



## Trends facing Buncombe County and the region

At the first AVL Greater strategic foresight session, business and community leaders explored the following trends facing Buncombe County and the region.

### Society

#### 1. Growing Population

By 2040, the region (Asheville MSA + Transylvania County) will be home to over 630,000 people -- nearly 40% more than in 2010. This is an increase of about 178,000 people or the addition of two cities the size of Asheville.

This increase is projected to translate to a need for almost 75,000 additional housing units across the five counties. Most of this growth is expected to occur in Buncombe and Henderson Counties.

Source: 2015-2019 Comprehensive Economic Development Strategy for Buncombe, Haywood, Henderson, Madison, and Transylvania Counties, 2015; Draft French Broad River Metropolitan Planning Organization SE Data Development Report, 2014

#### 2. Growing Hispanic Population

Between 2017 and 2037, the Asheville MSA is projected to grow (in total number) the most in terms of White (by 89,700) and Hispanic (by 26,300) and the least in Black (by 500) residents. By 2037 these population groups are expected to comprise 91% (White), 11% (Hispanic), and 4% (Black) of the MSA.

Projections for specifically Buncombe County are similar, though the number and overall share of African Americans is expected to *decline* by about 440, down to about 14,900 or 5%.

Source: Population estimates for 2017 and projections for 2037 by the Demographer's Office at the NC Office of State Budget and Management

### **3. Growing Baby Boomer Population**

Between 2000 and 2016, the population aged 60+ in the Asheville MSA grew by 55%. Between 2017 and 2037, this pattern is expected to continue, albeit at a somewhat slower rate.

In this context, the 55+ share of the population in Buncombe County is projected to grow from 33% to 37%. And the 60+ population is projected to grow from 26% to 30%. By 2037, the median age in Buncombe is estimated at about age 46.

Source: "Living Asheville: A Comprehensive Plan for our Future," adopted 2018; population estimates for 2017 and projections for 2037 by the Demographer's Office at the North Carolina Office of State Budget and Management

### **4. Declining Millennial Population**

Between 2000 and 2016, the share of the population aged 20-34 grew by 17% in Asheville MSA. Between 2017 and 2037, population projections assume that this pattern will continue, albeit at a somewhat slower rate.

In this context, Buncombe County's growth is projected similarly. As a result, the Millennial share of the total population is expected to decline from 19% to 17%.

Source: "Living Asheville: A Comprehensive Plan for our Future," adopted 2018; population estimates for 2017 and projections for 2037 by the Demographer's Office at the North Carolina Office of State Budget and Management

### **5. Losing Migrants Especially to South Carolina**

At least since 2009/10, more and more people are emigrating to Henderson and Madison Counties rather than Buncombe and Haywood Counties. The region overall is losing more migrants to the Greenville-Spartanburg area than any other region.

Source: "AVL 5x5 Vision 2020 Economic Development Strategic Plan," December 2015; and communications with Asheville Area Chamber of Commerce & Economic Development

### **6. Income Expected to Rise**

Between 2018 and 2023, the Asheville MSA's median household income is projected to grow from \$50,360 to \$55,620 (faster than state, slower than nation).

In comparison, average income in the MSA is projected to grow from \$68,630 to \$78,280 between 2018 and 2023.

Along the way, the greatest growth (in total number) is projected among households that make between \$100,000 - \$149,999 a year (by 5,816), followed by households with incomes between \$75,000 and \$99,999, \$50,000 and \$74,999, \$200,000+, and \$150,000 and \$199,999.

Source: income estimates from Esri for Asheville MSA, via Asheville Area Chamber of Commerce & Economic Development

## **7. Shrinking Middle Class**

Based on a national sample of 229 metro areas, North Carolina is home to two of the “biggest losers” in terms of middle class size (share of adults living in middle-income households) between 2000 to 2014: Goldsboro (from 60% to 48%) and Hickory-Lenoir-Morganton (from 62% to 54%). Other metro areas in the state fell from an average of 57% to an average of 51%.

Source: “America’s Shrinking Middle Class: A Close Look at Changes Within Metropolitan Areas.” *Pew Research Center’s Social & Demographic Trends Project* (blog). May 11, 2016

## **8. Rising Burden of Chronic Conditions**

The leading causes of death in the Asheville MSA are heart disease, chronic lower respiratory disease, cerebrovascular disease, and cancer.

Between 2016-2030, the total cost of chronic disease in North Carolina is projected to be about \$1.4 trillion. Over the same time period, chronic disease could cost North Carolina \$65.5 billion in medical costs and an extra \$26.6 billion annually in lost employee productivity.

Source: GroWNC Regional Plan, 2013; fact sheets from the Partnership to Fight Chronic Disease, accessed August 20, 2018

## **9. Rising Burden of Alzheimer’s Disease**

The leading causes of death in the Asheville MSA also include Alzheimer’s disease. Between 2017-2030, the total cost of Alzheimer’s disease in North Carolina is projected to reach a cumulative total cost of \$236.3 billion. Along the way, the number of residents living with Alzheimer’s is expected to grow by 23.5% to a total of about 210,000 residents (2% of the state’s projected population) by 2025.

Source: GroWNC Regional Plan, September 2013; fact sheets from the Partnership to Fight Chronic Disease, accessed August 20, 2018; 2018 fact sheet from the Alzheimer’s Association

## **10. Rising Demand for Aging in Place and Care**

By 2020, the region is estimated to have an estimated 4,000 seniors requiring assistance with activities of daily living.

Approximately 2,000 of these seniors are expected to require senior care housing beds. Such housing will likely need to be in the form of a variety of housing options ranging from independent living with optional services to nursing home facilities.

Source: Housing Needs Assessment of the Four-County Region, 2014

## **11. Growing Burden of Obesity**

Obesity, especially among children, has become a major issue in all five counties in Western North Carolina. In Buncombe County, more than half of all adults were either overweight or obese in 2010. If adult obesity rates continue to rise at the same rate, the obesity rate in North Carolina could reach 58%, with healthcare costs climbing 17.6% by 2030.

Source: GroWNC Regional Plan, September 2013; “F as in Fat: How Obesity Threatens America’s Future.” Trust for America’s Health/Robert Wood Johnson Foundation, 2012; “Overweight, Obesity, and Diabetes in North Carolina,” Eat Smart, Move More NC, accessed August 20, 2018

## 12. Residents are Getting “Priced Out” for Housing

Due to limited remaining land, new housing development in Asheville and Buncombe County is declining even though population is rising. New housing permits issued per year have declined 50% since 2010. And the average cost of a house in Asheville has risen by more than 40% since 2011, to \$277,000. As a result, housing now costs 5.78 times typical incomes in Asheville.

Source: "Living Asheville: A Comprehensive Plan for our Future," adopted 2018; communications with Asheville Area Chamber of Commerce & Economic Development

## 13. Declining Enrollment in Traditional Public Schools

While charter schools, home schools, and private schools are seeing significant gains, enrollment in traditional NC public schools has been falling, down to 81% as of 2018. It is expected to continue falling over the years to 2025, declining by about 2,230 (Buncombe), 930 (Henderson), 885 (Haywood), 105 (Transylvania), and 85 (Madison) students. Only Asheville City Schools are projected to grow, by about 360 students.

Source: "Nearly 1 in 5 NC Students Are Opting out of Traditional Public Schools. Does It Matter?" Newsobserver. July 13, 2018; enrollment statistics and projections via Asheville Area Chamber of Commerce & Economic Development

# Technology

## 14. Increasing Demand for Digital Citizenship

For 58% of citizens, digital interactions account for half or less of their total interactions with government. For 42% of citizens, digital interactions account for more than half of their total interactions with government. Almost 9 in 10 citizens (86%) want to maintain or increase their digital interaction with government.

Source: Accenture Public Service Insights, "Digital Government: Your Citizens are Ready, Willing... and Waiting." Oct 14, 2015

## 15. Additive Manufacturing is Growing

Since 2014, at least five 3D printing or additive manufacturing sites have emerged in the state. These include facilities operated by North Carolina State University, Minnesota-based ProtoLabs, prosthetics manufacturer UNYQ, and Oerlikon. Additionally, Wake Forest University focuses on growing body parts and tissues such as ears at its Institute for Regenerative Medicine.

Source: "Oerlikon Creating New \$55 Million Additive Manufacturing Hub in North Carolina." 3D Printing Industry. February 8, 2017; "How Universities and Talent Are Turning North Carolina into a 3D Printing Hub." IndustryWeek. April 28, 2017; "Additive Manufacturing Is Growing in North Carolina." n.d. Nexxt. Accessed August 15, 2018

## 16. Schools are Becoming Digital Ready

By summer 2018, all NC schools are to be equipped with a Wi-Fi network. This is expected to open the door for innovation in schools that reaches all students. These may include artificial intelligence-based tutoring systems (already in use by the Navy), and dozens of apps and startups striving to use machine learning to improve learning, course materials, writing, test prep, assessment, diagnosis, and career guidance.

Source: "North Carolina's Digital Success Story." EdSurge. August 14, 2017; "Here's How Technology Is Shaping the Future of Education." Business Insider. Accessed August 15, 2018; "32 Ways AI Is Improving Education." Education Week. Accessed August 16, 2018

## **17. Automation Expected to Impact Majority of Metro Area Jobs**

An MIT study estimates that 54-69% of jobs in 15 North Carolina metro areas, including 65% of jobs in the Asheville MSA, may be impacted by automation. The authors argue that generally speaking smaller cities have a disproportionate amount of routine clerical work, such as cashier and food service jobs, which are more susceptible to automation than cognitive and analytical tasks, such as software developers and financial analysts.

Source: Woyke, Elizabeth. October 23, 2017. "This Map Shows How Advances in Robots and AI Will Affect Jobs in Your City." MIT Technology Review. Accessed March 18, 2018

## **18. Increasing Use of Crowdsourcing to Innovate and Engage**

Companies crowdsource to gain diverse perspectives, perform functions more cost effectively, and elevate their users from consumers to active contributors in the business. They include firms such as GE (product challenges), Amazon Studios (film production), and PepsiCo (snacks). E.g., on the LEGO Ideas platform, users submit ideas for new sets, vote and provide feedback, work with the company to make an idea a reality, and receive royalties on sales.

Source: "How To Unlock Your Potential For Innovation Through Crowdsourcing." Forbes. and "5 Examples of Companies Innovating with Crowdsourcing." InnoCentive Innovation Blog. Accessed August 15, 2018

## **19. Potential Decrease in Infrastructure Cost**

Growing the city in alignment with the Preferred (as opposed to unplanned growth) Growth Scenario -- per Asheville's comprehensive plan adopted in 2018 -- could yield infrastructure cost savings of up to 6% per capita and reduce wear and tear on regional infrastructure by 2038.

Source: Book 3 of "Living Asheville: A Comprehensive Plan for our Future," adopted 2018

## **20. More Electric Vehicles on the Road**

Electric vehicles (EVs) could account for about 20% of new U.S. car registrations by 2030.

In North Carolina, VW settlement money may facilitate EV adoption and use. The state is to receive about 92\$ million, including \$14 million that can be invested in infrastructure for zero-emission passenger vehicles. Based on a March 2018 proposal, the state may add over 2,500 charging stations by 2024 — five times as many as it has today.

Source: "In North Carolina, Charging Stations Are a Priority for VW Settlement Funds." Energy News Network. April 16, 2018; "The Future Of Electric Vehicles In The U.S., Part 1." Forbes. Accessed August 15, 2018

# Environment

## 21. Growing Investments in Regional and Local Transit Options

NCDOT has adopted an incremental approach for ultimately extending rail service from Salisbury to Asheville and Western North Carolina.

Meanwhile, many of the counties and jurisdictions within the region plan to address pedestrian needs. For example, the City of Asheville currently has 4.3 miles of greenways with plans to develop a 15 mile network. There is also concerted effort in many of the jurisdictions to improve on- and off-road bicycling facilities. For example, the Asheville Comprehensive Bicycle Plan proposes a 181-mile network of bicycle facilities.

Source: GroWNC Regional Plan, September 2013

## Rising Risk of Mass Migration Due to Sea Level Rise

Much of the state coastline will likely be inundated when global sea levels rise. The projections range from a few feet in the next 20 years to much more in this century.

An estimated 15,600 homes valued at nearly \$4 billion are at risk of chronic flooding in the next 27 years. Nearly 23,000 people are housed in those at-risk homes.

Source: "The Reality of Global Warming (Climate Change) and its Potential Impact on North Carolina: UNC Asheville Response," September, 2008; "Thousands of NC, SC Homes Totaling Billions Could Be Flooded by Sea Level Rise in Years Ahead, Study Finds." Newsobserver. June 18, 2018

## 23. Heavy Rains Grow More Frequent

Extreme precipitation is one of Asheville's main climate stressors. From 1958 to 2012 the Southeast region experienced a 27% increase in heavy precipitation events. An analysis of the heaviest rainfall events specific to the Asheville area also shows an apparent increasing trend in the average annual number of these events from 1949 to 2014. Increased precipitation means more flooding and associated landslides.

Source: "Living Asheville: A Comprehensive Plan for our Future," adopted 2018; "The Reality of Global Warming (Climate Change) and its Potential Impact on North Carolina: UNC Asheville Response," September, 2008

## 24. Increasing Drought, "Feast or Famine" Cycle

It is very likely that the state will experience more droughts in the future. In Western NC from 2001-2004, there was below average rainfall. This cycle was broken by huge amounts of rainfall during Hurricanes Frances and Ivan. Since that time, the Western part of the state has again experienced severe drought. This "feast or famine" cycle makes it very difficult to balance optimal water resource usage with flood mitigation.

Source: "The Reality of Global Warming (Climate Change) and its Potential Impact on North Carolina: UNC Asheville Response," September, 2008

## 25. Wildfires Expected to Increase

Fires in Eastern and Western North Carolina suggest that wildfires are a growing issue for the state, and will become more severe as climate change progresses. As drought conditions increase, so does the stress on the forest and the higher risk of wildfires.

Source: "The Reality of Global Warming (Climate Change) and its Potential Impact on North Carolina: UNC Asheville Response," September, 2008

## 26. Vertical Farming is Growing

Vertical farms are increasing, including two in North Carolina. These refer to indoor, multi-level farming using controlled-environment agriculture and greenhouse designs suitable for urban settings. The approach may expand faster as renewable energy and battery storage technologies evolve, and it may help improve food security in the years to come. For example, AeroFarms, a 70,000-square-foot vertical farm in a renovated steel plant in NJ, claims 95% less water use and 390 times more productivity than a commercial field farm with the same square footage.

Source: "US: 125K Grant for Vertical Farm in North Carolina." Accessed August 28, 2018; "Feeding the Future of Agriculture with Vertical Farming." SSIR. Accessed August 16, 2018

## Growing Water Shortages and Demands

If present growth and water use trends continue, North Carolinians are expected to find it increasingly difficult to satisfy their water needs in the coming decades. The state needs approximately \$15 billion to meet water and wastewater demands through 2030, putting it in the top third of the nation.

Source: EPA WaterSense, "North Carolina Water Fact Sheet," 2010; and The Rural Center. 2016. "10 Strategies for Rural North Carolina's Future." N.C. Rural Economic Development Center

# Economy

## 28. Total Employment is Growing

Total employment in Buncombe County is projected to grow to 178,000 jobs by 2040, about 48% since 2010. Similarly, Asheville MSA is projected to grow by 50%, to about 296,000 jobs.

In the past (2010-14), total employment in the Asheville MSA grew faster than the U.S. as a whole but slower than most benchmark regions, which include a mix of competitor markets (Charlotte, Raleigh, Durham, Greenville, and Nashville) and aspirational metro areas (Austin, Bend, and Boulder).

Source: "AVL 5x5 Vision 2020 Economic Development Strategic Plan," December 2015; Draft French Broad River Metropolitan Planning Organization SE Data Development Report, 2014

## 29. Contingent and Unpaid Workers Expected to Grow

The Asheville area is projected to grow to about 14,550 self-employed and unpaid family workers by 2024, a net positive change of about 970 (7%) since 2014.

More broadly, freelancers in the U.S. could outnumber full timers within a decade. We might reach this milestone even faster as younger generations become a larger portion of the workforce. Almost half of working Millennials (47%) freelance, a participation rate higher than any other generation.

Source: "Freelanced: The Rise Of The Contract Workforce." NPR.Org. Accessed August 15, 2018; employment projections by the N.C. Department of Commerce, accessed August 20, 2018

### **30. Growth in Clean Energy-Related Jobs and Savings**

Buncombe and Henderson Counties experienced the highest volume of growth in clean energy-related industries, and a distinct cluster of businesses that focuses on renewable energy and energy efficiency has formed.

The NC Sustainable Energy Association estimates that investments in clean energy have saved North Carolinians more than \$160 million on their electricity bills since 2007, and could produce more than \$500 million in additional savings by 2029.

Source: GroWNC Regional Plan, September 2013; "Clean Energy Is Lowering Electric Bills in North Carolina – but This Solar Trade War Could Reverse That Trend." Energy Exchange. November 21, 2017

### **31. Job Growth Expected from Health Care, Food, Professional/Scientific/Tech**

Between 2014 and 2028, the greatest net growth in terms of number of jobs in the Asheville area is projected to be in healthcare (Ambulatory Health Care Services: 4,300; Hospitals: 2,300), food services and drinking places (2,650), and professional, scientific, and technical services (1,100). The last category includes especially veterinary services, engineering services, administrative management and general management consulting services, custom computer programming services, and computer systems design services.

Source: employment projections by industry from EMSI; communications with Asheville Area Chamber of Commerce & Economic Development

### **32. Growing Opportunities in Advanced Manufacturing: MEMS**

Micro-electromechanical systems (MEMS) refers to both a process (microfabrication) and a type of product (miniaturized 3-D structures, sensors, actuators, and microelectronics). This industry is expected to grow due to the integration of MEMS structures into new applications (e.g., household appliances, consumer electronics) and the continued expansion of existing markets, such as mobile computing, biohealth, and automotive. The presence of automotive and aerospace companies, higher education network, and a broader community commitment to technology, positions Asheville favorably for this sector.

Source: AVL 5x5 Vision 2020 Economic Development Strategic Plan, December 2015

### **33. Growing Opportunities in Advanced Manufacturing: Wearable Technology**

The rise of intelligent devices and the Internet of Things have spawned a trend in products that make user experiences more effective through personalization. It is relevant across an array of areas, including healthcare, marketing, and social media. This trend also includes the proliferation of wearable technology, involving the use of advanced textiles, specialty chemicals, and research capabilities. North Carolina is well-positioned to leverage the trend in advanced textiles, given its long history in the textile industry, many specialty chemical companies, and strong research capabilities.

Source: AVL 5x5 Vision 2020 Economic Development Strategic Plan, December 2015

### **34. Rising Entrepreneurship**

Since the recession, total startups in Asheville have been increasing and total business closings have been decreasing. In all, 100 companies have been in the Venture Asheville Elevate program since inception, and total capital since January 2017 is an estimated \$8,288,100.

Source: "Living Asheville: A Comprehensive Plan for our Future," adopted 2018; Venture Asheville Program of the Asheville Area Chamber of Commerce & Economic Development



## 35. North Carolina is in Political Flux

Obama won the state in 2008. Two years later, Republicans took control of both legislative houses and the state became a laboratory for Tea Party governance. Then in 2016, federal courts invalidated voter-suppression laws and ordered the state to redraw twenty-eight legislative districts. And a diverse coalition of voters and activists coalesced around social and economic issues and unseated the incumbent Republican Governor and gave Democrats also control of the state's Supreme Court and Attorney General's office. Meanwhile, Trump carried the state in 2016 but lost in Buncombe County.

Source: "North Carolina, in Political Flux, Battles for Its Identity." The NYT, Sept. 23, 2014

## 36. Increase in Multi-Sector Community Solutions

Author Bruce Katz, who was brought to Asheville in 2015 by the local Economic Development Commission, identified common characteristics of multi-sector collaborations:

- Rather than relying on public-sector solutions, harness the power of government, business, civic, philanthropic, university, and community institutions and leaders to work collaboratively.
- Solutions/responses are tailored, cross-sector, and multi-disciplinary.
- Financing is being re-thought from the bottom-up, from collaboration between public, private and civic sectors.

Source: "Where are we going, Asheville and Buncombe?" By Kim McGuire for the Futures Planning Group, released May 25, 2018

## 37. Increasing Demand for "VUCA" Leadership at Local & State Levels

A common term used when training military leaders is "VUCA," an acronym for Volatile, Uncertain, Chaotic and Ambiguous. This is precisely the environment that local government leaders are inheriting as tax revenues fall, staff retire or leave early, citizens' expectations increase, and more of the "problems" in society fall to local governments to solve. This VUCA environment is not likely to diminish soon, and local leaders can either bury their heads and try to continue to make things work, or they can embrace this opportunity to reinvent local government.

Source: Alliance for Innovation, "Next Big Things", 2015

## 38. Asheville City's Expenditures and Revenues are Growing, but...

Asheville City projects \$148 million in actual General Fund expenditures for fiscal year 2023, and \$134.5 million in actual General Fund revenues – a gap of \$13.5 million.

Along the way, both the City and Buncombe County expect a large annual infusion of cash, including \$6.8 million to the City alone, based on the anticipated purchase of Mission Health (by HCA Healthcare Inc.) and its conversion to a for-profit entity that pays property taxes.

Source: "5 things to know about Mission Health's proposed HCA Healthcare deal," citizen-times.com, March 30, 2018; "Five-Year Financial Forecast" Memorandum to the City of Asheville Finance Committee, Feb. 27, 2018

### **39. Participatory Budgeting is Spreading**

Participatory budgeting (PB) is a democratic process that allows residents to help determine how public funds are spent. 61 American and Canadian communities used PB in 2015-16, and Greensboro, NC is the first Southern city to adopt PB. Since 2015 the city council sets aside \$500,000 each year and each of the five city council districts has up to \$100,000 for residents to decide upon for capital projects.

Source: "A Process of Growth-The Expansion of Participatory Budgeting in the United States and Canada in 2015-16," Dec. 2016; "Greensboro Looks to Get More Residents Engaged in Budget Process." Newsobserver. June 18, 2016