



COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY (CEDs)

1. REGIONAL ASSESSMENT
2. STRATEGIC VISION, GOALS, AND KEY INITIATIVES
3. IMPLEMENTATION PLAN

VIRGINIA'S REGION 2000

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Submitted by Market Street Services Inc.
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Adopted by Region 2000 Local Government Council on 11/17/16
Affirmed by Lynchburg Regional Business Alliance on 12/1/16

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PROJECT OVERVIEW

Business and community leaders from Virginia's Region 2000 have come together to update the region's five-year Comprehensive Economic Development Strategy (CEDS). The new strategy will help elevate the region's competitiveness for new jobs and talent, guiding the region's investments in support of economic improvement and prosperity. Upon completion, it will ensure the region's continued eligibility for federal funding from the Economic Development Administration (EDA) in support of such investments. The four-phase research and strategic planning process will last roughly eight months, concluding in October 2016.

PHASE I: STAKEHOLDER ENGAGEMENT

Effective strategies are well-informed strategies. Quantitative research about the region must be complemented by qualitative input; the knowledge and opinions of stakeholders and the public at large are invaluable when identifying the assets to leverage, challenges to overcome, opportunities to pursue, and relevant investments around which the region can unite. Accordingly, the first phase of the process seeks to engage key stakeholders and the public at large through a series of interviews, focus groups, and an online survey to inform all subsequent phases of the process.

PHASE 2: REGIONAL ASSESSMENT

The Regional Assessment will provide a detailed examination of Region 2000's competitiveness as a place to live, work, and do business. The Assessment will present a set of "stories" that frame the issues facing Region 2000 as it seeks to further develop the area's economic prosperity and livability. Collectively, these stories will highlight the region's strengths, weaknesses, opportunities, and challenges as identified by resident and business input and key trends in demographic, socioeconomic, economic, and quality of life indicators. The region's competitiveness will be benchmarked against other metropolitan areas with which it competes for both jobs and workers.

PHASE 3: COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY (CEDS)

The third phase of the process carefully considers the strategic implications of the findings from the first two phases in developing a new five-year Comprehensive Economic Development Strategy (CEDS) to guide collaborative initiatives and proactive investments that support the community's economic development objectives. Strategic recommendations will leverage and reference best practice programs, policies, and initiatives from communities and regions around the country when relevant and appropriate. The resulting CEDS will complement a variety of other plans and initiatives that collectively help define a roadmap for the region's preferred future.

PHASE 4: IMPLEMENTATION PLAN

The final phase of the strategic planning process is the development of an Implementation Plan that supports the effective and efficient implementation of the various CEDS recommendations. Specifically, it will identify lead implementers, key partners, potential costs, and timelines for implementation of each recommendation. Performance metrics for gauging the effectiveness of implementation efforts will also be included.

STEERING COMMITTEE

The following individuals volunteered their time during 2016 to serve on the CEDS Steering Committee and/or provide staff expertise and guidance to the Committee during 2016.

Committee Member

Fred Armstrong
Sarah Bell
Carl Boggess
Alton Brown
Damien Cabezas
John Capps
Stephanie Cox
Kenneth Craig
Michael Elliott
Mayor Joan Foster
Hon. Scott Garrett
Brian Goldman
Todd Hall
Laura Lacy Hamilton
Eric Hansen
Larry Jackson
Bob Leveque
Nat Marshall
Susan Martin
Jim Mercandante
James Mundy
Heather Reynolds
Jim Richards
Dean Rodgers
Frank Rogers
Douglas Schuch
Karen Simonton
Bonnie Svrcek
Jeff Taylor
Luke Towles
Sergei Troubetzkoy

Representing Organization

Wiley | Wilson
Young Professionals of Central Virginia
County of Bedford
News & Advance
Horizon Behavioral Health
Central Virginia Community College
Consensus Real Estate
Liberty University
Centra Health
Lynchburg City Council
Virginia House of Delegates
Goldman Design
First National Bank
Beacon of Hope Lynchburg
Innovative Wireless Technologies
Appalachian Power
RR Donnelly
Region 2000 Workforce Development Board
Bedford Area Chamber of Commerce
CINTAS
Lynchburg Community Action Group
Altavista Chamber of Commerce
Petty, Livingston, Dawson & Richards
County of Amherst
County of Campbell
Bedford County Schools
OrthoVirginia
City of Lynchburg
County of Appomattox
Wells Fargo Bank
Discover Lynchburg

Staff Member

Ben Bowman
Gary Christie
Christine Kennedy
Megan Lucas
Scott Smith
Bob White

Representing Organization

Region 2000 Workforce Development Board
Region 2000 Local Government Council
Lynchburg Regional Business Alliance
Lynchburg Regional Business Alliance
Region 2000 Local Government Council
Region 2000 Local Government Council

REGIONAL ASSESSMENT

As part of the Lynchburg region's ongoing efforts to make the metropolitan area as attractive and supportive as possible for small business growth, existing business expansions, and new business relocations, a Comprehensive Economic Development Strategy (CEDS) process has been initiated by Virginia's Region 2000 Partnership and its regional partners. Through honest and well-informed assessments of the region's competitive position and economic growth, this process will result in a new, holistic strategy that will help the region and the aforementioned organizations focus economic development resources in a manner that maximizes efficiency and effectiveness, enhances prospects for quality growth, and increases well-being for businesses and workers in the Lynchburg region.

This Regional Assessment is the first step in that process; it is a critical step in understanding the region's position and the issues that it faces in an increasingly competitive environment for new jobs, talent, and corporate investment. It examines a wide variety of demographic, socioeconomic, economic, and quality of life indicators to tell a story about the region and uncover the key strengths, weaknesses, assets, and challenges that must be leveraged and addressed in order to support a more vibrant future. This quantitative analysis is complemented by a tremendous amount of community input received from interviews, focus groups, and a public survey. In total, more than 1,200 residents, workers, and businesses from Virginia's Region 2000 shared their input to inform this Assessment and the forthcoming Comprehensive Economic Development Strategy (CEDS).

This Assessment presents this research through the lens of eight stories, each containing important insights that should influence the region's strategic priorities as they relate to community, economic, and workforce development. These eight stories are as follows:

1. Image, Identity, and Influence: The Lynchburg Region and Liberty University
2. Regional Growth Dynamics
3. Attracting, Retaining, and Developing a Future Workforce
4. Quality of Life: What Makes Us "Family Friendly?"
5. Quality of Place: Relative Appeal to Young Professionals
6. Connectivity in Region 2000: Threats to Competitiveness
7. Economic Composition, Diversity, and Resiliency
8. Translating Regional Prosperity to Personal Well-Being

This portion of the CEDS – the Regional Assessment – contains the analysis of regional issues and opportunities (as identified through extensive data analysis and public input) to support the Summary Background and SWOT Analysis components of the EDA's CEDS Content Guidelines. In addition to the analysis included in the Regional Assessment, a Target Sector Analysis, which also provides important background on economic conditions, is included in Appendix A.

RESEARCH METHODS

This Assessment examines the issues facing Virginia's Region 2000 by evaluating them through the prism of what Market Street believes to be the three critical aspects of a community: its **people**, their **prosperity**, and the quality of the **place** in which they live and work. Findings related to these key attributes are incorporated into eight key stories that can frame the discussion of the most important issues impacting the region. These stories represent themes that emerged from extensive public input provided by the region's residents, businesses, and community leaders, as well as in-depth analysis of data covering demographic, socioeconomic, economic, and other relevant trends.

FOCUS GROUPS AND INTERVIEWS: A thorough assessment of a region's strengths, weaknesses, opportunities, and challenges must be informed by input from the people that live and work there. Accordingly, Market Street conducted a series of focus groups and one-on-one interviews with residents and business leaders in the region in March 2016. The input gathered during these discussions has been summarized and incorporated into this assessment when relevant and appropriate. **Public input – including that which was gathered via focus groups, interviews, and an online survey – is differentiated throughout the report and presented in bold, blue text.**

ONLINE SURVEY: In addition to in-person input solicited via focus groups and interviews, an online survey was open to the public for roughly four weeks during March and April 2016. A total of 1,106 residents responded to the survey, providing necessary input that will help ensure that this Regional Assessment and the forthcoming Comprehensive Economic Development Strategy (CEDS) are well-informed and mindful of the needs, wants, and opinions of residents, workers, and businesses in Virginia's Region 2000.

DATA SOURCES: A variety of public and private data sources are used throughout this assessment. A great deal of information is drawn from the Census Bureau and other public sources including the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA), the National Center for Education Statistics (NCES), the Federal Bureau of Investigation (FBI), the Internal Revenue Service (IRS), and the Virginia Department of Education (VDOE). Proprietary data covering economic composition (employment and wages by sector and occupation) are provided by Economic Modeling Specialists International (EMSI).

GEOGRAPHIES: This Assessment examines a variety of regional and intra-regional trends within Virginia's Region 2000, an area that conforms to the federally-defined Lynchburg, VA metropolitan statistical area (MSA). This region includes the four counties of Amherst, Appomattox, Bedford, and Campbell, as well as the City of Lynchburg. Throughout this Assessment the terms "Region 2000," "the region," and "the metropolitan area" are used interchangeably to refer to the Lynchburg, VA metropolitan statistical and its component jurisdictions.

In addition to regional and state averages, the region's performance is benchmarked against three similarly-sized metropolitan areas with which the region may compete for jobs, workers, and investments: Roanoke, VA; Chattanooga, TN, and; Spartanburg, SC. These comparisons provide reference points and necessary context for observed trends in the Lynchburg region. The Roanoke metropolitan area is immediately proximate to the Lynchburg region and while possessing many complementary assets and economic attributes, makes for a logical comparison of growth trajectories and assets. The Spartanburg metropolitan area is a manufacturing-intensive region that, like the Lynchburg region, is home to multiple private institutions of higher education and is immediately proximate to another slightly larger metropolitan area (Greenville). The Chattanooga metropolitan area represents a larger metropolitan comparison that shares some similar demographic, socioeconomic, economic, and geographic (mountains, river, natural amenities) attributes with the Lynchburg region while also being envied by many as an emerging destination for technology entrepreneurs and young people.

1. IMAGE, IDENTITY, AND INFLUENCE: THE LYNCHBURG REGION AND LIBERTY UNIVERSITY

The old adage “perception is reality” is an apt description of one of the unmistakable truths of community and economic development – the way you are perceived by others matters. In a world where the competition for talent is as fierce as the competition for jobs, regions are increasingly mindful of the ways in which they are perceived – positively and negatively – by the outside world. Communities and regions that fail to cultivate an authentic brand identity and proactively broadcast that identity to the world run the risk of being defined by external forces, or perhaps worse, having no definition at all. Many of the most competitive communities in the country have well-known economic and cultural identities that are reinforced over time.

Although contrived community brands are trivial in the realm of community improvement and economic development, authentic brand identities often reflect deep associations with a place and can heavily influence perceptions of a community. Whether it is Asheville’s reputation as a progressive, cultural mecca amidst the Blue Ridge Mountains, the Research Triangle’s reputation as an epicenter of higher education and research activity, or Nashville’s reputation as the “Music City,” authentic brand associations derived from a region’s attributes can have a significant impact on its relative success in attracting and retaining certain businesses, residents, and visitors.

Unfortunately, many public input participants lamented the lack of a strong regional identity and felt that this lack of brand recognition has adversely impacted the region’s competitiveness for talent and corporate investment, as well as its prospects for future growth and prosperity. This lack of a strong identity leads to the possibility of being mischaracterized in a manner that inhibits a community’s ability to attract and retain residents, businesses, and visitors. In fact, many cited confusion among outsiders whereby the region is frequently mistaken for “the home of Jack Daniels” (Lynchburg, Tennessee). But local stakeholders – including both newcomers and lifelong residents – also suggested that the region’s identity is increasingly shaped by what is perhaps its most recognizable institution: Liberty University.

The fact that Liberty University is a chief identifier for the region should surprise no one. After all, it is perhaps the most recognizable Christian university in the world and one of the nation’s largest institutions of higher education. The national media spotlight has been even brighter on Liberty University this year as multiple presidential candidates have held campaign events at the University in the 2016 presidential race. And its growth has unquestionably heavily influenced the region’s growth in recent years and decades to an extent not approached, much less replicated, by any other community institution or external factor. As this Assessment will illustrate, it is difficult to decouple the growth of Liberty University from a variety of trends and competitive considerations in the region. This topic – the tremendous positive impact the institution has had on the region’s growth – will be discussed in greater detail later in this section and throughout other areas of this Assessment.

Before highlighting this impact and positive influence, it must be acknowledged that there is a troubling dichotomy related to brand associations and perceptions of Liberty University and the manner in which they impact the Lynchburg region. Simply put, the public input process revealed that Liberty is a polarizing entity within the Lynchburg region. Many residents view its influence and conservative, Christian values

as a net positive, while others feel this value system has an overall detrimental impact on the community's ability to attract outside residents and employers.

In answering an open-ended survey question about what is the Lynchburg region's greatest strength as a place to live, work, visit, and do business, one survey respondent stated: *"Truly, the strength of the region has its roots in the conservative, Christian values of the area's churches and residents. Lynchburg, with Liberty University's influence, has developed into a small Christian community that attracts young and old looking to live in a community of shared religious values."* **On the opposite end of the spectrum, one survey respondent offered up the following response to a similar question about the region's greatest weakness or challenge:** *"The ever growing shadow of Liberty has a detrimental effect, nationally, on how the town of Lynchburg and Region 2000 are viewed. A great majority of people, when I meet them and tell them I'm from or recruiting for the Lynchburg area, their first question is 'the town with Liberty?' This is followed by politely declining to be recruited as they want a more culturally diverse and open-minded locality for themselves and to raise a family."*

The following figure shows the most common words used by survey respondents in answering an open-ended question about the Lynchburg region's greatest weakness or challenge. Words are scaled in size accordingly to the frequency with which respondents mentioned them.

SURVEY QUESTION: "WHAT IS THE LYNCHBURG REGION'S GREATEST WEAKNESS OR CHALLENGE TO OVERCOME AS A PLACE TO LIVE, WORK, VISIT, AND DO BUSINESS?"



Source: Market Street Services, Region 2000 Community Survey (2016)

As the word cloud shows, “Liberty” and “University” were among the most frequently mentioned words by respondents. In fact, they are the most frequently mentioned terms besides three non-descript words used in many responses: lack, Lynchburg, and area. As with the respondent quoted above, many of these survey respondents spoke to a variety of potentially negative associations with Liberty University. More often than not these negative associations were related to the potential adverse impact that the aforementioned conservative, Christian values have on talent recruitment and corporate recruitment in 2016 and beyond. While the word cloud features many other challenges that have frequently dominated conversations in the region for decades – words such as downtown, entertainment, transportation, interstate, shopping, and jobs – all reflect issues that were discussed in great detail during interviews and focus groups. However, the reality is that the aforementioned dichotomy and concerns regarding the

influence of Liberty University were not raised during these in-person input sessions to the degree to which they are reflected as challenges in the survey comments. That inherent reservation among some residents of the Lynchburg region to discuss this issue in-person with a group of their peers speaks not only to the difficulty associated with expressing these concerns, but also the potential or perceived social repercussions for individuals expressing a sentiment that may not be viewed as wholly supportive of Liberty or Christian values. Of those interviewees and focus group participants who did speak freely, many indicated that it was, in many respects, a “taboo” topic.

To be fair, key stakeholders in the Lynchburg region seem to be aware that important conversations about religion, tolerance, and inclusion need to be had in order to communicate to future generations that the Lynchburg region is in fact a place where everyone is welcomed. In the month of April, the Lynchburg City Schools system began conducting a number of “listening tours” to discuss issues of race and religion in the community, in part as a response to an incident that occurred at a local school. While this is but one example, it indicates that many in the community understand that they need to adopt a culture of tolerance and be vocal in this position. **These conversations are important; any reservation among residents and community leaders to discuss and bring to the forefront an issue that is clearly on many people’s minds inhibits the region from taking any meaningful action, be that to counteract misperceptions, promote positive brand associations with the region, or otherwise confront an issue that many reasonably feel impedes the region’s competitiveness for jobs and talent.**

For many communities, a central focus of their economic development efforts is rooted in developing and maintaining the tangible assets (land, transportation, utilities, etc.) that are a bare necessity to support economic development projects both large and small. However, the location decisions of companies in a variety of sectors are increasingly driven by access to talent. And with access to talent being a central driver of the location decisions of companies, communities are increasingly investing in creating a sense of community and “quality of place” that attracts and retains this talent. In a country that gets more diverse (racially, ethnically, and culturally) with each passing day, tangible and intangible cultural factors are increasingly considerations that influence the location decisions of the talented individuals being sought after by both communities and companies. After all, the only constant in life is change, and as the face and cultural beliefs of the nation continue to change, it would stand to reason that communities hoping to stay competitive for top talent will change accordingly or risk being left behind. Simply put, the lines between what we have traditionally defined as “economic development” and that which has been defined as “workforce development” (i.e. access to talent) or “community development” have blurred substantially.

The tie between culture, tolerance, diversity, and inclusivity in the field of economic development is quite clear based on recent current events. In just the past few months the states of Mississippi, North Carolina, and Georgia have had bills introduced in their state’s legislature – and in some cases signed into law – that advocates in the LGBT community contend would restrict the rights of members of the LGBT community. Putting aside the particular details of these bills, the backlash that their mere debate has drawn from the business community and the national media has been overwhelming. In North Carolina, more than 100 CEOs and corporate executives from a wide-range of global companies signed on to a letter to the state’s governor urging repeal of the bill in question, due primarily to concerns that it would drive away talent and reduce the state’s competitiveness.¹ Other companies have gone even further and stated their intention to remove North Carolina from consideration on economic development projects. In one prominent example, PayPal withdrew

previous plans to expand in Charlotte and create 400 new jobs, due to the company's objections over the bill.ⁱⁱ In Georgia, Governor Nathan Deal ended up vetoing that state's "religious freedom bill" in part based on the significant backlash that the bill received from the business community.ⁱⁱⁱ Meanwhile, in the Lynchburg region, five high school debate teams recently chose not to attend the Virginia High School League state debate championships in response to recent comments from Liberty University's President that were perceived as unwelcoming to Muslims.^{iv} The students' reluctance to attend the state championship received a tremendous amount of media coverage in April 2016.

These examples are but recent chapters in the broader economic development narrative about how perception and culture can drive economic development and talent attraction decisions. And as they illustrate, it is hard to decouple talent from tolerance in modern-day economic development; the two have become so deeply intertwined. Dr. Richard Florida is a noted American urban studies theorist who is most well-known for his research around the "Creative Class," a phrase he coined to describe the knowledge-based workers that he posited are the key to spurring economic prosperity in a post-industrial world. Florida argues that the "three t's" – talent, technology, and tolerance – are necessary foundational principles that communities must embrace in order to remain competitive in a new economy that is increasingly tied to knowledge-based jobs. The talent supporting a technology-intensive economy is increasingly young, diverse, and tolerant, and these workers desire to live and work in communities that are wholly accepting of them and the diversity of their backgrounds and beliefs.

This was validated in 2010 when the Knight Foundation and Gallup released the findings from *The Soul of the Community*, a three-year study that interviewed more than 43,000 people in 26 communities across the country to answer the question: "what attaches people to their community?" The report defines attachment as "an emotional connection to a place that transcends satisfaction, loyalty, and even passion. A community's most attached residents have strong pride in it, a positive outlook on the community's future, and a sense that it is the perfect place for them. They are less likely to want to leave than residents without this emotional connection. They feel a bond to their community that is stronger than just being happy about where they live." According to the Knight Foundation and Gallup, the two most important factors that attach people to their community are:

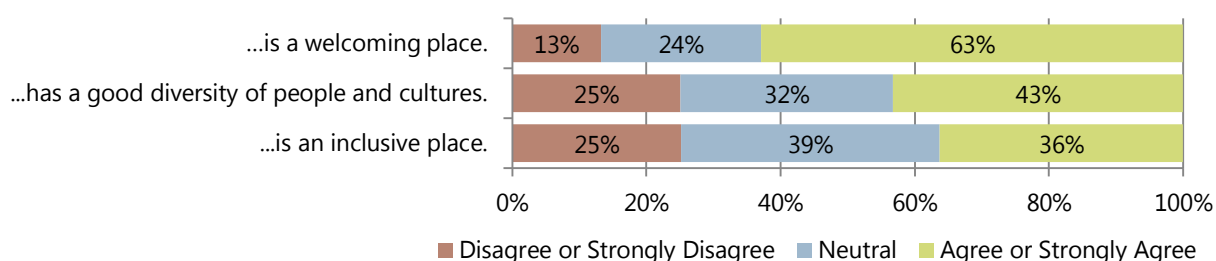
- 1) **Social Offerings** (defined by Knight and Gallup as "places for people to meet each other and the feeling that people in the community care about each other")
- 2) **Openness** (defined by Knight and Gallup as "how welcoming the community is to different types of people, including families with young children, racial and ethnic minorities, gays and lesbians, immigrants, and young, talented college graduates")

These two factors outranked a variety of other more commonly-cited "quality of life" attributes that attach people to a community such as education or public safety. These findings surprised many, but in today's climate, they should surprise no one.

In surveying the Lynchburg region's residents, the CEDS Community Survey revealed that residents feel strongly that the Lynchburg region is a welcoming place, with more than 63 percent of respondents indicating that they agreed or strongly agreed that the region is welcoming. This is comparable to the percentage of respondents in Spartanburg, South Carolina – one of the identified comparison regions and

another Market Street client community – where 65 percent of respondents agreed or strongly agreed that the Spartanburg region was a welcoming place. However, deviations between the two regions emerge when respondents are asked about the community's diversity and inclusivity. While just 43 percent of respondents in the Lynchburg region feel agreed that the area has “a good diversity of people and cultures” more than 66 percent of respondents in the Spartanburg region agreed with this statement. A similar gap is evident in the responses related to inclusivity; roughly one in three residents of the Lynchburg region feel that it is “an inclusive place” whereas one in four disagreed or strongly disagreed with the characterization that the region is an inclusive place. **And so, it appears that the region is proud to be a “welcoming” place but is far less certain about its status as a diverse and inclusive community.**

SURVEY QUESTION: “PLEASE INDICATE THE DEGREE TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS (ABOUT THE LYNCHBURG REGION):”



Source: Market Street Services, Region 2000 Community Survey (2016)

These deviations between opinions of welcomeness, diversity, and inclusivity within the Lynchburg region, and the deviations between these opinions in the Lynchburg region and the Spartanburg region, are revealing. *Input received from focus group participants and interviewees helped provide context to interpret these results: many suggested that the region is home to exceptionally “friendly” people that embody Southern hospitality and strong “family values,” yet their *friendliness* did not necessarily imply *openness* or *acceptance* of diverse backgrounds and lifestyles that may not conform with the aforementioned “family values” or “conservative, Christian values.”*

Communities, like the Lynchburg region, that hope to compete for talented workers and high-quality jobs need to be aware of how the country's evolving diversity affects community and economic development strategies. In 2015, the Pew Research Center noted that Millennials (defined as adults between the ages of 18 and 34) surpassed all other generations and now represent the largest share of the American workforce at over 53 million members strong.^v It is well-known that Millennials are more racially diverse than all generations before them, but perhaps just as noteworthy is the fact that they embrace diversity and inclusion in a manner that transcends all other generations as well. According to a poll conducted by the Pew Research Center in 2015, 70 percent of Millennials support same-sex marriage – by far the highest percentage of all generations in the United States.^{vi} It is these individuals who will comprise the bulk of the U.S. workforce for the foreseeable future. Communities looking to attract and retain this generation have to be cognizant of the open-minded social values that this generation – on average and as a whole – embraces. Just having the perception – whether based in reality or not – that a community is not culturally-diverse and is not tolerant of diverse backgrounds can be a deal-breaker to Millennial workers who have plenty of other communities to choose from. *The anecdotal evidence from employers in the Lynchburg region validates this locally.*

Make no mistake; the region unquestionably has an exceptionally strong and positive brand identity among a segment of the population that is seeking like-minded individuals sharing the oft-referenced conservative, Christian values and proximity to the institutions that support such values. But outside of this group, many view the region's identity and Liberty's influence on it as a net negative in terms of talent attraction and retention.

Suffice it to say that the presence of an institution of higher learning in a community is rarely if ever viewed as a challenge or potential weakness to overcome. Its characterization as such in public input sessions and survey responses is simply a reflection of the aforementioned concerns regarding the institution's immense influence on external perceptions of the region's inclusivity – whether valid or invalid. *Although this Assessment has acknowledged that some respondents' difficulty in discussing Liberty University's influence on the region's identity was born from the somewhat "taboo" status of this topic, it is also important to acknowledge that many input participants may have struggled to rectify these concerns with immense pride in and gratitude for the institution's influence on the region's economic growth and development.*

It can be argued that Liberty University is so omnipresent in the community that its growth in recent years makes it difficult to interpret a number of observed trends in the region related to everything from population growth and migration to age composition and economic composition. In recent years, a \$500 million construction campaign has reshaped the University's asset base in the form of new pedestrian bridges, a greenway, new academic buildings, and new athletics facilities.^{vii} These new developments not only change the face of the University but they also change the asset base of the Lynchburg region. **At the end of the day, the influence of Liberty University on the Lynchburg region is unmistakable and present in an assortment of ways. The region and its leadership must accept this reality, and understand the ways in which the University presents challenges and opportunities, and exerts positive and negative influence, on the region's prosperity and prospects. Furthermore, the region must confront the imperative associated with nurturing an economic, cultural, and social identity that is independent of Liberty University, so as to insulate the region (and its economic and talent development efforts) from polarized opinions. *Members of the CEDS Steering Committee seemed to acknowledge this in their first meeting in March 2016, when "divisiveness" and a "lack of ownership over our own regional identity" were cited among the region's greatest challenges to address in this process.***

The following sections will frequently reference the aforementioned influence of Liberty University on a variety of observed trends. As we will see, and as many previous studies have documented, **the Lynchburg regional economy is one that has been supported by Liberty University for quite some time and absent its recent growth the growing regional economy would likely be characterized as a stagnant or declining economy. This is the manner in which the dichotomy has manifested itself in recent years: a relationship where on one hand, the economy owes much to Liberty University for its recent growth, while on the other hand, concerns persist about the economic opportunities that may not have been afforded to the region, and may not be afforded in the future, as a result of Liberty's influence.**

2. REGIONAL GROWTH DYNAMICS

As hinted at in the previous section, it would be impossible to discuss the degree to which the Lynchburg region has grown over time, or the composition of that growth, without acknowledging the role that Liberty University's growth has played in that process. **Despite the fact that Liberty University's influence on the region was a point of contention among some input participants, many input participants shuddered to think of what the region's economy and population would look like in the absence of the University.**

According to the State Council of Higher Education for Virginia's (SCHEV) fall enrollment headcounts, Liberty University had a total fall enrollment size of 80,494 students in the fall semester of 2015. This represents a 547 percent increase from where the University's total enrollment stood in the fall of 2005. The overwhelming majority of this enrollment growth can be attributed to the institution's online programming. However, according to University figures, residential enrollment grew from roughly 8,600 students in Fall 2000 to roughly 14,500 in Fall 2016. **And so, nearly 6,000 net new Liberty students have been added to the region's population since the start of the new Millennium.** While there have been fluctuations for various reasons, other regional colleges and universities – including Lynchburg College, Randolph College, Sweet Briar College, and Central Virginia Community College – have all also experienced some, albeit more modest, enrollment growth during various periods in recent years. **With such rapid residential student growth and substantial employment growth associated with online programming has come a host of positive impacts to the community, including the University's role as a major jobs producer, talent producer, attractor of outside money in the form of hotel and tourism-related expenditures, and supporter of indirect jobs in other sectors from retail to food service.** A study commissioned by the University in 2014 reported that Liberty spent roughly \$567 million in the Lynchburg area during the 2013-14 fiscal year, supporting about 1 in 5 jobs in the city of Lynchburg.^{viii}

POPULATION CHANGE

While it is impossible to determine the precise impact, observed population growth in the Lynchburg metropolitan area would look markedly different in the absence of a rapidly expanding major university.

POPULATION GROWTH (2000- 2015)

	POPULATION			5-YEAR GROWTH		15-YEAR GROWTH	
	2000	2010	2015	Net Change ('10-'15)	% Change ('10-'15)	Net Change ('00-'15)	% Change ('00-'15)
Lynchburg MSA	228,918	253,054	259,950	6,896	2.7%	31,032	13.6%
Roanoke MSA	288,503	308,659	314,560	5,901	1.9%	26,057	9.0%
Chattanooga MSA	477,213	529,220	547,776	18,556	3.5%	70,563	14.8%
Spartanburg MSA	284,298	313,682	325,079	11,397	3.6%	40,781	14.3%
Virginia	7,104,533	8,025,787	8,382,993	357,206	4.5%	1,278,460	18.0%
United States	282,171,957	309,346,863	321,418,820	12,071,957	3.9%	39,246,863	13.9%

Source: U.S. Census Bureau, Population Estimates

The metropolitan area added just over 31,000 net new residents between 2000 and 2015. Recalling that resident student enrollment growth at Liberty was equal to roughly 5,900 net new students during the same

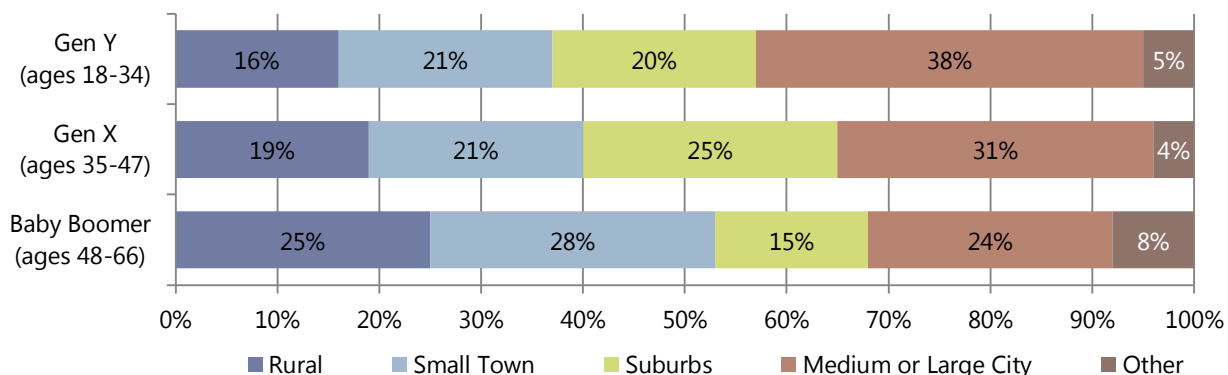
time period, and it is clear that nearly 20 percent of the region's growth since the start of the new Millennium can be entirely attributed to the growth in Liberty's resident student population. This says nothing about the amount of population growth that can be attributed to employment growth and other indirect impact associated with Liberty's growth. More recently, it appears that the student population (across all institutions) is having an even greater impact; between 2009 and 2014, those aged 20-24 represented 46 percent of all observed population growth in the metropolitan area.

Population change is driven by two primary components: natural change (births minus deaths) and net migration (number of new residents moving into the region minus the number of existing residents moving out of the region). Migration can be further broken into domestic migration (that which originates within the United States) and international migration (that which originates outside the United States). **The preceding discussion has established that the region's growth was at least in part supported by the net in-migration of new students at Liberty University, and Census data reveal that the Lynchburg region has derived a larger share of its growth in recent years from net migration than many of its peers, a topic to be discussed further in later sections as it relates to talent attraction and retention.** The next section will examine the dispersion of this migration and population growth within the region, leading to some important discussion of trends in urbanization and some conclusions about regionalism.

INTRA-REGIONAL GROWTH DYNAMICS

It would surprise no one that the types of communities that people prefer to live in tend to change over an individual's life, but the degree to which these changes are present across different generations remains noteworthy. The following figure shows the results of a survey conducted by the Urban Land Institute (ULI) of over 1,200 adults in 2013 about their residential location preferences.

NATIONAL SURVEY: PREFERENCES REGARDING PLACE OF RESIDENCE AMONG U.S. RESIDENTS (2013)



Source: Urban Land Institute; national survey of 1,202 adults conducted January-February 2013

As the figure indicates, Millennial workers are far more likely to prefer living in medium or large cities, which are generally associated with increased access to quality of life amenities – nightlife, entertainment, public transit, etc. – that this generation values.

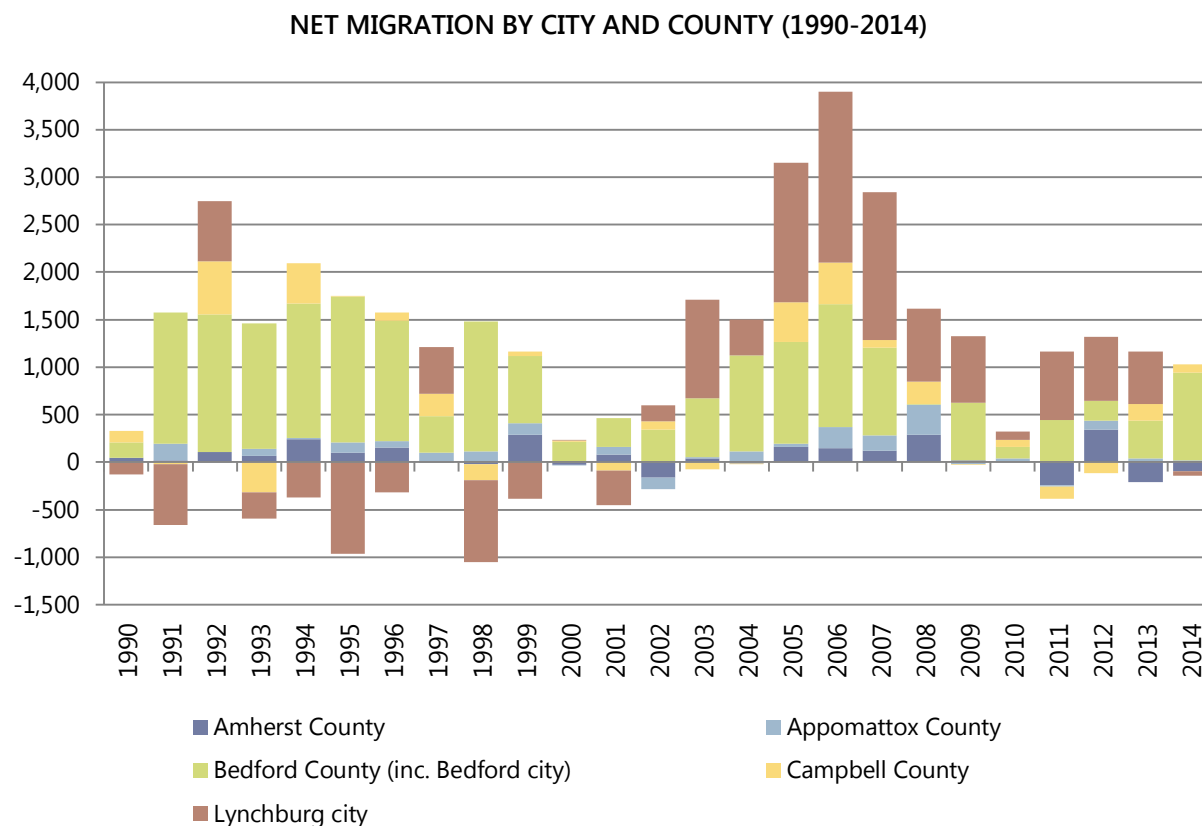
These trends in residential preferences are reflected in the overall population growth trends of the United States. According to the U.S. Department of Agriculture, the population of rural America declined by 116,000

people from 2010 to 2014, which marked the first period on record of overall population decline for rural America as a whole. This stands in stark contrast to the growth in urban areas in the United States, which collectively continue to grow by more than 2 million people per year.^{ix} The nation's ongoing urbanization is being fueled by residential preferences of the large Millennial generation. This generation is more interested in dense live, work, play community environments than perhaps any generation before them, and the most prosperous communities and most competitive global companies are taking note.

There has been no shortage of economic development decisions in recent years that shed light directly on this dynamic. In perhaps the best national example, State Farm – one of the country's largest insurance companies – announced last year its plans to build or expand regional hubs employing thousands of people in Tempe, AZ; Atlanta; GA; and Richardson, TX (Dallas-Fort Worth area). In each case, State Farm is investing in sites in these communities that are accessible by light or heavy rail in order to better accommodate the type of employees they hope to attract. In 2014, just six years after moving its corporate headquarters from Ohio to a suburb of Atlanta (Duluth), the Fortune 500 NCR Corporation announced that it would be relocating its corporate headquarters roughly 20 miles down Interstate 85 to "Tech Square" in the heart of Midtown Atlanta to be more proximate to the young working professionals that it seeks to employ, the built environment that attracts them, and the higher education institution that produces them (Georgia Institute of Technology).

While no one would mistake the Lynchburg metro area for a highly-urbanized population hub, the likes of which are driving the nation's overall population growth, there is evidence of similar changes in preferences, development patterns, and residential location decisions within the region. Across the country's metropolitan areas, the aforementioned trends are becoming evident in the migration data that is available from both the Census Bureau and the Internal Revenue Service. Core, urban counties of metropolitan areas are beginning to experience population growth for the first time in decades. Suburban and exurban counties that once thrived on a formula of low cost housing, safe environments, and quality schools, are finding that these attributes are not as competitive as they once were.

In most cases, these trends begin to emerge in the data in 2010 and later; core cities and counties of metropolitan areas began to turn from net donors to net attractors. **Interestingly, as the chart that follows illustrates, this trend of repopulating the core of a region appears to occur much earlier in the Lynchburg metropolitan area; however, this data is somewhat misleading. It is evident that the City of Lynchburg transitioned from net donor status throughout the 1990s to a net attractor beginning in 2002. With steady net in-migration to the region's core city persisting since that time, it appears on the surface that the Lynchburg region was on the forefront of this trend. However, we must recall "the Liberty effect." The reversal of net out-migration from the City of Lynchburg coincides with the institution's residential enrollment growth and the emergence of its online programming and associated employment growth. The Liberty effect aside, there is still some evidence of changing location preferences. The combined levels of net in-migration to Bedford County (previously including Bedford City) have declined in recent years, and in three out of the last four years, Amherst County has experienced net out-migration (a trend it had previously experienced just once since 1990).**



INTER-REGIONAL GROWTH DYNAMICS

Metropolitan areas are federally-defined areas that are largely defined on the basis of commuting flows; those counties that are sufficiently economically-integrated with “core” counties are considered part of the metropolitan area. In most cases, this methodology results in logical economic regions. However, in some cases, it produces less than desirable federally-defined regions that create challenges for the communities and institutions within them. For example, the Atlanta-Sandy Springs-Roswell, GA MSA is a 30-county region spanning more than 8,300 square miles, creating a geography whereby meaningful regional cooperation is inhibited by such large geographic distances and the sheer number of jurisdictions. On the other end of the spectrum are the Raleigh-Cary, NC MSA and the Durham-Chapel Hill, NC MSA, two regions that have been defined by the federal government as separate metropolitan areas, but which logically are one of the most economically integrated regions predicated upon one of the most successful and studied collaborative economic development projects of the 20th century (the Research Triangle Park).

There are many other examples of larger economic regions that have become fragmented by federal definitions: the Piedmont Triad region (Greensboro–Winston-Salem–High Point, NC); Greenville–Spartanburg, SC; and the Cedar Rapids-Iowa City region in eastern Iowa are just a few. In each of these cases, the delineated metropolitan statistical area (MSA), and the city and county borders that comprise them, are poor indicators of the true economic integration of broader regions. In Spartanburg County, SC a major BMW auto assembly plant that employs thousands of people in the Upstate region of South Carolina anchors a manufacturing cluster that is located along the Spartanburg County/Greenville County border, yet

Spartanburg County and Greenville County are in their own separate MSAs. While this federal boundary distinguishes the two counties and regions from each other, their economic and social ties to each other are nevertheless quite apparent. In each of the aforementioned cases, the two MSAs that comprise a larger region have not developed in isolation. Their economies are often bound by a shared attribute that is geographically central – be that the Research Triangle Park, an interstate, or a major manufacturing cluster – yet they often have very distinct identities and economic compositions. In most cases, the two MSAs are no more than 30 miles apart.

Although the distance is larger – roughly 50 miles between the two – a similar relationship exists between the Lynchburg metro area and the nearby Roanoke metro area. At the heart of this dynamic is Bedford County, whose eastern and western borders lie roughly six miles from the heart of downtown Lynchburg and downtown Roanoke, respectively. In this respect, it lies almost directly in between the two downtowns and is the geographic center of the two regions. As the previous figure on net migration illustrates, Bedford County has been a steady net attractor of new residents for decades. **In fact, between 2000 and 2015, Bedford County (including the former Bedford City) accounted for more than one-third (34.8 percent) of all population growth in the Lynchburg metropolitan area.**

Bedford County has historically been assigned to the Lynchburg MSA on the basis of its commuting patterns; according to the U.S. Census Bureau, 27.5 percent of Bedford County's working residents commuted to work in either the City of Lynchburg or Campbell County in 2014. During that same year, 23.6 percent of Bedford County's working residents commuted to a job in the City of Roanoke, the City of Salem, or Roanoke County. And so, from this information we can conclude the following:

1. Bedford County – as measured by commuting patterns – is almost as economically integrated with the Roanoke region as it is the Lynchburg region.
2. A substantive portion of the Lynchburg MSA's population growth is likely attributable to economic growth that was truly generated in the Roanoke MSA; growth in the official Lynchburg region (the MSA) is likely a bit overstated while growth in the official Roanoke region (the MSA) is likely a bit understated.
3. Bedford County is loosely attached to the Lynchburg MSA as a component county.
4. Bedford County is a tie that binds the Lynchburg and Roanoke economies.

Together, the data illustrate that the Lynchburg region is one whose growth has been heavily influenced and to some degree inflated by two primary factors: one intra-regional (the growth of Liberty University) and one inter-regional (the growth of the Roanoke regional economy).

3. ATTRACTING, RETAINING, AND DEVELOPING A FUTURE WORKFORCE

The preceding section established that the Lynchburg region's growth, albeit influenced and inflated by a few key factors, is nonetheless robust and on pace with its comparison communities and state and national averages. Furthermore, the majority of this growth is driven by net in-migration, a positive sign that the region is able to attract more new residents than it is losing to other parts of the country. Net migration reflects, in its truest sense, the revealed preferences of people and is the single greatest indicator of a region's ability to attract and retain talent. This portion of the Assessment will examine the attributes of in-migrants and other characteristics that reflect the degree to which the Lynchburg region is adequately preparing a sustainable workforce through talent development, attraction, and retention.

The importance of talent in modern-day economic development cannot be overstated. No community can predict what its economy will look like in the future, but having a talent pipeline that is both sufficient in numbers and skill sets is a foundational component to any well-reasoned plan to stay competitive in the global economy. In this regard, investments in talent attraction and retention efforts are as important as any other physical infrastructure investment that a community would make to attract and retain employers. Workforce sustainability can make or break a community's economy, and this harsh reality is even more heightened in the current economic development landscape given national aging trends. Many communities will struggle in coming years to avoid worker shortages as members of the Baby Boomer generation age out of the workforce, and it will be the younger generation of workers who will be primarily responsible for filling these vacated jobs and providing much needed stability in the nation's workforce. Therefore, it stands to reason that those communities who can master the art of attracting and retaining talented young workers will be much more competitively positioned than peer communities who struggle to make the same adaptation.

TALENT DEVELOPMENT: HIGHER EDUCATION

Maintaining solid workforce continuity is greatly aided by the presence of institutions of higher education that can produce the young talented workers who will support tomorrow's economy. The Lynchburg region is fortunate to be home to a diverse portfolio of universities, colleges, and technical schools that would be envied by many other regions of similar or greater size. These post-secondary educational assets complement the region's solid K-12 school system and growing home-school population to give the region all the institutional assets it needs to establish a strong cradle-to-career talent pipeline.

The region's higher education portfolio is clearly dominated by Liberty University. However, the presence of many other four-year institutions in the region – Lynchburg College, Randolph College, Sweet Briar College, and Virginia University of Lynchburg – of which most are small, private colleges, results in a region that is quite similar to Spartanburg, SC in this regard. Collectively, these institutions produce thousands of graduates – primarily with Bachelor's and Master's degrees – each year. Efforts to prevent Sweet Briar's closure in 2015 preserved an asset for the region, and particularly, Amherst County.

Collectively, these institutions are a tremendous advantage, and many regions would envy the position that the Lynchburg region finds itself in with such a sizeable college-aged population. However, they would envy this position from the standpoint of workforce development; college students are a pipeline of potential talent. But they are only a competitive advantage for a region to the degree to which that

region can retain them after graduation. Otherwise, absent effective retention efforts, the much-coveted and highly-valued higher education institutions are simply producing and exporting talent for some other region to reap the rewards economically.

Community colleges and technical schools are an important extension of a community's talent development efforts, particularly in manufacturing communities and those whose economic composition otherwise does not demand a high concentration of four-year degrees. Not only are these institutions in the business of educating young people to be productive in the workforce, but they also provide vital training and re-training opportunities to both current workers and displaced workers seeking to remain engaged in the economy. From that perspective, these educational institutions are an especially vital asset to the regional business community, especially for employers who have a demand for technically-skilled workers. Behind Liberty University, Central Virginia Community College (CVCC) is the next biggest post-secondary educational institutional in the Lynchburg region, enrolling over 6,700 people and providing over 1,000 certificate or Associate's degrees to its graduates in the 2013-2014 school year.^x CVCC's training and retraining capabilities were recently augmented in 2015 when the Obama Administration designated Lynchburg as a "TechHire community" along with Chattanooga (one of the region's comparison communities), Detroit, and San Francisco. This initiative seeks to support the training and employment of low-skill workers and those with limited English proficiency in the community via a competitive H-1B grant competition being led by the U.S. Department of Labor. The Lynchburg Economic Development Authority, the City of Lynchburg's Office of Economic Development, Lynchburg's Beacon of Hope, and CVCC are partnering with local employers to take advantage of the TechHire opportunity.^{xi}

Suffice it to say, the region's higher education portfolio is unquestionably an advantage from a pure degree production standpoint. However, degree production does not always equate to skills matching within the workplace. Regions whose higher education institutions are producing a high level of in-demand degrees in growing fields that support growing sectors are clearly better positioned to attract potential corporate investment that seeks to be proximate to this pipeline of talent (recall the NCR example cited earlier). The table that follows displays the number of degree completions per 10,000 residents in certain subject areas in 2014 for the institutions in the Lynchburg MSA as compared to the average American community.

It is no great surprise that the region is producing an immense number of degrees in the areas of theology, philosophy and religious studies. The same can be said for psychology, education, liberal arts, and business administration. Many, although not all, of these categories reflect the immense growth of Liberty's online programming. **The most salient finding in this analysis, however, is the relative lack of production of certain STEM (science, technology, engineering, and mathematics) degrees in a few key areas that support advanced manufacturing, information technology, and research and development across a wide variety of fields. Such programs – whose relative underrepresentation in terms of degree completions in the region is reflected by red font in the table that follows – include computer and information sciences; engineering; engineering technologies (generally two-year degrees), and; physical sciences. These reflect skill sets for which the region may be reliant upon talent attraction, whereas program areas in green font reflect in-demand skill sets in STEM-intensive fields for which the region may be exporting talent.** *Input from business owners validated that skills sets in the red disciplines were in short supply; and many cited difficulties attracting talent with such backgrounds. Business owners, executives, managers, and those making hiring decisions that responded to the online survey indicated that additional engineering,*

computer science, and other IT-related degree and certification programs were needed in the region. Other frequently mentioned needs were in the health care field: medical assistants and medical coders were frequently cited, with some acknowledging ongoing work by CVCC to develop additional capacity in these areas.

DEGREE COMPLETIONS PER 10,000 RESIDENTS BY PROGRAM AREA (2014)

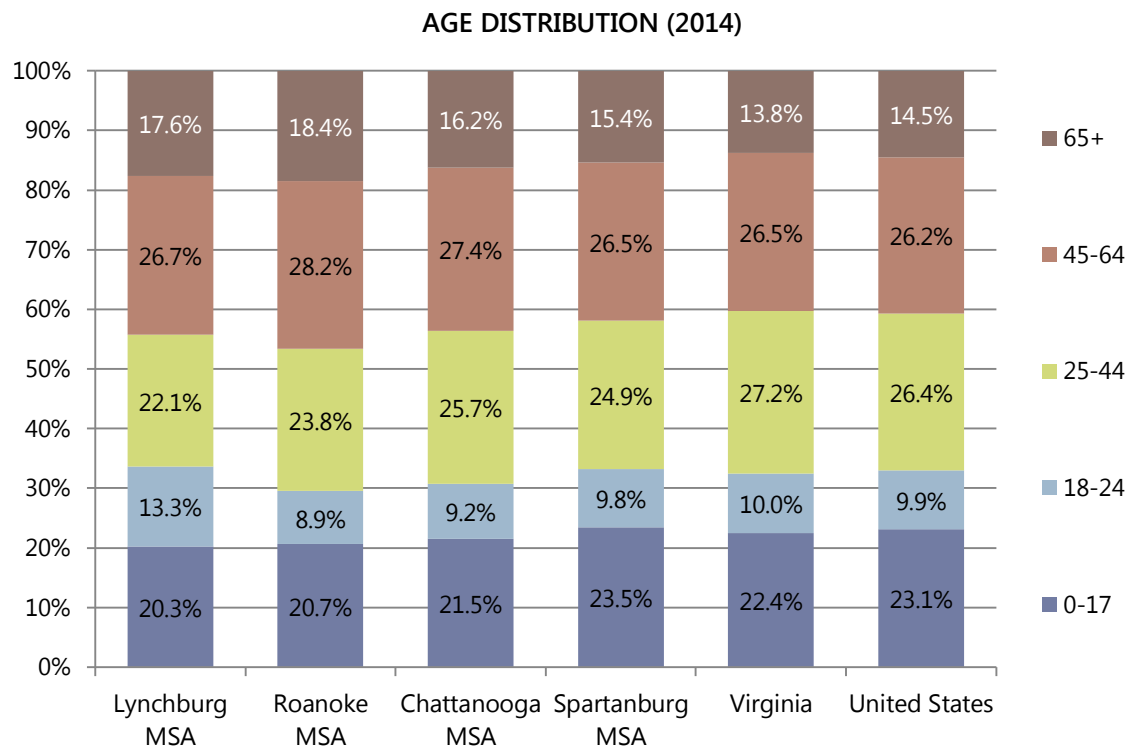
Degree Program	Lynchburg MSA	United States
Health Professions and Related Programs	49.4	29.7
Business, Management, Marketing, and Related Support Services	122.5	24.2
Liberal Arts And Sciences, General Studies and Humanities	29.6	13.9
Education	93.2	10.0
Social Sciences	8.9	6.2
Psychology	92.5	5.3
Visual and Performing Arts	8.7	5.0
Computer and Information Sciences and Support Services	1.9	4.9
Personal and Culinary Services	2.4	4.9
Homeland Security, Law Enforcement, Firefighting and Related Protective Services	20.8	4.8
Engineering	1.8	4.8
Biological and Biomedical Sciences	5.7	4.3
Communication, Journalism, and Related Programs	9.0	3.4
Public Administration and Social Service Professions	65.5	2.9
Multi/Interdisciplinary Studies	48.5	2.9
Engineering Technologies And Engineering-Related Fields	1.6	2.7
Legal Professions and Studies	6.9	2.3
English Language and Literature/Letters	4.3	2.2
Parks, Recreation, Leisure, and Fitness Studies	11.5	1.9
Physical Sciences	0.4	1.5
Precision Production	2.1	1.3
History	2.9	1.3
Transportation and Materials Moving	3.1	1.2
Foreign Languages, Literatures, and Linguistics	1.1	1.2
Mathematics and Statistics	1.3	1.1
Agriculture, Agriculture Operations, and Related Sciences	0.0	1.0
Theology and Religious Vocations	94.9	1.0
Philosophy and Religious Studies	51.1	0.6
<i>All Degree Completions, All Subject Areas</i>	<i>747.7</i>	<i>155.3</i>

Source: Economic Modeling Specialists, Intl; www.economicmodeling.com; National Center for Education Statistics; U.S. Census Bureau

WORKFORCE SUSTAINABILITY: AGE COMPOSITION

While the preceding subsection has established that the region's workforce sustainability is supported by immense higher education degree production, it raised questions about the degree to which this output matched the needs of the region's employers. Talent development is an important consideration when evaluating a region's workforce sustainability. But equally important to this pipeline of future talent is the state of the current workforce and its demographics.

Nationwide, the percentage of the population aged 45-64 (those at or approaching retirement age in the coming decade) represent a roughly equal share of the workforce as the population aged 25-44 (the pipeline of younger workers that will be expected to replace retirees and assume more senior positions). Many regions across the country find themselves in an unfortunate position where this cohort of younger workers is smaller than the cohort of impending retirees. These communities will necessarily experience a contraction of their workforces in the years and decades ahead absent significant levels of in-migration or substantive changes in labor force participation. On the other end of the spectrum are young talent magnets: metropolitan regions such as Austin, Raleigh-Durham, Nashville, Atlanta and many other smaller, mid-size metropolitan areas are home to young professional populations aged 25-44 that are considerably larger than their populations aged 45-64.



Source: U.S. Census Bureau, American Community Survey, 1-Yr Estimates

As of 2014, just 22.1 percent of the region's population was aged 25-44. 4.6 percentage points lower than the share aged 45-64. A similar, albeit slightly smaller gap, is observed in the Roanoke region. This is a considerable concern for the region from a workforce sustainability standpoint. As Baby Boomers exit the workforce and this smaller cohort enters more senior positions, the region will need to considerably elevate its talent attraction and retention efforts if it wishes to continue to provide a workforce that is, at a minimum, comparable in quantity to the one that exists today. It is worth noting that the Spartanburg MSA, which is home to similarly challenging age dynamics on the surface, is immediately proximate to the larger Greenville, SC metropolitan area that is home to a more advantageous age composition, a dynamic that the Lynchburg region is not afforded by its most proximate region (Roanoke).

A multitude of other observations and strategic implications emerge when examining age composition. While 'family-friendly' is a subjective term that, depending on whom you ask, is generally defined by communities that possess assets that are attractive to families – good schools, low crime, green spaces, arts and culture amenities, etc. In addition to many of these subjective components of family-friendly environments, from a data perspective, such 'family-friendly' communities – often suburban and exurban counties – are home to a relatively large share of residents between the ages of 25 and 44 (typical child-bearing and parenting ages), as well as a large share of residents under age 18 (their children). However, in the case of the Lynchburg region, this dynamic is not present. As previously mentioned, the 25 to 44 population is considerably underrepresented in the region as a share of total population (22.1 percent represents the lowest share among all comparison geographies). Similarly, only 20.3 percent of the metro's total population is comprised of children under the age of 18, again, the lowest share in this cohort of all the comparison geographies. **Numerous residents described the region as "family friendly," and in fact this was the most common, positive characterization of the region by public input participants.** However, this data on age composition begs the question: "Could perceptions of family-friendliness be based more on intangible attributes (conservative values, active faith-based community, etc.) that are especially important to the families that do populate the Lynchburg region, as opposed to tangible attributes that would attract and retain a large number of young couples and their children?"

There are additional age composition trends to make note of in the preceding graphic that further speak to the region's competitiveness as a place to live, work, and play. **First, the Lynchburg metro and Roanoke metro have larger shares of retiree-aged residents than any of the other comparison geographies.** This is likely a byproduct of their placement in the Blue Ridge Mountains – an attractive retirement destination for many. **Second, the "Liberty effect" in the data is again present in the age composition as 13.3 percent of the Lynchburg metro's total population is comprised of people between the ages of 18 and 24 – higher than all other comparison geographies.** Over the past five years alone, this cohort has grown by 15.7 percent in the Lynchburg metro – significantly higher than the state (0.7 percent) and national (3.3 percent) growth rates in this age cohort over the same time period.^{xii} This sharp growth rate in the college-aged population in the Lynchburg metro very much mirrors the explosive growth that Liberty University has experienced in recent years, as referenced in the first story.

All of these observations are, of course, related. The fact that the region's prime working age population (ages 25-64) is lower than all other comparison geographies at 48.8 percent reflects the presence of large college and retiree-aged populations in the region. From a community and economic development perspective, the relative lack of working age adults in the Lynchburg metro is the most troubling trend in its overall age composition profile. The Lynchburg metro is in essence burdened by having a smaller wage-earning population able to support its non-wage earning population, relative to peer communities.

WORKFORCE SUSTAINABILITY: MIGRATION

As previously mentioned, regions with disadvantageous age dynamics can overcome these challenges by attracting and retaining talent faster than they are losing it. On the whole, the Lynchburg metro is doing just that. However, according to the U.S. Census Bureau, between 2010 and 2014 the annual level of net in-migration to the region averaged just 828 individuals, roughly half of the average annual level of in-migration experienced between 2000 and 2010 (1,646 individuals). One explanation for the sudden

downward trend has to do with the impact of the Great Recession on migration patterns, primarily during 2010 and 2011. The combination of limited job availability and homeowners being upside down on their mortgage took re-location off the table for many Americans in the years during and immediately after the Great Recession. Those regions that were historically net attractors of new residents saw a decline in the degree to which their growth was fueled by migration. However, even considering this explanation, **net migration to the Lynchburg metropolitan area has declined in each available year since 2012, from 1,198 net migrants in 2012, to 956 in 2013, and 889 in 2014. It will be important for the region to monitor net migration trends in the years ahead to see if this downward trend continues, reflecting a substantive change in the region's competitiveness for talent and the threats that such changes could bring to the regional economy. At present – although some portion of its net in-migration can be attributed to enrollment growth at Liberty and economic growth in the Roanoke region – the region's ability to maintain net in-migration is unquestionably an asset, albeit a threatened one.**

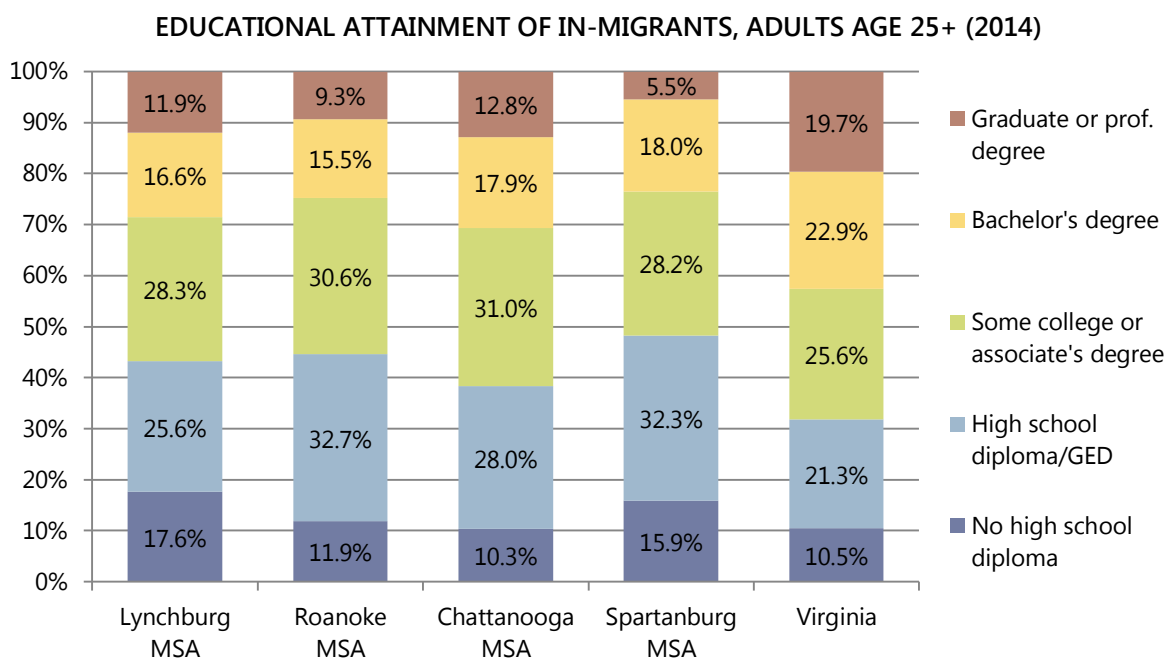
The various characteristics – age, race/ethnicity, and educational attainment – of those individuals who are relocating to the Lynchburg region help determine what kind of people the area is most successful at attracting, revealing a great deal about the degree to which migrants are changing the face of a region.

Between 2010 and 2014, new migrants relocating to the Lynchburg metropolitan area were generally less racially and ethnically diverse than those new residents who located to the comparison geographies. In the Lynchburg region, 74.7 percent of in-migrants were White (not Hispanic), which was lower than the 79.1 percent in the Chattanooga metro, but well above the share at the state (59.8 percent) and national (62 percent) levels. In addition, although Hispanics are by far the fastest growing ethnicity group in the nation, only 3.5 percent of in-migrants to the Lynchburg metro belonged to this demographic group (9.4 percent statewide). **Simply put, the Lynchburg region is not diversifying substantially by way of in-migration. In fact, the Lynchburg region is diversifying at a considerably slower pace than the rest of the country. The United States is rapidly approaching majority-minority status, reflected by the rapid decline in the white population's share of total national population (-5.4 percentage points from 2004 to 2014). During the same ten-year period, the white population declined by just 2.2 percentage points in the Lynchburg region, a slower rate of diversification than that which was observed in all comparison communities, the state, and the nation. This begs the question: "to what degree does this slower rate of diversification reflect the region's inclusivity and openness to diversity?"**

As referenced earlier in this story, one of the primary ways that communities can raise their overall talent profile is by attracting well-educated in-migrants. After all, it can take decades for adjustments in a community's K-12, higher education, and training systems to bear fruit in the form of raising overall adult educational attainment rates, so attracting talent represents a much more immediate solution for those communities dealing with a low overall talent profile.

In the Lynchburg metro, 17.6 percent of in-migrants settling into the region in 2014 lacked a high school diploma – a share greater than all other comparison geographies and greater than the share of existing adult residents in the region with no high school diploma (12.7 percent). On this end of the education spectrum, the region is attracting a relatively large number of individuals that lack the most basic education credential.

However, on the other end of the spectrum, 28.5 percent of in-migrants possessed a bachelor's degree or higher. This exceeded the rate of bachelor's degree attainment for the region's existing residents (27.2 percent). Regions that are winning the battle for talent are attracting well-educated in-migrants that are, on average, considerably more educated than their existing resident counterparts. The evidence in the Lynchburg region is mixed.



Source: U.S. Census Bureau, American Community Survey, 1-Yr Estimates

Through attraction of educated migrants, retention of college graduates, and upskilling of existing residents, the Lynchburg region has managed to gain ground on the average American community with respect to the education attained by its adult population. Over the five year period from 2009 to 2014, the Lynchburg region made more substantive improvements in the percentage of its population with a bachelor's degree or higher than all comparison geographies and the average American community. These improvements pushed the region's percentage of adults with a bachelor's degree or higher above all three comparison regions as of 2014. And while this rate of improvement is certainly laudable, it will need to continue if the region is to become more competitive for certain white-collar job opportunities that rely on a highly-educated workforce. As of 2014, the percentage of the adult population with a bachelor's degree in the Lynchburg region (27.2 percent) remained nearly three percentage points below the national average (30.1 percent).

This section of the Assessment has examined the degree to which the region is preparing a sustainable workforce, examining migration trends and the characteristics of those migrants, among other dynamics. The subsequent sections will discuss what may be driving the region's historical and potential future in-migration: its relative attractiveness to families and young people.

data revealed that the Lynchburg region actually is underrepresented in the age groups that one would associate with a community that is highly attractive to families, indicating that the “family friendly” nature of the community may be, at least in part, a cultural identifier among existing residents more so than a reflection of external evaluations.

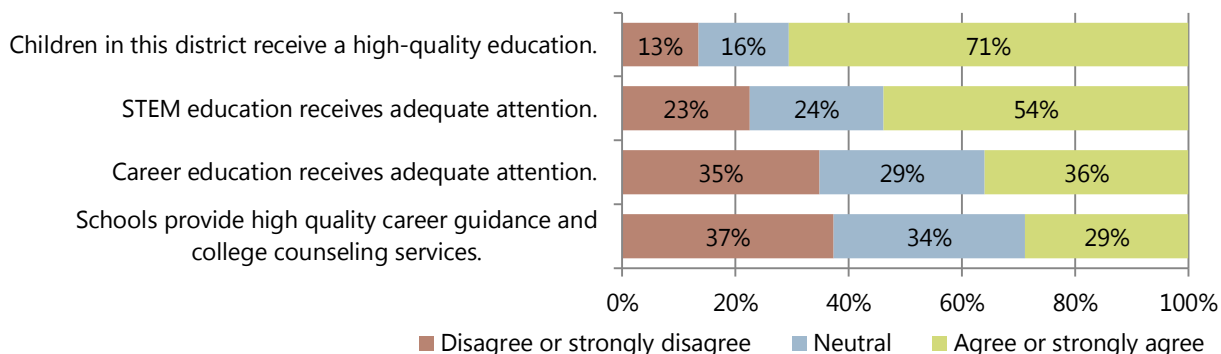
The preceding graphic provides a visual representation of some of the most frequently mentioned words and phrases that were used by respondents to a survey question regarding the Lynchburg region’s greatest strength. Words and phrases related to the region’s low cost of living, family friendliness, low crime, and natural beauty are most apparent. What is perhaps most striking, however, is the fact that the words “schools” and “education” barely appear in the graphic; it is reasonable to expect that public education would be cited among the greatest strengths in a community or region with such positive evaluations of its relative family-friendliness.

The remainder of this section will briefly evaluate three of the aforementioned attributes – education, cost of living, and public safety – and the degree to which they support “family-friendliness.”

K-12 EDUCATION

The backbone of just about any “family friendly” community is a quality school system. After all, school quality is a top consideration that drives the residential preferences of families. Public input participants were generally complimentary of the various public school systems in the Lynchburg metro area, and also cited the region’s robust home-school population as an additional component of the traditional K-12 pipeline. In discussing the overall region’s “family-friendly” attributes, many input participants noted their local school district as a key component of why the Lynchburg region is a good place to raise a family. These positive comments were provided both from the standpoint of the quality of education available and in noting the shared sense of community involvement in the schools, from administrators and teachers to parents and other members of the community. However, input participants were quick to acknowledge that parents and communities are not satisfied; many mentioned desired improvements in college and career counseling, career and STEM education, and teacher pay and financial resources for schools.

SURVEY QUESTION: “PLEASE RESPOND TO THE FOLLOWING STATEMENTS ABOUT THE SCHOOL DISTRICT WITH WHICH YOU ARE MOST FAMILIAR.” (AVERAGE, ALL DISTRICTS IN MSA)



Source: Market Street Services, Region 2000 Community Survey (2016)

The community survey asked a number of specific questions about K-12 education in the Lynchburg region, and the responses to these questions generally support the notion that parents of school children in the Lynchburg region hold a favorable opinion of the school district with which they are most familiar. **Nearly 71 percent of respondents agreed that “children in this district receive a high-quality education.”** While satisfaction did vary by district, this variance was much smaller than what is observed in many other regions where certain districts – particularly the largest school district in the urban core of the region – have an immense stigma attached to their quality and certain suburban counterparts are viewed considerably more favorably. Interestingly, this is not the case in the Lynchburg region. In fact, Lynchburg City Schools were evaluated more favorably than any other school district, with 78 percent of responding parents that currently or previously had children enrolled in the district indicating that they feel their children received a high quality education. The relative lack of variance in satisfaction between districts, and the perceived strength of the school district in the region’s principal city, is a noteworthy finding and one that should be a source of pride for the entire region.

However, once more detailed questions were asked, dissatisfaction began to emerge. **Survey respondents rated factors related to career education resources, career guidance, and college counseling far less favorably than their overall satisfaction.** Just 36 percent of respondents agreed or strongly agreed with the statement that “career education receives adequate attention” and only 29 percent agreed or strongly agreed that “schools provide high quality career guidance and college counseling services.” In spite of these opinions, there are existing efforts to better link students with local business and industry. For example, the Bedford One Program – a partnership between the Bedford County Office of Economic Development, Bedford County Public Schools, and area businesses – links local high school students with local businesses based on career interests. More than 1,500 students and 50 businesses have been linked together through this program, and survey results of student participants show that over 90 percent of participants both feel that the tours are informative and that because of them, they are more likely to work or return to work in Bedford County.^{xiii} This is just one such example in the region.

STANDARDS OF LEARNING ASSESSMENT PASS RATES BY GRADE AND SUBJECT AREA (2015)

	Grade 3		Grade 8		High School	
	Reading	Math	Reading	Math	Reading	Algebra I
Amherst County	73%	72%	79%	72%	86%	80%
Appomattox County	76%	75%	69%	61%	94%	74%
Bedford County	75%	65%	78%	60%	92%	78%
Campbell County	71%	75%	70%	77%	89%	76%
Lynchburg City	65%	61%	61%	73%	73%	68%
<i>Virginia, State Average</i>	75%	74%	75%	74%	89%	82%

Source: Virginia Department of Education

Note: Green cells indicate student performance that exceeds the state average; red cells indicate that performance below the state average.

Quantitative data on student performance, graduation rates, and enrollment trends can help validate some resident opinions regarding school quality. **Data covering Standards of Learning (SOL) assessment pass rates (percentage scoring proficient or advanced) for key grade-subject matter combinations (grades 3,**

8, and high school for both reading and mathematics) illustrate that students in the region's school districts are not substantively outperforming their counterparts across the state. In fact, there are only a few isolated cases where student pass rates in regional school districts exceed the state average. Perhaps the most troubling piece of information from this snapshot of student performance is the fact that students in all five schools districts underperformed – and in most cases, significantly underperformed – relative to their counterparts across the state in terms of pass rates for high school mathematics.

In addition, the majority of the region's school districts are not keeping pace with the statewide average in terms of on-time graduation. During the 2015 school year, only students in Appomattox County Public Schools experienced a cohort graduation rate that exceeded the statewide average (94.0 percent vs. 90.5 percent statewide).

Some stakeholders also expressed concerns regarding the fiscal support for the area's public school systems. Although input certainly varied by district, generally speaking, the community survey and stakeholder interviews revealed that some are concerned that the region's school districts – and accordingly the children they educate – are at a competitive disadvantage in many respects as a result of relative lack of local financial support. Many cited comparatively low teacher pay as one of the primary challenges facing public K-12 education in the region. Others cited changes in elected leadership and what some described as “extreme” fiscal conservatism as contributing factors. Data from the Virginia Department of Education support the assertion that financial support for school systems in the region is relatively low compared to counterparts around the state.

PER PUPIL EXPENDITURES BY DISTRICT (2015)

	Per Pupil Expenditure (2015)	State Ranking (out of 132 school districts)
Lynchburg City Schools	\$11,426	37
Amherst County Public Schools	\$10,510	73
Bedford County Public Schools	\$9,327	123
Campbell County Public Schools	\$9,267	128
Appomattox County Public Schools	\$9,037	131
<i>Region 2000, All Districts, Weighted Average</i>	\$9,987	-
<i>State Average</i>	\$11,523	-

Source: Virginia Department of Education

A more troubling reality in public K-12 education in the Lynchburg metro area are the observed declines in enrollment within the majority of the region's school districts in recent years. Between 2010 and 2014, the region added more than 5,000 new residents yet enrollment in the region's public school districts declined by nearly 1,300 students. Why is this happening and what does it say for a region that so many consider to be “family friendly” and within which more than 70 percent of parents feel that their children receive a high quality education?

Recall from the discussion on migration that the residential location choices of people and their observed movement between places are the truest reflection of a community or region's relative attractiveness and “stickiness” – that is to say, their ability to attract and retain individuals and families. The same is true for

school choice: we can learn as much if not more from what people actually *did* than what they *said*. Quite clearly something is compelling families to seek alternatives to their public school districts. Furthermore, they are doing so at a rate that stands in conflict with what has been observed in other neighboring regions and statewide (enrollment barely declined by 0.3 percent in the Roanoke region while growing statewide during a time when population growth rates were roughly comparable between the three areas).

DISTRICT AND HOMESCHOOL ENROLLMENT BY COUNTY (2010-2014)

	Public School District Enrollment				Homeschool Enrollment			
	10-'11	14-'15	Net Change	% Change	10-'11	14-'15	Net Change	% Change
Amherst County	4,601	4,269	-332	-7.2%	104	151	47	45.2%
Appomattox County	2,300	2,305	5	0.2%	67	91	24	35.8%
Bedford County	10,592	10,097	-495	-4.7%	524	765	241	46.0%
Campbell County	8,528	8,138	-390	-4.6%	271	341	70	25.8%
Lynchburg City	8,662	8,600	-62	-0.7%	327	367	40	12.2%
Total, Lynchburg MSA	34,683	33,409	-1,274	-3.7%	1,293	1,715	422	32.6%

Source: Virginia Department of Education

One contributing factor has unquestionably been the preference for homeschooling in the Lynchburg region and a substantive increase in homeschool enrollment across the region. Between the 2010 and 2014 school years, homeschool enrollment increased by nearly 33 percent across the region. Although not directly attributable, the growth in homeschool enrollment accounts for roughly one third of the observed decline in public school enrollment. As of 2014, the rate of homeschooling in the Lynchburg region is almost exactly double the statewide rate (49 homeschooled students per 1,000 enrolled in public districts as compared to 25 per 1,000 statewide). While in many regions this could be interpreted as a troubling indictment of the public school system(s), it is likely that this much higher rate of homeschooling reflects the previously mentioned cultural and religious preferences of certain families in the Lynchburg metropolitan area who wish to have greater control over the content and manner in which their children are educated. [Input participants noted that Liberty University is active in both recruiting homeschool students to attend the University, and in providing online homeschooling resources themselves in the form of the Liberty University Online Academy.](#)

In many communities private schools have absorbed enrollments from families fleeing troubled public school districts. This also happened extensively in the United States, particularly in the South, as schools were racially integrated; thus beginning a trend of “white flight” with which many communities are all too familiar. Unfortunately, comprehensive publicly-available data on private school enrollment is not available at the county or regional level. However, recent research has found that private school enrollments are no longer rising nationwide, and in fact, have declined in recent years beginning around 2005 nationwide.^{xiv} The growth of homeschool enrollments and charter schools are among the many reasons cited.

While a comprehensive evaluation of student performance and the various factors contributing to enrollment decline in some of the region’s public schools is outside the scope of this Assessment, it can reasonably be concluded from the data on student performance, graduation, and enrollment trends that,

while the region's public schools are by no means a major competitive disadvantage, they do not appear to an outsider to be a substantive advantage that defines the region's "family-friendliness." Fortunately, residents express relatively strong satisfaction with their public schools, a rare finding amidst numerous communities that have exceptionally poor self-image for their public education system. But in a world where countless communities describe themselves as family friendly, exceptional public schools are a requirement for those who wish to tout this attribute as something that might remotely resemble a differentiator for their community.

COST OF LIVING

In a country that is increasingly becoming defined by rapid metropolitan growth, many rural communities are finding that their competitive advantage lies in the comparatively low cost of living that they are able to afford residents. **Whether in the community survey or via in-person public input sessions, the Lynchburg region's low cost of living was certainly at the forefront of the minds of input participants. Over 100 people alone called out the region's low cost of living and/or housing affordability when answering the previously cited survey question about the region's top strength.** These opinions about the region's low cost of living and housing affordability are generally reflected in data collected by the Council for Community and Economic Research measuring relative cost of living across urban areas. Overall cost of living – reflected by the Composite Index – was roughly 10 percent lower than the national average for all urban areas in both the Lynchburg and Roanoke urban areas. Overall, cost of living is slightly higher in the Chattanooga region; data was not available for Spartanburg. **The Lynchburg region has below average cost in every component of the index, but no substantive differences emerge between the region and its comparison areas, particularly the neighboring Roanoke region. The region's cost of living advantage does however begin to emerge when compared to other areas in and around the state.** For example, overall cost of living in the Charlottesville urban area was higher than the national average in 2015, driven by above average housing and health care costs. The Richmond area's overall cost of living is elevated due to its relatively high utility rates and health care costs, whereas utilities and health care are the only two components of the D.C. area's index that are not considerably above the national average.

COST OF LIVING INDEX, 100 = NATIONAL AVERAGE (2015)

	Composite Index	Grocery Items	Housing	Utilities	Trans.	Health Care	Misc. Goods
Lynchburg, VA	90.4	90.4	83.2	98.3	85.7	95.2	95.0
Comparison Regions							
Roanoke, VA	90.0	90.2	89.3	98.6	86.2	93.8	88.7
Chattanooga, TN	95.1	95.1	90.4	98.3	94.0	104.3	97.4
Spartanburg, SC	Data not available						
Additional Nearby Regions							
Charlottesville, VA	103.8	101.0	108.3	92.2	93.9	108.6	107.3
Richmond, VA	94.9	92.2	87.5	107.2	91.4	104.0	98.4
Washington, D.C.	147.1	111.9	246.8	96.3	114.0	94.2	110.3

Source: Council for Community and Economic Research (C2ER)

To examine housing affordability more closely, an affordability index was calculated using U.S. Census data. This index calculates the ratio of the median value of existing, occupied homes to the median household income. Lower ratios reflect more affordable owner-occupied housing stock.

HOUSING AFFORDABILITY RATIO (2009-2014)

	Median Value of Owner-Occupied Housing Units		Median Household Income		Housing Affordability Ratio	
	2009	2014	2009	2014	2009	2014
Lynchburg MSA	\$155,500	\$164,400	\$44,800	\$47,567	3.47	3.46
Roanoke MSA	\$172,600	\$172,100	\$46,326	\$51,318	3.73	3.35
Chattanooga MSA	\$138,200	\$145,700	\$40,697	\$46,600	3.40	3.13
Spartanburg MSA	\$115,600	\$115,200	\$39,691	\$43,161	2.91	2.67
Virginia	\$252,600	\$247,800	\$59,330	\$64,902	4.26	3.82
United States	\$185,200	\$181,200	\$50,221	\$53,657	3.69	3.38

Source: U.S. Census Bureau, American Community Survey, 1-yr Estimates

As of 2014, according to this measure, the Lynchburg metropolitan area actually possessed the least affordable housing stock relative to its three identified comparison communities (Roanoke, Spartanburg, and Chattanooga), and the region's home affordability ratio was actually slightly higher than the U.S. average. This is an objective evaluation illustrating that, when home prices and incomes are taken into account, housing affordability is *not* an advantage for the Lynchburg region relative to its peers or the average American community. However, the region can take pride in the fact that affordability has not declined substantially in recent years, a feature that has been observed nationwide and across many metropolitan areas.

PUBLIC SAFETY

Public safety is another vital component of quality of life, and residents of the region clearly have a strong sense of public safety. The word "safe" and the phrase "low crime" were among the most frequently used terms by survey respondents when asked about the region's greatest strengths. And when asked to specifically evaluate a variety of quality of life attributes, "sense of personal and property safety" received the most favorable ratings by far with just five percent of respondents characterizing their sense of personal and property safety as "below average" or "very poor" and 65 percent characterizing it as "above average" or "excellent." This stands in stark contrast to the overwhelming majority of communities and regions around the country that have been Market Street clients; generally speaking, crime is often one of the most frequently cited *challenges* facing a community, and furthermore, perceptions of crime are often not aligned with the reality on the ground.

VIOLENT AND PROPERTY CRIME RATES PER 10,000 RESIDENTS (2008-2013)

	Violent Crime Rate			Property Crime Rate		
	2008	2013	% Change	2008	2013	% Change
Lynchburg MSA	22.7	19.3	-11.1%	214.3	160.7	-21.5%
Roanoke MSA	33.4	23.8	-25.4%	279.6	243.1	-9.1%
Chattanooga MSA	60.7	52.8	-9.4%	404.2	393.0	1.4%
Spartanburg MSA	67.8	46.9	-28.9%	384.9	317.2	-15.3%
Virginia	25.7	19.8	-18.4%	252.3	207.5	-12.8%
United States	45.8	37.9	-13.9%	321.2	273.4	-11.5%

Source: Federal Bureau of Investigation, Uniform Crime Reports; Moody's Economy.com

Note: MSA totals include all city and county police jurisdictions

As of 2013 (the most recent year for which reliable, consistent data is available across geographies), the rates of violent and property crime in the Lynchburg metro area are lower than all comparison regions, the state averages, and the national averages. In fact, crime rates in the Chattanooga and Spartanburg regions are more than *double* the rate observed in the Lynchburg region. Crime rates have steadily declined nationwide for years, and not surprisingly, this trend is evident in the majority of the nation's communities and regions including the Lynchburg area and the comparison regions examined in this Assessment. More recent data from local jurisdictions within the region show small increases in the incidence of crime in 2014, but overall, the region's crime rates remain considerably lower than the average American community – an attribute that is appropriately a great source of pride for residents.

5. QUALITY OF PLACE: RELATIVE APPEAL TO YOUNG PROFESSIONALS

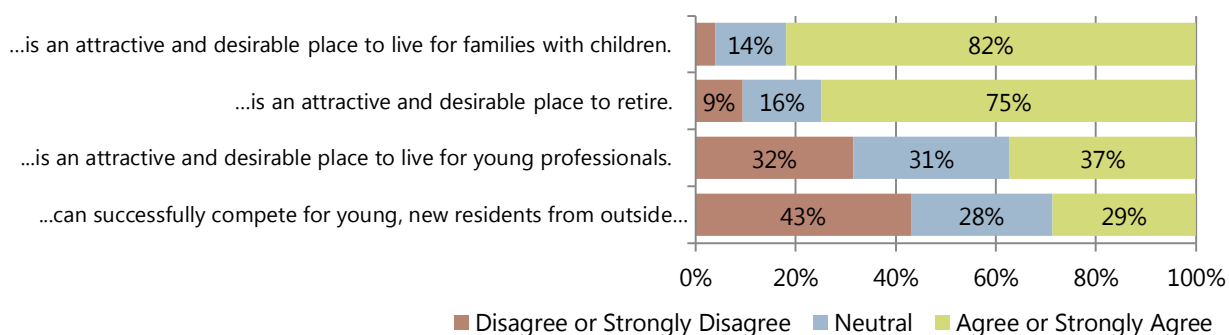
The preceding section evaluated a few key attributes of the region that contribute to the notion of family-friendliness: public education, public safety, and cost of living. By no means are these the only community characteristics that contribute to “quality of life” or family-friendliness; rather, they are simply the core attributes that are most frequently cited by families when discussing these concepts in the context of the place they have chosen to call home and raise a family. Similarly, these attributes of a community – public education, public safety, and cost of living – are by no means of sole interest to families; some or all of these are critical considerations for a variety of other demographics.

This section of the Assessment will evaluate a variety of other attributes that contribute to quality of life and quality of place, and are important considerations for recent college graduates and young professionals – a key demographic that many respondents expressed concerns about attracting to and retaining in the Lynchburg region.

It has already been established in this Regional Assessment that the Lynchburg region is attracting college-aged students at an increasingly rapid rate, thanks in large part to the continued enrollment growth at Liberty University. **While many interviewees and focus group participants expressed reservations about the ability of the region to retain these college students after graduation, respondents aged 25-44 were asked to evaluate the degree to which they agree or disagree with the statement “the Lynchburg region successfully retains graduates of local colleges and universities.” Over 42 percent of those 25-44 year olds surveyed stated that they “agreed” or “strongly agreed” with the statement while just 21 percent “disagreed” or “strongly disagreed” with the statement.** These findings are comparable to the self-image reflected by 25-44 year old survey respondents in the Spartanburg region, where 39 percent agreed or strongly agreed with the same statement and 27 percent disagreed or strongly disagreed.

All residents, regardless of age, were asked to also evaluate the region’s relative attractiveness to different groups of individuals. **Similar to the previously reported findings on family-friendliness, the Lynchburg region is overwhelmingly viewed as an attractive place to retire.** And again, this is supported by the previously referenced data covering age composition which illustrated that the region is in fact home to a comparatively large population aged 65 and over.

SURVEY QUESTION: “PLEASE INDICATE THE DEGREE TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS (ABOUT THE LYNCHBURG REGION):”



Source: Market Street Services, Region 2000 Community Survey (2016)

What is most interesting – and concerning – about these survey findings is the precipitous drop off in endorsement for the Lynchburg region as a place for young people, and the lack of consensus among residents on the issue. Resident opinions about the region's relative attractiveness and desirability as a place to live for young professionals is fractured in a nearly uniform manner; a nearly equal share of respondents feel positively, negatively, and neutral about the region's climate for young professionals. Evaluations also seem to indicate that the region is less competitive for young professionals from outside the region than those who may have been born, raised, or attended college in the region.

Comparing these survey findings to those of other Market Street client communities can be revealing. Interestingly, residents of Spartanburg, SC had identical evaluations of their region's relative attractiveness and desirability to young professionals: 32 percent disagreed with the characterization while 37 percent agreed (the exact same percentages as observed in the Lynchburg region). However, **we begin to see substantive differences in opinions when we compare the Lynchburg region to some larger metropolitan areas that have had varying degrees of success in attracting and retaining young people in recent years and decades. While just 37 percent of respondents agreed on some level that the Lynchburg and Spartanburg regions were attractive and desirable places to live for young professionals, their counterparts in the Louisville (66 percent agree), Indianapolis (70 percent), Atlanta (75 percent), and Nashville (92 percent) metropolitan areas all have much more positive outlooks on their region's attractiveness to this coveted demographic.^{xv}**

In the never-ending quest to appeal to this demographic and optimize talent attraction and retention efforts, quality of place has a big seat at the table. However, like with quality of life amenities, what exactly constitutes a community's "quality of place" is open to different interpretations. But, there are common threads to what a community's quality of place means within the context of community and economic development. An appropriate way to approach the definition is through the lens of the three key dimensions that Richard Florida uses to define the term:

- ✓ **What's there:** the combination of the built environment and the natural environment; a stimulating, appealing setting for the pursuit of creative lives
- ✓ **Who's there:** diverse people of all ethnicities, nationalities, religions, and sexual orientations, interacting and providing clear cues that this is a community where anyone can fit in and make a life
- ✓ **What's going on:** the vibrancy of the street life, café culture, arts, and music; the visible presence of people engaging in outdoor activities—altogether a lot of active, exciting, creative goings-ons

Florida's broad and inclusive definition of quality of place is appropriate for communities that exist within a country that is distinguished more by the differences of its people than their homogeneity. Different people have different community preferences, and those communities that are positioning themselves to be the most competitive are able to broadly appeal to the diverse constituencies that make up the United States. This issue was discussed extensively in the first story of this Assessment. Further, we understand the importance of changing location preferences by generation based on the discussion presented in the second story of this Assessment. And finally, we also understand from the discussion in the first story that the two most important factors which attach residents to a place – based on the findings of the Knight Foundation and Gallup *Soul of the Community* report – are social offerings and openness. The third most important factor cited by Knight and Gallup is aesthetics – the physical beauty of a place.

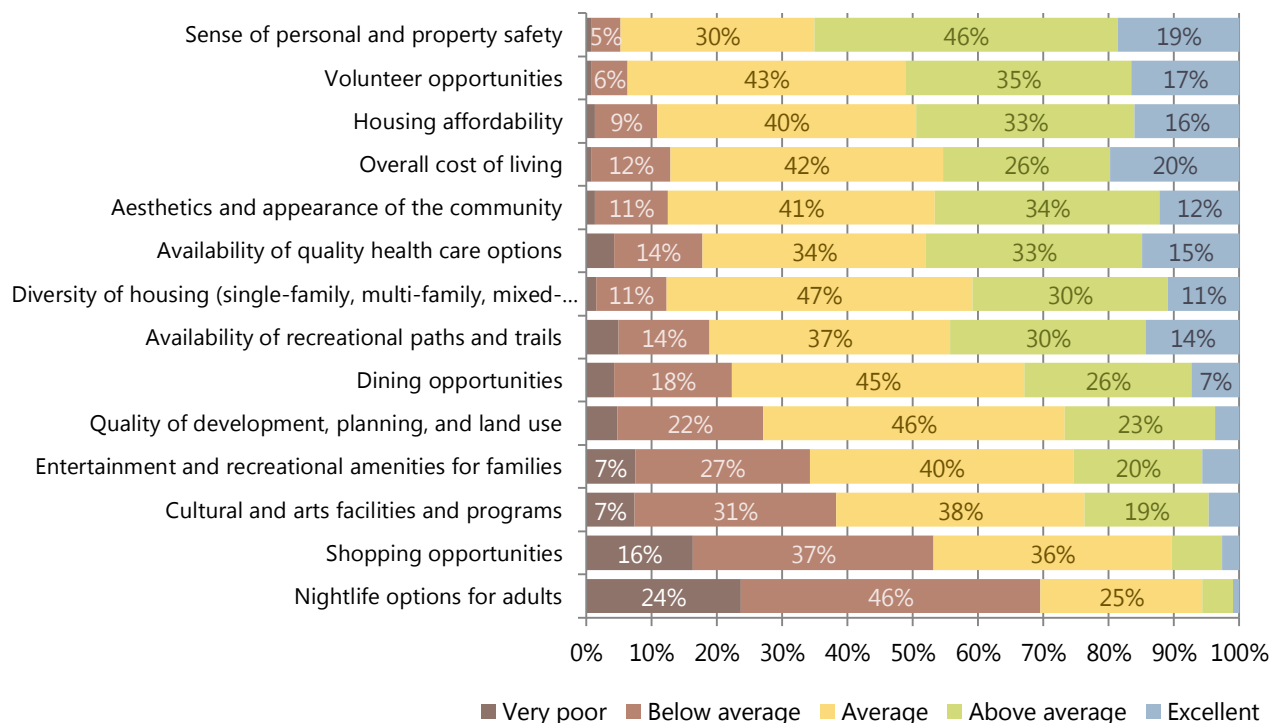
AESTHETICS

Online survey participants were asked to rate a variety of quality of life and quality of place attributes that influence the attractiveness of the Lynchburg region as a place to live, work, and play. **Aesthetics were among the most favorably evaluated attributes, with just 13 percent having an unfavorable opinion (evaluating aesthetics as “below average” or “very poor”).** This is likely heavily influenced by residents’ appreciation for the surrounding natural beauty; recall that “natural beauty” was among the most frequently cited phrases in response to a survey question about the region’s greatest strength.

NATURE AND RECREATION

Nestled in amongst the Blue Ridge Mountains, the Lynchburg region is not lacking for physical beauty. Passersby who otherwise may know little about the region can’t help but be drawn to the scenic views that are afforded to those who travel by, near, and through the region. The mountainous landscape and overall geographic beauty in the Lynchburg region attracts the interest of retirees hoping to enjoy the views year-round, vacationing families, outdoor enthusiasts, and countless others. **The region’s natural beauty and recreational assets were often mentioned by input participants as major strengths of the region. The James River, the Blue Ridge Mountains, Smith Mountain Lake, a variety of state and local parks and recreational trails, and other regional tourism attractions were specifically singled out by input participants in describing the value of the region’s location and associated physical amenities. The region’s proximity to natural amenities and recreation is among its most marketable features.**

SURVEY QUESTION: “PLEASE RATE THE FOLLOWING ASPECTS OF THE LYNCHBURG REGION’S QUALITY OF LIFE, BASED ON YOUR EXPERIENCES WHERE YOU LIVE.”



Source: Market Street Services, Region 2000 Community Survey (2016)

ARTS, ENTERTAINMENT, AND CULTURE

Most attributes of quality of life and quality of place had more favorable than unfavorable opinions among residents; this is reflected in the preceding graphic displaying these survey results. While the natural environment was favorably evaluated, certain aspects of the region's physical and social environment were among the most unfavorably evaluated attributes. This includes access to arts and cultural facilities, and nightlife options for adults.

Only 23 percent of survey respondents rated "cultural and arts facilities and programs" as "above average" or "excellent" while only six percent of respondents evaluated "nightlife options for adults" favorably. Feedback in interviews and focus groups overwhelmingly supported the notion that a relative lack of entertainment options – particularly nightlife – for young adults was a key barrier to talent attraction and retention efforts. Many existing young residents lamented this fact and cited it as a reason why they might ultimately move elsewhere. While specific examples of such intervention were not provided, some speculated that Liberty University has a stifling effect on nightlife and entertainment options that appeal to young adults. Young professionals mentioned that they regularly leave the region for entertainment – often for entire weekends – multiple times each month. In many cases this was to attend a concert or performance in another community, while others cited such excursions as simply a necessity to surround oneself with "options" for entertainment, retail, dining, and nightlife that are not perceived to be as prevalent in the Lynchburg region as they are in surrounding metropolitan areas small and large, from Charlottesville and Blacksburg to Washington D.C. and Charlotte.

Despite these rankings in relation to the other quality of life and quality of place amenities, input participants did highlight many of the cultural and arts amenities that exist in the region and expressed that the region is beginning to see "the fruits of its labor" after many years and decades working towards collaborative funding solutions for specific arts and cultural facilities. The Academy Center of the Arts, Amazement Square, and a host of other historic museums and cultural facilities give the Lynchburg region a broad base of arts and culture facilities on which to build.

RETAIL

In addition to nightlife and entertainment, many input participants mentioned that they regularly leave the region for shopping and dining. Just ten percent of survey respondents rated "shopping opportunities" as "above average" or "excellent" with 53 percent rating them as "below average" or "very poor". When asked to identify those aspects of the region that they would like to see different in ten years, "shopping" was among the most frequently used words by survey respondents.

Retail sales data obtained from Economic Modeling Specialists, Int'l (EMSI) supports the commonly held belief of public input participants that the Lynchburg area lacks certain retail options on a scale or scope that is comparable to other communities. The following table compares the ratio of average sales per capita across multiple retail segments to the average in that segment at the national level. A ratio of 1.0 would indicate that the region's retail sales per capita in a given segment are equivalent to the national average. A ratio lower than 1.0 indicates that sales per capita are lower than the national average, potentially indicating that some level of consumer expenditure is "leaking" to surrounding communities. **This analysis illustrates that the Lynchburg metro has a relatively low level of retail expenditure across nearly every major retail segment. But perhaps most noteworthy is the fact that many of the retail segments for which the**

Lynchburg metro appears to be underrepresented in terms of retail expenditure appear to be overrepresented in the neighboring Roanoke metropolitan area. This is yet another sign of the economic integration and symbiosis of the two regions; the data speaks to the likelihood that residents in the Lynchburg region are traveling to the Roanoke metro to meet retail needs that they feel are not adequately available in the Lynchburg region. Also noteworthy are the similarities that are observable between the Lynchburg and Spartanburg regions. Like the Lynchburg region, the Spartanburg metro has relatively low levels of retail expenditure in nearly every retail segment, with residents going to the neighboring and larger Greenville, SC metropolitan area (analogous to the Lynchburg area's relationship with the Roanoke area).

RATIO OF RETAIL SALES PER CAPITA TO THE U.S. AVERAGE (2014)

	Lynchburg Metro	Roanoke Metro	Chattanooga Metro	Spartanburg Metro
Motor Vehicle and Parts Dealers	● 0.35	● 1.03	● 1.08	● 0.95
Furniture and Home Furnishings Stores	● 0.63	● 1.29	● 1.08	● 0.51
Electronics and Appliance Stores	● 0.23	● 0.63	● 0.69	● 0.47
Building Material and Garden Equipment and Supplies Dealers	● 0.91	● 1.32	● 1.11	● 0.78
Food and Beverage Stores	● 0.55	● 0.89	● 0.65	● 0.65
Health and Personal Care Stores	● 0.62	● 1.39	● 1.00	● 0.81
Gasoline Stations	● 1.40	● 1.32	● 0.98	● 2.47
Clothing and Clothing Accessories Stores	● 0.39	● 0.56	● 0.73	● 0.51
Sporting Goods, Hobby, Musical Instrument, and Book Stores	● 0.73	● 1.07	● 0.75	● 0.80
General Merchandise Stores	● 0.98	● 0.99	● 1.09	● 1.26

Source: Economic Modeling Specialists, Int'l; (EMS); www.economicmodeling.com

Note: ratio of 1.1 or higher = Green (potential retail surplus), 0.9 to 1.1 = Yellow (neutral), < 0.9 = Red (potential retail leakage)

DOWNTOWNS AND ACTIVITY CENTERS

It is difficult to look at survey results regarding key quality of life and quality of place amenities without seeing the role that downtown Lynchburg – and other downtown areas and activity centers in the region – must play in the discussion. After all, vibrant downtowns are those that contain a host of nightlife, entertainment, shopping, and cultural amenities – all categories that received generally low marks in the community survey. Furthermore, it is impossible to ignore the overwhelming amount of evidence that is being observed in regions around the country as people of all ages and backgrounds are flocking to center cities and dense activity centers in search of the benefits that accrue from proximity between one's place of residence, place of work, and the lifestyle amenities that are more concentrated in the denser urban areas. While it would be a mistake to assert that all young people, much less all people, seek such environments, the evidence in the form of migration patterns, corporate relocations, infrastructure investment, and redevelopment from regions around the country is sufficient to make a compelling case for communities and regions to invest in their downtowns and activity centers if they wish to remain competitive in the race for top young talent. Fortunately, the City of Lynchburg and many other communities in the region have recognized this importance and supported improvements in downtowns and activity centers through public policies, public investments, and support for public-private partnerships to advance critical projects.

While input participants certainly acknowledged the role of other downtowns, and noted desirable improvements in some in recent years, the overwhelming majority of input participants view downtown

Lynchburg as the single most important regional asset that must continue to be nurtured if the Lynchburg region is to be competitive in attracting and retaining talent. This reality is perhaps best captured in a survey question that asked respondents to envision what they would like to be different about the Lynchburg region if they left and didn't return for ten years.

SURVEY QUESTION: "IMAGINE THAT YOU WENT HOME, PACKED YOUR BAGS, AND DIDN'T RETURN TO THE LYNCHBURG REGION FOR TEN YEARS. WHAT WOULD YOU WANT TO SEE DIFFERENT (IF ANYTHING) ABOUT THE COMMUNITY WHEN YOU RETURN?"



Source: Market Street Services, Region 2000 Community Survey (2016)

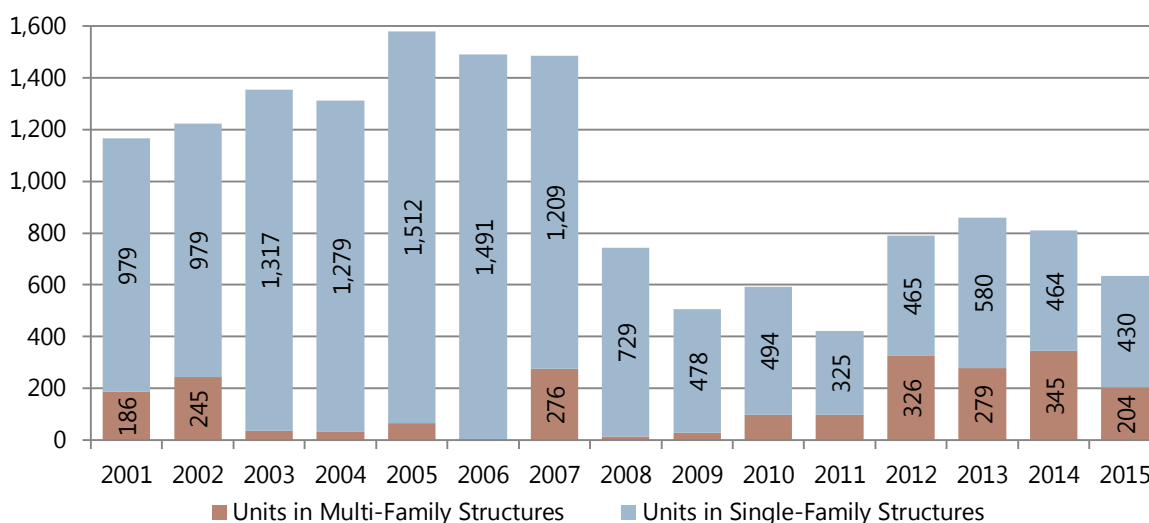
Clearly, as the image conveys, survey respondents hope to see a future where downtown Lynchburg is a central piece of the region's identity. **Input participants were quick to note, however, that downtown Lynchburg isn't starting from scratch.** There has been plenty of progress on various redevelopment and revitalization efforts in downtown Lynchburg that have already yielded positive results. **Input participants stressed the need to build on this positive momentum to make downtown Lynchburg the vibrant, lynchpin of the region that input participants hope to see in the future.** As one survey respondent put it in describing what they would like to see different about the community in 10 years, *"The continued revitalization of downtown. Momentum in this area has picked up and I'd hate to see it not continue in this direction."* Many cited high rents and a prevailing "stigma" attached to downtown as barriers to business and pedestrian activity. Another survey respondent stressed the importance of building the complementary infrastructure necessary to maximize utilization of downtown amenities: *"A vibrant downtown with more people commuting by walking, biking, or public transport."* Suffice it to say that many residents see great potential in Downtown Lynchburg and its waterfront.

Downtown Lynchburg's momentum is evident in recent changes in residential density and commercial activity. According to the downtown advocacy non-profit, Lynch's Landing, there are over 280 businesses in the Central Business District that employ over 4,500 employees. The number of businesses operating in downtown Lynchburg has increased by over 200 percent in the last ten years. New residential developments, including projects that convert old tobacco warehouses and textile mills into modern loft apartments, have added hundreds of new units to downtown. The restoration of the Academy of Music Theatre and the millions

of dollars that the City of Lynchburg has put towards saving this historic asset of downtown provides further evidence of the positive developments going on in downtown Lynchburg.

As previously illustrated through the Urban Land Institute's findings regarding residential location preferences by generation, **Millennials are demonstrating a preference for medium and large cities at a rate not witnessed in previous generations. This has severe implications for smaller metropolitan areas and cities like the Lynchburg region and its component communities: aggressively support the types of built environments that Millennials are seeking in medium to large cities, or risk forgoing their interest in your community as a place to live, work, and perhaps visit.** Time series data of housing permit activity in the Lynchburg metro area reveal that the metro is slowly moving towards the development of a more diverse housing stock, with permitting of multifamily units increasing in recent years.

HOUSING PERMITS ISSUED BY TYPE, LYNCHBURG METROPOLITAN AREA (2001-2015)



Source: U.S. Housing and Urban Development (HUD)

In the years leading up to the Great Recession, the metro was developing over 1,000 more single-family housing units than multi-family housing units. In recent years, the gap has significantly contracted as the region has experienced a noticeable uptick in multi-family housing developments driven largely by the previously mentioned revitalization of downtown Lynchburg. **Between 2001 and 2011, multi-family permits never exceeded 20 percent of all permitted units the region in a given year. However, multi-family units have represented *more* than 20 percent of total permitted units in every year since 2011. From 2001 to 2011, multi-family units represented just nine percent of all permitted residential units in the region. Since that time, multi-family units have represented 37 percent of all permitted units.** While the aforementioned revitalization of downtown has played a role in the uptick of multi-family housing options in the region, other major multi-family housing developments such as Cornerstone, The Gardens on Timberlake, and Gables of Spring Creek have also taken root in recent years beyond the City's downtown borders.

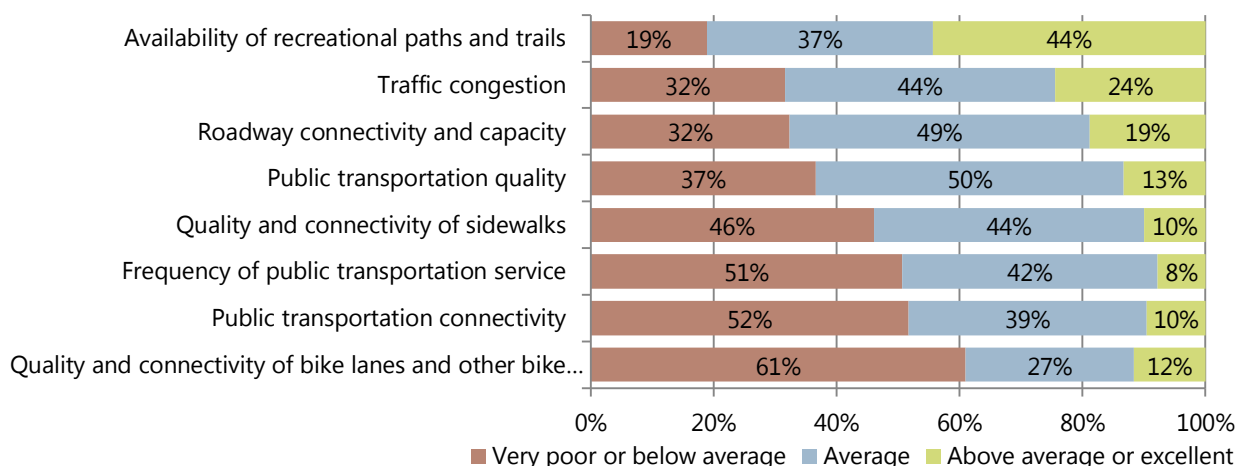
The previously mentioned residential projects in downtown Lynchburg and others like them in other downtowns and activity centers around the region are critical to developing quality of place, particularly downtowns that thrive morning, noon, and night. Other existing and planned mixed-use developments (such

as Wyndhurst) and redevelopment efforts in the region's other, smaller downtowns are unquestionably contributing to improvements in the type of built environment that is particularly attractive to many in this generation: dense, walkable, and accessible. As the subsequent section will illustrate, however, this latter concept – accessibility – is a challenge for the region.

PUBLIC TRANSPORTATION, WALKABILITY, AND BIKEABILITY

One of the primary contributors to Millennials preferences for larger cities is their relative affinity for transit and their relative aversion to the automobile. While this is by no means a universal characterization, a variety of data points from car ownership to transit ridership to car-sharing service usage demonstrate that Millennials are, relative to the generations that came before them, more apt to take public transit and more likely to value proximity in their residential and work locations. The reality for regions such as Lynchburg that are geographically dispersed and lack large pockets of dense development are that cars are a virtual necessity and extensive, well-networked public transportation is rarely financially viable. But the other reality is that many in the region rely on public transportation for their daily needs and their commute.

SURVEY QUESTION: "PLEASE RATE THE FOLLOWING ASPECTS OF TRANSPORTATION AND MOBILITY IN THE LYNCHBURG REGION."



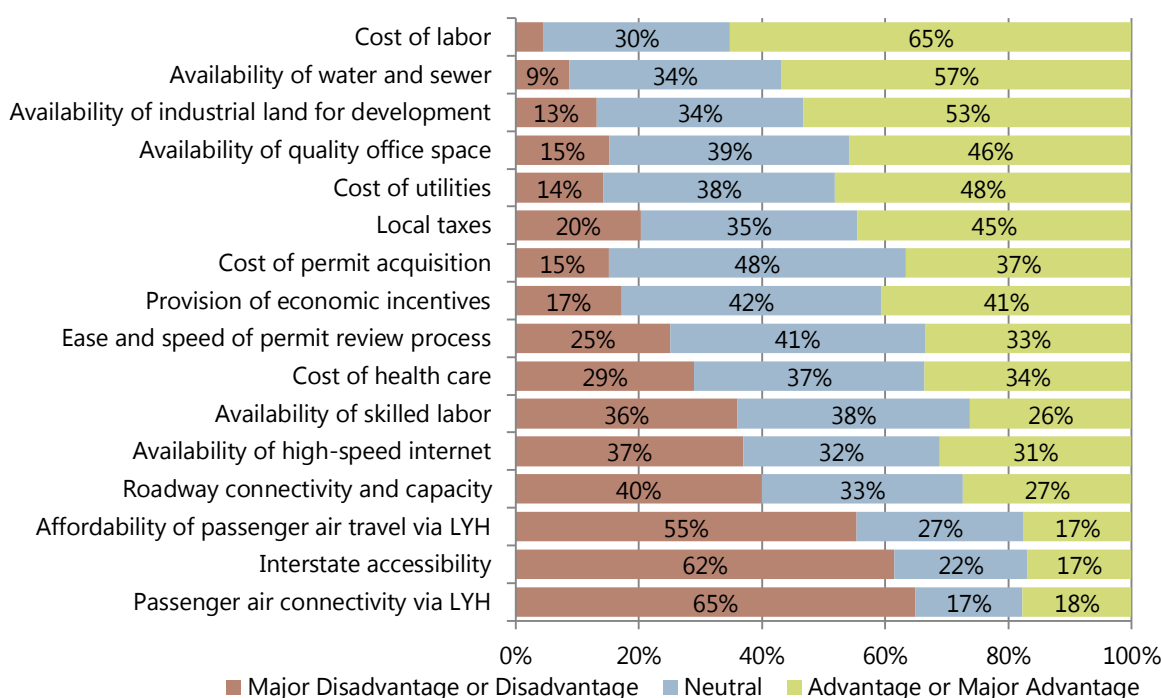
Source: Market Street Services, Region 2000 Community Survey (2016)

Not surprisingly, public input validated that the Lynchburg region is a car-dependent community with limited public transportation options and lacking other bike-friendly and pedestrian-friendly transportation assets. Survey respondents rated the "ability to access shops, restaurants, and services without using a car" within the Lynchburg region as its most deficient quality of life/quality of place amenity. More specific questions in the community survey about various aspects of transportation and mobility in the region underscore the region's general lack of transportation connectivity. Public input participants made specific note of the fact that many people in rural outlying communities within the Lynchburg region can be cut off from various regional amenities and services, especially if they lack access to a reliable motor vehicle.

6. CONNECTIVITY IN REGION 2000: THREATS TO COMPETITIVENESS

The previous story closed by discussing how transportation connectivity is an important quality of life consideration for residents of a community who understandably want safe and efficient access to jobs, retail and entertainment options, and other amenities. This section will continue that discussion by more specifically focusing on the role that transportation connectivity – and broader infrastructure assets – play in contributing to a community's overall business climate and their economic competitiveness.

SURVEY QUESTION: "PLEASE RATE THE FOLLOWING ELEMENTS OF THE LYNCHBURG REGION'S BUSINESS CLIMATE ACCORDING TO THE DEGREE TO WHICH EACH IS AN ADVANTAGE OR DISADVANTAGE TO EXISTING AND PROSPECTIVE NEW BUSINESSES." (RESPONDENT POOL LIMITED TO ONLY BUSINESS OWNERS, EXECUTIVES, AND MANAGERS)



Source: Market Street Services, Region 2000 Community Survey (2016)

According to business leadership (business owners, executives, and managers) who were surveyed on various business climate factors, the Lynchburg region's lack of interstate connectivity and air connectivity were seen as competitive disadvantages that have and will continue to inhibit economic growth. Over 61 percent of survey respondents rated these business climate factors as a "disadvantage" or "major disadvantage" in the Lynchburg region. The disconnectedness of the Lynchburg region from major air and highway transportation assets was often mentioned in stakeholder input sessions as among the region's greatest competitive disadvantages. Transportation connectivity – especially interstate highway access – is a fundamental requirement for many businesses. Transportation, distribution, and manufacturing companies are especially reliant on highway access to transport raw materials, parts, and finished goods. The overall roadway connectivity of the region and access to broadband internet service were also mentioned during input sessions as being noncompetitive and potentially disconnecting citizens in outlying parts of

the region from economic opportunity. The qualitative input gleaned from the Lynchburg Regional Connectivity Study, running concurrently to this CEDS process, provides similar conclusions about how residents view the region's lack of highway and air connectivity as competitive challenges. These issues were in particular cited as obstacles to business and industry recruitment, regional image, and talent recruitment.

INTERSTATE AND HIGHWAY CONNECTIVITY

It goes without saying that transportation connectivity – especially highway access – is a fundamental requirement for many businesses. This reality is reflected in *Area Development* magazine's 29th Annual Survey of Corporate Executives (2014) which revealed that highway accessibility is once again among the top two site selection factors in the minds of corporate decision-makers; 88 percent of these decision-makers cited it as an "important" or "very important" consideration. This factor has ranked among the top location factors in this survey, and other similar surveys, for decades.

The Lynchburg region's lack of interstate access is especially glaring when compared to the other peer communities in this Regional Assessment. The Spartanburg metro area is intersected by both I-85 and I-20, making the region highly competitive for a variety of manufacturing and distribution activities. Likewise, the Roanoke metro area is easily accessed by I-81 and the Chattanooga metro by I-24. These infrastructural assets place these communities in a much more competitive position for highway-dependent industries than the Lynchburg region. **The reality is that interstate access is a basic requirement for many companies, and that Lynchburg may not even make the first cut for companies evaluating potential markets for a new facility. This despite the fact that, on the ground, the region's highway system is likely not a practical barrier to competitive operations; after all, major distribution facilities for employers such as J. Crew have located in the region. In some respects it is not necessarily the region's lack of an interstate that is a barrier to its competitiveness, but rather, it is the presence of one or more interstates in the overwhelming majority of similarly-sized metropolitan areas that places the Lynchburg region at a competitive disadvantage in the marketplace.**

PASSENGER AIR CONNECTIVITY

As was the case with highway connectivity, public input participants view the Lynchburg region's lack of air connectivity as a competitive challenge that inhibits the region's ability to grow its economy. **Nearly two-thirds of survey respondents rated the passenger air connectivity out of the Lynchburg Regional Airport as a "disadvantage" or "major disadvantage."**

As with a variety of other factors examined in this report, it is difficult to separate an evaluation of the Lynchburg region from its neighbor, Roanoke, with regards to passenger air capacity. A major decision impacting the competitiveness of both regions was made in the early 1980s when a proposal for a new regional airport in Bedford County serving the two communities was scrapped. **A single airport supporting the needs of the two regions and other nearby regions such as Martinsville, Blacksburg, and others, was characterized by some input participants as "a missed opportunity."** Today, the Roanoke metro area has firmly established itself within the broader region as a more competitive destination for air travel; Lynchburg Regional provides direct service to only one destination (Charlotte) while Roanoke provides direct service to eight destinations.

AIRPORT STATISTICS (12 MONTHS ENDING JANUARY 2016)

Airport	Passenger			Freight	
	Passenger Departures (thousands)	Passenger Departures (National Ranking)	Nonstop Destinations	Freight Cargo (lbs, millions)	Freight Cargo (National Ranking)
Lynchburg Regional Airport (LYH)	75	#242	1	0.009	#603
Roanoke-Blacksburg Regional Airport (ROA)	296	#153	8	27	#124
Chattanooga Metropolitan Airport (CHA)	393	#130	8	20	#137
Greenville-Spartanburg International (GSP)	953	#89	15	60	#87

Source: U.S. Bureau of Transportation, Bureau of Transportation Statistics

Despite these facts, it is difficult to qualify the presence of Lynchburg Regional Airport as anything other than an asset for the region. The reality, however, is that many participants characterized air service at Lynchburg Regional as “unreliable” or “inconvenient” with some indicating that it was simply easier or otherwise preferable to travel a short distance to one of many higher capacity airports within a two hour drive (Roanoke, Richmond, and Piedmont Triad, among others).

COMMUTER AND FREIGHT RAIL CONNECTIVITY

When it comes to rail connectivity, the Lynchburg region is much more competitively positioned. Commuter rail access via Amtrak is available from Lynchburg to Washington, DC, which input participants noted as an advantage from both a talent attraction standpoint and for overall tourism purposes. Other efforts to make commuter rail available elsewhere in the Lynchburg region are also underway, most notably in Bedford where town leaders are evaluating the feasibility of establishing an Amtrak station in the community.

Both CSX and Norfolk Southern provide freight rail service to the Lynchburg region, and the Lynchburg region's freight rail access is comparable to its peer communities. The region lacks access to rail intermodal terminals; the Virginia Inland Port (VIP) in Front Royal, VA is nearly three hours away.

PORT ACCESS

The Port of Virginia is a highly competitive seaport on the East Coast that boasts six terminals and 50-foot channel depths. The Port is also the only seaport on the East Coast with Congressional authorization to dredge to 55 feet, helping ensure the Port's continued competitive position for years and decades as other Eastern seaports – notably Charleston and Savannah – begin dredging to accommodate much larger container ships that can currently access the Port of Virginia, the Port of Baltimore, the Port of New York and New Jersey, and the Port of Miami along the East Coast. Despite this highly competitive seaport, the Lynchburg region is somewhat geographically isolated from the Port of Virginia and this reality is further exacerbated by the lack of interstate connectivity between the Port and the Lynchburg region; the region is nearly 200 miles from the Port and a roughly three and a half hour drive. Based simply on distance and connectivity, the Lynchburg region is among the regions in the state that does not have a particularly compelling case to make with regards to strategic locational advantage.

WATER AND SEWER CONNECTIVITY

The Lynchburg region benefits from an abundant water supply, thanks in large part to the James River that flows through the region. **In fact, it was the second most favorably rated component of the region's business climate by business leadership on the community survey, trailing only labor costs.** However, input participants noted that some of the region's rural communities lack strong water and sewer *connectivity*, which puts them at a strategic disadvantage for attracting industries that require access to this basic form of infrastructure. Many others acknowledged the challenges associated with infrastructure provision in the Commonwealth of Virginia and Region 2000, from the more obvious topographical challenges to less obvious jurisdictional challenges associated with government structure. Water is also relatively affordable in the region when various authority rates are compared to statewide averages. **Make no mistake – the region's abundance of water is unquestionably an economic development asset for water-intensive sectors from paper products to food and beverage to semiconductors, particularly in a country where water is a highly scarce resource in regions as diverse as urban California and rural Georgia.**

INTERNET CONNECTIVITY

The global economy is as interconnected as ever, and broadband internet access is a foundational necessity for most companies. Communities that lack this infrastructural asset are significantly limiting the economic opportunities afforded to their citizens. As was the case with water and sewer access, many of the most rural parts of the Lynchburg region lack broadband internet access, which reduces the overall region's ability to compete with peer communities for economic development projects. Publicly-available reliable data on broadband access across geographies is limited, but according to information released at the Lynchburg Region's Technology Council's 2015 Broadband Summit, major portions of Amherst, Appomattox, and Campbell County lack any reported broadband coverage. **Many input participants expressed concern over the overall region's spotty access to broadband, from the impact it has on academic outcomes of school children to the impact it has on unemployed adults looking for job opportunities.** The Electric Power Board of Chattanooga (EPB) – the City's utility – became the first municipal utility in the country to offer its residents gigabit internet speeds beginning in 2010. The development of this high capacity network has received tremendous positive media attention, supported the regions' status as an emerging hub for technology entrepreneurs, directly influenced the recruitment or expansion of multiple major employers, and had substantive impacts on service delivery in areas such as public safety and emergency communications.

CENTRAL VIRGINIA CONNECTIVITY STUDY

The Central Virginia Connectivity Study is a state and regional collaborative effort to analyze the transportation connectivity of the Lynchburg region. The primary purpose of the study is to strengthen the regional economy and broaden the economic opportunities available to residents in the region. The summary findings of qualitative input obtained from the Central Virginia Connectivity Study (which is running concurrently to this CEDS process) that have been released thus far provide similar conclusions about how residents view the region's connectivity as the input that was gathered for this Regional Assessment.

7. ECONOMIC COMPOSITION, DIVERSITY, AND RESILIENCY

The preceding chapter of this Assessment established that the Lynchburg region has a few key competitive concerns that are substantive obstacles to job creation in a diverse array of sectors. **Most notably, the region's connectivity challenges – from interstate access to direct flights to broadband – place considerable constraints on the types of economic activity that are likely to be attracted to the region relative to the abundance of other competitive communities and regions that companies are evaluating.** However, while *connectivity* is a principal challenge, *affordability* is a key competitive advantage.

This affordability advantage is evident in the region's wage rates for a variety of occupations, as well as other key business costs from utility rates to tax rates. **These findings are supported by stakeholder input from the business community: 45 percent of business leaders evaluated "local taxes" as an "advantage" or "major advantage" with just 20 percent evaluating them as a "disadvantage" or "major disadvantage."** This stands in contrast to many other communities and regions where local taxes are frequently evaluated unfavorably by the business community and cited as one of their region's greatest competitive concerns. **Input participants with knowledge of the real estate environment also acknowledged that, generally speaking, land prices and lease rates are not a competitive concern for the region or its existing businesses.**

However, although the cost of real estate may not be a major concern, the relative lack of large, ready-to-go (infrastructure-served) sites places the region at a competitive disadvantage relative to many of its competitors who have inventories of industrial land that include multiple ready-to-go or partially-prepared sites over 100 acres. The region is home to a number of challenges that inhibit such site preparation or large lot assembly; topography is perhaps most notable. Although the region is home to many smaller acreage opportunities, local, regional, and state level economic developers all cited the region's available sites and building – particularly large acreage parcels in the 100–200 acre range – as one the region's greatest barriers to new economic development projects in the region.

These challenges and others related to connectivity and other issues highlighted in previous chapters of this Assessment have certainly inhibited the region from emerging as a prospective location for certain types of economic development projects. It also stands to reason that these same factors have influenced, at least to some degree, certain business closures and layoffs in the region. Major job losses have occurred as companies like Genworth Financial, the Timken Company, Nationwide Insurance, and others have reduced their operational presence in the region. The impending closure of the Central Virginia Training Center (CVTC) in Amherst County alone will result in the loss of over 1,000 jobs.

Major closures such as the CVTC and other mass layoff events underscore the need for economic diversification. Economic diversification should be a top goal of any community looking to maintain a resilient economy in the global economic landscape. Economic diversification helps to insulate communities from uncontrollable global trends that may affect certain industries in a particularly acute way. Additionally, economic diversification is important in providing adequate job opportunities to workers of various skills sets in a way that helps to establish ladders of economic opportunity and can help overall talent attraction and retention efforts. But perhaps most importantly, it can help insulate a region and its labor force from the potentially devastating effects associated with the closure of a single, large employer. In this respect, it is

important that economic diversity not only be defined in terms of business sector composition but also business size. Regions that are overly reliant on one or two major employers, or one or two specific business sectors, are particularly susceptible to changes within a given sector or at a given employer. **Diverse economies are more likely to be resilient economies.**

The immense influence of Liberty University on the region's economy and its recent growth has been discussed extensively throughout this Assessment. In examining the job growth figures for the region over the course of the last decade, it is apparent that absent this growth, the region would have experienced a net loss of jobs over the course of the last decade.

JOB GROWTH (2005-2015)

	2005	2015	Net Change (2005-2015)	% Change (2005-2015)
Lynchburg MSA	113,719	115,528	1,809	1.6%
Roanoke MSA	165,775	163,297	(2,478)	-1.5%
Chattanooga MSA	263,539	258,155	(5,384)	-2.0%
Spartanburg MSA	137,768	149,370	11,602	8.4%
Virginia	4,112,482	4,215,750	103,268	2.5%
United States	148,660,331	156,237,788	7,577,457	5.1%

Source: Economic Modeling Specialists, Int'l; (EMSI); www.economicmodeling.com

From 2005 to 2015, the metro added 1,809 jobs and expanded its jobs base by 1.6 percent. This rate of growth was higher than both the Roanoke and Chattanooga metros who are among those regions that have struggled to return to pre-recession employment levels, but lower than the remaining comparison geographies. Over the course of this decade, the average American community experienced job growth of 5.1 percent; the Lynchburg region experienced job growth of 1.6 percent.

Despite the region's rather anemic job growth numbers, the Lynchburg region has not been plagued by high levels of unemployment, and in fact, the regional unemployment rate has only marginally deviated from the state of Virginia's unemployment rate over the past ten years. In February 2016, the Lynchburg metro had a non-seasonally adjusted unemployment rate of 4.7 percent – lower than the 5.2 percent national rate and just above the state's 4.2 percent rate of unemployment.

ECONOMIC COMPOSITION BY SECTOR

Digging deeper into the region's economic composition – its high level employment by sector – can help reveal the manner in which the region is growing and validate or dispel the notion asserted during public input that the Lynchburg region would have little to no economic growth in recent years and decades absent Liberty's influence.

The following table includes a number of indicators of economic performance by sector for the Lynchburg metro, including location quotients (LQ). A location quotient is the ratio of a region's share of employment in a given business sector to the nation's share of jobs within that same sector. A location quotient of 1.0 indicates that the region's share of employment in a given sector is exactly the same as that sector's share of national employment. The concept can be used to identify which business sectors are more concentrated

in a region compared to the United States as a whole, or the average American community. Location quotients significantly above 1.0 are often seen as indications that a region may afford businesses in this sector some type of local competitive advantage. For example, if roughly 20 percent of a region's employment lies in the manufacturing sector but only 10 percent of the nation's employment is in the manufacturing sector, that region would possess a location quotient (LQ) for manufacturing equal to 2.0 (20 percent divided by 10 percent).

What is most evident from the analysis of economic composition is the region's reliance on manufacturing and education sectors. The region's strengths in these areas probably comes as no surprise to those in the region, but the relative lack of specialization in any other major sector is a sign that the region's economic identity is, much like its cultural identity, tied to Liberty University. Furthermore, absent the growth observed in the Educational Services sector (3,947 net new jobs from 2005-2015), the Lynchburg region would have *lost* more than 2,100 jobs over the course of the last decade.

ECONOMIC COMPOSITION AND JOB GROWTH BY MAJOR SECTOR (2005-2015)

Sector	Lynchburg, VA MSA				United States
	Location Quotient (2015)	Employment (2015)	Net Change (2005-2015)	% Change (2005-2015)	% Change (2005-2015)
Crop & Animal Production	0.51	725	116	19.0%	(1.3%)
Mining, Quarrying, & Oil & Gas Extraction	0.12	68	(15)	(18.1%)	29.6%
Utilities	0.50	207	(24)	(10.4%)	2.5%
Construction	1.03	6,294	(2,536)	(28.7%)	(13.8%)
Manufacturing	1.58	14,571**	(4,587)	(23.9%)	(14.0%)
Wholesale Trade	0.79	3,530	155	4.6%	1.3%
Retail Trade	1.11	13,309	6	0.0%	1.5%
Transportation & Warehousing	0.69	2,610	(437)	(14.3%)	8.0%
Information	0.46	994	(55)	(5.2%)	(9.0%)
Finance & Insurance	0.82	3,789	(31)	(0.8%)	(2.3%)
Real Estate & Rental & Leasing	0.74	1,414	(83)	(5.5%)	(5.9%)
Professional, Scientific, & Technical Services	0.75	5,494**	1,600	41.1%	19.3%
Mgmt of Companies & Enterprises	0.92	1,510	(240)	(13.7%)	26.8%
Admin & Support/Waste Mgmt Services	0.78	5,665	168	3.1%	9.1%
Educational Services (Private Only)	3.26	9,510	3,947	71.0%	24.7%
Health Care & Social Assistance	1.03	14,945	2,881	23.9%	26.5%
Arts, Entertainment, & Recreation	0.62	1,193	131	12.3%	14.5%
Accommodation & Food Svcs	0.95	9,263	1,807	24.2%	18.2%
Other Services (except Public Administration)	1.05	5,824	186	3.3%	2.8%
Government (including Public Education)	0.82	14,613	(1,179)	(7.5%)	1.4%
<i>Total, All Sectors</i>		<i>115,528</i>	<i>1,809</i>	<i>1.6%</i>	<i>5.1%</i>

Source: Economic Modeling Specialists, Int'l; (EMS); www.economicmodeling.com

Note: Sectors with a location quotient greater than 1.1 are colored in green to indicate concentration; sectors with location quotients below 0.9 are colored red to indicate a lack of concentration; sectors with location quotients between 0.9 and 1.1 are colored yellow

**Please see discussion labeled "Reclassification Error" that follows this table for important information on interpreting the two values.

The region's recent reliance on Liberty University for economic growth presents a major challenge for the region. At some point, Liberty University's growth will hit a plateau. The corresponding leveling off of

employment in the Educational Services sector will possibly lead to economic stagnation in the region, in the absence of other sectors of the economy that can pick up the slack. Unfortunately, there is little evidence to suggest that other sectors in the region are capable of doing so, based on recent trends.

By and large, in addition to education, the region's growing sectors in the last decade are predominantly local-serving: Health Care and Social Assistance; Arts, Entertainment, and Recreation; Accommodation and Food Services. This is not to diminish the role that entities like Centra Health – the region's second largest employer – play in providing high-quality job opportunities to many in the region. Aside from a limited number of destination healthcare providers and regions (i.e. Cleveland Clinic, Mayo Clinic, etc.) healthcare services is primarily a local-serving sector that isn't typically a major driver of new wealth creation in a community. The production of new wealth in a community is predicated upon attracting income from outside the community via export-oriented sectors such as Manufacturing, Transportation and Warehousing, and Professional Services, rather than simply recycling it within the region via predominantly local-serving sectors. That being said, healthcare services was the only major sector to continue to add jobs nationwide during the Great Recession. The sector added nearly 2,900 jobs in the Lynchburg metro area between 2005 and 2015, clearly helping to mitigate the losses experienced in other sectors across the region. However, this ten-year rate of growth (23.9 percent) trailed the national rate of growth in healthcare services employment during the same ten-year period (26.5 percent). This is not a particularly surprising finding understanding that healthcare services demand is driven heavily by population growth, and given that population growth in the Lynchburg region also slightly trailed the national rate of growth from 2005 to 2015.

RECLASSIFICATION ERROR: At first glance, it may appear that some other sectors of the regional economy are performing quite well. In fact, we see that the Professional, Scientific, and Technical Services sector (which captures everything from accounting to engineering to graphic design) added exactly 1,600 jobs over the last decade, growing at more than twice the national rate. However, in reality, there is an underlying reclassification of a major employer in the data, whereby roughly 1,500 jobs were shifted from the "fabricated metal product manufacturing" subsector to the "engineering services" subsector. Accordingly, job *growth* in the Professional, Scientific, and Technical Services sector is overinflated by this amount (roughly 1,500 jobs) while job *loss* in the Manufacturing sector are overinflated by this amount. And so, in reality, there was little to no actual job growth in the Professional, Scientific, and Technical Services sector, and Manufacturing job loss during the decade was likely closer to 3,100 instead of 4,587.

In the same way that it is difficult to discuss the region's growth without acknowledging Liberty's influence, it is difficult to discuss the region's economic composition, and draw meaningful conclusions from it, without viewing this composition in the context of its most proximate neighbor, the Roanoke metropolitan area. As discussed in the second chapter (in the context of commuting patterns) and the fifth chapter (in the context of retail expenditures), the Lynchburg metro is economically integrated with the neighboring Roanoke metro area. An examination of the relative concentration of employment by business sector in each region helps further illustrate this point and shed light on how the two metros complement each other in a broader "super region" or "super-regional economy."

ECONOMIC COMPOSITION COMPARISON, LYNCHBURG & ROANOKE METRO AREAS (2015)

Sector	Lynchburg MSA	Roanoke MSA	Combined Region
Crop & Animal Production	0.51	0.38	0.44
Mining, Quarrying, & Oil & Gas Extraction	0.12	0.14	0.13
Utilities	0.50	0.70	0.62
Construction	1.03	1.07	1.05
Manufacturing	1.58	1.21	1.36
Wholesale Trade	0.79	1.06	0.95
Retail Trade	1.11	1.04	1.06
Transportation & Warehousing	0.69	1.50	1.17
Information	0.46	0.57	0.53
Finance & Insurance	0.82	1.02	0.94
Real Estate & Rental & Leasing	0.74	0.87	0.82
Professional, Scientific, & Technical Services	0.75	0.77	0.76
Mgmt of Companies & Enterprises	0.92	1.97	1.54
Admin & Support/Waste Mgmt Services	0.78	0.89	0.85
Educational Services (Private Only)	3.26	0.88	1.87
Health Care & Social Assistance	1.03	1.19	1.13
Arts, Entertainment, & Recreation	0.62	0.64	0.63
Accommodation & Food Svcs	0.95	0.94	0.94
Other Services (except Public Administration)	1.05	1.09	1.08
Government (including Public Education)	0.82	0.84	0.83

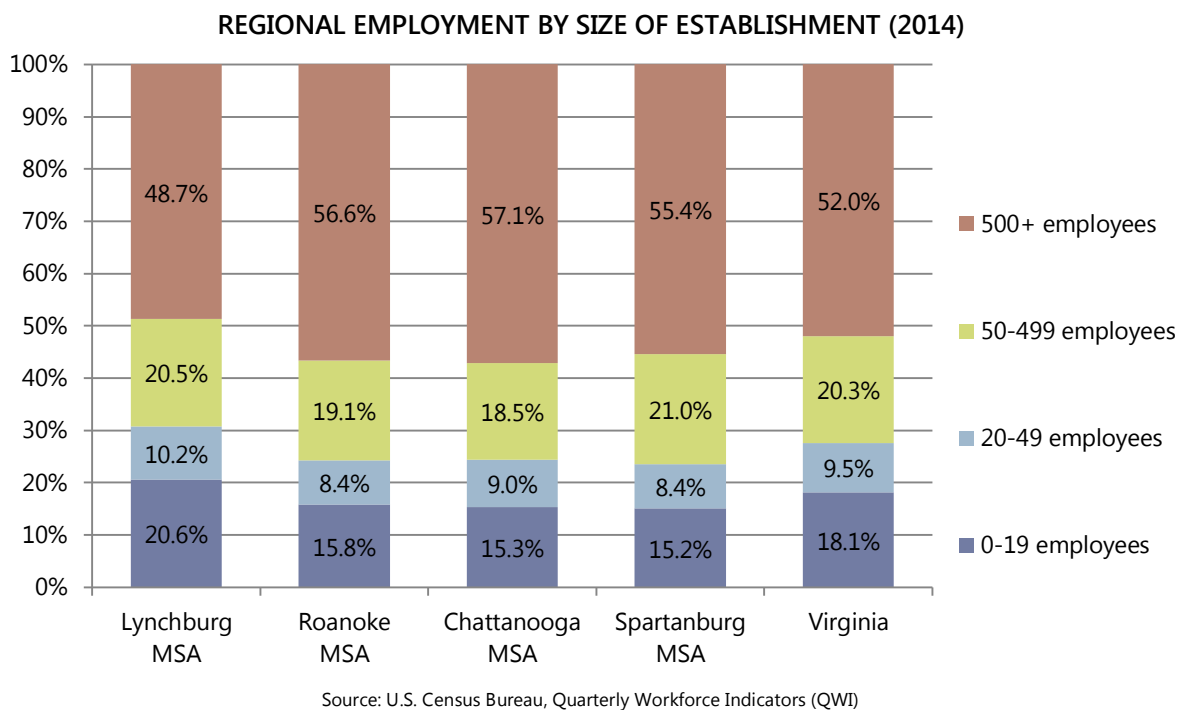
Source: Economic Modeling Specialists, Int'l; (EMS); www.economicmodeling.com

Note: Sectors with a location quotient greater than 1.1 are colored in green to indicate concentration; sectors with location quotients below 0.9 are colored red to indicate a lack of concentration; sectors with location quotients between 0.9 and 1.1 are colored yellow

Simply put, many of the sectors that are underrepresented in the Lynchburg metro area relative to the United States are heavily concentrated in the Roanoke region, and vice versa. The Roanoke region has greater concentrations of employment in a variety of white-collar sectors from Information Services to Finance and Insurance to the Management of Companies and Enterprises (Corporate and Regional Headquarters). While the Lynchburg metro not surprisingly lacks substantive employment in the transportation and warehousing sectors given its lack of direct interstate access, the Roanoke region has a relatively strong specialization in this area. Just these few examples help make evident the degree to which the two region's economies have evolved in part as a result of one another and as a result of each other's asset base and deficiencies.

ECONOMIC COMPOSITION BY ESTABLISHMENT SIZE

As previously mentioned, a region's economic resilience can be defined in a variety of ways, not simply by way of sector composition. Regional economies with employment concentrated in a few major employers may not be as resilient as another economy with employment dispersed across many smaller to medium sized employers. And given the narrative that has been presented herein regarding the influence of Liberty University, one might expect to see a region where a relatively large share of employment is concentrated in its largest employers. Interestingly, this is not the case in the Lynchburg region.



In fact, the Lynchburg region is the least dependent upon major employers (those with 500+ employees) among all comparison geographies. Just 48.7 percent of regional employment is concentrated in these employers, whereas at least 55 percent of regional employment is concentrated in these employers in the three comparison metros. Nearly 31 percent of employment is concentrated in small employers with fewer than 50 employees; such employers represented no more than 24.3 percent of employment in the three comparison metros. This is a somewhat surprising but nonetheless remarkably positive finding: the region has a solid base of smaller to medium-sized employers that can potentially drive future economic growth and help insulate the regional economy from shocks that come from a single employer.

TARGET SECTOR ANALYSIS

Similar to the Central Virginia Connectivity Study, a Target Sector Analysis has also been completed independently but concurrent with the CEDS process. This piece of research provides a comprehensive examination of the region's economic composition across hundreds of detailed sectors and occupations, ultimately identifying and profiling those sectors which have the greatest potential to support future job and wealth creation in the region, and support objectives of economic diversification and resiliency. The findings of this report, like the Connectivity Study, are included in Appendix A and have informed the development of the Comprehensive Economic Development Strategy (CEDS).

8. TRANSLATING REGIONAL PROSPERITY TO PERSONAL WELL-BEING

A community seeking to advance economic development should be pursuing this objective with the ultimate goal of improving the long-term financial well-being of its citizens. In other words, adding jobs just for the sake of adding jobs doesn't appropriately put the big picture of community prosperity at the forefront where it needs to be. Community and economic development, at its core, is about improving people's lives. Providing economic opportunities that support this inherent goal is where a community's long-term focus should lie.

There is no shortage of evidence that suggests that the economic well-being of the average resident in the Lynchburg region is – for the lack of a better term – average at best.

MEASURES OF PERSONAL WELL-BEING (2004-2014)

	WAGES		PER CAPITA INCOME (PCI)		POVERTY	
	Average Annual Wage (2014)	% Change, (2004-2014)	PCI (2014)	% Change, (2004-2014)	Poverty Rate (2014)	Pct. Pt. Change (2009-2014)
Lynchburg MSA	\$39,873	27.5%	\$36,237	28.2%	15.8%	1.9%
Roanoke MSA	\$40,034	24.2%	\$41,383	29.0%	13.7%	1.4%
Chattanooga MSA	\$41,853	32.0%	\$39,260	28.5%	16.4%	-1.1%
Spartanburg MSA	\$42,051	20.4%	\$35,897	31.9%	17.8%	2.4%
Virginia	\$52,563	31.0%	\$46,049	34.2%	11.8%	1.3%
United States	\$51,296	31.1%	\$50,345	33.4%	15.5%	1.2%

Source: Bureau of Labor Statistics, Quarterly Census on Employment and Wages (QCEW); Bureau of Economic Analysis (BEA); U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE)

In 2014, the average annual wage in the Lynchburg region was just \$39,873 – lower than all other comparison geographies. And while the region's wage growth over the course of the last ten years has exceeded that of neighboring Roanoke and Spartanburg, SC, it has trailed the state and national averages. In other words, wages in the Lynchburg region are simply not growing in a manner that will substantially lessen the gap between the Lynchburg region and the United States, or many of the other comparison communities for that matter. While low wages do in some respects represent a competitive advantage for attracting certain industries looking for a labor cost advantage, if growing regional prosperity is the ultimate goal of the Lynchburg region, accelerating wages is a clear requirement for the Lynchburg region. The same can be said for some of its primary competitors.

The reason that much attention should be placed on wage growth when it comes to elevating community prosperity is for the rather obvious role that wages play in improving the economic well-being of individuals. Wages constitute the bulk of an individual's per capita income (PCI), which is the most basic measure of individual economic well-being in a community. Given the aforementioned low overall wages in the Lynchburg region, it comes as little surprise to also find that the region's per capita income is comparably low. Income growth has lagged behind all comparison regions, albeit by a slight margin, over the course of the last decade.

Poverty rates are another important indicator of socioeconomic well-being and stability. Poverty has been on the rise nationwide as the country struggles to generate income for those most in need, one of the most troubling aspects of the nation's particularly slow recovery from the Great Recession. In 2014, 15.8 percent of residents in the Lynchburg region were living in poverty, just slightly above the national average and falling in the middle of the pack of the comparison metros.

The issue of poverty in the Lynchburg region is not going unnoticed by regional stakeholders. In particular, the Lynchburg City Council has increasingly been devoting resources to address the concentrated poverty in the city, fearing that intergenerational poverty may soon imbed itself in the community. Poverty reduction strategies must be holistic and multi-faceted, and this CEDS process is another mechanism by which regional leaders can understand the challenge before them and devote the resources necessary to ensure that economic development is inclusive and supports the well-being of *all* of the region's residents.

CONCLUSION: REGIONAL ASSESSMENT

TOWARDS EFFECTIVE REGIONALISM

This Regional Assessment offers a thorough discussion of a variety of issues influencing the region's competitiveness as a place to live, work, and do business. Its eight stories contain insights and findings that should influence the region's strategic priorities related to economic development:

1. Image, Identity, and Influence: The Lynchburg Region and Liberty University
2. Regional Growth Dynamics
3. Attracting, Retaining, and Developing a Future Workforce
4. Quality of Life: What Makes Us "Family Friendly?"
5. Quality of Place: Relative Appeal to Young Professionals
6. Connectivity in Region 2000: Threats to Competitiveness
7. Economic Composition, Diversity, and Resiliency
8. Translating Regional Prosperity to Personal Well-Being

Collectively, these stories present a simple truth: maintaining the status quo cannot be an option if the Lynchburg region is to be a more prosperous community for future generations. **Although numerous input participants discussed an aversion to change among some portions of the population and its leadership,** the region has already demonstrated a commitment to first come together in launching this CEDS process and advancing the recent merger that resulted in the formation of the Lynchburg Regional Business Alliance. Next comes the commitment to act.

The Comprehensive Economic Development Strategy (CEDS) that follows is predicated upon the quantitative and qualitative findings presented in this Regional Assessment. It is accompanied by a set of implementation guidelines and a corresponding Implementation Plan, a companion document to the CEDS, which clearly identifies the roles and responsibilities of various organizations and agents involved in supporting community, economic, and workforce development in implementing the CEDS. It speaks to various structures – volunteer and organizational – that can help ensure that implementation is characterized by effective regionalism. **Input participants occasionally referred to the region as "a region in name only" or characterized it as "parochial" or "divided." Many also emphasized that a variety of factors – from politics to topography to revenue sources – that have impeded the region's progress in advancing collaborative, regional projects to address challenges that span jurisdictional borders.** The CEDS and its corresponding Implementation Plan seeks to identify initiatives where regional collaboration is viable, attainable, and embraced, and where such regional collaboration supports efficiency and effectiveness in service-delivery.

COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY

PROCESS: ESTABLISHING A VISION AND DEVELOPING GOALS

At the onset of this strategic planning process and during the first meeting of the CEDS Steering Committee, it was emphasized that this regional strategy must go beyond mere fulfillment of federal requirements. Specifically, there is an expectation that the CEDS will serve as a foundational document in guiding the program of work for the newly-formed Lynchburg Regional Business Alliance (LRBA) as it seeks to fulfil a role as a catalyst for regional economic development. During its first meeting the Steering Committee also discussed the manner in which the region has changed in recent years, the most substantive challenges facing the region today, and its vision for a preferred future. This discussion centered upon a few key themes:

- ✓ Concerns about access to **economic and educational opportunities**
- ✓ Regional challenges associated with **infrastructure and connectivity**
- ✓ Desires to develop a more attractive **quality of place** with the amenities and built environment that will appeal to **the next generation of workers**
- ✓ Frustration with the lack of a discernable **regional identity** or niche in the marketplace

Similar themes emerged when more than 1,100 residents responded to the following question on the community survey that speaks to their vision for a preferred future: *"Imagine that you went home, packed your bags, and didn't return to the Lynchburg region for ten years. What would you want to see different (if anything) about the community when you return?"* The Regional Assessment includes a word cloud illustrating the most frequently mentioned words when responding to this question. Echoing the sentiments of the Steering Committee, among the most frequently mentioned words by residents were:

- ✓ Words that speak to the need for continued **economic improvement**: words such as *opportunities, jobs, businesses, growth*
- ✓ Words that speak to **quality of place** and attributes that help **attract and retain talent**: words such as *downtown, shopping, restaurants, entertainment, river, activities*
- ✓ Words that speak to **connectivity and infrastructure**: words such as *transportation, airport, roads, bike, traffic*

All of the input received from the Steering Committee and residents – those that responded to the community survey, participated in interviews, and attended focus groups – was married with extensive quantitative analysis to produce the Regional Assessment, a narrative discussion of where the region has been, where it stands today, and where it is headed in an increasingly competitive world for jobs and talent.

The eight stories that frame the quantitative and qualitative research findings in the Regional Assessment are as follows:

1. Image, Identity, and Influence: The Lynchburg Region and Liberty University
2. Regional Growth Dynamics
3. Attracting, Retaining, and Developing a Future Workforce
4. Quality of Life: What Makes Us "Family Friendly?"
5. Quality of Place: Relative Appeal to Young Professionals
6. Connectivity in Region 2000: Threats to Competitiveness
7. Economic Composition, Diversity, and Resiliency
8. Translating Regional Prosperity to Personal Well-Being

These eight stories collectively address a few common themes:

- ✓ the region's growth patterns and the manner in which these reflect its ability to effectively attract, retain, and develop a **sustainable workforce**;
- ✓ the degree to which **the region's image, quality of life, and quality of place** impact its ability to develop this sustainable workforce, and;
- ✓ the region's **effectiveness in nurturing a diverse, resilient, and prosperous economy** and the degree to which this prosperity translates to **resident well-being**.

Following a review and discussion of the Regional Assessment, Steering Committee members responded to a survey that provided them with the opportunity to identify the specific findings and stories from the Regional Assessment that were most concerning to them personally. Responses were grouped according to key themes and Committee members were asked to evaluate these top concerns and, through interactive voting, identify the region's greatest priorities related to supporting economic growth and diversification from among these top concerns. Each Steering Committee member was allowed to vote for three priorities among nine themes that emerged from their feedback on the aforementioned survey. The Steering Committee's voting revealed the following priorities (numbers in parentheses reflect the number of votes received):

1. Developing **talent pipelines** that support key business sectors (13)
2. Enhancing **quality of place** (12)
3. Promoting a positive **image and identity** (9)
4. Improving **connectivity** (7)

Collectively, this information, reviewed in the preceding discussion covering expectations for this strategy, and key themes emerging from Steering Committee discussions, resident input, and the Regional Assessment demonstrated that the region's strategy could reasonably be organized around four primary themes or goal areas:

1. Image and Identity
2. Economic Development Service Delivery (Business Attraction, Retention, and Development)
3. Workforce Sustainability (Talent Attraction, Retention, and Development)
4. Quality of Place (Infrastructure Provision and the Built Environment)

It was suggested to the Steering Committee that the CEDS could be guided by a vision statement emphasizing attributes that reflect the strengths residents and stakeholders wish to preserve, as well as the preferred future that they desire. Based on the words used by residents and Committee members when describing the region's key strengths and what they would like to see ten years from today, the Market Street team developed a few potential vision statements for the Steering Committee to consider. These vision statements were accompanied by a suggested set of goal statements that could communicate the manner in which the region will help advance its vision while providing structure to the CEDS recommendations. Steering Committee members reviewed the proposed vision statements and identified their most preferred attributes of the proposed vision statements. Committee members also broadly endorsed the four proposed goal statements and the themes that they addressed, while suggesting some potential augmentations in the structure and verbiage used to help improve clarity.

The vision statement which received the most votes from Steering Committee members in draft form was as follows: *"The Lynchburg region is an inviting, family-friendly, and well-connected region that is characterized by the diversity, resilience, and attractiveness of its workforce, communities, and economy."* Among other feedback, Committee members emphasized a desire to see words and themes such as inclusion, innovation, and creativity incorporated into the region's vision. It was also acknowledged that a more forward-looking, aspirational, and differentiated vision would be desirable.

This feedback informed the vision statement and goal statements that framed the first complete draft of the Comprehensive Economic Development Strategy (CEDS) and eleven key initiatives included within it. Feedback received from Committee members has informed subsequent revisions to this vision statement, the overarching goal statements, and the tactics supporting the eleven key initiatives that comprise the CEDS. In total, four meetings of the Steering Committee have been devoted to the development and refinement of the CEDS: its vision, goals, and key initiatives.

This CEDS incorporates a set of Implementation Guidelines for each of the eleven key initiatives and is accompanied by a complementary Implementation Plan. The various implementation guidelines that accompany each of the eleven key initiatives described herein identify lead implementers, supporting partners, a timeline for implementation, potential costs associated with implementation, and potential funding sources. The Implementation Plan comments on implementation roles and responsibilities, organizational and financial capacity to support implementation, implementation priorities, and performance metrics to gauge implementation success and impact. Collectively, these elements support the Strategic Direction and Action Plan components of the EDA's CEDS Content Guidelines.

STRATEGIC VISION AND GOALS

"Our vision is a prosperous, vibrant, and inclusive Lynchburg region recognized for the creativity of its workforce, the resilience of its economy, and its abundance of natural, cultural, and educational opportunities."

Collectively, the Lynchburg region will help advance this vision through the pursuit of five key goals:

1. *...projecting a positive image and cultivating our distinct identity;*
2. *...facilitating the growth and expansion of our business community;*
3. *...educating and developing a sustainable workforce;*
4. *...investing in the connectivity of our region, and;*
5. *...supporting the vitality of our diverse communities and downtowns.*

These five goals are interrelated and interdependent, reflecting the nature of comprehensive economic development today. The Regional Assessment illustrated the degree to which such issues are interconnected; the Lynchburg region could struggle to **develop a sustainable workforce** if it fails to adequately **project a positive image** and support the vitality of its diverse communities and downtowns. Similarly, the region would compromise its efforts to effectively **facilitate the growth and expansion of the business community** if it fails to adequately **educate and develop a sustainable workforce** and **invest in the connectivity of the region**.

STRATEGIC OBJECTIVES AND KEY INITIATIVES

These five statements reflect overarching goals that provide structure to the Comprehensive Economic Development Strategy (CEDS), its objectives, and a set of initiatives that support them. **Strategic objectives** define those issues that the region wishes to impact within a goal area and serve as guidance for the pursuit and refinement of key initiatives, both in this CEDS and in subsequent updates. **Key initiatives** are specific, actionable pursuits for the region and its implementation partners. They can be programs, services, events, or investments in physical developments. A series of "**best practices**" or "**case studies**" have been referenced throughout this document and described in Appendix B when relevant to a specific initiative. These best practices and case studies can help guide implementation.

While there is a desire among Committee members and regional stakeholders to develop and implement a truly *comprehensive* and *holistic* economic development strategy, there has also been an acknowledgement that the region needs focus in its economic development strategy. This focus is appropriate given the recent changes in organizational structure and capacity supporting collaborative regional economic development – notably, the formation of the Lynchburg Regional Business Alliance (LRBA). It is intended that such focus can be reinforced by narrowly focusing the region's strategy on these eleven key initiatives.

KEY INITIATIVES: OVERVIEW

1. Form an Image and Identity Partnership to guide and implement a new collaborative Regional Branding and Image Campaign.
2. Implement a collaborative, regional Business Retention and Expansion (BRE) program.
3. Implement a targeted economic development marketing and corporate recruitment program.
4. Launch a new regional Center for Entrepreneurship that can serve as a long-term anchor and catalyst for the region's entrepreneurial ecosystem.
5. Launch an Economic Gardening and Entrepreneur in Residence program to drive technology-based economic development.
6. Form a Regional Talent Coalition to coordinate sector-focused workforce development initiatives, address regional skills gaps, and enhance collaboration between the business community and educational institutions.
7. Establish a Regional Workforce Center on the campus of Central Virginia Community College (CVCC) to deliver necessary workforce training.
8. Update project priorities and implement the region's existing plans for transportation, broadband, and other infrastructure provision based on relevant takeaways from the Central Virginia Connectivity Study.
9. Develop and implement a regional Site Evaluation and Improvement Program to accelerate the preparation and availability of shovel-ready industrial sites in the region.
10. Advance a Regional Riverfront Vision that seeks to "unlock" the region's riverfronts, better connecting and integrating local communities with the James and Roanoke Rivers.
11. Expand the establishment of Arts and Culture Districts throughout the region to encourage and incentivize projects that improve the aesthetic, artistic, and cultural appeal of the region.

GOAL I

*...projecting a positive image and cultivating our
distinct identity*

EXCERPTS FROM THE REGIONAL ASSESSMENT

"The old adage 'perception is reality' is an apt description of one of the unmistakable truths of community and economic development – the way you are perceived by others matters. In a world where the competition for talent is as fierce as the competition for jobs, regions are increasingly mindful of the ways in which they are perceived – positively and negatively – by the outside world. Communities and regions that fail to cultivate an authentic brand identity and proactively broadcast that identity to the world run the risk of being defined by external forces, or perhaps worse, having no definition at all. Many of the most competitive communities in the country have well-known economic and cultural identities that are reinforced over time."

"Unfortunately, many public input participants lamented the lack of a strong regional identity and felt that this lack of brand recognition had adversely impacted the region's competitiveness for talent and corporate investment, as well as its prospects for future growth and propensity. This lack of a strong identity leads to the possibility of being mischaracterized in a manner that inhibits a community's ability to attract and retain residents, businesses, and visitors."

STRATEGIC OBJECTIVES:

- ✓ Ensure that our regional brand identity clearly communicates the region's geographic location, projects a positive image, and is embraced by the region's businesses, institutions, and communities.
- ✓ Cultivate the seeds of an authentic regional identity that can be recognized on a national and global scale.
- ✓ Effectively promote what differentiates and characterizes the region to prospective future residents and workers.
- ✓ Promote our economic identity and competitive advantages to targeted audiences.

KEY INITIATIVE #1

Form an Image and Identity Partnership to guide and implement a new collaborative Regional Branding and Image Campaign.

Although contrived community brands are trivial in the realm of community improvement and economic development, authentic brand identities often reflect deep associations with a place and can heavily influence perceptions of a community. Whether it is Asheville's reputation as a progressive, cultural mecca amidst the Blue Ridge Mountains, the Research Triangle's reputation as an epicenter of higher education and research activity, or Nashville's reputation as the "Music City," authentic brand associations derived from a region's attributes can have a significant impact on its relative success in attracting and retaining certain businesses, residents, and visitors.

Stakeholders and input participants have repeatedly cited a desire to see the region develop and promote a new brand identity, one that reflects resident input and sources of pride while resonating with external audiences. At present, the region lacks a structure to advance a comprehensive branding and image campaign that leverages the expertise of a variety of professionals engaged in or with a vested interest in the marketing and promotion of the region and its communities to a variety of target audiences, notably existing and prospective future residents that represent the region's future workforce.

Assemble the Image and Identity Partnership.

The Image and Identity Partnership would serve as a working partnership of organizations and professionals in the Lynchburg region that are somewhat engaged in or have a vested interest in the marketing and promotion of the region. This could include but is by no means limited to representatives of economic development organizations, convention and visitors bureaus, young professionals organizations, downtown development organizations, arts and cultural organizations, higher education institutions, human resource departments, and other relevant partners. This Partnership would serve as a de facto Steering Committee in guiding the development and implementation of a comprehensive Regional Branding and Image Campaign (elements of which are described below). A subcommittee comprised of integrated marketing professionals from local creative agencies and firms (marketing, communications, advertising, branding, public relations, etc.) could potentially provide low-cost assistance in developing appropriate campaign elements.

Develop a grassroots, open-source brand identity for the region to serve as the foundation of the Regional Branding and Image Campaign.

Stakeholders repeatedly emphasized that the region lacked a strong geographic identifier; some lamented confusion surrounding "Lynchburg" and the state in which it is located while others cited a lack of awareness, recognition, or support for the "Region 2000" moniker. Many of these same stakeholders referenced the successful open-source "RVA" brand and logo developed as part of the RVA Creates initiative. Indeed, the RVA Creates initiative could serve as a viable model or best practice to emulate. The Partnership should evaluate the most cost effective method of deriving a regionally-generated, open-source brand identity and pursue the identified approach. In developing the identity, some basic level of market research regarding external perceptions will need to complement the research conducted as part of this CEDS process, and any additional relevant research, related to the perceptions and associations of existing residents. All relevant research should be conducted through the lens of talent attraction and retention, and the degree to which the region's brand identity and external image support this objective.

Develop and launch an internal resident pride initiative to promote adoption of the regional brand, and raise the visibility and patronage of existing amenities, attractions, and activities in the region.

A new grassroots-driven brand identity and associated brand elements should reflect resident enthusiasm and pride; it should be capable of uniting and unifying diverse communities and constituents. Ultimately, brand associations reflect a collection of attributes that are known or perceived about a region. Stakeholders and committee members have emphasized that the region is already home to many great amenities, attractions, and activities that simply need greater visibility to both existing and potential future residents. The Image and Identity Partnership could evaluate and implement a variety of methods to promote resident, organizational, and commercial adoption and integration of the new brand as part of a comprehensive internal resident pride initiative. This could include but is by no means limited to: creative methods of incentivizing patronage by way of a regional loyalty program; the deployment of a social media campaign; a series of weekly columns or op-eds spotlighting various amenities; or a resident competition whereby residents are rewarded for being “most experienced” in certain categories such as nature and recreation, festivals and events, downtown merchants, arts and culture, and so forth.

Engage a public relations consultant to promote positive stories about the region in targeted media outlets and markets.

When it comes to raising awareness about a community or region, there is no substitute for authenticity. Earned media – news articles and opinion pieces that are published in respected media outlets – carries far more credibility and authenticity with prospective new residents and workers that does advertising or other forms of “owned media” (such as websites, blogs, and social media accounts). While these owned media outlets can help spread information about a community or region, earned media carries with it a much greater perception of impartiality and objectivity. A public relations consultant can help the region build upon its branding efforts by identifying and promoting positive stories from the region to targeted media markets and outlets that align with the region’s talent attraction objectives. Once new brand elements have been developed and adopted regionally, the Image and Identity Partnership can take on the task of developing a master narrative and a series of targeted narratives that resonate with relevant audiences. These narratives can help provide structure for a consistent and intentional effort to promote positive stories about the region – articles, op-eds, and other media placements that help advance the region’s image and identity – in major national media outlets, supported by the retention of a public relations consultant.

KEY INITIATIVE #1: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	CEDS Implementation Committee, Lynchburg Regional Business Alliance, Young Professionals of Central Virginia
SUPPORTING PARTNERS:	Downtown organizations and Main Street programs, RED team, Local Government Council, higher education institutions and students, human resource professionals, local chambers of commerce, convention and visitors bureaus, local governments, integrated marketing/advertising/branding agencies, business community, arts councils, historical societies, area nonprofits and community foundations
TIMEFRAME FOR IMPLEMENTATION:	Partnership formation in 2017; Campaign launched and deployed by 2019
POTENTIAL COST:	\$50,000-\$150,000 startup; \$50,000-\$100,000 annual
POTENTIAL SOURCES OF FUNDING:	Partnership participants: public, private, and nonprofit sources
BEST PRACTICE OR CASE STUDY:	RVA CREATES (RICHMOND, VA)
BEST PRACTICE OR CASE STUDY:	RALLY ST. LOUIS (ST. LOUIS, MO)
BEST PRACTICE OR CASE STUDY:	“WE DON’T COAST” (OMAHA, NE)

GOAL II

...facilitating the growth and expansion of our business community

EXCERPTS FROM THE REGIONAL ASSESSMENT

"What is evident from (an) analysis of economic composition is the region's reliance on (the) manufacturing and education sectors...absent the growth observed in the Educational Services sector (3,947 net new jobs from 2005-2015), the Lynchburg region would have lost more than 2,100 jobs over the course of the last decade...The region's recent reliance on Liberty University for economic growth presents a major challenge."

"Diverse economies are more likely to be resilient economies. Economic diversification helps to insulate communities from uncontrollable global trends that may affect certain industries in a particularly acute way. Additionally, economic diversification is important in providing adequate job opportunities to workers of various skills sets in a way that helps to establish ladders of economic opportunity and can help overall talent attraction and retention efforts. But perhaps most importantly, it can help insulate a region and its labor force from the potentially devastating effects associated with the closure of a single, large employer. In this respect, it is important that economic diversity not only be defined in terms of business sector composition but also business size."

"Regional economies with employment concentrated in a few major employers may not be as resilient as another economy with employment dispersed across many smaller to medium sized employers. And given the narrative that has been presented herein regarding the influence of Liberty University, one might expect to see a region where a relatively large share of employment is concentrated in its largest employers. Interestingly, this is not the case in the Lynchburg region. In fact, the Lynchburg region is the least dependent upon major employers (those with 500+ employees) among all comparison geographies. Just 48.7 percent of regional employment is concentrated in these employers, whereas at least 55 percent of regional employment is concentrated in these employers in the three comparison metros. Nearly 31 percent of employment is concentrated in small employers with fewer than 50 employees; such employers represented no more than 24.3 percent of employment in the three comparison metros. This is a somewhat surprising but nonetheless remarkably positive finding: the region has a solid base of smaller to medium-sized employers that can potentially drive future economic growth and help insulate the regional economy from shocks that come from a single employer."

STRATEGIC OBJECTIVES:

- ✓ Retain and expand the region's existing business community.
- ✓ Attract new corporate investment in target sectors.
- ✓ Provide resources that help entrepreneurs and small business owners realize their potential.
- ✓ Pursue a model of regional economic development service delivery that is predicated upon collaboration and cooperation among local, regional, and state-level stakeholders.
- ✓ Promote economic diversification to support economic resiliency.

KEY INITIATIVE #2

Implement a collaborative, regional Business Retention and Expansion (BRE) program.

Various studies have illustrated that expansions of existing businesses represent between 60 percent and upwards of 90 percent of a region's job creation. But when they face challenges, a layoff event or closure can be devastating to a region, impacting everything from unemployment to foreclosures to child poverty. The Lynchburg region is no stranger to the risk posed by such closures. A best practice, collaborative, regional Business Retention and Expansion (BRE) program should seek to understand the challenges and opportunities facing existing businesses; help alleviate regulatory burdens and barriers to competitiveness and expansion; prevent existing business from relocating elsewhere; identify businesses poised for expansion; and support the maintenance of a competitive business climate.

The Lynchburg Regional Business Alliance (LRBA) should work with local economic development partners to develop a Memorandum of Understanding (MOU) that clearly defines the protocols and operating procedures for a professionally-staffed, collaborative, regional Business Retention and Expansion (BRE) program. Trust and confidentiality – both among regional economic development partnerships and the existing business community – are critical elements of a successful, collaborative BRE program. The program will ideally have a few core elements:

Existing Business Response Team (EBRT): The Existing Business Response Team would represent a group of partners from local economic development organizations, relevant local government departments (permitting, public works, etc.), workforce development agencies and higher education institutions, utilities, and other relevant organizations that can and should be engaged in responding to the needs of existing businesses. The EBRT would represent the backbone of the BRE program, with relevant individuals engaged as needed to respond to the unique needs of individual businesses as identified through a variety of outreach methods (site visits, surveys, industry councils, etc. as referenced below).

Target Sector Councils: Target Sector Councils would be convened to provide a forum for regular dialogue between businesses operating in specific sectors, enabling the identification of shared challenges from regulatory and legislative issues to workforce concerns to capital needs. These Councils can support and inform the efforts of the Talent Coalition (see Goal 3). They can help identify new partnerships for research and development, new buyer-supplier relationships, and other collaborative endeavors with colleges and universities or other institutions in the region. They can also help identify appropriate targeted marketing opportunities and/or corporate relocation prospects. Councils likely will not be necessary or sustainable in all target sectors (to be identified in a forthcoming Target Sector Analysis for the LRBA).

Site Visits: A site visit program is the core element of best practice Business Retention and Expansion programs. The EBRT should define an appropriate goal for the number of site visits to be conducted throughout the region in a given year, establishing parameters for determining the appropriate existing businesses to include in the site visit program. Many communities and regions focus exclusively upon their largest employers, best practice programs seek to align their BRE efforts with their target sectors while also seeking to identify medium-sized companies (varying definitions, often those from 50-250 employees) that are poised for growth and expansion.

Information Management and Survey Deployment: All information collected from site visits must be maintained in an organized customer relationship management (CRM) system, ideally one which has been customized for this specific purpose (such as ExecutivePulse or Synchronist). These systems are critical for ensuring that information is effectively recorded and tracked over time, businesses receive timely and relevant follow-up from various forms of outreach and

communication, and analysis can be conducted on individual businesses, sectors, and the existing business community at large to help identify trends, obstacles, and opportunities. A CRM system should be acquired with potential consideration given to a model where licenses are provided to local partners and/or certain members of the EBRT for consistency in data collection and dissemination. The chosen system should also be enabled to support the deployment of a customized survey questionnaire to the existing business community. This questionnaire should be targeted at those businesses who are not receiving site visits. They can help identify smaller businesses poised for growth and expansion or businesses that potentially need or merit a future site visit. They can also help gather broad information on the business climate and general business and economic trends, while broadening the reach of the region's existing Business Retention and Expansion outreach efforts.

Key Accounts Visitation Program: The LRBA and its regional and state partners in economic development should regularly evaluate opportunities to pursue cost-efficient travel to visit executives of major establishments that are headquartered outside of the region. These efforts can potentially be coordinated with the Virginia Economic Development Partnership (VEDP) and the Governor's Office, with a very limited number of opportunities (one or two trips) pursued each year. These trips can enable a small delegation of regional economic developers, elected officials, and other regional business and community leaders to meet with executives of major employers and attempt to understand the ways in which the region can continue to support the competitiveness of their operations and facilitate opportunities for expansion.

Local-Sourcing Challenge: Buy local initiatives are common in communities and regions across the country. These initiatives typically attempt to encourage local residents to purchase from locally-owned merchants and establishments to support their local economy. The LRBA could take this concept and create and launch an analogous challenge to the business community: identify at least one local alternative to a non-local supplier of a good or service, and make the switch. The potential economic impact of a coordinated local-sourcing initiative could be substantial. Through this initiative, existing business retention and expansion – the notion of “taking care of your own” – would become further embedded in the culture of the region's business community. Potential exists to pilot this challenge within a single target sector or other relevant economic sector in the region such as agriculture: local restaurants could be encouraged to identify at least one local farmer and/or food and beverage provider/distributor that is an alternative to a non-local supplier.

KEY INITIATIVE #2: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Lynchburg Regional Business Alliance and the RED Team
SUPPORTING PARTNERS:	Utilities, key local government departments (permitting, public works, etc.), elected officials, Workforce Development Board and the Regional Talent Solutions Team, Virginia Economic Development Partnership, Virginia International Trade Corporation
TIMEFRAME FOR IMPLEMENTATION:	2017 start; ongoing, annual implementation
POTENTIAL COST:	\$40,000-\$80,000 annual (not including any additional staff and associated salary); additional staff capacity would necessitate an additional \$60,000-\$80,000 in annual costs (see Implementation Plan section entitled “Implementation Capacity”)
POTENTIAL SOURCES OF FUNDING:	Lynchburg Regional Business Alliance and associated fundraising; EBRT
BEST PRACTICE OR CASE STUDY:	BUSINESS FIRST GREATER RICHMOND (RICHMOND, VA)
BEST PRACTICE OR CASE STUDY:	MEMPHIS REGIONAL LOGISTICS COUNCIL (MEMPHIS, TN)

KEY INITIATIVE #3

Implement a targeted economic development marketing and corporate recruitment program.

Multiple stakeholders communicated during the input process that a clear expectation for the Lynchburg Regional Business Alliance was an effective and targeted approach to economic development marketing and corporate recruitment. Development Counselors International (DCI) conducts a frequent survey of corporate decision-makers engaged in site selection and location to solicit their opinions on the effectiveness of various economic development marketing activities. Planned visits to corporate executives and decision-makers has consistently ranked as the most effective marketing technique, exceeding the effectiveness of advertising, trade show attendance, media relations, and other more traditional techniques. It has become evident that in economic development today, there is no substitute for face-to-face contact. Meetings with economic development organizations were perceived to be a more valuable source of information influencing an executive's perceptions of an area's business climate than their business travel, personal travel, or exposure to advertising.

In addition to face-to-face contact, digital communication and marketing are, not surprisingly, increasingly the focus of effective programs. The region should launch an intentional and targeted economic development marketing and corporate program that is predicated upon these best practice elements and customized based on the region's target sectors. Such a program should include the following components:

Targeted Contacts: The Target Sector Councils referenced in Key Initiative #2 can help refine marketing tactics by target sector. Specifically, they can help the Alliance begin by developing a network of internal (regional) and external (national or global) contacts relevant to the target sector. Internal contacts represent potential Target Sector Council members, whereas external contacts represent those individuals who are potentially valuable industry contacts supporting the region's targeted marketing and corporate recruitment efforts (business contacts that could be relocation prospects, brokers and site location consultants working in that sector, key contacts at VEDP and other economic development partners, key contacts at relevant publications and media outlets, key contacts at relevant trade and professional associations, etc.).

Outbound Travel: The Lynchburg Regional Business Alliance's economic development staff currently travels out of market to meet with site selection consultants and attend relevant industry trade shows and conferences. This travel is important as relationship development and maintenance is an important component of business prospecting. Moving forward, it will be important for the Alliance to develop a targeted approach to its outbound travel, pursuing only the most valuable opportunities with the highest potential return on investment. This will necessitate the development of a system for evaluating and communicating the returns on outbound travel to ensure that techniques are modified and augmented over time. Target Sector Councils can help identify outbound travel opportunities (specific relocation prospects, relevant and appropriate industry trade shows and conference, etc.) in a given sector, and can help economic development practitioners refine the region's message related to each target sector.

Inbound Hosting: Hosting of corporate decision-makers and relocation prospects, as well as the brokers and site selection consultants that influence their location decisions, is another valuable tactic. The region already pursues such inbound hosting and should continue to do so, capitalizing upon opportunities as they present themselves. However, potential exists for the region to formalize an approach to inbound hosting via three events each year:

- I. **Developer Day:** This inbound event would host developers from around the region and state to tour and showcase a limited number of available properties and redevelopment opportunities. Potential exists to rotate the event each year focusing on a different community/county.
- II. **Broker and Consultant Day:** This inbound event would host brokers from around the region and state, and site location consultants from potentially around the country, to showcase a limited number of commercial properties or industrial sites. Potential exists to rotate the event each year focusing on a different target sector.
- III. **Partner Day:** This inbound event would host project managers and other key economic development staff from the Virginia Economic Development Partnership (VEDP), the Appalachian Power Company, and other relevant partners engaged in marketing various regions in Virginia. This event would seek to showcase available properties that are well-prepared or shovel-ready, as well as recent developments in the region (new assets, resources, infrastructure, etc.) that can support marketing and recruitment efforts.

Integrated Digital Marketing: The region's approach to economic development marketing cannot simply rely on relationship development and maintenance; it must proactively seek to educate target audiences and influence their perceptions of the region. A few key components of the region's approach to digital marketing merit discussion:

- I. **Economic Development Website and Target Sector Microsites:** The new yeslynchburgregion.org website (to be launched soon) will serve as the primary digital platform for communicating the region's economic identity and messages to relevant target audiences. This website must be oriented in a manner that appeals to those decision-makers seeking comprehensive, accurate, up-to-date, and readily-available information. A region's economic development website is often the first impression that it provides to such decision-makers and accordingly, it is important the region and the organization coordinating its collaborative economic development activities present itself professionally and demonstrate that it understands what this audience needs. This includes but is certainly not limited to: extensive information covering demographic, economic, and workforce attributes; GIS-enabled, easily navigable and searchable inventory of available sites and buildings; information on key business costs and available incentives; contact information and links to other relevant resources, and; targeted information relevant to specific sectors of the economy. The Target Sector Councils can help identify and define appropriate content and messages to include on a series of target microsites that provide customized information and messages to audiences interested in a specific target business sector.
- II. **Digital Advertising:** A very limited amount of digital advertising (and potentially some print advertising) could be justified in the early stages as the region seeks to raise awareness of the new Lynchburg Regional Business Alliance and drive traffic to the new yeslynchburgregion.org website. These expenditures should be minimized and targeted to specific publications that reach intended audiences (corporate decision-makers and site location consultants).
- III. **Earned Media:** Target Sector Councils can also help identify relevant industry and trade publications that the region could target for media placements. Executives and other Target Sector Council members who are subject matter experts could author articles and op-eds related to recent activities, initiatives, innovations, or business activities of interest to these target audiences, and which help promote the region and its economic messages.

Supply Chain Mapping: Existing businesses can often be a source of recruitment prospects. Potential exists to conduct supply chain mapping with the region's largest employers to evaluate opportunities for corporate recruitment; certain suppliers could benefit from co-location near a major buyer through shared labor forces, collaboration on research and development, reduced transportation costs, or a variety of other reasons. The region could most appropriately begin with its Nuclear Technology sector and its two anchor employers: AREVA and BWX Technologies.

Conference and Trade Show Attraction: The region's inbound hosting approach could also be completed by a collaborative effort with regional convention and visitors bureaus to attract conferences and trade shows that are relevant to the region's target business sectors. Great potential exists in aligning the region's tourism marketing and conference, trade show, and corporate meeting recruitment efforts (typically coordinated by CVBs) with its economic development marketing and corporate recruitment efforts. Hosting such events in the region can provide opportunities to increase the region's exposure to a relatively large pool of decision makers, workers, and innovators in the region's target sectors.

Collaborative "Super-regional" Marketing: Opportunities may exist for cost-effective "super-regional" marketing in partnership with the Roanoke region (specifically the Roanoke Regional Partnership) or other neighboring regions that are targeting other similar sectors of economic activity. Efficiencies could be gained in outbound travel, inbound hosting, digital marketing, or any number of other areas. Super-regional opportunities will need to be evaluated on a case-by-base, sector-by-sector basis once regional objectives are advanced.

KEY INITIATIVE #3: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Lynchburg Regional Business Alliance and the RED Team
SUPPORTING PARTNERS:	Business community and representatives from target sectors, local chambers of commerce, higher education institutions, convention and visitors bureaus, local governments, utilities, neighboring economic development entities (i.e. Roanoke Regional Partnership), Virginia Economic Development Partnership, Governor's Office
TIMEFRAME FOR IMPLEMENTATION:	Ongoing and underway; begin refinements in 2017
POTENTIAL SOURCES OF FUNDING:	Lynchburg Regional Business Alliance and relevant regional partners (i.e. the RED Team, convention and visitors bureaus, the Virginia Economic Development Partnership, etc.) when certain opportunities arise
POTENTIAL COST:	\$75,000-\$200,000 annually; budget should appropriately increase over time as product enhancements (i.e. industrial site improvements) are made, thereby increasing ROI on marketing efforts
BEST PRACTICE OR CASE STUDY:	"AUSTIN: THE HUMAN CAPITAL" (AUSTIN, TX)
BEST PRACTICE OR CASE STUDY:	EARNED MEDIA/PUBLIC RELATIONS STRATEGY (CHATTANOOGA, TN)

KEY INITIATIVE #4

Launch a new regional Center for Entrepreneurship that can serve as a long-term anchor and catalyst for the region's entrepreneurial ecosystem.

Stakeholders and committee members have emphasized that the region needs a catalyst to drive the long-term evolution of the region's entrepreneurial ecosystem. A variety of resources exist to support more traditional, local-serving small businesses from the region's Small Business Development Centers (SBDCs) to SCORE mentors and the local and regional chambers of commerce and business alliances to retail merchants associations. Other resources, including but not limited to the Center for Advanced Engineering and Research and the Lynchburg Business Development Centre (LBDC) provide varied resources to support technology-based entrepreneurship. Potential exists to develop a new umbrella organization that can help develop and implement a new collaborative and intentional approach to entrepreneurship in the region. In the same way that the Academy Center for the Arts and a restored, historic Academy Theater can serve as an anchor or catalyst for the region's arts and culture community, so too can a new Center for Entrepreneurship serve as a center of gravity for the region's entrepreneurial ecosystem.

Continued feedback from the Steering Committee should help define and provide specific parameters for operation but the development of such a Center will unquestionably require a more in-depth study of potential operational models and partnerships, and the necessary program of work. The following guidelines can help initiate this process:

Engage Regional Partners and Potential Stakeholders: The first step is to fully engage the spectrum of partners and stakeholders from the entrepreneurial community, including but not limited to providers of small business support services, higher education institutions, leadership development entrepreneurship education programs, and entrepreneurs themselves, in a discussion of the existing gaps in the region's entrepreneurial ecosystem. Preliminary research and input from this CEDS process validates that the region has a relatively large base of small-to-medium employers but lacks a regional body capable of coordinating and providing entrepreneurial programming and resources (including physical space and capital for startups) on a regional level. Engagement of regional stakeholders can help ensure that a mission is developed with consideration given to existing initiatives, ensuring that duplication is avoided, existing programs are amplified, and efficiency is pursued in designing the Center. Ultimately, the Center's professional staff would work with a range of partners to enhance existing resources, increase awareness of existing resources, and ensure that various components of the ecosystem are working well together while seeking to fill identified gaps in the ecosystem.

Identify Lead Entities and an Operational Model: Regional stakeholders should collectively identify a lead organization or organizations (either existing organizations or a potential new non-profit) to develop and operate the Center. An operational model should be identified after discussing appropriate stakeholders in the Center and evaluating other operational models from around the country. A variety of public-private partnership models exist around the country, with various levels of engagement and investment from the public, private, and non-profit (particularly higher education) sectors.

Develop a Program of Work: While the Center would not seek to absorb operations of various existing partners, it can serve as a coordinating body to attempt to develop and promote a more comprehensive, seamless entrepreneurial ecosystem in the region. The region's existing resources and support services are too numerous to list exhaustively but a program of work should clearly define the Center's operations with respect to the following questions:

- ✓ Services: What kinds of hands-on assistance, market research, or other services will be provided?
- ✓ Programs: What kinds of new events, programs, and partnerships can be developed to support entrepreneurship education, networking, and other objectives?
- ✓ Physical Space: What kind of space is needed by entrepreneurs and how can we efficiently and effectively fill any gaps?
- ✓ Capital: What kinds of capital do our entrepreneurs need and how can we efficiently and effectively fill any gaps?

Identify Physical Needs and a Physical Location Strategy: A number of input participants mentioned that, while the region is home to some incubation space to support startups, they generally feel that this space is not located in an area proximate to dense, walkable amenities that certain entrepreneurs demand and/or the physical space itself may not be particularly inviting or aesthetically attractive to these same entrepreneurs. Many communities and regions have established similar Centers for Entrepreneurship on or near their urban research university campuses, while others have placed these facilities prominently in their central business districts, understanding that visibility and access are important to the Center's viability and relevance. Stakeholders will need to develop a strategy for acquiring the necessary physical space to accommodate the Center's program of work. Potential exists to consider a single, centralized location (such as downtown Lynchburg) or a model whereby services are decentralized and potentially leverage existing facilities in the region (such as the Center for Advanced Engineering and Research and/or the Lynchburg Business Development Centre). A decentralized model could create "branch" campuses of the Center, focusing specific branches and the services they provide on target business sectors or other appropriate focused activities. A more centralized model could concentrate and co-locate a variety of services in a single location such as the James River Conference Center (JRCC), the new home of the Lynchburg Regional Business Alliance (LRBA). If partners are interested, potential exists to evaluate existing real estate arrangements and long-term real estate needs with an eye towards eventual co-location of entrepreneurial support services in such a central location.

KEY INITIATIVE #4: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	CEDS Implementation Committee, Lynchburg Regional Business Alliance, Lynchburg Region's Technology Council
SUPPORTING PARTNERS:	Higher education institutions, Small Business Development Center, Lynchburg Business Development Centre, Center for Advanced Engineering and Research, SCORE, co-working spaces and other small business support providers, local chambers of commerce, Local Government Council
TIMEFRAME FOR IMPLEMENTATION:	Planning should ideally begin in 2018 with a goal towards securing funding, physical space, and program development by the conclusion of the implementation phase (2021)
POTENTIAL COST:	Highly variable depending upon factors such as the physical space identified, the staff hired, and the programs to be implemented. Similar facilities in other regions are multi-million dollar developments.
POTENTIAL SOURCES OF FUNDING:	Economic Development Administration; public, private, and nonprofit contributions from supporting partners

KEY INITIATIVE #5

Launch an Economic Gardening and Entrepreneur in Residence program to drive technology-based economic development.

For nearly three decades, a handful of communities and economic regions have advanced an approach to economic development that emphasizes small business development over new firm recruitment. This approach has come to be known as “economic gardening,” a practice that attempts to provide companies poised for growth with low-cost access to otherwise expensive market and business intelligence. Many of the most refined and sophisticated economic gardening programs aim to help these companies identify new market opportunities, identify sales leads and develop new business relationships, and optimize their existing business and marketing plans, among other issues. Some communities, particularly some of the early adopters and innovators in the field of economic gardening, have adopted the principles of the program as their core economic development strategy; many others seek to incorporate economic gardening principles into a more comprehensive and holistic approach to economic development. Certain national non-profits, notably the Edward Lowe Foundation, have provided resources to communities and entrepreneurs to help advance economic gardening initiatives. These initiatives typically target second-stage companies or gazelles, characterized by their lifetime (less than five years old), recent growth (typically more than 20 percent annual revenue growth), and current size (typically 10 or more employees).

The region has an opportunity to launch a new, highly-targeted Economic Gardening Program to support technology-based economic development in the region. The initiative would most appropriately narrowly target resources and assistance to a limited number (no more than five) companies operating in one or more target sectors. Potential exists to pilot the program by focusing on one of the region's areas of technology specialization, including but not limited to Nuclear Technology or Wireless Infrastructure and Communications. The intersection of these two, and specific applications related to cybersecurity could be another area of opportunity; specifically, an effort could dovetail with the newly-established International Critical Infrastructure Security Institute (ICISI) at CAER, an organization whose mission is to “certify organizations' performance-based strategies from cyber-based threats” and catalyze innovation and business formation in the cyber security sector, particularly as it relates to nuclear energy. Specific program components – from technical resources to human resources to capital resources – should be defined based on the identified sector or technology of focus.

The Economic Gardening Program could potentially be housed at the recommended new Center for Entrepreneurship, an existing facility such as CAER, a higher education institution, or the Lynchburg Regional Business Alliance. The program would be supported and led by an “Entrepreneur in Residence” (EIR) – an individual with extensive executive experience in the field/sector being targeted by the Economic Gardening Program, an academic researcher with experience commercializing relevant technologies, or a serial entrepreneur. The ideal “Entrepreneur in Residence” may not be an existing resident in the region and may need to rotate based on the focus of the program and the businesses that it currently serves.

In addition to a variety of local and regional partners, a variety of national nonprofits such as the Edward Lowe Foundation, an organization that supports entrepreneurship initiatives and specifically community and regional approaches to economic gardening, can provide supportive resources for program design and development.

KEY INITIATIVE #5: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	CEDS Implementation Committee, Lynchburg Regional Business Alliance, Lynchburg Region's Technology Council
SUPPORTING PARTNERS:	Higher education institutions, Small Business Development Center, Lynchburg Business Development Centre, Center for Advanced Engineering and Research, SCORE, local chambers of commerce, Virginia Small Business Finance Authority, Virginia Department of Small Business and Supplier Diversity, Edward Lowe Foundation
TIMEFRAME FOR IMPLEMENTATION:	Planning and program development should ideally begin in 2018 in concert with planning for Key Initiative #4 (Center for Entrepreneurship)
POTENTIAL COST:	Highly variable depending upon factors such as the physical space where the program is housed, the staff (EIR) hired, and the degree to which these factors are aligned with launch of a new Center for Entrepreneurship (Key Initiative #4) or an existing program/facility such as the Center for Advanced Engineering and Research or the Lynchburg Regional Business Alliance. Significant cost savings can be incurred by co-locating various organizations and programs. A minimum expenditure of \$50,000 annually should be expected for market research and other resources that support economic gardening. Additional expenditure will also be associated with the hiring of an Entrepreneur-in-Residence.
POTENTIAL SOURCES OF FUNDING:	Economic Development Administration; private and nonprofit contributions from the region; national nonprofits supporting entrepreneurship (such as the Kauffmann Foundation and the Edward Lowe Foundation)

GOAL III

...educating and developing a sustainable workforce

EXCERPTS FROM THE REGIONAL ASSESSMENT

"The importance of talent in modern-day economic development cannot be overstated. Workforce sustainability can make or break a community's economy, and this harsh reality is even more heightened in the current economic development landscape given national aging trends. Many communities will struggle in coming years to avoid worker shortages as members of the Baby Boomer generation age out of the workforce, and it will be the younger generation of workers who will be primarily responsible for filling these vacated jobs and providing much needed stability to the nation's workforce."

"As of 2014, just 22.1 percent of the region's population was aged 25-44. 4.6 percentage points lower than the share aged 45-64. This is a considerable concern for the region from a workforce sustainability standpoint. As Baby Boomers exit the workforce and this smaller cohort enters more senior positions, the region will need to considerably elevate its talent attraction and retention efforts if it wishes to continue to provide a workforce that is, at a minimum, comparable in quantity to the one that exists today."

"Over the five year period from 2009 to 2014, the Lynchburg region made more substantive improvements in the percentage of its population with a bachelor's degree or higher than all comparison geographies and the average American community. And while this rate of improvement is certainly laudable, it will need to continue if the region is to become more competitive for certain white-collar job opportunities that rely on a highly-educated workforce. As of 2014, the percentage of the adult population with a bachelor's degree in the Lynchburg region (27.2 percent) remained nearly three percentage points below the national average (30.1 percent)."

"Collectively, (the region's higher education) institutions are a tremendous advantage, and many regions would envy the position that the Lynchburg region finds itself in with such a sizeable college-aged population. But from the standpoint of regional workforce development, they are only a competitive advantage to the degree to which those graduates can be retained."

STRATEGIC OBJECTIVES:

- ✓ Proactively connect our education and training institutions with regional employers.
- ✓ Ensure that regional training and degree programs are aligned with the needs of regional employers and target sectors.
- ✓ Successfully retain graduates from our region's education systems.
- ✓ Attract talented graduates, young professionals, and experienced workers in occupations experiencing significant labor shortages.
- ✓ Raise awareness about the importance of public education to the region's family-friendliness, economic competitiveness, and workforce sustainability.

KEY INITIATIVE #6

Form a Regional Talent Coalition to coordinate sector-focused workforce development initiatives, address regional skills gaps, and enhance collaboration between the business community and educational institutions.

Stakeholders have indicated that – while examples of strong partnerships certainly exist – the region generally lacks a framework to support intentional, consistent, and sector-focused collaboration between the business community and the educational and training institutions that are developing their current and future workforce. The Regional Assessment revealed that, at a high level, the region's degree production is not well aligned with the region's economic composition. Further, many of the nation's most rapidly-expanding occupations require no formal college degree, and their training and credential requirements are rapidly changing with the pace of technological innovation. The Regional Assessment also revealed that the region faces a variety of challenges in effectively attracting and retaining well-educated, young talent. A new Regional Talent Coalition can help coordinate the design, development, and implementation of workforce initiatives that attempt to create a more intentional and seamless approach to talent development, retention, and attraction. The Regional Talent Coalition would represent a formal partnership between the Region 2000 Workforce Development Board, the Lynchburg Regional Business Alliance (LRBA), the regional business community, and its education and training institutions at all levels (from kindergarten through executive education). The Regional Talent Coalition could be supported by professional staff from a relevant coordinating entity but would largely be driven and supported by volunteers and paid staff from partner organizations that implement and fund a variety of collaborative initiatives through a committee structure. Specifically, the Regional Talent Coalition could reasonably be organized around three issues or committees:

- I. **K-12 Pipeline:** Focused on delivery of programs and initiatives that seek to reduce dropouts, enhance college and university matriculation, and increase the pipeline of graduates with basic skills that are important in the 21st century economy and demanded by our existing business community.

Specifically, the K-12 Pipeline Committee would support a variety of existing educational improvement initiatives around the region that could benefit from heightened volunteerism and/or support from the business community. This can include existing initiatives from Young Entrepreneurs Academy and the Mini Economy/Grow One initiative to the Future Focus initiatives and Partners in Education (PIE) programs. The K-12 Pipeline Committee would also help develop and launch collaborative new initiatives that can help address common challenges across regional school systems, or unique challenges facing individual school systems. Such new initiatives could include the launch of two new programs:

- i. **Reach Out to Dropouts:** This program would be modelled after a best practice initiative emerging from the Houston Independent School District. The program engages volunteers and community leaders who walk door-to-door in teams to visit the families of students that have not re-enrolled in school within the first few weeks of a new school year or failed to graduate the previous year for a variety of reasons. The program is simple yet remarkably successful at reenrolling dropouts, and has been replicated throughout the State of Texas and across the country.

BEST PRACTICE OR CASE STUDY: REACH OUT TO DROPOUTS (HOUSTON, TX)

- ii. **Financial Aid Saturdays:** This program would be modelled after a best practice initiative that emerged in the Austin, Texas metropolitan area and is coordinated by the Greater Austin Chamber of Commerce. The program engages volunteers from the business community, area financial institutions, and members of the education community to provide free, hands-on assistance to families with the completion of college and financial aid applications. This assistance is provided on Saturdays at various high schools throughout the region. The program helps mitigate some fundamental yet surmountable obstacles to college matriculation: a lack of confidence, knowledge, or financial literacy sufficient for a family to complete the necessary applications that can enable their child to attend college or university.

BEST PRACTICE OR CASE STUDY: FINANCIAL AID SATURDAYS (AUSTIN, TX)

- II. **Curriculum and Capacity:** Focused on reducing identified gaps in curriculum and training programs at the region's higher education and training institutions, and ensuring that regional employers are able to find qualified candidates locally for in-demand positions.

Specifically, the Curriculum and Capacity Committee would advance an intentional effort to promote long-term alignment between the region's higher education offerings and its economy, while helping identify flexible training solutions to meet more immediate needs – needs which can potentially be met by a recommended Workforce Training Center (see Key Initiative #7). The Committee would first conduct a comprehensive study of the skills gaps that exist in the region, measuring current and projected future demand for specific occupations as well as the current supply emerging from relevant degree and training programs which support them. This analysis should result in the identification of specific credential, training, certificate, and degree programs that need to be developed in the region in the coming years. Through appropriate representation and engagement, commitment from the region's diverse providers of higher education and training to new program development should be pursued when a need is identified. This Committee would also be tasked with identifying funding opportunities that can help the Talent Coalition and regional partners advance collaborative workforce solutions addressing identified skills gaps. The U.S. Department of Labor's TechHire initiative is an example of a federally-funded initiative for which regional partners have recently pursued grant monies.

The Region 2000 Workforce Development Board is advancing the implementation of new federal workforce development guidelines in compliance with the Workforce Innovation and Opportunity Act (WIOA). This includes the in-progress formation of a Business Services Team and a Talent Solutions Team that will work to ensure that the region's workforce development efforts are appropriately aligned with economic development objectives and the needs of the business community. In this regard, the Workforce Development Board will essentially address the void that this Curriculum and Capacity committee is intended to fill, and accordingly, could simply assume responsibility for the actions identified herein. Creation of new volunteer structures with similar missions to the Workforce Development Board's efforts would be duplicative and inefficient. These teams coordinated by the Workforce Development Board Committee should most appropriately include one or more representatives from each of the Target Sector Councils (see Key Initiative #2) to ensure that skills gaps and strategies are analyzed and developed with target sectors in mind.

- III. **Talent Attraction and Retention:** Focused on initiatives that seek to retain the region's best and brightest graduates while also attracting former residents (including alumni) and other prospective new residents to the region.

Specifically, the Talent Attraction and Retention Committee would initially be responsible for advancing three initiatives:

- i. **Talent-Focused Website:** The first task would be the development of a new website, leveraging the brand elements developed as part of Key Initiative #1, which intentionally targets prospective new residents and workers who are seeking information and the Lynchburg region and what it has to offer. As the lines between economic and workforce development have blurred, communities and regions are increasingly focused on the manner in which they present themselves to prospective talent and not simply prospective companies. Accordingly, they are reengineering their web presence so that key community and regional messages are directed appropriately. While no two regions should present themselves in the same manner, some best practice elements are beginning to emerge as necessary features of such a website: a clear connection to available job opportunities; information about the region's distinct neighborhoods and amenities; connections to a robust social media strategy, and; connections to real people living in the region that are able to engage with prospective new residents on some level. No region or community has developed the perfect, model website; rather, a variety of best practice elements are featured in various communities.

BEST PRACTICE OR CASE STUDY: CARPE DM (DES MOINES, IA)

- ii. **Internship Challenge:** Internships have been proven to be a tremendously effective tool for talent retention. They can create meaningful and lasting connections between a student and a regional employer, and between that student and a community. By providing employment opportunity and a wage before graduating, students can begin establishing roots – physically, socially, and economically – in a particular region. In fact, a recent survey of roughly 900 businesses by the National Association of Colleges and Employers indicated that more than half of all interns accept full-time employment with the company where their internship was completed. The Talent Coalition should issue a challenge to the business community to develop one or more internships targeting rising seniors and recent graduates from the region's colleges and universities. Some small incentive could be developed to help encourage internship creation. A portal on the recommended talent-focused website (see bullet above) would provide students with an opportunity to create a profile, upload their resume, and link to the LinkedIn account. The portal would help students find opportunities and help employers find potential interns.
- iii. **Alumni Reintroduction:** The Talent Coalition should also seek to take advantage of the immense alumni base that has emerged from the region's institutions of higher education. As these institutions grow, so too will the relative size of this alumni base. Many communities have recognized that alumni are particularly appropriate targets for talent recruitment – many refer to them as boomerangs – and the CEDS Steering Committee has recognized this opportunity as well. The Talent Coalition should seek to work with alumni offices, athletic departments, performing arts departments, and other relevant representatives from area colleges and universities to identify opportunities to engage alumni located outside of the Lynchburg region and “reintroduce” them to the Lynchburg region and what it has to offer a working professional. The Coalition can host a series of events in the region around key alumni weekends and events – events that engage alumni socially and expose them to new developments, amenities and happenings in the Lynchburg region. The Coalition can also potentially host a limited number of out-of-market events to engage alumni. For example, alumni in the Piedmont Triad could be invited to join a group of young professionals and community leaders at a Lynchburg Hillcats road game in Winston-Salem.

The Talent Attraction and Retention Committee would most appropriately be comprised of one or more representatives from the Image and Identity Partnership (see Key Initiative #1) that helped develop brand elements capable of supporting a regional talent attraction and retention campaign.

KEY INITIATIVE #6: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Implementation Committee and Workforce Development Board
SUPPORTING PARTNERS:	Business community, higher education and training institutions, preK-12 public and private schools, human resource professionals, alumni associations, Lynchburg Regional Business Alliance, RED Team, chambers of commerce and their Partners in Education (PIE) programs, local education foundations, Future Focus Foundation, Lynchburg Region's Technology Council, Local Government Council, Young Professionals of Central Virginia, Young Entrepreneurs Academy, Adult and Career Education of Central Virginia, Virginia Department of Labor, State Council of Higher Education for Virginia, Virginia Department of Education, Virginia Economic Development Partnership
TIMEFRAME FOR IMPLEMENTATION:	Coalition and subcommittee formation in 2017; begin implementation of specific tactics in 2018 taking care to implement one or two new tactics described above each year so as not to stretch the Coalition and its volunteer base thin during its early months and years
POTENTIAL COST:	Highly variable depending on the various tactics that the coalition decides to pursue. Complete implementation of the various tactics described herein (skills gaps analysis, Reach Out to Dropouts, Financial Aid Saturdays, talent-focused website, internship challenge, alumni reintroduction events, etc.), with certain activities phased in over time, could reasonably necessitate annual expenditures for the Coalition and its various activities of \$20,000 (to support mostly volunteer-led efforts) to upwards of \$150,000 annually (to support tactics that may require contracted assistance such as website development, skills gap analyses, or event management).
POTENTIAL SOURCES OF FUNDING:	Contributions from the private sector, local colleges and universities, Workforce Development Board and Lynchburg Regional Alliance funds, and federal and state funding opportunities
BEST PRACTICE OR CASE STUDY:	REACH OUT TO DROPOUTS (HOUSTON, TX)
BEST PRACTICE OR CASE STUDY:	FINANCIAL AID SATURDAYS (AUSTIN, TX)
BEST PRACTICE OR CASE STUDY:	CARPE DM (DES MOINES, IA)

KEY INITIATIVE #7

Establish a Regional Workforce Center on the campus of Central Virginia Community College (CVCC) to deliver necessary workforce training.

The CEDS Steering Committee members identified the lack of a single point of contact for workforce training as a detriment to the region's talent development, business retention, and business attraction efforts. Specifically, it was noted that CVCC's existing space for flexible, responsive industry training is inadequate and physically constrained.

A new Regional Workforce Center would attempt to alleviate these capacity concerns, enabling a more rapid and comprehensive response to the needs of existing and prospective future businesses. It would also serve as a physical "center of gravity" for workforce services, much like the recommended Center for Entrepreneurship and its role as a catalyst for the entrepreneurial ecosystem, or the role of the Academy Center of the Arts as a center of gravity for the arts and cultural community. In this respect, it could serve as the home for the Workforce Development Board's One-Stop services (also known locally as the Region 2000 Workforce Center) as well as the community college's targeted technical training programs.

The ideal space would not simply satisfy the region's and/or CVCC's physical requirements for technical training, but rather, would also seek to provide a welcoming "front-door" for both job seekers and employers. It would need to provide an adequate environment to support meeting between One-Stop service providers and job seekers, sufficient technology to enable job searches, and provide ample meeting space to support the needs of the community, including the recommended Talent Coalition (see Key Initiative #6). The Center would ideally be located at CVCC but operated independently.

KEY INITIATIVE #7: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Workforce Development Board, Central Virginia Community College
SUPPORTING PARTNERS:	Talent Coalition (see Key Initiative #6), higher education and training institutions, Lynchburg Regional Business Alliance, Local Government Council, RED Team, US Department of Labor's Employment and Training Administration, US Economic Development Administration, Virginia Department of Labor, State Council of Higher Education for Virginia, Adult and Career Education of Central Virginia, K12 education partners
TIMEFRAME FOR IMPLEMENTATION:	Begin planning in 2019 following formation and successful operation of the Talent Coalition and implementation of certain activities by the Talent Coalition and the Workforce Development Board (i.e. skills gap analysis).
POTENTIAL COST:	Highly variable depending on the location chosen, the programs that are intended to be supported, and the physical space required to support those programs and provide long-term flexibility. Similar facilities in other regions are multi-million dollar developments.
POTENTIAL SOURCES OF FUNDING:	Federal funding through EDA and ETA grant opportunities; state and local funding sources required for federal grant matching likely coming from higher education institutions and local and state government funding sources.

GOAL IV

...investing in the connectivity of our region

EXCERPTS FROM THE REGIONAL ASSESSMENT

"According to business leadership (business owners, executives, and managers) who were surveyed on various business climate factors, the Lynchburg region's lack of interstate connectivity and air connectivity are seen as competitive disadvantages that have and will continue to inhibit economic growth. The disconnectedness of the Lynchburg region from major air and highway transportation assets was often mentioned in stakeholder input sessions as among the region's greatest competitive disadvantages...The overall roadway connectivity of the region and access to broadband internet service were also mentioned during input sessions as being noncompetitive and potentially disconnecting citizens in outlying parts of the region from economic opportunity. The qualitative input gleaned from the Lynchburg Regional Connectivity Study, running concurrently to this CEDS process, provides similar conclusions about how residents view the region's lack of highway and air connectivity as competitive challenges."

"...the region's connectivity challenges – from interstate access to direct flights to broadband – place considerable constraints on the types of economic activity that are likely to be attracted to the region relative to the abundance of other competitive communities and regions that companies are evaluating."

"...The relative lack of large, ready-to-go (infrastructure-served) sites places the region at a disadvantage relative to many of its competitors who have inventories of industrial land that include multiple ready-to-go or partially-prepared sites over 100 acres...although the region is home to many smaller acreage opportunities, local, regional, and state level economic developers all cited the region's available sites and building –particularly large acreage parcels in the 100 – 200 acre range – as one the region's greatest barriers to new economic development projects in the region."

STRATEGIC OBJECTIVES:

- ✓ Facilitate the efficient movement of residents, workers, and visitors throughout our region.
- ✓ Facilitate the efficient movement of goods and raw materials throughout our region.
- ✓ Provide necessary infrastructure to accommodate desirable economic growth and development.
- ✓ Ensure that the region provides competitive, available sites and buildings to support the location and growth of existing and prospective new businesses.

KEY INITIATIVE #8

Update project priorities and implement the region's existing plans for transportation, broadband, and other infrastructure provision based on relevant takeaways from the Central Virginia Connectivity Study.

Upon completion of the Central Virginia Connectivity Study, regional transportation, broadband, and other infrastructure plans and priorities should be reevaluated based on any new funding opportunities. This includes an update to this regional CEDS. This recommendation can be regularly updated by the CEDS Steering Committee – given appropriate guidance and support from the Local Government Council – with a list of relevant priority infrastructure projects with regional economic significance that could qualify for federal funding from the Economic Development Administration's (EDA) Public Works program, as well as any other relevant funding sources.

Transportation: The Local Government Council regularly updates the region's transportation plan – the Central Virginia Regional Long Range Transportation Plan (Plan 2040) – and can update its priority projects (with requisite input) if necessary based upon the findings of the Central Virginia Connectivity Study. A number of priority transportation projects from Plan 2040 and the Connectivity Study have been referenced below; these projects and others identified in these plans range from critical roadway infrastructure serving industrial parks to priority greenway projects supporting bicycle and pedestrian connectivity to enhancements of airport infrastructure. Accordingly, other regional transportation plans should be reviewed and evaluated for relevant projects that merit inclusion in this recommendation. This includes but is certainly not limited to local government Comprehensive Plans, the Lynchburg Regional Airport Master Plan, and the Region 2000 Greenways, Blueways, and Trails Plan.

At present, the draft Lynchburg Regional Connectivity Study recommends priority pursuit of a few key projects and strategies identified in the region's Long Range Transportation Plan (reference project number in parentheses, or HB2 reference number), in order to support inter- and intra-regional freight connectivity and labor market access:

- ✓ Implement downtown Lynchburg complete streets (LRTP 95)
- ✓ Roundabouts, road diet, rail to trail on Campbell Ave. from Edmund St. to Florida Ave. (LRTP 93)
- ✓ 5th Street from Taylor Street to NS Rail Bridge road reconstruction with added streetscape elements (LRTP 86)
- ✓ 5th Street from Jackson to Taylor streetscape improvements (LRTP 85)
- ✓ Route 622, Lynbrook Rd (HB2 523)
- ✓ Candler's Mountain Rd. Widening and Capacity Extension (LRTP 91 and LRTP 94)
- ✓ South Amherst Highway (BUS 29)/ Route 163 interchange (LRTP 31)
- ✓ Lakeside Drive (221)/Lynchburg Expressway (501) (LRTP 88)
- ✓ Route 221 – intersection improvements (LRTP 90; HB2 595)
- ✓ Wards Road (US 29) access management, traffic ops, safety improvements (LRTP 67 and LRTP 68)
- ✓ Lynchburg Expressway (BUS 29)/Candler's Mountain Road Interchange (LRTP 84)
- ✓ US 501 Widening (LRTP 92)

Other priority transportation-related projects and investments identified in the draft Lynchburg Regional Connectivity Study include but are not limited to the following:

- ✓ Continue to work towards implementation of the CVMPO Priority Accommodation Corridors as identified in the Region 2000 Bicycle Plan.
- ✓ Work to improve digital and other wayfinding in the region.
- ✓ Support improved multimodal connectivity between institutions of higher education and downtowns.
- ✓ Enhance outreach to the business community through partnerships between RIDE Solutions, the Region 2000 Workforce Development Board, and the LRBA.
- ✓ Consider implementation of an activity-based commuter rewards program.
- ✓ Work with the Greater Lynchburg Transit Company (GLTC) and major regional employers and higher education institutions to examine the feasibility of a transit pass program.
- ✓ Investigate opportunities for the region to benefit from the Department of Rail and Public Transportation's (DRPT) emphasis on expanding vanpooling in the region.
- ✓ Continue to market Amtrak service, particularly travel to and from northeast markets.
- ✓ Participate in state and multi-state level planning conversations regarding further rail service enhancements.
- ✓ Continue to build a coordinated regional narrative on the value of Lynchburg Regional Airport (LYH) relative to other alternatives (e.g. driving, using other airports).
- ✓ Advocate for service to Dulles in coordination with the Governor's 2017-2018 \$50 million incentive program to reduce cost per enplanement at Dulles and thus support expansion of the hub for United Airlines.
- ✓ In the very near-term, coordinate a region-wide conversation regarding potential startup incentives for United Airlines service to Dulles.
- ✓ Strengthen channels of communication between the economic development community (facilitated by LRBA) and the airport manager so that "leading indicators" can be communicated to airlines on an ongoing basis.
- ✓ Build awareness within the regional economic development community of funding available from the Rail Industrial Access Program administered by DRPT and the program's scoring criteria.

Broadband: In 2015, the Technology Council hosted a Broadband Summit where participants heard from a representative from the Center for Innovative Technology (a nonprofit whose mission is, in part, to facilitate broadband deployment) regarding recent statewide efforts to map broadband connectivity in all cities and counties, as well as information on resources available to support communities and regions seeking to develop a strategic plan to enhance broadband connectivity. Broadband coverage remains a challenge for much of the region's more rural areas, an issue identified in both the Regional Assessment and the Central Virginia Connectivity Study.

The draft Connectivity Study recommends the pursuit of a minimum target of 25 megabits per second (mbps) for coverage throughout the region, the pursuit of state and federal funding to support community-based broadband improvement efforts, and the consideration of publicly-owned utility models of service delivery.

Upon completion of the Connectivity Study and the corresponding identification of any relevant best practices for broadband deployment, the Local Government Council can evaluate interest among regional partners in starting a collaborative Regional Broadband Needs Assessment, potentially with support from the Virginia Office of

Telework Promotion and Broadband Assistance, and the Center for Innovative Technology. Such an effort would pool resources for maximum efficiency in assessing regional needs before transitioning to a process of local strategic planning and implementation. That is to say, a Regional Needs Assessment could be completed by LGC on behalf of all communities and counties in the region, enabling these communities and counties to pursue their own individual deployment strategies and pursue relevant and differentiated funding mechanisms. The LGC can support communities and counties with their strategic planning and deployment in a variety of ways, from the facilitation of inter-city visits and the study of deployment strategies in other regions in Virginia to the potential provision of financial and/or technical assistance to support local strategic planning efforts. A completed Regional Needs Assessment should inform a list of relevant broadband projects to include in the CEDS moving forward.

The One Amherst Economic Development Strategic Plan that has been developed concurrently with this CEDS process and which is under review as of 2016 calls for a potential broadband needs assessment in Amherst County.

Public Wireless: The deployment of free public wireless internet in public parks, downtowns, and activity centers (the airport, major amenities, etc.) throughout the region can help attract customers to certain businesses, drive traffic to gathering places, and better enable live-work-play environments. Free public wireless internet can serve multiple purposes beyond infrastructure provision; deployment would support the region's positive image and identity, contribute to an entrepreneurial climate, and help engender more vibrant downtowns and activity centers.

The region should evaluate interest among local governments in advancing an initiative that could study the viability of deploying free public wireless internet in various locations throughout the region. Potential exists to identify a variety of potential corporate or non-profit partners; many corporations have sponsored wireless deployment in communities around the country, including but not limited to Toyota, Google, AT&T, and Comcast. Potential also exists to engage organizations and associations such as the Retail Merchants Association (RMA) that could help coordinate sponsorships and/or technology deployment within specific areas. It should be noted that the 2013 Opportunity Lynchburg Strategy also calls for the deployment of free public wireless across the City of Lynchburg.

KEY INITIATIVE #8: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Local Government Council and the Central Virginia Metropolitan Planning Organization
SUPPORTING PARTNERS:	Local governments, Virginia Department of Transportation, Virginia Department of Rail and Public Transportation, Lynchburg Regional Transportation Advocacy Group, Mid Atlantic Broadband Cooperative, Lynchburg Regional Airport, Greater Lynchburg Transit Company, Lynchburg Regional Business Alliance, the RED Team, local chambers of commerce, US Dept. of Transportation, Economic Development Admin., utilities, elected officials at the local, state, and federal level
TIMEFRAME FOR IMPLEMENTATION:	Ongoing
POTENTIAL COST:	Highly variable – project costs associated with each aforementioned project and any adjusted/revised project priorities following completion of the Connectivity Study should be incorporated into the CEDS, its annual updates, and its various status reports
POTENTIAL SOURCES OF FUNDING:	Variable depending on the project type (broadband, transportation, etc.) and mode (road, transit, air, rail, etc.)

KEY INITIATIVE #9

Develop and implement a regional Site Evaluation and Improvement Program to accelerate the preparation and availability of shovel-ready industrial sites in the region.

During the stakeholder input process, numerous individuals lamented the fact that the region is home to many industrial sites that are not shovel-ready (fully served by various forms of infrastructure, graded land, completed environmental and/or engineering assessments, etc.) and many others where private land owners do not see the value associated with enhancing their site to improve its marketability or sale price. The region should develop a Site Evaluation and Improvement Program to accelerate preparation of such sites to support near-term economic development projects. Not surprisingly, a relative lack of attractive, shovel-ready sites can drastically inhibit an area's ability to effectively recruit new corporate investments and, to a lesser degree, support the expansions of existing industries. A few steps should be taken to advance program development and implementation.

Engage the Regional Economic Development Team (RED Team): A regional Site Evaluation and Improvement Program can reasonably be coordinated by the LRBA with support from a variety of relevant partners. The LRBA should engage the RED Team, comprised of local economic developers from the region's various counties and communities, and assemble a small working group with other relevant partners (VEDP representatives, relevant local government staff and leadership, utilities such as Appalachian Power, etc.) to guide program development and implementation.

Develop evaluation criteria: The working group should discuss program objectives, review the region's site inventory, prioritize sites for evaluation, and develop evaluation criteria that are consistent with best practice Site Certification programs, particularly the requirements of the new Virginia Business Ready Sites Program. A system for prioritizing sites based on their readiness, and prioritizing necessary improvements to individual sites, should be established.

Begin evaluations: The assembled working group should determine the most appropriate and cost-effective method for completing evaluations in a timely manner. Potential exists to retain the services of a local engineering firm to perform an impartial assessment. Some national site selection consultants are willing and able to provide similar services.

Identify priority projects, incorporate into the CEDS, and pursue funding: Once evaluations are completed, the working group should develop a list of priority sites upon which to focus resources for preparation and shovel-readiness. These priority sites, and their associated priority improvements, should be reviewed with the CEDS Steering Committee and incorporated into this portion of the CEDS over time, consistent with annual updates required by the EDA. A variety of funding mechanisms for individual projects should be evaluated on a case-by-case basis. Some communities or counties may feel that capacity exists to finance multiple projects at once using local funding options while others may solely pursue available state and federal funds such as those available through VEDP, the Department of Rail and Public Transportation's (DRPT) Rail Industrial Access Program, the EDA, or other sources.

Preparation of a 100+ acre VEDP-certified Business Ready Site: The region currently lacks a large, highly-marketable, shovel-ready site to support major economic development projects. Such prepared sites of 100+ acres are rare in the Commonwealth of Virginia and VEDP has developed a program (the Virginia Business Ready Sites' Program, Site Characterization Grant) to help communities "assess the level of existing development at a site and the additional development required to bring the site to a level that will enable the site to be marketed for industrial or commercial economic development." This is a natural opportunity for the region to pursue as a component of this initiative.

KEY INITIATIVE #9: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Lynchburg Regional Business Alliance and the RED Team
SUPPORTING PARTNERS:	Virginia Economic Development Partnership, Virginia Department of Rail and Public Transportation, Appalachian Power, utilities, railroads, local governments and relevant departments (public works, urban planning, etc.), elected officials, Local Government Council, private property owners and the development community, local chambers of commerce, US Economic Development Administration,
TIMEFRAME FOR IMPLEMENTATION:	Evaluation program development should begin immediately in 2017 with evaluation and improvements pursued aggressively along with associated funding
POTENTIAL COST:	Evaluation program design costs will primarily be staff time for LRBA; evaluation costs will vary by site and be dependent upon the current state of site or property preparation, and any previously completed evaluation, environmental studies, etc.; improvement cost will be highly variable by site and dependent upon the outcome of regional site evaluations
POTENTIAL SOURCES OF FUNDING:	Lynchburg Regional Business Alliance for program development; local governments and development authorities for evaluations, with potential state or utility support; local governments, relevant state economic development entities (VEDP, DRPT, etc.), utilities, private property owners, and federal sources (EDA grants) for appropriate site improvements

GOAL V

...supporting the vitality of our diverse communities and downtowns

EXCERPTS FROM THE REGIONAL ASSESSMENT

"...the location decisions of companies in a variety of sectors are increasingly driven by access to talent...(and) communities are increasingly investing in creating a sense of community and "quality of place" that attracts and retains this talent. In a country that gets more diverse (racially, ethnically, and culturally) with each passing day, tangible and intangible cultural factors are increasingly considerations that influence the location decisions of the talented individuals being sought after by both communities and companies."

"While 82 percent of survey respondents agreed or strongly agreed that the region is an attractive place to raise a family, and more than 75 percent felt that it is a desirable place to retire, just 37 percent felt that it was an attractive and desirable place for young professionals. The region's counterparts in the Louisville (66 percent), Indianapolis (70 percent), Atlanta (75 percent), and Nashville (92 percent) metropolitan areas all have much more positive outlooks on their region's attractiveness to this coveted demographic."

"It is difficult to look at survey results regarding key quality of life and quality of place amenities without seeing the role that downtown Lynchburg – and other downtown areas and activity centers in the region – must play in the discussion. After all, vibrant downtowns are those that contain a host of nightlife, entertainment, shopping, and cultural amenities – all categories that received generally low marks in the community survey. Furthermore, it is impossible to ignore the overwhelming amount of evidence that is being observed in regions around the country as people of all ages and backgrounds are flocking to center cities and dense activity centers in search of the benefits that accrue from proximity between one's place of residence, place of work, and the lifestyle amenities that are more concentrated in the denser urban areas."

STRATEGIC OBJECTIVES:

- ✓ Support development patterns and projects that encourage mixed-use, walkable, and well-connected environments.
- ✓ Support the redevelopment and revitalization of the region's downtowns.
- ✓ Effectively leverage the region's natural resources and recreational assets for community vitality.
- ✓ Increase the visibility and patronage of the region's amenities, arts and cultural institutions, and other assets that contribute to the region's quality of place.

KEY INITIATIVE #10

Advance a Regional Riverfront Vision that seeks to “unlock” the region’s riverfronts, better connecting and integrating local communities with the James, Roanoke, and Staunton Rivers.

While the region’s communities present a variety of redevelopment challenges and opportunities, residents, particularly young professionals, are overwhelmingly enthusiastic about the potential of the region’s downtowns, most notably downtown Lynchburg. With a number of recent successes and evidence of new commercial and residential investment, there is a palpable feeling of momentum in downtown Lynchburg. Perhaps the greatest asset to downtown’s potential growth as an anchor of mixed-use activity is the James River and the natural amenity, beauty, and recreational opportunities that it affords those who live, work, and visit downtown Lynchburg. The same can be said for other downtowns in the region – notably Alta Vista and Brookneal. In downtown Lynchburg, the riverfront is physically disconnected from the core of Lynchburg’s downtown by two rail lines. On the other side of the river (Madison Heights and Amherst County), and throughout the region, opportunities may exist for further recreational development along the riverfront.

Many other communities around the country have developed highly ambitious visions for their downtowns’ revitalization; examples include the removal of two dams and decades of work to convert the Chattahoochee River in Columbus, Georgia into the largest urban whitewater course, and efforts in Springfield, Illinois to relocate miles of heavily-travelled rail lines to the eastern edge of downtown to improve connectivity, revitalize a key corridor, and improve access to the medical district for emergency personnel. Many communities yearn for an accessible waterfront or riverfront that can serve as a natural amenity for residents and tourists; the Lynchburg region should leverage these natural assets for their maximum recreational and economic potential. Given that residents highlighted the region’s natural beauty and recreational opportunities among its greatest strengths, and cited downtown more frequently than any other issue when discussing their vision for the future, it is reasonable to pursue a regional vision that seeks to unlock the region’s riverfronts and effectively utilize them as a catalyst for downtown revitalization efforts. A few efforts are central to this initiative.

The City of Lynchburg’s Downtown and Riverfront Master Plan was last updated in 2000. Much has changed in downtown Lynchburg and the competitive environment in which it operates; today, downtowns are experiencing an influx of residents, business, and new investments as urban areas are capturing an increasingly large share of metropolitan growth across the country. These realities in addition to the abundance of new activity and investment, including major new infrastructure projects, necessitate an update to the Downtown and Riverfront Master Plan. This update should ideally consider methods for promoting accessibility to and utilization of the James River as a recreational asset and natural amenity.

Lynch’s Landing, the organization tasked with coordinating revitalization efforts in downtown Lynchburg, has recently hired a new Executive Director and intends to embark upon a new strategic planning process for the organization. Such a process would naturally complement and support the implementation of certain portions of an updated Downtown and Riverfront Master Plan. An updated strategic plan for Lynch’s Landing should ideally include a strategic focus on methods to further promote engagement and interaction with the James River.

Efforts to update the City of Lynchburg's Downtown and Riverfront Master Plan and the Lynch's Landing strategic plan should give consideration to potential collaborative planning and implementation with relevant stakeholders in Amherst County. Activation of the James River and its riverfront in and around downtown Lynchburg should appropriately consider development opportunities, amenities, and accessibility on both sides of the river.

Outside of downtown Lynchburg other communities in the region have recently advanced a variety of initiatives to enhance their downtowns. This includes the Brookneal Downtown Revitalization Project in 2012, which focused heavily on issues of urban design, façade improvement, and signage and wayfinding. Alta Vista has made a number of enhancements to its historic downtown over the years, and the river remains an important asset to the vibrancy of the community.

Potential exists for the Local Government Council (LGC) or some other regional organization to support a series of planning grants that can enable evaluations of riverfront potential – recreational, residential, or commercial development opportunities – throughout the region. These evaluations can inform the inclusion of appropriate projects in updated downtown, comprehensive, and organizational plans, as well as this portion of the CEDS.

Potential also exists to advance a series of discussions with higher education institutions in the region regarding their physical needs and planned capital expenditures, seeking to identify any opportunities to concentrate new developments (instructional space, student housing, performance spaces, etc.) in and around the region's downtowns and riverfronts to assist with downtown and riverfront activation strategies.

KEY INITIATIVE #10: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Local Government Council and local governments with support from the Implementation Committee
SUPPORTING PARTNERS:	Lynch's Landing and other downtown organizations, arts and cultural organizations, James River Arts and Cultural District, James River Association, Roanoke River Basin Association, Lynchburg Regional Business Alliance, local chambers of commerce, business community (particularly downtown and riverfront merchants), convention and visitors bureaus, higher education institutions, area nonprofits and community foundations, railroads, relevant federal agencies and departments (Corps of Engineers, Fish and Wildlife, etc.)
TIMEFRAME FOR IMPLEMENTATION:	Discussions related to certain riverfront planning (specifically, an update to the City of Lynchburg's Downtown and Riverfront Master Plan, and the development of a new strategic plan for Lynch's Landing) should ideally begin as soon as possible (2017). This timing should necessitate elevating regional riverfront planning (and associated coordination between local governments (such as the City of Lynchburg and Amherst County).
POTENTIAL COST:	Planning and implementation costs will be highly variable.
POTENTIAL SOURCES OF FUNDING:	Local governments and the Local Government Council can support most planning and implementation with complementary funding from area nonprofits and the private sector when specific developments and initiatives align with their missions.
BEST PRACTICE OR CASE STUDY:	UPTOWN COLUMBUS REVITALIZATION (COLUMBUS, GA)

KEY INITIATIVE #11

Expand the establishment of Arts and Culture Districts throughout the region to encourage and incentivize projects that improve the aesthetic, artistic, and cultural appeal of the region.

In 2010, the Lynchburg City Council adopted a resolution to create the James River Arts and Cultural District to “improve the economic conditions of (the) geographic area” and to “encourage the participation of citizens and arts & cultural organizations to conduct projects, events and activities to further the arts and culture in Lynchburg.” The District provides incentives, notably grants up to \$5,000, to eligible projects – “events, activities, capital investments, promotions, improvements, displays or like pursuits that serve to further arts and culture...”

The establishment of similar districts through the region can potentially enable the development of complementary arts and cultural amenities in and around the region’s downtowns; many communities already seek to advance such activity as part of their downtown revitalization efforts. The formation of new districts would simply provide a more formal mechanism for delivering incentives and programming to this end.

Communities can carve out a niche through implementation of distinct district strategies. While some may focus on event encouragement, others may focus on the physical environment. One of the most obvious opportunities for the region to further develop as it relates to arts and culture is the deployment of public art projects. While a variety of installations exist and intentional efforts have expanded these installations in recent years, the region has an opportunity to use public art to not only support the arts community and its cultural objectives, but also to enhance the region’s image and identity through beautification and public art, while also enhancing quality of place. A variety of potential public art initiatives could be advanced. These include but certainly are not limited to the following:

- I. **Sculpture Trail:** a sculpture trail could feature installations along one or more existing trail systems throughout the region that intersects an existing or potential future Arts and Culture District.
- II. **Mural Project:** a mural project could be modeled upon countless best practice programs around the country and emerge as the key façade enhancement and downtown identity program for one of the region’s communities.
- III. **Annual Student Installation:** an area college or university could embed a new course offering in its art department where students are tasked with the collaborative design, development, and installation of a piece of a public art (mural, sculpture, or otherwise) in the region as a capstone project and donation to the community.

These new initiatives – such as a sculpture trail, a mural project, or a student-led installation series – could potentially be supported by a new financing mechanism to complement incentives made available through the establishment of Arts and Culture Districts: the formation of a corporate-sponsored beautification program. Under such a program, communities would create a matching grant program, potentially supported by and delivered through newly-established Arts and Cultural Districts, to provide matching funds for community beautification projects funded by corporate sponsors. Alternatively, a more narrowly-focused corporate-sponsored public art program could be developed.

KEY INITIATIVE #11: IMPLEMENTATION GUIDELINES

POTENTIAL LEAD IMPLEMENTER(S):	Local Government Council and local governments with support from the Implementation Committee
SUPPORTING PARTNERS:	Downtown organizations and Main Street programs, arts and cultural organizations such as the Academy Center of the Arts, James River Arts and Cultural District, Lynchburg Regional Business Alliance, local chambers of commerce, business community (particularly downtown merchants), convention and visitors bureaus, higher education institutions, area nonprofits and community foundations, relevant state and national organizations supporting the arts (Virginia Commission for the Arts, National Endowment for the Arts, etc.)
TIMEFRAME FOR IMPLEMENTATION:	Discussions with local governments regarding the establishment of new districts should be advanced by the Local Government Council and the Implementation Committee following the start of all other initiatives contained within this CEDS, as this initiative received the lowest priority marks by Steering Committee members. If the Local Government Council and the Implementation Committee believe that they can effectively advance this initiative earlier in the implementation schedule without compromising focus and/or resources devoted to other higher-priority initiatives, it could begin at their discretion and/or as opportunities present themselves in individual communities.
POTENTIAL COST:	District planning and formation costs should be negligible relative to other implementation costs; program costs within districts (i.e. grant programs and other incentives for arts and cultural enchantments) will vary based on the scale and scope determined by the district and its participating public, private, and nonprofit establishments.
POTENTIAL SOURCES OF FUNDING:	Local governments and the districts themselves will fund district activities and the incentives they support. Amusement taxes – as levied by the City of Lynchburg upon businesses charging admission to an event or activity – help support the incentives and grants offered by the districts. Arts organizations, higher education institutions, and other area nonprofits can help support specific projects within districts.
BEST PRACTICE OR CASE STUDY:	TULSA BEAUTIFICATION FOUNDATION MATCHING GRANT (TULSA, OK)
BEST PRACTICE OR CASE STUDY:	ARTSKC FUND (KANSAS CITY, MO)

IMPLEMENTATION PLAN

The Comprehensive Economic Development Strategy (CEDS) that precedes this Implementation Plan defines eleven key initiatives, each comprised of many specific tactics that will help Virginia's Region 2000 fulfill its vision for economic development and competitiveness. This complementary Implementation Plan briefly discusses a few key considerations related to ensuring that the CEDS' initiatives are effectively and efficiently implemented. This includes but is not limited to brief commentary on the roles and responsibilities of specific organizations and entities in support of implementation, the financial and organizational resources that are necessary to support these roles and responsibilities, the appropriate schedule for implementation based on Committee prioritization, and the necessary mechanisms for performance measurement supporting implementation evaluation.

In addition to the initiatives and corresponding implementation guidelines that accompany each initiative in the preceding Comprehensive Economic Development Strategy, this Implementation Plan supports the EDA's CEDS Content Guidelines for the Action Plan component.

Implementation Roles and Responsibilities

While every community and region is different, with varying organizational capacities and working partnerships to support CEDS implementation, the communities and regions that are most effective in their implementation efforts are those that, by and large, adopt a truly collaborative model of implementation. That is to say, they create an expectation that the CEDS is a strategy for a community or region, and not a strategy for a single organization. They support shared accountability as it relates to implementation roles and responsibilities, and expect that CEDS implementation will be a "team sport." In this regard, successful communities and regions have acknowledged that, just as it has taken a collaborative group (the CEDS Steering Committee) to develop a truly *Comprehensive* Economic Development Strategy (CEDS), it will take a collaborative group to translate those ideas into actions.

And so, these communities and regions have demonstrated over time that there is value in maintaining a structure to support ongoing collaboration and cooperative action among those organizations that will be actively engaged in implementing the various CEDS initiatives; in many instances, such structures include a core group of participants from the CEDS Steering Committee that studied the region and developed appropriate recommendations. The most successful communities and regions understand that this network of collaborative organizations and implementers needs day-to-day staff support. They invest in dedicated staff that can ensure that this collaborative network has the necessary support and access to resources to effectively and efficiently implement the CEDS.

LYNCHBURG REGIONAL BUSINESS ALLIANCE (LRBA)

In 2016, the Lynchburg Regional Chamber and the Region 2000 Business and Economic Alliance merged to create the new Lynchburg Regional Business Alliance (LRBA). The new organization brings the region's historical chamber of commerce functions and its regional economic development efforts together under a single roof.

At the onset of the CEDS strategic planning process, the LRBA's leadership demonstrated a commitment to the CEDS and its implementation as a guiding document and core component of the new organization's program of work. And throughout the strategic planning process, business and community leaders serving on the Steering Committee continued to emphasize the role and responsibility of LRBA as it relates to implementation; an expectation that – through committed leadership, dedicated staff support, and devoted financial resources – the LRBA will help ensure that the CEDS is a strategy that gets implemented, and is not simply a strategy developed to satisfy federal requirements.

The CEDS identifies eleven key initiatives across five broad goal areas. The Steering Committee, inclusive of leadership from critical implementation partners, has helped identify the most appropriate organizations to lead and support the implementation of each initiative. The LRBA has been identified as a necessary partner in every initiative but certain initiatives will be almost exclusively led by LRBA staff in partnership with the Regional Economic Development Team (also known as "The RED Team"), a working group of local economic development practitioners in the region.

Specifically, it is anticipated that the LRBA and its staff will lead implementation of the following initiatives:

- ✓ Key Initiative #2: Existing Business Retention and Expansion (BRE) Program
- ✓ Key Initiative #3: Regional Marketing and Corporate Recruitment Campaign
- ✓ Key Initiative #4: Regional Entrepreneurship Center
- ✓ Key Initiative #5: Technology-Based Economic Gardening and Entrepreneur-in-Residence
- ✓ Key Initiative #9: Industrial Site Evaluation and Improvement Program

The aforementioned initiatives are wholly aligned with the LRBA's stated mission and comprise foundational elements of a regional economic development program. However, as illustrated throughout the research and strategic planning process, effective economic development in today's climate goes far beyond the traditional legs of the economic development stool: business attraction, business retention and expansion, and new business development. Effective economic development, ideally advanced via the region's CEDS, necessitates attention on a variety of other factors that influence the relative attractiveness and competitiveness of a region for prospective and existing businesses; this includes but is certainly not limited to efforts to enhance the quality of place (i.e. Key Initiatives #10 and #11), to elevate educational attainment and workforce preparedness (i.e. Key Initiatives #6 and #7), and to prepare adequate infrastructure to support the movements of people and goods (i.e. Key Initiative #8). The LRBA will also assume a key role in helping to convene the recommended Image and Identity Partnership tasked with developing a new Regional Image and Branding Campaign (Key Initiative #1).

Filling this leadership role in advancing the region's CEDS will necessitate the acquisition of new resources at LRBA, both staff capacity and new financial resources will be needed to support new program implementation and expansion of existing programs in alignment with the CEDS' recommendations. A brief discussion of the necessary financial and staff resources to support CEDS implementation are covered in the section entitled "Implementation Capacity."

In summary, the LRBA can serve as the principal organization responsible for staff-driven implementation of relevant CEDS key initiatives. It will serve as the external "face" of the region's collective economic development community, and as such, the commitment of its staff and volunteer (board) leadership will be essential to the success of the implementation effort. But the LRBA's staff should not be expected to lead in all areas of the CEDS or advance certain initiatives in isolation. Furthermore, the organization and its staff cannot be reasonably expected to provide the necessary financial or staff resources to execute each element of the CEDS. The LRBA staff will need to be supported by a commitment to advance implementation from the organization's board of directors and a variety of other partners.

CEDS IMPLEMENTATION COMMITTEE

During its September and October 2016 meetings, the Steering Committee acknowledged and emphasized that the Lynchburg Regional Business Alliance (LRBA) should assume a substantive leadership position in the implementation of the CEDS' recommendations. This included staff-led implementation of many initiatives, but also, coordination of the various implementation partners and volunteers that will be necessary to effectively implement the CEDS. In this regard, the Steering Committee recognized that a collaborative group of implementation partners would be necessary to move the needle on certain initiatives for which the staff and financial resources at LRBA may be insufficient to support effective implementation. Accordingly, it is recommended that a CEDS Implementation Committee be convened by the LRBA immediately following the conclusion of the CEDS strategic planning process. As suggested by the CEDS Steering Committee, this new Implementation Committee would be derived from and report to the LRBA Board of Directors.

PURPOSE AND OPERATIONS: The Implementation Committee should fulfill multiple roles in supporting the implementation of the CEDS. First and foremost, the members of the Implementation Committee should be champions of the strategic planning process, its recommendations, and their implementation. They will need to invest time in informing and educating various organizational, community, and business leaders that have not been actively engaged in the strategic planning process but whose support – financial, organizational, or otherwise – is critical to the CEDS' successful implementation. They must constantly remind themselves and the region's leadership that the CEDS and its key initiatives were derived from extensive research and public input, including the opinions of more than 1,200 residents and employers in the region.

The primary role of the Implementation Committee will be to serve as a catalyst. While staff with the LRBA and other regional organizations will assume a leadership position in the implementation of certain initiatives, many initiatives will require considerable buy-in and commitment from a variety of other organizations and institutions in the region; accordingly, the Implementation Committee will be the primary convener of such implementation partners. But, it cannot simply be a convener; it must also be an activator of the CEDS' recommendations. In partnership with the LRBA, the LGC, and other critical implementation partners, the members of the Implementation Committee will need to create shared accountability for the

implementation of certain initiatives. While many regions have a tendency to continually discuss their challenges and opportunities, the Implementation Committee must recognize that, while continued dialogue is valued, it cannot inhibit the process of *doing*. The Committee must remain focused on activating the various recommendations with the assistance of professional staff from the LRBA and the LGC.

Finally, the Implementation Committee should track progress, evaluate the success of implementation efforts, and regularly communicate these results to relevant stakeholders and the public at-large in collaboration with the LRBA and LGC. The Committee should evaluate past year successes on an annual basis, adjusting priorities and tactics as necessary but remaining committed to the eleven key initiatives and the objectives that they support in the region's CEDS. Successes should be communicated internally, within the region, via annual reports while certain external reporting (most notably, the submission of updates to the Economic Development Administration) will also need to be conducted on an annual basis with support from LRBA and LGC staff. The final section of this Implementation Plan discusses performance measurement.

COMMITTEE COMPOSITION: The Implementation Committee will ideally be comprised of many of the core members of the CEDS Steering Committee, understanding that many who helped author the CEDS and its recommendations are also representatives of necessary implementation partners and can be among the CEDS' greatest champions as the region attempts to move seamlessly from strategic planning to implementation. However, it is important to acknowledge that the composition of the CEDS Implementation Committee should necessarily differ from that of the CEDS Steering Committee; as a subcommittee of the LRBA's Board of Directors, it will only be comprised of those who are currently serving on the LRBA board. The Steering Committee has emphasized that a group of 10-15 members of the LRBA board would be an appropriate sized Implementation Committee.

The Implementation Committee should ideally be chaired by the incoming chairperson of the LRBA. This would help ensure that each chairperson of the LRBA will have previously served for at least one year in a leadership capacity related to the implementation of the region's Comprehensive Economic Development Strategy (CEDS). Accordingly, they will be well informed of the manner in which the LRBA has been engaged in and supportive of the region's collaborative approach to economic development, and mindful of the initiatives and investments that will emerge as priorities during their time of service as LRBA chair.

The remainder of the Committee should be comprised of other LRBA board members. The Steering Committee has also recommended that each of the eleven CEDS initiatives be adopted by a "champion" that can help galvanize support within the community and among necessary implementation partners.

WORK GROUPS AND AD HOC SUBCOMMITTEES: The Steering Committee has also acknowledged that certain organizations and individuals in the region that have been engaged in the strategic planning process (and accordingly, served on the Steering Committee) will need to be actively engaged in the implementation of one or more key initiatives, and yet many of these individuals or organizations may not presently be represented on the LRBA board. Accordingly, as the Implementation Committee begins operation, it will be logical for smaller working groups or subcommittees to be birthed, as needed, to help advance one of the eleven key initiatives, or a specific component of one initiative. Such ad hoc committees can be created as needed and dissolved when their collaborative work has been completed. In fact, the CEDS calls for the formation of a few such working groups that could reasonably be subcommittees reporting to the

Implementation Committee. Examples of such opportunities include but are not limited to the Image and Identity Partnership recommended in Key Initiative #1 to help design and deploy a Regional Branding and Image Campaign; the Talent Coalition recommended in Key initiative #6; and a potential working group to help get a new regional Center for Entrepreneurship (Key Initiative #4) off the ground. Although a pre-existing construct and one which does not need to report to the Implementation Committee, the region's Regional Economic Development Team (also more commonly known as "The RED Team") is a good example of an existing working group that meets regularly to advance common objectives and which could serve as a model for other work groups moving forward.

MEETING SCHEDULE AND CONDUCT: During its first year of operation (2017), the Implementation Committee should, at a minimum, meet quarterly and consider a monthly meeting schedule in the immediate near-term until capacity is built and certain initiatives are off the ground. Greater frequency can help activate high-priority initiatives from the CEDS while also helping staff at the LRBA, LGC, and other implementation partners accomplish certain startup tasks. While the Implementation Committee may meet quarterly, the aforementioned ad hoc work groups may need to meet far more frequently.

The strength of a region's first-year implementation effort is a strong predictor of its long-term success in activating its economic development strategy and preventing it from becoming the clichéd document-on-a-shelf. Getting started is often the hardest but most impactful task. Many communities lose momentum following the strategic planning phase; any amount of delay could cause some individuals involved in the strategic planning process to lose interest, disengage, and view the process as "all talk and no action." Accordingly, it is recommended that the LRBA convene the Implementation Committee, comprised of those board members that have served on the Steering Committee and are interested in maintaining their service, no later than January 2017 to begin operation. At that time, the Implementation Committee can review its roles and responsibilities, the high priority initiatives to advance in the first year, and determine the subcommittees and meeting schedule that are necessary to help advance these priorities.

The Implementation Committee – and particularly its chairperson – will need to determine the appropriate ways to structure, facilitate, and conduct meetings. The chairperson can appropriately serve as meeting facilitator, ensuring that the committee remains on track and follows the agenda for that meeting. The chairperson can work with staff from the LRBA (the identified "Implementation Coordinator" – see section entitled "Staff Resources") to develop and circulate meeting agendas. A common format for meetings is to utilize the first half to allow Committee members to provide updates on implementation efforts that their organization and/or subcommittee have advanced in recent months. The second half becomes a work session to discuss the tasks and responsibilities of the Committee – both collectively and as individuals – in activating specific initiatives in the months ahead. Meetings can begin by taking a look back at the work that is in progress and/or has been accomplished in recent months, and conclude with a look forward at the work that needs to be accomplished in the coming months. These work sessions can identify the need to form any ad hoc subcommittees while also developing clear "to-do lists" for individuals or subcommittees.

In summary, the Implementation Committee can serve as a "keeper of the goals" and the principal entity responsible for creating shared accountability, developing collaborative solutions, and overcoming barriers to effective implementation of the CEDS key initiatives. The Committee can and should appropriately defer implementation of certain initiatives to organizations and the paid staff that supports

them (such as Key Initiatives #2 and #3), but others (such as Key Initiatives #1, #4, and #6, among others) will require considerable collaboration among a diverse group of regional stakeholders – the Implementation Committee – to advance implementation and develop the appropriate tactics to do so.

LOCAL GOVERNMENT COUNCIL (LGC)

The Region 2000 Local Government Council (LGC) serves as one of the Commonwealth's 21 planning districts, which are established to encourage and promote local government cooperation and regional planning as it relates to a district's physical, social, and economic challenges and opportunities that are of regional significance. The LGC is responsible for maintaining and updating the region's CEDS with the federal Economic Development Administration (EDA), ensuring that the region and its local governments remain eligible for certain federal funding opportunities and forms of planning or technical assistance afforded by the EDA's Economic Adjustment Assistance and Public Works programs.

During the strategic planning process, the LGC demonstrated a commitment to uphold its role as the organization responsible for maintaining the region's CEDS and submitting regular updates to the EDA to ensure compliance and continued eligibility for regional funding opportunities. This will include the provision of annual updates and reports to the EDA, which may require that the CEDS Steering Committee – inclusive of representatives from various partner organizations and entities that may not be engaged in the day-to-day activities of the CEDS Implementation Committee – be reconvened. It also includes the provision of letters of support and other forms of assistance, potentially but not necessarily including assistance with grant applications, to help facilitate the acquisition of necessary funds to support CEDS implementation.

The LGC can and should also maintain its role as a communicator of CEDS impact, providing regular updates to the region and its leadership regarding progress towards key measures of performance and competitiveness (see section entitled "Performance Measurement"), and overall implementation progress. This includes but is not limited to updating and maintaining the existing Region 2000 Local Economy Dashboard (www.region2000dashboard.org).

And finally, the LGC will lead and guide implementation of certain initiatives in the CEDS:

- ✓ Key Initiative #8: Transportation, Broadband, and Other Priority Infrastructure Projects
- ✓ Key Initiative #10: Advancing a Regional Riverfront Vision
- ✓ Key Initiative #11: Expanding the Establishment of Arts and Culture Districts

The LGC can and should also provide important support for the development of industrial sites and the extension of infrastructure to such sites by local communities.

In summary, the LGC can serve as the principal organization responsible for communicating implementation progress and serving as the liaison between the region and the EDA for the purposes of CEDS updates and annual reports, EDA grant applicants, and other relevant matters. It will also serve as the principal organization responsible for advancing a few initiatives that align closely with the LGC's core mission and its existing service delivery to local communities in the region.

IMPLEMENTATION PARTNERS

The Implementation Guidelines included for each initiative in the CEDS identify various implementation partners that can and should be engaged by the CEDS Implementation Committee, the Lynchburg Regional Business Alliance, and the Local Government Council in their efforts to advance implementation of the eleven key initiatives and their many tactical elements. The table below is a non-comprehensive list of the many partners that are mentioned in those implementation guidelines for each initiative. The Implementation Committee can regularly update this table as implementation progresses to reflect the collective and collaborative nature of the implementation effort, and to recognize sponsors and supporters of various initiatives.

Organization	Organization
Academy Center of the Arts	Lynchburg Regional Business Alliance
Appalachian Power	Lynchburg Regional Transportation Advocacy Group
Big Brothers Big Sisters of Central Virginia	Lynchburg Region's Technology Council
Business Community	Lynchburg Retail Merchants Association
Center for Advanced Engineering Research	Lynch's Landing
Chambers of Commerce in the Region	Main Street Programs
Colleges and Universities	Parks and Recreation Departments
Convention and Visitors Bureaus	Region 2000 Business Services Team
Economic Development Administration	Region 2000 Talent Solutions Team
Export-Import Bank of the United States	Regional Economic Developers ("RED Team")
Future Focus Foundation	Small Business Administration
Governor's Office	Small Business Development Center
Greater Lynchburg Transit Company	State Council for Higher Education in Virginia
Human Resource Professionals	State and Federal Elected Representatives
International Trade Administration	United Way of Central Virginia
James River Association	Utilities
James River Council for the Arts and Humanities	Virginia Center for the Creative Arts
K-12 Public School Districts	Virginia Department of Education
Kaufmann Foundation	Virginia Department of Rail and Public Transportation
Leadership Lynchburg	Virginia Department of Transportation
Local Education Foundations	Virginia Economic Development Partnership
Local Government Council	Virginia International Trade Corp.
Local Governments	Virginia Small Business Finance Authority
Lynchburg Business Development Centre	Workforce Development Board
Lynchburg Regional Airport	Young Professionals of Central Virginia

Implementation Capacity

Implementation of the region's CEDS will undoubtedly require new resources, both in the form of new staff and new financial resources to support specific investments and initiatives. This section will briefly discuss the staff and financial resource requirements that may be necessary to support effective implementation of the CEDS' initiatives.

STAFF RESOURCES

As previously discussed, the Lynchburg Regional Business Alliance (LRBA) will assume a leadership role in the implementation of various initiatives outlined in the CEDS, specifically:

- ✓ Key Initiative #2: Existing Business Retention and Expansion (BRE) Program
- ✓ Key Initiative #3: Regional Marketing and Corporate Recruitment Campaign
- ✓ Key Initiative #4: Regional Entrepreneurship Center
- ✓ Key Initiative #5: Technology-Based Economic Gardening and Entrepreneur-in-Residence
- ✓ Key Initiative #9: Industrial Site Evaluation and Improvement Program

The CEO of LRBA, with support from the Director of Marketing and others on staff, and in partnership with the RED Team (local economic developers), principally executes the organization's economic development marketing program. Given the degree to which the effectiveness of economic development marketing efforts relates to the strength of relationships between a community or economic developer and a prospect or site selector, it is appropriate for the CEO to maintain a lead role in the execution of this portion of the organization's strategy. The LRBA's CEO has developed and maintained certain relationships over time and it is important that these relationships be leveraged in the near-term, particularly as the organization seeks to establish strong brand recognition for its new identity and structure, communicate new programmatic objectives and investments related to this CEDS, and refocus its marketing and corporate recruitment efforts in alignment with a recently completed Target Sector Analysis. Accordingly, it is recommended that no additional staff capacity be added to support Key Initiative #3 in the near-term.

However, it is recommended that the LRBA add staff capacity in the coming year to support the effective implementation of Key Initiative #2 (Existing Business Retention and Expansion Program) – a high priority initiative as identified by the CEDS Steering Committee. Existing business outreach is a labor-intensive endeavor. The LRBA should conduct a search in early 2017 for an **Existing Business Program Manager** to design (in accordance with the CEDS recommendations) and deploy the region's collaborative approach to existing business retention and expansion outreach. The ideal candidate will have similar experience in existing business retention and economic development project management, as well as existing relationships with relevant contacts in the field (particularly those at VEDP, area utilities, and other partners supporting existing business expansion projects). This individual could also be responsible for overseeing the development of the Industrial Site Evaluation and Improvement Program (Key Initiative #9). It should be expected that total annual costs for this position (inclusive of salary, benefits, and employer taxes) lie within the range of \$60,000-\$80,000 depending upon qualifications.

The LRBA recently conducted a search to fill a position for a Vice President of Technology and Economic Development but did not fill position. This individual was envisioned to play a critical role in advancing Key Initiatives #4 and #5 in partnership with the Lynchburg Region's Technology Council and other relevant implementation partners serving on the CEDS Implementation Committee. While there would unquestionably be value in having this position filled as soon as possible, other initiatives from the CEDS have emerged as slightly higher priorities, and accordingly, greater attention and focus should be placed on ensuring that these initiatives – principally Key Initiatives #1 (Regional image and Branding Campaign) #2 (Existing Business Retention and Expansion program), and #6 (Talent Coalition) – are successfully launched and effectively resourced, both in terms of staff commitments and financial resources. A search for the Vice President of Technology and Economic Development could begin again around the conclusion of 2017, once LRBA fundraising (see next section entitled "Financial Resources") has been completed and implementation priorities have been advanced. Consideration should be given to the ability of this individual to potentially fill multiple roles and/or transition into the position of **Director for the Center of Entrepreneurship** (Key Initiative #4). Consideration must also be given to the manner in which this individual will interface with the recommended **Entrepreneur-in-Residence** and the technology-based economic gardening initiative that they anticipated to support (Key Initiative #5). Both positions will require an individual with considerable experience as a successful entrepreneur and/or advisor to and funder of technology-based startups. Attracting the right candidate could necessitate a substantive salary and compensation package.

Finally, it will be important for the region and the work of the CEDS Implementation Committee to be supported by an **Implementation Coordinator**. This role can potentially be filled by existing staff capacity at the LRBA while evaluating the need for additional staff capacity. This individual would be responsible for helping schedule meetings, securing meeting locations, developing and distributing agendas, developing and distributing other necessary communications, and recording progress of the Committee and its various work groups. Many larger metropolitan regions devote a full-time position to coordinating the work of volunteers and partners as it is related to strategy implementation and communicating progress to relevant audiences. At present, such a full-time position would be unwarranted but the region should carefully consider if such full-time capacity would be helpful and viable, perhaps at the conclusion of the first year implementation effort (early 2018).

FINANCIAL RESOURCES

The various Implementation Guidelines that are included in the description of each of the eleven Key initiatives outlined in the CEDS include rough estimations of cost ranges for these initiatives and the tactics supporting them. In many cases, these costs are noted to be "highly variable" given the nature of certain recommendations and the work that remains to secure financial and organizational commitments from various implementation partners and other sources of funding, and the degree to which those commitments influence the viability, scale, and scope of certain initiatives. Further, while some initiatives are core economic and workforce development programs that require budgets of a few hundred thousand dollars, other initiatives outline potentially multi-million dollar investments (such as transportation infrastructure projects outlined in Key Initiative #8, or physical developments such as a new Center for Entrepreneurship in Key Initiative #5). For these reasons, it is unreasonable and unproductive to attempt to derive a total cost estimate for the implementation of a region's CEDS.

However, when possible, it is important to identify any financial resource deficiencies within organizations that will be tasked with leading implementation of many initiatives, most notably, the LRBA. The Implementation Guidelines that accompany each of the eleven initiatives also include references to potential funding sources, identifying LRBA as the primary financial supporter for multiple initiatives. The LRBA is currently conducting a feasibility study associated with the implementation of a new five-year program of work, of which a large portion is appropriately derived from the CEDS initiatives. Upon completion of the feasibility study, the LRBA will launch a new fundraising campaign to raise the necessary resources to effectively implement its program of work, inclusive of various CEDS initiatives. Prior to the launch of the fundraising campaign, it should be ensured that fundraising targets consider the full spectrum of potential costs and recommended staff resources at LRBA included herein.

Aside from augmentations to the LRBA's budget by way of a new fundraising campaign, the CEDS will require aggressive pursuit of grant monies from regional, state, and national institutions – be they public entities (such as the Economic Development Administration) or nonprofits with missions that align with certain CEDS initiatives (such as the Edward Lowe Foundation or the United Way). Many communities and regions leave hundreds of thousands or millions of dollars on the table due simply to lack of pursuit. The CEDS is written not only to encourage regional collaboration but also to enable a region, its local governments, and its institutions to seek available funding opportunities from the federal government. While the grant application and review process can be time consuming and disappointing if monies are not awarded, these are not excuses for choosing not to pursue available monies that can greatly impact the CEDS implementation effort.

Perhaps most importantly, effective implementation will require a commitment from local governments to invest in their future: their people, the institutions that enhance their well-being, and the assets that enable economic growth and resilience. The overwhelming majority of available grant opportunities will require a local match, and local governments will need to demonstrate their willingness to fund certain initiatives before the federal government (or certain nonprofits) will consider awarding funds to the region. But absent available grant monies, the region's local governments will nonetheless need to demonstrate a willingness to invest in infrastructure and assets that enable the region to be more competitive for economic development projects and which enhance the return on investment associated with economic development marketing expenditures, talent attraction and retention efforts, and other initiatives within the CEDS.

Implementation Schedule and Priorities

The CEDS outlines eleven key initiatives, each of which will necessitate a variety of different activities to advance over time. While some initiatives are already underway to some degree and the CEDS recommendations reflect realignment or repositioning of these existing efforts (such as the region's approach to targeted corporate recruitment), the overwhelming majority are new initiatives that will require a series of intentional actions to advance. And while there is enthusiasm for all of the CEDS initiatives among Steering Committee members, there is acknowledgement that the region cannot attempt to do everything at once. Certain initiatives will require capacity – either financial or staff, or both – to execute, while others will require additional tactical planning by a collaborative group of community leaders: the Implementation Committee and any relevant, necessary subcommittees.

This portion of the Implementation Plan provides a recap of the Steering Committee's prioritization of the eleven key initiatives, some brief commentary on the timing of implementation as it relates to this prioritization, and a general overview of some key milestones during the implementation phase.

IMPLEMENTATION PRIORITIES

Upon reaching consensus on the CEDS initiatives, Steering Committee members were provided with two opportunities to communicate their opinions regarding the relative priority of each initiative according to its perceived importance and impact: a dot voting exercise and a follow-up online survey. During the September 2016 meeting, the 26 Steering Committee members present were given the opportunity to assign four votes to twelve initiatives outlined in a draft of the CEDS. Through this prioritization exercise, it was revealed that little support persisted for one initiative – the deployment of free public wireless internet – with this one initiative receiving just one vote out of the 104 votes cast (4 votes for each of the 26 Committee members). The online survey then allowed all Committee members, particularly those who were not able to be present at the September meeting, with an opportunity to prioritize the eleven initiatives. The results of these two prioritization exercises are as follows.

PRIORITIZATION: DOT VOTING (MOST VOTES = HIGHEST PRIORITY)

Key Initiative	Total Votes
Key Initiative #6: Regional Talent Coalition	17
Key Initiative #1: Image and Identity Partnership/Campaign	16
Key Initiative #2: Existing Business Retention and Expansion (BRE) program	16
Key Initiative #8: Priority Transportation, Broadband, and Other Infrastructure Projects	11
Key Initiative #3: Regional Marketing and Corporate Recruitment Campaign	8
Key Initiative #7: Regional Workforce Center	8
Key Initiative #4: Regional Entrepreneurship Center	7
Key Initiative #9: Industrial Site Evaluation and Improvement Program	6
Key Initiative #10: Regional Riverfront Vision	6
Key Initiative #5: Technology-Based Economic Gardening and Entrepreneur-in-Residence	5
Key Initiative #11: Expansion of Arts and Culture Districts	3

PRIORITIZATION: SURVEY RESULTS (1 = TOP PRIORITY; 11 = LOWEST PRIORITY)

Key Initiative	Avg. Rating
Key Initiative #6: Regional Talent Coalition	4.1
Key Initiative #2: Existing Business Retention and Expansion (BRE) program	4.3
Key Initiative #1: Image and Identity Partnership/Campaign	4.7
Key Initiative #4: Regional Entrepreneurship Center	5.4
Key Initiative #3: Regional Marketing and Corporate Recruitment Campaign	5.8
Key Initiative #7: Regional Workforce Center	5.9
Key Initiative #8: Priority Transportation, Broadband, and Other Infrastructure Projects	6.0
Key Initiative #9: Industrial Site Evaluation and Improvement Program	6.7
Key Initiative #5: Technology-Based Economic Gardening and Entrepreneur-in-Residence	6.9
Key Initiative #10: Regional Riverfront Vision	7.4
Key Initiative #11: Expansion of Arts and Culture Districts	8.8

While there is some variation between the results of the two exercises, there are important similarities and areas of consensus at the two ends of the spectrum:

- ✓ Key Initiatives #1, #2, and #6 were evaluated as the three highest priorities in both exercises
- ✓ Key Initiatives #5, #10, and #11 were evaluated as the lowest priorities in both exercises

A few additional observations regarding prioritization and the manner in which these priorities relate to an appropriate implementation schedule are warranted.

Although Key Initiative #9 – the intentional evaluation and improvement of industrial sites throughout the region – was evaluated to be a relatively low priority by Steering Committee members (7th out of the 11 initiatives), it could be argued that these efforts should be prioritized above others that received higher marks (notably Key Initiative #3 – the Regional Marketing and Corporate Recruitment Campaign). Simply put, the effectiveness of any regional economic development marketing and corporate recruitment efforts are compromised in the Lynchburg region given the availability and preparation of the region's industrial sites. Return on investment associated with these tactics contained within Key Initiative #3 will be greatly enhanced if the region has quality "product" (marketable sites) to sell to prospective employers evaluating the region as a potential site location.

Similarly, it could be argued that Key Initiative #10 – the advancement of riverfront developments and enhancements throughout the region – should be elevated to a higher priority. It is important to recall from the Regional Assessment that when asked to identify what they would like to see different about the region in ten years, the most frequently mentioned word by the more than 1,100 residents that responded to the online survey was "downtown." This reflects the fact that residents – the region's workforce – are seeking improvements in the quality of place, improvements that can increase the likelihood that they (and others like them) will want to live and work in the Lynchburg region.

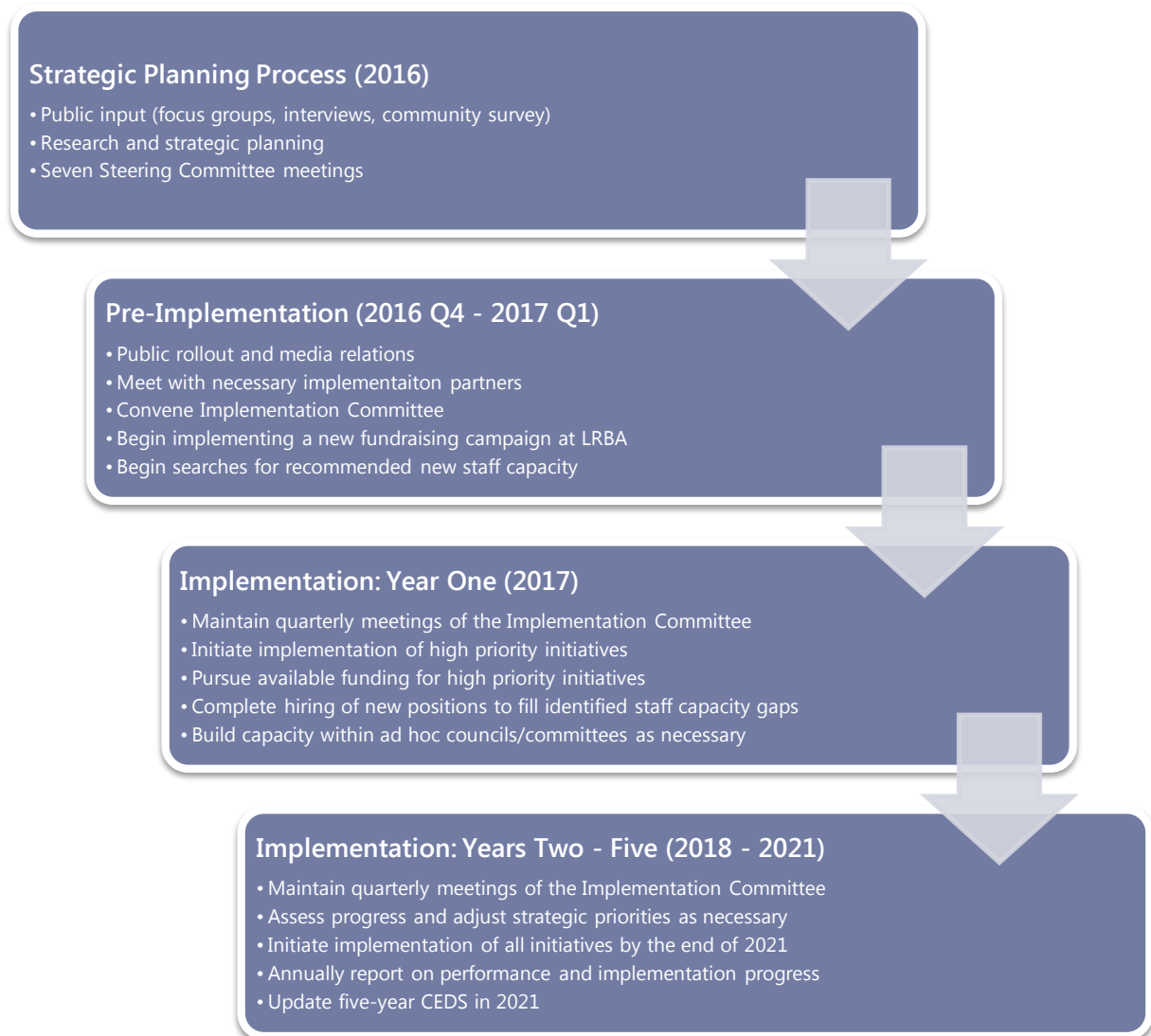
SURVEY QUESTION: "IMAGINE THAT YOU WENT HOME, PACKED YOUR BAGS, AND DIDN'T RETURN TO THE LYNCHBURG REGION FOR TEN YEARS. WHAT WOULD YOU WANT TO SEE DIFFERENT (IF ANYTHING) ABOUT THE COMMUNITY WHEN YOU RETURN?"



Source: Market Street Services, Region 2000 Community Survey (2016)

OVERVIEW: IMPLEMENTATION SCHEDULE

Successful communities and the organizations that support them never stop planning. But successful communities and organizations also do not allow the processes of conversing and strategic planning – as important as they are – to impede the process of doing. The following graphic provides a high-level overview of the planned implementation effort and a few key milestones along the way.



Performance Measurement

Performance measurement is critical to any economic development or community improvement initiative. The process of establishing and tracking performance metrics will allow the region and the CEDS Implementation Committee to assess and effectively communicate progress towards implementing the CEDS. Performance measurement can help determine if implementation is having the desired impact and producing the desired return on investment.

Many regions must start from scratch in designing their performance metrics and the mechanisms for communicating those results and outcomes to specific audiences and the general public. Fortunately, the Lynchburg region already has a viable mechanism for communicating performance as it relates to CEDS implementation: the Region 2000 Local Economy Dashboard (www.region2000dashboard.org). The dashboard has been used by the LGC to track regional performance on a variety of indicators that align with the region's CEDS.

Following this update to the region's CEDS it is logical to continue utilization of the dashboard to communicate regional outcomes, but it is also necessary and appropriate to revise the dashboard in a manner that aligns with the updated CEDS, its goals, and its key initiatives. At present the dashboard provides data for the region, as well as state and national benchmarks when available, for a limited set of indicators in six thematic areas. It is recommended that the dashboard can be revised in the following manner:



- A. Design a new landing page that provides a visual overview of a key indicators of Regional Competitiveness: a concise set of performance metrics that relate to the findings of the Regional Assessment, the initiatives advanced by the CEDS, and the outcomes that they wish to affect. Similar to the content that is presented on the existing dashboard, this landing page would communicate and visualize performance towards this concise set of indicators that speak to "Regional Competitiveness" and reflect issues of economic performance and resilience, workforce sustainability, and the well-being of residents and workers in the region. Annual updates would be made to this section as relevant publicly-available data is often released on an annual basis. Recommended metrics to track on this landing page include the following:

1. Total employment
2. Employment by target sector
3. Employment by firm size (% of employment in establishments with fewer than 50 employees)
4. Unemployment rate
5. Average annual wages
6. Per capita income
7. Poverty rate
8. Net migration
9. Educational attainment (% of adults with at least a two-year college degree)
10. Age composition (% of population aged 25-44)

- B. Realign the areas of focus and top navigation on the dashboard to align with the five goal areas of the updated CEDS, utilizing abbreviations denoted in parentheses as follows:
1. ...projecting a positive image and cultivating our distinct identity (Image and Identity)
 2. ...facilitating the growth and expansion of our business community (Business Growth)
 3. ...educating and developing a sustainable workforce; (Workforce Sustainability)
 4. ...investing in the connectivity of our region, and; (Regional Connectivity)
 5. ...supporting the vitality of our diverse communities and downtowns. (Community Vitality)
- C. Adjust the focus of each of the five aforementioned pages such that they communicate the activities that are planned, underway, or completed by the Implementation Committee and the partners that are leading implementation of certain initiatives within the CEDS. Quarterly updates would be made to this portion of the website following each Implementation Committee meeting, or when relevant updates are available. These updates can also be used to inform the production of annual reports.

ESTABLISHING GOALS FOR PERFORMANCE METRICS

The practice of establishing long-term goals associated with economic development strategy implementation (i.e. “create 7,000 jobs in the next five years” or “increase per capita income to \$45,000 by 2018”) has become commonplace in the economic development field. These kinds of long-term goals are often perceived to be necessary by organizations, fundraisers, and at times, investors, who want to know that the strategy in which they are investing and supporting will have substantive regional impact. The limitations of this long-term goal-setting approach often outweigh the potential benefit; simply put, it is difficult, nearly impossible, to establish a meaningful goal for certain metrics given the uncertainty that surrounds a variety of external factors influencing such metrics. The impact of the Great Recession provides a perfect example. Countless economic development organizations had established lofty job creation goals (and similar goals for a variety of other metrics) in the years immediately preceding the Great Recession. Once the national financial crisis took hold, these organizations had little hope of hitting their established goals as business investment and expansion dried up nationwide.

Furthermore, there is often such a substantial lag in the release of publicly-available data. This lag often means that organizations and regions must wait up to two or three years after the conclusion of their implementation phase to measure the degree to which they achieved certain goals or pre-established metrics. So, for example, a region that established measureable goals for 2021, a five-year strategy to be implemented from 2017-2021, could have to wait until 2023 or 2024 to collect the necessary data to fully evaluate the degree to which they reached their pre-established goals. By this point, most of these organizations are in the midst of another implementation cycle, and have necessarily already completed any associated fundraising for which such performance metrics might help communicate return on investment from past fundraising and implementation efforts.

Rather than establish specific goals that often have little value to the implementation effort, it is recommended that the Implementation Committee, with support from the LGC and LRBA, annually track the metrics recommended in the preceding section and provide context for the region’s performance by appropriately benchmarking regional performance against the Commonwealth and the nation, as currently executed on the Region 2000 Local Economy Dashboard.

APPENDIX A: TARGET SECTOR ANALYSIS

This is a critical time in the history of the Lynchburg region and its economic development activities. In 2015, the Lynchburg Regional Chamber of Commerce and the Region 2000 Economic Development Alliance merged to form the new Lynchburg Regional Business Alliance (herein referred to as “the Alliance” or “LRBA”). Shortly thereafter in early 2016 the Region 2000 Local Government Council convened a Steering Committee of key regional stakeholders to help guide a process that will result in an updated Comprehensive Economic Development Strategy (CEDS) for the region. This strategy will help define, in part, the program of work for the Alliance as it relates to regional economic development.

The CEDS process comprehensively evaluates the region and its competitiveness for jobs and talent, including a profile of the regional economy and the manner in which it has changed over time, by way of Regional Assessment. This document – a Target Sector Analysis – will complement the CEDS process and its Regional Assessment by evaluating the region’s economic composition in greater detail and focusing more narrowly on a specific issue: the Lynchburg region’s potential to create new jobs and wealth for its residents through targeted economic development activities.

For individuals and households, standards of living are closely linked with economic opportunities. If more workers at a variety of skill levels are able to find jobs and earn wages, levels of prosperity will rise. To that end, communities around the country are directing finite resources toward the development of “targeted” business sectors that have the greatest potential to grow jobs and attract investment. This Target Sector Analysis identifies and profiles the sectors that possess such potential in the Lynchburg region and although not a formal component of the CEDS process, will appropriately inform strategic recommendations and implementation guidelines.

Before presenting the identified target sectors and brief profiles of each, it is important to review a few key concepts and considerations in the process of identifying target sectors for the Lynchburg region. The remainder of this introductory section provides this context in addition to defining specific terms and methods that underpin the included analysis.

KEY CONCEPTS: CLUSTERS, TARGETS, AND STRATEGIC CONSIDERATIONS

CLUSTERS: Agglomerations – or “clusters” – represent groups of interrelated businesses that choose to co-locate. The historical growth of clustered economic activity in areas such as the Silicon Valley, Route 128 in Massachusetts, and the Research Triangle Park in North Carolina are well-developed case studies to which many other regions across the nation refer as they strive to develop similar agglomerations. But there are countless examples of such clusters around the country and the world. Clustering can occur among competing or cooperative firms for a variety of different reasons. For instance, a group of suppliers may choose to locate in proximity to a major manufacturer for research and development efficiencies and reduced transportation costs. Another example is the immense aerospace cluster that has developed around Boeing Defense, Space, and Security operations in St. Louis, Missouri. Other firms may co-locate in a specific area in order to take advantage of a specialized labor pool or to be in close proximity to specific infrastructure or assets, from ports to universities.

While the factors that have led to clustering vary tremendously by region and sector, such agglomerations occur over time because a location has an asset base that affords the sector and the companies that operate within it some form of competitive advantage. The competitive advantages derived by these firms often result in comparatively high potential for employment growth and wealth creation. As the cluster grows, so too do the benefits afforded to the companies within the cluster: the available workforce grows, the potential for collaboration expands, competition may drive down costs, and buyer and supplier networks expand, among other potential impacts.

TARGETS: A targeted sector – or simply a “**target**” – is any type of business activity that is strategically pursued by an economic development organization and its partners for growth and development. That is to say, a “target” is an area where financial and staff resources, and the programs and policies they support, are specifically focused. “Targets” are often those segments of an economy where competitive advantages exist, prospects for future growth are greatest, and return on investment is likely highest. A “target” can be a single business sector with high growth potential or a “cluster” of businesses in related sectors. Many communities choose to target business sectors that are not presently concentrated in their community or characterized by existing competitive advantages. This may be because such activities are rapidly expanding, exhibit potential to become clusters in the years and decades to come, or align with other strategic objectives of the community. The ultimate aim of “targeting” is not necessarily to create new clusters of business activity – communities with multiple clusters are rare and tend to be among the nation’s largest and most dynamic economies.

EXPORT-ORIENTATION: Regional economies are generally characterized by two broad types of activity: local-serving (also known as “non-basic”) activities and export-oriented (also known as “basic”) activities. Local-serving sectors are those that predominantly provide goods and services to a population in close proximity; that is to say, they are typically supported by expenditures from the local population, both businesses and residents. Retail, food service, healthcare, and education are among the business sectors that are considered to be predominantly local-serving in most communities and regions. There are certainly exceptions; for example, tourism-dependent regions such as Orlando and Las Vegas unquestionably have export-oriented retail and food service sectors while destination healthcare communities such as Rochester, Minnesota (home to the Mayo Clinic) attract health care expenditures from patients who come from all over the world. However, by and large, these sectors are predominantly local-serving in the majority of the nation’s communities and metropolitan areas. In this regard they effectively recycle income and wealth within a community. Export-oriented sectors produce value in a region and export that value to businesses and people located outside the region, thereby bringing new income and wealth into the community. The jobs within and the revenue generated by export-oriented sectors fuel economic growth within regional economies; they support jobs in predominantly local-serving sectors and fuel the expansion of regional economies by attracting new money that was not previously a part of the regional economy. Accordingly, communities and regions typically focus their targeted economic development efforts on those sectors that are export-oriented.

UNDERSTANDING YOUR ASSET BASE: Strategic targeting is predicated upon a solid understanding of a community's strengths and weaknesses, specifically as they relate to the needs of specific business sectors and the companies that operate within them. The factors that medium to large companies consider when evaluating a community as a potential location for a new facility are often referred to as site location factors, site selection factors, or site considerations. These factors vary tremendously by sector. For example, data center operations often seek locations with low natural disaster risk, affordable and abundant water necessary for cooling, and redundant and exceptional fiber-optic infrastructure, among other attributes. Corporate headquarters typically seek locations with an exceptionally well-educated workforce, immense passenger air connectivity, and abundant amenities. Accordingly, communities that are able to offer such characteristics are better positioned to attract these kinds of operations. Understanding the community's asset base – inclusive of a wide variety of these potential site location factors – is critical to understanding the community's competitiveness for various business sectors. Likewise, an understanding of its deficiencies in terms of such site location factors will help the community identify areas that need further investment if the community wishes to transform such deficiencies into future assets.

A HOLISTIC APPROACH: In many cases, targeted business sectors reflect existing clusters of establishments with similar business activities that have likely flourished in a community because of an asset base that aligns with that sector's primary site location considerations. Other sectors that share similar site location factors may not currently be concentrated in the community, but the aforementioned asset base could make the community an attractive location for these new activities. Accordingly, such sectors represent opportunities where the community may have a particularly high chance for success in marketing and recruitment efforts that seek to attract new corporate investments or relocations that would benefit from the community's existing asset base.

While the recruitment of new companies is an important component of any targeted economic development program, it is only one leg of the stool. The growth of regional economies and their target business sectors is overwhelmingly driven by existing businesses and entrepreneurs. While new investments generate ribbon cuttings and headlines, a variety of studies have shown that the majority of the country's job creation over various time periods has been attributable to the expansion of existing companies. Accordingly, targeted economic development efforts must focus upon the needs of existing businesses as well as entrepreneurs.

Holistic economic development must also focus on developing the asset base that supports the competitiveness of target business sectors and the companies that operate within them. This is necessary to alleviate barriers to expansion for existing companies and mitigate any potential risks that could lead to layoffs or business closures. But such strategies that focus on developing the community's asset base also contribute to long-term viability of the community as a location for a more diverse array of sectors, including sectors for which the community is not currently competitive in today's climate but which it hopes to develop in future decades.

TARGET SECTOR IDENTIFICATION: REGIONAL CONSIDERATIONS

Understanding that there are some foundational principles that apply to all communities and regions – notably the aforementioned assertion that effective economic development is holistic economic development – it is important to acknowledge that every community and region is unique in terms of what it has to offer existing and prospective businesses. No two regions have the same asset base, the same workforce, or the same business climate. Nor do they have the same aspirations, organizational capacity, or strategic needs. These differences influence the manner in which target sector identification is conducted and the manner in which target sector development is carried out.

In the case of the Lynchburg region, the expectations of and for the Lynchburg Regional Business Alliance influence both substantially. Specifically, **the process of identifying target sectors in this report has been driven by the desire of the Alliance and its regional partners in economic development to advance a more targeted approach to marketing and corporate recruitment activities undertaken by the Alliance on behalf of the region.** And so, while there is an understanding that the region also needs and desires an approach to economic development that is holistic and mindful of long-term opportunities, this Target Sector Analysis specifically seeks to identify those sectors within which the region is best positioned to effectively attract new companies by way of targeted marketing and recruitment efforts in the near-term (next five years). It also identifies and briefly discusses a few niche opportunities for long-term development that are related to the identified near-term target sectors. But again, with the understanding that the Alliance and its regional economic development partners seek the strongest possible return on investment related to their marketing and corporate recruitment activities, this Target Sector Analysis focuses on the identification of those sectors for which the region has a compelling story, marketable asset base, and/or available workforce which can support the region's immediate competitiveness for new economic development projects. And so, while other regions may seek to identify and target sectors that are undeveloped and within which they are not reasonably competitive for new economic development projects because they reflect aspirational sectors of their economy, this Target Sector Analysis for the Lynchburg region is more heavily influenced by the region's desire and relative sense of urgency to see immediate focus and results as opposed to other communities and regions that may be more heavily- influenced by a long-term vision for their economy.

That being said, this Target Sector Analysis will identify those sectors for which the region is most immediately competitive through the lens of marketing and corporate recruitment. The Comprehensive Economic Development Strategy (CEDS) that is being developed concurrently will help advance such marketing and corporate recruitment activities that support near-term target sector development, as well as more holistic economic development program components such as existing business support, entrepreneurship, workforce development, and asset base enhancement. Such other investments (i.e. air service enhancements, improvement in broadband connectivity, new workforce development resources, etc.) could help position the region for longer-term competitiveness in other sectors not presently identified in this Target Sector Analysis.

TARGET SECTOR IDENTIFICATION: APPROACH AND METHODS

There are many methods used by researchers to identify industry clusters and/or viable economic development targets. Many approaches are based on incomplete or strictly industry-focused (business sector-focused) methodologies. Such methodologies ignore a variety of important issues from workforce attributes to educational assets to geographic advantages, all of which are vital to businesses. Market Street's approach to target identification is rooted in a more complete examination of the region's strengths and opportunities, including talent – the occupational employment and skill sets that support the region's business activities. This comprehensive, interrelated approach stands in contrast to a more traditional "top-down" approach long utilized in cluster identification and analysis. It recognizes the importance of talent and workforce sustainability to the business community. It is complemented by an evaluation of the region's business climate, networks, infrastructure, research assets, educational programs, economic development product, and many other factors that influence site location decisions.

In addition, many approaches use rigid, predetermined groupings of business sectors to identify regional clusters or targets. Perhaps the most common application is the use of Michael Porter's predefined industry cluster definitions in evaluating a regional economy. These predefined groups of business sectors (defined by the North American Classification System, or NAICS) are evaluated for their relative concentration of employment within a given region. Those predefined groups with relatively high concentrations of employment are often assumed to be clustered activities and therefore possess some form of competitive advantage that make them a viable economic development target. One fundamental limitation of this approach is the application of a uniform set of target or cluster definitions to all regions. This can lead to the identification of what appear to be similar clusters in various regions across the country when in fact, the economic activities taking place in these sectors are actually quite different. As a result, this kind of top-down, uniform approach to target and cluster identification can result in regions failing to adequately communicate their true economic identity or unique economic attributes. For example, such a top-down, pre-defined approach may identify an Energy cluster in the Lynchburg, Portland, and Houston regions. A "bottom-up" approach that examines occupational composition and more closely examines the complementary research as well as the educational and other assets supporting the sector might more appropriately and specifically identify the niche attributes of their Energy specializations, permitting a more specific marketing message and more focused strategies for target sector development: Nuclear Technology in Lynchburg, Renewable Energy in Portland, and Oil and Gas in Houston.

And so, Market Street's approach attempts to provide greater flexibility in identifying target sectors, such that niche specializations can be identified and more prominently communicated when appropriate and such that more broad and general sector definitions can be applied when a region has no such niche identity. This ground-up approach – which focuses on the region's workforce attributes and other assets that are conducive to specific types of economic activity – reveals opportunities and challenges and forms the basis for determining where the Lynchburg region should be directing its economic development resources.

Our team has extensively evaluated employment composition and trends in nearly 800 detailed occupations and more than 900 detailed business sectors. This analysis is complemented and supported by the input received from more than 1,100 businesses and workers as part of the regional Comprehensive Economic

Development Strategy (CEDS) process, and the findings of the CEDS Regional Assessment. Additional research into the economic composition and supportive assets of neighboring communities and regions was also conducted. Additional research also examined inter-industry expenditures/linkages, degree completions supporting relevant skill sets, and a variety of other factors that influence the location decisions of specific sectors (from water and sewer capacity to natural disaster risk to passenger air connectivity). Finally, a review of the region's economic development product (specifically, its available sites and buildings), its recent economic development prospect and project activity, and the identified targets of local and state partners have also informed this analysis.

Before presenting the identified target sectors and a brief profile of each, this section will discuss and define some important technical concepts that are relevant to or referenced throughout the remainder of this document.

CLASSIFICATION: Our approach does not define targets strictly based on North American Industry Classification System (NAICS) codes or Standard Occupational Classification (SOC) codes. Though these codes are used to help quantify important trends and activity in sectors that may be related to, or capture, the relevant economic activities in the region, they should not be interpreted as rigid definitions of the composition of economic activity within a given target sector. Classification systems do not adequately capture certain niche technologies and economic activities that define today's modern economy and which may deserve strategic attention in certain communities and regions.

GEOGRAPHY: The research related to business sector and occupational composition within this report is based on analysis of trends observed in Lynchburg, VA MSA, which includes Amherst County, Appomattox County, Bedford County, Campbell County, and the City of Lynchburg.

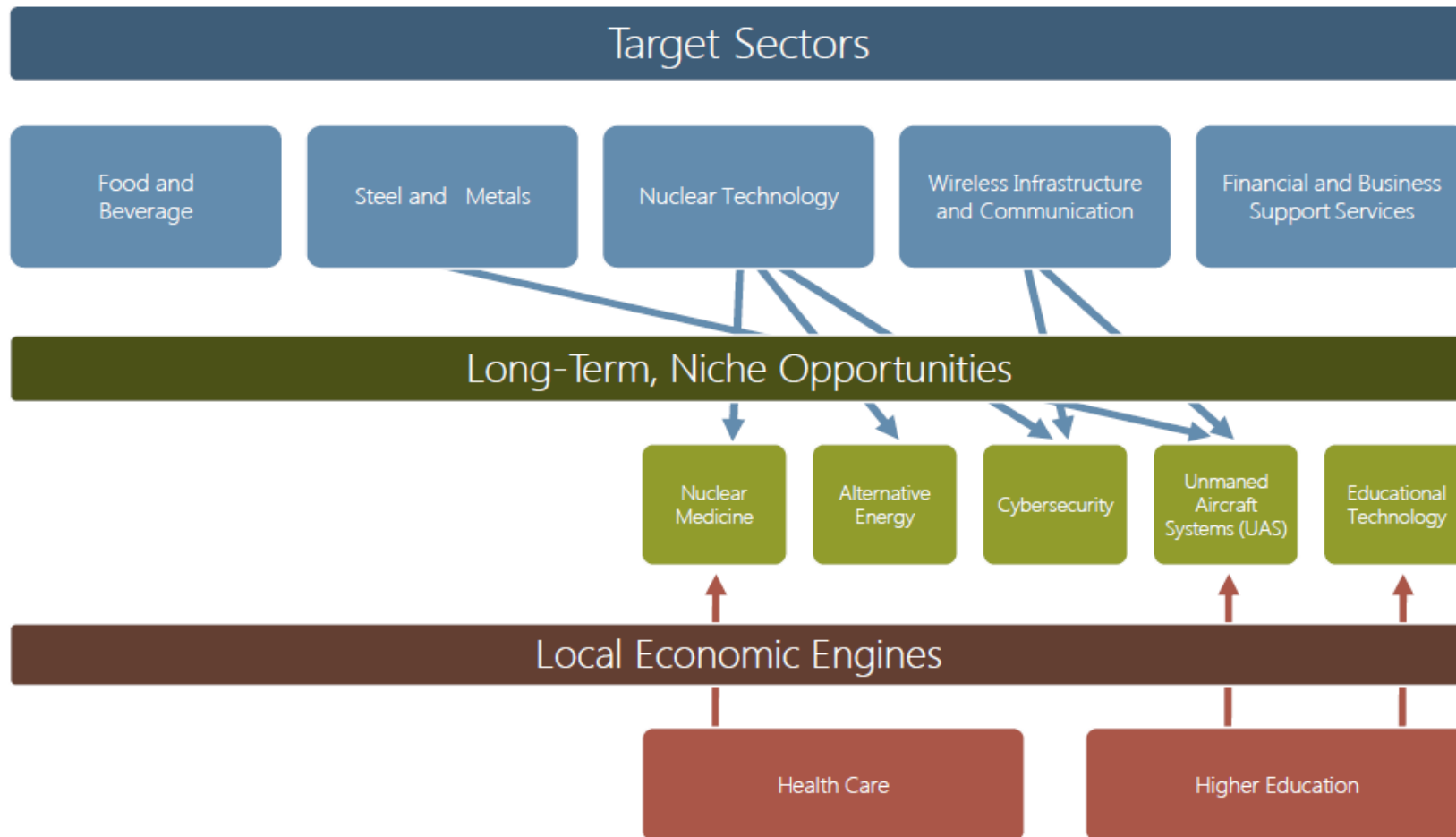
LOCATION QUOTIENTS: Location quotients (LQs) are used to measure the relative concentration of local employment in a given business sector or occupation. When applied to business sector employment, they measure the ratio of a business sector's share of total local employment to that business sector's share of total national employment. A business sector with LQ of 1.0 is exactly the same share of total local employment as that business sector's share of national employment. When a local business sector has a location quotient greater than 1.0, it signals that the sector is more heavily concentrated locally than it is nationwide. Those sectors with high LQs are often assumed to benefit from one or more sources of local competitive advantage. Location quotients can also be applied to occupational employment in the same manner that they are applied to business sector employment, helping to determine which occupations and corresponding skill sets – irrespective of the business sectors that employ them – are highly concentrated in the local workforce.

INTER-INDUSTRY LINKAGES: Data covering inter-industry purchases provides insight into the degree to which firms benefit from co-location and the ability to purchase products and services from local suppliers. When firms purchase goods from suppliers outside the region, money is leaving the region. When this leakage is reduced, employment and income multipliers rise. That is to say, when leakage is reduced and clustered firms are sourcing locally, the economic impact of each new job created is maximized.

DATA SOURCES: Unless otherwise noted, all quantitative data contained in this report is sourced from Economic Modeling Specialists International (EMSI), an industry-leading provider of proprietary data, aggregated from public sources such as the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, the U.S. Bureau of Economic Analysis, the National Center for Education Statistics, CareerBuilder, and many others.

TARGET SECTORS

Based on the aforementioned analysis of the Lynchburg region and the various inputs to target sector identification, *Market Street* believes that the region can effectively market itself and compete for economic development projects in the next five years across five target sectors. These five target sectors are complemented by two local economic engines which have the potential to produce more long-term opportunities born from cross-sector collaboration or leveraging the skill sets and resources supporting multiple sectors.



The five targets shown in the preceding graphic are reflective of the Lynchburg region's economic sectors that are supported by a sufficient set of marketable assets or attributes capable of differentiating the region and/or qualifying it as competitive for new economic development projects. In the middle of the graphic are various long-term opportunities, connected to both the target sectors and the region's two primary local economic engines. These opportunities are less likely to produce substantive near-term employment gains but represent emerging sectors or technologies that leverage existing strengths (both target sectors and local economic engines) and could help evolve and further differentiate the region's economic identity.

The remainder of this report includes target profiles that delve into a few key findings from the analysis, helping to illuminate some of the key strengths as well as the key weaknesses or threats facing each target sector. A brief discussion of the long-term opportunities is also included following those profiles.

The brief summaries that follow, and which precede the more detailed profiles, explain each target's inclusion.

- ✓ Exporting over \$1 billion annually, the **Food and Beverage** target includes a spectrum of activities related to producing foods and beverages and bringing them to market. The region's most noteworthy niche areas within this target are snack food manufacturing and dairy product manufacturing. The region is competitive for business attraction because of its geographic location and close proximity to multiple major markets, its tremendous supply of water, and its favorable business tax climate for manufacturing. In addition to regional marketing efforts, LRBA could work with inter-regional partners in surrounding regions, including Roanoke, to leverage a larger suite of assets since Food and Beverage Manufacturing is a common target sector.
- ✓ The **Steel and Metals** target focuses on companies engaged in smelting and refining various materials as well as manufacture metal alloys and superalloys by introducing other chemical elements to pure metals. The Lynchburg region has the second highest location quotient and employment levels in plate work manufacturing in the nation as well as high concentrations in power boiler and heat exchange manufacturing, iron foundries, fabricated structural metal manufacturing, and ball and roller bearing manufacturing. This is a lucrative target because average earnings are over double the regional average and because it provides opportunities for career paths for workers at various levels of skills and knowledge. Completions in precision metal working educational programs have increased rapidly, a sign that labor supply for key metalworking occupations may be expanding. As mentioned previously, the region is well positioned for additional attraction as well as filling supply chain linkages because of several factors that support manufacturing.
- ✓ The **Nuclear Technology** target captures regional anchors, AREVA Inc. and BWX Technologies, Inc., and the many manufacturers and related firms that have located near them. The Lynchburg Region has a long history of strength in Nuclear Technology, evidenced by significant location quotients in key business sectors as well as several supportive occupations, despite employment losses over the ten-year period examined in this report. Additionally, this target supports regional goals of increasing wages with higher than average wages for workers related to this target. In terms of workforce development, there are ample training opportunities for area workers and students, with valuable degree programs in the region. In addition to marketing efforts, business retention and expansion (BRE) and efforts leveraging the region's existing or potential supply chain linkages (either targeted recruitment or import substitution) are strategies that merit consideration.

- ✓ The **Wireless Infrastructure and Communications** target includes firms in the Lynchburg region that leverage technology as their principal product or service as well as both manufacturers of components and final products related to wireless communications and carriers. The region's strength primarily lies in producing the infrastructure necessary to support IT and wireless communications. The target has experienced competitive employment growth from 2005 to 2015 and has a high concentration of high-paying engineering and technical occupations. However, consistent with Financial and Business Support, low wages across the target compared to national averages present a challenge for the retention and attraction of skilled talent. Additionally, while there are educational programs supportive of the target, there is room for additional curriculum to support more traditional IT fields, such as software design and development and computer programming.
- ✓ The **Financial and Business Support Services** target captures the region's strengths in insurance – including its financial workforce capacity – the region's viability as a location for business support services (back office functions, shared services, and professional services). The target has experienced employment growth over the ten-year period examined, and ample higher educational programs supportive of the target exist for a region of its size, with "business administration, management, and operations" the field of study with the second highest number of completions in the region. The region may struggle to compete with more highly-educated and well-connected metropolitan areas (particularly via air service) for certain professional service and "white-collar" opportunities but supportive service functions that require less formal education and are less reliant on air service are a better fit for the region's near-term recruitment efforts.

Food and Beverage

DEFINITION AND OVERVIEW: The Food and Beverage Manufacturing target encompasses an array of production and supply chain activities related to food and beverages, from lower-wage activities such as crop production and animal slaughtering to the more specialized food manufacturing activities that relate to specialty foods and beverages, such as craft brewing and spice and extract manufacturing. While opportunities may exist to better connect the region's agriculture community to its existing or prospective future food and beverage producers, animal slaughtering and meat processing should be excluded from the region's targeted pursuits given the relatively limited potential of job opportunities in the sector to elevate incomes in the region.

LOCAL COMPANIES: The Lynchburg region is home to companies such as Central Virginia Foods, Frito-Lay, Inc., Westover Dairy Co., Bimbo Bakeries USA, Seven Hills Food, LLC, and Flowers Baking Co. In addition, Abbot, a global pharmaceutical manufacturer, produces nutritional products in the region, and in some respects is more a food and beverage operation than a traditional pharmaceutical operation.

NATIONAL TRENDS: As a largely water- and labor-intensive sector, the availability and cost of both resources will continue to separate the most competitive communities for broad food and beverage production. An increasingly health conscious consumer market will drive demand in the United States, as concerns over animal welfare and scrutiny of genetically-modified organisms (GMOs) continue to alter how food is manufactured. Similar health dynamics will impact beverage manufacturing as well since the days of the market being driven by demand for carbonated soft drinks are long gone. A growing segment of the beverage manufacturing industry that continues to gain steam is the craft brewing industry, a subsector that is less reliant on abundant, affordable labor than many other subsectors which pay lower wages (such as meat processing). In the first half of 2015, U.S.-based craft brewers increased their production by 15 percent over the same period in 2014. The growing popularity of craft brewing has led to tourism marketing opportunities for many communities looking to capitalize on passionate brewery tourists. The same can be said to some degree for the local food movement. Consumer preferences for locally-sourced ingredients are fueling stronger local economic connections between restaurants and other food and beverage producers and the agricultural community that supplies them, providing opportunities for regions to leverage the buying power of a predominantly local-serving sector (restaurants) in supporting the growth of a predominantly export-oriented sector (agriculture).

STRENGTHS AND OPPORTUNITIES

- ✓ **Lynchburg's existing strengths in Food and Beverage Manufacturing include other snack food manufacturing (LQ= 14.2) and dry, condensed, and evaporated dairy product manufacturing (LQ = 43.1),** accounting for 905 employees combined. Both subsectors provide average annual wages well above the regional average of \$37,153, notable since food and beverage manufacturing is often associated with low wage employment opportunities. The region has the opportunity to expand its specialty food and beverage product base, particularly in an era where consumers are becoming increasingly conscientious of the ingredients within the products they eat and drink.

- ✓ **Food and Beverage Manufacturing firms are the source of \$1.24 billion in exports annually.** In 2013, the top three business sectors related to Food and Beverage Manufacturing were dairy product manufacturing (\$556 million), other food manufacturing (\$322 million), and bakeries and tortilla manufacturing (\$213 million).
- ✓ **The target is supported by agribusiness and agriculture strengths across the region.** According to the Bedford County Office of Economic Development, Bedford County has over 1,400 farms and 200,000 acres of farmland. The Bedford Agricultural Economic Development Advisory Board has launched the Bedford Grown Program, which encourages and promotes locally grown produce. The Strategic Plan for the Agriculture and Forestry Economy in Virginia's Region 2000 published in July 2014 identifies several additional agricultural resources and partners, including multiple locations of the Virginia Cooperative Extension and county farm bureaus. The goals of the Strategic Plan support target growth with focused objectives to coordinate regional marketing and outreach, strengthen resources for producers, and promote career and small business development opportunities, which will help LRBA with efforts to strengthen the target's supply chain.
- ✓ **In terms of the food manufacturing supply chain, there is ample opportunity to expand linkages to local suppliers.** There is only one subsector from which over half of total purchases are sourced within the region: dairy product manufacturing (53.7 percent of purchases are from suppliers in the Lynchburg MSA). Additional subsectors with supplier capacity building potential include crop production (1.7 percent), grain and oilseed milling (2.2 percent), animal slaughtering and processing (2.3 percent), bakeries and tortilla manufacturing (6.4 percent), other food manufacturing (8.8 percent), sugar and confectionery product manufacturing (9.2 percent), and beer, wine, and distilled alcoholic beverage merchant wholesalers (33.4 percent). There are also many cross-target supplier opportunities, including converted paper product manufacturing (10.9 percent), wholesale electronic markets and agents and brokers (13.4 percent), plastics product manufacturing (13.5 percent), and management of companies and enterprises (40.1 percent).
- ✓ **The Lynchburg region's central location in the Mid-Atlantic proximate to major metro areas in both the Northeast and Southeastern United States is ideal for certain consumer products that often need to reach their market quickly, such as the products of Food and Beverage manufacturing.** The Lynchburg region is less than a day's drive to some of the most populous metro areas in the country, including: Washington, DC; New York City, NY; Boston, MA; Charlotte, NC; Atlanta, GA; and many others. The region's location on the East Coast is especially attractive for prospective craft beer manufacturers. The craft beer industry is concentrated in West Coast and Mountain West states, but more and more craft breweries are increasing their brand presence and production along the East Coast to further penetrate the domestic market, with many facilities opening in the Blue Ridge and Appalachian mountains to take advantage of available water in the region.
- ✓ **The Lynchburg region possesses excellent water capacity that is more than adequate to serve the region's needs into the future.** The Pedlar Reservoir and the James River provide an ample water supply for business operations, a key consideration for many beverage manufacturers. However, it is important that the City of Lynchburg's aging water infrastructure be well maintained if this competitive advantage is to be leveraged over the long term. The Lynchburg 2030

Comprehensive Plan noted that over 135 miles of water lines are over 80 years old and have essentially reached the end of their reliable service life.

- ✓ KPMG in collaboration with the Tax Foundation released a comparative analysis of state tax costs on business in 2015 for various types of businesses and sectors. **The report reveals Virginia's favorable business tax climate.** Regarding mature firms located in Virginia, the Commonwealth ranked 20th for capital-intensive manufacturing companies, and 2nd for labor-intensive manufacturing companies. This supports Virginia's competitiveness for relatively labor-intensive manufacturing operations such as many Food and Beverage establishments.
- ✓ The labor profile of a region can have a significant impact on opportunities to recruit manufacturers. The burgeoning manufacturing sectors in "right-to-work" states, primarily in the Southeastern U.S., provide evidence of the importance placed on this factor when analyzing the overall labor availability and costs of a region. **In the eyes of many a manufacturing company, Virginia benefits from its right-to-work status and the perception of a relatively favorable labor cost environment that such a distinction affords.**
- ✓ **Because of synergies with nearby regions, LRBA should consider working with inter-regional partners for marketing.** The Roanoke Regional Partnership also targets food and beverage manufacturing, and the region's strengths lie in soft drink manufacturing, commercial bakeries, flour milling, and food product machinery manufacturing. There is a distinct opportunity to connect the supply chain for the two regions' sectors.
- ✓ **Craft breweries are of special interest in Commonwealth economic development marketing efforts.** YesVirginia.org has created a microsite (<http://spatialserver1.yesvirginia.org/craftbeer/>) dedicated to the burgeoning craft brewing sector in Virginia. The site contains a map of all breweries in the Commonwealth as well as various statistics for prospective firms and tourism information for prospective visitors. The region has received some food and beverage leads from the Virginia Economic Development Partnership (VEDP) in the recent past, and it is reasonable to expect such opportunities to continue in the broader food and beverage sector, and potentially among microbreweries. A handful of craft breweries have made Lynchburg home. Taking advantage of dedicated state resources may help LRBA continue building on the growth it has begun to witness.
 - Because breweries typically locate in urban settings and often serve as catalyst redevelopment projects in old mills and repurposed industrial buildings, this is an excellent opportunity for ongoing downtown efforts in Amherst, Bedford, and Lynchburg. In order to identify potential reuse projects, the region should inventory existing facilities in downtowns that could be viable for a microbrewery and compile a sector-specific marketable inventory.

WEAKNESSES AND THREATS

- ✓ **The overall target has contracted in the region, losing 160 jobs over the 10-year period examined, compared to a modest increase of 1.8 percent nationwide.** Since the end of the Great Recession, the region experienced two major closures of Trident Seafood Corporation, a manufacturer of frozen food products, and Golden West Foods, a supplier of frozen foods to restaurant chains. According to EMSI projections, nationally, the Food and Beverage sector is

expected to experience similarly modest employment growth of 2.2 percent over the next ten years. Likewise, the number of workers in several related occupations has decreased during the decade. Of the 17 occupations for which historical wage data were available, 10 experienced a decline in jobs. However, job posting data reveals that this finding is not necessarily due to lack of talent, but lack of demand of companies for these positions.

- ✓ **Relative to many peer regions, the Lynchburg region is not as competitively positioned in its ability to offer an impressive portfolio of industrial parks and shovel-ready (or “pad-ready”) industrial sites that fit the needs of many in the manufacturing community.** Topographical challenges in any mountainous region represent an inherent obstacle to overcome in developing the large industrial sites that are necessary to attract many prospective manufacturing companies. According to the Property Search tool available on the Virginia Economic Development Partnership’s YesVirginia.org website, there are 27 industrial properties with space available. Seven of these properties each feature 15,000 square feet of space or less. Ten feature between 20,000 to 37,000 square feet of space, with one expandable to 60,000 square feet. Six of these properties feature between 50,000 and 90,000 square feet of space, with one expandable to 119,600 square feet. There are only four buildings with more than 100,000 but less than 160,000 square feet of space available, with one expandable to 282,000 square feet. **The region is most well-positioned for small to medium manufacturers who are looking for readily available space. However, input from regional economic development practitioners indicates that available properties are often outdated or do not meet the physical requirements (such as ceiling/clear heights) of many modern manufacturers.** In terms of craft breweries, few actually seek out locations in greenfield industrial parks and opt for urban settings because they want visitors/foot traffic and some visibility for their operations by potential consumers.
- ✓ Microbreweries are seemingly targeted by an ever-increasing number of communities. Many of these projects have few jobs, or take many, many years for substantive job creation to be realized. It is also an industry characterized by immense startup activity, growth, and then acquisition. In this regard it is no different than other sectors; many of the fastest-growing and most successful craft brands get acquired by major companies, such as the case of Terrapin, the pride of Athens, Georgia, purchased by MillerCoors. Given the relatively low employment figures associated with most microbrewery projects, it may not provide the best return on investment on certain types of marketing activities (i.e. expensive travel) even though it is exciting. If craft breweries are to be pursued as a targeted subsector, they need to be considered for their potential impact on quality of life and/or quality of place, not just economic impact.
- ✓ A strong road transportation network is a necessity for most manufacturing companies. **The Lynchburg region’s lack of direct interstate connectivity may be an obstacle for certain prospective manufacturers.** Finished food and beverage products are primarily transported by freight truck, which is the most efficient means of transportation for highly perishable products that have a relatively low value and low weight. The perishable nature of the product requires that manufacturers locate close to their consumers and have access to efficient transportation infrastructure in order to keep distribution costs low. As a related aside, currently, the region has no employment in refrigerated warehousing and storage. Adding capacity in this area would provide an added layer of support for this target.

Steel and Metals Manufacturing

DEFINITION AND OVERVIEW: The Steel and Metals Manufacturing target focuses on companies engaged in smelting and refining various materials as well as manufacturing metal alloys and superalloys by introducing other chemical elements to pure metals. This target is dependent on a spectrum of occupational areas, from production to engineering. With over \$1.2 billion in exports, the Lynchburg region has a strong existing foundation for continued success. Most manufacturers in the sector take raw materials and convert them into intermediate goods or finished products to be used in the assembly of other final goods.

LOCAL COMPANIES: Among its significant presence of Steels and Metals manufacturing firms are Griffin Pipe Products Company (manufacturer of ductile iron pipes and fittings), Automated Conveyor Systems, Inc. (creator of devices using state-of-the-art CNC-controlled laser cutting equipment), Banker Steel Company, L.L.C. (fabricator of structural steel), Wexco Corporation (cylinders, castings, barrels and machining), Flowserve (a manufacturer of pumps, valves, seals, and actuators), and Stamptec Inc. (metal stamping).

NATIONAL TRENDS: The Primary Metal (NAICS: 331) and Fabricated Metal Product (NAICS: 332) manufacturing sectors were among the hardest hit manufacturing sectors during the Great Recession, losing almost 400,000 jobs from 2007 to 2010. Employment remains below pre-recession levels, despite growing by 15 percent since 2010. The steel and metals manufacturing sectors – and the broader manufacturing sector as a whole – will face significant issues with respect to workforce sustainability in coming years that will impact future growth prospects. According to a 2015 joint report from the Manufacturing Institute and Deloitte, there will be an estimated 3.5 million manufacturing openings in the United States, 2.7 million of which will be due to Baby Boomers retiring from the workforce. The report estimates that two million of these jobs will go unfilled due to a shortage of skilled workers due to factors such as “loss of embedded knowledge due to movement of experienced workers, a negative image of the manufacturing industry among younger generations, lack of STEM (science, technology, engineering and mathematics) skills among workers, and a gradual decline of technical education programs in public high schools.” Addressing this worker sustainability issue is perhaps the preeminent threat facing heavy manufacturing industries.

STRENGTHS AND OPPORTUNITIES

- ✓ **Steel and Metals manufacturing is significantly concentrated in the Lynchburg region—over four times more concentrated than nationwide.** Plate work manufacturing is Lynchburg’s most concentrated subsector (of all subsectors, even those outside of this target), with a location quotient of 62.3. In fact, this is the second highest concentration of plate work manufacturing in the nation’s metros, following only the Auburn, Indiana MSA, which has a location quotient of 77.8. Additionally, Lynchburg ranks second of all metros in sheer numbers of workers in the sector (2,242 employees), second to only the Houston-The Woodlands-Sugar Land, Texas MSA, with 4,657 employees. This subsector is primarily driven by AREVA and Aerofin, manufacturers of finned tube heat exchanger coils and related heat transfer equipment and accessories. Other notable subsectors, in terms of location quotients, are power boiler and heat exchanger manufacturing (LQ = 12.9), iron foundries (LQ = 6.4), fabricated structural metal manufacturing (LQ = 4.9), and ball and roller bearing manufacturing (LQ = 3.7).
- ✓ Nationwide, the target is projected to add jobs at a rate of 5.1 percent between 2015 and 2025.

- ✓ **This is a lucrative area in the region—the annual average earnings are \$73,271, over double the regional average.** All except one of the region's significantly concentrated subsectors offer high average wages. Notably, wages in Lynchburg outpace wages nationwide, a major competitive advantage, particularly in regards to talent attraction.
- ✓ **Median hourly earnings for the target (\$20.52) are above the regional median of \$17.21.** Hourly earnings vary widely, from \$9.94 for helpers of production workers to \$46.32 for industrial production managers. There are opportunities for workers of all skills levels, and it is important that workers can identify career paths that will allow them to pursue higher-wage opportunities within the target as they gain experience and additional training.
- ✓ Consistent with earlier industrial manufacturing targets in this document, **one major strength that supports the Steel and Metals Manufacturing target is the region's ample supply of water.** This is essential to this target as it is used for cooling and in the steel- and metal-making process.
- ✓ The labor profile of a region can have a significant impact on opportunities to recruit manufacturers. The burgeoning manufacturing sectors in "right-to-work" states, primarily in the Southeastern U.S., provide evidence of the importance placed on this factor when analyzing the overall labor availability and costs of a region. **In the eyes of many a manufacturing company, Virginia benefits from its right-to-work status and the perception of a favorable labor cost environment that such a distinction affords.**
- ✓ **Central Virginia Community College is a strong asset in the region, offering training programs that support the target:** diplomas in machine tool and machine tool/quality, a certificate in machine shop, and a career services certificate in welding.
 - Although there are not many degree and certificate programs designed specifically for this target, it is noteworthy that **completions in precision metalworking have tripled from 2009 to 2014.** In 2009, there were 13 completions in this field, compared to 54 in 2014. This growth is important since occupations have experienced a decline over time, as indicated in the next section.
- ✓ **Nearly 80 percent of the region's need for steel and metals materials and products is fulfilled outside of the region.** The fact that 98.8 percent of the region's demand for plate work manufacturing, 98 percent of demand for ball and roller bearing manufacturing, and 85.3 percent of demand for power boiler and heat exchanger manufacturing is met inside the region underscores the strength of these subsectors. Increasing the percentage of regional requirements in the subsectors in which there is already some significant presence would be a boost to the target's overall strength and growth.
- ✓ **This target has relevant applications that could be competitive in the region.** Although the region does not have the full suite of assets to target aerospace or automobile parts manufacturing as standalone sectors, it does have the workforce to support these Steel and Metals-heavy subsectors.

WEAKNESSES AND THREATS

- ✓ **The target has shed a significant percentage of jobs (36.6 percent, or 2,251 jobs) between 2005 and 2015, ten times higher than national job losses.** As noted earlier in this report, business retention and expansion will continue to be a vital strategy to ensure that existing companies are thriving and satisfied in the Lynchburg metro. Closures have included Intermet Archer Creek Plant, one of the region's oldest and largest industrial companies, which closed permanently after its parent company filed for bankruptcy. The region is also shedding its workers in its supportive occupations at a faster pace than the nation. Despite this, there is still some concentration in several key occupations. As advances in automation of production processes are developed, employment is expected to continue to decline and consolidations will continue to increase.
- ✓ **While high wages are a competitive advantage for attracting talent, it presents a challenge to prospective firms in terms of labor costs.** Rising labor costs alongside limited talent availability continue to be top challenges for manufacturers, so it will be important to ensure that regional productivity is comparatively high and that manufacturers have easy access to available talent in the region.
- ✓ **Relative to many peer regions, the Lynchburg region is not as competitively positioned in its ability to offer an impressive portfolio of industrial parks and shovel-ready (or "pad-ready") industrial sites that fit the needs of many in the manufacturing community.** Topographical challenges in any mountainous region represent an inherent obstacle to overcome in developing the large industrial sites that are necessary to attract many prospective manufacturing companies. According to the Property Search tool available on the Virginia Economic Development Partnership's YesVirginia.org website, there are 27 industrial properties with space available. Seven of these properties each feature 15,000 square feet of space or less. Ten feature between 20,000 to 37,000 square feet of space, with one expandable to 60,000 square feet. Six of these properties feature between 50,000 and 90,000 square feet of space, with one expandable to 119,600 square feet. There are only four buildings with more than 100,000 but less than 160,000 square feet of space available, with one expandable to 282,000 square feet. **The region is most well-positioned for small to medium manufacturers who are looking for readily available space. However, input from regional economic development practitioners indicates that available properties are often outdated or do not meet the physical requirements (such as ceiling/clear heights) of many modern manufacturers.**

Nuclear Technology

DEFINITION AND OVERVIEW: The Nuclear Technology target is comprised of establishments that produce the technology and machinery required to manufacture nuclear energy. The Lynchburg region has had a long history of nuclear power operations since 1955, when Babcock and Wilcox (B&W) opened a 100,000 square foot factory in Campbell County to manufacture equipment for nuclear power plants. In 1989, Framatome (now Areva), a French nuclear company, invested \$50 million in a partnership with B&W and later located its Operational Center of Excellence for Nuclear Products and Services in North America in Lynchburg. Over the years, these companies have remained relevant and successful and have attracted businesses across the supply chain that have created a strong and viable economic cluster in the region. In 2015, Babcock & Wilcox spun off its power generation business to allow BWX Technologies to focus on government and nuclear operations. Both AREVA and BWX have continued to make investments in the Lynchburg region.

LOCAL COMPANIES: Local companies include, but are not limited to, AREVA Inc., BWX Technologies, Inc., Delta Star, Inc. (a manufacturer of power transformers and mobile substations), Flowserve (a manufacturer of pumps, valves, seals, and actuators), Parker Hannifin Manufacturers (manufacturer of polymetric sealing systems), and Wiley|Wilson (an architectural and engineering firm).

NATIONAL TRENDS: The 2011 earthquake and accompanying meltdown of nuclear reactors in Fukushima, Japan resulted in a tapering off of new nuclear reactor construction in many countries, including the United States. Still, the immense around-the-clock power generation capabilities afforded by nuclear energy and the lack of corresponding carbon emissions make nuclear energy a highly-coveted energy source for the future. According to the International Energy Agency (IEA), the world needs 40 percent of its electricity to come from zero-emissions sources in order to combat the effects of climate change, and renewable energy sources alone will not be able to meet this steep demand. Making nuclear energy more cost-efficient and environmentally-friendly can drive the overall sector's future growth. The burden of addressing environmental concerns associated with nuclear energy – like how to better dispose of nuclear waste – are increasingly being addressed by nuclear tech startup companies.

STRENGTHS AND OPPORTUNITIES

- ✓ **Lynchburg's main strengths are in four classified subsectors:** Power, Distribution, and Specialty Transformer Manufacturing (LQ = 14.9); Power Boiler and Heat Exchanger Manufacturing (LQ = 12.9); Hydroelectric Power Generation (LQ = 4.1); and Engineering Services (LQ = 2.5).
- ✓ Because of Lynchburg's overall strength in manufacturing and its long history in nuclear technology development, **the region has strong concentrations of employment in several supportive occupations.** The strongest of these are mechanical engineers (LQ = 3.1), which are more than three times as heavily concentrated in the Lynchburg workforce than the average American community. Others include nuclear engineers (LQ = 2.1), industrial machinery installation, repair, and maintenance workers (LQ = 2.1), and electrical and electronics engineers (LQ = 1.9).
- ✓ **This target offers high earnings for Lynchburg workers that are competitive with national wages.** The regional median hourly wage across all sectors in the Lynchburg MSA is \$17.21, as

compared to \$23.20 for Nuclear Technology-related occupations. Of the 35 most common occupations supporting the target for which wage data is available, 30 feature median wages greater than the regional median for all occupations, implying that above-median earning opportunities are not concentrated in a few high-skill, high-wage positions. Many of the occupations, particularly those requiring higher levels of skills training, are comparable to the national median wage for the same occupation, a potential competitive advantage in talent attraction because the cost of living index for the Lynchburg urban area is 91.9 (compared to the national average of 100).

- ✓ **With the region's historical strength due to the presence of its anchor firms, AREVA and BWX, comes an available talent pool as well as trusted training programs at local institutions.** Central Virginia Community College has an Associate of Applied Science degree program in Nuclear Technology as well as a Nuclear Tech Training Program that is available specifically to AREVA employees. Although the Lynchburg region lacks the physical presence of a four-year engineering school, Central Virginia Community College's partnerships with nearby four-year institutions and local employers represent a strategic advantage to growing the nuclear technology sector. Under an agreement with UVA and Virginia Tech, CVCC's Associate of Science in Engineering curriculum satisfies the prerequisites for third-year entry into the Schools of Engineering at the respective nearby four-year institutions. This partnership with UVA allows students to earn their Bachelor of Science degree in engineering without relocating away from the region.
 - Additionally, Liberty University has several relevant degree programs, including undergraduate degrees in electrical, industrial, and mechanical engineering. The university works with dozens of companies globally to secure internships for students, including locally at nuclear technology companies.
 - From 2009 to 2014, 2,142 degrees or certificates related to nuclear technology, engineering, sciences, and other supportive fields were conferred in the Lynchburg region. For a region its size, this is an impressive number of completions. In 2014, there were 450 completions, equivalent to 1.74 completions per 1,000 residents. It is important to note that this figure does not include degrees obtained at the Commonwealth Graduate Engineering Program (discussed later in this section). Comparatively, there were 0.68 completions per 1,000 residents in this subset of degree programs in the Roanoke MSA, 0.99 in the Richmond MSA, and 1.04 in the Virginia Beach-Norfolk MSA (which is home to Naval nuclear operations and proximate to the Surry County Nuclear Facility). As an example outside the commonwealth, in the Raleigh, NC MSA, home of the Shearon Harris Nuclear Power Plant and a metro with significant university capacity, 1,905 degrees or certificates in these related fields were conferred in 2014, or 1.53 completions per 1,000 residents.
- ✓ **Another important asset to the region's Nuclear Technology target is the Center for Advanced Engineering and Research (CAER).** CAER, an initiative of Region 2000 designed to increase the region's research and development capacity, particularly in nuclear energy, was incorporated in 2007 and moved into a new \$7.6 million facility in 2011. To support research in nuclear safety, the facility has a scaled prototype of the Babcock & Wilcox mPower™ reactor, an LTE Spectrum Sharing Testbed, and a "next generation" nuclear power plant main control room simulator that can be configured for

multiple reactor designs. Many nuclear power plants have control room simulators based on the specific reactor they use but having a simulator that can be customized is a competitive advantage for the region. Additional areas for CAER exploration include wireless sensor technology and smart grid technology.

- Also charged to support workforce development in the region, CAER has since 2007 facilitated the Commonwealth Graduate Engineering Program (CGEP), which was originally developed in 1983. The program provides opportunities for post-baccalaureate engineering studies for area workers through a partnership with five universities: George Mason University, Old Dominion University, University of Virginia, Virginia Commonwealth University, and Virginia Tech. Students are able to mix and match courses, offered online and via IP videoconference.
- ✓ Information regarding the Nuclear Technology supply chain and regional leakages provides insight into the types of companies for which the Lynchburg region could reasonably compete and attract. Currently, 43.4 percent of purchases made by power boiler and heat exchanger manufacturers and engineering services firms, the two subsectors that best represent AREVA and BWXT, are met within the region, with over 56 percent of the demand leaked outside of the region, or roughly \$200.6 million. This is an indicator that, within at least some portion of the Nuclear Technology supply chain, limited opportunities may exist for the attraction of suppliers. Subsectors with greater amounts of leakages are management, scientific, and technical consulting services; other professional, scientific, and technical services; basic chemical manufacturing; iron and steel mills and ferroalloy manufacturing; nonferrous metal production and processing; and architectural and structural metals manufacturing, together leaking over \$49.5 million in purchases outside of the region. **This demand could potentially be met by firms wanting to co-locate near the region's existing firms.**
- ✓ **The Virginia Economic Development Partnership targets Energy as one of the Commonwealth's key industries.** The state economic development entity focuses on three areas within Energy: alternative energy, nuclear energy, and coal. It is no surprise that AREVA and BWXT are listed as major employers in the state and are a vital component of the state's asset base. Continuing to work with state partners to ensure that Lynchburg is a top contender for energy-related leads is a priority that must not be overlooked.
- ✓ The labor profile of a region can have a significant impact on opportunities to recruit manufacturers. The burgeoning manufacturing sectors in "right-to-work" states, primarily in the Southeastern U.S., provide evidence of the importance placed on this factor when analyzing the overall labor availability and costs of a region. **In the eyes of many a manufacturing company, Virginia benefits from its right-to-work status and the perception of a favorable labor cost environment that such a distinction affords.**

WEAKNESSES AND THREATS

- ✓ **Overall, the target has contracted over the 10-year period examined, losing roughly 447 jobs.** It is important to note here that a major employer was reclassified from “power boiler and heat exchanger manufacturing” subsector to the “engineering services” subsector. As a result, the large growth in engineering services and the large decline in power boiler and heat exchanger manufacturing are inflated and effectively cancel each other out. Even so, the target’s natural gas subsectors were affected during the Great Recession and have not yet fully recovered. Additionally, both AREVA and BWX experienced layoffs recently, citing a struggling nuclear energy industry and restructuring decisions. However, according to EMSI, the target is expected to grow nationally by 15 percent between 2015 and 2025, with losses mainly in hydroelectric power generation (-93 percent), fossil fuel electric power generation (-28 percent), wind electric power generation (-9 percent), and nuclear electric power generation (-6 percent).
- ✓ **Consistent with the business sector data, several of the occupations related to Nuclear Technology have experienced decline over the 10-year period.** Of the 34 occupations for which there is historical data, 22 have lost workers during the time period. Although there have been declines nationwide, the region has experienced more severe declines and in a greater number of occupations. To maintain the region’s occupational strengths, it will become increasingly important that the region has sufficient workforce training programs for existing residents and workers and that talent attraction is a priority.
- ✓ While the region has an impressive number of students completing certain programs in nuclear technology, engineering, sciences, and other supportive fields, it is important to note that **there is a lack of completions specifically related to programs in mathematics and statistics; aerospace, aeronautical, and astronautical engineering, naval architecture and marine engineering, nuclear engineering, nuclear engineering technologies, ocean engineering, nanotechnology, and nuclear and industrial radiologic technologies.** During the time period examined, there were no completions in these applied areas of study. When viewing degree programs more broadly, the region is not as competitive in engineering, engineering technologies, or physical sciences, which could be observed by site selectors. Of the 39 specific engineering programs within the broad category of engineering, only 6 are represented in the region. Similarly, there are 18 specific engineering technology programs and 8 specific physical sciences programs available in completions data, and only 4 and 2, respectively, are represented in the region.
- ✓ **Relative to many peer regions, the Lynchburg region is not as competitively positioned in its ability to offer an impressive portfolio of industrial parks and shovel-ready (or “pad-ready”) industrial sites that fit the needs of many in the manufacturing community.** Topographical challenges in any mountainous region represent an inherent obstacle to overcome in developing the large industrial sites that are necessary to attract many prospective manufacturing companies. According to the Property Search tool available on the Virginia Economic Development Partnership’s YesVirginia.org website, there are 27 industrial properties with space available. Seven of these properties each feature 15,000 square feet of space or less. Ten feature between 20,000 to 37,000 square feet of space, with one expandable to 60,000 square feet. Six of these properties feature between 50,000 and 90,000 square feet of space, with one expandable to 119,600 square feet. There

are only four buildings with more than 100,000 but less than 160,000 square feet of space available, with one expandable to 282,000 square feet. **The region is most well-positioned for small to medium manufacturers who are looking for readily available space. However, input from regional economic development practitioners indicates that available properties are often outdated or do not meet the physical requirements (such as ceiling/clear heights) of many modern manufacturers.**

- ✓ **The uncertainty of legislation and federal investment regarding energy is a threat.** Government regulations, specifically at the federal level, will have a significant impact on the nuclear technology target and related energy subsectors. Acknowledging that nuclear energy should be a significant component of the nation's clean energy strategy, President Obama included over \$900 million in the President's FY 2016 Budget for the Department of Energy to support R&D efforts in the civilian nuclear energy sector.¹ Future federal support for the sector is unknown and will likely be closely related to the 2016 election cycle. Federal and state involvement in other heavily regulated energy sectors, such as fracking, will also impact broader alternative energy trends over the near-term.
 - Because of the region's heavy reliance on major federal contracts, Lynchburg is particularly vulnerable to sequestration and potential cuts to defense spending—external factors that LRBA cannot directly influence. Thus, this is a target that does not fully support regional efforts to become a more resilient economy.

¹ "FACT SHEET: Obama Administration Announces Actions to Ensure that Nuclear Energy Remains a Vibrant Component of the United States' Clean Energy Strategy." Press Release: The White House, Office of the Press Secretary. November 06, 2015.

Wireless Infrastructure and Communications

DEFINITION AND OVERVIEW: At its core, Information Technology is a platform with applications to all industries. However, some subsectors position IT as their principal employment focus, while others use IT as a key yet supportive component of their operations. For the purposes of this report, the Wireless Infrastructure and Communications sector contains firms in the Lynchburg region that leverage technology as their principal product or service. In modern times, radio communications, including wireless internet connections and cellular phones, have become an essential part of life. As new technology is developed and integrated into manufacturing processes, network capacity will be increased, power consumption decreased, and the cost of personal devices reduced. Wireless communications includes firms that manufacture components and final products related to wireless communications as well as those that serve as carriers and support services. The target includes software development and publishing, data storage, computer system design and programming, data and web hosting, and data analytics. Although the region is currently not competitive for these traditional IT subsectors, the Lynchburg region may be competitive in specific niche applications related to wireless technology development. The region is particularly strong in the aspects of traditional Information Technology that supports wireless communications in terms of infrastructure and hardware manufacturing, not software design and development.

LOCAL COMPANIES: Large firms in the Lynchburg region include HARRIS Corporation/RF Communications Division (supplier of radio equipment for public safety, federal, commercial and transportation organizations), CommScope (network solutions), and Catalyst Communications (provider of radio control over IP solutions to the mobile radio industry).

NATIONAL TRENDS: There is perhaps no sector of the U.S. economy that is more competitively positioned than the Information Technology sector. The emergence of "Big Data," the Internet-of-Things, and the full-on integration of social media into the lives of people everywhere are proof positive that the world has entered a new age of reliance on Information Technology. The ubiquity of mobile devices in the lives of many a global citizen further underscores this reality. Subsectors related to cloud computing services and e-commerce activities are expected to fuel expansion in the broader Information Technology sector as both corporations and your average American consumer continue to drive demand for these services.

Overall, the target is expected to gain employment nationally at a pace of 13.6 percent between 2015 and 2025. Subsectors projected to grow jobs most rapidly include blank magnetic and optical recording media manufacturing (140 percent), computer systems design services (37 percent), custom computer programming services (29 percent), electronic connector manufacturing (29 percent), printed circuit assembly manufacturing (26 percent), and software publishers (25 percent). On the other hand, subsectors expected to experience rapid decline include software reproducing (-77 percent), telephone apparatus manufacturing (-76 percent), bare printed circuit board manufacturing (-71 percent), and telecommunications resellers (-53 percent). It remains vitally important, by virtue of the nature of technology, that the region remains at the head of innovation as much as possible as to avoid investing too heavily in processes or technologies that will quickly become obsolete.

STRENGTHS AND OPPORTUNITIES

- ✓ **Lynchburg's clear strength in the Wireless Infrastructure and Communication field is producing the equipment needed to support technology and wireless communication, tied directly to its historical and significant strengths in manufacturing.** There are nine related subsectors with location quotients higher than 2.0: power, distribution, and specialty transformer manufacturing (14.87), audio and video equipment manufacturing (5.03), other electronic parts and equipment merchant wholesalers (4.35), other industrial machinery manufacturing (4.09), motor and generator manufacturing (3.43), printed circuit assembly manufacturing (3.37), computer terminal and other computer peripheral equipment manufacturing (2.83), relay and industrial control manufacturing (2.41), and bare printed circuit board manufacturing (2.01). These subsectors combined employ over 1,400 workers.
- ✓ **The target has experienced competitive employment growth between 2005 and 2015.** Over the 10-year period, the target grew by 12.8 percent, or 400 jobs, a more rapid pace than the nation at 7.5 percent. The fastest growing subsectors are related to computer components manufacturing and other management consulting services, which includes telecommunications and utilities management consulting services. Despite this growth, BRE efforts remain important to retain existing firms and assist in avoiding layoffs and consolidations when possible by connecting companies to export and business-to-business supplier opportunities. As an example, in 2014, Harris Corporation laid off 30 employees after the company experienced a slowdown in demand for public safety communications equipment.
- ✓ **Despite low to average concentrations of many of the occupations related to Wireless Infrastructure and Communications, the region has high concentration of high-paying engineering and skilled technical occupations,** including mechanical engineers (3.08), electrical engineers (2.93), and information security analysts (1.85). This target provides opportunities for workers at various levels of skills and experience, starting with assembler occupations that require limited prerequisite training and often provide on-the-job training.
- ✓ **The region has several opportunities for workforce development related to IT.** Central Virginia Community College offers associate degree programs in computer and electronics technology and in information systems technology. Lynchburg College has a bachelor's degree program in computer science, and Liberty University offers programs at the associate, bachelor's and master's levels in information systems, information technology, and computer science.
 - There were 903 degree or certificate completions between 2009 and 2014 in the Lynchburg region. In 2014, there were 224 degrees conferred, equivalent to 0.86 completions per 1,000 residents, compared to 1.41 in Virginia Beach MSA, 0.59 in Roanoke MSA, and 0.53 in Richmond MSA. In the Lynchburg MSA, over half were in management information systems and services, while there were 40 in general computer and information sciences, 21 in electrical and electronics maintenance and repair technology, and fewer than 10 in electrical, electronics, and communications engineering, computer and IT administration and management, and computer engineering.

WEAKNESSES AND THREATS

- ✓ **Although average annual earnings for the target (\$62,060) significantly surpass the regional average of \$37,153, they are notably lower than the national average for the target (\$94,867).** This poses a challenge to attracting and retaining IT talent. Because this field is an increasingly lucrative field that relies on workers with largely formal training, low wages are a deterrent to top talent.
- ✓ **While there are several subsectors with competitive employment concentration in the region, there are many others with location quotients of much less than 1.0,** a sign that the target, although strong in many ways, is not well-rounded across the spectrum of business activities it covers.
- ✓ Although the region does have IT-related educational programs, there were no completions in several related fields of study, including computer programming, computer systems networking and telecommunications, computer software and media applications, and electromechanical instrumentation. This indicates a gap in available programs in the region that would support this target.

Financial and Business Support Services

DEFINITION AND OVERVIEW: The Financial and Business Support target is composed of insurance firms, business support services companies, and professional service providers. While business support services typically covers outsourced or shared service “back-office” functions (payments, billing, collections, customer service, etc.) through a division of an existing company, professional service providers are typically standalone firms that provide higher value services to other companies. Such services include legal, marketing and public relations, architecture and engineering, computer systems design, and a variety of research and development services. These firms are also included in the analysis.

LOCAL COMPANIES: Existing financial and business services firms that are located in the Lynchburg region include but are not limited to Genworth Financial (operations center for long term care insurance), Nationwide Insurance (call center), Innovairre Communications/Mail America Communication Inc. (nonprofit operations support solutions), StarTek Inc. Lynchburg (business process management, supply chain management and customer care services), Gentry Locke (law firm), and Woods Rogers PLC (law firm).

NATIONAL TRENDS: While the United States has experienced a reshoring of manufacturing jobs due in part to increasing labor costs in many developing countries, so too has the business support services sector benefited from the same dynamic primarily in the form of reshoring call center operations. Telemarketing Bureaus and Other Contact Centers (NAICS: 561422) grew by 24 percent since 2010 at the national level, and the growth was even greater in Virginia (28 percent). A number of factors are likely to drive further reshoring of back office operations in coming years. Companies seeking to consolidate back office functions into more vertically integrated “in-house” business units will continue to drive the reshoring trend. Many companies are also motivated by the potential for increased customer satisfaction that can result from locating these positions in the United States, where cultural and language barriers are less prominent. Overall, the target is expected to experience healthy growth of 16 percent between 2015 and 2025, according to EMSI projections. Subsectors expecting to grow most rapidly include marketing consulting services; other nondepository credit intermediation; administrative management and general management consulting services; financial transactions processing, reserve, and clearinghouse activities; and process, physical distribution, and logistics consulting services, all with projected growth of 30 percent or more.

STRENGTHS AND OPPORTUNITIES

- ✓ **Lynchburg currently has nearly 6,000 jobs related to Financial and Business Support Services, and the region has existing strengths in direct mail advertising (LQ = 16.7), other insurance related activities (7.2), and insurance agencies and brokerages (2.2).** These subsectors alone have 2,700 employees, and are an important base of employment for the region. In fact, these subsectors are also well utilized to meet regional demand for these services—99 percent of the region’s demand for other insurance related activities, 97.6 percent of the demand for direct mail advertising, and 89.8 percent of the demand for insurance agencies and brokerages are met inside the Lynchburg region.
 - Lynchburg’s largest direct mail advertising employers are Innovairre Communications/Mail America Communication Inc. and Valtim, a marketing, fulfillment and call center solutions firm. Both are located in Bedford County.

- ✓ **Financial and Business Support Services has gained employment by 28.5 percent over the ten-year period examined.** This is a more rapid pace than that of the nation (23.3 percent) as well as overall regional employment growth (1.6 percent). However, business retention and expansion (BRE) outreach efforts will be important to the LRBA's ability to identify opportunities for internal growth, to mitigate closures, and to understand employer needs. This is true in all target sectors. In 2015, Nationwide announced the closing of its Lynchburg call center by mid-2016, which will show up in 2017 employment estimates.
- ✓ **The Commonwealth's business tax climate is competitive.** The comparative analysis of state tax costs on business conducted by KPMG and the Tax Foundation in 2015 ranked Virginia 21st for mature firms and 29th for new firms.
- ✓ Financial and Business Support sectors, such as data center operations, typically seek locations with low natural disaster risk. A natural disaster that damages or destroys a business facility can have a debilitating impact on any business, but especially for IT-intensive facilities that have expensive equipment storing sensitive information. **The Lynchburg region has a generally low natural disaster risk, an important factor taken into consideration for most companies operating within the Business Support Services sector.**
- ✓ **There are several training options in the region to support Financial and Business Support Services,** including associate degree programs in business administration and accounting at Central Virginia Community College and Liberty University, bachelor's degree programs in accounting and business administration at Lynchburg College, Liberty University, and Randolph College. In addition, Lynchburg is within driving distance to larger universities in the state, including the University of Virginia and Virginia Polytechnic Institute and State University. However, as stated, talent attraction and retention will prove difficult in Lynchburg with larger metro options and the potential for greater levels of earnings for these students post-graduation.
- ✓ **Although short-term diversification efforts are limited by workforce educational attainment statistics, in the long term, trends are promising.** The region's young professional population (adults aged 25-34) have higher levels of educational attainment than their older counterparts and compared to their peers nationwide. In the U.S., 33.5 percent of this age cohort hold bachelor's or graduate degrees, compared to 38.5 percent of Lynchburg young professionals. The Lynchburg MSA ranks #61 in the nation for educational attainment of this age group, which is a sign of future gains in overall adult educational attainment.
- ✓ **According to EMSI, in terms of degree completions, the number two field of study represented in the Lynchburg region is business administration, management, and operations,** following only theological and ministerial studies. In 2014, of the 19,281 degrees or certificates completed within the region, 10.3 percent are in business administration, management, and operations. These 3,386 completions are equivalent to 13.12 completions per 1,000 residents. This is significantly more than the 2.83 completions per 1,000 residents in Virginia Beach MSA, 2.19 in Richmond MSA, and 1.96 in Roanoke MSA. This is an important competitive advantage that can only be leveraged by increasing the number of graduates who remain in the region post-graduation.

- ✓ As evidenced by the fact that three of the five targets described in this report are related to manufacturing, the Lynchburg region is considerably competitive for a variety of manufacturing activities. **In addition to creating products, manufacturing firms engage in sales, marketing, and many other general management tasks.** For small companies, these activities may be carried out in the same establishment that handles the actual production of goods. By contrast, larger firms – especially those with multiple locations – must separate these activities into a stand-alone corporate headquarters operation, which may be co-located at the same site or at least in the same region as the production facility. While this would not necessarily constitute economic “diversity” in the traditional sense – the white-collar employment would still be tied to the success of the manufacturing sector – the associated jobs would provide numerous new high-wage opportunities for qualified area residents.

WEAKNESSES AND THREATS

- ✓ **Although there are three subsectors with significant concentration in the region, there are 23 others that are less concentrated locally than they are in the national economy.** This underscores the assertion within the target overview that Financial and Business Support is largely a long-term area of opportunity, dependent on talent and available office space.
- ✓ **While the target’s average annual earnings (\$47,618) are higher than the regional average, they are not high enough to effectively attract the talent needed to support the growth of this target.** Only 59.1 percent of the national average earnings for this set of subsectors, this level of wages are not enough to for talent to take advantage of the fact that the cost of living in Lynchburg is 91.9 (based on a national base of 100).
- ✓ Consistent with other findings about available talent in the region, **38 of the 47 occupations examined have location quotients less than 1.0, or less than national shares of these occupations.** The occupations with location quotients greater than one are largely related to insurance, secretarial work, and computer support. Many of the occupations with LQs less than one are critical to the success of this sector, including applications software developers (0.72), computer and information systems managers (0.54), bill and account collectors (0.39), credit analysts (0.26), new accounts clerk (0.35), financial analysts (0.23), and insurance underwriters (0.57).
- ✓ It has been suggested that the Lynchburg region should pursue diversification with stronger “white-collar” sectors. **However, in the short term, the community’s ability to support activity in these sectors is limited to workforce constraints and office space limitations.** Specifically, 30.1 percent of residents aged 25 and over nationwide hold a bachelor’s degree, compared to 27.2 percent of adults in the Lynchburg region. There is obviously significant variation in the specific types of talent that white-collar firms require – software developers rely on a different mix of skill sets than insurance underwriters, for instance. But as a general rule, communities that are able to support significant white-collar business sector activity are those that have highly educated populations. While adults in the Lynchburg region are not significantly less educated than the nation, it is important to note that the region ranks #170 of the nation’s 381 metro areas, which means that there are 169 metros with more favorable educational attainment statistics.

- ✓ **The Lynchburg region has a limited stock of attractive, available office space to accommodate new business support operations.** This reality likely would require most major new operations in the Financial and Business Support Services sector to invest in build-to-suit options. According to the Virginia Economic Development Partnership's Property Search Tool, there is currently 415,460 square feet of office space available across 28 properties in the Lynchburg MSA.
- ✓ **The lack of adequate passenger air connectivity in the Lynchburg region is well documented,** and this reality represents a disadvantage for business recruitment across those sectors that are especially reliant on air connectivity. In regards to Financial and Business Support, most occupations within this sector do not require significant, if any, amount of business travel.
- ✓ **On average, the Lynchburg region is not competitive for larger firms within the Financial and Business Support arena,** with a few exceptions. When average establishment size is calculated for each subsector, all but three have less than 15 employees per firm. The three with greater levels of employees are telemarketing bureaus and other contact centers (92 average employees per firm), all other insurance related activities (76 average employees), and direct mail advertising (73 employees). This would suggest that small to medium sized firms are the best fit for the region.

Long-Term Opportunities

As depicted in the targets illustration on page 8, there are several long-term opportunities that the Lynchburg region can begin exploring now to set the region up for solid market entry points in the future. This section provides brief introductions of these opportunities, many of which are tied to more than one target area and are excellent interrelated areas of focus.

NUCLEAR MEDICINE

- ✓ The Nuclear Medicine field is a natural long-term opportunity for Lynchburg because of its strengths in both Nuclear Technology and the potential to marry expertise in this area with its predominantly local-serving Healthcare sector. Nuclear medicine utilizes radioactive materials for speedy diagnosis or the treatment of a patient's organs. Radiotherapy is commonly used to treat some medical conditions, particularly cancer, to weaken or eliminate targeted cells. The expertise of the engineers and scientists working on energy solutions may be parlayed into collaborations for medical uses.
 - While there are no direct workforce training programs in Nuclear Medicine Technology in Lynchburg, there are programs nearby at Carilion Roanoke Memorial Hospital in Roanoke, Old Dominion in Norfolk, and Virginia Commonwealth University in Richmond.

ALTERNATIVE ENERGY

- ✓ Because the Lynchburg has a clear historical strength in nuclear power generation, the region must determine if it will keep its energy target focused specifically on Nuclear Technology or if it will leverage these strengths to pursue expanding its target to include other types of energy, particularly alternative and renewable energy sectors that are becoming more common nationally because of concerns of environmental sustainability. Now is the time to determine what the region would like its future to be so that it can plant the seeds for future growth.
- ✓ The United States boasts a thriving renewable energy industry with across-the-board strengths in wind, solar, biomass, biofuels, geothermal, and hydropower sectors. Clean energy investments in the United States increased by 8 percent in 2015 and accounted for 17 percent of the world's total new renewable energy investment. Renewable energy production in the United States is expected to more than double in just the next two decades. Recent technological improvements related to wind energy and solar energy have significantly cut costs related to these energy sources. In Virginia, solar energy production is expected to increase in coming years on the heels of the Governor setting a goal for state buildings to derive 8 percent of their energy from solar sources over the next three years. Biomass energy production in the form of wood pellets is another promising sector as steep demand from European markets continues to drive wood pellet exports in the United States. In 2015, over 4.5 million metric tons of wood pellets were exported from the U.S. and this production is expected to continue to grow.
 - It is important to note that Virginia is well behind peer states in competing for solar and wind projects. For example, in North Carolina, Duke Energy companies have installed over

400 megawatts of solar energy, equivalent to enough solar energy to power roughly 80,000 homes.² Additionally, Duke Energy has invested over \$4 billion in renewable energy with plans for investment of an additional \$3 billion by 2021. Meanwhile, in 2015, Dominion Virginia Power has pledged to build at least 400 megawatts of solar in Virginia by 2020. As solar costs continue to decline, the Commonwealth must take advantage quickly to compete with other trailblazing states.

- In 2015 alone, investments in solar installations in Virginia increased by 86 percent from 2014, after years of only marginal growth. Virginia has put in place several incentives to encourage further growth in renewable energy, including the VirginiaSAVES Green Community Program, the Energy Efficient Buildings Tax Exemption, and the Solar Energy Equipment Tax Exemption.
- Currently, there already exists demand for renewable energy generation, albeit low. In 2013, \$2.3 million in solar electric, other electric, biomass, and geothermal electric power generation was imported to the region to satisfy 100 percent of its demand. Now is an opportune time to determine if the Lynchburg region should diversify its energy sector by targeting renewable energy as a long-term strategy or if the region would rather focus on creating stronger supply chain linkages while remaining focused on nuclear energy as its primary energy target area.

CYBERSECURITY

- ✓ Maintaining the integrity of data is a growing concern among public and private sector leaders alike. High-profile data breaches involving national governments, private companies, and common citizens have only fueled interest in developing data security solutions that can protect valuable information. As technology becomes even more integrated into the lives of citizens and private companies, the need for proper data security measures will only increase. E-commerce and other means of online and cloud-based transactions stand to suffer if consumers are scared off by the threat of their personal information being compromised. The growth of the cybersecurity industry will be fueled by the defense industry and the many supporting industries for which it derives support. Cybersecurity threats against the United States from foreign governments and terrorist organizations represent a burgeoning national security threat. The federal government will invest heavily in R&D efforts to combat this growing threat, opening up plenty of growth opportunities for domestic firms involved in cybersecurity solutions.
 - Because of the region's nuclear technology strength and connections to military and government operations, cybersecurity is a promising long-term opportunity. As technology continues to exponentially advance, cybersecurity will continue to be a major concern and necessary business sector. This is a potential cross-sector opportunity to leverage both wireless and IT talent and nuclear technology talent.

² "Duke Energy Renewables acquires two North Carolina solar projects from ET Capital." Duke Energy News Center. 4 April 2016.

- The U.S. Bureau of Labor Statistics projects strong growth in occupations related to the cybersecurity sector. Computer Systems Analysts (24.5 percent) and Information Security Analysts (36.5 percent) in particular will far outpace the 10.8 percent growth rate for all occupations.
- ✓ Earlier this year, the Center for Advanced Engineering Research (CAER), a key asset supporting Nuclear Technology, announced the creation of the International Critical Infrastructure Security Institute (ICISI). The new organization is being launched in partnership with the Bedford County Office of Economic Development and will operate from the CAER campus. The organization will serve as a clearinghouse for cybersecurity technologies, assisting power generation companies in monitoring and adhering to cybersecurity regulations while also supporting research and workforce development efforts. The Virginia Tobacco Region Revitalization Commission provided a \$40,000 grant to assist in establishing ICISI, and the Economic Development Authority matched the grant to further support its success.

UNMANNED AERIAL SYSTEMS (UAS)

- ✓ Lynchburg's strengths in steel and metals and in IT and wireless communications lend the region to interesting cross-sections. Investing in combining these areas and leveraging the existing expertise of the region's workforce has the potential to provide the region with long-term cutting edge opportunities.
 - The aerospace industry is an attractive industry that sticks out as an outlier among the larger manufacturing industry in the United States. Employment in the Aerospace Product and Parts Manufacturing subsector (NAICS: 3364) is nearing pre-recession levels, which stands in stark contrast to many other manufacturing operations. Jobs in the aerospace industry are also not easily outsourced like low-skill traditional manufacturing jobs, due to the highly-skilled nature of many aerospace jobs and the intellectual property and security considerations that are unique to the aerospace and defense industries in the United States. Economic growth in many developing countries is expected to drive demand in the aerospace industry as global wealth creation makes travel possible for millions of new fliers. Boeing projects that some 38,000 passenger planes – valued at \$5.6 trillion – will be needed over the next 20 years to meet surging global demand.
 - Unmanned aerial systems and drones are a new-age technology that have cross-applications to a number of important sectors including real estate, utilities, construction, and agriculture. Beyond these applications, drones are also quickly becoming a hot commodity among hobbyists. According to the NPD Group, drone sales in the U.S. increased by 244 percent from April 2015 to April 2016. The drone industry is expected to be heavily regulated by the Federal Aviation Administration (FAA), and in many respects, the rapid growth in the drone industry has made it difficult for regulators to keep up. The future of the industry will likely depend on future regulatory guidelines governing the use of drone technology and the impact these regulations will have on potential widespread commercial adoption.

- Liberty University props up these long-term opportunities through its programming. The university's aeronautics program is one of the largest faith-based aviation programs in North America. Educational options include a Bachelor of Science in Aeronautics with focus areas in commercial and corporate aviation, global studies aviation, military aviation, aviation maintenance management, and unmanned aerial systems. Students also are able to earn an Associate of Arts degrees or certificates in Aviation Maintenance Technician, which allows them to earn FAA Airframe and Powerplant mechanic ratings, or in Airline Flight Attendant.
 - The Unmanned Aircraft Systems (UAS) program was created in 2012 and soon after in 2013, it was recognized by the Virginia's Region 2000 Technology Council with its Innovator of the Year award. This Bachelor's degree program includes the opportunity to gain certification as a UAS operator while learning to operate large and small UAS aircraft. The program's goal is to prepare students to operate UAS in an array of applications, including crop dusting, disaster relief and first responder assistance, utility line inspections, and law enforcement, military, and intelligence linkages.
 - In December 2015, Liberty purchased the New London Airport located in Bedford County. The 134-acre public-use airport will be utilized as a hands-on training lab for aviation students. Students are able to log flight hours here and at over 40 partner locations across the country, and pending upcoming FAA regulations, UAS students should be able to gain experience operating aircraft in noncommercial airspace.
- The region is also home to Lynchburg Civil Air Patrol (LynchburgCAP), an auxiliary of the United States Air Force. The Civil Air Patrol's three primary missions are aerospace education, cadet programs, and emergency services. Its aerospace education is available to both volunteer CAP members and the general public, and its cadet programs train youth ages 12 to 21 in aerospace fields, including flight training, aircraft mechanics, aerospace medicine, meteorology, and astronomy, and provide the opportunity for cadets to earn officer status in the Air Force. In 2015, LynchburgCAP announced a new model rocketry program for cadets where cadets learn about the history of model rockets and are taught to build three different engine-powered model rockets.
- The Lynchburg region is also home to businesses that started specifically supporting its Nuclear Technology target but have expanded to also serve aerospace markets. One example is NovaTech, which now provides engineering services to nuclear, aerospace, and defense markets. Although it began its history as a firm largely serving nuclear service providers as a supplier, it now also supports aerospace with design, analysis, and testing services. In fact, they have been instrumental in the development of nuclear powered rockets and solar powered rockets used by the U.S. Air Force and NASA.

EDUCATIONAL TECHNOLOGY ("ED TECH")

- ✓ Technology has revolutionized the way that education is consumed in the United States from both the grade school level to working professionals pursuing continuing education opportunities. From the proliferation of "smart board" technology in classrooms across the country to the widespread usage of online learning platforms in higher education, technology is more integrated into educational services than ever before. This trend is expected to continue for the foreseeable future, as online corporate learning opportunities around skills measurement and competency-based training become more and more commonplace. The unsustainable growth in the cost of higher education will also be a key driver in the education technology sector. Students are likely to continue to embrace online learning opportunities that still allow them to work part-time, and massive open online courses (MOOCs) will be a key avenue through which universities and colleges engage these students.
- ✓ Liberty University's massive growth and investment in online education could lead to innovation within educational technology or the attraction of ed tech providers that want to be proximate to a major customer. This is the type of catalyst that can lead to a true cluster of business activity, such as that of health IT companies in Nashville's Healthcare Council, which spun off from or sought to be located near three major hospital companies headquartered there. It is important to note that Nashville's intricate "family tree" developed over decades, but over time, the cluster was supported and encouraged by Nashville Area Chamber of Commerce.

APPENDIX B: BEST PRACTICES

RVA CREATES (RICHMOND, VIRGINIA)

RVA Creates is an initiative in Richmond, Virginia to develop and deploy an “open-source experiment in identity and creativity” that would result in a brand that the community can embrace and own. However, it is described by the various project partners as “sort of a brand, without the catchy slogans and formal rules that accompany most brands.”

RVA Creates is the brainchild of Venture Richmond, Richmond’s downtown development organization. Through a partnership with various community entities – The Martin Agency, VCU Brandcenter, West Cary Group, J H I, Elevation and The Hodges Partnership – Venture Richmond and the City of Richmond developed the aforementioned “experiment” to engage the community and advance “RVA.” In 2009 and 2010, Venture Richmond worked with these partners and others to discover that the acronym RVA, a longstanding identifier for the region, was a concise and effective moniker for the area. The partners wanted to provide residents with an opportunity to make the RVA moniker and brand reflect their sense of place. In order to do so, they advanced an open-source platform that allowed residents to upload images and customize their version of a simple RVA logo. To support mass adoption of the RVA brand an initial order of 5,000 RVA stickers was placed. By the end of 2011, more than 50,000 stickers had been printed and distributed throughout the region based on surprising demand.

Another open-source element – a contest soliciting submissions for a television advertisement promoting downtown Richmond – was deployed in 2012.

The RVA brand is widespread today with stickers and a variety of other merchandise visible throughout the region, the state, and wherever the area’s residents travel, promoting the region’s brand around the world. Numerous organizations and businesses have adopted the RVA acronym in their name, marketing materials, advertisements, or other attributes and operations. By providing a basic level of ownership and input into shaping the brand identity, and by investing in resources (stickers) that would help disseminate the brand by way of the area’s residents, RVA Creates was able to create a successful branding initiative that reinforced pride and sense of place among those who can be a region’s greatest ambassadors: its current residents.

RALLY ST. LOUIS (ST. LOUIS, MO)

Rally St. Louis is an online platform, born out of the “St. Louis Doesn’t Suck” campaign that was launched in an effort to change the negative perception outsiders had about St. Louis. The campaign sought to bring attention to and highlight the positive aspects of the community – the low cost of living, quality education options, plentiful employment opportunities, and the recreation and cultural resources. Through the suggestions and opinions of ways to market St. Louis’ positive aspects, the online platform, Rally St. Louis, was created in November 2012. The online avenue allows for all residents to participate in community development and more accurately portrays the diverse region’s needs by giving residents that typically aren’t in positions of power to make such decisions, an opportunity to voice their opinions and desires for the community.

The success and popularity of the platform rests on this fact that, rather than rely on a singular organization to decide what is best for the community, St. Louis residents all have an outlet to submit their own ideas on how to improve and market their community. A board, made up of community stakeholders, social organizations, and local businesses, sifts through all the submitted ideas and posts those that they feel would potentially best benefit the area. The platform empowers residents to take an active part in the bettering of their community and further allows for easy access to them vote on which ideas they support. The ideas citizens submit are categorized in a range of topics that includes beautification projects, educational programs, marketing ideas, and non-profit organizations. Those ideas with the top number of votes then go through a funding phase after the budgeting committee has estimated the costs and resources needed to complete the project. Residents and organizations can then support the idea through a donation on the website to fund the project. Several projects have materialized including a children's exhibit at the airport and an urban community garden, among others.

"WE DON'T COAST" (OMAHA, NEBRASKA)

Largely to overcome Omaha's "flyover" community perception, the Greater Omaha Chamber launched a regional brand and image initiative based upon extensive research showing that Omaha ranks highly against other metro areas across the country but lacked an identity. The Chamber convened thousands to create a cohesive, recognizable brand that sought to communicate the region's attributes, character and "can do" spirit. We Don't Coast was launched as a multi-faceted campaign to use across the region to share greater Omaha's story; positively communicate its character; and grow, retain, and attract business and talent. The campaign was presented a 2015 ACE Award of Excellence by the Association of Chamber of Commerce Executives. Though it is not exclusively an internal brand, the We Don't Coast initiative in Omaha was nevertheless intended to serve both an external and internal awareness-building purpose to positively communicate the attractiveness and distinctiveness of the greater Omaha region.

BUSINESS FIRST, GREATER RICHMOND REGIONAL PARTNERSHIP (RICHMOND, VA)

Launched in 2006, Business First is a collaborative, regional, existing business retention and expansion (BRE) program of the Greater Richmond Regional Partnership and its local government partners. Professional economic development staff and trained volunteers from the business community interview CEOs and other top company officials to fully understand the company's competitiveness and its long-term prospects for growth. Interviews cover a wide range of topics and findings include hiring prospects for the next year, perceptions of the regional workforce and specific skill shortages, projected sales, and business climate issues. The data allows the GRP to gauge the health of the regional economy, develop an early warning system to foretell potential future layoffs, and provide targeted solutions to existing businesses. Companies reached by the program receive a high level of customer service and access to a wide variety of resources. The program also responds to specific requests for assistance. By partnering with local government entities, the program leverages the full suite of available resources and provides customized service to businesses.

Thousands of face-to-face interviews have been conducted with business owners and chief executives throughout the region since 2006, collecting a tremendous amount of valuable information and feedback

on everything from regulatory issues to expansion plans to workforce needs. The Partnership works with a network of partners to provide a variety of support in areas such as local government services, finance, workforce development, international trade and business planning. All participant responses are confidential and used to provide direct assistance where needed. Information is also aggregated to help develop a better understanding of critical business issues facing the region at-large.

Since 2006, the program has helped create more than 2,000 new jobs from employer expansion and retain more than 2,500 jobs that were at risk of elimination from workforce reductions, closures, or relocations. During the height of the national recession (FY 2010–2011), Business First staffers and volunteers met with 567 companies. Assisted companies created 1,045 jobs, invested \$68 million in capital investment, and retained 172 jobs during the year. The program has been recognized by the Virginia Chamber of Commerce for its significant contributions to economic development. The Partnership produces a detailed annual report specifically devoted to the Business First program and its successes, and has its own website which helps convey the program's intent and allows staff to "get their foot in door." This annual report and the Business First program have received numerous awards from organizations such as the International Economic Development Council (IEDC) and the Southern Economic Development Council (SEDC).

MEMPHIS REGIONAL LOGISTICS COUNCIL (MEMPHIS, TN)

The Memphis Regional Logistics Council (RLC) was established in 2004 by the Memphis Regional Chamber as a way to strengthen both the Memphis metro area and the tri-state region as a whole. By addressing Memphis' ever-growing, ever-changing role in global distribution and logistics, the council works to establish the Memphis region as a leader in the industry, and to better tap into its role as "America's Distribution Center." The RLC is comprised of logistics and distribution professionals who lend their insights to the region's myriad logistics and distribution issues. Members include trucking and drainage companies, freight forwarders, steamship lines, railroads, air carriers, contractors, developers, barge lines, warehouses, and distributors.

At meetings, professionals are encouraged to share their ideas and expertise regarding how to improve Memphis' ability to be a logistics center. The council includes four main committees: infrastructure, marketing, workforce development, and strategic alliances.

The infrastructure committee recently helped execute the contract for the region's new strategy, Memphis: America's Aerotropolis. The marketing committee works to brand the community and promote Memphis' assets and support the Chamber's ongoing marketing efforts, including but not limited to the targeted in-house publication HUB magazine with a circulation exceeding 20,000; hosting editors of major logistics and supply sector trade publications for the Logistics Tour of Memphis; full advertising supplemental section to Inbound Logistics; and the maintenance of a frequently updated and interactive website promoting regional logistics capabilities.

The workforce development committee focuses on promoting the city's economy by improving the quality of its workforce. The strategic alliance committee works to develop partnerships critical to logistics growth. The committee builds relationships with national and international logistics hubs, trade associations, and corporations, from the Port of Savannah to the American Railroad Association.

"AUSTIN: THE HUMAN CAPITAL" (AUSTIN, TX)

One of the key findings from Market Street's 2003 Opportunity Austin strategic process was the perception in the economic development community that Greater Austin was not "in the game" of employment growth and quality recruitment. With unemployment at near-record lows and the job market flush, regional public and private leadership did not want to risk a cannibalization of skilled workers that would result from robust job-creation efforts. As a result, economic development marketing efforts were almost non-existent prior to Opportunity Austin implementation.

A key strategic recommendation to announce to the economic development world that Greater Austin was refocused on strong employment and wage growth led to recharged efforts to "get the word out" to corporations, site selection and corporate relocation professionals, and the national media that metro Austin was again "open for business."

The result of the Greater Austin Chamber's strong push into external marketing was a new brand and tagline ("Austin: The Human Capital"), a refreshed website, and a new, multi-channel marketing effort complete with direct mail, horizontal and vertical trade publication advertising, on-line advertising, trade-show visitation, location advisor-hosting events, public relations-coordinated media placements, target-specific marketing materials, and other tools.

As a component of Opportunity Austin implementation, the Greater Austin Chamber completely redesigned its website and created an additional site specific to the technology and innovation economy. Chamber officials have received positive feedback from prospects and site-selection professionals on the comprehensiveness of the main site's data, navigability and user-friendliness, and provision of support services information. Because of the efficacy of the website, Chamber officials said they are being called later in the game by site consultants who have short-listed Austin based on web-provided information alone.

In addition, the Greater Austin Chamber contracts with a New York/Dallas-based communications firm to handle proactive media placement, crisis communications, arrangement of out-of-market interviews, and other selected services. The firm secured Austin-centered stories in such influential publications as the Wall Street Journal, New York Times, Economist, Business Week, Business 2.0, and other publications.

In 2011, a survey of both site selectors and C-level executives in Austin's target sectors found that while site selectors knew about and liked Austin's "Human Capital" campaign, C-level executives had very low awareness of the slogan, although they did have strong knowledge of Austin and Texas' favorable business, talent, and quality of life rankings. The survey and phone interviews found that C-levels preferred peer-to-peer contact in making location decisions and shaping their impressions of regions for business-friendliness.

As a result, the Chamber worked to ramp up its public relations efforts to target C-levels, seeing placement in targeted industry publications read by executives—for example, Information Management—and enhancing industry segments for national and international news story ideas. These renewed efforts also leverage Austin's business leaders as the "faces" to the metro's positive rankings and position top CEOs in the region as experts and national industry leaders.

EARNED MEDIA/PUBLIC RELATIONS STRATEGY (CHATTANOOGA, TN)

Ever since Walter Cronkite called Chattanooga the “dirtiest city in America” in the 1970s, the community has been focused on changing both its local realities and also external perceptions. Beginning in the 2000s, the Chattanooga Chamber of Commerce, partnering with the region’s Convention and Visitor’s Bureau, contracted with a national public relations firm to try to change the outside perceptions of Chattanooga as a declining industrial city with few modern assets for companies, talent, or visitors.

Focusing on strengths such as its revitalized downtown, America’s first city-wide gigabit fiber network, its emerging entrepreneurial climate, and other assets, the public relations (earned media) strategy has seen notable success. Since implementing the strategy, the Chattanooga region has been featured in hundreds of business media placements with more than 1 billion impressions worldwide in a wide range of national, regional trade and online outlets including The Wall Street Journal, New York Times, The Economist, Fortune, CNN, Fox Business News, CNBC, and The Huffington Post. The tourism and visitation campaign was also effective, with nearly 1 billion impressions showcasing Chattanooga in outlets such as ABC News, Birmingham Parent, Baltimore Sun, Chicago Tribune, Delta SKY, Forbes.com, Georgia Magazine, National Geographic Weekend, Preservation, and Southern Living.

REACH OUT TO DROPOUTS (HOUSTON, TEXAS)

The Houston Independent School District first implemented a program in 2004 that sought to re-engage students who had recently dropped out of high school. This program – Reach Out to Dropouts – has been tremendously successful in its short history and has been adopted by other surrounding communities in Texas as well as other school districts nationwide. The program is supported by volunteers from throughout the community (concerned citizens, teachers, administrators, business leaders, and the United Way) who walk door-to-door in teams to visit the families of students that have not re-enrolled in school within the first few weeks of a new school year or failed to graduate the previous year for a variety of reasons.

During the 2008 walk in Houston, nearly 1,200 volunteers made contact with more than 680 students or parents, and 60 students began the re-enrollment process on the day of the walk. Many more re-enrolled in the following days with subsequent follow-ups by volunteers. The Fort Bend Independent School District replicated Houston’s program in 2009. With only one participating high school, 68 volunteers visited 106 homes, contacted 72 students or parents, and re-enrolled 20 students. The Lamar Consolidated Independent School District, also in Fort Bend County, visited 65 homes, spoke with 37 families, and re-enrolled 26 students.

The initiative has since been expanded to at least 13 school districts in the Houston metropolitan area, with many other Texas communities joining in recent years, including but not limited to Dallas, Fort Worth, El Paso, and San Antonio. Similar efforts have been coordinated in Des Moines, Iowa and other parts of the country.

FINANCIAL AID SATURDAYS (AUSTIN, TEXAS)

While the Austin metro area has one of the most educated workforces in the nation, the Greater Austin Chamber recognized that much of the highly-educated population was the result of in-migration for high-technology sector jobs and University of Texas - Austin enrollment. With the support of three local school

districts, six higher education institutions, and 12 community organizations and companies, the Greater Austin Chamber worked in the first phase of its "20,010 by 2010" program to boost local higher education enrollment by 30 percent over 48 months. The goal is to grow total regional enrollment in institutions of higher education to 20,010 by 2010.

A component of this effort was a program called Financial Aid Saturdays. In order to help meet increased higher education enrollment goals, the Chamber provided support to Austin, Round Rock, and Manor Independent School Districts (ISDs) to increase FAFSA (Free Application for Federal Student Aid) submission by 15 percent for students graduating in 2007. The Chamber organized and trained volunteers to make calls, answer questions, and walk students and their families through the process of applying for financial aid. In the first phase of the program, the Chamber's more than 200 volunteers assisted over 500 families in filing FAFSA applications.

CARPE DM (DES MOINES, IA)

Found at the address www.SeizeDesMoines.com, Carpe DM is an online portal developed by the Greater Des Moines Partnership as a landing pad for existing and potential talent interested in the region. The Partnership built the central content with links to a comprehensive database of information on moving to and/or discovering Des Moines. Much content is expected to be user-generated, with local volunteers serving as site coordinators for various functions and topic areas.

The site launched in early 2014 with information and links to finding a career; starting a business; local primary, secondary, and higher education; housing options, including rentals and real estate broken down by community; transportation in the metro and outside of it; volunteer and network opportunities for students, young professionals, career-minded adults, families, and empty nesters; local farmers markets, health care, spiritual communities; local arts, sports, politics, entertainments, and news; and area professional organizations and leadership programs.

UPTOWN COLUMBUS REVITALIZATION (COLUMBUS, GA)

Sharing certain similarities to the Lynchburg region and its downtown (slow historical population growth, lack of direct interstate access, presence of a river downtown, presence of a major university but not located downtown, etc.) the story of Uptown Columbus' revitalization is one that is particularly relevant to the Lynchburg region.

The City of Columbus, Georgia began its comprehensive downtown revitalization efforts in the 1980s by forming Uptown Columbus, Inc. and starting a Business Improvement District (BID), a self-taxing district that would devote funds to beautification, streetscaping, and public safety enhancements that improve the vitality of Uptown Columbus.

Just a few years later, the City opened the first phase of the Chattahoochee RiverWalk, a 22-mile paved walking and biking trail that follows the Chattahoochee River through the Columbus region and serves as an anchor amenity (a riverfront boardwalk) in Uptown Columbus. Shortly thereafter, Phenix City, Alabama (located across the Chattahoochee River from Columbus) opened a 3,500 seat riverfront amphitheater in

1996 directly across the river from Uptown Columbus, a first step in many towards bi-state, regional collaboration on riverfront activation.

That same year the Olympics were hosted in Atlanta, Georgia, just 90 minutes away from Columbus. At the time, a suitable venue for Olympic whitewater canoeing/slalom was not available in Georgia and an alternate location was secured in nearby North Carolina. This sparked a vision among John Turner, the third-generation leader of W.C. Bradley Company, based in Columbus: what if the Chattahoochee River could be transformed into the world's greatest urban whitewater experience? What began as a seemingly infeasible idea was advanced over the course of many years of diligent conversations with various local, state, and federal stakeholders including two state governments, two city governments, the Army Corps of Engineers, and the National Oceanic and Atmospheric Administration among many others. Nearly fifteen years later work began on the conversion of the river to an urban whitewater course. Two dams were removed and the river was rerouted during construction. The roughly \$24 million project was financed by \$13 million in private contributions, \$5 million from the City of Columbus, and \$5 million from the Corps of Engineers. The final result – the largest urban whitewater course in America at 2.5 miles completed in 2013 – has received global acclaim, won the American Planning Association's Excellence in Economic Development Planning Award in 2014, and has been featured in numerous national publications.

Meanwhile, Uptown Columbus was undergoing another transformation driven by immense investment from its largest institution of higher education. Columbus State University is home to nearly 7,000 undergraduate students. The University's main campus is located roughly six miles from Uptown Columbus. The University intended to develop new facilities to support its performing arts program, and realized that Uptown Columbus - outside of its main campus - could be a potential location for new facilities.

In the early 2000s, the City and the private sector were partnering to develop a new performing arts center, the \$86 million RiverCenter for Performing Arts. After much planning, the University relocated its Art, Music, Theatre departments to Uptown Columbus, co-locating with the new RiverCenter. The University built student housing for these students and relocated additional departments in subsequent years, including Communications, History, and Geography. At present roughly 500 students currently reside in university student housing in Uptown Columbus today. The student presence has helped create a nighttime population, encourage other residential reinvestment in Uptown, and supported the opening of many new businesses from coffee shops to bookstores to restaurants and nightlife. The University also partnered with the City to create new greenspace in Uptown, Woodruff Park, which serves as a gateway to the Chattahoochee RiverWalk. Adjacent to the park and the RiverWalk are a few major revitalization projects, including the conversion of the old Eagle and Phenix Mill into condos, apartments, and a restaurant space located above the old mill's water wheel in the middle of the Chattahoochee River, and accessible via pedestrian bridge.

The City is currently working to establish a tax allocation district (TAD) that will encompass Uptown and provide another financing mechanism to support redevelopment efforts. TADs freeze property values at a certain level within the boundaries of the district and devote all future incremental property tax revenues to support redevelopment and infrastructure needs in the district.

TULSA BEAUTIFICATION FOUNDATION MATCHING GRANT PROGRAM (TULSA, OK)

Established in 2009, the Tulsa Beautification Foundation Matching Grant Program aids neighborhood and homeowners' associations with funding beautification programs. The program provides a dollar-for-dollar match to locally-raised funds. The program is intended to incentivize local groups to raise money, engage in partnerships with businesses, and encourage a culture of local volunteerism.

In order to be eligible a project must improve or beautify a neighborhood or public space; involve neighborhood and community residents; have long-standing and sustainable benefits; have a plan before work begins; and provide a maintenance plan for upkeep of the project. Further, in addition to locally-raised money, the program allows for 35 percent of the match to be volunteer hours, which are valued at \$16.19 per hour. The program requires projects to be completed within a 90 day timeline.

One of the grants in 2010 was made to the Shadow Ridge Homeowners Association (SHRA). The SHRA received \$2,800 to beautify the entrance to their neighborhood, which included new trees, lighting, and a Memorial Tree to honor neighborhood residents who had passed away.

ARTSKC FUND (KANSAS CITY, MO)

The ArtsKC Fund is a united arts fund run by the ArtsKC Regional Arts Council that provides grants to artists, arts organization, and arts programs in Kansas City's five-county, bi-state metropolitan region. The ArtsKC Fund is supported 50 percent by workplace giving campaigns and 50 percent through businesses, corporate, and national foundations, local government agencies, and individual donors. Grants are divided into three categories: Ovation Grants, Catalyst Grants, and Inspiration Grants. Ovation Grants are reserved for a group of Kansas City's most well-established arts organizations, Catalyst Grants are tailored towards small to mid-sized nonprofits for either project or mission support, and Inspiration Grants are awarded to individual artists and arts professionals for projects or career development.

ENDNOTES

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- ^{iv} Shahbaz, Fatima and Boyer, Jessica. "Why an undefeated high school debate team refuses to compete at Liberty University this weekend." *The Washington Post*. April 22, 2016.
- ^v Fry, Richard. "Millennials surpass Gen Xers as the largest generation in U.S. labor force." *Pew Research Center*. May 11, 2015.
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- ^{xi} Gore, Sherese. "Lynchburg named 'TechHire' community." *The News & Advance*. August 4, 2015.
- ^{xii} U.S. Census Bureau, 1-Yr American Community Survey, 2014.
- ^{xiii} Bedford County, Office of Economic Development.
- ^{xiv} Ewert, Stephanie. "The Decline in Private School Enrollment." U.S. Census Bureau Social, Economic, and Housing Statistics Division (SEHSD) Working Paper Number FY12-117. January, 2013.
- ^{xv} All cited results are sourced from regional, public surveys deployed by Market Street Services between 2012 and 2016 in the referenced metropolitan areas.