
- Must have license

**OUTLOOK** IBISWorld projects revenue for the Tutoring and Driving Schools industry will grow at an annualized 1.9% to \$10.5 billion over the five years to 2020, including a 2.1%

increase in 2016. The tutoring and test preparation segment will continue to lead the industry's performance, but revenue will also be bolstered by the increasing number of students enrolling in discretionary services. Moreover, improving per capita disposable income will support this segment's recovery, as consumers spend more on nonessential courses and training, such as self-defense classes, yoga instruction and charm schools.

An increase in the number of total students during the next five years will also positively affect industry demand. In the five years to 2020, the number of college students is expected to increase at an average rate of 1.4% per year to 22.8 million. Similarly, dropout rates among school-aged children are expected to decrease as the labor market becomes more competitive, giving students greater incentive to complete their schooling and enroll in tutoring and similar services. Furthermore, high enrollment and graduation rates will lead to increased competition among students for college placement, ultimately boosting demand for test preparation services. This factor bodes well for revenue growth in the tutoring and test preparation segment, as competition remains high for college and specialized post-graduate course entry. Increasing competition for college entrance will also improve profit margins, however, profit growth will be hampered by a growing number of online competitors, which will significantly contribute to price competition.

### **61171 Testing and Educational Support**

**DEFINITION** Operators in this industry provide non-instructional support services for education industries. The major segments of this industry are educational testing services and educational consultants.

#### **KEY EXTERNAL DRIVERS**

- Government funding for primary and secondary education
- Number of college students
- Number of K-12 students
- Per capita disposable income

#### **KEY SUCCESS FACTORS**

- Understanding government policies and their implications
- Fast adjustments made to changing regulations
- Access to highly skilled workforce
- Ability to quickly adopt new technology
- Provision of a related range of goods/services ("one stop shop")
- Having a good reputation

**OUTLOOK** The Testing and Educational Support industry has contended with the effects of state cuts to education, but the news is not all bad. College enrollment will continue to expand over the five years to 2021, and international student growth will continue, driven by high demand from China and India. While tighter state budgets will limit unnecessary expenditure, underlying demand for support services will remain. There is opportunity for expansion in this market considering how underserved some schools are. Meanwhile, legislative changes at the federal level will strongly influence demand for educational testing and consulting services over the next five years. Revenue is

forecast to rise at an annualized rate of 2.5% over the period to reach \$15.5 billion in 2021.

The industry will continue to make productivity gains, spurred by rising competition and government funding. The increased use of the internet for administering tests and delivering results, in addition to improvements in back-office administration, are expected to reduce costs and improve the profitability of testing provider consultants. Nevertheless, wages are anticipated to increase marginally as a proportion of revenue, a continuation of the trend that occurred throughout the five years to 2016. Consequently, this may pressure profitability for operators.

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# Appendix J: Funding Partners

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