NC Communities 2040

CONTENTS

INTRODUCTION

Civic FCU asked Houston Foresight for help in exploring the long-term future of communities in North Carolina. The purpose of developing this long-term view was to build support and catalyze action in the present towards a desirable future, as a compelling and positive view of the future can inspire and motivate action in the present. At the same time, the potential for less desirable or negative futures was explored as well. A balanced view of the future includes both:

- Where do we want to go? (positive vision)
- What do we need to avoid? (potential trouble spots)

The project used Houston's Framework Foresight approach with the 2x2 uncertainty scenario technique at its core. Houston Foresight Program Coordinator Andy Hines was the PI, assisted by Project lead Tim Morgan and Laura Schlehuber, alum April Koury, and a team of four graduate students (bios appended).

The principal components of the project are:
- Framing and scanning
- Research and interviews: trends, stakeholders, issues, plans
- Drivers and uncertainties
- Scenarios
- Recommendations: strategic options and issues, integrated strategic approach, community development models, getting started

Three virtual workshops were conducted during the project. The first two provided input into the creation of the scenarios; the third explored the implications of the scenarios, and identified key issues and developed strategic options for responding to them. These workshops provided extremely valuable input, and we are grateful for the participants' investment of time and effort!

Quotes from the stakeholder interviews are interspersed throughout the report in outlined blue boxes.

> *"I believe strongly in the people of North Carolina. I believe, in the long run, we want what's best for our neighbors and we will figure that out."*

FRAMING AND SCANNING

A community is a group of people in the same place or those who have a shared identity from common needs, desires, or beliefs.

There are many definitions and thoughts about what a community is. We used the definition above to guide the project. We recognize that one of the outcomes of this work could be to revisit and refine just what is meant by community as NC moves into the future.

The Framework Foresight approach begins with a **focal question** to guide the project. This scenario planning study is framed around the inquiry: What are the potential futures for communities in North Carolina… and what can we do to position ourselves for success?

> *What are the potential futures for communities in North Carolina… and what can we do to position ourselves for success?*

The 2040 timeframe was intentionally chosen to be longer-term in in order to explore beyond today's issues. This does not mean that today's issues are neglected; rather, they are placed in longer-term context. The idea is that today's issues ought to be addressed in light of the future – which solutions move us in the future direction that we want to go? The Three Horizons model is a useful way to think about timeframe. In short:

Figure 1. Three Horizons Model

- *Horizon One*: the short-term "baseline" or continuity future of roughly the next 5-10 years in which the current system or way of doing things in a domain largely prevails.
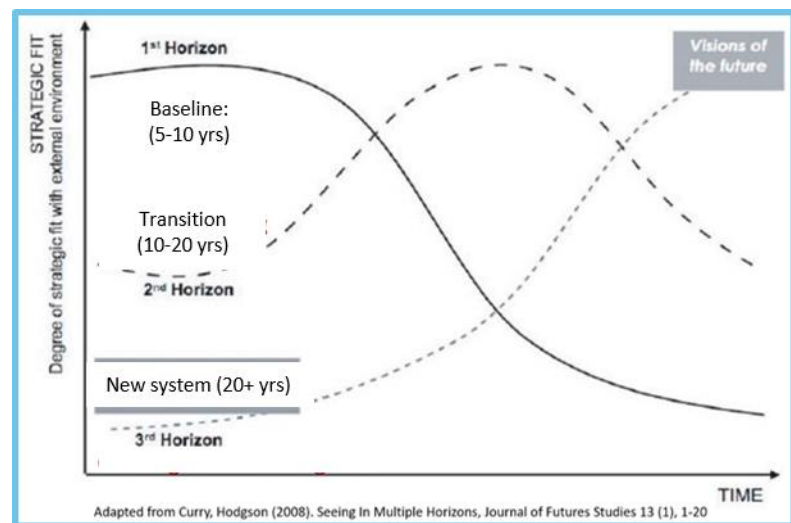
- *Horizon Two*: the mid-term future of "transition" from 10-20 years out in which the existing system is breaking down and new approaches are making inroads.
- *Horizon Three*: the long-term future from the next twenty years and beyond in which a "new system" will eventually take root.

The 20-year timeframe enables the exploration of a new approach to what communities might look like, while also mapping the transition pathways.

The geographic focus was of course North Carolina, but we also looked across the U.S. and globally for relevant examples and insights. This expanded scope was particularly useful in identifying development models for the future – we drew extensively upon examples of innovative models being tried nationally and globally.

DOMAIN MAP

With the focal question and timeframe set, the **domain map** sets the key categories to explore. The domain map is a visual representation of the topic organized by categories and sub-categories. It provides a guide for the research to ensure that key aspects of the domain are adequately covered. The five primary domain categories are:

Figure 2. Domain Map

- **Governance** focuses on the services (e.g., safety, legal, waste management, finance, etc.) approaches, and levels (local, regional, state, and Federal)
- **Infrastructure** involves the various public/private systems (e.g., broadband, transportation, utilities, healthcare, etc.)
- **Residents** covers demographics, culture, as well as citizens, guests, and visitors.
- **Business** includes corporations, civic and non-profits, and the various industries (agriculture, software, manufacturing, etc.)
- **Education** includes pre-school, K-12, secondary, and the various training options
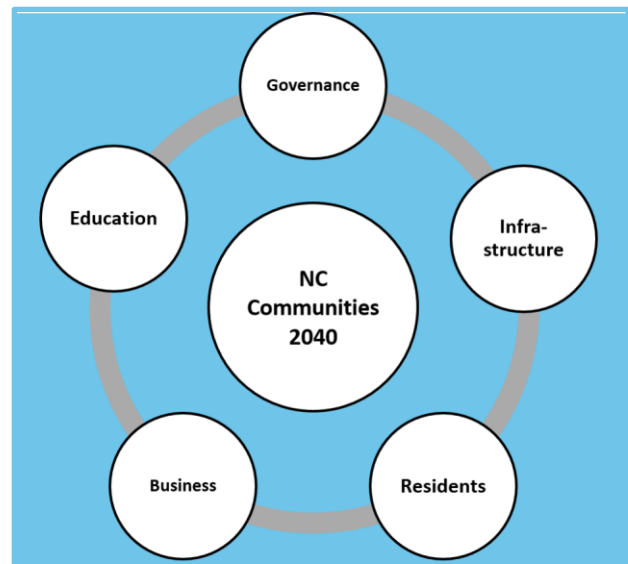
The domain map focuses on the topic of NC communities. We also considered the larger context for NC communities using STEEP (**s**ocial, **t**echnological, **e**conomic, **e**nvironmental, and **p**olitical) categories to look for forces and factors outside of the domain that may influence its future. Our experience as futurists suggests that many times the most significant changes or disruptions to a domain come from outside of it, such as an economic boom or bust, a regulatory swing, design or style shifts, or a new technological development.

HORIZON SCANNING

Horizon scanning involves the identification, collection, and analysis that capture the "signals of change." A "scan hit" is an individual piece of information that captures a signal of change. They may be news or journal articles, blog posts, videos, reports, etc. The signals have varying degrees of evidence to back them, that is, strong signals of change are supported by multiple and credible sources. In contrast weak signals have less support, and there are typically fewer of them. A well-rounded horizon scanning process includes both.

We strove for breadth and depth by accessing a wide range of sources from specialized outlets like *Nature*, *Business Insider* and *Medium* to international and local media websites such as *Reuters*, *AP*, *World Economic Forum*, *The Sun* (UK), *China Daily*, and *The Times of India*. We also aimed to balance the research across the next decade.

The domain map provides a framework for organizing and guiding the horizon scanning. Individual team members were assigned responsibility for scanning for changes using the domain map categories. More than 330 scanning hits were collected into a cloud-based library for annotation. The team met regularly to discuss and probe deeply into their potential implications and interactions. In our age of abundant information, it's less about finding a piece of information that no one else can find and more about understanding the impacts, so that the information can be acted upon in a timely and strategic manner. The Houston Foresight horizon scanning process uses three basic steps:

- The first, **FIND**, is the process of searching for and identifying potential scanning hits. It uses the domain map categories as jumping-off points to organize the search.
- The second, **COLLECT**, is the process of capturing the resulting scan hits. We use an online, cloud-based bookmarking website or library called Diigo, which captures files or website links in

a common location with annotations. Each entry is also tagged based on the domain map categories to ease the retrieval of information.

- The third, **ANALYZE**, uses a simple triage to decide whether to include a scanning hit. When included, the scanner includes a brief commentary on why they thought it was interesting and relevant. A more detailed evaluation of the hits takes place in crafting the drivers.
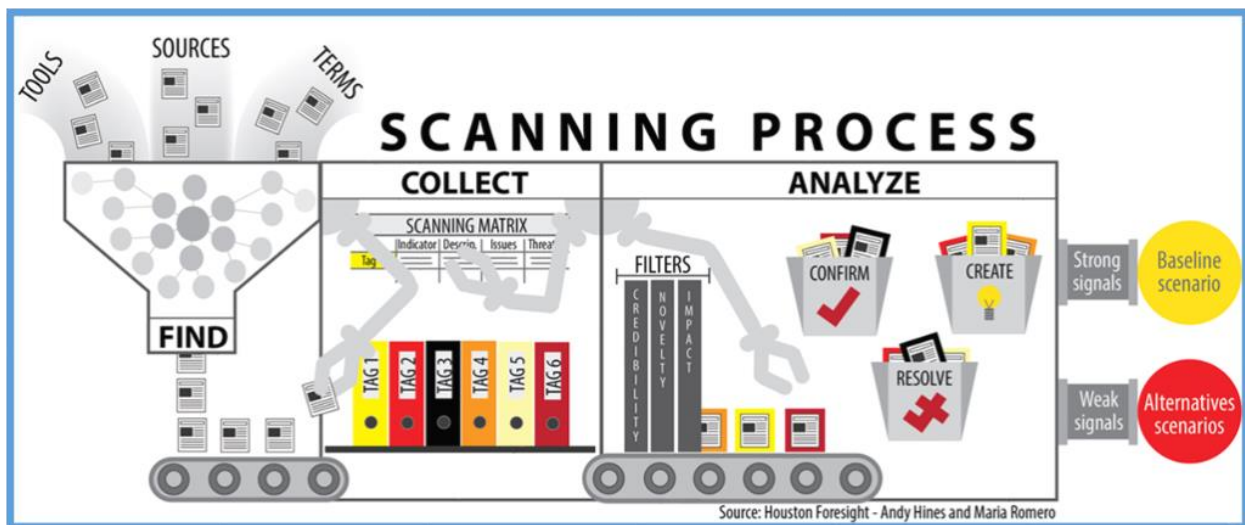

Figure 3. Scanning Process

Figure 4 shows a scanning hit example, and the top 10 tags revealed popular topics from the scanning. As we would hope, the tags reflect a mix of domain map categories, suggesting a balanced approach covering key topics.

Figure 4. Diigo Scanning Library

Figure 5 shows a sample of scanning hit "headlines" that were part of the library of more than 330 hits.

How co-op accelerators and incubators are supercharging a worker-owned economy

The most innovative Smart City projects in the world

Quality of Life Is Slipping Backwards in the US

Chicken soup for the digital soul: how to bring community back online

The U.S. has lost 2,100 newspapers in the past 15 years, a new UNC news deserts study

Advancing Community Policing Through Community Governance

Makerspaces: An Important Component of 21st Century Education

Social Money - Tokenizing Your Time and Talents is Trending

Municipal Crypto Spreading Around the World, From California to Dubai

Public transport will now be free in Luxembourg

Planning to Rise Above an Uncertain Climate Future for Coastal Carolinas Region

How can investors play a role in regenerative agriculture?

How can investors play a role in regenerative agriculture?

Universal basic income seems to improve employment and well-being

DeFi vs Fintech   Remunicipalisation   The B Corp Movement

Figure 5.Sample Scan Hit Headlines

RESEARCH

The horizon scanning is supplemented by research to provide inputs to scenario building. The research inputs are more focused on specific types of information about the future, whereas scan hits capture any kind of signal of change. The specific elements identified for this project were:

- Trends: Trends are changes already underway and expected to continue into the future.
- Values: Values are the priorities that consumers bring to important decisions, organized into four types that provide a simple segmentation.
- Issues and Plans: Issues are the current and emerging controversies in the domain, and plans are the announced intentions of key stakeholders.
- Interviews: Key stakeholders are interviewed using a set of futures-oriented questions.

TRENDS

Trends are statements about a change and the direction it is moving. The scanning process will sometimes uncover trends, but more commonly it suggests topical areas in which to look for trends. A team member was given an explicit task to identify and research relevant trends in addition to those coming from the scanning process. The resulting 100 trends helped us to identify the drivers. Each trend is typically linked to at least one driver. The trends also provided support for the scenario descriptions. The trends influencing communities were organized using STEEP (social, technology, economic, environment, political) categories. Trends are a common and useful way to gauge the direction of social change, but they can also indicate conflicts or contradictory developments. The complete inventory of trends compiled for this project is in Appendix 3.

Social

The social makeup of communities is changing as traditional families continue to shrink – cohabitation is rising, increasing numbers of adults are delaying or not marrying at all, more children are living with an unwed parent, and same-sex marriage is legal across the U.S. (link). Contradictorily, while

> *"We need to think about community and the definition of community more as "shared identity" and not just place-based."*

acceptance of the socially non-traditional is rising, neotribalism in the U.S. is also on the rise, setting various groups against each other socially and politically (link).

Urbanization within the U.S. is expected to rise from 83.7% in 2020 to roughly 88.2% in 2040 (link), with urban counties having grown at an overall national rate of 13% since 2000 (link). Gentrification and cultural displacement of incumbent communities is expected to grow with this increasing urbanization (link). However, there have been hints of reverse urbanization based on population declines in major cities like Chicago, New York, and Los Angeles (link), and polls that show many Americans want to live in rural areas (link).

Technological
Ubiquitous connectivity and access to the internet is on the rise worldwide, linking physical communities and creating virtual ones. Globally, the number of Internet of Things connected devices is expected to grow to 43 billion by 2023, an almost threefold increase since 2018 (link).

Global spending on smart city initiatives continues to increase, with spending totaling an estimated $124 billion this year, an increase of 18.9% over 2019 (link). As the cost of technology decreases, spending on resilient energy and infrastructure (mainly smart grids), advanced transportation including autonomous vehicles and intelligent traffic management, and fixed surveillance systems will continue to rise (link). All of this connectivity and surveillance leads to ever-growing amounts of collected data and increasing concern over legislating who has access to, controls, and even owns this data (link).

Economic
The middle class continues to shrink as the costs of education, housing, and healthcare continue to rise (link). Additionally, disposable income for the middle class has not grown since the middle of the last decade (link). Fewer Boomers are retiring and some are even reentering the workforce after retirement, leaving less room for traditional advancement for younger generations (link). Partially as a result, the younger generations – Millennials and Gen X – are job-hopping, seeking advancement and higher pay (link). This may result in these generations only staying within a physical community for a few years before moving for better job opportunities.

Ownership appears to be declining and subscriptions and memberships have taken over: from Netflix, to makerspaces, to meal delivery, the economic model is shifting from buying and owning to subscribing. Subscriptions and memberships are increasingly cheaper, more personalized, and convenient than owning (link). For example, community makerspaces charge membership fees for access to thousands of dollars' worth of equipment and materials, something few could afford on their own.

Environmental

Communities are emerging as indispensable players in the quest for global sustainability. They create and are strongly impacted by sustainability issues, but also have huge potential to help mitigate, adapt to, and solve these issues. Municipal environmentalism is on the rise and cities are creating their own local standards, regulations, and codes for environmental sustainability. However, climate change will disproportionately impact lower-income and marginalized communities, increasingly exacerbating existing inequalities (link).

> *"As a community we have to be logical and reasonable about where we build. We can't build homes and businesses on land that is going to be potentially devastated just to make money in the short term. We have to get to a sustainable answer."*

Nature itself is increasingly gaining rights in communities as governments are recognizing the legal personhood of natural ecosystems, most often to prevent corporations from stripping and despoiling their resources (link).

Political

Trust in federal government continues to shrink, with only 17% of Americans polled saying that they can trust the government in Washington to do what is right (link). Local elected officials are viewed much more favorably than their state government, with 72% of U.S. adults say they have a "great deal" or a "fair amount" of trust in their local government; 63% say the same about their state government (link). These stats may be due to the fact that increasingly, because national leaders are unable to pass legislation, regulations are localizing and mayors and city councils have had to pass ordinances to address their communities' priorities (link). Additionally, there is increasingly corrosive antagonism and distance across party lines, where even objective facts can be politicized (link).

Many Americans believe that social cohesion and confidence in fellow citizens are declining, making it difficult to solve major problems and issues. Those polled think that Americans' trust in each other to make informed choices is declining, and many are apprehensive at the ability of others to recognize misinformation (link).

VALUES

Changes in values provide useful insight into evolving views on communities. Values are defined as "an individual view about what is most important in life that in turn guides decision-making and behavior." Two key assumptions underlie the approach:

- The model for describing social change is a developmental one, that is, it assumes that there is a consistent direction of change over time toward greater complexity and range of options.
- The individual values as clustered in the four types are following a developmental trajectory – they are changing in a consistent and predictable pattern over time.

Like any model, it is a simplification of reality that makes necessary generalization in order to bring understanding to a complex topic. The values from the various systems are synthesized into four main values types, described below (Figure 6). Research shows a long-term shift from traditional to modern to postmodern to integral. In the affluent countries, traditional values are declining, modern are peaking or have peaked, and postmodern and integral are both growing. The data also shows that the newer types (postmodern and integral) are skewing younger, suggesting those individuals are more likely to be at the forefront of changing values and lifestyles.

4 Values Types

An individual view about what is most important in life that in turn guides decision-making and behavior

A. Hines

Traditional	Modern	Postmodern	Integral
Follow the Rules	Achieve	What's It All Mean?	Make a Difference
Fulfilling one's predetermined role, with an emphasis on their being a "right" way to do things	Driven by growth and progress and the ability to improve one's social and economic status….and show it	A shift away from material concerns to a search for meaning, connection, and greater participation	Leading edge of values change emphasizing practical and functional approaches that best fit particular situations

Figure 6. Shifting Values

Traditional (about 25-30% of U.S.)**:** The focus is on following the rules and fulfilling one's predetermined role, with priorities such as respect for authority, religious faith, national pride, obedience, work ethic, large families with strong family ties, and strict definition of good and evil. Traditional values are generally on the decline as economic development has stimulated a shift to modern and then postmodern and integral values.

Modern (about 40-50%)**:** The focus is on achievement, growth, and progress, with priorities such as high trust in science and technology (as the engines of progress), faith in the state (bureaucratization), rejection of out-groups, an appreciation of hard work and money, and determination to improve one's social and economic status. Rising levels of economic development are enabling greater consumption and participation in consumer lifestyles. Modern values are on the rise in the emerging markets and are perhaps the most antithetical to the wakeup call given the emphasis on consumption.

Postmodern (about 25-30%)**:** The postmodern focus is on the search for meaning in one's life, with priorities such as self-expression, including an emphasis on individual responsibility as well as choice, imagination, tolerance, life balance and satisfaction, environmentalism, wellness, and leisure. This shift in priorities is enabled by higher degrees of economic security. Postmodern values are on the rise in the affluent nations. They are held by roughly a quarter or more of the population within affluent nations. This type is growing, emerging in the late 1960s/early 1970s – symbolized by Woodstock and counter-culture movements – and slowly growing since then to become an influential group shaping preferences in the affluent nations.

Integral (2-5%): Integral values, at the leading edge of values change, are characterized by a more practical and functional approach to employing values that best fit a particular situation, enabling one to pursue personal growth with an understanding and sensitivity to larger systemic considerations. They raise questions, search for patterns and connections, and look for the most practical outcome. Inquiry is aimed at taking action.

The first three value types derive from the World Values Survey, while the fourth, integral, is derived from Integral Theory and Spiral Dynamics (and needs to be validated). Integral values are also on the

rise, but they start from a much smaller base, with estimates ranging from 1-2% to perhaps 4 -5% in affluent nations.

While values do change slowly, the twenty-year timeframe of this exploration should indeed witness some visible shifting of values. The most likely outcomes relevant for communities:

- The values types most supportive of the status quo, traditional and modern, are the majority today but are likely to be gradually declining.
- The values types most supportive of change, postmodern and integral, are in the minority today but are likely to be gradually increasing.

ISSUES, STAKEHOLDERS & PLANS

Issues and plans provide useful clues into how the future might evolve. Current and emerging issues (the distinction being current issues are framed, and emerging issues are newer and not yet widely recognized) cover the controversies within a domain. Depending on how – or if – they are resolved, the future could move in a different direction. For instance, President Trump's denial of climate change led to the U.S. withdrawal of the Paris Accords. The next administration however could shift the U.S. back onto a track of international cooperation. Plans are the announced intentions of stakeholders. Ideally, they are actual planning documents, but when they are not available, sometimes intentions can be inferred from other sources, such as CEO interviews or annual reports.

Stakeholders

There are a significant number of issues across North Carolina in terms of community governance, education, development, and the future of the rural parts of the state relative to the urban centers. Within these broad issue areas there are many stakeholder groups, businesses, and government bodies that seek to address identified concerns and positively shape NC. Each of these broad groups are home to a myriad of groups, committees, and action groups that are focused on specific issues that they have identified either through their own interests or in response to funding from state and federal government initiatives. A list of plans and initiatives that are currently underway or are planned for the near future is appended. These stakeholders are sorted into four groups.

Local community groups: Local community groups and action groups that directly support local communities are a rapidly growing sector in NC as development aims to focus on specific problem areas and provide targeted investment. Directed local investment appears to offer greater risk vs. reward than the more traditional, large-scale initiatives and is likely to continue as a funding model into the future.

> *"'Access' is the meta idea – access to visibility, careers, potential opportunities, education, etc."*

State and local government bodies: State government-based initiatives are one of the largest sources for community action plans through either direct investment or through partnerships with private industry or non-profit groups. The initiatives in Table 1 highlight key areas that have been cross-referenced with other stakeholders and community interests and needs.

Federal initiatives and national level groups: National initiatives at both the federal government level and the national lobby and non-profit level provide impacts through policy, advocacy as well as more directly through funding. The list in Table 1 is not exhaustive, but is based on what research has deemed most relevant to community futures in the coming decades.

NC business groups (including lobby groups and non-profits): This is probably the largest group as it includes business interests along with a significant number of non-profits that operate at the state level. Of note, many of these organizations have more directed targets and goals for specific communities and could rightly be captured in any number of the other stakeholder groups. This list provides a starting point to gauge some of the many actions groups that are relevant to community, business, and development goals along with significant inputs to education and governance.

The types of stakeholders listed below. Appendix 1 briefly describes each of them.

Table 1. Stakeholder Groups

Local community groups	State/local government	National initiatives	Business groups
Local Initiatives Support Corporation (LISC)	NC Dept. of Tourism	American Planning Association	Economic Development Partnership of NC (EDPNC)
UNC School of Gov. Development Finance Initiative	NC Treasurer's Dept.	The Southern Coalition for Social Justice	The Planners Network
Burlington NC Community Development Proposal	NC Ports	Carolina's Gateway Partnership	St. Louis Federal Bank
City of Concord Development Plan	NC Chamber	Low Income Housing Coalition	Visit North Carolina
The Creston Kenilworth Neighborhood Association	Public Schools First NC	Environmental Protection Agency (EPA)	NC EAST Alliance
NC Community Colleges	NC Carolina Community Action Association	Dept. of Housing and Urban Development	The Centre for Regional Economic Competitiveness
City of Charlotte Planning Dept.	Foundation for the Carolinas	U.S.: "Community Initiatives" Group	NC Construction News
Rotary and Lions Clubs	NC Community Foundation		Economic development Partnership of NC
	Common Cause NC		NC Center for Non-Profits
	The NC Community Development Initiative (NC-CDI)		The NC Rural Development Center
	NC Dept. of Commerce - Rural Economic Development Division		My Future NC
	NC Dept. of State Treasurer- Local Government Commission		North Carolina Housing Finance Agency (HFA)
	NC Dept. Commerce: State Infrastructure Rural grants		
	NC Dept. of Transportation		
	NC Dept. of Instruction "Future Ready Schools"		
	NC Housing Commission		

Issues

There are a significant number of current issues across the United States that directly relate to the future of communities in North Carolina. A brief sample follows.

Education: Lagging standards in education relative to the national average due to a combination of lower teacher salaries, low expenditure per student, low adoption of technology (among others). NOTE: there are a number of national and state level financing initiatives along with

> *"If we are going to double down on anything in NC, we need to double down on public education at all levels from pre-K to community college and career-oriented learning."*

private sector initiatives that are seeking to tackle these problems, e.g., Future Ready Schools program.

Climate change: Despite NC's best efforts to reduce their carbon footprints through the extensive use of nuclear power, ongoing climate change is already impacting the tourism and rural area. NOTE: The Climate Change Interagency Council was established in 2018 that has identified climate-related impacts for NC.

Economic development: NC continues to be heavily divided between its declining rural communities and its major urban centers with a strong education and tourism sectors. There is ongoing debate as to whether rural towns should be managed in their decline or actively targeted for renewal through focused investment and support.

Affordable housing: While their ongoing viability is of some concern, there are many affordable housing initiatives with associated block grants and the relevant nonprofits who manage them, e.g., the Low Income Housing Organization , the NC Housing Finance Agency, and the NC Housing Coalition.

> *"If we want to pursue a truly local economy we need a confluence of affordable housing in neighborhoods that are integrated into the local economy."*

Community governance: While they are generally small scale, there are community-focused initiatives promoting urban renewal in small towns and the creation of smart cities. Success stories include Wilmington, Kannapolis, and Gastonia plans, and the creation of "Opportunity Zones" for focused investment and development in key growth corridors in areas that do not usually experience large influxes.

Plans

At all levels of stakeholders there are a series of plans and initiatives under way that provide potential models for driving the future of communities from a number of differing perspectives. Each of the plans listed here are either local initiatives or competitor initiatives upon which future community based programs and ideas could be based. This list provides only a snapshot of the many plans currently under way or planned for the near future.

City of Concord Development Plan (link)**:**Every five years, the City of Concord prepares a "Consolidated Strategic Housing and Community Development Plan." The purpose of the plan is to examine the needs and priorities for housing and community development activities for the next five years, as well as establishing strategies and performance targets to be achieved through federal CDBG and HOME funded activities.

North Carolina Department of Instruction "Future Ready Schools" Plan (link)**:** This is a nation-wide effort that brings together The Alliance for Excellent Education and the U.S. Department of Education along with the "Leading Education by Advancing Digital (LEAD)" Commission and a vast coalition of organizations. The plan is primarily aimed at advancing teachers' capabilities as well as improving access to digital resources and a quality education.

University of North Carolina School of Government Development Finance Initiative: The Development Finance Initiative (DFI) at the UNC School of Government partners with local governments to attract private investment for transformative projects by providing specialized finance and development expertise. Opportunity Zones are government tax incentivized areas for development in low income housing and development areas (252 zones in NC).

St. Louis Federal Bank (link)**:** The St. Louis Federal Reserve Banks has a number of plans under way in terms of community development that might provide opportunities to leverage depending on goals. They are primarily focused on the 8th district and they provide data and support to the Community Reinvestment Act for the national government.

The Creston Kenilworth Neighborhood Association (link)**:** A strictly defined and bordered community group that promotes interaction between local and federal government to promote community interests. They hold regular meetings to engage at the local level to promote investment and community interests in Portland, Oregon. "*CKNA is a member of the SouthEast Uplift Coalition of Neighborhoods (SEUL) which represents our interests to the city through the Office of Neighborhood Involvement (ONI).*"

City of Concord Development Plan (link)**:** The City of Concord receives federal grants annually under two programs: The Community Development Block Grant Program (CDBG) and the HOME Investment Partnerships Program (HOME). Together, these programs invest approximately $1,200,000 a year into the areas' low- and moderate-income communities in Concord and the counties of Cabarrus, Iredell, and Rowan, to provide affordable housing, economic opportunities, and a suitable living environment. Every five years, the City of Concord prepares a "Consolidated Strategic Housing and Community Development Plan" to examine the needs and priorities for housing and community development activities.

Burlington North Carolina Community Development Proposal (link)**:** Currently developing a five-year plan to determine how to spend a projected two million dollars in federal funding in support of the local community.

NTERVIEWS

Interviews with selected Civic FCU team members and external experts – with backgrounds including healthcare, IT, community leaders, foundation, medical, environment and disaster recovery, business owner, museum, energy, media, agriculture, and tribal leadership – helped to develop key inputs for the scenario workshops. The questions posed to stakeholders were open-ended and designed to encourage respondents to reflect and think strategically about key issues for North Carolina communities and

> **Stakeholder Interview Questions**
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> 1. Let's pretend I have a crystal ball and can give you a peek into the future. If you could ask any question about the futures of NC communities in general, what would it be?
> 2. What are one or two critical strategic decisions regarding the futures of communities in North Carolina that you see on the horizon?
> 3. What do you think communities in North Carolina need to forget or stop doing in the future?
> 4. Let's imagine we're in the year 2040. If you looked backwards and told me the triumph or success story for communities in North Carolina, what would it be?
> 5. Imagine we're still in the year 2040. If you looked back from 20 years hence and told me the failure story for communities in North Carolina, what would it be?
> 6. What do you feel are the top 2 or 3 trends driving the future of communities in North Carolina?
> 7. What do you think are the obstacles to progress for North Carolina communities in the next few years?
> 8. What should I have asked that I didn't? Or what else do you think is important for us to know?

possible opportunities and challenges of the future. The interviewers were careful not to lead stakeholders as there are no "correct" answers; rather, the responses reveal the hopes and concerns of the respondents that provide valuable input for identifying common themes that help to frame the topics that deserve further exploration during the scenario workshops.

As expected, because the concept of "community" encompasses a broad spectrum of ideas, the issues, concerns, and uncertainties voiced by our stakeholder group spanned a wide range of themes. Several common themes emerged, however. Among these, concerns over systemic inequalities, equitable access to resources, and current political divisions were most often mentioned during interviews. The common themes are summarized below:

Systemic inequalities
- Education: community investment in education, college options, job training for future jobs, student debt, and the privatization of public education are all top concerns that need to be prioritized, addressed, and require significant investment from both inside and outside the community.
- Healthcare and social services: equitable access to care and greater attention to social determinants of health are required. The pandemic has exposed a common lack of public health preparedness.
- Social justice, equity, and racial discrimination: the oppression of marginalized communities and other negative impacts of systemic inequalities are of the utmost concern to community leaders. Criminal justice system reform is a top priority, especially for minority communities.
- Safe and affordable housing: access to safe and sustainable neighborhoods and the reduction of gentrification are important factors in creating safe spaces for marginalized communities.

> "*We need to rethink how we raise money across various sectors [for infrastructure investment] to increase equity and/or burden of investment.*"

Equitable access to resources
- Access to resources: including data, information, journalism, opportunities, and living wages, as well as equitable access to economic resources is paramount.

- Technology: as a way to make opportunity more equitable; access to and adoption of broadband was one of the single most talked about issues that could provide a more level playing field for all members of society. Many stakeholders interviewed see broadband as the infrastructure of the future.
- Energy diversification: including distributed power generation and local control of energy can provide communities new models of sustainability.
- Remote work and education: without systemic barriers has the potential to transform communities.

Political divisions and impacts

- Political division and polarization: within the state there are significant impasses for community members trying to work together on solutions to common problems.
- Increased diversity of representation: is required to better reflect the electorate across the state, encourage greater participation in the democratic process, and ensure that laws reflect the desires of the people.

> *"We have to coalesce across neighborhoods, organizations, communities, etc., to create more unity in order to solve problems. We need to find a common purpose in bringing different sectors together."*

Other common concerns centered on natural resources, impacts of climate change, population trends and loss of rural residents, infrastructure investment, and economic development. These include:

- Population trends, including regional loss and growth trends are common concerns, but rural and urban North Carolina communities are facing divergent dilemmas. Rural communities are facing a "brain drain" as their smartest and brightest leave for cities, while urban areas are pushing lower income communities from their homes to make space for new transplants with high paying jobs.
- Climate change adaptation and impacts of climate change and related natural disasters create an urgent need for continuity planning. Government and private entities have spent exorbitant amounts of money on rebuilding communities that will be continuously and increasingly devastated by natural disasters while spending much less on building sustainable communities.

- Focus on local economic development (including a sustainable local food system), investment in small businesses, and rise of entrepreneurship and the gig economy are all seen as desirable paths.
- Local and regional cooperation for community development, especially in rural areas, is seen as a way to mitigate risk and provide benefits for entire regions of the state.

DRIVERS

Drivers are thematic cluster of related trends, interview insights, research inputs, and scanning hits that are significant shapers of change in the future of a domain. The drivers encompass cross-cutting changes that provide the foundational building blocks for the scenarios. The team developed a list of 13 drivers shaping the future of communities. In the Scenarios section that follows, the projected pathway for each driver is included with each scenario. The 13 drivers are defined below:

1. Virtually living. Increasingly our work, education, socializing, and play are migrating online. Our physical presence is not required if we can connect and interact.

2. Racing automation. Automation adoption is accelerating across sectors at a breakneck pace forcing an almost constant race for individuals, businesses, organizations, and governments just to keep up.

> *"As manufacturing becomes more and more automated, how are communities going to be sure that people are staying and have the right skills to get jobs?"*

3. Rural-Urban migration. Small towns and rural areas are being drained of vitality by losing their citizens to opportunities in urban centers, creating a cascading set of problems for these communities.

4. Climate threats. Global Climate Change is accelerating and starting to have noticeable effects on communities, making clear that those communities not actively preparing will likely suffer worse economic and quality of life impacts in the coming decades than those who do.

5. Partnerships for prosperity. Increasingly communities are turning to non-partisan, public-private partnerships to solve local problems and increase community prosperity via stakeholder collaborations on local infrastructure, planning, and development.

6. Tribalism. Our ability to work together to solve problems at all levels is being overwhelmed by increasing levels of tribal "us vs. them" ideological alignment and partisanship.

7. Participation. There is a growing desire to include more citizen involvement in the decision-making affecting communities and their future.

8. Truth of the matter. Phenomena like fake news, conspiracy theories, and politically biased reporting are contributing to our lack of ability to agree on facts which is interfering with identifying common goals, policymaking, decision-making, and social cohesiveness.

9. Lean & green communities. Community governments are starting to embrace integrated data-driven strategies, advanced network and automation technologies, and environmentally friendly

approaches such as renewable energy to improve costs, operational effectiveness, decision-making, ecological health, and quality of life of their communities.

10. <u>Refocusing education.</u> Educators are increasingly refocusing on a variety of new individualized approaches to prepare students to face a world filled with rapidly changing technologies, shifting social priorities, and unexpected challenges requiring an adaptive facility with both people and automation.

11. <u>Privacy & who owns the data</u>. Data privacy and control of personal data is becoming an increasing concern as new technologies like Internet of Things, 5G wireless, and ubiquitous computing are embedding unseen and unaccountable data gathering into our living and working environments.

12. <u>Resilient localism</u>. Both big and small communities are finding the need to depend more on their own resources and collaborate within their community and with outside communities to meet their needs. It results from state and national governments pulling back resources due to budget pressures, political polarization, and changing priorities.

13. <u>Crumbling infrastructure</u>. Political paralysis and/or lack of political will have left huge shortfalls in needed upgrades to both physical and digital infrastructures.

UNCERTAINTIES

The drivers encompass cross-cutting changes that are key inputs for the scenarios. In the 2x2 uncertainty scenario technique used for this project, the drivers are subsequently analyzed for their relative degree of uncertainty to develop an initial list of candidate critical uncertainties. Uncertainties have a high level of importance to the topic and a high degree of uncertainty as to how they will unfold in the future. Six candidate uncertainties were derived from the drivers for evaluation and prioritization in the first of the two scenario development workshops.

1. *Resilient Localism?* Will 2040 communities rely more on bottom-up efforts to develop local resources via regional collaboration to become more resilient, self-reliant communities, or will the state and national governments reverse course to provide coordinated top-down planning and resources connecting communities to the global economy?
2. *Tribalism Troubles?* Will heightened social and political tribalism conflicts persist, or will a new generation turn towards harmony and pragmatic compromise by 2040?
3. *21st Century Infrastructure for Everyone?* Will 2040 cities and rural areas treat 21st century technological infrastructure like affordable broadband, clean energy, advanced healthcare options, flexible transportation alternatives, and embedded IoT technologies as "nice to have" privileges or as "must have" rights for their citizens?
4. *AI Job Loss?* Will artificial intelligence and automation lead to massive job loss, or will new opportunities for automation-enabled prosperity be created for everyone by 2040?
5. *Beyond the Bottom Line?* Will 2040 communities and businesses continue to focus on individual wellbeing as driven by economic prosperity, or will our measures of wellbeing broaden to include multi-factored measures of quality of life?
6. *Systemic Inequality?* As our population becomes more diverse, will systemic inequalities be larger or will they be smaller in 2040?

In the first scenario workshop, participants went through three prioritization exercises to reduce the number of uncertainties from six to the two needed to frame the 2x2 matrix.

THE SCENARIOS

There are many methodologies for scenario formation, but the two main categories of scenario formation are to use an inductive or deductive approach. A deductive approach imposes a framework – typically bounded by two or more uncertainties. Once the framework is in place, you deduce the scenarios within the uncertainty boundaries. An inductive scenario is more organically formed. Systemic scenario formation is an example of inductive scenarios. For this project, we used a hybrid inductive/deductive scenario formation.

- Deductive: in the first scenario development workshop, we determined the two main critical uncertainties and made a 2x2 matrix to frame the boundaries of the scenario. These uncertainties frame the matrix, providing boundaries and focus for the set of four scenarios.
- Inductive: in the second scenario development workshop, within each quadrant, we explored how each driver would play out in each quadrant using systems thinking to collide drivers together and visually show the impact the forces have on each other. By doing this, we often find interesting interactions and unexpected consequences.

As described above, the workshop participants considered six candidate uncertainties, and prioritized the two below:

1. *Measures of Success?* Will 2040 communities and businesses continue to focus on individual wellbeing as driven by economic prosperity, or will our measures of wellbeing broaden to include multi-factored measures of quality of life?
2. *Systemic Inequality?* As our population becomes more diverse, will systemic inequalities be larger or will they be smaller in 2040?

The poles of each uncertainty are combined to create four different boundary conditions. For example, in the upper right, the *Better Together* scenario considers a future in which new measures of success focus on quality of life, and systemic inequality shrinks. Within that framing, the team considers how the other uncertainties might play out, what drivers would be important, and how those drivers would play out. The same process is employed by each team in each quadrant. In a second scenario workshop the

"systems scenarios" technique then considered the interactions of the various uncertainties and drivers identified from the research. The resulting systems map for each scenario is included with the breakdown of each of the four scenarios. In the Figure 7 below, the italicized text gives the most succinct summary of the scenario, followed by an expanded description.

Community Lifelines

This is a world where quality of life has improved after widespread adoption of multi-factored "lifeline" dashboards to measure availability of infrastructure and satisfaction of basic needs.

Everyone can afford the basics but access to the best resources, tools, facilities is still limited. This virtual divide increases relative inequality and immobility. By failing to adequately address systemic inequality, the already successful do better, but most communities struggle to achieve their new goals

Better Together

This is a world in which a radical transformation of the concept of community is underway.

Reinventing education is prioritized and new tech tools, data collected via smart municipal services systems, greater automation fueled by AI, and community-based UBI (Universal Basic Income) support a variety of local development approaches that help create communities where residents have time for community development initiatives, creative expression, and leisure activities.

Gated Communities

This is a world where elites attempt to control the narrative to create the appearance of equal opportunity but matters on the ground tell a different story.

The Haves prosper and the Have-nots are utilizing grassroots movements to barely scrape by. Tribalism is an accelerating force in which communities "protect their own" in a landscape of fierce competition characterized by winners and losers.

Bottom Line
This is a world where communities embrace strong public-private partnerships to boost growth and reduce economic inequality.

Early infrastructure investments in broadband, virtual tech, data sharing, and automation allow communities to develop customized approaches that leverage local identity and resources. There is an uneasiness about how long the growth can continue and about perceived neglect of non-economic issues.

Quality of Life — *Economic* — Measure of Success — Systemic Inequality — *Grows* — *Shrinks*

Figure 7. NC Communities 2040 Scenarios

Each scenario is described below with a common format. It begins with the summary from the matrix above and is expanded with a 1-2 page overview description. This is followed by:

- **Uncertainties and drivers** is a table describing how these play out differently in each scenario.
- **Systems map** is a visual depiction of how the various drivers relate to each created by teams in the 2nd scenario workshop (more detailed descriptions below).

- **Pathways** provide a sense of the pathway to the future with hypothetical news headlines depicting potential development that would happen along the way to that particular scenario.
- **Vignette** uses a design fiction prototyping technique to provide a "slice-of-life" story about what life might be like in the scenario.

Understanding the systems maps

In the systemic scenarios systems workshop, we focused on identifying the "whale" of the system and the supporting reinforcing or balancing loops. The whale is the biggest influence on the system. In the systems maps below (Figure 8), the whale can be visually identified as the loop or post-it that has the most arrows touching it. Reinforcing loops amplify change over time; whereas balancing loops waver around a goal and maintain a status quo, i.e., they balance change.

NOTE: In general, in a workshop, participants will typically add in too many connections. In a few cases, nearly every post-it was connected to nearly every other post-it. Too many connections make the story too complex to understand. Therefore, post-workshop, each Houston Foresight quadrant leader cleaned up the systems maps by simplifying the connections. However, we did not redo the system and generally honored what the participants put together.

Scenario: GATED COMMUNITIES

Economic measures of success and systemic inequality grows

This is a world where elites attempt to control the narrative to create the appearance of equal opportunity, but matters on the ground tell a different story. The haves prosper and the have-nots are utilizing grassroots movements to barely scrape by. Tribalism is an accelerating force in which communities "protect their own" in a landscape of fierce competition characterized by winners and losers.
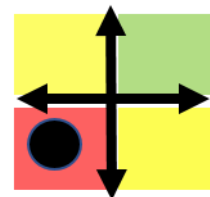
After years of systemic inequality exacerbated by a continual focus on economic measures of success above all else, North Carolina has hit the tipping point of tribalism. A clear divide exists between the haves and the have-nots, with the haves largely composed of the urban rich. Wealthy communities pull away from overburdened and deadlocked government systems to manage themselves. The urban-wealthy have crafted an untouchable haven while the rural-poor are trapped inside economically, environmentally, and structurally depleted communities. Over the years, as government systems slowly broke down and lost citizens' trust, those with wealth have done their best to cut reliance on outside players to completely self-manage their communities and maintain the systemic order that they have historically benefited from. With their money pulling away from traditional infrastructures, the wealthy havens became places of independent economic investment, leading to geographically-bound societal progression. The wealthy live in communities rooted in eco-friendly and autonomous technology, zero-waste systems, next-generation transportation technology, and advanced digital infrastructure. Any efforts towards environmentally friendly technology is rooted in cost-savings rather than environmental obligation. Children are educated in high-quality private schools, and strong social networks between the wealthy ensure that the future generation will receive the same systemic benefits of their parents. The focus on economic output has led to an inefficient system with negative externalities that are not experienced by the elite but instead are experienced by the poor.

> "Failure isn't a negative thing, it's an opportunity to learn. The problem for us as a society is that we do not listen to each other – this is a huge societal problem and will continue to keep us from solving really important problems."

The have-nots are left to fend for themselves. The largest impoverished groups are those living in rural communities. They are often scraping by on the bare minimum of resources that have not yet been consumed and exploited by the elite. Those that stay within their original communities work together to form small, underfunded grassroots movements that echo socialist ideals. If the urban-elite do not care about them, they will care about each other. These communities face crumbling infrastructure that cripples their response to the severe effects of climate change. Since those with wealth are not prioritizing impacts beyond economic, severe weather has drastically amplified in recent years and the infrastructure of the impoverished bears the brunt of impact. The best digital infrastructure is afforded only to those with wealth. After years of funding cuts and an inability to adapt to change, public schooling has dramatically decreased in quality and largely follows a self-taught model with generally poor levels of educational attainment within rural communities.

Not all poor stay within their rural communities. Instead, the urban-elite have continued to sell the "American Dream" and have actively encouraged urban migration where employment opportunities are positioned as a stepping stone for a better life. Not only does this help import the necessary employment to meet the needs of the wealthy, but it also helps pacify the poor with promises for better futures. However, many of the rural refugees find that the dream they were promised is actually a nightmare. Upon arrival they are left to deal with waste born out of inefficiency, they are exploited for cheap labor, and they end up living in sections reminiscent of 19th century slums. The wealthy are able to maintain control through surveillance technology as well as historic mechanisms like the technology-access gap as exemplified by the inability for the impoverished to afford the use of the advanced digital infrastructures.

Despite the work towards maintaining social order, the elite have not been able to avoid the "us vs. them" mentality that comes with such an economic divide. The necessity for both groups to be independent and self-sufficient has led to an increase in tribalism and polarization, with both groups maintaining drastically different objectives and worldviews. This has been accelerated by siloed sources of media, with the wealthy having adaptive, interactive, and technologically based sources of news while the poor are using antiquated means of information sharing. The propagation of each group's own narrative with no counter-perspectives is proving to be concerning with a clear increase in resentment towards the other party. Although this community pride has led to greater participation within communities, it has led to worsened cooperation between communities. The wealthy have also continued to support increasing overseas commitments in order to sustain access to materials to support their lifestyle. The poor, however, see this as "imperialism" that further increases the divide.

Sitting outside of both of these worlds is a small counter-culture movement by those who were previously considered classically wealthy. Wealthy communities have been oriented entirely towards economic returns, which have led to a complete ignorance towards data privacy within self-managed communities' policies. In response to this, those with wealth that are concerned with their personal data are able to join off-the-grid communities. These communities are independent of and withdrawn from both the exploitative, self-preserving wealthy havens, as well as the struggling, socialistic rural-poor communities. This scenario has great potential for social unrest.

Systems map

As we formed this scenario, we found that many other forces and loops were impacting the tribalism driver in this quadrant. The #1 purple circle is showing us the whale of the system: tribalism. As mentioned, the whale of the system should be identified visually in the map as the card or loop with the most arrows going in and out. The system narrative describes the impacts other forces have on tribalism and vice versa. #2 purple circle is highlighted to mention and explain the hash mark. In systems' diagrams, the hash mark indicates a delay. So this hash mark is saying refocusing education will increase resilient localism but not immediately… it takes some time.
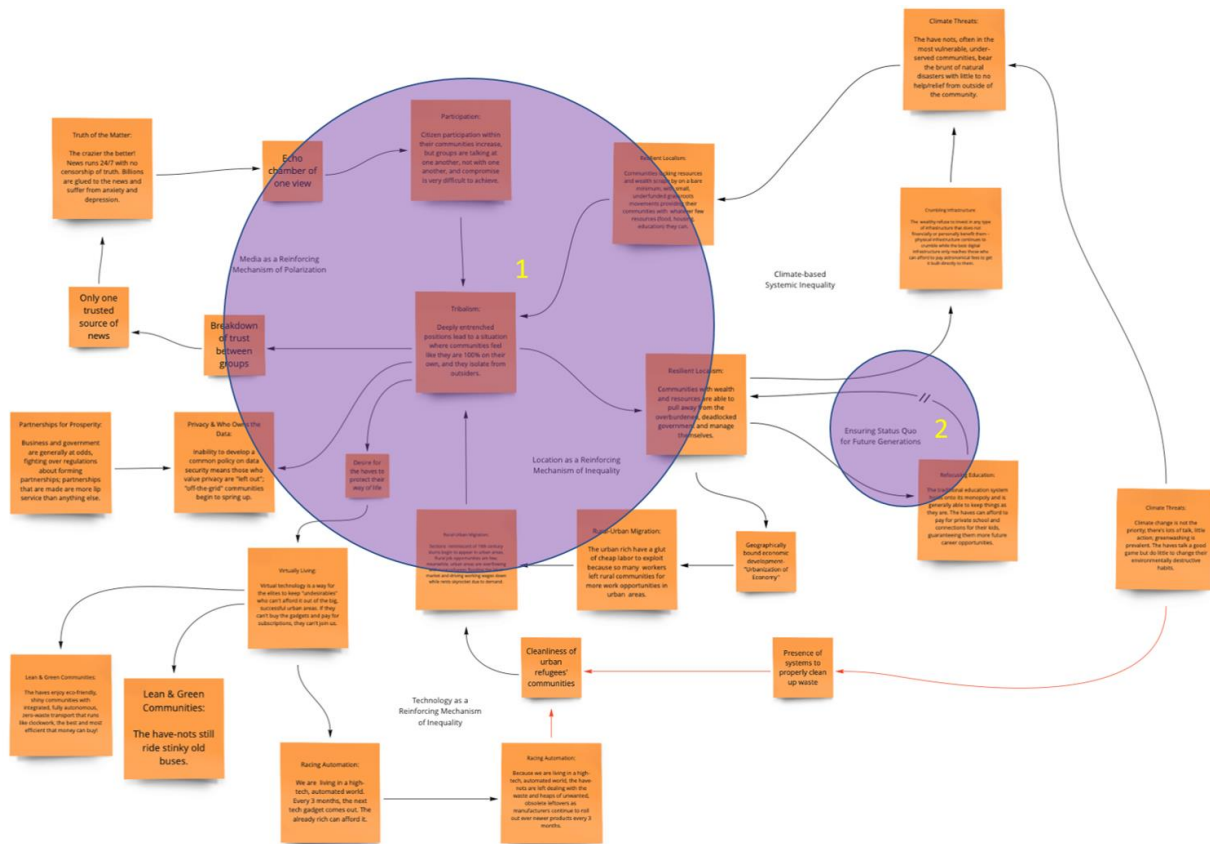

Figure 8. Gated Communities Systems Map

Arrow Key

Black arrow – Between the two cards you hear "the more…, the more…" or "the less…, the less…". Meaning, when these two forces interact, their behaviors move together.

Red arrow – Between the two cards you hear "the more…, the less…". As one force increases, it has a negative effect on the other force.

Dotted line – After identifying 3-4 loops, we saw how the loops interacted with each other. Interactions between tighter loops are showed with a dotted line.

Uncertainties and drivers in *Gated Communities*

Table 2 below describes how each of the uncertainties and drivers are likely to play out in this scenario.

Table 2. Uncertainties and Drivers in *Gated Communities*

Uncertainties	How it plays out in Gated Communities
Resilient localism?	Communities with wealth and resources pull away from overburdened government systems and manage themselves, leaving communities that lack resources to scrape by on bare minimum, underfunded grassroots movements for whatever resources they can.
Tribalism troubles?	A deeply entrenched divide between the wealthy and un-wealthy communities is accelerated by news media, leading to communities not working together and feeling isolated from each other.
21st century infrastructure for everyone?	The wealthy refuse to invest in any type of infrastructure that does not benefit them. Physical infrastructure continues to crumble while the best digital infrastructure only reaches those who can pay the astronomical fees. Impoverished communities' infrastructure continues to crumble under severe climate change.
AI job loss?	AI job loss is extreme, especially for unskilled and poor. Little investment is made in retraining.
Beyond the bottom line?	Communities continue to prioritize economic return and only economic return.
Systemic inequality?	Systemic inequality has progressively worsened as climate change, the urban-rural divide, and technology based infrastructure have increased the wealth and access gap.
Drivers	
Virtually living	Virtual technology is a way for the elites to keep "undesirables" who can't afford it out of the big, successful urban areas. If they can't buy the gadgets and pay for subscriptions, they can't join us.
Racing automation	We are living in a high-tech, automated world. Every 3 months, the next tech gadget comes out. The already rich can afford it. The have-nots are left dealing with the waste of unwanted, obsolete leftovers as manufacturers continue to roll out new products every 3 months.

Rural-Urban migration	Sections reminiscent of 19th century slums begin to appear in urban areas. Rural job opportunities are few; meanwhile, urban areas are overflowing with rural refugees flooding the labor market and driving working wages down while rents skyrocket due to demand. The urban rich have a glut of cheap labor to exploit because so many workers left rural communities for more work opportunities in urban areas.
Climate threats	Climate change is not the priority; there's lots of talk, little action; greenwashing is prevalent. The haves talk a good game but do little to change their environmentally destructive habits. The have-nots bear the brunt of natural disasters with little to no help/relief from outside of the community.
Partnerships for prosperity	Business and government are generally at odds, fighting over regulations about forming partnerships; partnerships that are made are more lip service than anything else.
Tribalism	Deeply entrenched positions lead to a situation where communities feel like they are 100% on their own, and they isolate from outsiders. Political divisions are often class based and frequently intensified by media headlines.
Participation	Citizen participation within their communities increases, but groups are talking at one another, not with one another, and compromise is very difficult to achieve.
Truth of the matter	The crazier the better! News runs 24/7 with no censorship of truth. Billions are glued to the news and suffer from anxiety and depression as they see no way to achieve compromise and effective action to address their plight.
Lean & green communities	The haves enjoy eco-friendly, shiny communities with integrated, fully autonomous, zero-waste transport that runs like clockwork, the best and most efficient that money can buy! The have-nots still ride stinky old buses.
Refocusing education	The traditional education system holds onto its monopoly and is generally able to keep things as they are. The haves can afford to pay for private school and connections for their kids, guaranteeing them more future career opportunities.
Privacy & who owns the data	Inability to develop a common policy on data security means those who value privacy are "left out"; "off-the-grid" communities spring up, partly funded by conservative old wealth and partly by libertarian movements. They are at odds with each other and with the broader community.
Resilient localism	Communities with the wealth and resources are able to pull away from the overburdened, deadlocked government and manage themselves. Communities lacking resources and wealth scrape by on a bare minimum, with small, underfunded grassroots movements providing their communities with whatever few resources (food, housing, education) they can.
Crumbling infrastructure	The wealthy refuse to invest in any type of infrastructure that does not financially or personally benefit them – physical infrastructure continues to crumble while the best digital infrastructure only reaches those who can afford to pay astronomical fees to get it built directly to them. Direct government lobbying intensifies this divide with measures of effectiveness weighted towards capital gains over public utility in the majority of public works.

Pathways

The factors selected to highlight were tribalism, noted above as the whale of the system, inequality as it worsens, the rural-urban divide, and the failure to address climate change, which will hit the less fortunate the hardest.

Table 3. *Gated Communities* Pathways

	2025	2030	2035
Tribalism and the media reinforce polarization	*"Upswing in independent regional papers causing concern due to biased perspectives."* Media bubbles constantly reiterate local perspectives, leading to more closed off thinking.	*"Study shows 94% of rural community members dislike urban political beliefs, but only 12% can say why."* The social divide is becoming so ingrained that it is not even clear why anymore.	*"Most recent rural violence spurred by newspapers misquoting urban community leader."* The divide leads to profitability and ratings being achieved by the most violent and provocative news.
Technology reinforcing inequality	**"***Low income households with "old phones" are unable to access GoRaleigh's new digital payment mechanism."* Ensuring equal access to basic services as they digitize is a problem for low-income people.	**"***Higher rates of vehicle mortality as low-income people are unable to afford autonomous cars."* Autonomous vehicles are much safer, but only the wealthy can afford the needed upgrades.	**"***Unable to leave: The story of ten rural North Carolinians who can't enter metro areas due to identity verification issues."* Identity verification is a problem as the transition to fully digital approaches.
Rural-urban migration	*"Slum population growing as those with South Central Raleigh address struggle to find employment."* Unemployed rurals coming to the city for jobs leads to too many people looking for too few jobs.	*"Five national grocery stores chains have closed stores in communities with less than one million people in the past year."* Rural impoverishment leads big companies to see these areas as unprofitable.	*"Prejudice algorithms have de-prioritized low-income communities for first responder dispatch."* Social service decisions are made by algorithms lacking in ethical programming.
Failure to adequately address climate threats	*"New study shows the next Category 3 hurricane will cost $10 billion, with $7.5 billion affecting rural communities."* Low-income communities do not have the funds to	*"Climate change leads to a 4% increase in un-employment, mostly from low-wage employees in tourism and transportation."* NC national parks generating more than $2 billion in	*"64% of rural communities are without access to fresh water and struggling to sustain sources of bottled water."* A climate change stresses water supplies.

	maintain modern infrastructure.	economic benefits are endangered by climate change.	

Vignette

With rural jobs drying up, young people are moving to the successful cities in an attempt to gain employment at a large company in the hopes of climbing the social ladder. Crippled with debt and a sub-par education, the challenges to succeed are great but the rewards for success are life changing and deemed worth the risk. But it doesn't always work out, as the story of Andy and Tim below demonstrates.

Tim has recently moved into a shared apartment with 5 other young men in the city of Charlotte after leaving his rural home in the Rocky Mountains. He is working as an unpaid intern at a University software firm "E-Learn", and earning some money after hours at a fast food outlet. Andy is working as a paid intern at the same company but is from Charlotte and is still living with his parents at home. His parents provide him an allowance and he is debt free from his college days.	Tim and Andy develop a friendship through a joint project at work. Tim is clearly an ideas man and is very intelligent, but Andy is well connected and has a car, the right clothes, and the right pedigree. In spite of these differences, they become friends. They have very different political views but work towards common ground. This ability to see past their normal tribal political affiliations is very rare these days.	The interns get together for a social event one evening and it gets political. Tim and the other unpaid interns are aggrieved at their long working hours and poor prospects. Only 10% of interns land a full-time job. They are overheard by some senior executives and the interns are accused of being un-American, Tim and Andy leave before it goes any further. Later a fight ensues with one of the interns punching the executive, knocking him to the ground, before the interns flee the scene.

At the office the next day all of the interns are called into the office. The man they hit is pressing charges and most notably is a friend of the E-Learn General Manager. All of the unpaid interns are fired immediately despite neither Andy nor Tim having been personally involved. Andy is told he needs to watch himself and remember the opportunity he has been given, he is allowed to stay but with a warning.	Tim spends weeks trying to find another internship but his name has been ruined as a result of the fight. Andy, using his father's connections, successfully bids the E-Learn GM to permanently hire him and he is employed as a full-time designer. Tim approaches Andy to try to set the record straight and get his internship back. Andy denies him to secure his own position, throwing their friendship away. Tim leaves embittered.	Months pass, Tim has moved back to his Rocky Mountain home and is living in a trailer trying to get work online as a consultant. Andy calls Tim to apologize and wants to come out to meet him at his home. On the way, is accosted at a gas station by a middle-aged woman who calls him a rich ***hole. Embarrassed and angry, Andy blames her plight on her backwards mentality and launches into a tirade about the rural poor holding back America. Tim is left wondering what might have been.

Scenario: COMMUNITY LIFELINES

Quality of life measures of success and systemic inequality grows
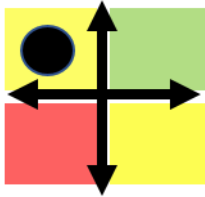
This is a world where quality of life has improved after widespread adoption of multi-factored "lifeline" dashboards to measure availability of infrastructure and satisfaction of basic needs. Everyone can afford the basics, but access to the best resources, tools, and facilities is still limited. This virtual divide increases relative inequality and immobility. By failing to adequately address systemic inequality, the already successful do better, but most communities struggle to achieve their new goals.

Most North Carolina communities realized by the end of the "Turbulent 20s" that economic growth alone could not sustain them any longer. Decaying physical infrastructure could not support the population influx or keep up with the breakneck changes of the rapidly emerging Fourth Industrial Revolution economy. Resources and services of all kinds were strained to breaking as both blue-collar and white-collar workers from every generation found themselves progressively shoved aside by

> *"The cost to bring new technology forward is expensive but once it's implemented and in use you can start to recoup that cost."*

rising automation and falling pay. Demand for community resources shot up at the same time tax revenues and consumer spending were dropping precipitously due to growing automation-induced unemployment. The now retired Boomer generation's need for elder care peaked further stressing overburdened and under-resourced community services. Rising fear of the side effects of rapidly

accelerating climate change added to the growing anxiety. Communities needed new ways forward that went beyond the old 20th century economic growth models – they needed ways to leverage the changes to their advantage to stabilize their communities and provide a better quality of life for everyone.

Some communities started experimenting with new measurements of success. They retooled the old "community dashboards" to concentrate on new measures focused on meeting the basic needs of residents. They asked themselves how they could provide a lifeline to their drowning residents and businesses. So, they threw out their old economic development plans. They took a hard look at built infrastructure and asked what they could abandon and what they could sustainably repurpose. They asked themselves how they could take advantage of the cornucopia of new possibilities created by AI-driven manufacturing technologies and other automation. They started experimenting with ways to provide necessities like housing, power, food, education, and even entertainment for those who were losing their jobs to the tidal wave of automation. They experimented. They measured. They classified. They prioritized. They re-adjusted. With each new success they added new "dials" to newly christened Community Lifeline dashboards. Food deserts disappeared. Homelessness gradually disappeared. Sustainable buildings and transportation popped up. General health got better. Violence and theft dropped. Most people who had been living in poverty or at the margins stabilized and received the help they needed whether it was food, shelter, medical, or psychological treatment. Not everyone got the same services. The AI data sieves figured out who needed what to improve their lives, and then made sure they received the minimum resources needed to address their unique circumstances.

By 2040 most urban communities had implemented a complementary set of basic services to meet the essential needs of all residents. The services were tiered by income and applied automatically to each resident based on automated quality of life monitoring systems. Most of these were simple AI data agents aggregating public data and recorded data on residents. Community governments did this via services contracts with private Lifeline Services Corporations. These consortium-like businesses did everything from printing BASIC houses, to operating autonomous rideshare vehicles, setting up AI-enabled telemedicine healthcare, running community dark kitchens, and even managing the little things like organizing local children's sports leagues. Each resident was automatically enrolled in the BASIC services tier and could use those limited services or resources at any time in most urban and suburban communities. However, those with incomes quickly moved away from the restricted choices, transportation limits, and the continuous surveillance that fed the monetized data streams gathered

automatically by the Lifeline corporations. Higher-tier residents paid for their BASIC services in proportion to their income and Quality of Life index. The more you made and better off you were, then the more you paid to support those on the lower tiers. What generally happened was that the more you paid for BASIC, the less you used it. Most higher tier residents would buy premium packages which gave them much more choice than those who lived on BASIC. They still relied on the Lifeline corporations for most of their day-to-day services, but paid for additional privileges like data-privacy, advanced educational resources, first-run entertainment, ad-blocking, different food choices, preferred seating at events, and other amenities. If someone on BASIC walked through a working-class Tier 1 or Tier 2 neighborhood then their BASIC VR/XR glasses might show them some details but would obscure whether anyone was home or the house number. In Tier 5 or 6 neighborhoods they likely wouldn't see the street at all. Whereas the people living there could grant permission for their neighbors to see their seasonal XR overlays like Halloween decorations or Christmas lights, or even who was inside the house.

Suburbs and urban centers flourished. Everyone had their essential needs met, could educate themselves using free online resources, eat nutritious food, and live in safe neighborhoods. The community leaders and the higher tier residents read the Lifeline dashboards, congratulating themselves on how much life had improved for those living in the lower tiers, particularly those in BASIC. Even rural areas without Lifeline services did better since they "exported" their poorest residents to Lifeline communities.

However, the higher tiers failed to see that their dashboards were measurements and not reality. Most lower tiers were frustrated with their inability to move up from their current tier. The Lifeline service tiers algorithmically reinforced existing inequities making it extremely difficult to move into a higher tier. Those residents with substantial money and property before the dashboards were able to gain even more under the new system. They could afford better resources, better tech, and could make better social and business connections. Since they tended to be the ones running the communities, writing the code, and running the services companies, they tended not to see the flaws in their quality of life services system. Success went to the successful. The American Dream stalled out.

The physical security and stability of most lower tier residents had improved from what it once was. If they had bad luck or made a few wrong choices they could easily slide backward into a lower tier. This quickly created tension between the lower tiers and an overall sense of frustration, particularly among

those stuck in BASIC. The Lifeline data analysis AIs constantly adjusted, always looking for community stability and satisfaction of basic needs. The community leaders, Lifeline corporations, and powerful elites trapped the lower tiers into social and economic amber, never changing and hidden from view. In 2040 the Lifeline dashboards have stabilized North Carolina communities and made people's lives measurably better. Unfortunately, the immeasurable intangibles like autonomy, achievement, collaboration, empathy, and compassion were automated out. Most have a lifeline, but not a leg-up.

Systems Map

In the scenario, public has addressed quality of life and try to increase QoL for all citizens. However, inequality was not addressed so the benefits are unevenly distributed amongst the community. Circle #1 highlights the increase in QoL by addressing the relationship between people, partnerships, and infrastructure (and in general it works in this world). So circle #2 shows the bifurcation between the urban and rural communities and how the system looks/works differently for those groups.
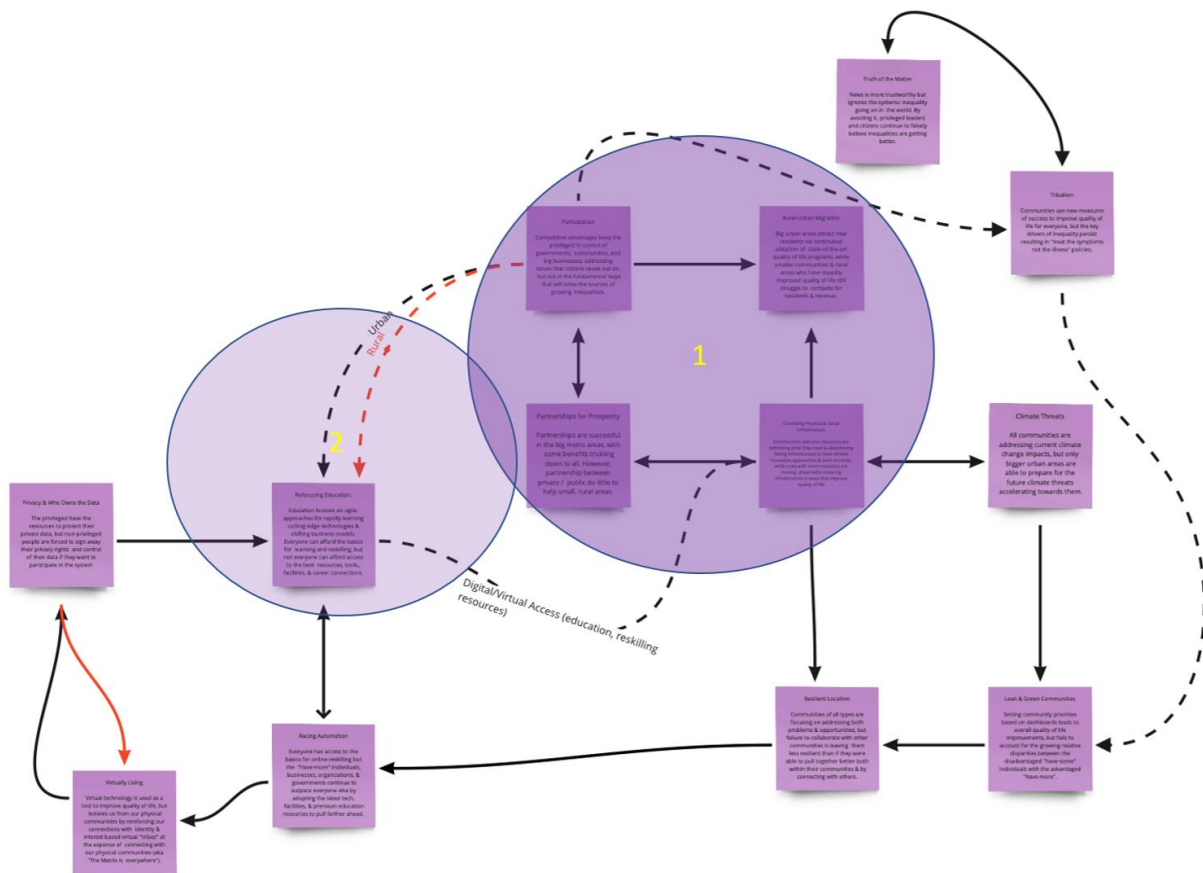
Figure 9. *Community Lifelines* **Systems Map**

> **Arrow Key**
> <u>Black arrow</u> – Between the two cards you hear "the more…, the more…" or "the less…, the less…". Meaning, when these two forces interact, their behaviors move together.
> <u>Red arrow</u> – Between the two cards you hear "the more…, the less…". As one force increases, it has a negative effect on the other force.
> <u>Dotted line</u> – After identifying 3-4 loops, we saw how the loops interacted with each other. Interactions between tighter loops are showed with a dotted line.

Uncertainties and drivers in *Community Lifelines*

The table below describes how each of the uncertainties and drivers are like to play out in this scenario.

Table 4. Uncertainties and Drivers in *Community Lifelines*

Uncertainties	How it plays out in Community Lifelines
Resilient localism?	Top-down planning and resources facilitated by communities, AI, data gathering, and public-private partnerships, all aimed at ensuring everyone has the basic necessities.
Tribalism troubles?	The tiered system based on income and need deeply divides and entrenches the wealthy from the poor. Lower tiers (the poorer) are unable to move up in the system. Higher tiers are oblivious to the social unrest beneath them.
21st century infrastructure for everyone?	Everyone is guaranteed equal access to bare-bones BASIC infrastructure (physical and digital). The wealthier pay for better services, access, and more privacy.
AI job loss?	AI job loss has hit both blue- and white-collar jobs hard; however, the entire BASIC system relies entirely upon AI and data crunching to ensure quality of life for everyone.
Beyond the bottom line?	Quality of life is the main focus, though it's reduced humans to nothing more than data figures.
Systemic inequality?	On the surface, inequality does not exist as everyone has access to basic necessities. In reality, inequality is deeply entrenched as it is difficult to move up tiers within the system.
Drivers	
Virtually living	Virtual technology is used as a tool to improve quality of life, but isolates us from our physical communities by reinforcing our connections with identity and interest based virtual "tribes" at the expense of connecting with our physical communities (aka "The Matrix is everywhere").
Racing automation	Everyone has access to the basics for online reskilling but the "have-more" individuals, businesses, organizations, and governments continue to outpace everyone else by adopting the latest tech, facilities, and premium education resources to pull ahead.
Rural-Urban migration	Big urban areas are attracting new residents via continuous adoption of state-of-the-art quality of life programs, while smaller communities and rural areas that have steadily improved quality of life still struggle to compete for residents and revenue with the big metro areas.
Climate threats	All communities are addressing current climate change impacts, but only bigger urban areas are able to prepare for the future climate threats accelerating towards them.
Partnerships for prosperity	Partnerships and collaboration are successful in the big metro areas, with some benefits trickling down to all. However, partnerships between private/public do little to help small, rural areas.
Tribalism	Community leaders use new measures of success to improve quality of life for everyone, but the key drivers of inequality persist resulting in "treat the symptoms not the illness" policies.

Participation	Competitive advantages keep the privileged in control of governments, communities, and big businesses; addressing issues that citizens speak out on, but not in the fundamental ways that solve the sources of growing inequalities.
Truth of the matter	News is more trustworthy but ignores the systemic inequality going on in the world. By avoiding it, privileged leaders and citizens continue to falsely believe inequalities are getting better.
Lean & green communities	Setting governing priorities based on Quality of Life dashboards leads to overall improvements across all communities, but fails to account for the growing relative disparities between the disadvantaged "have-some" with the advantaged "have-more".
Refocusing education	Education focuses on agile-approaches for rapidly learning innovative technologies and shifting business models. Everyone can afford the basics for learning and reskilling, but not everyone can afford access to the best resources, tools, and facilities.
Privacy & who owns the data	The privileged have the resources to protect their private data, but non-privileged people are forced to sign away their privacy rights and control of their data if they want to participate in the system.
Resilient localism	Communities of all types are focusing on addressing both problems and opportunities, but failure to collaborate with other communities is leaving them less resilient than if they were able to pull together better both within their communities and by connecting with others.
Crumbling infrastructure	Communities with fewer resources are rethinking what they need and abandoning failing infrastructure in favor of new innovative approaches and work-arounds to keep going, while communities with more resources are moving ahead with replacing that infrastructure in ways that improve quality of life.

Pathways

The factors selected to highlight were refocusing education for the digital future, two other tech-related factors – automation and data privacy – and resilient localism to capture the stronger emphasis on technology and the local focus of this scenario.

Table 5. *Community Lifelines* **Pathways**
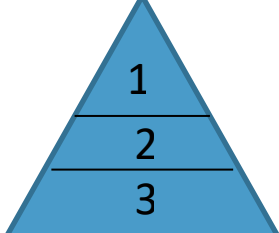
	2025	2030	2035
Refocusing education	*"Durham public schools adopt 'relearning how to learn' teaching initiative."* Growing desire to prepare kids for a future where they will always be upskilling or reskilling.	*"They couldn't stop us from learning: Five students track and dox hackers responsible for edu platform outage."* Digital infrastructure is established and widely used under BASIC services.	*"How your child's diet and musical preference affect their latest learning module."* Big data and AI tools are combined for personalized learning approaches.

Racing automation	*"Fast food, retail, even accounting among 25 jobs expected to be fully automated in the next decade."* Automation continues to accelerate and replace low-skill routine task/repetitive jobs.	*"Raleigh's most profitable marketing firm is two programmers and an AI."* Lower-tier individuals are continuously having to reskill via the Lifelines program as jobs are automated away.	*"97% of C-Suites in NC come from elite circle of .0025% of NC population, according to Reuters Survey."* Automation invades even higher-level jobs, and furthers the gap between income tiers, as the wealth have access to better reskilling programs.
Privacy & who owns the data	*"The Internet: Our newest human right."* Internet access is recognized as a basic necessity for everyone, but telecoms lobby to kill net neutrality.	*"The death of net neutrality and the high cost for your access."* Everybody has a right to certain basic level of digital connection and access, but fee-based multiple tiers are introduced for better service that reintroduces a "digital divide."	*"Judge throws out class action suit: AT&T will continue to sell basic and lower-tier data to third parties."* Upper tier subscribers can afford to have their data protected, but lower tiers sign away their privacy rights and data control to participate in the system.
Resilient localism	*"FEMA fails NC after Hurricane Vincent leaving hundreds of communities without food and basic aid."* Communities recognize they are overly dependent on national government and seek to be more self-reliant.	*"Latest CDC HRQoL data indicates moderate rise in quality of life across NC."* Communities are beginning to feel cookie-cutter as BASIC develops and outlines the minimum levels for community success.	*"Minor rivalry between Charlotte communities erupts with 15 arrested and 5 hospitalized."* Renewed pride in communities leads to competition that occasionally flares up in violence.

Vignette

In most cases, it is difficult to "move up" from lower to higher tiers. But it is not impossible, as the case of Angela demonstrates below. It is, nonetheless, a difficult choice, which highlights the still quite-divided nature of community life in this scenario.

Angela lost her parents young and was raised by her grandparents on their large family farm. The income generated by the farm placed her family in Tier 3 – they don't require BASIC Lifeline assistance and can actually afford a few perks. When Angela is 16, both her grandparents die. They leave everything to her, but the will is contested by her uncle. Because her assets are tied up in the court case, the Lifeline dashboard algorithm recognizes her new income status and sets her up in a BASIC community in the nearest city. Angela is provided with all the essentials – a small house, an income, utilities, internet service, food, and access to public transport.

A few years pass. Angela has grown to love her neighborhood. She's made friends with her neighbors, and has really bonded with Maria, a local abuela to all the kids in the community. Angela, like most of her neighbors, works as a part-time volunteer at the local community garden. Just today she finds out that management wants her as a full-time employee. Angela is excited to take on the new role.
As Angela catches the autonomous bus home after her morning shift, her glasses vibrate with a message from her volunteer legal advocate, Ms. Williams. She is sending a community car to pick Angela up in an hour to take her to the courthouse. Angela has won her inheritance case.

After a few hours of paperwork and turning in signed documents to different automated court desks, the farm and a modest amount of money are legally hers. Angela heads home.
She finds that the Lifeline dashboard has already registered her sudden jump in income and assets – there's a Tier Assessment Specialist at her door when she arrives home. He's inspecting the house for the next BASIC occupants, checking for any required house updates or reprints to comply with the latest BASIC codes and standards. They expect her moved out by the end of the week. Angela is floored. She's never really considered how much could change if she won her inheritance.

In shock, Angela goes to Abuela Maria and explains the situation. She loves her work, this community, and her neighbors; she loves Maria, and she can't just pack up and leave!
But Maria is thrilled for her. Angela's getting out of the BASIC neighborhood and getting her *family farm* back! Hardly anyone moves up a Tier, especially when they're in BASIC. The neighborhood will always be here if Angela wants to visit. After coffee and more discussion, Angela is torn. She wants to reject her inheritance and stay, but respects Maria and knows she's probably right. She goes to bed calmer but unable to sleep.

The next morning, Angela contacts Ms. Williams to discuss staying in her BASIC neighborhood. Disclaiming her inheritance will grant everything to her greedy uncle, something Angela is utterly loath to do. The Lifeline dashboard has registered Angela's status change, and there's absolutely no way to contest the Lifeline system.
Ms. Williams encourages Angela to take her inheritance because it's rare for anyone to move up the Tiers.
Angela realizes she can't fight the Lifeline system, but Tier 3 status might give her the opportunity to work within the system to get what she wants. Angela moves back to the farm.

The day Angela arrives, she's met by a Lifeline representative who will assess her new living situation. The farm, having been neglected for years, is in shambles and needs tons of work. Through her contacts at the community garden, Angela hires many of her former neighbors as part-time laborers, and even hires a few neighborhood families as full-time employees. And Maria comes out three times a week as a volunteer babysitter for the families. Slowly but surely, the farm starts producing again. While she can't go back and live in her BASIC community again, Angela is happy with the new farming community she's built around herself.

Scenario: BOTTOM LINE

Economic measures of success and systemic inequality shrinks

This is a world where communities embrace strong public-private partnerships to boost growth and reduce economic inequality. Early infrastructure investments in broadband, virtual tech, data sharing, and automation allow communities to develop customized approaches that leverage local identity and resources. There is uneasiness about how long the growth can continue and about perceived neglect of non-economic issues.
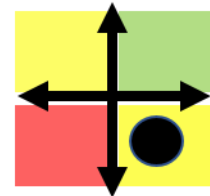
North Carolina flexes it economic muscles! The unofficial mantra is: It's [*still*] the economy, stupid! Thus the strategic focus is on economic growth with a mindset that focuses heavily on how NC can win vis-à-vis other states. Leaders judge that this economic focus can help unify the many divides within NC communities. Rather than trying to be all things to all

> *"I truly believe like electricity, broadband is the great equalizer. It's not just access to the fiber but also inclusion and understanding of the benefits and use of infrastructure. The concept is a revelation in our economy."*

people, the approach is to stay sharply focused on improving the bottom line. In short, the state focuses on the economy, and communities are left to handle everything else!

This singular economic focus is deemed practical and achievable. Public and private partnerships become the central organizing principle. The vision is that increasing prosperity will trickle down and spill over to communities so that they can improve other aspects of the quality of life according to their local conditions. So it is up to local communities to use their "prosperity" to address all the other messy problems, such as prepping for climate change, social justice, and housing transportation. Some are upset with the focus on the economy and the neglect of everything else. But in general, the approach works and most people go along with it. Some examples of how this plays out include:

- The proceeds from economic growth are used to fund reparations. This meets mixed reviews. It satisfies some, but the "throw money at it" approach angers others.
- There is "block grant" type of funding available to communities to help prepare for climate change. This ad hoc approach gives the appearance of something being done, but often leads to duplication, and in many cases the money is "re-purposed" to meet economic ends. The resulting hodge-podge approach leaves few feeling good about being ready for climate change.

- Education is streamlined to focus on job prep. There is a big cut in traditional education programs – liberal arts schools and programs continue to suffer – and vocational approaches make inroads. Indeed, new private players flourish in this scenario by delivering certified, competent workers.

There is a strong "NC first" campaign to encourage and support local businesses to beat the others states. Realizing that they can cut out non-local competition, private local businesses drive the "stay local, support local" movement, gaining fanatical loyalty by taking excellent care of the customers within their community. As a result, the competition among NC communities is sometimes fierce.

Some would say this scenario represents the "last gasp" of the old capitalist order. There had been many calls for some version of Capitalism 2.0 or even to get rid of it. The lack of a replacement, however, kept it going longer than many expected, and NC was on the bandwagon. There are winners and losers for sure, but the view is that the rising tide is lifting all boats just enough to keep the system going. Many worry, however, that a slowdown in growth will cause underlying tensions and divisions to explode.

A surprising development is the extent to which rural communities experienced something of a revival, or perhaps more accurately, they did not spiral further downward. The investment in the state-wide digital infrastructure encouraged more urban folks to move to rural areas to take advantage of the low cost of living and the less frantic pace of life. Indeed, there many feature stories of the rural renaissance, although the rural natives were not always 100% happy with the perceived "invasion" of the city folk. Yes, the money they brought with them helped save some rural communities from collapse, but it also "cost" them a bit in that the rural way of life became a bit more urbanized.

The key to success in this scenario is a virtuous circle: the big investment in digital infrastructure drives a greater use of virtual technology that is used to streamline costs and enable efficiency. The flourishing businesses attract talent, and the use of remote work provides more opportunities for rural communities. The heavy use of automation also reduces costs. There is job loss, but lower costs attract more business and revenue, and the profits are in part used for retraining.

Government and business are able to develop proprietary sources of useful information. The use of the data helps communities develop better strategies in exchange for rights over at least some of that data, of course. The generally effective use of that data compensates for the fact that it is not widely shared.

The solid economic growth keeps communities generally "happy," but there is concern about what happens if that growth slows down. Financial reparations were made, but outside of economics, the overall quality of life has not noticeably improved. Climate change is still a significant problem. Communities are not willing to sacrifice financial gain for the good of the environment. Tribal differences are somewhat smoother in economic matters, but deep rooted social and cultural divides persist. Things are seen as going well, but an uneasy peace pervades this future.

Systems map
Bottom Line is a world where system inequality has been addressed but other quality-of-life measures are generally left untouched. The whale of the system is public and private partnerships, shown in circle #1. This increase in prosperity "should" trickle down to communities to help them address problems such as climate change, housing, education, and infrastructure, which is highlighted in #2.
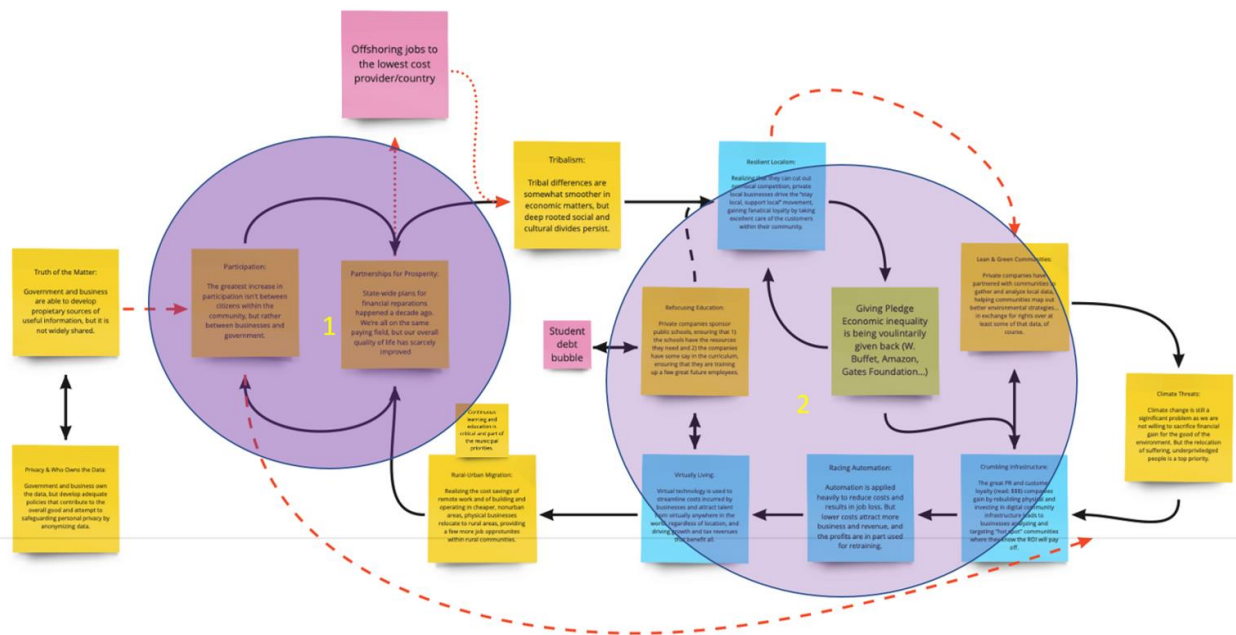
Figure 10. *Bottom Line* **Systems Map**

Arrow Key
Black arrow – Between the two cards you hear "the more…, the more…" or "the less…, the less…". Meaning, when these two forces interact, their behaviors move together.
Red arrow – Between the two cards you hear "the more…, the less…". As one force increases, it has a negative effect on the other force.
Dotted line – After identifying 3-4 loops, we saw how the loops interacted with each other. Interactions between tighter loops are showed with a dotted line.

Uncertainties and drivers in *Bottom Line*

The table below describes how each of the uncertainties and drivers are like to play out in this scenario.

Table 6. Uncertainties and Drivers in *Bottom Line*

Uncertainties	How it plays out in Bottom Line
Resilient localism?	Top-down planning and resources facilitated by public-private partnerships aiming at economic growth are successful.
Tribalism troubles?	An uneasy but problematic cooperation exists for economic matters – as long as the growth continues, the peace is kept – but cultural divides persist.
21st century infrastructure for everyone?	Investment priorities in infrastructure are aimed squarely at economic development, with broadband and related "smart" technologies at the top of the list.
AI job loss?	There has been significant AI job loss but the bounty from the resulting efficiencies has been sufficiently distributed, and retraining keeps unemployment at manageable levels.
Beyond the bottom line?	Communities and businesses continue to focus on individual wellbeing as driven by economic prosperity.
Systemic inequality?	Inequality is reduced on the economic front, but not addressed in other aspects of individual and community life.
Drivers	
Virtually living	Virtual technology is used to streamline costs incurred by businesses and attract talent from virtually anywhere in the world, regardless of location, and drives growth and tax revenues that benefit all.
Racing automation	Automation is applied heavily to reduce costs and results in job loss. But lower costs attract more business and revenue, and the profits are in part used for retraining and distributed to help reduce inequality.
Rural-Urban migration	Realizing the cost savings of remote work and building and operating in cheaper, nonurban areas, physical businesses relocate to rural areas, providing a few more job opportunities within rural communities.

Climate threats	Climate change is still a significant problem as we are not willing to sacrifice financial gain for the good of the environment. But the relocation of suffering, underprivileged people is a top priority.
Partnerships for prosperity	Public-private partnerships are central to successful economic planning and development. State-wide plans for financial reparations happened a decade ago. We're all on the same playing field, but our overall quality of life has scarcely improved.
Tribalism	Tribal differences are somewhat smoother due to economic prosperity, but deep rooted social and cultural divides persist.
Participation	The greatest increase in participation isn't between citizens within the community, but rather between businesses and government.
Truth of the matter	Government and business are able to develop proprietary sources of useful information for economic development, but it is not widely shared with the public, except on a "need-to-know" basis.
Lean & green communities	Private companies have partnered with communities to gather and analyze local data, helping communities map out better environmental strategies… in exchange for rights over at least some of that data, of course.
Refocusing education	Private companies sponsor public schools, ensuring that 1) the schools have the resources they need, and 2) the companies have some say in the curriculum to ensure an adequate supply of trained future employees.
Privacy & who owns the data	Government and business own the data, but develop adequate policies that contribute to the overall good and attempt to safeguard personal privacy by anonymizing data.
Resilient localism	Realizing that they can cut out non-local competition, private local businesses drive the "stay local, support local" movement, gaining fanatical loyalty by taking excellent care of the customers within their community.
Crumbling infrastructure	There's big investment in digital community infrastructure, in particular in the "hot spot" communities where they know the ROI will pay off.

Pathways

The factors selected to highlight were public-private partnerships, the "whale" of the system, broadband penetration as a key factor driving economic growth, virtual living, and the inequality that still prevails despite the economic growth.

Table 7. *Bottom Line* **Pathways**

	2025	2030	2035
Public-Private partnerships	*"Regional PPP launch innovative 'Bottom Five' broadband upgrade."*	*"Innovative PPP unveils 10-year plan to redevelop under-utilized urban spaces into innovation district."*	*"Too cozy? Investigating a decade of PPPs gone wild."* While industry and government collaboration

	Tech companies, telecom providers, universities, and local governments from the Triangle select 5 localities with low broadband for state-of-the art upgrade	New approaches to fund under-developed areas such as publicly owned and privately managed legal arrangements.	has been widely hailed for driving steady economic growth, some question whether these sweetheart deals are really benefitting communities.
Broadband penetration	*"Broadband boom: NC implements massive state-wide upgrade of the digital infrastructure."* NC has been in the top quarter of broadband penetration nationally, but seeks to be in the Top 10.	*"Living off the network: NC leads the way in CBDCs (Central bank digital currency)."* NC's state of the art broadband network and service are foundational to innovative offerings such a CBDCs.	*"Beyond broadband: Smart cities for growth."* Smart Cities 3.0 focuses on creating Smart Hubs for leading AI and IoT applications for managing services such as automated ridesharing and freight that provide competitive advantages for NC.
Virtual living eases the urban-rural divide	*"Rural broadband attracts 'city folk'."* Some rural towns run advertising campaigns to attract urban workers, and to their surprise, they succeed.	*"Urban brain drain? More urbanites head to the country."* What starts out as a bold experiment picks up steam as "smart rural communities" emerge.	*"Living wherever you want."* NC's investment in broadband has made it practical for knowledge workers to escape the urban rat race.
Inequality prevails	**"***5% of those under 18 projected to inherit enough so they will never have to work a day in their life."* The wealthy are able to support a lavish lifestyle for multiple generations.	*"New study says children in K-12 private school make $75,000 more per year."* Higher quality of education enhances networking and makes it easier to find jobs.	**"***Those born in low-income families still take five generations to reach average income."* Little progress has been made on reducing inequality – only slightly improved despite significant economic growth.

Vignette

This story suggests the potential for reducing the rural-urban divide. State-wide, state-of-the-art broadband facilitates, remote work, and urban knowledge workers begin migrating to rural areas where the cost of living is more affordable.

Consultant Laura S. has had enough of the urban rat race. She's earning quite a bit, but so much of her potential wealth has been gobbled up by the high cost of living in the Triangle. While she's not living paycheck to paycheck by any means, she knows that with the astronomical real estate costs in the Triangle, she'll never save enough to own her own place or retire comfortably.

Laura's firm is feeling the pinch of ridiculously high rental costs in the Triangle, too. After crunching the numbers, the heads at Laura's firm realize that drastically downsizing the branch's physical office will save the company millions. They offer all employees the option of working 100% virtual. Laura, the once diehard urbanite, begins investigating rural real estate in North Carolina and checking into each community's public-private partnerships.

Laura finds a rural community that, though quite small, has recently built up cutting edge, first-class digital infrastructure through their public-private partnership in order to entice wealthier urbanites (and their tax dollars) to move in. Not to mention that the affordable housing is attractive. The real estate is so affordable with Laura's salary that she puts in an offer for a two-bedroom house on a wooded acre lot that's a 10-minute drive from the town's tiny center. Her offer is accepted.

Laura makes the move. The first year is lonelier than she expected. She knew that having grown up and lived in liberal urban areas all of her life the move to rural could be a culture shock. The community is pretty traditional and conservative – most have lived in the area for generations, have ties to each other's families, and stick together. Laura feels that no matter how long she lives there, the town will always see her as an outsider.

Slowly but surely, however, other urban migrants arrive attracted by the inexpensive cost of living and the super-fast broadband access. Laura begins to feel at home. Laura's friends back in the Triangle begin asking her about rural life. Their cost of living continues to soar and as urban businesses downsize physical office space to save money, they're seeing more colleagues leave the cities for tech-enabled rural areas. Urban flight has begun.

Years later, a small urban expat population is emerging in Laura's community. Most of the locals are friendly, but Laura knows tensions are brewing. The expats have revitalized the town's small businesses by shopping local, and their taxes have helped pay for community improvements. The rural community is thriving again. But locals, while still the majority, have voiced their concerns that Laura and the urban expats will eventually outnumber them. What will their traditional rural community become when that happens?

Scenario: BETTER TOGETHER

Quality of life measures of success and systemic inequality shrinks

This is a world in which a radical transformation of the concept of community is underway. Reinventing education is prioritized and new tech tools, data collected via smart municipal services systems, greater automation fueled by AI, and community-based UBI (Universal basic income) support a variety of local development approaches that help create communities where residents have time for community development initiatives, creative expression, and leisure activities.
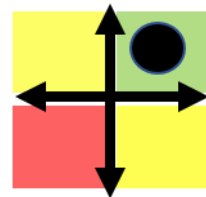
Communities transcend their historical differences and work together for the common good to make progress on key issues such as climate change, education reform, racial, ethnic, and gender inequality, and infrastructure improvements for greater resilience. This is enabled by widespread and equitable access to tech tools, information, and data allowing community governance and decision making to be based in science and fact. Intelligent engineering and other AI-enabled tools are employed to augment human capabilities; automation is used to eliminate menial, repetitive, or hazardous tasks in manufacturing, agriculture, and administrative roles. Data analytics techniques are applied to identify disparities in outcomes for community members to inform policy decisions at the local level so communities can work to mitigate any inequities at the earliest opportunity.

Perhaps the central driver of change in this scenario is a massive commitment to educational reform. Business, government, education, and community leaders – essentially everyone – go all in on addressing and ultimately transforming the historically poor-performing education system. Over the course of the last twenty hears, North Carolina went from near the bottom to near the top. Innovation happens in a bottom-up, grassroots fashion to drive community success by ensuring equitable access to education, opportunities, and resources. Education reform shifts school curricula to teaching 21st century skills and competences with a focus on critical thinking, creativity, collaboration, and communication. Younger students learn problem-solving strategies by working collaboratively with older students and mentors on real-world

> *"Being connected to what you are purchasing and who you are supporting in a local economy is important. That sense of coming together and supporting local is growing, and I hope it continues. People want to see how their money is circulating in the community."*

projects ranging from creating new apps to learning trade skills or research laboratory processes, such as gene editing. Students take a more active role in deciding what to study and which problems they are most interested in solving. Regional cooperative student organizations control resource distribution, using a participatory governance model and taking advantage of new revenue streams (such as data monetization, sales, and licensing of student-created products and services), as well as efficiencies realized from shared resources and technologies.

Natural resource management has shifted to operating within an "economy of the commons" mindset and a longer-term horizon of impact. Local resources that are essential to the wellness of the community are managed collectively by residents, while larger holdings or those that are endangered (such as the longleaf pine forests and the peat bogs) are managed at the state level by elected representatives of the NC Conservation Consortium, made up of diverse stakeholders including local residents.

Quality of life becomes an important defining characteristic of community as virtual living and remote work are now commonplace. The "bottom-up" approach to achieving a higher quality of life was through the encouragement of highly localized programs. Pilot approaches seemed nearly ubiquitous in the "Roaring 20s" that eventually consolidated into a solid slate of approaches that had proved out and provided communities with a menu of choices.

Understanding that remote workers can live anywhere, rural communities take the lead in intentional place-making by establishing cooperative regional development zones that create local, circular systems for universal basic income (UBI), infrastructure investment, regional education and social services, and local food production and distribution systems. Communities leverage their unique strengths in people and place to establish a strong identity and sense of belonging for residents while working cooperatively with other communities to share resources and invest in infrastructure improvements. Financial support for small businesses comes from community microloan programs while public-private partnerships finance larger initiatives.

Residents of all ages are encouraged to participate fully in community governance decisions and to contribute to community improvement projects, both virtual and shoulder-to-shoulder with other residents. By the time they are adults, younger members of the community are fully vested, engaged,

and can see their contributions are important and valued by the community. Few feel the need to seek better opportunities in big cities. With increasing success at all levels, communities are open to experimentation in designing sustainable development projects, further decreasing tribalism, political division, and systemic inequalities. More educated citizens led to more productive businesses, more effective government, and a more united citizenry. A subtle but crucial consequence was that the resulting "better together" spirit, captured as a sort of campaign slogan, stimulated the interest and perseverance with the many experiments with different models and approaches to community development.

Systems map

This is a simple systems map that shows three main loops with "education revamp" at the center. Circle #1 highlights the whale of the system that is around reinventing education (Education Revamp). Circle #2 highlights sustainable automation and circle #3 describes quality of life activities with community participation. Circles #2 and 3 are impacts of education revamp.
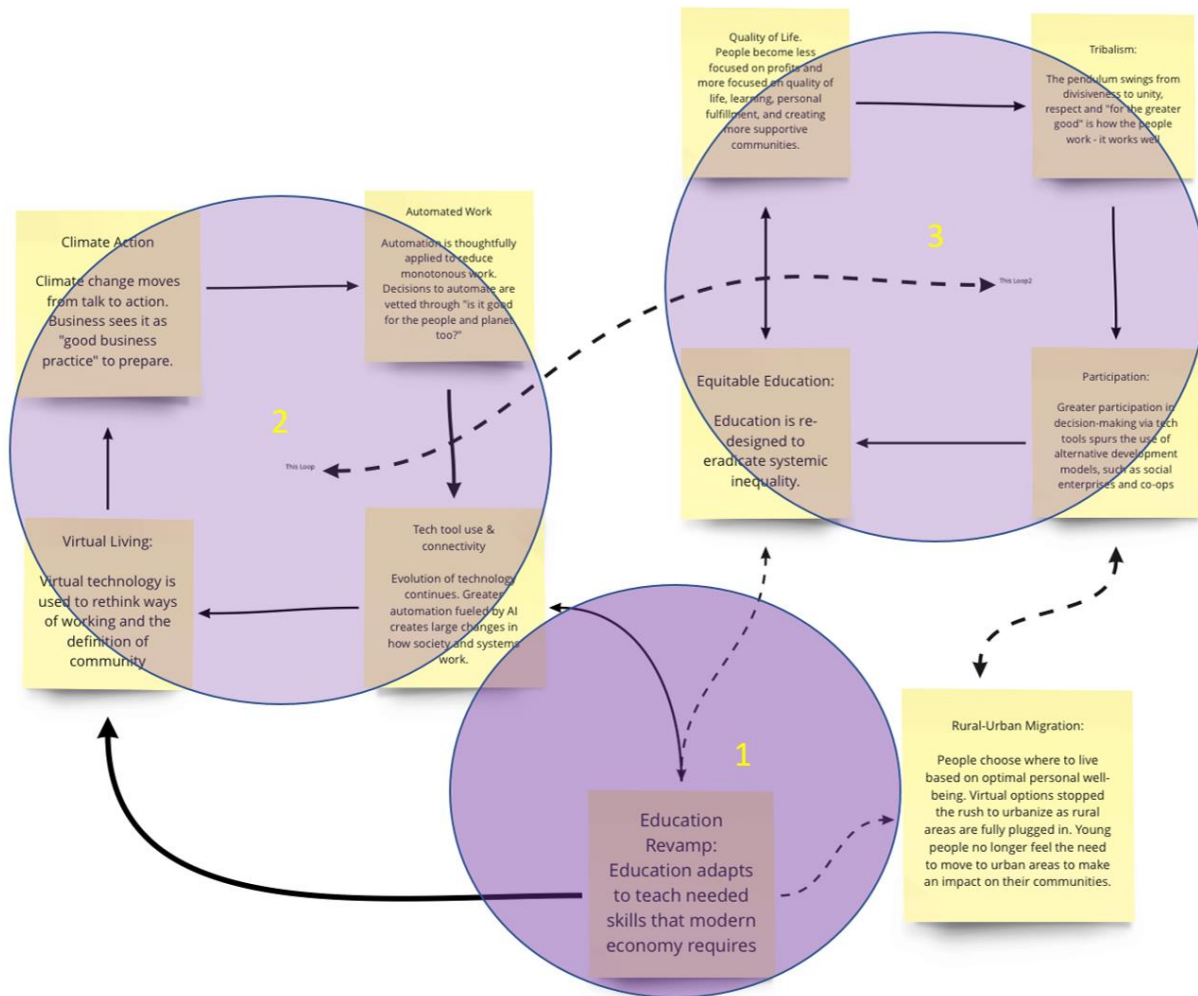
Figure 11. *Better Together* **Systems Map**

Arrow Key
Black arrow – Between the two cards you hear "the more…, the more…" or "the less…, the less…". Meaning, when these two forces interact, their behaviors move together.
Red arrow – Between the two cards you hear "the more…, the less…". As one force increases, it has a negative effect on the other force.
Dotted line – After identifying 3-4 loops, we saw how the loops interacted with each other. Interactions between tighter loops are showed with a dotted line.

Uncertainties and drivers in *Better Together*

The table below describes how each of the uncertainties and drivers are like to play out in this scenario.

Table 8. Drivers and Uncertainties in *Better Together*

Uncertainties	How it plays out in Better Together
Resilient localism?	Technological gains drive more local production. Consumers shift away from low-price box stores and purchase from local vendors, whenever possible. Large corporations are forced to finally pay their share and help support community programs. Multiple alternative development models are deployed depending on the specific needs of the community; there is not a one-size-fits all, but a spirit of experimentation.
Tribalism troubles?	The pendulum swings from divisiveness to unity and greater respect for diversity of opinion. Communities thrive when working toward the greater good. With redesigned algorithms controlling our news feeds and social media feeds we become less siloed in our echo chambers and can make progress with dialogue to replace tribalism with more rational discourse on urgent issues.
21st century infrastructure for everyone?	Evolution of technology continues. Greater automation fueled by AI creates large changes in how society and systems work. As infrastructure for the future, access to affordable internet and digital devices is the central strategy that communities take to create a level playing field for all. Renewed investment in infrastructure is seen as pivotal to reducing systemic inequality, even though it does sacrifice some economic growth in the short term.
AI Job Loss?	Automation is thoughtfully applied to reduce monotonous, menial, or hazardous work. With a greater proportion of tasks now automated, the 40 hour work week is a thing of the past, and people begin to spend more of their time as lifelong learners and pursuing passions that ultimately provide value to society as well as individual fulfillment.
Beyond the bottom line?	People become less focused on profits and economic growth and more concerned with quality of life, learning, personal fulfillment, and creating more equitable and supportive communities. This shift helps rural communities prioritize placemaking, lowers the costs of living, and supports the rise of a more virtual-oriented life to reverse the trend of rural to urban migration and "brain drain".
Systemic inequality?	A redesigned educational system is a primary force in eradicating systemic inequality. The educational system isn't focused just on creating a future workforce but helping people learn how to think critically, stoke curiosity, be capable of diverse trains of thought, and find out what they are truly passionate about. Project-based learning, mentoring opportunities, and apprenticeship programs beginning in primary school help expose students to future job roles they may be interested in developing skills for.
Drivers	
Virtually living	Virtual technology is used to rethink ways of working and the definition of community

Racing automation	Automation is thoughtfully applied to reduce monotonous, menial, and hazardous work. Decisions to automate are vetted through "is it good for the people and planet too?"
Rural-Urban migration	People choose where to live based on optimal personal wellbeing. Virtual options and community place-making efforts stopped the rush to urbanize as rural areas are fully plugged in.
Climate threats	Climate change moves from talk to action. Businesses and institutions see it as "good business practice" to mitigate damage and prevent additional harm.
Partnerships for prosperity	Public and private partnerships make plans that benefit the whole community, with special attention and priority given to those who have historically been left out.
Tribalism	The pendulum swings from divisiveness to unity and greater respect for diversity of opinion. Communities thrive when working cooperatively toward the greater good.
Participation	Greater participation in decision-making and community initiatives, enabled by tech tools, spurs the use of creative and/or alternative development models.
Truth of the matter	Science and facts return to prominence.
Lean & green communities	Smart sustainability sees significant progress toward circular economies and green power using data and information sources as key tools.
Refocusing education	Work and education radically shift to accommodate a world in which education isn't solely about creating the workforce of the future, but in developing residents to achieve their fullest potential as lifelong learners. Education is re-designed to eradicate systemic inequality and adapts to teach needed skills that the modern economy requires.
Privacy & who owns the data	Adequate protection of personal data exists; privacy concerns begin to fade as trust in "the system" develops and surveillance becomes ubiquitous. This opens the door to technology tools and use previously seen as risky.
Resilient localism	Multiple alternative development models are deployed depending on the specific needs of the community; there is not a one-size-fits all, but a spirit of experimentation.
Crumbling infrastructure	Greater investment in infrastructure (including education) is seen as pivotal to reducing systemic inequality, even though it does sacrifice some economic growth in the short term.

Pathways

The factors selected to highlight were education revamp, the "whale" of the system, progress on the rural-urban divide and in addressing inequality, and highlighting the more participatory approach of this scenario.

Table 9. Better Together Pathways

	2025	2030	2035
Education revamp	*"WTCC leads in EdTech access."* Wake Tech introduces tuition-free option for all online learners and trade/technical programs.	*"Students in charge with personalized learning."* Regional student cooperative seeks proposals from school administrator candidates; applicants must have VR coding skills and social media experience.	*"GTRA takes the gold!"* Student team at Gates Tidewater Regional Academy wins international algorithm challenge; proceeds from patents finance early education and community aquaculture initiatives.
Rural-Urban migration	*"This has to stop: High unemployment drives young Catawba workers to Charlotte."* Rural migration has pinched urban job availability, finally spurring interest in addressing the issue.	*"Johnston County named to 'Top 20' places to move in America."* Johnston County leads the way in pioneering efforts that provide a blueprint for the state, such as free high-speed internet and free K-16 education in public schools.	*"Rocky Mount – Wilson excels in education and innovation."* Pioneering communities adopt new development models, such as free public transit in downtowns, a circular economy model, etc., that sets the bar for the rest of the state.
Addressing inequality: tech for good	*"Time for change: Low income and BIPOC students fall farther behind."* COVID crisis exposes extent of digital divide for students across state, and catalyzes effort to revamp education system.	*"Local municipal digital currency experiment a success."* The Muni digital currency is only good within the community. It provided a form of UBI (universal basic income) with a substantial "give-away" to less fortunate and helped stimulate local business growth. Phase 2 expansion is planned.	*"NC town reaches 100% mesh Wi-Fi coverage, provides free access within city limits."* Residents and businesses are incentivized to provide tiny amounts of bandwidth that collectively blanket the town, providing connectivity to all residents and visitors.
Greater participation in resilient localism	*"Local rules."* Examples include local food bank working with Town Councils to create community gardens, and the Carolina	*"Boxed out: Communities saying no to corporate tax breaks and yes to investing local."*	*"Working together."* Study finds communities with local redundancies fare better in managing natural disasters; public-private

	Textile District cooperative using a local, sustainable supply chain model.	Wave of communities across NC begin phasing out tax breaks to large corporations and begin providing more incentives to local businesses.	partnerships step in to fill gaps in federal and state funding.

Vignette

The story of Michelle highlights a high-tech, high-touch future that is both very sophisticated and very local. It includes the use of a local currency as part of a universal basic income approach in which people still "work," the days of relying on a 9-5 job for survival are in the rear-view mirror.

Michelle still wasn't used to getting up early. She fiddled with her tablet, bumping up the amount of caffeine her BioMaker would deliver into her bloodstream. This probably happens on more mornings than it should, but it was going to be a long day. In 45 minutes, a group of middle school kids would be showing up at her place of work, the Asheboro Farm, Code, and Produce to begin the first day of their early life internship programs – where they would learn about how their community grows, produces, trades, and distributes 100% of their produce.	She puts down her book as her self-driving car takes the left turn into Asheboro Mall Park. She never ceases to appreciate how far this place has come. Thirty years ago, when she would visit as a kid, this sprawling green 100-acre campus was host to a dying shopping mall, itself then orbited by a solar system of box stores and an endless expanse of pavement. Today most of those buildings are gone or underground, replaced by trails, trees, parks, vines, orchards. The mall itself is host to a multi-level urban farm capable of growing almost any type of produce you can imagine (as well as some you can't) and distributing it to anywhere in the state in a matter of hours.	As the kids tumble in the door, each one takes a thumb-sized yellow pineapple berry, a genetically-modified and incredibly wonderful hybrid fruit. With the help of community data and a few particularly crafty neural nets, she thinks she may be well on her way to perfection. She checks her tablet to make sure each pineapple berry is being logged on the blockchain that the lab uses to track all of the data points in their system. Later, she will be showing each child how they can use this system to trace a product's physical location as well as its lineage and genetic makeup.

In addition to her primary job at the farm as a coder and algorithm manager, what she really loved is that working at the Park also allowed her to earn community tokens, called Munis, by teaching the next generation about how they research, grow, and distribute food in the community. But this wasn't the universal basic income of yesterday. Michelle and members of her community are able to earn a living wage by contributing positively to the community. Munis can be spent on housing, food, utilities, and at locally-owned businesses — keeping local money circulating in the community to support small businesses, start-ups, makers, freelancers, and gig workers.

Michelle checks out of work at FCP about 2pm most days but usually doesn't leave the park until about 5pm. She loves running, hiking, reading under a tree, and just marveling at how they have been able to transform this old mall, an ugly symbol of mass consumerism, into something so vital to her community's way of life that has become a symbol of a new symbiosis between technology, sustainability, and nature. Her last stop before she leaves the park is picking up some freshly grown vegetables for dinner at one of the many produce pickup bots where, 15 minutes after placing an order, it can meet a purchaser anywhere on the campus with their chosen produce spread.

After dinner Michelle checks her tablet to see how the community feels about the blackberry strain supplier situation. It's only been about six hours since the governance vote was posted on the platform, but already 45% of the community has voted or commented. It is a spirited conversation, but both sides of the argument are well thought out and debated calmly. Should a supplier be "canceled" because of a single mistake they made in their past? As she turns off the lights, and looks up through her glass roof at the stars she has one last thought before drifting off, "There is so much hope in our community, now if only I could find a way to put down this damn tablet."

THE DELPHI

The Delphi method is an excellent tool for gathering expert opinion on a topic. We recruited a diverse panel of a dozen experts include Civic Board members, academics, entrepreneurs, businesspeople, a lawyer, and futurists. The Houston Foresight Program's Real Time Delphi Software, developed by futurist Ted Gordon, was used. This software tool enables panelists to make their contributions asynchronously within a pre-set time schedule. A key feature of the software is that panelist's scores are anonymous and they share the reasons behind their choices. Panelists can see their colleagues' scores and reasoning and can then make adjustments to their own scores. This iterative capability is designed to develop a consensus view on a development, or it may reveal a lack of consensus.

In this case, experts were asked to review and comment upon the scenarios and some of the key drivers, as well add any additional comments on the future of NC communities. The two key objectives of this activity were:

- To provide a "reality check" on the plausibility of the scenarios and drivers.
- To gather additional insights to incorporate into the description of the scenarios and drivers.

Since the scenarios stretch out to twenty years into the future, we wanted to make sure that they would be seen as plausible. This provides an added level of assurance that the views developed by the research team and the scenario workshop participants were credible. The comments also provided ideas used to enhance the scenarios developed in the workshop.

The participants were asked to evaluate the scenarios and key drivers on three dimensions:

- <u>Likelihood</u>: What is the likelihood of occurrence in the next 20 years?
- <u>Consequences</u>: Please rate the importance of this development.
- <u>Preparedness</u>: How ready are institutions to cope with this development?

The figure below summarizes key learning from the Delphi. Included are the likelihood rankings on a scale of 0-100%. Underneath are a representative comment(s) that captured the overall sentiment of the respondents toward the scenario.

Community Lifelines

Most likely (63%)

Representative comments:
- *"This feels like a tick away from Smart Cities."*
- *"There will almost certainly be an increase in analytics-driven inequality where AI is inadvertently reinforcing systemic issues."*
- *"It is a move in the positive direction to at least meet the basic needs of every citizen."*

Better Together

Least likely (46%)

Representative comments:
- *"I rate this as extremely important because the success of this scenario would truly be transformational..."*
- *"Sure do like it, but don't believe it's very achievable."*

Grows — **Systemic Inequality** — *Shrinks*

Quality of Life / *Economic* — **Measure of Success**

Gated Communities

2nd most likely (60%)

Representative comment:
"This is already occurring. If this trend is allowed to continue unchecked, it will tear the country apart. The ultimate end of such an uneven situation is a revolution."

Bottom Line

3rd most likely (49%)

Representative comment:
"They are not at all ready for this scenario... corporations need to be reformed to imbue them with the need to work with the public sector on beneficial projects. The public sector is so focused on procedure they lack the ability to innovate or think in innovative ways."

Figure 12. Delphi Insights on Scenarios

The likelihood spread of 46-63% is not particularly large, suggesting that there was not a particular scenario that seemed out of place in the set. The fact that the two highest scoring scenarios were on the left-hand side, where systemic inequality grows, reinforces a common theme throughout the project that inequality is a huge issue for the future of North Carolina. We expected *Better Together* to score the lowest, as it is clearly the most different from today. Indeed the panelists agreed, and their comments suggested this was a desirable scenario, but that it would be challenging to achieve. We also anticipated the characterization of *Gated Communities* as a scenario to avoid. We were a bit surprised at the relatively low likelihood score of *Bottom Line* and the skepticism around the ability of public-private partnerships to succeed. This suggests that monitoring the success of public-private partnerships will be a useful indicator to track. Along those lines, we expected it to be scored more likely than *Community*

Lifelines, which ended up with the highest score. It boosted the confidence of the team to stick with and even "stretch" some of the innovative ideas within this scenario.

Some other key insights from the importance ranking and readiness of institutions for the drivers and scenarios include:

- The "Impacts" were judged to be about the same, with the exception of *Community Lifelines*. Panelists were divided on whether the impacts would be positive or negative. Some felt that the technology emphasis of the scenario would be beneficial while others were skeptical, noting that if the underlying inequality issues were not dealt with, then technology would simply reinforce existing inequities.
- The "Institutional Readiness" to cope with all four scenarios was judged about the same. It was relatively low for all scenarios, which was also reflected in the comments. It is not terribly surprising that the readiness was judged low given the twenty-year timeframe.

In sum, the Delphi provided the intended "reality check" that the scenarios were plausible and useful to consider. It reinforced much of the team's thinking and provided some useful enhancements as well as providing some new insights that were worked into the scenarios.

RECOMMENDATIONS

The project focus shifts from "what might happen" to "what might we do about it." The scenarios and supporting research, interviews, and scanning provide insight on what might happen. The remainder of the report focuses on recommended actions. A virtual workshop was organized to gather client input. The following steps were taken to develop the recommendations:

1. Brainstorm potential implications or impacts of each scenario.
2. Identify strategic issues from the implications.
3. Develop an option or strategic response to each issue.
4. Develop an integrated strategic approach.

1. Implications. The process begins with brainstorming the potential implications or impacts of each scenario for NC communities. That is, assuming the scenario occurs, the impacts for NC communities are identified. The focus was on three sets of stakeholders: government, business, and residents. A "Third Order Impact" tool was used to identify these implications. It goes beyond the obvious impacts by exploring the impacts of the impacts.

2. Strategic Issues. Armed with a few hundred implications, the teams then look at the aggregate themes that these implications suggest. The focus is on identifying strategic issues – issues that will be critical to address in the future. They could be either threats or opportunities.

3. Options. The options are potential responses to the issues. An elevator speech tool was used to develop a rough outline of how to strategically respond to the key issues.

4. Integrated Strategic Approach. The final step is to develop an integrated strategic approach. The issues and options to this point are linked to individual scenarios. They provide a sense of how to respond if that scenario were to occur. Now the goal is to tie the responses together in an integrated fashion, that is, to develop a strategy that works across the entire landscape.

ISSUES AND OPTIONS

Workshop participants identified 29 issues important to the future of NC communities, and developed strategic options for responding to the top dozen.

In looking across the inventory of issues and options, as well as implications, it was clear that some issues were highly relevant to each scenario. The issue might be expressed differently in different scenarios, but it is something that must be addressed regardless of how the future unfolds. As we learned in doing the Systems Scenarios – it's all connected.

The master list of issues identified by workshops participants is below. Those that are bolded had strategic options developed for responding to them (see Appendix 4 for the Options).

Table 10. Master Issue List

Gated Communities	Community Lifelines	Bottom Line	Better Together
1. **Racial inequality, increase in wealth gap; overpopulation**	1. **Unions resist changes to education and data-driven results-based governance**	1. **Success is dependent on "equitable" growth**	1. **Recalibration of post-secondary education/system**
2. **Hyper-partisan environment**		2. **Strong local leadership**	2. **A growing young (and old) population**
3. **Decreasing market opportunities (destruction of small biz)**	2. **Erosion of tax dollars and politicization of resource allocation**	3. **Loss or lack of shared identity**	3. **Infrastructure challenges in small communities and resource gaps in urban**
4. Community apathy	3. **Older business models resist move to evidence-based measures**	4. High level of cyclicality	
5. Degradation of environment		5. Deepen tribalism and stratification into winners vs. losers	4. New system structure for electoral process
6. Inequitable distribution of public resources	4. Education businesses resist changes to new metrics	6. Bringing communities together	5. Healthcare updates for aging population
7. Exploitation of labor	5. Caught in the old paradigm	7. Access to resources (tech infrastructure, capital) critically important	6. Dramatic shifts in labor pool readiness
8. Urban-housing costs	6. Inertia and resistance to data-driven changes	8. Who defines "the truth"?	
	7. Entrepreneurial future		

The analysis of these 29 issues led us to five cross-cutting issues (listed in alphabetical order). The "Big Five" issues were:

- Broadband and Infrastructure
- Climate Change
- Inequality
- Jobs (AI and Automation)
- Tribalism

Each of the five is characterized with a brief description of their role in each of the four scenarios.

Broadband. Our interviews and workshop experts were especially insistent on the fundamental needs to improve access to broadband. We agree that this focus on digital infrastructure is a priority, but let's not forget the physical infrastructure, a less sexy but hugely influential issue.

- *Gated Communities* connected infrastructure with inequality with "inequitable distribution of public resources."
- *Bottom Line* identified access to broadband and other infrastructure as critically important.
- *Community Lifelines* identified the erosion of tax dollars and increased politicization of allocation as obstacles to infrastructure improvement.
- *Better Together* identified infrastructure challenges in small communities and resource gaps in urban areas as a key issue.

Climate change. It was interesting to observe that climate change did not receive urgent attention, but is rather assumed to be on the future agenda. Indeed, it almost seems taken for granted. There was a sense of urgency in the terms of how ready communities are for it – in general, not at all.

- *Gated Communities* raised the general issue of degradation of the environment.
- *Bottom Line* left it up to "strong local leadership" to deal with climate and other quality of life issues given the focus on economics.
- *Community Lifelines* did not specifically identify climate change as an issue, but the scenario identified accelerating climate change as added to the growing anxiety about the future that needed to be addressed.

- *Better Together* did not specially call out climate change but in their scenario put it within the context of a shift to natural resource management and an "economy of the commons" mindset for dealing with long-term environmental issues.

Inequality. Inequality is on the table, front and center, and not going to magically go away. The failure to adequately address inequality has negative consequences across the scenario landscape. Addressing some aspects, such as taking action to lessen economic inequality in *Bottom Line*, still leaves open the inequality regarding of quality of life.
- *Gated Communities* noted the connectedness with their "interconnection of racial inequality, the wealth gap, and overpopulation" issue.
- *Bottom Line's* top issue was that success is dependent on "equitable" growth.
- *Community Lifelines* identified how people were caught in the old paradigm and inertia leading to resistance to addressing key issues such as inequality.
- *Better Together* noted the demographic challenges of a "young and old" population and suggested recalibrating education as a fundamental strategy for addressing inequality.

Jobs (AI and automation). The research identified "racing automation" as a key driver and "AI Job Loss" was identified as a key uncertainty. We simplify the issue to jobs, noting there are many influences on the future of jobs. It is worth noting that fewer jobs are not necessarily a negative. In the *Better Together* scenario, measures such as Universal Basic Income help address the issue.
- *Gated Communities*, in addition to the wealth gap mentioned, raised the issue of labor exploitation and housing costs.
- *Bottom Line* did not specifically identify jobs as an issue, but the scenario itself assumes that the profits from economic growth are used to offset job loss, which could have been stated directly as an issue.
- *Community Lifelines* identified labor union resistance as an obstacle along with fears of disruption to existing business models, especially relevant given their view of the importance of entrepreneurial approaches.
- *Better Together* identified dramatic shifts in labor pool readiness as an issue.

Tribalism. Tribalism is related to inequality in creating a have versus have-not or us vs. them divide, that sets a tone of apartness rather than togetherness. Staying closers to one's known groups is safer than

the risk of reaching out to new ones. If the "climate" remains uncertain and fear-driven, tribalism could make progress in community development quite challenging.

- *Gated Communities* noted hyper-partisanship and the potential for apathy. As it becomes more and more difficult to get things done, a very real possibility is simply giving up.
- *Bottom Line* noted both the "loss and lack of shared identity" as well as the potential of a winners-and-losers mentality for deepening tribalism.
- *Community Lifelines* did not specifically address tribalism but assumed a level of cooperation in moving to new "measures of success" that clearly implied progress on dealing with tribal concerns.
- *Better Together*, as their title implies, hinges on overcoming tribalism through education overhaul and a more participatory approach to governance.

INTEGRATED STRATEGIC APPROACH

We believe that ultimately a good foresight project ought to provide a sense of direction for the client moving into the future. The look to the future starts with a vision of where you want to go. One of the key uncertainties explored at how success might be framed in the future: is it primarily focused on economics or quality of life? It's not really an either-or, but a matter of emphasis. The other uncertainty questioned whether today's polarizing issue of systemic inequality will be addressed successfully or not. This section provides the rationale and recommendations for this strategic direction.

The previous section identified five issues that appear in each scenario. They in effect form a bullseye in the center of the scenario matrix. There is no avoiding them. In scenario language, this suggests a "robust" approach that focuses on addressing the common issues to each scenario. Table 11 below suggests how each of the Big Five might be addressed in each of the four scenarios.
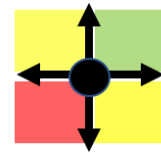
Table 11. Responding to Big Five issues

	Gated Communities	Community Lifelines	Bottom Line	Better Together
Broadband	Develop programs to enable lower-income residents to gain access to digital services	Focus on digital infrastructure to develop the sophisticated algorithms and analytics driving the Lifeline system	Focus on digital infrastructure to enable economic growth and virtual work across urban and rural communities	Develop sophisticated I/T applications such as self-driving vehicles and blockchain for local currencies
Climate change	Focus limited resources on mitigation strategies for areas most likely to be impacted first	Multi-tiered approach that provides premium prevention and protection for high, and basic level for the rest	Encourage local communities to make wise use of the economic bounty from growth for climate strategy	Massive CO_2 reduction campaign including move to renewable energy and circular economy
Inequality	Reduce the worst excesses with measures, e.g. permitting tax-free and subsidized "homesteading" for lower income people	Give disadvantaged voices direct representation in the system that creates the dashboard analytics and measures	Designating growth proceeds for "equality" programs	Education revamp with a focus on inequity over inequality to promote mutual empathy via new

				social mixing and community building
Labor, AI, and automation	Develop retraining programs for those displaced by AI/automation	Use of AI/automation to drive each resident's capital/property accumulation and productivity growth with basic service levels as safety net	Application of AI and automation to maximize economic growth with proceeds used for addressing social impacts, e.g., Automation Tax"	A community-centric AI/Automation/ Computing Commons to encourage a partnership approach that maximizes skills of machines and people working together
Tribalism	Promote cross-boundary social institutions that can collaborate and compete to create mixing opportunities between differing socio-economic groups, e.g., the 21st century equivalent of Lion's Clubs	Continue to develop the level of basic services to shrink the divide with premium services.	Reparations program, rebates on products/ services from commercial, up to and including "negative cost" (payments) for highly disadvantaged people	Experiment with innovative participatory approaches to inclusive community governance

A "Robust Core" approach

We feel felt that the *Better Together* scenario best captured the long-term momentum of change for the future of communities. Our recommendation is that *Better Together* represents the most useful long-term target toward which development efforts should be directed. In scenario language, this is a "core" approach. This focus on a core scenario does not mean neglecting the others, but rather holding it as a targeted direction. It would be highly unusual to proceed from today straight toward the core future. There will be other scenarios, or elements of other scenarios, to encounter along the way. The hybrid robust core focuses on addressing the common issues – our Big Five – while on a parallel path works toward a particular scenario.
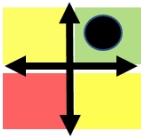
In thinking about how the scenarios might unfold, we start by judging where we are today. Our view is that we are in a less extreme version of *Gated Communities*, where systemic inequality has been worsening and the measure of success is primarily economic. In the figure below we note today's

position as "we are here." The first order of business is to avoid the rather bleak *Gated Communities* scenario. The scenario provides an image of a very difficult and undesirable future likely to occur if nothing is done to resolve the "Big Five" issues. Inaction leads to a challenging future, one in which the negative aspects of today worsen. The *Gated Communities* scenario is represented in the figure by a red light – stop it from happening.

As mentioned above, the core of the recommended approach is aligning with the long-term movement to the *Better Together* scenario as most preferable. We suggest, to the extent possible, that NC develop a strategy aiming at the *Better Together* world. Thus, in the figure below this scenario is represented by a green light – go for it!

Of course, the future does not always work out in a straight line or precisely as we hope. There are likely to be detours or alternative pathways to the preferable future. The road to the "green light" future of *Better Together* is likely to encounter potential alternatives or detours, which we characterized as *Bottom Line* or *Community Lifelines*.

Bottom Line is the more plausible scenario characterized by a laser sharp focus on economic development, with the hope that the resulting economic bounty will provide enough resources to deal with the various quality-of-life issues. Indeed, there are many calls for focusing on the economy as the most sensible strategy for the future.

Community Lifelines is perhaps the more atypical of the two plausible "detours." It encompasses ideas prevalent in smart city proposals that emphasize the role of technology in creating a better future, while also incorporating some very human-centric ideas improving quality of life. There is a concerted effort to redefine success beyond economic to include quality-of-life measures, but it turns out to be a quite a challenge. The approach then is to create a version of a multi-tiered approach to services – a level of basic services – aka lifeline – for all and a premium version for the wealthy. Essential community services are quickly adjusted as individual and community conditions change.

These two detours are characterized in the figure by yellow lights of caution.

The arrows at the center of the diagram suggest that a movement toward one or the other detours can be followed by a subsequent return to the desired "green light" future of *Better Together*.

Road to NC Communities 2040

Community Lifelines

This is a world where quality of life has improved after widespread adoption of multi-factored quantifiable "lifeline" dashboards.

Everyone can afford the basics but access to the best is still limited. A virtual divide increases inequality and immobility. By failing to adequately address systemic inequality, the already successful do better, but most communities struggle to achieve their goals.

Better Together

This is a world where a radical transformation of the concept of community is underway.

Reinventing education is prioritized and new technology tools (big data collection, automation) and community-based UBI are implemented. Local development approaches create communities where residents have time for community initiatives, creative expression, and leisure activities.

Gated Communities

This is a world where elites attempt to control the narrative, that this is a world of equal opportunity but matters on the ground tell a different story.

The Haves prosper and the Have-nots are utilizing grassroots movements to barely scrape by. Tribalism is an accelerating force in which communities "protect their own" in a landscape of fierce competition.

Bottom Line

This is a world where communities embrace strong public-private partnerships to boost growth and reduce economic inequality.

Early infrastructure investments in broadband, virtual tech, data sharing, and automation allow communities to develop customized approaches that leverage local identity and resources. There is an uneasiness about how long the growth can continue and about perceived neglect of non-economic issues.

We are here

Quality of Life · Measure of Success · Economic

Systemic Inequality · Grows · Shrinks

Figure 13. NC Communities 2040 Strategic Approach

The recommended strategic approach thus focuses on:

- What can be done to avoid the red-light future of *Gated Communities*?
- What can be done to encourage the move to the green-light future of *Better Together*?
- What are the best ways to adapt to the yellow-light detours of *Bottom Line* or *Community Lifelines*?

In summary,

- The "red light" of *Gated Communities* is a warning scenario to be avoided.
- The "green light" of *Better Together* is a preferable future for the long-term that should be aimed for.

- The "yellow lights" of the *Bottom Line* and *Community Lifelines* are plausible detours or transitions from the present on the road to the green-light future of *Better Together*.

DEVELOPMENT MODELS

In addition to addressing the Big Five issues, we see an opportunity for Civic FCU and its partners to encourage and promote the adoption of various community development models. We developed a taxonomy of models that fit with the scenarios. The three types of community development models and the mindset behind them are:

- Economic Development: Focuses on the economy as calculated by traditional measures such as GDP growth. The mindset is, "*We want to grow, prosper, and diversify. We prioritize capitalism and the pursuit of individual material rewards*."

- Sustainable Development: Expands the focus from economic development to include social and environmental concerns as well. The mindset is, "*We want to satisfy deeper human needs and ensure continued growth for the future. We prioritize triple bottom line: people, profit, planet*."

- Regenerative Development: Pushes beyond sustainability to apply holistic processes to create mutually supporting feedback loops between physical, natural, economic, and social capital that restore equitable, healthy, and prosperous relationships among these forms of capital. The mindset is, "*We want to catalyze prosperity and the health of humans and natural environments through holistic design and meaningful community participation.*"

The different development models align nicely to the three scenarios toward which the future is likely to evolve. Given the goal of avoiding the red-light warning scenario, *Gates Communities*, development models are not developed to "move toward it." The models and scenario fit are:

- Economic development models would fit best with a *Bottom Line* future.
- Sustainable development models would fit best with a *Community Lifelines* future.
- Regenerative development models would fit best with a *Better Together* future.

Community Development Models

The taxonomy of models below is organized as follows: The economic development and sustainable development model types are similar. Economic development models, which are currently the most prevalent, preserve the current "system" or ways of doing things. Similarly, while sustainable development models expand the range of concerns beyond just economic, they also "sustain" the current system. The regenerative models are different in that they seek to develop a new type of community system or a new way of doing things.

- The economic and sustainable development models are organized by three types of goals. The first set of models is aimed at increasing access to capital, the second are aimed at improving the business climate, and the third focused on stimulating asset building.
- The regenerative models are also organized by three types of goals. The first set is aimed at enhancing localized approaches, the second is aimed at stimulated cooperative approaches, and the third is focused on transparency.

Economic Development (Best w/ *Bottom Line*)		
Increase Access to Capital • City Branding • Presence of Post-Secondary Institutions • Legislation to Encourage Investment • Diversification	**Improve the Business Climate** • Improve Infrastructure • Increase Access to Qualified Workers	**Stimulate Asset Building** • Public/Private Partnerships • Issue Bonds

Sustainable Development (Best w/ *Community Lifelines*)			
Increase Access to Capital • City Branding • Legislation to Encourage Ethical Investment	**Improve the Business Climate** • Improve Infrastructure • Increase Access to Qualified Workers	**Stimulate Asset Building** • Public/Private Partnerships • Issue Bonds	**Link Economic Strategy to Larger Geographic Economic Strategy** • Community Development Funds

Regenerative Development (Best w/ *Better Together*)		
Localization	Cooperative Approaches	Transparency

• Localized Supply Chains • Localized Currencies • Placemaking • Local Cultures • Off-the-Grid Communities • B- Corps • Re-municipalization	• Sharing Economies • Cooperative Economies • Universal Basic Income • Regenerative PPPs • Cultural Integration • Renewable Energy Microgrids • Circular Economies	• Open Data

Figure 14. Community Development Models

The 28 models in Figure 14 are characterized using the following categories:

- <u>What Is It?</u>: A brief description of what the model is about.
- <u>Why?</u>: The purpose or goal of the model.
- <u>Example</u>: Brief description(s) of the experience of where the model has been tried.
- <u>Does it Work?</u>: A characterization of how well the model has fared.

We begin with the economic development models.

Focus	*Models*	
Economic Development (Best w/ Bottom Line)		
Increase Access to Capital	*City Branding* *Presence of Post-Secondary Institutions*	*Legislation to Encourage Investment Diversification*
Improve the Business Climate	*Improve Infrastructure*	*Increase Access to Qualified Workers*
Stimulate Asset Building	*Public/Private Partnerships*	*Issue Bonds*

1.1 Economic > Increase Access to Capital > City Branding

What Is It?

- Leveraging existing expertise and assets to market the locality as the "X Hub"

Why?

- Demonstrates an expertise and an easily communicated value proposition for investors & businesses

Example

- St. Louis is focusing on becoming the right environment for startups and entrepreneurs, i.e. the "Innovation Hub"
- Includes Ameren Accelerator powered by University of Missouri System, UMSL Accelerate, and Capital Innovators
- Seems to be successful so far with Missouri being the fourth-largest state for accelerators in the country

Does it Work?

- 86% of rebranding campaigns fail
- More successful if it is aligned well to a city's characteristics and policies
- Need to be sure that the brand attempt is not based on a boom that will soon bust (e.g. "Energy Hub" based off of proximity to oil sands, Shale Towns)

1.1 Economic > Increase Access to Capital > Presence of Post-Secondary Institutions
What Is It?
- Utilizing post-secondary institutions not only as educators but as a platform for boosting local economies either through attracting businesses to the area or through being the origins of startups

Why?
- High-productivity technology businesses tend to cluster around universities ultimately driving investment
- Universities are considered an ideal startup platform

Example
- The University of Michigan is focusing on mobility, and Toyota and Hyundai have opened large R&D centers there
- The University of Illinois aims to be an ag-tech and medical hub and has partnered with the U.S. government
- Georgia Tech has seen their students' supported startups outperforming traditionally funded startups

Does it Work?
- In a study of ~150 university incubators and ~900 companies, businesses cultivated at these institutions generated more jobs and sales than those incubated elsewhere
- Researchers found that Cleveland's colleges are too focused on educating locals, whereas Pittsburgh's (Carnegie Mellon) have taken an active role in boosting the city's tech industry

1.1 Economic > Increase Access to Capital > Legislation to Encourage Investment
What Is It?
- Enacting legislation that makes investment and/or corporate growth easier

Why?
- It structures localities to have a competitive advantage in regards to where to invest capital for successful returns

Example
- In the state of Pennsylvania, many jurisdictions have their own set of rules around installing small cell nodes needed for 5G
- There is a bill currently under consideration called the Small Wireless Facilities Deployment Act which will standardize 5G rollout processes statewide

Does it Work?
- It has in the past
- In Alberta, Canada, in the 90s the government created a generic royalty that only demanded token payments in the first years of mega oil sands development – this facilitated the oil sands development which has been the backbone of Alberta's economy to this day

1.1 Economic > Increase Access to Capital > Diversification

What Is It?
- Encouraging economic growth in more than one sector in order to better weather any adverse economic conditions
- Categorized under sustainable development since it is a move to create sustainable economic growth

Why?
- Focus in one sector is a risk for sustained economic growth and makes it more difficult to attract capital
- Diversified economies allow businesses to feed off of one another and grow larger as the economy grows

Example
- The town of Big Stone Gap in Virginia started as a mining town
- It focused its efforts on developing ecotourism and outdoor sports through support to tourism-oriented entrepreneurship (e.g. bed and breakfasts, rafting activities)

Does it Work?
- Generally speaking, it seems to work; however, it is easier said than done
- It is important that for smaller localities, they attempt to diversify based off of their core competencies rather than diversifying for diversity sake

1.2 Economic > Improve Business Climate > Improve Infrastructure

What Is It?
- Improving infrastructure such as water services, buildings, parks, transportation
- Emerging trend to incorporate IoT technology (i.e. smart cities)

Why?
- Infrastructure enables trade, powers and attracts businesses, connects workers to employment, and creates opportunities for struggling communities
- The infrastructure industry also employs millions

Example
- India is continuing to experience mass urbanization
- Launched a 5 year project from 2014-2019 with a total budget of $7.2 billion
- Central government planned to invest $75 million per city, respective governments, urban local bodies, and private investors expected to raise a matching amount
- Goal to boost economic development, technological innovation, and sustainable growth across 100 cities

Does it Work?
- Claims to have impacted almost 100 million of India's urban population

1.2 Economic > Improve Business Climate > Increase Access to Qualified Workers
What Is It?
- Encouraging a highly employable workforce largely through access to educational opportunities and funding

Why?
- Access to a strong talent pool is a significant driver for companies to invest in a locality

Example
- Studies show a more educated populace leads to higher productivity
- University research expenditures have a strong effect on the number of educated people in the region

Does it Work?
- Apple, Cisco, Google, Hewlett-Packard, Intel, and Yahoo being headquartered out of the San Francisco Bay area to be able to draw from the hub of international talent

1.3 Economic > Stimulate Asset Building Public > Private Partnerships
What Is It?
- Working with the private sector to finance and complete asset building normally financed by public sector

Why?
- Infrastructure projects suffer from poor resource optimization and expertise
- This transfers the responsibility to highly capable teams

Example
- California's George Deukmejian Courthouse was the largest payment-based infrastructure project in U.S. history
- The building was completed in 2013, on time and within budget
- The private consortium gained low-risk cash flow payments on the lease for a 35-year duration
- The consortium can evict the State if they do not meet payments

Does it Work?
- Can solve many structural and operational problems that cause budget and schedule overruns for large projects
- In Europe, has reduced the lifecycle costs by up to 20% compared with traditional approaches

1.3. Economic > Stimulate Asset Building > Issue Bonds
What Is It?
- A debt that is issued by the government and sold to investors to support government spending
Why?
- Access to new capital for infrastructure projects
Example
- Tend to be national governments but local governments may also issue them to fund projects such as infrastructure, libraries, or parks
Does it Work?
- Yes, backed by the government's credit rating

Next are the sustainable development models.

2. Sustainable Models

Focus	Models	
Sustainable Development (Best w/Community Lifelines)		
Increase Access to Capital	City Branding	Legislation to Encourage Ethical Investment
Improve the Business Climate	Improve Infrastructure	Increase Access to Qualified Workers
Stimulate Asset Building	Public/Private Partnerships	Issue Bonds
Link Economic Strategy to Larger Geographic Economic Strategy	Community Development Funds	

2.1. Sustainable > Increase Access to Capital > A Sustainable City Branding

What Is It?

- Leveraging existing expertise and assets to market the locality as being environmentally, economically, and socially sustainable

Why?

- Demonstrates an expertise and an easily communicated value proposition for investors & businesses

Example

- Vancouver's "Greenest City Action Plan" ([link](#))
- Proposed framework for sustainable city branding

Does it Work?

- Study of towns close to Bangkok bucketed them as being "Elegant Towns" (high performance & quality of economic growth and landscape), "Compassionate Towns" (high performance & quality in economic growth and social equity), "Lively Towns" (high levels of performance & quality in economic growth and conviviality), "Peaceful Towns" (high levels of performance & importance in livability and health), and "Green Towns" (high levels of performance & quality in the natural environment)
- The author proposes the cities use this framing to help brand themselves sustainably – it goes beyond just the environment

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2.1 Sustainable > Increase Access to Capital > Legislation to Encourage Ethical Investment

What Is It?

- Enacting legislation that makes investment into socially impactful projects easier

Why?

- Stimulates progress towards solving systemic issues through sustainable means

Example

- Congress' Opportunity Zones incentive which aims to encourage long-term investments in low-income urban and rural communities
- It provides tax incentives for investors to re-invest their unrealized capital gains into dedicated Opportunity Funds

Does it Work?

- Opportunity Zones have been able to funnel money into communities in need
- As of Oct. 2019, the Opportunity Zone Fund Directory lists 183 opportunity zone funds expected to raise $44 billion

2.2 Sustainable > Improve Business Climate > Improve Infrastructure

What Is It?
- Infrastructure can be incredibly environmentally damaging and maintaining it is expensive
- Need to ensure infrastructure is climate change resilient

Why?
- Improving infrastructure such as water services, buildings, parks, transportation to be more efficient
- Emerging trend to incorporate IoT technology (i.e. smart cities)
- Report on financing sustainable infrastructure: (link)

Example
- Vaxjo, Sweden, has subsidized the conversion of old buildings from oil to biomass heating
- NYC embarked on a $20 billion project to turn seven blocks in the nation's first "quantified community" (a testing ground for urban data science)
- They added 17 million square feet of commercial, residential, and civic space
- Some of their sustainable features include efficient, onsite, cogeneration plant, energy management systems, household meters that provide real-time readings

Does it Work?
- 90% of Vaxjo's heating fuel comes from biomass
- To be determined for smart city initiatives

2.2 Sustainable > Improve Business Climate Increase > Access to Qualified Workers

What Is It?
- Encouraging education and re-education for the unemployed and those in automatable industries

Why?
- Access to a strong talent pool is a significant driver for companies to invest in a locality and it helps marginalized communities live up to their full potential

Example
- Alberta has a Canada-Alberta Job Grant to help eligible employers gain government funding for employee access training programs, Training for Work programs to help individuals get back to work, Indigenous Employment Training to help under employed Indigenous members gain the necessary training, and a set of resources on retraining
- Government sponsored scholarships for low income and marginalized communities

Does it Work?
- To be fully determined – the upcoming economic upheaval that comes with automation will be a true test

2.3. Sustainable > Stimulate Asset Building > Private-Public Partnership for Sustainability

What Is It?
- Working with the private sector to finance and complete asset building needed to achieve the UN's Sustainable Development Goals

Why?
- The UN explicitly recognizes that achieving the goals will not be possible without private-public partnerships

Example
- Since 1991, the City of Vancouver collected and burned landfill gases to control odors and reduce environmental impact
- The city partnered with a private company to have them create a cogeneration plant which uses landfill gas as fuel to generate electricity to power 4,000 to 5,000 homes
- Waste heat is recovered as hot water and sold to a private tomato greenhouse complex
- This partnership created new jobs and more power

Does it Work?
- Appears to work
- Organizations can play to their expertise to optimize economic benefit and environmental impact

2.3 Sustainable > Stimulate Asset Building > Issue Green Bonds

What Is It?
- A debt that is issued to support positive environmental and/or climate benefits

Why?
- Access to new capital for sustainable projects, including infrastructure and social impacts

Example
- In 2001, voters in San Francisco approved a $100 million bond initiative to pay for solar systems, energy efficiency improvements, and wind turbines for public facilities
- Since then, there have been more than 500 residential and commercial solar installations with approximately 1.8 MW in capacity

Does it Work?
- Appears to work and there's growing interest – green bonds raised $86 billion in the first half of 2019, a rise of 26% from the year before

2.4 Link to Larger Geographic Economic Strategy > Community Development Funds
What Is It?
- Launch support funds that link a local economic development focus to that of the larger region
Why?
- Allows struggling economies to grow with the economy of their nearby counterparts
Example
- In Kenya, areas of the north of the country have mostly been excluded from the benefits of rising living standards
- The World Bank is launching the Northeastern Development Initiative (NEDI) which is a multi-sectoral program consisting of projects in transport, water, energy, agriculture, livelihoods, and social protection to connect the region to national and global markets
- In the Western world, Community Development Financial Institutions
Does it Work?
- Still TBD, but it appears as if they tend to make positive impacts

Finally, the regenerative development models are below.

3. Regenerative Development

Focus	Models	
Regenerative Development (Best w/ Better Together)		
Localization	Localized Supply Chains Localized Currencies Placemaking	Local Cultures Off-the-Grid Communities Re-municipalization
Cooperative Approaches	Sharing Economies Cooperative Economies Universal Basic Income Regenerative PPPs	Cultural Integration Renewable Energy Microgrids Circular Economies
Transparency	Open Data	

3.1. Regenerative > Localization > Localized Supply Chains

What Is It?
- The emerging trend to shorten supply chains as much as possible and to buy locally

Why?
- Boosts local economy and more environmentally friendly
- Safer and more stabilized source of fundamental goods

Example
- Revolution Agriculture is a new company that plans to rent spaces from landowners in the cities it services and manage the cultivation of "farmlets"
- Hosts receive a portable, greenhouse-like facility that enables produce to be grown year-round
- The company plans to partner with grocery delivery services including Instacart and Postmates to distribute its produce to customers

Does it Work?
- For multinationals: Chinese smartphone company Xiaomi captured the Indian market through localization
- Research has found that twice the money stays in the community when people purchase locally

3.1. Regenerative > Localization > Local Cultures

What Is It?
- Entire ways of life such as rules, values, and expected behaviors in a local community

Why?
- Offers the basis for locally based economic and other developments
- Competitive advantage rooted in needing to visit or consume goods from that locality to gain the authentic experience

Example
- The Calgary Stampede is an annual event celebrating Calgary's rodeo culture
- Calgary's national and international identity is tied to the event as the city is also known as "Stampede City" or "Cowtown", and the local football team is named the Stampeders
- In recent years the event has added $540 million to the province's economy

Does it Work?
- Helps people better understand themselves and each other (intrinsic value)
- Contributes to the quality of life (instrumental value)

3.1 Regenerative > Localization > Localized Currencies

What Is It

- An alternative currency that only has value within a local community and holds the value in the same way as a gift-card

Why?

- To encourage local spending in order to boost the community's economy and establish regional self-reliance

Example

- Berkshire region's BerkShares
- Federal currency is exchanged for BerkShares at nine branch offices of three local banks and spent at more than 400 locally owned businesses

Does it Work?

- Seems that there are some well-used local currencies
- One opinion is that it doesn't encourage local spending because those that buy the currency would likely prioritize spending local anyways – they believe there is more potential when these systems are rooted in the creation of a new currency rather than a local version of a national currency (e.g. buy Bristol pounds by paying UK pounds)

3.1. Regenerative > Localization > Placemaking

What Is It?

- Placemaking inspires people to collectively reimagine and reinvent public spaces in the heart of every community

Why?

- Strengthens the connection between people and the places they share
- Promotes better urban design, creativity, and encourages ways to capitalize on local community assets to create something valuable

Example

- Campus Martius in Detroit's Central Business District was revitalized through public-private partnership
- Located centrally with the goal to draw hundreds out
- Has increased the demand for real estate and enhanced property values and revenue for surrounding businesses
- Designed to maximize the number of activities available and provide for seasonal use
- Regularly hosts arts and culture activities

Does it Work?

- Couldn't find tangible data
- Arguments for it helping attract and retain talent and investment, and help make urban planning decisions

3.1 Regenerative > Localization > Off-the-Grid Communities

What Is It?

- Living completely independent of traditional infrastructures and services offered by traditional municipalities

Why?

- A more environmentally-friendly and simpler way to live

Example

- Lasqueti, Canada is just an hour boat ride away from Vancouver with 400 residents
- Most of their electricity is provided by solar panels, wind turbines, and small scale hydroelectric
- They grow their own crops and forage for food
- There is a manual for going to the bathroom called "How to Shyte on Lasqueti"
- Most members are professional musicians, published authors, some small scale manufacturers, commercial agriculture as well as professional consultants
- Statistics Canada shows that Lasqueti Island has the most highly educated community in British Columbia

Does it Work?

- Logically speaking, yes, done right it works to achieve the community's goals

3.1 Regenerative > Localization > B Corps

What Is It?

- B Corp is a "for benefit" corporation that is required by their charter to also benefit society in some way: the "benefit" in a B Corporation refers to the triple-bottom-line mission of financial, social, and environmental sustainability

Why?

- They are designed to integrate private interest and public benefit, which in other business models are treated as distinct or even conflicting entities
- Keeps money in the community

Example

- As of October 2020, there were more than 3,500 B Corps in 150 industries worldwide, including 38 in North Carolina. Well-known examples include Ben & Jerry's, Patagonia, and Seventh Generation
- New Belgium Brewing, the fourth-largest craft brewery in the United States, has been wildly successful, named a Best for the World honoree by B Lab four years in a row and sold nearly a million barrels of beer in 2017

Does it Work?

- The rapid growth of B Corps, albeit from a small base, suggests increasing popularity
- A 2018 study found that B Corps grew 28X faster than the GDP growth rate in the UK

3.1 Regenerative > Localization > Re-municipalization
What Is It?
- Reclaiming public ownership of services

Why?
- Privatization's focus on profit first has not delivered on promise of better service and is not effectively dealing with collective problems such as climate change and social unrest
- The viewpoint of supporters is that public services and the people who operate them are truly the foundation of healthy and resilient societies (link)

Example
- The Transnational Institute and partner organizations have identified more than 1,400 successful re-municipalization cases involving more than 2,400 cities in 58 countries around the world, captured in a global database.
- The focus of re-municipalization ranges from waste management in Egypt to new public pharmacies in Chile, and to the many remote US municipalities that have delivered jobs and improved quality of life by developing broadband internet

Does it Work?
- Re-municipalization springs from a wide variety of motivations, and each has its own challenges, but the database cited above provides examples of success (results will vary)

3.2 Regenerative > Cooperative > Sharing Economy
What Is It?
- An economic model that allows people to exchange tangible and intangible goods with each other at scale

Why?
- Saves costs by cutting out the middleman
- More environmentally friendly
- Boosts local economy

Example
- Ruckify is a peer-to-peer rental marketplace that is empowering their members to leave unnecessary purchases behind
- On it you can find outdoor goods, sports equipment, bouncy castles, books, and more

Does it Work?
- Statistics Canada reports that the sharing economy has become an annual $1.3 billion CAD industry, only slightly smaller than Canada's fishing, hunting, and trapping industry

3.2 Regenerative > Cooperative > Cooperative Economies

What Is It?
- Economies based on employee-owner models for majority of industry development

Why?
- Provides guaranteed long-term employment and returns to worker owners
- Goal of maximizing shareholder (employee) value

Example
- Mondragon Cooperative Corporation is the world's largest and most advanced cooperative economy based out of Spain
- It consists of 102 federated housing cooperatives employing over 73,000 people

Does it Work?
- It works for Mondragon, may be difficult to implement anywhere else
- Would take a tremendous amount of re-education
- It also owns its own bank, university, social welfare agency, several business incubators, and a supermarket chain

3.2 Regenerative > Cooperative > Regenerative Public-Private Partnerships

What Is It?
- Regenerative PPPs incorporate resilience best practices and have new considerations on:
  - Flexible agreements
  - Proactive adaptation to technology shifts
  - Alternative financial and refinancing tools
  - Utilizing resilient and sustainable practices for infrastructure and services that are regenerative and don't need to be rebuilt
  - Transparent and competitive procurement procedures
  - Exploring mechanisms to continue to enhance regenerative sustainability
  - Finding ways to appropriately reallocate new risks under a regenerative paradigm

Why?
- The role of private institutions and their independent operations is beneficial to more effectively prioritize regeneration

Example
- The PPP-based development of San Diego's Petco Park promoted ancillary development in surrounding neighborhoods

Does it Work?
- Petco Park was heralded as a success, but it was largely a success for the private sector over public sector
- The emerging definition of regenerative PPPs is too early stage to have tangible examples or evidence

3.2. Regenerative > Cooperative > Cultural Integration

What Is It?

- Integrating considerations of the cultural communities prominent within a geographic area during community development initiatives

Why?

- Creates a greater sense of trust, community self-determination, and independence especially for marginalized communities

Example

- Dokis First Nation Okikendawt Project in Ontario, Canada
- The Dokis First Nation group was issued debt in order to gain ownership of 40% of the Okikendawt Hydro project
- As it pays down its debt, profits grow and the group has created a trust fund to allocates the interest earned for infrastructure, health, education, and cultural initiatives

Does it Work?

- The Okikendawt development has brought additional pride to the community and has helped meet needs that insufficient federal funding was unable to

3.2 Regenerative > Cooperative > Universal Basic Income

What Is It?

- A "no-strings-attached" minimum income

Why?

- A way to respond to the labor displacement, increase entrepreneurial spirit, and allow people to work for purpose
- Argued to be more efficient and have a greater impact than the current welfare system

Example

- MINCOME trial in the 70s in Canada where the poorest residents received monthly checks with no constraints
- Change in political head scrapped the plans before the data was analyzed
- Finally analyzed in 2012 and found that teenagers in MINCOME families completed an extra year of school, hospitalizations decreased by 8.5% with the largest being for accidents and injuries and mental health diagnoses, and employment rates stayed the same

Does it Work?

- It seems to be successful at creating positive social impacts, but always a question as to what will fund it

3.2. Regenerative > Cooperative > Renewable Energy Microgrids

What Is It?

- Microgrids are localized grids that can disconnect from the traditional grid to operate autonomously
- They can be based off of renewable energy so communal renewable technologies (such as solar panels) can supply a community

Why?

- More environmentally friendly and cost-effective supply of energy

Example

- An Australian shopping center operator, Vicinity, trialed a blockchain management system for their energy network allowing the mall to manage its energy use and distribution by switching between its own solar energy and the national grid
- They envisioned a future where Vicinity would be able to share their excess power with nearby communities that connect to their energy network
- There have been no recent updates on the success or failure of this project

Does it Work?

- Not enough communities utilizing this concept to have tangible data

3.2. Regenerative > Cooperative > Circular Economies

What Is It?

- In contrast to the "take-make-waste' linear model," a circular economy is regenerative by design and aims to gradually decouple growth from the consumption of finite resources.
- The simple version of the model is (1) *preserve*: value when recycling (2) *extend* lifetimes, and (3) *reduce*: make fewer things

Why?

- In short, to gradually decouple economic growth from virgin resource inputs
- Addresses the emerging the "Rights of Nature" legal movements popping up around the world hat have incorporated legal rights to nature to protect lands & their associated biomes

Example

- Consumer goods companies are partnering with Loop, a "reboot of milkman" shopping service with reusable packages
- Furniture companies such as IKEA are now selling and leasing refurbished furniture
- Coca Cola's VenCycling where consumers can purchase, return, recycle used bottles and cans
- EON ID, a tiny RFID be sewn into garments, aim to make the recycling process more efficient and less wasteful by proactively identifying the garment's materials

Does it Work?

- Too early to tell. It's still at the pilot project phase, and there are likely to be significant advantages when economies-of-scale are reached

3.3 Regenerative > Transparency > Open Data

What is it?
- Publishing previously proprietary locality datasets to allow for public access and innovation

Why?
- Create new efficiencies, spark civic engagement, basis of new ideas and their free flow, and allows for greater transparency for those looking to invest in the community

Example
- New Jersey has an extensive open data platform including data on banking and insurance, community affairs, homeland security and preparedness, the State Department, the State Police, and more

Does it work?
- New Jersey's chief data officer said that the benefits they have realized include reducing the open record requests and freeing up resources for mission execution with more being interested in participating in the effort

GETTING STARTED: A Phased Approach across the Three Horizons

Getting started involves a two-fold path:
- Addressing the "Big Five" issues, and
- Supporting community development models that fit with emerging scenarios.

Phase 1 (Horizon 1)

The analysis suggested that present situation is on the *Gated Communities* trajectory. If this trajectory continues, the outcomes depicted by the *Gates Communities* scenarios are a significant worsening of current challenges and a highly negative future. A primary objective of this first phase, therefore, is to avoid and move off this trajectory.

Suggestions for addressing the "Big Five" issues in the "Horizon One" *Gated Communities* scenario are below:

	Gated Communities
Broadband	Develop programs to enable lower-income residents to gain access to digital services.

Climate change	Focus limited resources on mitigation strategies for areas most likely to be impacted first.
Inequality	Reduce the worst excesses with measures such as a "rebalancing" tax.
Labor, AI, and automation	Develop retraining programs for those displaced by automation/AI.
Tribalism	Town Halls across the state to provide forums to air differences.

Given that future is one to be avoided, the objective is to encourage moving toward the other three futures.

Phase 2 (Horizon 2)

Suggestions for addressing the "Big Five" issues in the two "Horizon Two" scenarios are below:

	Community Lifelines	Bottom Line
Broadband	Focus on digital infrastructure to develop the sophisticated algorithms and analytics driving the Lifeline system.	Focus on digital infrastructure to enable economic growth and virtual work across urban and rural communities.
Climate change	Multi-tiered approach that provides premium prevention and protection for high income, and basic level for the rest.	Encourage local communities to make wise use of the economic bounty from growth for climate strategy.
Inequality	Continue investment in a wide range of quality of life improvements despite some struggles.	Designating growth proceeds for "equality" programs.
Labor, AI, and automation	Use of AI/automation to drive productivity growth with basic service levels as safety net.	Application of AI and automation to maximize economic growth with proceeds used for addressing social impacts.
Tribalism	Continue to develop the level of basic services to shrink the divide with premium.	Develop a reparations program.

As the future moves to either *Bottom Line* or *Community Lifelines*, look for opportunities to experiment with the appropriate community development models: the economic development models if the future is moving toward *Bottom Line* or the sustainable development models if the future is moving toward *Community Lifelines.*

Focus	Models	
Economic Development (Best w/ Bottom Line)		
Increase Access to Capital	*City Branding* *Presence of Post-Secondary Institutions*	*Legislation to Encourage Investment Diversification*
Improve the Business Climate	*Improve Infrastructure*	*Increase Access to Qualified Workers*
Stimulate Asset Building	*Public/Private Partnerships*	*Issue Bonds*
Sustainable Development (Best w/Community Lifelines)		
Increase Access to Capital	*City Branding*	*Legislation to Encourage Ethical Investment*
Improve the Business Climate	*Improve Infrastructure*	*Increase Access to Qualified Workers*
Stimulate Asset Building	*Public/Private Partnerships*	*Issue Bonds*
Link Economic Strategy to Larger Geographic Economic Strategy	*Community Development Funds*	

Phase 3 (Horizon 3)

Suggestions for addressing the "Big Five" issues in the "Horizon Three" *Better Together* scenario are below:

	Better Together
Broadband	Develop sophisticated I/T applications such as self-driving vehicles and blockchain for local currencies.
Climate change	Massive CO_2 reduction campaign including moves to renewable energy and circular economy.
Inequality	A massive education revamp at the core of addressing inequality across community life.
Labor, AI, and automation	Develop a partnership approach that maximizes skills of machines and people working together.
Tribalism	Launching a campaign for an inclusive participatory approach to community governance.

We believe the long-term future is moving toward a scenario along the lines of *Better Together.* The regenerative models would apply here as the future moves toward this future.

Focus	Models	
Regenerative Development (Best w/ Better Together)		
Localization	*Localized Supply Chains* *Localized Currencies* *Placemaking*	*Local Cultures* *Off-the-Grid Communities* *Re-municipalization*
Cooperative Approaches	*Sharing Economies* *Cooperative Economies* *Universal Basic Income* *Regenerative PPPs*	*Cultural Integration* *Renewable Energy Microgrids* *Circular Economies*
Transparency	*Open Data*	

Using the report

The tables above provide a good starting point in bringing together actions toward addressing the "Big Five" issues and experimenting with the community development models constructed for each scenario. We could envision a couple of ways to organize the follow-up work:

- Establish task forces for each of the "Big Five" issues to develop specific policies and programs to address each.
- Following that work, a second set of task forces could be organized along encouraging experimentation with the community development models aligned with Horizon 2 and Horizon 3 scenarios: *Bottom Line, Community Lifelines,* and *Better Together.*

The project catalogued a significant body of research that could be built up and further developed. Civic and its partners can either have access to the Diigo library of more than 330 scanning hits or that library can be transferred over directly to Civic. A team could be formed to continue to scan and monitor the future. New scanning hits can easily be added to the Diigo library and provide a valuable ongoing source of ideas about what is changing. Now that the team has a set of scenarios, new scanning hits can be identified that indicate or suggest movement toward a particular scenario. While one hit by itself might be interesting, the goal would be to look for clusters or patterns in the scanning hits. The scenarios provide a framework or mental model of future possibilities against which new developments can be compared. Does a new development fit with a particular scenario, or does it suggest that something new may be emerging? Having the mental model provides the organization with a rich context to evaluate and make sense of new developments.

The scenarios, the scanning, the research and interview, and the drivers and uncertainties that were used to generate them, were used by this project identified a set of "Big Five" strategic issues and others. They could be used as an input to a potentially larger state-wide strategic planning initiative. The material can be useful in others ways, such as:

- Innovation sessions. The scenarios, or the individual trends or drivers, could be used in ideation sessions to develop new products or service offerings.
- Deep dives. Influential individual drivers or scenarios that are especially significant when studied separately can be explored more comprehensively through a Deep Dive.
- Knowledge base. The drivers, trends, and supporting research can be the foundation of building an ongoing futures inventory or knowledge base that can be added to with each project, as well as provide a starting point for new projects. One approach could be building an active Wikipedia-like Knowledge Commons where different community stakeholders could share knowledge, ideas, models, pilot program results, and discussions that could drive changes across the state.

APPENDICES

Appendix 1. Stakeholder Groups

Local community groups

The Southern Coalition for Social Justice ([link](#))
- A coalition who provide advocacy for minority groups and low income families with the aim of promoting community and fair representation.

North Carolina Community Action Association. ([link](#))
- NCCAA collaborates with community members, local governments, public and private partners, and thousands of local volunteers to invest in holistic community-based, anti-poverty strategies.

The North Carolina Community Development Initiative (NC-CDI).
- Through strategic investment, policy, and sector leadership the NC-CDI manages and integrates funding sources with community development needs. They specialize in supporting communities in disaster relief, affordable housing initiatives and community revitalization.

North Carolina Community Colleges ([link](#))
- The mission of the North Carolina Community College System is to open the door to high-quality, accessible educational opportunities that minimize barriers to post-secondary education, maximize student success, develop a globally and multi-culturally competent workforce, and improve the lives and well-being of individuals.

State and local Government bodies

University of North Carolina- School of Government- Development Finance Initiative
- The Development Finance Initiative (DFI) at the UNC School of Government partners with local governments to attract private investment for transformative projects by providing specialized finance and development expertise. Local governments seek DFI's assistance with difficult development projects, often in distressed areas where the government has had difficulty attracting private sector interest.

Department of Housing and Urban Development
- The Community Development Program runs the following programs at a national level: Affordable Housing, Community Compass & Capacity Building, Community Development, Community Renewal, Congressional Grants: Economic Development Initiative, Disaster Recovery, HIV/AIDS Housing, Homelessness Assistance, Rural Housing and Economic Development, Section 4 & Rural Capacity Building, Veteran Homelessness

North Carolina Department of State Treasurer- Local Government Commission ([link](#))
- Staff provides resources, guidance, and oversight to over 1,300 units of local government subject to the provisions of Chapter 159 on a variety of topics including annual budgets, internal controls, debt management, and pension and OPEB reporting.

North Carolina Government- Department of Commerce- Rural Economic Development Division
- The Rural Economic Development Division provides an interface to attract investment into rural areas as well as providing funding through direct sources such as the Community Development Block Grants (CDBG). The CDBG administers several federally-funded grant programs: A Building Reuse program, using CDBG-Economic Development funds, Public Infrastructure grants, also from CDBG-Economic Development funds, Demolition grants, Disaster Recovery funds, Community Housing Grants

City of Charlotte Planning Department (link)
- The Charlotte-Mecklenburg Planning Department develops community plans in order to help create a community of choice for living, working and leisure. Community plans are policy documents which define a vision for a community and include recommendations on land use, zoning, transportation, capital facilities and the environment. These policies are used by decision-makers to help guide future growth and development in Charlotte.

North Carolina Housing Finance Agency (HFA) (link)
- A self-supporting agency, the North Carolina Housing Finance Agency sells bonds, administers tax credit programs and uses state and federal funds to produce affordable housing in partnership with local governments, non-profit housing producers and for-profit developers. The financing is used to build rental apartments and homes, to finance affordable home mortgages, to rehabilitate rental and owner-occupied housing, to provide rent subsidies and to assist home buyers.

North Carolina Department of Transportation (link)
- The department seeks to provide business opportunities and community support but is primarily focused on large infrastructure projects.

North Carolina Department of Commerce: Infrastructure: State Rural Grants (link)
- The Economic Infrastructure Program provides grants to local governments to assist with infrastructure projects that will lead to the creation of new, full-time jobs. Eligible projects include but are not limited to:
  - Upgrades or repair of public drinking water or wastewater treatment plants
  - Upgrades, extensions, or repair of public water or sewer lines
  - Extensions of publicly owned natural gas line (with an executed Pipeline Construction, Operating and Resale Agreement
  - Installation or extension of public broadband infrastructure
  - Construction of publicly owned access roads not funded or owned by the NC Department of Transportation
  - Construction of public rail spur improvements

North Carolina Ports (link)
- The mission of the North Carolina State Ports Authority is to enhance the economy of the State of North Carolina. The ports authority has a significant impact on the local economy and remains a central hub for economic activity and flow of goods into and out of NC at the national and international level.

Federal initiatives and national level groups

American Planning Association (link)
- A not-for-profit body of professional advisors and lobbyists. The American Planning Association provides leadership in the development of vital communities for all by advocating excellence in planning, promoting education and resident empowerment, and providing members with the tools and support necessary to ethically meet the challenges of growth and change.

Environmental Protection Agency (EPA) (link)
- The EPA has announced a 62 Million dollar project in NC as part of a National EPA funding initiative that promotes clean and safe drinking water. It is a revolving fund and set of grants that provides funding to a variety of clean water initiatives.

Low-Income Housing Organization (link)
- Low Income Housing is the premiere online resource of affordable housing options. A not-for-profit resource, government funded at the State and Federal level.

The U.S. Small Business Administration- COVID 19 recovery (link)
- The USBA aims to provide loans and advice to assist in small business loans and recovery during the pandemic. It is highly likely that the USBA will either make or break a number of small businesses within NC but may also provide a unique growth opportunity for some businesses that are healthy enough to survive the current down turn.

Local Initiatives Support Corporation (link)
- LISC invest in overlapping program areas that span a wide mix of issues in community life. It includes a number of development grants and proposals as well as securing funding across a range of community projects. They are based in DC, which also provides access through lobbying and government connections.

NC business groups (including lobby groups and non-profits)

The North Carolina Rural Development Centre (link)
- The NC Rural Centre's mission is to develop, promote, and implement sound economic strategies to improve the quality of life of rural North Carolinians. We serve the state's 80 rural counties, with a special focus on individuals with low to moderate incomes and communities with limited resources.

Visit North Carolina (a partner of the EDPNC) (link)
- Is an industry partnership focused on tourism within NC. It promotes new business models and supports advertisement, business start-up and lobbying in support of NC tourism.

The Centre for Regional Economic Competitiveness (link)
- A non-profit organization that seeks to engage at the global level to address economic viability of regional areas in both manufacturing and agriculture. It has links to lobbying groups for specific issues and appears to link with defence industry as well.

NC EAST Alliance (link)

- A non-profit group that serves the Eastern portion of NC. It is especially noteworthy for promotion of industry in regional and micro urban areas to promote manufacturing and production for NC. Defence is a key area for potential growth. With the 3rd largest Defense presence in the U.S.A., investment in defence industries in the state lags behind many other key hubs.

Public Schools First NC (non-profit community organization) ([link](#))
- Public Schools First NC originated from a group of public education advocates who supported effective, diverse, and well-funded public schools in Wake County. These advocates started a Wake County focused coalition called Great Schools in Wake Coalition (GSIW). Within a year of GSIW forming, it was clear that a state-wide organization was needed to advocate for the same principles all across North Carolina. Great Schools in Wake is now a special project of Public Schools First NC.

Education North Carolina ([link](#))
- A newspaper that brings together non-profits and other interested parties with a focus on improving childhood education across NC. They appear to have a lot of influence in bringing together community groups and selling education issues within NC.

My Future NC ([link](#))
- This organization aims to improve the education standards of the population of NC. As our economy grows, the vast majority of new jobs require more than a high school diploma—something that less than half of North Carolinians ages 25-44, and even fewer from economically disadvantaged backgrounds, currently have. The goal is to move from 1.3 Million NC residents to 2 million residents with a post graduate education by 2030.

Economic Development Partnership of North Carolina ([link](#))
- This group has significant insights into business and financial incentives and support to promote growth and economic opportunity throughout NC. They have a county-tiered system to promote investment and provide guidance and training to facilitate business and financial support in NC.

Carolina's Gateway Partnership ([link](#))
- CGP are a public-private industrial recruitment agency dedicated to the economic development of the Eastern North Carolina counties of Nash and Edgecombe. A collaborative effort of two counties and 18 cities, towns and municipalities, this region offers an exceptional opportunity for companies experiencing growth and expansion or desiring relocation.

Community Development Financial Institutions in NC
- There are currently 17 CDFIs in NC, some of which are subsidiaries of others. Community Development Financial Institutions (CDFIs) are specialized community based financial institutions with a primary mission to promote economic development by providing financial products and services to people and communities underserved by traditional financial institutions, particularly in low income communities. CDFIs include community development banks and credit unions, and non-regulated institutions such as non-profit loan funds or venture capital funds.

The North Carolina Housing Coalition ([link](#))

- The NCHC is focused on affordable housing and uses a large trust fund to assist families and communities in gaining access to affordable housing. They use nationally derived data points to measure the affordability of housing relative to income in each county of the state. They have a lot of resources for assisting planners in how best to tackle affordability at local levels.

North Carolina Community Foundation ([link](#))
- A primarily charity based organization that matches charitable works with areas in need. The NCCF is the only state-wide community foundation serving the state of North Carolina. We are a collection of 1,200 permanent, endowed charitable funds created by individuals, families, companies, non-profit organizations and governmental entities to benefit different charitable organizations and causes throughout North Carolina and beyond.

Common Cause North Carolina ([link](#))
- A not for profit entity that promotes voting rights and democracy within the state.

Foundation for the Carolinas (philanthropy and civic engagement) ([link](#))
- /With more than $2.5 billion in charitable assets across nearly 3,000 charitable funds established by families, non-profits and businesses, we are one of the largest community foundations in the U.S. FFTC supports personal and corporate philanthropy through a range of innovative fund and giving options. They also support non-profit sustainability through endowment management, customized solutions and grant making.

The Planners Network (not-for-profit body of professional advisors and lobbyists) ([link](#))
- Planners Network is the organization of progressive planning. Members are professionals, activists, academics, and students involved in physical, social, economic, and environmental planning in urban and rural areas

North Carolina Chamber (lobby group) ([link](#))
- The NC Chamber is the leading business advocacy organization in North Carolina. The NCC work in the legislative, regulatory and political arenas to proactively promote NC as a global business destination.

North Carolina Centre for Non-Profits ([link](#))
- This groups tracks and has links to hundreds of non-profit organizations within NC. They are a useful partner in engaging community groups and non-profit groups in developmental goals.

Appendix 2. Interview Themes by Question

1. Let's pretend I have a crystal ball and can give you a peek into the future. If you could ask any question about the futures of NC communities in general, what would it be?
2. What are one or two critical strategic decisions regarding the futures of communities in North Carolina that you see on the horizon?
3. What do you think communities in North Carolina need to forget or stop doing in the future?
4. Let's imagine we're in the year 2040. If you looked backwards and told me the triumph or success story for communities in North Carolina, what would it be?
5. Imagine we're still in the year 2040. If you looked back from 20 years hence and told me the failure story for communities in North Carolina, what would it be?
6. What do you feel are the top 2 or 3 trends driving the future of communities in North Carolina?
7. What do you think are the obstacles to progress for North Carolina communities in the next few years?

Note: if a theme was mentioned more than once, the number is in parentheses

1. Want to Know	2. Strategic Decisions	3. Forget or Stop Doing	4. Triumph Story	5. Failure Story	6.Top Trends	7. Obstacles to Progress
agriculture changes	affordable housing (5)	agriculture, monculture	carbon clean-up	angry white political movement	aging population	anti-science movement
broadband access (2)	agriculture, environmental impacts	attracting large corporations - hurts small biz	communal living	AV, no progress	Brain drain (2)	barriers to voting
capital access	argiculture, technology	bigoted or prejudiced decision-making	community identity based on strengths	BAU/status quo/inaction (9)	broadband access (3)	BAU - lack of innovation
citizenship pathways for un-documented	Black community organizing	BIPOC, systemic oppression of (2)	cooperation & trust (3)	Broadband & digital, lack of access	climate change impacts (2)	Broadband access
climate change impacts/adaptation (3)	broadband access (5)	criminal justice system model	decision-making is more inclusive	building in vulnerable coastal regions	communication closed with others who different	capital, access to
college options and tuition assistance	build local & state capacity	decision making without diversity	digital infrastructure, cities build their own	climate change continues (2)	community college as path to jobs	climate change
community development strategies	Climate change disasters, risk planning (2)	Fatalism	distributed power generation (2)	convenience as driver for activity	community planning & implementation	closed mindedness (4)

community success	college training to fit to future economy	fear of loss	diverse leadership including those from rural	cooperation locally and regionally failed (2)	complacency	cooperation, lack of
demographic profile	community development for people	Lack regional focus on development	education initiatives - bold transformation (2)	culture homogeny-ization, one-size-fits-all solutions		data & information access
digital divide (3)	decision-making, more inclusive	old definition of success	education, health quality (2)	data & access to data	digital transformation & big data (2)	distribution of risk and opportunity
diversity, lack of	demographic changes (2)	old model of econ development (2)	energy diversification - solar fields on farms	didn't listen	diversification of economy (ag to knowledge)	diversity of voices needed to solve big problems (5)
economic equality	digital infrastructure	Old ways less effective today's world) (3)	equality, social & economic - culture shift	education is poor, lack of investment (2)	education (3)	divisiveness
environmental action	disaster management, adaptation	personal political biases	equitable access to economic oppty (4)	environmental pollution continues	education - reform	education a low priority
environmental metrics	diversity, better understand and engage (2)	place-based limitations	fair representation by elected gov't	elder care failure	energy distribution	equitable benefits to growth
equality	diverse coalitions to create change	political division	Families, safe, stable environment	fear of risk	food deserts	fears, e.g. power, others, risk (3)
growth, how to handle	divisive politics	politicization of science-based issues	dreaming sessions with all constituencies	GA no change - rich white rural men	generational change (2)	gentrification
healthcare delivery (2)	economic development, distributed	racism (4)	friction of past has been eliminated	healthcare inequities	gig economy & entrepreneurs (2)	geograpyal challenges & regional identities
human species survival	economic development & jobs growth	reactive approach	good roads, education, & infrastructure	high property taxes	health, wellness, and prevention	Imaginiation, lack of
information & journalism access	education (5)	relying on federal programs for rescue	greenspace development/conservation	homogeneity in power	healthcare	inertia & resistance to change

living wage	education equity (2)	resistance to change	healthcare for all (3)	justice system	healthcare payers to value-based models	infrastructure deficiencies (3)
migration to urban areas	education investment (4)	self-perpetuating neighborhoods	imagining better futures	leadership failures (2)	income inequality	leadership failure (2)
mobile banking	election reform - fair voting districts	seniority as measure of influence	inclusive communities help weather crises	little diversification of jobs, leadership	increasing racial diversity	low tolerance for failure (cancel culture)
newcomers, attracting	equitable distribution of opportunities	silos and self-isolation; echo chambers	Industrial Commons' model of economic development	marginalized communities repressed	jobs in trades increasing	money drives decision-making
participation in democracy	growth, supporting	tribal associations - need to take a wider view	industry shifts: more tech, less ag.	mass exodus of residents w/o opportunity	Latino community political power grows	opposing groups not aligned
partnerships for prosperity	healthcare (2)	trying to change	jobs for all	money goes outside of community	local community development; less dependent on big companies	personal liabilities (greed)
planet health	inform citizens in post-newspaper world	unsustainable practices, e.g., lawns (3)	joy and happiness as rights	opportunity lost b/c diverse talents silenced	local economy	polarization & lack of unity
polarization of state	infrastructure planning	urban sprawl	law enforcement, less militaristic	pandemic recovery is long	local newspapers lost	political division (5)
political environment	literacy, high school	voter suppression	leadership, truly representative	political division continues (4)	off-planet resources development	problem avoidance & lack of dialogue
progressive values grow w/ influx of young	local values, investment in	waiting for external solutions	learn from all cultures	privatization of public education	online communities	racism
race relations	local economy development (3)	wealth as marker of success	living wage	react to disasters rather than plan	organizing and advocacy to create change	resistance to change

regional development	people and communities as first priority	white supremacy policies	local development (4)	regional planning, lack of	pandemic	resources, access to
resources, equal access/distribution (3)	policy making methods & inclusivity		local food system	representation in public systems is small	population growth (2)	resources, lack of (2)
respect past while creating change	political leaders need to focus on all areas		local govt cooperation to reduce risk & exposure	sea level rise obliterates coastal areas	population growth in metro/coastal areas (3)	rural-urban divide
rural survival wrt brain drain	post-COVID move away from close quarters		Millennials took bold steps for change	science not listened to	post-COVID economic crisis	selfishness & ignorance
safety and connectedness for families	protecting most vulnerable		place-making as shared community experience	self-protection of bureaucracy	public health preparedness	silos and little cooperation
segmentation of state	resources, investment & access (2)		progress on social determinants of health	selfishness and lack of communication w/ neighbors	public-private partnerships	stuck in old ways
small business landscape post-COVID	regional cooperation & partnerships		racial issues dealt with, e.g., segregation, police (4)	systemic inequities, continuing harm from	racial bias systemic	tax breaks and funding to private & religious schools
social services	resource management, do more with less		regional community identity is greater	trust is lost	regional cooperation	traffic management
Student, identification of special needs	rural economic development (2)		remote work	urban sprawl	rural population loss (2)	unwillingness to adopt multi-sector approach
technology advancement	rural to urban migration		renewable/clean energy (2)		rural population loss	vicious cycle of population loss, decreasing tax base, low resourcing
technology for making opportunity more equitable	safe & sustainable neighborhoods		safe affordable housing		silos & echo chambers -	violence

urbanization	science and technology		science is prioritized over politics and religion		social justice movements (2)	zero sum mentality
	social services system changes		social injustice issues solved		sustainable local economy	
	small businesses support (2)		statewide oppty draws new business		technology as driver	
	small business as force for change		sustainable communities thru partnerships		technology for remote work	
	student debt		sustainability over growth (3)		technology innovation (2)	
	technology partnerships		sustainability replaced resilience		technology decreases labor costs	
	training right skills for future jobs		technology enabled healthcare, education, jobs		technology/internet as force-multiplier	
	transparency in govt		transparency and inclusiveness		transportation development	
	transportation (2)		triple bottom line focus		university community partnerships	
			water conservation		urban-rural divide	
			West NC successful econ develop		Urbanization	
					working, new ways of	
					work, remote (3)	
					younger generation w/ more empathy	

Appendix 3. Trend Inventory

The trend inventory is organized along the STEEP categories: social, technological, economic, environmental and political trends. Each trend is named and briefly described, with a link provided for more information.

Social	
Aging	The average age of the population continues to rise (link).
Aging-friendly communities	The aging population is seeking to stay healthy and active longer, and are looking to communities for support (link).
Corporate social justice	Corporate social justice reframes corporate social responsibility in focusing on initiatives or programs on the measurable, lived experiences of groups harmed and disadvantaged by society. Consumers and other stakeholders are increasingly seeing social good as a necessity and not just a marketing strategy (link).
Elderly caregiver shortage	Thousands of Boomers are in the US are turning 65 every day, putting pressure on the supply of caregivers for the elderly (link).
Empowered health consumers	Empowered consumers are turning to the Internet first—before consulting doctors about health problems—and in many cases are diagnosing their own conditions (link).
Foodsharing economy	A reaction in part to both high food prices and food waste, there are number of new services seeking to expand the ethos of the sharing economy -- think ZipCar or AirBnB -- to food (link).
Fluid gender and sexual orientation	Gender and sexual orientation are increasingly understood as less biologically constructed and more of a fluid social construct, with both gender identity and sexual orientation falling along a wide ranging spectrum (link).
Gentrification	Gentrification and displacement of long-time residents is most intense in the nation's biggest cities, as rapidly rising rents, property values and taxes force residents to move away (link).
Grow your own	More and more households are growing their own food (link).
Marriage declining	The long-term decline in marriage continues, as more unmarried couples are living together, and more people are staying single longer. (link)
Mindfulness	Meditation is becoming more mainstream in America, due in part to smartphone apps, as well as the rise of wellness culture and increasing "burnout" (link).
"New old" are breaking stereotypes	Age is an increasingly poor predictor of life stage, circumstance, income, attitudes, aspirations, or behaviors, e.g., "retirees" becoming entrepreneurs (link).
Neotribalism	Neotribalism is on the rise as extreme partisan politics drives citizens into us vs. them camps. Studies have found find that partisanship or non-cooperation in the U.S. Congress, for example, has been increasing exponentially for over 60 years with no sign of abating or reversing (link).

New urbanism	New urbanism -- an urban planning movement that seeks to recreate the dense, walkable cities of the past -- is gaining momentum. Mixed-use developments with a variety of housing units, jobs, and retailers, located in close proximity to one another, are typical of new urbanist communities (link).
Pandemic fear	In light of COVID, the fear of more or worse pandemics is rising throughout the world (link).
Rural brain drain	Many college-educated people are not settling back into rural America, as they take advantage of more employment opportunities in urban areas (link).
Systemic racial inequality	Racial inequality touches on many aspects including criminal justice, wealth & economic security, health, and employment. Latinos, and Asian Americans, and especially African Americans continue to struggle for the same opportunities as their white counterparts (link).
Traditional families shrinking	Traditional families continue to shrink -- cohabitation is rising, increasing numbers of adults are delaying or not marrying at all, more children are living with an unwed parent, and same-sex marriage is increasingly legal across the US (link).
Trust declining	Americans are reportedly trusting each other less. About seven-in-ten Americans (71%) think people are less confident in each other than they were 20 years ago (link).
Urban farms as social spaces	Community urban farms are serving as social projects as they also provide food for city dwellers (link).
Urban sprawl	Edge cities, exurbs, and areas of sprawl continue to develop, especially in areas with high land costs, as poor urban dwellers and immigrants seek affordable housing (link).
Urbanization	Population growth continues toward urban over rural areas (link).
Urgent care growth	Urgent care centers are growing, filling a niche between emergency care and a scheduled appointment. These clinics can relieve congested emergency rooms, where upwards of 40% of the patients do not require immediate treatment (link).
Virtual communities	Virtual communities built around shared interests are increasingly connecting like-minded people on the Internet (link).
Voluntary simplicity	A small but growing portion of consumers are downshifting, cutting back on their work or lifestyle in order to lead a more fulfilling and balanced life (link).
Technological	
5G and beyond	The global 5G infrastructure market size was valued at $371 million in 2017 and is projected to reach $58 billion by 2025; it will boost the mobile experience with reduced latency, low cost-per-bit, and consistent and higher data speeds (link).
AI	The global AI market is expected to reach $734 billion by 2027, expanding at a CAGR of 42.2%, driven by big data, cloud-based applications, and demand for intelligent virtual assistants (link).
Augmented reality	Augmented reality (AR) systems supplement a user's real world with digitally created visual and aural information including text, graphics, 3-D animation, and sounds, producing information streams that lie somewhere between reality and virtual reality (link).
Automation and job loss	A recent PwC report suggests automation-related job loss will start to be felt in the mid-2020s – with 10-15% of jobs in three sectors (manufacturing, transportation and storage, and wholesales and retail trade) -- and by 2035, the range of jobs with high automation potential will be closer to 35-50% for those sectors (link).

Big data, big opportunities	Big data is poised to become increasingly important to businesses, governments, and consumers ([link](#)).
Biometrics	Biometric technologies, such as facial recognition, are increasingly being used by governments globally - in policing, border and immigration enforcement, national identification systems, rural credit markets, and public service delivery ([link](#)).
Blockchain	The global blockchain market size is expected to grow from USD 3.0 billion in 2020 to USD 39.7 billion by 2025, at an impressive annual growth rate of 67.3% in wide range of process applications, e.g., supply chain management ([link](#)).
Constant connection	Constant connectivity is becoming the norm. This is creating new consumer demands on service providers, and new opportunities for organizations to stay in regular contact with their customers ([link](#)).
Consumer-centric AI	AI-based automatic monitoring is becoming crucial to the viability of e-commerce, with AI software being used to detect fraud and expedite online transactions, as well as creating consumer-oriented services and software, e.g., online translation ([link](#)).
Digital media manipulation	Online media has shown itself vulnerable to bots, search engine manipulation, bias, and disinformation, highlighting the vulnerabilities of free speech in a digital age ([link](#)).
Germ fighting	Increasingly, design is tackling the threats of bacteria and microbes, either through materials used or how buildings are laid out to minimize contact point/germy surfaces ([link](#)).
Government transparency	As increasing numbers of government entities continue to go digital to save time and money, citizens are able to access and review government processes and digital data, increasing government transparency ([link](#)).
Green homes	Homes are increasingly "green," both as new builds and in retrofits ([link](#)).
Information fusion	Ubiquitous analytics will make it possible for consumers to generate useful insights about their own habits and behaviors by fusing personal data (e.g., social media profiles, tweets, location data, purchasing histories, health sensor data) ([link](#)).
Internet of Things	At the end of 2019 there were 7.6 billion active IoT devices, a figure which will grow to 24.1 billion in 2030, a compound annual growth rate of 11% ([link](#)).
Open data access, privacy and security	Privacy and security of personal information, such as education and medical records, will be of increasing concern as more data are shared through electronic medical records, mobile devices, and social networks ([link](#)).
Open source	Open technology standards are enabling the creation of hardware and devices with greater options for connectivity and interoperability ([link](#)).
Quantum computing	A quantum computer harnesses the phenomena of quantum mechanics to deliver huge leaps forward in processing power. Quantum machines promise to outstrip even the most capable of today's supercomputers ([link](#)).
Smart buildings & homes	Smart homes and buildings are emerging, with the ability to monitor and control energy consumption and internal systems, including security and appliances (link).
Smart everything	As people continue to gain online access and more devices connect up to faster networks, everything will be 'smart' enabled. This will greatly increase as 5G networks a built (link).

Smart grids	There is a move to modernizing the electric grid with smart technology, which shows up with consumers in the form of smart home meters (link).
Smart logistics	Logistics and distribution are getting smarter via information technology – such as IoT, RFID, GPS -- which is facilitating just-in-time operations (link).
Tech-enabled activism	Information technologies are becoming more important to activism and protest, especially as use of the Internet and mobile phones continues to grow (link).
Truth increasingly blurry	Growing use of online sources make it increasingly difficult to find "the truth," as sources interpret news and information to fit their worldview (link).
Vertical farming	Growing interest in and pilot projects re: urban vertical farms (link).
Wearable computing	After years of prototyping and development, and some successes in specialized environments, wearable computing may be poised for broader adoption in areas such as entertainment, sports, healthcare, and military and industrial applications (link).
Economic	
Aging infrastructure	The American Society of Civil Engineers America's infrastructure estimates the US needs to spend some $4.5 trillion by 2025 to fix the country's aging roads, bridges, dams, and other infrastructure (link).
Experience Economy	We've shifted from an industrial-based to a service economy, including an emphasis on experiences, that is offering meaningful experiences over physical products (link).
Income inequality	Income inequality has been growing markedly, by every major statistical measure, for some 30 years; the wealth gap between America's richest and poorer families more than doubled from 1989 to 2016 (link).
Job hopping generations	Millennials and Gen X are resorting to job hopping to find promotions and higher pay, while many Boomers staying in the workforce past typical retirement age in second careers (link).
Peer-to-peer (P2P) models	It is increasingly practical to "disintermediate" the middle layer so that consumers can directly transact with one another; one projection is global P2P lending will hit $44B by 2024 up from $18B in 2018 (link).
Reputation systems	Reputation systems are becoming increasingly important for commerce, with credit rating systems underpinning the lending system, and buyer rating services supporting the evolution of e-commerce (link).
Reverse brain drain	Some foreign-born white collar workers are leaving their prosperous lives in the developed world to take part in the growth of the developing world (link).
Sharing economy	People are continuing to tap into the collective power of the group to acquire, provide, or share access to goods and services, challenging the traditional model of businesses (link).
Shop local!	Consumers are showing increasing interest in goods that are produced locally, such as farm produce and craft foods, both for perceived sustainability benefits, as well as a way to help keep money in the local economy (link).
Shrinking middle class	America's middle class has been shrinking, from 61% of households 1in 1971 to 42% by 2016, due to rising costs in education, healthcare, and housing, while technology and global competition are doing away with traditional middle class careers (link).
Subscribe instead of own	Subscribing tends to be cheaper, allowing more people access to items, e.g., rather than owning tools, maker spaces charge a monthly fee to use their space and tools (link).

Stakeholder capitalism	Maximizing shareholder value is going out of fashion as companies increasingly consider all stakeholders - employees, their communities, and the environment to name a few - when making decisions (link).
Structural unemployment	Long-terms shifts in the economy are creating a mismatch between jobs and skills that is leading to many states facing historic unemployment rates (link).
Environmental	
Circular economy interest growing	There is growing interest in circular economy principles of (1) designing out waste (2) keep products and materials in use and (3) regenerating natural systems (link)
Clean tech investment	Governments around the world have targeted clean tech development as a strategy for economic recovery in the decades ahead—and as a way to help navigate potential constraints of traditional resources in the future (link).
Climate change and health	Climate change is already placing the health and wellbeing of billions of people at increased risk, which suggests reframing it as an urgent public-health issue (link).
Climate changes' disproportionate impact	Low-income communities already have higher rates of many health conditions, are more exposed to environmental hazards, and take longer to bounce back from natural disasters (link).
Local water movement	An emerging local water movement is promoting smarter use and management of water resources on a regional level (link).
Municipal environmentalism	More cities are creating their own local standards/regulations/codes for environmental sustainability (link).
Plastic problem	There is growing awareness of the negative impacts of plastics. Many municipalities and even countries are placing restrictions or bans on certain types of plastic products (link).
Reverse globalization	Especially in light of the global pandemic and supply and distribution chain disruptions, companies are increasingly manufacturing locally (link).
Rights of nature	The environment is increasingly gaining legal rights worldwide, with "personhood" and legal status granted to environmental entities like rivers, mountains, and trees (link).
Sustainable cities	Cities are emerging as indispensable players in the struggle for global sustainability. They create and are strongly impacted by sustainability issues, but also have huge potential to help mitigate, adapt to, and solve issues related to sustainability (link).
Zero Waste Cities	More cities, especially large ones, are setting goals to become "zero waste" (link).
Political	
Cybersecurity	Governments and private sectors continue to fail to protect citizens' personal data from data breeches. The public will continue to demand better protections and accountability from governments and the private sector (link).
Data governance	Digital rights, specifically data privacy/governance, are continuing to be defined. The EU's General Data Protection Regulation (GDPR) on data protection and privacy is an example of the type of legislation that some are advocating for in the US (link).
Gross National Happiness	Governments are considering measures of happiness in addition to or instead of GDP as a success criterion (link).
Local more trusted	Polls indicate that local elected officials are the most trusted, followed by state, and then federal, which is trusted the least (link).

Neo-protectionism	The global consensus on free trade is eroding with the potential to trigger global trade wars that could hamper international trade and impede economic development (link).
Regulations localizing	Increasingly, local, not national, governments are making decisions regarding regulations, requirements, and clinical studies (link).
Soft paternalism	There is growing interest in using regulations to "nudge" citizens towards better decision-making, e.g., automatic enrollment with an opt-out option (link).
Trust in institutions declining	As seen in the political and religious institutions, more and more Americans have less trust in the formal institutions (link).

Appendix 4. Options

Gated Communities

1. **Racial inequality, increase in wealth gap, overpopulation hyper-partisan environment**
2. **Decreasing market opportunities (destruction of small biz)**
3. Community apathy
4. Degradation of environment
5. Inequitable distribution of public resources
6. Exploitation of labor
7. Urban-housing costs

Elevator Speech #1	Gated
Issue:	**Interconnection of racial inequality, the wealth gap, and overpopulation**
Response:	Bridging the conversational divide
Why is it important?	Foundational issue for development and progress, foundational barrier to a vibrant and healthy community and society
What should we do about it?	1. Acknowledge that these inequities exist 2. Breakdown economic (income) silos 3. Breakdown cultural silos 4. Creating an equal playing field, build a united community identity, education (rooted in transparency, trust, and truth - tell the full narrative)
How do we make it happen?	1. Greater communication lines 2. Alignment of various groups (public platform for discussion) 3. Universal income or wage, funding for underrepresented communities (public-private partnerships) 4. Meaningful conversations, educational programming and campaigns 5. Creating a safe space for individual differences 6. Coordinated and collaborative efforts of multiple community parties
Who owns it?	Formal and informal community leaders (elders, mayors, CEOs, gov'n reps, citizen leaders), educational institutions

Elevator Speech #2	Gated
Issue:	**Hyper-partisan environment**

Response:	Removing the dark matter
Why is it important?	Government was put in place to do good, until we fix this aspect we will struggle on all issues. They need to be positioned to be a good and responsible partner
What should we do about it?	1. Decrease money in politics - sunshine (enforce laws we already have) 2. Distinguish between politics and government (where they need to overlap vs. don't), 3. Continuing to enforce public service, better public service education, fix the algorithms that reinforce partisan beliefs / untruths
How do we make it happen?	1. Creating platforms for civil discourse (not Facebook) 2. Providing regulatory sunshine to manage flow of money and behavior 3. Encourage educational institutions to discuss public services, regulate social media algorithms
Who owns it?	Bodies of government (have to pass the laws)

Elevator Speech #3	Gated
Issue:	**Decreasing market opportunities (destruction of small biz)**
Response:	Reimagine the Marketplace to Enhance Human Wellbeing
Why is it important?	Fewer players dictating the market place, will cause economic challenges; no competitive landscape anymore; decreasing amount of goods (decreases local businesses and local culture); risk to communities (economy not tied back to local production
What should we do about it?	1. More forensic and stronger review for acquisitions, 2. More support for small biz. at all levels of government 3. More support for rural small biz. at all levels of government
How do we make it happen?	1. Better education on the cooperative business model (allows businesses to thrive at cost and provides access to communities that don't have them) 2. Support/funding of alternative biz models (non-profit, coops, social enterprise), 3. Encourage access to affordable (low-interest) capital, provide affordable education/technology to small business owners (help compete in international market), digital literacy
Who owns it?	Small business (need to help themselves, digitize etc.), public-private partnerships, non-profits

Community Lifelines

1. **Unions resist the changes to education & data-driven results-based governance (govt, edu, etc)**
2. **Erosion of tax dollars & increased politicization of resource allocation**
3. **Older business models resist move to evidence-based community measures that disrupt their current business model**
4. Education businesses resist the edu changes (resist real measures of effectiveness)

5. Caught in the old paradigm
6. Inertia & resistance to data-driven changes
7. Entrepreneurial future

Elevator Speech #1	Lifelines
Issue:	**Unions resist the changes to education & data-driven results-based governance**
Response:	Negotiating by finding out what is really motivating them & addressing that
Why is it important?	Unions have a strong desire to protect the status quo. This prevents community from improving itself & taking advantage of new opportunities
What should we do about it?	1. Fair negotiation drawing upon an understanding of motivations 2. Education campaign to get union members buy-in to support changes 3. Start supporting incremental shift to adaptive/agile organizations (more authority at lower levels) 4. Start publishing outcomes data on measurements (city resident education campaign)
How do we make it happen?	Conduct a survey and/or interviews to understand union motivations
Who owns it?	Community Residents – Activists

Elevator Speech #2	Lifelines
Issue:	**Erosion of tax dollars & resulting increased politicization of resource allocation**
Response:	Seek resources beyond government & taxes to fund essential & desired community services
Why is it important?	Can't do what is needed or desired without additional resources & new approaches
What should we do about it?	1. Overall goal is to dismantle current institutions and reassemble & prioritize purpose-fit (rethinking everything) - why do I need a town hall? (why do I need North & South Carolina?) 2. Approaches might include Pub/Priv Partnerships, Volunteering, and finding new ways to tap non-taxed resource pools
How do we make it happen?	1. Prioritize what is reworked when - critical view - throw away some - pick & choose 2. Continuous measurement & re-evaluation to set priorities for reworking of institutions
Who owns it?	Business Leaders & Taxpayers

Elevator Speech #3	Lifelines
Issue:	**Older business models resist move to evidence-based community measures that disrupt their current business model**
Response:	Force "skin in the game" changes to business models
Why is it important?	The fear of moving to new business models is making less money. There is resistance across the board to stepping back & ask "why" - Ex. Housing & Zoning. On the plus side, an outcome based model could be aligned with incentives
What should we do about it?	1. Create stronger anti-corruption/conflict of interest laws to elected officials & community leaders. 2. Eliminate passive & active profiting from their decision-making. 3. Then create laws & rules that force changes to business models to outcome-based models that align with community goals via "skin in the game" regulations
How do we make it happen?	Create a taxonomy of new business models and assess potential impacts
Who owns it?	Community activists and taxpayers

Bottom Line

1. **Success is dependent on "equitable" growth**
2. **Strong local leadership**
3. **Loss or lack of shared identity within and between communities**
4. High level of pro-cyclicality, both + and -
5. Easily deepen tribalism and stratification = communities may deteriorate or winners v losers
6. We/communities need to come together, our survival depends on it (we may need a triggering event like WII)
7. Access to resources (tech infrastruct, capital) critically important
8. Who defines the truth? What can you trust? (no sense of collective action)

Elevator Speech #1	Bottom Line
Issue:	**Success is dependent on "equitable" growth**
Response:	Build the right level of incentives and regulatory guidelines
Why is it important?	Growth can be fragile, positive and negative growth can be pro-cyclical, growth isn't automatically evenly distributed

What should we do about it?	1. Consider where and when incentives needed to support critical infrastructure 2. Look beyond the profit motive 3. Support equitable distribution of tech advancement 4. Government needs to reg & require investment access
How do we make it happen?	1. Supporting co-ops, nonprofits, local and employee owned businesses 2. Support required training & education programs to participate in the benefits of the growth 3. Supporting local government leadership to optimize public-private partnership efforts 4. State level guidelines and directives that support level playing field, encouraging business growth beyond profit motive 5. Govt steps in and makes it a commodity to all, has to become a utility, providers have to come in and bid for entire state (no wild west)
Who owns it?	Government (state & local in particular) provides strong leadership but does not own it exclusively ... public-private partnership success is critical.

Elevator Speech #2	Bottom Line
Issue:	**Strong local leadership important**
Response:	Education! Build civic engagement! Creating a culture that values strong local leadership and civic engagement
Why is it important?	Offsetting the haves and have-nots, got to have local leaders to implement the programs, these are their neighbors who they trust more, we all live locally. Local leadership builds critical trust
What should we do about it?	1. Increase civic engagement 2. Build more co-ops, places to engage with the community 3. Meeting spaces of political and religious neutrality 4. Supporting local leadership development and training
How do we make it happen?	1. Civic training and education 2. Supporting the financing to create co-ops and employee owned businesses 3. Supporting education around co-ops and those types of businesses 4. Advancing curriculum on cooperatively run business across all education levels. 5. Investing in training and education for newly minted elected officials (community development education, networking)
Who owns it?	Schools of government, Local government, Financial institutions (investing/financing)

Elevator Speech #3	Bottom Line
Issue:	**Loss or lack of shared identity within and between communities**
Response:	**Community Info Sharing**
Why is it important?	Create systems that show people the benefits of knowing your neighbor and sharing responsibilities

What should we do about it?	1. Townhalls, virtual forums, local development groups, small business lending 2. Continual education for leaders and civics education 3. Community investment via the community (community crowdfunding itself)
How do we make it happen?	Inventory the different approaches to development undertaken by communities
Who owns it?	Coalition of local community leaders

Better Together

1. **Recalibration of post-secondary education/system**
2. **Challenges with a growing young (and old) population**
3. **Infrastructure challenges in small communities and resource gaps in urban**
4. New system structure for electoral process
5. Healthcare updates for aging population
6. Dramatic shifts in labor pool readiness (e.g., shortages in business-pros)

Elevator Speech #1	Better Together
Issue:	**Recalibration of post-secondary education/system**
Response:	Leaders of The New School
Why is it important?	Meet changing labor/skills needs of government and business
What should we do about it?	1. Propagate community-driven efforts to share skills/educate members of the citizenry 2. Share with other NC communities to meet locally unmet need 3. Support job placement through local community colleges/tech schools 4. Develop early education programs and pathways to open up awareness of opportunities 5. Support mentor/business skills exchange with community 6. Drive support for/celebrate new trade/tech schools/vocations
How do we make it happen?	Explore programs in other countries (Quebec/Cegep) and apprentice programs
Who owns it?	Public/private partnership(s)

Elevator Speech #2	Better Together
Issue:	**Challenges with a growing young (and old) population**
Response:	LIfe's a (BLEEP) and then you die

Why is it important?	Lack of support for either end of population in current structures
What should we do about it?	1. Drive place-making/services to position both populations in same environment(s) 2. Incentivize UBI "share" to push localism 3. Tie UBI/incentives to actions/activities of the populace to promote inclusion/efforts to support inclusion efforts 4. Celebrate/amplify the voices of those who make initial efforts 5. Subsidize child/elder care to foster growth in previously marginalized population segments
How do we make it happen?	1. Politicize issues to drive awareness/interest/hold politicians accountable (given a new definition of "politicizing" 2. Push "steering committees" to drive funding in appropriate ways
Who owns it?	Local government, community groups

Elevator Speech #3	**Better Together**
Issue:	**Infrastructure challenges in small communities and resource gaps in urban**
Response:	Maintain a balance that can work within/for each environment
Why is it important?	1. Support shifts in talent dissemination/use of built environment 2. Invest in transit systems between urban/rural
What should we do about it?	1. Support innovation/visionaries 2. Create a new vernacular for resource allocation (e.g., urban/rural become one)
How do we make it happen?	1. Support innovation/visionaries 2. Create a new vernacular for resource allocation (e.g., urban/rural become one)
Who owns it?	Everyone!