I. INTRODUCTION

The COVID-19 pandemic had significant unprecedented impacts on the nation as a whole. In Virginia, the ensuing statewide shutdown in March of 2020 resulted in sharp increases in unemployment rates, decreases in spending and tax revenues, business closures, and many other major changes in economic conditions. This event highlighted existing vulnerabilities and the importance of resilience in Virginia communities. Resiliency has often been defined as the capacity to recover quickly from shocks or difficulties, such as the pandemic. A resilient economy that can bounce back depends not only on employers, but on all members of its communities. Now, as Virginia progresses on the journey to economic recovery, communities must keep this in mind and be intentional in their efforts to rebuild. The increased disparities for vulnerable populations, barriers to access, inclusivity, equity, and meaningful communication all need to be addressed in the ongoing recovery planning processes and problem-solving.

In contribution to recovery efforts, the Virginia Tech Center for Economic and Community Engagement (VT CECE), supported by U.S. Economic Development Administration CARES Act funding, engaged graduate students in the UAP Economic Development Studio to help develop a resource for leaders in economic recovery activities in communities and regions in Virginia, and beyond. This “toolkit” for economic recovery examines resiliency from multiple facets and draws on a wide variety of information and cases that demonstrate progress in the face of shocks such as natural disasters, economic downturns, and public health crises.

A. ECONOMIC IMPACT OF COVID-19 IN VIRGINIA

The statewide shutdown of Virginia instituted in March of 2020 resulted in a dramatic increase in unemployment rates, decrease in overall spending and tax revenues, as well as many business closures and other major changes in economic conditions.

As early as May 2020, regions across Virginia started seeing unprecedented impacts of the COVID-19 pandemic:

- More than 670,000 Virginians had filed for unemployment by May 2020¹
- Virginia lost over 188,000 jobs statewide from 2019 to 2020²
- Unemployment increased by about 4% across Virginia³
  - Employment declines have varied across Virginia, some parts seeing declines between 6% and 8%⁴

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¹ EMSI Labor Market Analytics & Economic Data
² EMSI Labor Market Analytics & Economic Data
³ EMSI Labor Market Analytics & Economic Data
⁴ Bureau of Labor Statistics, Local Area Unemployment data, 2020
Unemployment rates increased significantly across all racial groups; however, the rate for African Americans was twice that of whites and 1.5% higher than that of Hispanics or Latinos. African Americans accounted for 39.1% of all continuing claims for unemployment insurance in October of 2020—more than double their share of the population. Women constituted 50.8% of the Virginia population in 2019, but accounted for 54.3% of all continuing claims for unemployment insurance in October of 2020. This is likely due to the over-representation of women in industry sectors such as hospitality, food services and retail, which have been most affected by COVID-19 closures.\(^5\)

\(^5\) State of the Commonwealth report
The number of open small businesses in Virginia decreased by almost 30% at the peak of the pandemic shutdown.

- Closures across Virginia counties varied from 15.4% of small businesses closing in Nelson County (population of 15,020) to 58% of small businesses closing in Essex County (population of 11,151).

Existing disparities worsened for persons of color and BIPOC-owned businesses:

- Virginia is home to 185,043 minority-owned business establishments (of which 128,000 are located in Northern Virginia) and 236,290 women-owned businesses.
  - About 56,000 (18%) of businesses were under Asian ownership, 27,000 (9%) under Black ownership, and 5,000 (2%) under other minority ownership. These businesses were more likely to report being in poor or fair financial status by the end of 2020.
  - 79% of Asian-owned businesses, 77% of Black-owned businesses, and 66% of Hispanic-owned businesses reported this precarious financial position, compared to 54% of white-owned businesses.

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7 US Census Bureau
8 Supporting Northern Virginia’s minority-owned businesses
• Other groups of the state’s most-vulnerable workers were also severely impacted, including but limited to, workers in lower-paying occupations, female workers, and workers with lower educational levels.

In addition to accelerating existing vulnerabilities in Virginia communities, the pandemic has further demonstrated the importance of building resilience. Resiliency has often been defined as the capacity to recover quickly from shocks or difficulties, such as the COVID-19 pandemic. A resilient economy that can recover from such major events is not solely dependent on its employers and jobs returning; rather, it is reliant on the ability of all community members and populations to bounce back.

Developing resilient communities and strategies requires the input of and dialog with individuals and groups most impacted by events like the pandemic. The increase in disparities for vulnerable populations and barriers to resource access, inclusivity and equity, and meaningful communication all need to be addressed in the ongoing recovery planning process and long term problem-solving. As the state of Virginia begins its journey toward economic recovery, communities must keep this in mind and be intentional in their efforts to rebuild.

Collaborative partnerships and community-based approaches that are supported by local, state, and federal agencies, are important in contributing to resilience-building efforts in Virginia. As a part of their contribution efforts toward recovery and resilience, the Virginia Tech Center for Economic and Community Engagement (VT CECE), with support from U.S. Economic Development Administration CARES Act funding, has engaged graduate students in the UAP Economic Development Studio to help develop a resource for leaders engaging in economic recovery activities in communities and regions in Virginia, and beyond.

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9 Supporting Northern Virginia’s minority-owned businesses
B. METHODOLOGY


The Toolkit seeks to address key elements of economic recovery in a holistic way. It is founded on three target impact areas: people, place, and industry.

Challenges for each target area were identified, with recommended actions provided. These recommended actions focus on case studies of organizations and initiatives that provide a successful example of innovative approaches to those challenges.

The recommended tools are resources that provide how-to directions, additional case studies, and references for economic recovery efforts and economic development from a wide variety of perspectives and focus areas. Many action items are intended to be covered using existing budgets. Other funding sources are being explored.
C. RESILIENCE TOOLKIT STEPS

STEP 1: IDENTIFY AND ASSESS RISK AND VULNERABILITY

This step focuses on initial exploration and assessment of conditions for economic recovery planning. Building resiliency during recovery will be contingent on a strong foundational understanding of current conditions and vulnerabilities within the community. It is important to first identify which assets, resources, and services are valuable to the community. How were they impacted by the pandemic? Are there future shocks that may endanger or damage these assets? Are they able to adapt and recover from such shocks in a timely manner? If not, why? For this step, the toolkit provides additional guiding questions for exploring risks for vulnerable populations, places, and industry.

People

Challenge: The pandemic had a disproportionate negative impact on specific vulnerable populations including BIPOC communities, lower income populations, and the elderly. For example, data provided by the Virginia Department of Health (VDH) shows that the COVID-19 case rate for Virginia’s Black and Hispanic populations is 1.3 and 2.1 times higher, respectively, as compared to the case rate for the white population. The VDH also illustrates that case rates and COVID-19-related deaths were higher in census tracts with higher levels of poverty. Furthermore, employment for Virginia lower-earnings workers decreased significantly as compared to middle and high earners. For workers earning less than $27K a year, employment levels had dropped by 33.8% by the end of April 2020. According to the Virginia Economic Development Partnership, 45% of Virginia workers earning less than $20/hour are non-white and/or Hispanic, and 55% of these workers are women. These populations are facing more difficulties bouncing back from the economic downturn due to lower levels of disposable income, job insecurity, and disparate health outcomes. Furthermore, these vulnerable groups are sometimes overlooked in traditional economic analysis and planning processes. Certain subpopulations that are not included in specific income brackets or employment status categories may fall through the cracks. Therefore, additional considerations should be made on how to include overlooked vulnerable groups in economic recovery processes.

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12 Economic Tracker (tracktherecovery.org)
13 Source: Current Employment Statistics; American Community Survey microdata retrieved using IPUMS; VEDP analysis
**Recommended Actions:**
A strong economy is one that provides equity in opportunities for all members of the community. In addition to protecting existing livelihoods and supporting skills learning, this recovery is a chance to improve opportunities and financial well-being for at-risk populations. This requires an understanding of barriers to opportunity, risks of economic hardship for vulnerable populations, market volatility, and how such factors contribute to the overall present socioeconomic conditions of your area.

The Institute of Public Policy at the University of Missouri developed a set of Resilience Indicators that seek to assess resilience and vulnerability for United State counties. These indicators are divided into the four categories of Environmental, Economic, Infrastructure, and Social.\(^\text{14}\)

The following includes potential indicator metrics and data sources:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax revenue</td>
<td>U.S. Census Bureau: Quarterly Summary of State &amp; Local Tax Revenue (QTAX)</td>
</tr>
<tr>
<td>Average nonfarm proprietor income</td>
<td>U.S. Bureau of Economic Analysis (BEA)</td>
</tr>
<tr>
<td>Proprietors as a percentage of total nonfarm employment</td>
<td>U.S. Bureau of Economic Analysis (BEA)</td>
</tr>
<tr>
<td>Number of new establishment (“births”)</td>
<td>U.S. Census Bureau: Business Dynamics Statistics (BDS)</td>
</tr>
<tr>
<td>Employment sector diversity</td>
<td>U.S. Census Bureau</td>
</tr>
<tr>
<td>Labor force participation</td>
<td>U.S. Census Bureau</td>
</tr>
<tr>
<td>Business vacancy rate</td>
<td></td>
</tr>
<tr>
<td>% of households spending 30% or more of total income on housing costs</td>
<td>U.S. Census Bureau</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>U.S. Census Bureau, U.S. Bureau of Labor Statistics</td>
</tr>
<tr>
<td>% of population employed in extractive industry and/or manufacturing</td>
<td>U.S. Census Bureau</td>
</tr>
<tr>
<td># of nonprofits per capita</td>
<td>U.S. Census Bureau, Internal Revenue Service</td>
</tr>
<tr>
<td># of associations per capita</td>
<td>U.S. Census Bureau: County Business Patterns</td>
</tr>
<tr>
<td>Voter participation rate</td>
<td>U.S. Census Bureau</td>
</tr>
<tr>
<td>Life expectancy</td>
<td>Institute for Health Metrics and Evaluation (IHME)</td>
</tr>
<tr>
<td>% of housing units that are owner occupied vs. rented</td>
<td>U.S. Census Bureau</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of population living in same county as one year prior</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
<tr>
<td>% of population age 65+</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
<tr>
<td>% of population under the age of 18</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
<tr>
<td>% population disabled</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
<tr>
<td>Income inequality (GINI Index)</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
<tr>
<td>% of households that are linguistically isolated</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
<tr>
<td>% of population living below 100% of poverty</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
<tr>
<td>% of population without health insurance</td>
<td>U.S. Census Bureau</td>
<td></td>
</tr>
</tbody>
</table>

**Place- Infrastructure, Spatial Disparities**

**Challenge:** COVID-19 also highlighted the importance of accessible infrastructure, including transportation, broadband, and “soft infrastructure” like social networks, to the functioning and daily economic activities of communities. During the peak of the pandemic, maintaining public health and safety was dependent on individuals' access to transportation to doctor’s appointments, testing appointments, and vaccine clinics. Simultaneously, new public health guidelines led transit agencies to modify their passenger loads and routes. Subsequently, ridership and fare revenue from public transit fell dramatically. According to the Virginia Department of Rail and Public Transportation (DRPT) Fiscal Year 2020 report, transit agencies experienced ridership declines upwards of 94 percent. With easing of COVID-19 restrictions, ridership and use of public transit is slowly recovering across the country, but distrust or health anxiety related to public transit may persist in communities. As people return to in-person work, these concerns will need to be addressed to better provide transportation options to the workforce.

One of the most prevalent challenges during the pandemic nationwide was broadband and internet access. With primary schools, university courses, and businesses transitioning to remote work during the pandemic, inequality in internet access posed a major threat to continuity of operations and employee productivity. As of 2019, 83% of the United States population and 84.3% of Virginia’s population were subscribed to Internet service. However, gaps in coverage continue to impact communities, with more rural, isolated areas still lacking service due to high installation and service costs and topography. Though many places of work and school systems are returning to “normal,” remote work is expected to become a permanent facet, with some companies remaining fully remote or adopting hybrid “virtual commuting,” in the future of employment.

Infrastructure issues and pathways to economic recovery are inextricably tied to spatial disparities. Often, rural areas are contrasted with urban areas or

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16 TYPES OF COMPUTERS AND INTERNET SUBSCRIPTIONS. Survey/Program: 2019 5-year estimate American Community Survey. TableID: S2801
metropolitan areas are compared with non-metropolitan areas. Regardless of typology, different regions of the country and the state face unique challenges coming out of the pandemic. Specifically, some smaller rural and micropolitan communities were already struggling to bounce back after previous shocks including industry transitions, loss of manufacturing jobs, the boom and bust nature of resource extraction, declining workforce participation, and the Great Recession of 2008. Now, these communities have distinct obstacles to economic recovery. In his study, "Community Susceptibility and Resiliency to COVID-19 Across the Rural-Urban Continuum in the United States," Dr. David J. Peters shows that rural counties were more susceptible to COVID-19 impacts due to larger portions of older and health-compromised populations, limited Internet capacity, and fewer available physicians and social services (2020). Additionally, such areas saw significant decreases of revenue in the tourism sector as fewer people travelled for both business and leisure. On the other end of the spectrum, larger metropolitan areas faced disproportionate health impacts for minority populations and faster spread due to urban density and transportation hub activity. Economic recovery efforts will have to be thoughtfully tailored to these distinctive concerns.

**Recommended Actions:**
Developing and implementing successful economic recovery plans will depend on awareness of spatial disparities and existing hard and soft infrastructure conditions. For assessing these conditions, economic development practitioners and local leaders should inventory transportation systems, Internet/broadband accessibility, and social structures. The following list(s) includes some helpful metrics that may reveal trends or gaps in infrastructure and spatial disparities:

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td></td>
</tr>
<tr>
<td>% of population with no motor vehicle</td>
<td>U.S. Census Bureau</td>
</tr>
<tr>
<td>Public transit ridership rates</td>
<td>American Public Transportation Association (APTA) (by metro area), local/regional transit authorities</td>
</tr>
<tr>
<td>Traffic counts</td>
<td>Virginia Department of Transportation (VDOT)</td>
</tr>
<tr>
<td>Internet/Broadband</td>
<td></td>
</tr>
<tr>
<td>% of households with Internet subscriptions</td>
<td>U.S. Census Bureau</td>
</tr>
<tr>
<td># of available Internet providers</td>
<td>Federal Communications Commission (FCC)</td>
</tr>
<tr>
<td>Internet speeds by Census Tracts or other localized units</td>
<td>Federal Communications Commission (FCC)</td>
</tr>
<tr>
<td>Social Infrastructure</td>
<td></td>
</tr>
<tr>
<td># of nonprofits per capita</td>
<td>U.S. Census Bureau, Internal Revenue Service (IRS)</td>
</tr>
<tr>
<td># of associations per capita</td>
<td>U.S. Census Bureau: County</td>
</tr>
</tbody>
</table>
Industry: Sustainable Economy, Business Attraction, Expansion, and Support

Challenge: The pandemic decreased spending and demand on a nationwide, statewide, and local level, and government-initiated shutdowns slashed revenues for businesses. Smaller businesses in industries that require in-person service, such as food service and retail, were particularly disadvantaged. Small businesses are incubators for innovation and employment growth. Even during the COVID-19 pandemic, these businesses continued to play a vital role in the economy. The U.S. Small Business Administration (SBA) considers firms with fewer than 500 employees to be small businesses, meaning 99.9% of companies in the U.S. are considered to be a small business, and 9 out of 10 firms employed fewer than 20 workers. However, less than 80% make it through their first year and only about half survive five years or longer. This trend is only amplified by economic shocks and unforeseen disasters. Notably, minority-owned small businesses make up over 40% of the market share in health care, tourism/lodging, and restaurant sectors and experienced disproportionate negative impacts from the pandemic. These
minority-owned businesses inherently lack flexibility in capital and relationships with banks that could have helped cushion the blow from the economic shock. Now, many businesses have reopened, but some still lack the labor force and resources needed to meet post-pandemic demand.

**Recommended Actions:** With findings from data collection and preliminary review of local demographics, conditions, and potential gaps and disparities, communities can move forward with inventorying conditions for industry in order to better formulate a comprehensive economic recovery plan. In addition to quantitative data and tools, community leaders and planners will need to take measures to ensure that local small businesses and entrepreneurs are well-represented and are given the opportunity to share perceived conditions, trends, opportunities, and challenges. Outreach, surveys, interviews, and other qualitative data collection methods need to be mindfully designed to engage with the diverse business and entrepreneurial communities. Communities will also need to pay careful attention to the growing concerns regarding labor force shortages and talent attraction and retention. Better matching talent to employers and building sustainable workforce pathways through recovery planning will require additional knowledge about barrier to entry to programs and employment for labor force participants, employee priorities, and more talent concerns.

**Tool: Building Regional Resilience Hub Resilience Assessment Tool**
https://resilience.engagementnetwork.org/resiliency-assessment-tool/
The Institute of Public Policy at Mizzou developed a project to explore what makes communities resilient in the face of natural and human threats. This project uses key indicators in the four dimensions: social, economic, infrastructure, and environmental. Combined, the metrics for these specific indicators provide an overlook at potential vulnerabilities or strengths of a community. This tool is a good baseline for understanding your community’s vulnerability or risk level. It is also an example of the kind of data that is helpful for evaluating economic resilience and understanding challenges to recovery based on place.

**Tool: UnitedForALICE Data System**
ALICE is a project that provides a novel look at the financial hardship for vulnerable households across the United States using standardized methodology to assess the cost of living on the county level. The ALICE database can be used to explore equity and resiliency concerns in many states. United Way, the mother organization for the ALICE project, describes it as follows:

“ALICE, an acronym for Asset Limited, Income Constrained, Employed, is a new way of defining and understanding the struggles of households that earn above the Federal Poverty Level, but not enough to afford a bare-bones household budget. ALICE populations represent those among us who are working, but due to childcare costs, transportation challenges, high cost of living and so much more are living paycheck to paycheck.”

17 https://www.unitedforalice.org/
STEP 2: EXPLORE INTERVENTIONS

The second step is where localities and economic development stakeholders should explore case studies and identify potential options for solutions. Based on vulnerabilities and needs identified in Step 1, economic recovery leaders can use the tools and example case studies provided here as a starting point for finding problem-solving strategies.

People

Challenge: As previously shown, minority populations, lower-earning workers, and workers with lower levels of educational attainment were disproportionately impacted by economic impacts from COVID-19. These impacts were not limited to unemployment—workers also experienced involuntary reductions in employment levels. According to VEDP analysis for the state of Virginia, 149,000 people lost their primary job and were actively looking for work between January and August of 2020. Furthermore, 133,000 people lost their secondary job; 30,000 experienced involuntary reductions of hours; and 52,000 people were not actively searching for employment but wanted a job. How can these workers be re-engaged with the economy? Labor force participants that were previously employed in lower-earning positions may be looking for more stable, higher earning jobs in different fields than before the pandemic. Economic recovery planning presents an opportunity to support more diverse livelihoods for workers. Potential solutions may seek to provide retraining opportunities for workers looking to enter new fields or improving connectivity between education institutions and businesses looking for quality employees.

Workers looking to return to work or increase hours will also need additional support such as affordable childcare options, efficient and dependable transportation, and ranges of affordable housing options located near places of work. Recovery efforts should include these considerations in strategies for a more comprehensive, well-rounded approach to re-engaging people to the labor force.

Recommended Actions: Using data gathered in Step 1, economic recovery actors should search for case studies that reflect localized trends or similar local workforce challenges.

One such example case study is the Renewable Energy and Efficiency Workforce (RENEW) Training Program, a program that was developed as part of the City of Charlotte Open for Business initiative in the midst of the pandemic. The City of Charlotte, North Carolina, partnered with the Urban League of Central Carolinas to provide eligible participants with paid 13-week-long training for HVAC and electric

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trades, a field with high demand for employees in the city. Eligibility is determined by resident status, age limit of 18 years or older, U.S. work eligibility, and conviction background. It does not include educational restrictions and seeks to connect successful program “graduates” with corporate partners needing skilled employees. The average wage for entry-level technicians in this field is $48,000—a competitive wage that may give a discouraged or underemployed worker a leg up. For more information, visit: https://www.charlotteopenforbusiness.com/renew/

Place

Challenge:
Infrastructure and mitigating spatial disparities continue to be at the forefront of post-pandemic discussions and planning efforts. As restrictions are lifting and the country is reopening, there is opportunity to plan for improvements in transportation and telecommunications. Infrastructure, especially telecommunications, are becoming more important to companies and workers when deciding where to locate. However, such improvements are extremely costly. Regions across the country have made great strides, particularly in telecommunications, using federal and state emergency funds such as the U.S. Economic Development Administration (EDA) Coronavirus Aid, Relief, and Economic Security (CARES) Act fund. However, these funding sources are starting to dry up as restrictions are lifted. Economic recovery leaders may be tasked with helping to find more innovative funding solutions to facilitate infrastructure development. Furthermore, the rise of remote work may also impact the feasibility of transportation development. As weekday 9-to-5 commutes shift to more sporadic travel times, transit agencies will have to find ways to meet different types of demand. It is also possible that future transportation infrastructure will need to focus more on flexible multimodal forms of transit. Economic recovery leaders will need to consider this when searching for promising practices in case studies.

Rural, micropolitan, and smaller metropolitan communities also face the unique challenge of major shifts in the tourism and agritourism sectors. Some localities experienced significant decreases in travel expenditure revenues while others saw dramatic increases as more people travelled to find safe, socially-distant experiences and outdoor activities. Such communities should look for examples of interventions that harness such trends in outdoor tourism. Doing so will require additional research and planning for ideas on how to meet visitor and resident demand for outdoor and cultural activities.

Recommended Action: This example case study features localized improvements of telecommunications infrastructure, creative funding, and the power of local social networks to build capacity.

Detroit Community Technology Project (DCTP), an affiliate of the 501(c) nonprofit, Allied Media, works in lower-income and minority communities in Detroit that have historically lacked broadband access. According to DCTP, 38% of Detroit homes lack Internet access and 63% of low-income homes have no in-home Internet. With the help of key neighborhood organizations including Grace in Action, Church of the
Messiah, and North End Woodward Community Coalition (NEWCC), DCTP launched the Equitable Internet Initiative (EII) in 2017. The initiative relies on the community partners to reach out to neighborhood residents to join the Digital Steward Program, where participants complete training for computer skills, network installation, hardware installation, and digital literacy skills. Stewards then work with DCTP to set up wireless networks for residents without Internet access. In 2017, 45 Digital Stewards completed training with DCTP. In 2018, DCTP and their graduated Digital Stewards connected 150 homes across three Detroit neighborhoods to the Internet. DCTP is transparent about their funding sources. They receive contributions, small grants, and some program revenue through the Allied Media nonprofit. For installation and Internet connectivity in neighborhood homes, DCTP purchased necessary fiber cable and hardware from 123Net, a large private carrier hotel operating within Michigan. 123Net set up a non-profit Regional Internet Exchange Point (IXP), which allowed DCTP to connect homes for no cost after Digital Stewards installed fiber and necessary hardware.

For more information, visit:

- Detroit Community Technology Project website- https://detroitcommunitytech.org/?q=eii

Industry

Challenge: The pandemic has transformed the conditions that contribute to an attractive business climate. Resuming “business as usual” may no longer be an option: businesses are considering how to adapt to workers’ new desire for flexibility, hybrid work models, and additional support. To retain and attract additional talent, businesses will need to rethink the amenities they can offer and location options. Some companies are seeing workers being “poached” by businesses offering more virtual work opportunities in more attractive geographic locations. Others may be seeing an inflow of talent based on community features such as dining and entertainment options, outdoor recreation, and quality of life factors. The decision for a firm to locate or expand in a certain area may depend less on available office space and more on the surrounding amenities and assets. How can economic recovery leaders help their communities bolster such assets in order to build a diverse economic base? Relevant case studies for business retention, expansion, and attraction may focus on innovative hybrid business models and economic development organization programs that offer support for such unique businesses. Particularly, communities and economic recovery leaders may strategize on how to leverage community assets to attract well-paying industries offering flexibility and looking for attractive business climates with high quality of life for employees.

Recommended Action: The case of comprehensive economic recovery in
Greensburg, Kansas, demonstrates the power of a cohesive recovery and rebuilding strategy to create opportunity and momentum for business attraction and investment.

The small rural town of Greensburg, with a population of just 1400 people, was struck by a massive EF5 tornado in 2007. The town was decimated, with approximately 95% of the town experiencing complete destruction. Within days, the small business community was meeting and planning for a comeback, led by two local business owners. The community began with in-person meetings, followed up quickly with weekly newsletters, larger meetings, and open lines of communication between businesses and the local government. Given the infrastructure challenges it faced, face-to-face communication became more prevalent, and these interactions led to a stronger and more interconnected community with a shared vision for business conditions and recovery. The Town was able to leverage its emergency recovery funding to create a long-term economic resiliency plan recentered around green energy, infrastructure, and small business support. In addition to helping existing local businesses to reopen, the Town and business community worked to create a business incubator offering programs and support services to incoming businesses and start-ups. Later, the Town also secured funding for the new Eco-Industrial Park, which quickly brought in additional investment for the town to expand and improve their previously underutilized regional airport. From the fallout of the natural disaster crisis, Greensburg leveraged its community character and unique natural assets to attract new industry activity while uplifting existing entrepreneurs. The Town emerged as “The Greenest Little Town in America.”

For more information:

**Tool: The University Of North Carolina’s (UNC) ncIMPACT Initiative**
The ncIMPACT Initiative was developed by a project team from UNC’s School of Government and NCGrowth at the Kenan Institute for Private Enterprise using North Carolina Coronavirus Relief Fund monies. As part of this initiative, this online tool, “Keys to Economic Recovery from COVID-19,” is a single source of data analysis, case studies, webinars, and peer learning sessions. This collection can be a starting point for exploring successful economic development case studies. https://ncimpact.sog.unc.edu/our-work/economy/keys-to-economic-recovery-from-covid-19/

**Tool: The University Of North Carolina’s (UNC) Homegrown Tools for Economic Development**
Another powerful tool for finding relevant case studies to inform future strategies is the UNC Homegrown Tools database. This online platform allows the user to find case studies tailored by geography, specific characteristics, or topic. It also includes a link to a comprehensive list of resources, including webinars, grants, and data. Though most available case studies are concentrated in North Carolina, there are case studies from 19 different states in total, including Virginia.
STEP 3: DEVELOP A PLAN

After initial assessment of vulnerabilities, identification of areas for improvement, and evaluation of case studies, economic recovery leaders can begin planning the most effective interventions. Plans should include a wide variety of stakeholders, business leaders, and community members who will inform the cohesive set of strategies and actionable steps for economic recovery.

People

**Challenge:** Though restrictions are lifting and in-person activities are resuming, some community members may still be hesitant or unable to travel and participate in in-person programs. This needs to be considered when planning workforce-focused interventions. Including more virtually accessible features for retraining or skills workshops would provide flexibility to participants. Furthermore, some households may still be financially recovering from losses or decreases in income during the pandemic. Programs have to include considerations for cost barriers.

Also, workers’ relationships to and perceptions of labor have clearly shifted during the pandemic. Employers may have to meet workers where they are in order to fill vacant positions. Though economic recovery leaders may not have direct authority over such decisions, they can act as advocates and business liaisons to communicate workers’ needs to potential businesses and partners. The planning process should include considerations for overcoming barriers or challenges that workers are facing when returning to work or trying to start a new career path post-pandemic.

**Recommended Action:** Staring in 2011, Los Angeles County in California has developed the Los Angeles County Community Disaster Resilience (LACCDR) project, which is described as a “collaborative effort that aims to promote community resilience in the face of public health emergencies, such as pandemics and disasters.” This project, developed in cooperation with numerous national and regional partners and with ongoing community engagement, addresses barriers to resilience on a community level, with additional focus on community individuals. The community plans developed as part of the project examine individual vulnerability, mental and physical health access, and household preparedness. It also addresses community education, building partnerships, and building community capacity. The project includes a Resilience Builder Toolkit that guides community leaders to consider community assets and planning approaches and asks questions to reveal potential strategies. Though much of the project focuses on community development and health outcomes, the methodology, organization, and concepts of the LACCDR initiatives and toolkit are applicable to matching workers to assistance, resources, career pathways, and economic mobility through planning.

**For more information:** [http://laresilience.org/](http://laresilience.org/)
Challenge: As shown in the “Community Susceptibility and Resiliency to COVID-19 Across the Rural-Urban Continuum in the United States” study, rural and smaller nonmetropolitan communities are often disadvantaged by a lack of formal social institutions and community organizations. Individuals and households may be more isolated or may lack avenues to participate in community development activities that social organizations such as nonprofits or Booster Clubs may lead. This may pose an additional challenge for economic recovery leaders trying to engage stakeholders and community members in planning processes. Furthermore, growth-oriented activities are sometimes met with resistance from the community, especially larger improvements such as infrastructure additions (like additional cell towers and roadwork). The contributions of transportation and broadband infrastructure, as highlighted by the pandemic, should be continuously communicated in relation to business operations and expanding economic opportunities for residents. Planning for physical improvements and telecommunications can be a time-consuming process, but it should be accounted for in economic recovery efforts. Businesses and employees depend on, more than ever, Internet and wireless service and look for easy and minimal commutes.

Additionally, the priorities and strategies for economic development and resiliency will differ for communities on different points of the “rural-urban” spectrum. More rural or nonmetropolitan communities may have an additional emphasis on outdoor asset development and tourism opportunities. However, with that sector, seasonality of business, availability of workforce, and start-up financing can be relevant obstacles. Such communities may also experience aging populations and slow population growth.

Recommended Action:
The City of Houston, Texas provides an example of a comprehensive planning process that serves as a framework for future resiliency. Though it is a daunting and resource-intensive task, the plan sets goals, recommendations, and strategies for addressing a wide variety of challenges that may make the city more vulnerable to future shocks.

From 2015-2019, the City experienced 6 federally declared disasters including Hurricane Harvey (Aug. 2017) and Tropical Storm Imelda (Sept. 2019). The City’s plan, “Resilient Houston”, emphasizes the need to prepare for a new normal of increasingly frequent and severe floods, including drastic changes in land use (ex: removing all habitable structures from flood zones). The plan has 5 overarching visions for the city: a healthy place to live; an equitable, inclusive, and affordable city; a leader in climate adaptation; a city that grows up, not out; and a transformative economy that builds forward. The goals and actions recommended in the plan are organized within each chapter. Instead of focusing solely on the obstacles relevant to natural disaster planning, Houston took the opportunity for recovery to develop strategies for making the City more resilient in the long run, in the face of other shocks or major changes. For more information: https://www.houstontx.gov/mayor/Resilient-Houston-20200402-single-page.pdf
Industry

**Challenge:**
During COVID-19, many businesses across the country struggled to transition operations under the unexpected new restrictions. Businesses that depended on in-person collaboration and customer services were challenged with adapting to online environments. Planning for economic recovery for industries and small businesses presents an opportunity to incorporate business continuity planning for future shocks as well.

Certain industries emerged more successful than others from the shock of the Coronavirus. Particularly, information and technology services and healthcare and social services saw increases in productivity and revenue. While these industries have high paying and growing potential, other industries, such as food service and accommodation, need to be bolstered in order to secure a diverse economic climate. For instance, the strategy for collaborating with a larger healthcare provider versus the strategy for supporting a smaller restaurant may be quite different.

**Recommended Action:** The story of the town of Findlay, Ohio serves as a case study and example of a counter-trend of manufacturing communities in the U.S. Unlike many other manufacturing localities across the country, the industry sector has remained steady in Findlay and continues to be the primary economic activity within the locality. Many workforce development efforts within the town have been tailored to this field. Marathon Petroleum in Findlay, for instance, developed a program to fund scholarships, facility and equipment upgrades, and internships for students at the University of Findlay. This company recognized the value in establishing connections with local higher education institutions and set a precedent for other local existing and potential companies to act similarly. COVID-19 has created another opportunity for manufacturers to connect with higher education institutions and technologically advanced firms to encourage progress and accessibility to Findlay and surrounding localities. For more information: https://heartlandforward.org/case-study/micropolitan-success-stories-from-the-heartland/

**Tool:** U.S. Federal Highway Administration Scenario Planning Handbook
https://www.fhwa.dot.gov/planning/scenario_and_visualization/scenario_planning/scenario_planning_guidebook/chapter01.cfm
This handbook provides guidance on developing a strategic planning process that utilizes scenario planning to address transportation infrastructure and the “triple bottom line” of environmental, economic, and social sustainability. Though specific to transportation planning, economic recovery leaders can take away best practices for addressing transportation needs for their communities. As transportation patterns shift post-pandemic, with some workers resuming commutes and some not, economic recovery leaders may benefit from working with transportation professionals to explore scenarios for how transit trends may impact the workforce and local industry.
STEP 4: IMPLEMENTATION AND ACTION

The strategic economic recovery planning process should result in actionable steps for supporting people, communities, and industries. Steps for implementation may point to specific initiatives, expansion of partnerships, and points of contact. Implementation will also require timelines and milestones for marking progress.

Deploying workforce and talent development programs, small business support, and infrastructure improvements will require creative combinations of funding as well. The recommended actions and tools point to potential approaches to securing funding.

Furthermore, economic recovery leaders will need to identify mechanisms for monitoring and evaluating ongoing implementation. Feedback channels need to remain open and active with stakeholders, community members, and local entrepreneurs. Monitoring may include revisiting and reevaluating the recovery metrics identified in Step 1.

People

Challenge: As mentioned before, economic mobility potential has been hindered by the pandemic. Pursuing education and higher learning opportunities virtually has halted some progress and left those without the funds or technological capabilities to access such training at a disadvantage. Now, employers are struggling to fill open positions with quality candidates, especially in regions that have been traditionally less appealing to the young workforce. Many workers will require reskilling or upskilling. According to the National Skills Coalition, as of 2020, 52% of jobs require more than a high school degree but less than a Bachelor’s; however, only 43% of workers have that level of training. Encouraging workers to pursue that additional training and be connected with employers will require bolstering support and services such as childcare and transit options to ensure access to such programs. There has been such a significant increase in communication about job opportunities and marketing for talent attraction that recipients may be overloaded with information. Helping workers to grow and transition their careers will require unified and accessible messaging that serves as a single dominant source for information as economic leaders work to implement such programs.

Recommended Action: Brookings, South Dakota provides an example of local revitalization and industrial transitions, coupled with a surge of technology and an increasingly educated workforce. This particular economy utilized academia to reinvent the industrial footprint within Brookings. Much like other localities across the United States, recent economic development and tourism efforts in Brookings have been designed to recruit individuals and families more than businesses. From the acclaimed children’s museum to local events at South Dakota State University, Brookings balances person-centered and business-oriented approaches to growth and development. With active attempts to combine education, industry, tourism, and downtown revitalization, Brookings successfully interweaves several key strategies for regions in recovery. Within the context of COVID-19 specifically, Brookings continues to explore and develop these strategies in an intentional and safe way.

For more information: https://heartlandforward.org/case-study/micropolitan-success-stories-from-the-heartland/

Place

**Challenge:** Expanding wireless networks and rethinking ways that companies can locate in a community and enhance their productivity will continue to be key for incoming industry. Larger metropolitan areas tend to be better connected, physically and socially, which is attractive to industries looking for a collaborative innovative environment. Nonetheless, rural and smaller nonmetropolitan communities may be able to promote the quality of life and cost of living advantages that they offer. By combining infrastructure improvements with tailored approaches for attracting remote work and supporting small-scale businesses, such communities can diversify their economies. Moving forward, it will be important to continuously engage small business owners and stakeholders who have valuable input and perspective about community issues and needs. This may be an opportunity to strengthen pathways to public participation while making strides in connecting smaller communities to better resources.

**Recommended Action:** in 2012, Arlington County, Virginia, launched the Participation, Leadership, and Community Engagement (PLACE) initiative with the goal to expand the scope and quality of citizen engagement, expand participation in important county decision-making processes, train interested members of the public and the staff in citizen participation, and improve the quality of the involvement of citizens in county government. This effort sought to set realistic expectations for sustained engagement while building mutual trust and relationships between local government and leaders and the community. Doing so unearthed important community issues and gaps that exist in the avenues for public engagement. This model could be mirrored for the business community.
For more information: https://topics.arlingtonva.us/place/

Industry

**Challenge:** Companies that offer quality jobs are looking for locations that provide educated and skilled workforce, quality of life for employees, and space that facilitates connectivity and innovation. The form of such amenities has been changing with the COVID-19 pandemic. Industries may be looking more carefully at housing opportunities for workers and connections to active business networks in a community. Moreover, the use of flex and coworking spaces is rising, with more companies adopting hybrid models of work. Economic recovery leaders will need to explore such potential strategies. Furthermore, some smaller businesses still need the additional support to resume previous levels of productivity. Particularly, start-ups that may have been derailed during the shutdown of the pandemic may need tailored business support services and straightforward resources for funding opportunities to regain momentum.

**Recommended Action:** The city of Emporia, Kansas shows an example of innovative funding for support and expansion of local businesses and fostering entrepreneurship.
Emporia has the greatest Latino or Hispanic (27%) population of the studied communities and the lowest median income ($39,063). Black and Native American residents in Emporia also face significant structural barriers to opportunity, including considerably higher poverty rates, high rental costs relative to income, and diminished food access. The city has also experienced some population decline in recent years, with 24,000 residents in 2018.

Nontraditional sources of capital investment - The university co-created a crowdfunding strategy to close its capital gap by launching a membership-style investment program for interested residents who provided small businesses with $5,000 loans to repay after five years, while participating businesses paid interest on the loan in the form of monthly $25 gift cards. Emporia’s Main Street program regularly hosts training programs with local banks as well as provides revolving loan funds for underserved small businesses still lacking access to capital. They also conduct intentional outreaches to underserved Latino- or Hispanic-owned businesses to increase the diversity of business ownership downtown.

Additional Areas for Exploration

The following section includes additional areas for exploration. While public health, housing, social welfare, and other areas of concern may not seem directly relevant to economic recovery, they are inextricably tied to the resiliency of a community. Given time, resources, capacity, and funding, additional strategies will be helpful in ensuring that workers have stability, access to opportunity, and the safety nets to protect them from future shocks. Other foci, such as hazard mitigation planning, may help communities become more resilient as a whole.

1. Minimal human vulnerability - enables everyone to meet their basic needs (food, water, and shelter), particularly in times of crisis
   - Safe and affordable housing
   - Adequate affordable energy supply
   - Inclusive access to safe drinking water
   - Effective sanitation – safe, reliable, and affordable
   - Sufficient affordable food supply
2. Effective safeguards to human health and life – relies on integrated health facilities and services, and responsive emergency services
   - Robust public health systems – monitoring and mitigation of public health risks
   - Adequate access to quality healthcare
   - Emergency medical care and effective emergency response services – adequately resourced emergency medical services and emergency response services
3. Reduced exposure and fragility – relies on a comprehensive understanding of the
hazards to which a region is exposed and disparities in response resources. Strategies focus on sound environmental stewardship, robust design and maintenance of man-made infrastructure, and enforcement of appropriate building codes and regulations
- Comprehensive hazard and exposure mapping – map region’s exposure and vulnerability to hazards based on current data
- Appropriate codes, standards, and enforcement – building and infrastructure codes and standards are forward looking, appropriate to local content and risk profiles, and enforced
- Effectively managed protective ecosystems – well-developed understanding and acknowledgment of the role of ecosystems in providing physical protection to the region
- Robust protective infrastructure – integrated, forward-looking and robust network of protective infrastructure that reduces vulnerability and exposure of citizens and critical assets

4. Effective provision of critical services - active management and maintenance of ecosystems, and adequate maintenance of essential utility services, combined with robust contingency planning
- Effective stewardship of ecosystem – robust mechanisms are in place to maintain and enhance the ecosystem services that benefit residents
- Flexible infrastructure – supported by diverse and robust infrastructure, which has been appropriately planned and delivered
- Retained spare capacity – demand on critical infrastructure is minimized through the resourceful and flexible use of key resources
- Diligent maintenance and continuity – robust monitoring, maintenance and renewal of essential utility infrastructure with effective contingency planning
- Adequate continuity for critical assets and services – resourceful, reflective, and flexible continuity plans to maintain utility services to critical assets during emergency situations

5. Sustainable Economy – sound management of regional finances, diverse revenue streams, and the ability to attract business investment, allocate capital, and build emergency funds
- Well managed public finances – adequate public finances and sound fiscal management
- Comprehensive business continuity planning – resourceful, reflective, and flexible business continuity planning across public and private sectors
- Diverse economic base – robust, flexible, and diverse local economy
- Attractive business environment – diverse and resourceful investments within a region, driven by a strong brand and economic and social environment
- Strong integration with regional and global economies

Additional Resources and Example Plans
- The Greater Portland Economic Recovery Plan is a succinct document that outlines recovery goals, strategies, and priorities for short- to mid-term recovery efforts. It is organized into three main priority action areas: help small businesses recover and grow, advance economic mobility for individuals, and support families and children.
The state level publication, *A Playbook for Recovery: Creating Opportunity for all Texans*, sets out nine main principles and associated action items for recovery and building resiliency in the state of Texas. The principles are as follows:

1. Build partnerships instead of rivalries - collaboration is essential
2. Foster resilience through economic inclusion and diversification - be innovative in how we grow our export sectors, while supporting the small and local businesses
3. Increase healthcare investments for economic development - hospitals are not just providers of healthcare and research, they are job creators
4. Lead the energy future - seize the opportunity to innovate and develop an alternative energy ecosystem for the future
5. Protect essential workers to protect resiliency and future – provide access to affordable childcare, guaranteed healthcare and family-supporting wages
6. Promote the growth of rural communities with state-supported investments - rural communities can emerge as centers of entrepreneurship and improve the well-being of all
7. Invest in the skills of workers - double down on our investments in the skills and pathways that expand economic opportunities for workers, improving well-being across the board
8. Leverage universities as community hubs and accelerators for talent and thought leadership - universities can serve as laboratories for the development of practical solutions to intractable problems
9. Advance an infrastructure that supports the orderly growth of metropolitan Texas - digital and physical infrastructure projects can help to jumpstart the recovery by putting people to work, while laying the groundwork that is more sustainable.

The Durham, Canada Regional Recovery Plan provides an overview of economic recovery goals and focuses for the Durham region. It is founded on four pillars: Social, Built, Economic and Municipal, and includes short-term action items to pursue for building back better.

Council for Community and Economic Research (C2ER):

- C2ER is a nationally recognized, membership-based, economic development research collective. The C2ER website provides access to selected BLS information as well as other publications and data tools. Additionally, members
can access web-based information sessions on ongoing economic development projects and training for online databases and economic development tools.

- C2ER State Business Incentive Database: http://stateincentives.org/login/
  - The C2ER State Business Incentive Database provides access to a comprehensive list of state business incentives for each US State.

  - The C2ER journal includes case studies, weekly updates, and blogs on ongoing economic development research.

- C2ER Webinars: https://www.c2er.org/professional-development/webinars/
  - This page includes a list of accessible webinars on various topics as they relate to training for new databases and tools, case studies, and pressing topics within the field of applied economic development research.

  - The MoneyTree Report is a quarterly study of venture capital investment activity in the United States. It is a definitive source of information on emerging companies that receive financing and the venture capital firms that provide it.

- “This website offers a user-friendly interface for a suite of economic, financial, and environmental decision tools designed for businesses that grow, harvest, package, add value, and sell agricultural products. Registered users can manage budgets to track performance—and quickly pinpoint areas for improvement and see where they are performing well. They can manage income, expenses, assets, and liabilities for each business enterprise, importing data from existing accounting systems or manually allocating from their own records. All data is stored securely and privately.” The goal of AgBiz Logic™ is to provide online web-based decision tools to empower farmers, growers, and land use managers to:
  - use data unique to their specific farming operations to develop management pathways that best fit their operations under a changing climate;
  - understand how decisions about new programs, management options, and technologies/varieties may impact their net returns and livelihoods; and
  - better envision which actions farmers can take to build resilience to a changing climate.
  - https://www.agbizlogic.com/