



2020 Economic Recovery Strategy:

SOUTHERN TIER



SOUTHERN TIER REGIONAL ECONOMIC DEVELOPMENT COUNCIL MEMBERS

Omar Sanders

Director, Intergovernmental Affairs, Southern

Tier Regional Office

Regional Co-Chairs

Dr. Kevin Drumm

President, SUNY Broome

Judy McKinney-Cherry

Executive Director, Schuyler County

Partnership for Economic Development

Regional Council Members

Dr. Kathryn Boor

Dean of College of Agricultural and Life

Sciences, Cornell University

Dawn Burlew

Director of Government Affairs and Business Development, Corning, Inc.

Kathryn Connerton

President & CEO, Lourdes Hospital

Martin A. Dietrich

Chairman, NBT Bank

Peg Ellsworth

Executive Director, MARK Project Inc.

Darcy M. Fauci

Chief of Staff/Government Relations,

President's Office, Binghamton University

Mike Field

CEO, The Raymond Corporation

Ernie Hartman

International Representative, 3rd District,

IBEW Local 139

Michael Laliberte

President, SUNY Delhi

Heather McDaniel

President, Tompkins County Area Development

Thomas O'Mara

State Senate, 58th District

Mary George Opperman

Vice President of Human Resources, Cornell University

Michael Printup

President, Watkins Glen International Speedway

Barbara J. Schindler

President & COO, Golden Artists Colors, Inc.

Linda M. Shumaker

President, Shumaker Engineering & Surveying, P.C.

LeeAnn Tinney

Director of Economic Development & Planning

for Tioga County

Stephen Trichka

Vice President and General Manager, BAE Systems

Ex-Officio

Rich David

Binghamton, Mayor

Carl Blowers Schuyler

Chair of County Legislature

Jason Garnar Broome

County Executive

Scott VanEtten Steuben

Chair of County Legislature

Dan Mandell

Mayor, Elmira

Leslyn McBean-Clairborne

Tompkins, Chari of the County Legislature

Tina Molé

Delaware, Chair of County Legislature

Svante Myrick

Ithaca, Mayor

Chris Moss

Chemung, County Executive

Martha Sauerbrey

Tioga, Chair of County Legislature

Rick Matarese

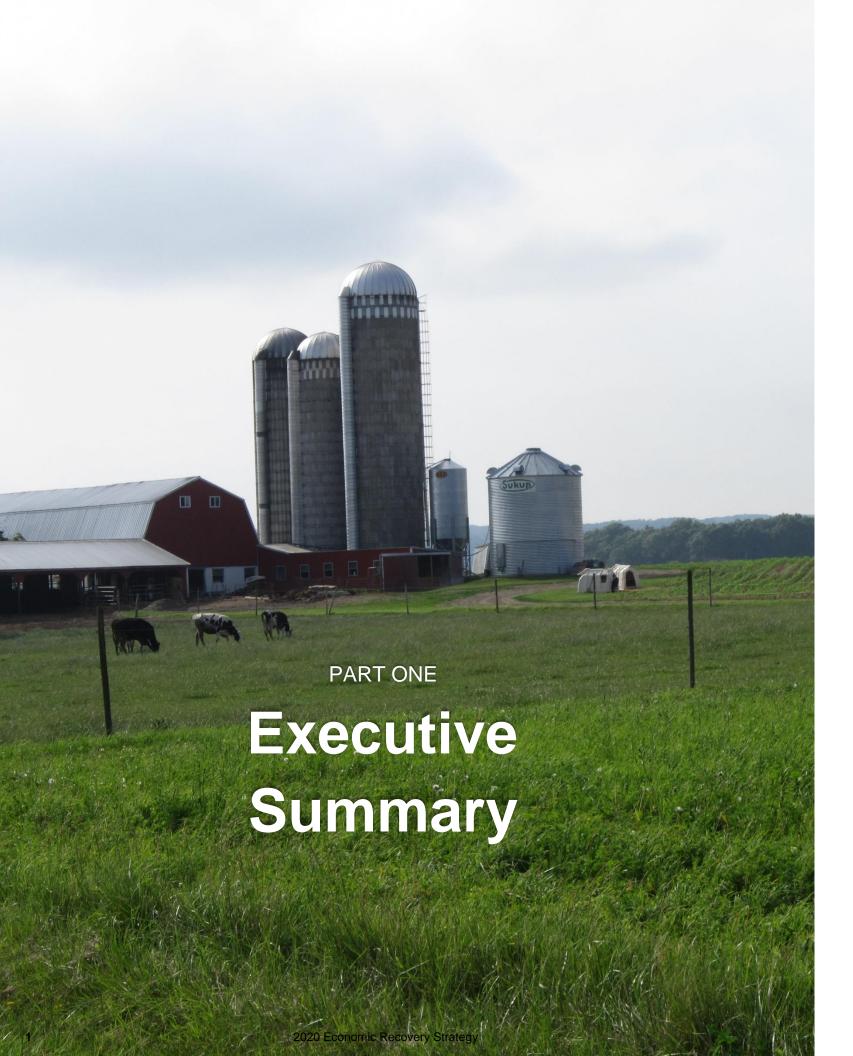
Town of Union, Supervisor

Lawrence Wilcox

Chenango, Chair of County Legislature

Table of Contents

I.	EXECUTIVE SUMMARY	1
II.	OVERVIEW OF COVID-19 RELATED IMPACTS	3
III.	NEEDS AND SHORTFALLS OF REGIONAL ECONOMY	6
IV	EVALUATION OF CHALLENGES AND NEEDS	15
	Immediate and Intermediate Needs (0-12 months)	16
	Long Term Needs (One year and beyond)	24
	Recovery Strategies Realizing the Opportunities Within the Southern Tier	31
	Specific policies NYS could consider to address challenges/needs	35
	Additional Challenges	37
V.	ENGAGEMENT	38
	Work Groups	39
	Public Outreach and Engagement	42



COVID has brought new revelations to every household in the Southern Tier. It has brought tragedy, a resetting of priorities, and opportunities for our residents and businesses.

MESSAGE FROM CO-CHAIRS

The Southern Tier Regional Economic Development Council has, since inception, experienced great success in developing new businesses and related employment opportunities. We have created more vibrant downtowns, identified and maximized our natural assets to create new economic opportunities and leveraged the institutions of higher education to bolster innovation, technology transfer and talent development. We thank Governor Cuomo for his leadership in creating the Regional Council and related processes and the New York Legislature for their support. The Southern Tier Region could have been even more economically devastated had the Region not been made stronger over the past 11 years. We also applaud the Governor's thoughtful approach to managing the COVID Pandemic crisis. Moreover, the Council appreciates the opportunity to focus our efforts on developing COVID-related recovery strategies to be able to build back better.

The working group co-chairs were challenged to be creative, review the current plan for potential changes,

DR. KEVIN DRUMM

Co-Chair



and to develop plans that were not dependent on State of New York funding. The workgroups were encouraged to solicit public and business leader input and be thoughtful about utilizing non-State resources for implementation.

The approach taken to develop these short, intermediate and long-term strategies includes both the re-focusing of the existing Regional Council workgroups, the creation of a new workgroup focused on tourism and related businesses, and a general public input session. There were 14 meetings held, with the input of 200 individuals incorporated into the process and plan. Recovery plans, developed at the local level, were incorporated, as well as input gathered from Southern Tier economic development agencies and Industrial Development Agencies. The following strategic plan, developed by the working groups and written by a newly formed writing committee, charts a path for recovery that is pragmatic, ambitious, and forward-focused.

We are confident that this plan will provide the framework for rapid recovery and resiliency should we face a similar crisis in the future.

JUDY MCKINNEY-CHERRY

July N. Cherry

Co-Chair



Southern Tier



PART TWO

Overview of Covid-19 Related Impacts

Regional Council Members, elected officials and business owners are working together to resume operations with all necessary safety measures. These regional partners have been working together to mitigate the economic impact since the NY PAUSE order. This collaborative effort will continue with the goal of repairing the economic damage and creating resiliency within the region's economic sectors. The Southern Tier's Economic Recover Strategy is the first step towards economic recovery. This strategy will identify the scope of the impacts and then develop a list of regional needs to align future actions with resilience and recovery plans.

he Southern Tier has felt the economic impacts

of the COVID shutdown much more severely than the health impacts of the pandemic, particularly because regional COVID fatalities and serious illnesses have been limited in both number and geographic scope. The spread of COVID-19 in the Southern Tier was mitigated by many factors and quick action, and the region was visited by fewer international travelers from infection hot-spots than other regions across the State.

The region's larger companies were closely following the developments overseas, and in early 2020 some Southern Tier businesses proactively imposed a 14-day quarantine for traveling employees. Business owners in the Southern Tier were quick to respond to the "PAUSE" order from the state, and in response we found that most residents willingly complied with stay at home orders and mask mandates. One of the great assets of the Southern Tier are our spacious yet walkable communities not typically found in other parts of New York State and the country. Lower population density and less frequent use of public transportation also aided the Southern Tier in better isolating COVID cases and maintaining low infection rates.

While the average resident of the Southern Tier was able to stay healthy, the COVID shutdown impacts have been felt directly, immediately, and continuously. While

many businesses have been able to resume

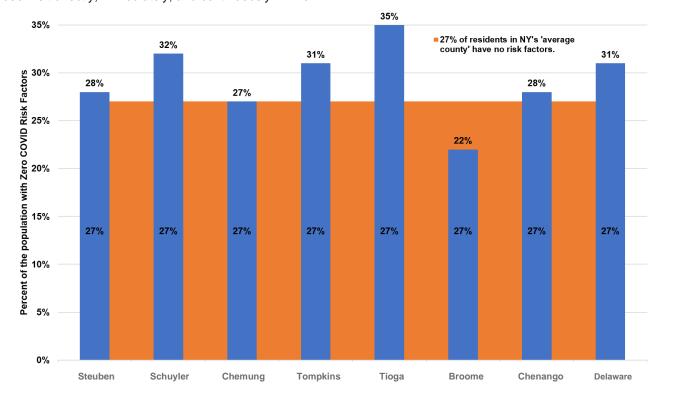
operations, some are still BREAKING | Aug 24, 2020, 02:11pm EDT yet to reopen at all. From January 2020 to April 2020, unemployment rates tripled throughout the region. The number of people applying for unemployment benefits is approximately 11 times higher than this time last year, a fact we can attribute to COVID and

Economists Warn U.S. GDP Won't **Recover To Pre-Pandemic Levels Until 2022** Sergei Klebnikov Forbes Staff

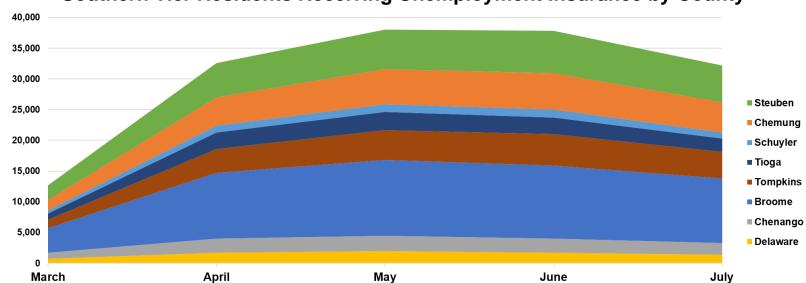
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non-COVID related layoffs, as well as self-employed, furloughed, and Shared Work participants.

Assessments of the economic impacts in this strategy are preliminary and based on the best available data. Close connections to partner agencies and local governments in our region allowed the Southern Tier REDC to collect preliminary data directly from several government and service providers. By pairing this data with other publicly available COVID-recovery data sources, we can outline some of the economic losses faced by residents, businesses, and governments in the region. More detailed analyses will be possible after additional federal and state data are released. Evaluating employment and sales data on a regional level will be imperative to making data-driven policy decisions to continue to guide COVID economic recovery.



Southern Tier Residents Receiving Unemployment Insurance by County



Taxable Sales Reporting to NYS from the Southern Tier

Loss Estimate Based on a Conservative 4% Increase in Sales Year Over Year





Needs and Shortfalls of Regional Economy



As a result of the pandemic, needs and shortfalls of the regional economy quickly became apparent, and previously known vulnerabilities were intensified. The Southern Tier REDC workgroups began meeting in August to identify needs and shortfalls, as well as opportunities and recommendations, for NYS policy action. Within the six workgroups, three overarching themes emerged as essential to the recovery of our regional economy:

- Expanding broadband access to underserved rural and urban areas within the region and across NYS.
- Quality, affordable, and available childcare.
- Creating a unified workforce strategy specific to the needs of Southern Tier.

Broadband, childcare, and workforce needs are inevitably linked, and only when a solution to all three is found will the Southern Tier Region truly be able to consider these challenges a thing of the past

BROADBAND

Access to high-speed broadband is a challenge for most of the rural areas of the Southern Tier region. Although we have made great strides through NYS's broadband program, along with both individual and coordinated efforts, many residents remain without access to high-speed internet at their homes and places of business. The impacts of this pandemic and limitations to broadband access have added urgency for school districts and employers alike. Each Southern Tier REDC workgroup mentioned the need for improved broadband infrastructure. In areas that have limited or no broadband infrastructure, children cannot participate in remote learning, employees cannot work remotely, and innovation in marketing local agricultural and other products is stymied. Under these circumstances, broadband becomes a barrier to attracting tourists, and high-tech companies may not have the bandwidth to relocate to the Southern Tier. All facets of the Southern Tier economy are touched and negatively impacted by the lack of high-speed internet across the entire region. Former Congressman Brindisi, (NY-22) noted that the Southern Tier (Congressional Districts 22 and 23) hosts some of the slowest speeds in New York State.



INTERNET SPEEDS IN UPSTATE NEW YORK BY CONGRESSIONAL DISTRICT

Congressional District	Download (Mbps)	Upload (Mbps)	Combined (Mbps)
22	23.4	7.3	30.7
26	23.1	8.6	31.7
23	24.9	8.1	33.0
21	26.7	8.6	35.4
25	31.8	9.3	41.1
24	32.9	10.5	43.4
27	34.7	9.7	44.4
20	38.7	9.8	48.5
19	39.0	9.7	48.8
18	58.6	14.5	73.2
17	76.2 (https://brindisi.he	33.4 puse.gov/internet)	109.6

A 2017 study by Microsoft correlates high unemployment rates with areas of low broadband access. Expansion of rural broadband will increase the quality of life and education options in the region, and it may help to lower unemployment rates by increasing the options for remote employment.

The top three barriers to full broadband deployment are

 Affordable options. Monthly cost of wired service can be \$100 a month for basic internet services due to lack of competition in the market.

- Rural broadband buildout is seldom profitable.
 Companies struggle to make profit in less dense
 areas. Fiber buildout can cost a company
 anywhere between \$20,000 and \$40,000 per mile.
 In low density areas, it is cost prohibitive for
 private companies to build access
- Lack of competition among providers. There
 is little incentive for providers to offer quality
 service or affordable rates if there are no true
 competitors.

The concerns about access to, affordability of, and quality of high-speed broadband in the region are numerous. Not only does this issue highlight the digital divide, it also limits business development, entrepreneurialism, and hinders an individual's ability to work or learn from home. With many healthcare providers moving to telehealth, individuals without broadband may not be able to access new innovations in healthcare.

The Southern Tier is not unique with the rural broadband issues, but the true long-term solutions will require legislative and financial commitments from counties and municipalities. Efforts must include modified policies at the State and Federal levels as well as highly driven groups of individuals who must continually work with providers, non-profits, and governments to expand services until all households and businesses are served. Rural broadband (like rural electrification and rural telephonication) is a necessity and should be strategically implemented like a utility.

CHILDCARE

Southern Tier REDC workgroups also focused on the impacts of childcare on the economy. Spaces for children in registered childcare centers were scarce across the Southern Tier region prior to COVID-19. A recent survey of childcare centers in the region found that 36% of programs closed at the start of the pandemic. As childcare centers began to re-open, they found that enrollment had severely decreased due to families impacted by job loss and remote work, which resulted in a reduced need for services. National Association for the Education of Young Children (NAEYC) has indicated that enrollment at childcare programs in down 67% nationwide.

In addition to childcare centers dealing with a loss of income, they have increased costs due to the necessary safety measures related to COVID-19. The first round of CARES Act funding and other federal assistance programs such as Payroll Protection Program were helpful to some childcare programs, but they did not address the long-term impacts of low enrollment and increased costs, creating another barrier for low wage workers to enter the workforce, further complicating the childcare landscape.

The childcare system serves many fundamental purposes: care for children of working parents, socialization, preschool acclamation and targeted intervention for high-needs children, among others. Due to the change in the "normal" working environment and the challenges of reopening childcare facilities, childcare costs have increased, the availability of subsidized services are uncertain and the number of children with risk factors, such as poverty, have grown. In addition, the hybrid school environment has added to the complexity and need for childcare, as some parents may now only need care on days their children are learning remotely, which adds a complication to the "seats" available with the daycare providers.

School-aged programs are facing new challenges in providing before or afterschool care. Some of these programs typically utilize school buildings and school bussing systems. It is unlikely that school districts will be able to accommodate these programs while attempting to implement the required additional cleaning and social distancing requirements of their own operations. Further, many school districts in the region will offer a hybrid model, which will require some children to learn remotely a few days a week. Most childcare programs are not equipped to provide full daycare while accommodating the child's remote learning needs. This burden will fall to the parents, who may be working remotely or working out of the home, to ensure their children are meeting the school requirements for online learning.

These new challenges to operating childcare programs from infant to school-aged require creative policy changes and programs that will support a childcare landscape better suited for addressing the existing and emerging needs of the region.

2020 Economic Recovery Strategy

WORKFORCE DEVELOPMENT

Multiple workgroups stressed the mismatch between identified skills gaps and the programs offered for skills training. For companies that identified skill gaps in their employees, most indicated they would prefer to provide that training in house. To address these concerns, it is necessary to catalog existing needs, forecast future needs, and create a flexible program to fund creative solutions to our region's identified concerns.

Talent attraction opportunities were mentioned by all workgroups, with a focus on how to attract qualified workers to the region by using the low infection rate in the Southern Tier along with the high quality of life and standard of living as a draw. The Southern Tier's historically low wages work against the goal of talent attraction, and we know that the rising NYS minimum wage is also a concern for the region's small businesses. Working with leading industry professionals, the region must find a path forward to increase wages to better sell the region to incoming professionals while ensuring that businesses remain solvent.

More specific needs and shortfalls of the regional economy are outlined within each workgroup narrative below.

WORKGROUP: ADVANCED MANUFACTURING

The Advanced Manufacturing Work Group established a set of objectives and strategies in 2019, most of which are still a high priority and worth noting. In particular, a focus on research and development in looking at emerging technologies is a critical component of the advanced manufacturing field, and even more critical now. It is also imperative that we focus on developing the skills pipeline and the ability to attract STEM workers to support growing demand in industry sectors like hemp, energy storage and clean energy technologies. Additionally, there is still a significant need to build and promote New York State's comprehensive clean energy strategy as well as to leverage investments in battery technology and energy storage.

Another theme that emerged is the need for collaboration, joint ventures and relationships across many sectors and industries. As evidenced by the COVID-19 pandemic and the strain on our local resources, there needs to be a concerted effort to establish strong, resilient global partnerships and a supportive supply chain that can withstand a crisis of rapid increased demand

or one that requires a shut down. Long range planning for supply chains and industries is critical to the survival of manufacturing in the Southern Tier.

There have been significant supply chain issues, including loss/reduction of raw materials needed for production, loss of customer demand for products, bottlenecking of supply chains, increased time getting products to market, loss of vendors due to their operational or financial struggles and inability to purchase needed materials for production. When looking at reshoring and increasing our manufacturing in the United States and New York, we must review both the raw materials and supply chain. If our manufacturers cannot obtain the supplies, raw materials and a stable vendor base, then future destabilizing incidents will lead the Southern Tier to experience the same problems with a lack of supplies as was experienced in early 2020.

While the COVID-19 pandemic was challenging to all, it has also created an opportunity to examine our industries from the inside out, take pause, and review how we conduct business, examine our operations, identify inefficiencies, and move toward best practices for the industry as a whole. Successfully navigating this challenging time will ultimately be better for the Southern Tier and New York State.

Needs & Shortfalls

- Loss of cash flow / capital reserves
- Reduction of workforce / inability to find workers
- Supply chain disruptions
- Reduction in customer demand
- Consistent Workforce Development strategy and programs matching existing workforce needs
- Inadequate supply chain
- Identified growth opportunities
- Employee recruitment and retention
- Sustainability in products and processes
- Investment into research and development

WORKGROUP: FOOD & AGRICULTURE

Like many other sectors, the true impacts of COVID-19 on food and agriculture economy have yet to be fully realized and will require a complete and ongoing data assessment from the beginning of the pandemic into coming years. Within the Southern Tier, like much of New York State, the food and agriculture sectors were some of the earliest impacted by COVID-19 closures and supply chain issues. These issues also allowed people to rethink where their food comes from and ultimately led to a change in consumer spending and a greater focus on "safe, local and fresh" products. This will ultimately lead to opportunities within the Southern Tier to connect producers and consumers and create resiliency in the future.

The unexpected long-term closures of schools and restaurants led to adverse impacts in the dairy industry, an agricultural backbone of the Southern Tier. Federal subsidies for dairy were of great assistance and increasing prices might help to end this slump in dairy, but the volatility of the market still exists. NYS PAUSE orders and the sudden necessary restrictions on travel and tourism related activities





resulted in many farms, wineries and breweries losing their in-person retail/tasting business. However, numerous businesses showed their resiliency and were able to quickly pivot to online sales. Additionally, club memberships began to regain some of the lost revenue, and many appear to have had a successful summer season. However, there is a significant concern about how these businesses will weather the traditional "off-season" under current social distancing standards. It is important to note, the wholesale market for adult beverages stayed strong throughout COVID.

Additionally, Southern Tier residents have demonstrated an increased interest in buying food directly from local farms. As such, the region saw an uptick in sales at greenhouses, as well as an uptick in sales of fresh produce and local meat. Unfortunately, for many residents, the infrastructure and knowledge of how to access local foods, especially with limited resources during COVID was lacking. Further, most food processors were unable to pivot their production for consumer purchases of packaged smaller quantity items. This is a real opportunity for the region to harness and accelerate this growing movement to support local farms.

While availability and costs of labor in the food and agriculture industry has always been of concern, these concerns were intensified by the COVID-19 pandemic. Fears over personal health and increased unemployment benefits, and limited ability for workers to travel have left many farms and restaurants without the necessary labor to operate.

Needs & Shortfalls

- Resiliency in processing to better pivot from restaurant supply to the at-home consumer
- Linear supply chain allows for disruption
- · Expansion of broadband coverage
- Expansion of cellular coverage
- Skilled Labor shortages
- Lack of cold storage to accommodate increased distribution regionally, within the state and beyond.
- Improved communication vehicles to market local farm products to consumers

2020 Economic Recovery Strategy Southern Tier Southern Tier

WORKGROUP: GREATER BINGHAMTON INNOVATION ECOSYSTEM

Within the three Innovation Districts ("iDistricts") that comprise the Greater Binghamton Innovation Ecosystem, as well as in small downtowns across the state and region, the impacts of COVID-19 pandemic were felt strongly. As with other sectors, COVID-19 highlighted existing challenges, presented new chal-lenges, and created opportunities for innovation.



One issue that emerged very clearly is the importance of maintaining the past decade's progress towards creating vibrant and economically successful downtowns. As a long-term goal, it is critical that we build resiliency into the system to ensure that these iDistricts and downtowns across the Southern Tier can survive economic downturn and continue to be centers of culture, innovation, and investment in our region.

To address both the short-term goal of maintaining our recent successes and long-term goal of building for a more resilient future, five focus areas were identi-fied: Restaurants & Retail, Arts & Culture, Real Estate Development, Entrepreneurship, and Higher Ed & Healthcare.

RESTAURANTS & RETAIL

It is crucial that our storefronts and local businesses, which make up the heart and soul of our downtowns and attract both residents and visitors alike, are able to weather the storm of COVID-19 related impacts and stay solvent through this economic crisis.

ARTS & CULTURE

Similarly, it is imperative that we support our arts and cultural organizations, such as our museums, theaters, galleries, and event spaces as well as our local community events, many of which are signature events for our area. This is especially important as the monetary contributions on which many of these organizations depend is limited during this time.

REAL ESTATE DEVELOPMENT

As the real estate landscape is challenged by reimagined work and play spaces, we need to support creative responses to community needs, as well as to eliminate barriers for developers who want to invest in our communities.

ENTREPRENEURSHIP

The entrepreneurial landscape of the area is strong, with many new businesses getting their start from the Koffman Southern Tier Incubator and benefitting from the START-UP NY, 76 West, and other entrepreneurial programs. We need to support these fledgling businesses to ensure that the investments made by the business owners, the community, and NYS pay dividends for years to come.

HIGHER ED & HEALTHCARE

The iDistricts are uniquely positioned to benefit from and support both Higher Education and Healthcare resources, as well as the ancillary industries that exist here because of them. As both are highly resilient industries, it is necessary for us to continue our support of these major area employers and incredible community resources.

NON-PROFITS & TECHNICAL ASSISTANCE

Many non-profits and supporting institutions have been asked to do the unthinkable during the pandemic. Many of our supporting institutions step up and support and provide services for families, businesses, and communities as a whole with limited resources. In order to maintain stability in our regional economy and implement initiatives that address the immediate, intermediate and long term need for the Southern Tier region, it's imperative that we find alternative ways to support these non-profits and keep technical services intact that are critical to business development, access to healthcare, affordable housing, education, and the arts.

Needs & Shortfalls

- Collaborative Investments/planning in infrastructure between public and private partners to enhance connectivity across iDistricts
- Expanded buy local / stay local campaigns that incorporate all commercial districts within the IDistricts (arts, food, culture, entertainment)
- State and Local public safety/enforcement campaign that includes consistent messaging across the region.
- Packaged incentives to support startup tech companies, retail, and virtual entrepreneurship opportunities
- Data driven policies/practices to fight blight and vacancies in commercial real estate
- Continued support through the Greater Binghamton Fund (academia, healthcare, housing,), etc) to attract and retain businesses

WORKGROUP: INNOVATION CULTURE

The Southern Tier's employment base is heavily concentrated in education (especially higher education), local government, leisure and hospitality and medical services. Like many small metro areas and rural communities, the Southern Tier lacks economic diversity and has low rates of new business and company formation. We need to continue to diversify the economy to increase overall economic activity and improve resilience.

Academic institutions are the second largest employer in the Southern Tier, as well as the regional hubs of innovation. The budgetary challenges imposed on these organizations by the pandemic crisis pose a major threat to the regional economies. Not only will helping our existing main industries recover be a key priority, we need to continue to maintain focus on growing and diversifying the economy through new startup formation to maintain the momentum we've seen in past years.

Increasing "economic complexity" requires strategic diversification, according to scholars at the Brookings Institute. "Pathways to growth are unique and specific to each metro area depending on the stock of existing industries and embedded capabilities.

The policy implication is that the appearance of one industry is largely determined by the presence of another. This is referred to as "path dependence."" (Escobari et al. 2019).

With that in mind, the Southern Tier REDC has made innovation and startup formation a key pillar of its strategy for the last several years, with the objective of leveraging these innovation assets to grow and diversify the region's economy. This has had three focus areas:

- Leveraging regional strengths in clean energy, which has led to a successful 76 West innovation competition, a successful Southern Tier Clean Energy incubation program and a NYSERDAfunded hardware Scale-Up program, and catalyzed a burgeoning clean energy startup cluster in the region;
- Networking the region's business incubators to create regional support structures and foster a startup cluster that can enable faster growth and access to capital for these firms; and
- 3. A new initiative in food and agriculture innovation with the launch of the Grow-NY startup competition jointly with the Central New York and Finger Lakes regions.

Taking a regional approach has shown a high yield and results we can build on: in 2019, regional incubators had 140 member companies, which collectively attested to creating 152 new jobs, earning \$19 million dollars in revenue and raising \$26 million dollars in capital to grow their operations. Taking a focused approach has also shown a high yield: the 76 West competition is in its fifth year, and of the 24 prizewinners announced to date, 16 are currently operating in the Southern Tier, with two more to start regional operations once they complete contracting for their prize. These companies collectively employ over 100 people. The region is also successfully leveraging its innovation assets – led by Nobel laureate, Binghamton University professor, and an inventor of the lithium-ion battery Stan Whittingham. By connecting the 76 West competition to the Southern Tier Clean Energy Incubator and the NYSERDA Scale-Up program, the Southern Tier has shown a track record of achieving lasting benefits from investments in this clean energy startup cluster.

11 2020 Economic Recovery Strategy Southern Tier Southern Tier

Needs & Shortfalls

- · Economic diversity
- Continued regional approach to economic development
- Expansion of broadband coverage
- Expansion of cellular coverage
- Budget shortfalls for educational institutions & centers for innovation
- · Addition of 5G infrastructure



WORKGROUP: TOURISM BUSINESS DEVELOPMENT

Tourism properties and related businesses in the Southern Tier are dealing with a number of issues related to the COVID-19 pandemic. The timing of the pandemic, the NY-PAUSE order and the phased reopening happened at the start of what is traditionally the travel and tourism season in the Southern Tier. Businesses that are primarily a tourist attraction, or business that relates, supplies to or depends on tourism, generate 93%-95% of their annual revenue beginning in April and ending in October (computed from state sales tax data). The loss of revenue to these businesses is unrecoverable, and while many have been able to find ways to reopen, within guidelines and restrictions, many still are not operating at full capacity and are dealing with a heavy revenue loss and an uncertain future. Ideas that were gathered from the work group discussions, surveys and from input directly from the Southern Tier

Tourism Promotion Agency (TPA) group revolve around marketing, branding, and potential resources to help this industry recover. The COVID-19 pandemic has afforded the Regional Council an opportunity to revisit our tourism regional strategy and programs and assess where those needs are, what complications exist, and how to maintain local, regional, and state relationships to keep this sector strong.

Needs & Shortfalls

- · Buy local / stay local campaign
- E-Commerce infrastructure and education for businesses
- Expansion of broadband coverage
- · Expansion of cellular coverage
- Addition of 5G infrastructure
- · Pivoting in times of crisis for more businesses
- Childcare and medical benefits for tourism workforce
- Diversified seasonal businesses to be year around.
- Re-imagining visitation and marketing strategies to align with the post-COVID travel and tourism realities

WORKGROUP: WORKFORCE DEVELOPMENT

Several key facets of the Southern Tier economy have been greatly impacted by COVID-19. Many industries are finding it difficult to attract job seekers due to issues with childcare, uncertainty of school schedule, increased cost of groceries, and risk associated with public transportation. Additionally, public facing jobs have additional associated risks that may sway job seekers to consider positions with less risk.

If we have any hope of avoiding another shutdown, keeping workers and potential workers healthy will be of utmost importance during and through the recovery phase of this pandemic. Many workers lack access to quality healthcare and possibly, with the lack of broadband, may not be able to access the telehealth options offered. All existing and prospective employees will need quality and affordable healthcare to maintain and grow the current workforce.

The region also continues to maintain a gap in trade workers. With limitations on K-12 visitors, internships, and job shadowing this year, as well as funding cuts, this gap is expected to grow. For existing workers, industries prefer providing instruction in-house to better prepare and promote existing employees into higher skilled positions, but his can be an expensive way of providing training. Collaboration between companies with similar needs and local education institutions can help to address this problem. Two regional success stories include the joint program between Corning Community College and Siemens, as well as the welding program between The Raymond Corporation and Sidney High School. As we continue to assess the exact skills gaps in the region and work to connect potential workers with employers, we also need to ask ourselves: What are the new careers and the new opportunities? How can we better recruit, retain, train and place these individuals within the Southern Tier?

As we look to the future of our Region's workforce, we must focus on growing apprenticeship programs in the region and utilizing available apprenticeship funding to achieve this. Further, directing our focus to prison re-entry programs and expanding this group of skilled workers by offering more extensive training post incarceration may prove viable in growing the pool of skilled employees as well.

For those already in the workforce, many employers must develop more flexibility in employee policies and procedures. Employer flexibility at this time will help to retain employees while they deal with other challenges at home, such as childcare. Additionally, many employers lack comprehensive work-from-home policies and equipment, a challenge that should be addressed in the short-term through technical assistance or shared human resource tools. Finally, employees must have the option to work from home or have access to sick leave that will cover COVID-19 symptoms and recovery. This is vital to keeping our existing workforce safe and healthy.

For many entrepreneurs and small businesses, the effects of COVID-19 have been magnified. There is little succession planning for business owners and the business owners have been tasked with the financial burden of making sure that both their employees and customers are safe in an environment of changing expectations of customer service interactions. Creation of and reliance on existing small business networks and chambers of commerce may be the answer to providing the necessary support that small business and entrepreneurs need.

Needs & Shortfalls:

- Expansion broadband coverage
- Expansion of cellular coverage
- · Addition of 5G infrastructure
- Affordable quality and family housing options
- · Available & Affordable childcare
- · Affordable and quality healthcare
- · Additional training in trades and clean energy
- Additional coordination and funding for skills/trade training between companies with needs and local educational institutions
- Mapping of skilled workers and skill needs in the region
- Funding for workforce pipeline initiatives in school program
- Flexible work environments both hours and work from home models
- Extended leave benefits and flexible sick leave
- Trained workers
- Quality housing options
- Work from home policies and sick leave benefits





As the global COVID pandemic continues into

2021, some regional needs will change. Residents and businesses cash are looking at depleted cash reserves, and individual's and small businesses' ability to weather another shutdown is uncertain. Local Governments reported an increase in unpaid water/sewer bills (increases between 14% and 22% in half of the cities surveyed). In the long-term, the full extent of damage to the local economy is not yet clear, but we know that the damages will be widespread and difficult to withstand.

Regardless how the Southern Tier plans its recovery from COVID-19, communication on public health between the State and counties is key to the intermediate and long-term success for the region. The formation of the Control Room was a significant advantage for businesses, key stakeholders, and community members. Those who served in the control room had access to state officials who could

communicate issues, questions, give feedback on the pause and eventual phase-in process. The leaders who served in the control room were given the opportunity to communicate out and back what was happening on the ground in their respective counties. This collaborative approach to helped to build strong communication and support throughout the Southern Tier. This positive development that was created out of the State response to the COVID-19 pandemic would be a great support system as we continue to work to stabilize our economy and keep the public safe. An effort should be made to maintain this group and continue to use those who serve on it as a sounding board both to the state and ESD, to filter information back to their communities. Economic impacts are occurring at the intersection of people and policy. The recovery should also start with policy changes and direct assistance to people.

Immediate and Intermediate Needs (0-12 months)

The listed short-term needs will be ongoing and continue to need attention in the long term. Specifically, some refer to the need for additional studies and research. These studies will incorporate recommendations for next steps, best practices, and solutions to the challenges the Southern Tier faces. The region must stay vigilant and continue to make data-driven decisions. Utilizing the data from the completed studies will allow the region to better target the root of the disconnect and address it while also prioritizing and encouraging funding targeted at the recommended practices and growth sectors, to continue to diversify our economy.

SOUTHERN TIER AS A REGION:

Providing the tools necessary to operate:

- Ensure all businesses have adequate access to PPE for reopening and beyond. As the economy continues to reopen, we must continue to ensure that the necessary PPE, sanitation equipment and supplies remain available to all employers in the Southern Tier. Ideally, local manufacturing of PPE will be supported by New York State.
- Establish a reporting system so that the list of dislocated workers can be easily obtained remotely/ electronically by Career Center staff.

Employers pivot, retool, rethink operations:

- All employers must rethink work shifts, provide flexible working options, and implement innovative policies for the new work environment.
- Employers with work-from-home employees must change policies to set milestones and focus on outputs achieved rather than hours clocked.
- Employers should reevaluate benefit packages and consider modifications if the needs of a remote worker are different than a traditional inperson employee. For example: consider exchanging additional personal cell phone benefits for an 'antiquated' benefit that may no longer be needed.

Stronger Communications and Messaging.

- Assist local business owners to help them have a better understanding of available support, such as Shared Work Programs and New York Forward Loan Funds
- Develop retraining and rehiring opportunities for displaced workers. While unemployment benefits were well known, local resources available to find and fill jobs or get training are not widely known.

Cash and Workforce Training.

- Expenses are escalating for small business owners, especially in the hospitality industry, who are hesitant to absorb additional debt.
 Create grant programs or assistance with:
 - utility costs
 - safe, code approved outdoor heaters& ventilation systems
 - protective equipment & packaging
 - technology upgrades for e-commerce& web-based platforms
 - equipment for contactless/touchless transactions

Improved Community Support Services.

Establish the Economic & Environmental
Justice Workgroup to draft an action plan,
expanding partnerships to build equity access
and financial literacy for racial, social,
economic, and environmental justice inclusion

WORKGROUP: ADVANCED MANUFACTURING

Many of the short-term needs identified by the Advanced Manufacturing workgroup revolved around recognizing and addressing supply chain issues, concern about loss of revenue and changes to businesses needs and workforce issues. All these issues existed long before COVID but have been intensified by the global pandemic and subsequent shutdown.

The short-term needs of Southern Tier's advanced manufacturing are:

Matching the right employee with the right position.

- Develop programs that retain and grow existing jobs with the region's small-mid size manufacturers and to incent relationships between larger OEMs to work with regional supply chain companies.
- Establish a stronger pipeline for workers in traditional manufacturing skills. There continues to be a dearth of skilled workers that can easily transfer from one employer in the region to another as the workforce fluctuates with long term contracts

- Develop a workforce strategy with integrated action plan, deliverables and identified champions committed to seeing the strategy implemented.
- Develop a mechanism and structure working with Department of Labor and area industries to more easily transfer skilled workers from one company to another as projects phase in and out.
- Work with workforce development workgroup to ensure that training programs are meeting the needs of the region's employers.

Identify and address supply chain vulnerabilities.

- Thoroughly study supply chain vulnerabilities.
 Create and implement a strategy to develop a
 more robust, diversely distributed and redundant
 supply chain that is less vulnerable to disruption.
 Find a way to increase the supply chain for raw
 materials and supplies to avoid a lack of supplies
 and bottlenecking of the supply chain. More
 suppliers and raw materials in the state will help
 our manufacturers that need them and get out to
 customers quicker.
- Better integrate small to mid-size firms into the regional supply chain as the region moves to source more products domestically.

Reduce cost, increase production & make more money.

- Promote new green technologies and energy efficiencies to lower production and operating costs.
- Consider low/no cost revolving loan solutions to fund operating expenses for businesses that have lost their cash flow and capital reserves over the past six months.
- Work with New York State to ensure consistent, frequent and current access to data, to aid data driven decisions and solutions.

WORKGROUP: FOOD & AGRICULTURE

Agriculture in the Southern Tier, while encompassing a large portion of the economy, has long been volatile.

Impacts of COVID-19 simply caused that volatility once again and on a greater level than had previously been seen. Yet there are some specific needs in the short term that could make the difference should a future shut down occurs. An investment into the agricultural economy is necessary to ensure future success; funding is critical, as is an agricultural study that will investigate and map out weaknesses and opportunities in case of a future crisis.

The short-term needs of the Southern Tier food and agriculture are

Funding and support of programs, innovation, and basic needs.

- Support programs, such as the region's food banks, that help meet food needs of residents.
- Continue to work with the region's food banks to figure out how to better transition non-traditional locations, such as restaurants, as a distribution center for food to needy families
- Support Cornell Cooperative Extension's food and agriculture research to spark innovation.
- Continue support of agricultural education within schools, including young farmer programs, to assist with succession planning.
- Support regional loan funds that target innovation in production and supply chains.
- Identify and improve supply chain issues, creating a more robust supply chain resilient to disruptions.
- Prioritize on farm safety education, maintenance and repair, as well as equipment upgrades to protect farmers, farm families, and farmworkers.

Study, research and fund implementation of best practices and findings.

- Support research into the true limits of regional production and how resiliency can be improved.
- Research agricultural innovation, incorporating green energy and further efficiencies to better support and grow in controlled environment agriculture.

18

Marketing and education of our local agricultural assets.

- Support educational efforts for local consumers on how to access local foods through targeted marketing campaigns.
- Support increased Community Support
 Agriculture (CSA) and CSA pickup/distribution
 locations to better connect residents with the
 foods grown in their own community.
- Strengthen and improve connection between the Southern Tier and the New York City market, by creating regional food hubs for small farms to distribute their product to a larger market.

WORKGROUP: GREATER BINGHAMTON INNOVATION ECOSYSTEM

The Greater Binghamton Innovation Ecosystem has had major success in the last decade in building vibrant downtowns, and many of our businesses have demonstrated resilience and an ability to effectively pivot in the face of change. However, there are recommendations that can be implemented to mitigate short-term concerns.

The short-term needs of the Southern Tier Greater Binghamton Innovation Ecosystem are

Overall:

- Provide short-term loan forgiveness/deferral for at risk industries to keep them operational for the next 6-12 months
- Provide technical assistance for at risk industries to help them successfully pivot and/or build resiliency plans
- Provide technical assistance to residents to help them build financial literacy skills and navigate uncertain economic terrain
- Conduct an industry needs assessment to quickly disburse assistance (financial, information, technical, etc) to appropriate businesses and industry partners

Restaurants & Retail

- Develop a skill share program or seminar for the Hospitality/Retail/Food Service Industries, for example: best practices/success stories; collaborative opportunities and technology resources, property management, pop-up property management, pop-up events & codes, related local and state ordinances/permit processes, and continued outdoor experiences outdoor experiences
- Develop a small dollar grant program to support proven pivots, such as buying outdoor heaters, PPE, or renovating spaces to allow for social distancing

Arts & Culture

- Adapt large indoor spaces and flexible public spaces to accommodate socially distant guidelines, especially during winter months
- Develop a small dollar grant program to support operational costs for arts and culture organizations that are prohibited from operating due to public safety concerns

Real Estate Development

- Restore confidence to initiate and resume construction. With so many pandemic unknowns, the engineering, construction and investment markets are soft or on hold.
- Provide technical assistance and training to local communities and businesses to increase literacy in real estate development, such as zoning requirements, site availability, and funding options

Entrepreneurship

- Continue to support programs that assist entrepreneurs, such as START UP NY
- Develop packaged incentives to support startup tech companies, retail, and virtual entrepreneurship opportunities

Higher Ed & Healthcare

 Continue to support programs that assist healthcare and institutions for higher education and healthcare, such as ESD grants, and create new programs to support short term needs, such as acquiring PPE and expanding testing capacity

WORKGROUP: INNOVATIVE CULTURE

In times of crisis, regional commitment to an innovative culture may be the mechanism that sparks a resilient economic recovery. The short-term needs of the Southern Tier as related to innovative culture are the continued and increased promotion of the many Southern Tier's entrepreneurship and unique start-up support programs. The region is fortunate to have the backing of major highly reputable colleges and universities, that have incorporated business incubators and support of the entrepreneurial spirt that is often associated with higher education.

The short-term needs to strengthen and enhance the Southern Tier's innovative culture are

Continue, support, grow, fund, and leverage the innovation assets already existing here in the Southern Tier.

- Encourage development of "last-mile" high speed broadband to the home across the Southern Tier, as well as development of ubiquitous-coverage cellular networks, including rapid deployment of 5G across the region.
- Creative regional alternatives to fund entrepreneurship programs, mentoring courses, business workshops and seminars for entrepreneurs and startups in the region, provided by the region's innovation hot spot (Southern Tier Startup Alliance), business incubators, SBDC, and Manufacturing Extension Partnership.
- Continuation and expansion of programs such as Co.Starters and SBDC, which support the region's lower-income and minority communities in new business formation and growth
- Deploy programs to encourage minority and women-owned companies to apply for M/WBE

- certification, and increase the speed of certifying the region's M/WBE applicants.
- Continue programs to encourage access to capital across the innovation / startup spectrum, including but not limited to the launch of the Small Business Innovation Research (SBIR) consultant matching fund
- Leverage incubation system to provide support (mentoring, advice, workshops) to companies that are looking to pivot or to expand their operations to addressing COVID-related or "new normal" issues.
- Connect highly-skilled students graduating from the regional universities and workers associated with the higher education ecosystems with startups and other viable job opportunities in the region, through the region's incubators and innovation ecosystem.
- Continue regional innovation competitions and related programs to continue the growth of the region's startup economy, especially in clean energy and the food and agriculture innovation sector.
- Continue key partnerships with sources of venture capital such as LaunchNY, Cayuga Venture Fund and Bingtech Ventures to help startups obtain their first venture capital term sheet and raise capital to grow in the region.

Recognize and continue support the innovations and growth related to the local COVID response.

- Continue partnerships with New York State to incentivize companies that provide COVID response products, which will help those companies continue to thrive
- Continue to grow and identify resources for programs to support commercialization and/or spinout activity for regional academic COVID-related or "the new normal" innovations

Ensure existing funding mechanisms and funding infrastructure are accessible to all companies; funding systems should be adaptable to the new post-COVID economy.

 Encourage regional loan funds to modify underwriting in response to the challenging operating environment for businesses due to the pandemic.

WORKGROUP: TOURISM BUSINESS DEVELOPMENT

The hospitality and tourism industry have been hit particularly hard by COVID-19. Due to the necessary public health protocols to combat the spread of the virus, many successful travel, tourism, and hospitality businesses shutdown or operated with limited or no resources to adapt to the immediate changes imposed in a short amount of time. Despite these significant impacts, tourism and support businesses may have the greatest opportunity to evolve and begin marketing within the region and within New York State.

The short-term needs of the Southern Tier tourism business development are

Planning for, preparing for and being more resilient in the face of potential future shutdowns.

- Access to COVID-19 modeling to estimate 2021 industry-wide sales with service restrictions, social distancing guidance, and restrictions on travel between states to allow area organizations to effectively strategize their approach to the 2021 tourist season
- Prepare for anticipated admissions protocol once inperson events and performances are permitted

Strategic branding and marketing to respond to the current economic conditions and limitations.

- Invest in a strong marketing and branding program to promote outdoor recreation and amusement in a safe way, focusing first on tourism through the winter months and opportunities throughout the Southern Tier.
- Continue "Stay Local, Buy Local" marketing and branding initiatives.
- Expand the "Buy Local" campaign to develop an online purchasing platform for businesses.

For every \$100 spent at a local business, roughly \$68 stays within your local economy (LocalFirst.org).

- Celebrate regional low COVID case rates and the return of a healthy and safe business environment for residents and employees in the Southern Tier when it is deemed safe
- Highlight the success stories of businesses that survived, pivoted, and continued to thrive, despite the pandemic. Celebrate these businesses and create/ facilitate a platform for colleagues to learn from their success through virtual trainings, seminars, and events built upon the prior work of the area's key organizations.

Create and provide opportunities for small businesses to learn and adapt.

- Create a virtual regional Farmer's Market turnkey platform that can be utilized to sell items in an e-Commerce environment.
- Create shared platform for more businesses to shift to an e-Commerce model: from posting menus online and online ordering, to shipping assistance and promotion. Help businesses work together to share costs and spread best practices.
- Utilize the expertise of regional organizations to provide online virtual training and networking programs for businesses to learn from one another.
 Support ways for these industries to collaborate, share information and work on plans that will allow them the flexibility and education to pivot their businesses and survive.
- Create a better support system, access to funding, and training for the small businesses, especially those on our "Main Streets," which can act as tourist attractions in the shoulder season
- Find ways to supplement revenue in the "off season" without relying on tourists, travelers, or festivals for most of their annual revenue.

WORKGROUP: WORKFORCE DEVELOPMENT

Needs of the workforce in the next six months are to ensure there are enough skilled employees to keep operations functioning. A survey conducted by the Advanced Manufacturing workgroup found that 60% of respondents were concerned about keeping employees safe and 41% were concerned about the effects of access to childcare.

Employers must guarantee adequate safety precau-tions are implemented, maintained, and enforced, so that all employees feel safe. To keep their trained workforce, employers will need to find ways to be flexible with hours, work from home options and sick leave to accommodate not only the health and safety of their workforce, but to assist their employees dealing with hybrid school and childcare gaps. Additionally, creatively thinking about work schedules and shifts may allow for flexibility needed to alternate childcare options with other caregivers, while also reducing the density of employees within a facility at any one time. Lastly, compliance with the new public health practices, will require additional training for employees, employers, and new incoming workforce to be successful. Residents in the Southern Tier have always enjoyed a high quality of life. Expanding that quality of life to allow more flexibility to work while instilling a work/life balance will put the Southern Tier in a stronger competitive position.

The short-term needs of the Southern Tier workforce are

Closing the skills gap and training for the new economy:

Jobs have rebounded for the top, but not for the bottom (Chart shows percent change in employment since January 2020) Under \$14/hr pay \$14 to \$20/hr \$20 to \$32/hr Over \$32/hr +2% 0% -5% -9% -5%

Source: Opportunity Insights analysis of Current Population Survey data

January 2020

June 2020

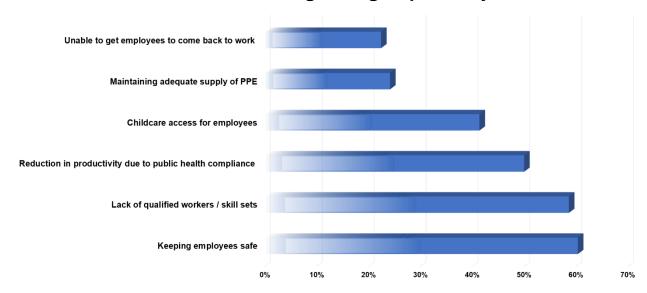
22

TOM PETERSON/THE WASHINGTON POST

April 2020

- Training providers and employers should work together to create and expand programs that embed employment into training programs.
 Example of successful programs are Advanced Manufacturing (AMP) with CSS Workforce NY, GST BOCES and group of regional employers
- Evaluate and fund trades training, working to close the gap between offered and funded apprenticeship programs and workforce/skill needs in the region.
- Increase the amount of trades training for soon to be released and recently released inmates.
 Change policy to allow for training to county as work to access benefits.
- Train career counselors at both secondary schools and colleges on the remote working economy.

Advanced Manufacturing Workgroup Priority Concerns



- Adapt professional skills career training programs to incorporate training for working remotely and managing remotely.
- Provide workforce training for the new economy.
 Including: streamlining software/technologies,
 understanding digital security and services, and
 establishing an online sale and ordering platform.
- Incorporate an entrepreneurial ecosystem beginning in grade school through graduation into every public school in the region
- Create life-long learning opportunities across the entire Southern Tier Region to reengage young retirees in the workforce and keep aging New Yorkers mentally healthy.

New data and further studies to develop a unified regional workforce strategy:

- Collect new data and study what skills are needed to better attract clean energy companies and entrepreneurs. Continue to evaluate what barriers exist when attracting these companies.
- Gather data on wages and quit rates and investigate linkages between employers who struggle to find interested applicants and regional wage rates.
- Research how to keep caretaking a profitable career path, especially as our community ages
- Study and develop strategies to increase workforce participation of NEET's: people who are Not in Education Employment or Training
- Collect data and generate an action plan based on new post-shutdown economic needs; match needs and opportunities with existing start-ups and entrepreneurs.
- Use the Tompkins County's Skills Assessment and Mapping process as a model across the entire region.

Provide training for small businesses looking to pivot, such as:

- Marketing training and connection to local marketing firms to companies that have typically relied on tradeshows and in-person networking for sales, so companies' marketing strategies can be revised to respond to the existing pandemic.
- Technology training and opportunities for small businesses owners for transitioning and adding to online sales platforms. Evaluate options for joint purchase between businesses of a single POS platform to provide this service.
- Transitioning product and service offerings to increase relevancy. How does a retail gift shop create value for an uncertain customer? How do certain businesses find their niche in the new "essential" economy? This transition will require not only an online presence, but a new marketing message, and most likely a change in the retail inventory to appeal to the new, uncertain, homebody customer.
- Employer training for providing necessary physical set-up, teambuilding and technology skills to existing employees to ready for a more flexible work from home position.
- Train managers on effective management of remote workers, utilizing industry giants that have a long history of successfully doing this. (Ex. GE, Corning, Lockheed Martin.)





Long Term Needs (One year and beyond)

Beyond the short terms needs to mitigate the immediate impacts of the pandemic, COVID-19 has shown the Region new opportunities and challenges that should be addresses in the long term to Build Back Better and keep our communities strong and resilient for years to come.

SOUTHERN TIER AS A REGION:

Improve and expand existing infrastructure:

- Support maintenance and upgrades to municipal, utility, and private infrastructure. Upgrades and maintenance using a local workforce whenever possible should be prioritized – as local government spending is one of the few counter cyclical economic inputs which can improve a local economy after a recession.
- Broadband access must be universally available to every household and every business.
- Broadband access should be considered basic necessary infrastructure and social safety nets shall include subsidies to those who need financial assistance to afford high speed internet.
- Improved cellular phone coverage throughout the region.

25

- Investment in water, sewer, electric and gas infrastructure. Further investments in local municipal, county, school and public safety infrastructure.
 Creating a sense of community pride for all residents.
- Mechanism to weather the financial storm if the economy does not recover in the next 12-24 months. Such as additional funding assistance for businesses, greater flexibility, lower existing revolving loan funds costs, and other deferrals are other strategies to consider if lenders begin to demand payment of loans before businesses are able to re-pay.

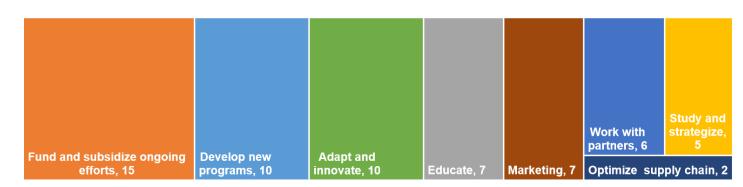
Development of Regional Pride:

- Create regional marketing strategies that incorporates the high quality of life and other unique qualities of life that Southern Tier residents enjoy.
 Market the region as a tourism destination to locals and seasonal residents to remind them of the regional assets and provide coordinated calendar and description of already robust regional events.
- Support the transition away from fossil fuels/to a green, sustainable economy that will enable our Region to stay a great place to live for decades to come
- Develop a revised approach to collaboration between private businesses, municipalities, nonprofit organizations, and other organizations that encourages a regional resilient, year-round economy.

Improved Community Support Services

- Assess to public transportation. Reliable transportation is a significant barrier to finding and maintaining employment; improved public transportation will also improve opportunities for volunteers and seniors.
- Expand online services to provide information and data via interactive dashboards, mapping, portals and other technological advancements, making it easier for companies to explore opportunities in the Southern Tier and more seamlessly integrate our community into their national and global searches. This will also provide opportunities to support local tech industries that may undertake these efforts.

Solutions for Long Term Needs Identified in the Southern Tier



Workgroup recommended actions, broken down by type of action, displayed by quantity

WORKGROUP: ADVANCED MANUFACTURING

The future of the Southern Tier's advanced manufacturing will be dependent on the short-term needs being addressed. The region is looking to ensure stability in regional supply-chains and workforce to keep manufacturing in business. Continuing innovation in the region and creating cost savings, while the region attracts new high-tech industries will be integral to the success of the region.

The long-term needs of the Southern Tier's advanced manufacturing are

Identifying growth opportunities and sustainability of existing business.

- Working with research institutions, investigate regional growth opportunities and create strategy to capitalize on these opportunities
- Set up regional supply-chain champions that regularly evaluate the existing supply chain and work with existing businesses, process, suppliers and managing partners to improve the supply chain. Bridge the gap between businesses and institutions with similar needs and products.

Workforce development, attraction, collaboration and coordination.

 Create a viable talent attraction strategy for advanced manufacturing jobs such as "Southern Tier Advanced Manufacturing Corridor" that focuses on the high-quality companies in the region. This message would highlight companies in all counties in the region to position the region as a powerhouse within the advanced transportation industry from entrepreneurship to large OEMs. This could also integrate messaging connections to battery technology and clean energy industry.

Regional investment, funding, and strategy.

- Support businesses in developing disaster plans, which many businesses did not have before the pandemic
- Incentivize start-ups that stay in New York with creative packages, which many include funding

WORKGROUP: FOOD & AGRICULTURE

Success in food and agriculture in the region will require a coordinated effort between policy makers, educational institutions and the agricultural community. This coordination will help to guide funding and encourage innovation that will result in a more resilient food and agriculture structure with improved connection between local producers and consumers

The long-term needs of the Southern Tier's food and agriculture are

Invest in innovation in food and agriculture

- Support increased broadband connectivity and digital skills development to assist local farms, farm businesses and restaurants in greater access to online retail, connection and marketing
- Support automation and increased efficiencies to meet growing agricultural labor needs in a shrinking labor market while also creating higher skilled/ higher paid jobs.
- Support efficient controlled environment agriculture (CEA) by implementing best practices in green energy solutions for heating and lighting
- Support research on how CEAs allow for a longer growing season, increased crop diversity, decreased use of pesticides, and increased access to local foods throughout the year.
- Study the potential economic value of a publicly accessible cannery for small scale processing by producers.
- Continue planning for the development of a USDA

Communication, coordination, education and implementation of strategies.

 Improve connections between public institutions (e.g., schools) and producers to increase utilization of local produce and goods by public institutions

- Support business plan development and access to capital for producers, especially those who seek to innovate to enhance resiliency.
- Continue to pursue strategies and programs that result in increased local and regional production and distribution.
- Identify programs that incentivize farm and food start-ups.
- Identify pipelines to educational and practical experiences to support new and emerging agricultural professionals.
- Design a communication network and strategy that reaches from the existing hobby farmer to the large-scale agricultural producer to disseminate best practices
- Identify and market existing programs that make farming more profitable through diversification and value-added opportunities. Investigate new potential opportunities and educate all segments of the farming community.

WORKGROUP: GREATER BINGHAMTON INNOVATION ECOSYSTEM

The long-term recovery of the iDistricts is building resiliency. The ability to rebound from the current economic crisis and weather future crises is essential to the continued success of the iDistricts and other downtowns across the region.

The needs of the Southern Tier's Greater Binghamton Innovation Ecosystem are

Overall:

- Build resiliency in all businesses, especially those in the five sectors determined to be key in develop-ing and maintaining active and vibrant downtowns
- Utilize the Greater Binghamton Innovation
 Ecosystem Work Group to collect, analyze, and
 disseminate data from businesses impacted by the
 COVID-19 pandemic, especially the five identified
 sectors, to determine the long term impacts of the
 pandemic on our businesses and how we may
 need to readjust course to support the changing
 economic landscape



- Identify areas for expanded partnerships and collaborations between groups and events with similar missions to increase sharing of information and resources
- Formalize collaborations, creating Public-Private Partnerships between government, non-profits and the private sector partners
- Continue ESD and REDC support for projects funded through the Greater Binghamton Fund
- Continue to support best practices in placemaking, including development of green space, walkability, and public art
- Encourage Federal Opportunity Zone Investment

INDUSTRY COLLABORATION

As the clean Energy Industry cluster is emerging in the Southern Tier, Greater Binghamton assets include Binghamton University's Nobel Laureate, Dr Stan Whittingham, Imperium 3, BAE Systems, Binghamton University's Center for Advanced Microelectronics Manufacturing BU's and SUNY Broome's Advanced Manufacturing Centers, SUNY Broome's Applied Technology Center, ESD's 76 West Competition and Tier Energy Network, an industry led collaborative, dedicated to develop the clean energy industry cluster across the Southern Tier.

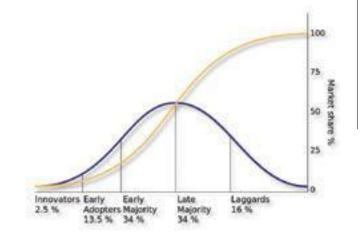
WORKGROUP: INNOVATIVE CULTURE

Long term continuation of innovative culture in the Southern Tier region will heavily rely on the successes of addressing the short-term needs. Funding, growth, and support of innovation programs will be necessary. Access to basic infrastructure such as high-speed internet and 5G cellular service will serve as the foundations upon which all other innovation is built.

The long-term needs of the Southern Tier's innovative culture are

Continue and grow existing innovation programs while incorporating new opportunities for "matchmaking" through multiple programs and channels.

- Continued, steady, reliable funding of the innovation infrastructure in the region through NYSTAR and NYSERDA funding (innovation hot spot and certified incubator; clean energy incubator; Scale-Up; SBIR consultant matching; SBDC and MEP).
- Expand Small Business Innovation Research (SBIR) consultant matching fund program by adding funding to support "matchmaking" to encourage strong, corporate-supported regional applications for federal innovation funding, such as STTR, NSF-PFI, Engineering Research Centers, and others that will draw federal funding into the region to help grow new commercial enterprises based on regional innovation.
- Increase matching programs for regional startups that raise growth capital through New York Ventures and loan programs to assist companies that win federal SBIR funding.



Recognize and retain the student resources that exist at our region's universities.

- Encourage formation, support, and growth of "innovation fellow" programs that help graduate students and post-docs commercialize university innovations, such as Binghamton University's empowerST program (advised by Nobel laureate Stan Whittingham) and Cornell University's engineering Commercialization Fellows programs.
- Continue to focus investments on downtown revitalization as a mechanism of encouraging local college students to put down roots in the region post-graduation, as well as to make the Southern Tier an outstanding home for remote workers.

Explore new programs that nationally and internationally promote the Southern Tier as an active innovation hotspot.

- Launch capital attraction programs to further connect out-of-region investors to regional startups, including but not limited to attracting the SBIR Road Tour to the region.
- Launch marketing programs that promote the quality of life available in the region to convince companies to put down roots and grow here, and to help them attract and retain talent (including but not limited to current students and alumni of the colleges and universities of the region), as well as to attract remote workers of larger companies fed up with high costs of living and low quality of life in expensive metro areas.
- Formalize talent connection programs by funding and launching a regional startup job board.

Long term innovation and culture in the Southern Tier region will heavily rely on the successes of addressing the short-term needs. Funding, growth, and support of innovation programs will be necessary and access to basic infrastructure such as high-speed internet and 5G cellular service will serve as the foundations in which all other innovation is built.

WORKGROUP: TOURISM BUSINESS DEVELOPMENT

One of the most substantial opportunities in the Southern Tier is growth of Tourism and the businesses that most closely relate to the tourism industry. Unfortunately, this is the sector of the economy that was most affected by the COVID-19 shutdown. Ensuring that small businesses have their support they need, marketing within the region on the local assets and attractions that exist and significantly growing the outdoor recreation structure and opportunities in our region will ensure future success.

To better support the fast-paced, changing environment surrounding tourism and the businesses who most closely serve and impact that sector, New York State could consider some of the following opportunities:

Support existing Chambers of Commerce that have robust training and businesses support program to provide additional targeted programming.

- Workshops on retirement and succession planning for businesses on how to connect with potential buyers to their businesses for sale.
- Working with the Greater Binghamton Work Group, host a Community Development Program for the hospitality, retail, and food service industries to discuss best practices and success stories, collaborative opportunities, property management/codes and continued outdoor experiences.
- Host a series of entrepreneurial training programs across the region focused on tourism and outdoor recreation. Partner with regional incubators, economic development organizations, IDAs, SBDC, and regional TPAs.
- Evaluate existing and available low-interest loan opportunities, ensuring that tourism related businesses are eligible. Consider the tourism specific loan program example: Ninth District Development Financing in Virginia. https://nddf.org/

- Repurpose Revolving Loan Funds & regional investments to assist our small businesses in the Southern Tier with:
 - utility costs, test air quality
 - safe, code approved outdoor heaters& ventilation systems
 - protective equipment & packaging
 - technology upgrades for e-commerce
 & web-based platforms
 - equipment for contactless/touchless transactions

Outdoor recreation is where the Southern Tier truly soars.

- Implement a strategy to increase outdoor recreation access and participation across the Southern Tier.
 Outdoor recreation has proved to be both reces-sion and pandemic proof; participation in outdoor activities like hiking, fishing, camping, biking, and water sports has increased in popularity.
- Create a water trail in the Southern Tier to connect visitors and regional outfitters with publicly accessible waterways and lakes. The Susquehanna and Chemung watersheds have over 400 miles of navigable water access. A project to develop a water trail would involve creating an inventory all of the current water access points, an analysis of gaps in access and recreational amenities, brand development, website and map creation, entrepreneurial training for new outfitters, and promotion of the trail. Consider incorporating existing Two Rivers Greenway to provide additional water access and amenities.
- Inventory and convert abandoned railroad beds and utility right of ways into multi-use trails. Railsto-Trails are an amenity attractive and beloved by both locals and visitors.
- Create a network of all-terrain vehicle trails in the Southern Tier. Established snowmobile trails that see limited usage due to seasonality and limited snow in the winter months could be transitioned into an ATV trail network.

- Set up a regional "friends of" organization to help foster the development of outdoor recreation assets and to educate locals and visitors on the benefits of outdoor activities. The organizational goal should be to create economic growth by leveraging the regions outdoor recreation amenities to attract investment and talent.
- Create an accessible trail network by complimenting and connecting existing assets with "Hubs" such as the Catskills Recreation Plan recommends so that visitors can come for extended stays and conveniently partake in both outdoor activities and amenities provided by local businesses.
- Host a business challenge for outdoor recreation outfitters to start up in the region to service visitors and locals.
- Leverage the Erie Canalway history and access points
- Recruit outdoor manufacturing company to the region (for example: reimagine craft boat manufacturing that was once prevalent in the Finger Lakes).

Make the connection from downstate to upstate to the Southern Tier and beyond.

 Support the development of passenger rail from New York to Jamestown (and beyond) to expand transportation options for visitors in the Southern Tier.

WORKGROUP: WORKFORCE DEVELOPMENT

Only more time will tell us the true long-term needs of the workforce in the region. Many expected long-term needs are either simply an extension of needs existing prior to the pandemic or build on the short-term needs listed above. Workforce development and ensuring a better skills match to the needs of the individual industry revolve around more training, new training programs and better training delivery. There are many shortages in the workforce and training should be designed for those needs the region has identified. Workforce development is more than just education and training. Workforce development also means creating a place that people want to live, marketing the assets of the region and attracting those qualified individuals to the area.

The long-term needs of the Southern Tier's workforce development are

Create, offer and market state of the art affordable training programs:

- Create, incentivize and fund new mechanisms for delivering quality training (ex. virtual reality, selfpaced virtual training with access to "live" mentor)
- Businesses need access to and training for ways to reduce worker/public contact, they need skilled workers who are not overwhelmed with student debt in order to be qualified for entry level positions, and they need an ability to offer virtual training to their employees to prepare them for working from home.
- Job development programs shall be universally available in both urban and rural areas.
- Expand, improve and incentivize school-to-business partnerships, such as PTech and other models.
- Support the Southern Tier Innovation Corridor workforce development plan

Address Specific workforce shortages within career training, new recruitment and advertising in the following areas – as well as addressing wage and benefits industry wide:

- Healthcare careers, especially community health careers such as CNA/HHA, public health, community health worker, nursing aids and farm labor.
- K-12 teacher shortages, including substitute teachers and teacher aides.
- Finance industry
- Manufacturing: certified welding; polishers, tool & die makers, machine operators, machinists, quality control, sales, supply chain management and mid-level management.
 - 50% of respondents to the Manufacturing Workgroup's survey expressed concern about employee recruitment and retention.
- IT, specifically in enterprise management.
 - Add opportunities for coding technology
- Flooring installers (carpet & hardwood)
- Administrative office staff (all industries) with strong Excel, Word and file management skills; detail oriented.
- · Green industries



Recovery Strategies Realizing the Opportunities Within the Southern Tier

There have been many unique and exciting opportunities that the COVID-19 pandemic has presented to the Southern Tier. The Southern Tier is a resilient area, full of innovation and creativity and many have taken the economic challenges and found ways to be successful. One of these positive outcomes is the shift from a traditional work setting, to the ability to work remotely. This change in work settings opens other new opportunities. Another strong opportunity that has been presented is the ability to attract visitors, businesses, and a population shift to the Southern Tier as in state travel, outdoor activities, and the use of virtual platforms become alternative way in which people are adapting to the pandemic.

The ultimate goal of the Southern Tier region is to build a strong, self-sustaining economy. the goal of this recovery strategy is an economy that is resilient in the face of crisis and disaster and a region that is known for its incredible beauty and a cohesive culture of hard work, tolerance, and innovation.

Promote the Southern Tier as a great location for remote work, remote learning and a new oasis away from 'big city life'.

The Southern Tier region has long been known for its scenic hills, rivers and valleys, quality education opportunities and calmer, slower way of life. This way of life might appeal to many residents of higher density, more populated, faster paced communities. With the rise of remote working options and the Southern Tier's reasonable proximity to many major markets (Newark, Cleveland, Toronto, D.C., Philadelphia), this region could be in a position to attract young professionals and working families alike. The Southern Tier has undeveloped greenspace for new homes and a variety of existing housing options; an influx of new residents could provide the economic boon for the region. Similarly, some people who previously faced barriers to full time employment, such as people without reliable transportation or individuals with mobility issues, may find new remote work opportunities, which will increase the workforce availability in the region. Coordinating efforts between talent attraction, tourism and imaginative marketing, the Southern Tier could make this a reality.

Like remote working, remote learning is also providing new opportunities. Through remote learning, students are being taught how they can be great remote employees. These skills will be needed by employers when students exit education and enter the workforce.

The pandemic has highlighted both the challenge and opportunity of remote work. As companies in major metro areas closed their offices and asked employees to work from home, the high cost of living and quality of life tradeoffs associated with living in a big city has hit home for many people. The Southern Tier region has an opportunity to attract or keep

highly paid knowledge workers (especially the hundreds of thousands of alumni from the region's colleges and universities) to live in our affordable communities. Key infrastructure elements for the remote-work economy include universal high-speed broadband across the region, reliable, state-of-the-art cellular / mobile coverage, and flexible and numerous childcare options. Likewise, Southern Tier REDC recommends studying ways that we can support local companies in accessing global talent pools while continuing to help our companies to grow and retain their local headquarter locations and regional talent pools through workforce development initiatives.

Increase Broadband Access

Since 2011. Southern Tier Network and its board of directors have been hard at work to create the middlemile, open access model broadband network. Long before COVID, many in the region recognized the need for expansion of broadband throughout the region, and now the Southern Tier has one of the most unique models for a regional broadband network. Southern Tier Network now expands throughout 8 nearby counties and has more than 600 miles of fiber backbone. This telecom asset has greatly assisted further connection of educational institutions, libraries, businesses, and some residences. Continued support for and building on this existing network while also following this model to create similar networks in unserved areas of the region may very well be the answer to many of the challenges documented in this recovery strategy.

Southern Tier REDC members should promote Southern Tier Network as a tremendous asset for resilient development in the region.



31 Southern Tier Southern Tier 32

Leveraging Dollars

For every federal, state, or local dollar that comes into the Southern Tier region, the recipients of those funds and community partners alike should look to leverage and multiply that investment. Specifically, much of the Southern Tier region is covered by the Appalachian Regional Commission (ARC) and have access to additional federal grant resources which are inaccessible to most other regions in NY state. Local dollars should be leveraged against ARC funding to take advantage of this unique funding stream.

Adapting to a lower level of workforce involvement

Southern Tier Central Comprehensive Economic Development Strategy has long warned that lower levels of workforce participation are likely to persist. Barriers to entry into the workplace include those well documented here, such as concerns about personal health, an uncertain school and childcare landscape, and a disconnect between regional workforce skillsets and regional workforce needs. These concerns were directly created by or exacerbated by the COVID-19 pandemic, and these factors may lead to a shift toward one-worker families which will have a profound economic impact on the region. Continued focus on and research into this area will be key to recovery in the Southern Tier.

Maintain Flexibility in the new economy

As we work to bring our economy back online, flexibility in schedules, shifts and remote working arrangements will help retain workforce. The Southern Tier region's ability to provide flexibility and pivot based on emerging challenges will determine the region's success. While individuals with valuable industry experience find themselves laid off or retired early, the Southern Tier should look to creative solutions to develop a new generation of subject matter experts and industry leaders, such as supporting a skill share where experienced professionals teach best practices to the emerging workforce.

The REDC should also support analysis of recent trends in sales and business. This will position the Southern Tier businesses to take advantage of changing consumer behavior and quickly identify and capitalize on emerging industries.

Continue efforts to connect regional highgrowth startups to venture capital

Lack of startup capital, especially venture capital targeted at high growth companies, has been identified as a key regional gap for some time. Initial efforts have shown success: since 2016, entrepreneurs in residence affiliated with the Southern Tier Startup Alliance and its member business incubators (IncubatorWorks in Painted Post; the Koffman Southern Tier Incubator in Binghamton; the McGovern Center for Venture Development in the Life Sciences, the Praxis Center, and Rev: Ithaca Startup Works in Ithaca) have advised startups on 120 capital raising transactions that have brought over \$106 million of new capital into the region. To continue this success, the REDC needs to support programs and policies that will encourage start-ups to continue investment in our region and put down roots to establish themselves in the Southern Tier. In particular, the seed- and Series-A gap remains a challenge and an opportunity to increase the number of companies that stay, put down roots, and grow regionally. We need to continue to support the innovation ecosystem – the Innovation Hot Spot, Certified Incubators, and sources of venture capital support such as New York Ventures.

Provide pathways to retain college and university graduates who want to remain in-region

Regional college graduates are a fantastic resource in our communities, with approximately 65,000 post-secondary students in a population of about 650,000. Connecting these talented individuals to opportunities will help us stabilize our population, grow the number of high-quality, high multiplier effect jobs in the region, and bring in a new wave of younger residents attracted by the region's low cost of living and high quality of life. We need to retain focus on programs that connect these students to growing companies and great jobs, and to continue to invest in quality of life assets, such as continuing efforts to revitalize the region's downtowns as attraction points for young workers.

Support communities historically underrepresented in entrepreneurship

Improving access to entrepreneurial support and encouraging new company formation for members of underrepresented communities is critical to the region's social justice strategy and agenda. Although the Southern Tier has seen some success in deploying pro-grams like Co.Starters to help develop entrepreneurial skills, and programs to increase M/WBE certification, we need to establish new models of engagement and technical support that will create opportunities in entrepreneurship and business development for underrepresented communities. Through collaborative partnership between financial institutions, non-traditional lending institutions, economic development organization, chamber of commerce, and non-profits, we can create alternative pathways to access capital necessary to create startup businesses and grow existing businesses in these communities.

React to changing demand by consumers for in-home use of products.

While we hope to see a return to previous levels of restaurant patronage post-pandemic, we also recognize the pandemic might be a catalyst for long term changes in consumer behavior. Capitalizing on the growing trend of buying local and in-home use of products, careful and strategic marketing to Southern Tier residents along with extensive education could grow this trend into true regional behavioral change. This change cannot only connect local residents with local fresh foods but the potential to incorporate nutrition education and create healthier lifestyles while supporting local markets.

New opportunities for farms to better serve local needs and increased interest in crop diversification.

Due to the COVID pandemic, the Southern Tier and consumers around the state saw significant threats to the supply chain that spurred panic buying and often left grocery stores and local markets with empty shelves. In response the Southern Tier saw its local businesses adjust their business model to begin selling local products directly to consumers. This post-COVID recovery strategy presents the opportunity to

assist local producers to further diversify their crops, to include more value-added products and access local markets that might not have existed previously. It is not anticipated that consumer demand for "local and fresh" products is going to change in the next five years, and with additional diversification (such as controlled environmental agriculture, aquaponics, reuse of vacant retail spaces) there is potential to help many of the small and hobby farmers that are struggling to stay in business.

Re-evaluate increased e-commerce opportunities.

Support growing e-Commerce opportunities considering increased online sales and curbside services.

There is an opportunity to evaluate grocery store displays, shelving, refrigeration, and direct purchasing programs to meet consumer demand.

Increased collaboration between Advanced Manufacturing and Workforce Development workgroup

The opportunity for collaboration between the Advanced Manufacturing and Workforce Development workgroups will lead to meaningful and productive improvements to better enhance the workforce continuum. The need for a K-12, vocational, community college, higher education, etc. collective will not only enhance the gaps needed in the Advanced Manufacturing field, but will identify gaps in training, highlight opportunities and lead to a more comprehensive workforce, which will help all industries and needs throughout the Southern Tier.

Think creatively about what the Southern Tier could be: capitalize and market ALL its assets.

As an example, the REDC could place a focus on sustainable agriculture and agritourism development, working to combine the farm-to-table experience with the creative economy and establish a network of artists, artisans, and producers throughout the Southern Tier. Promoting sustainable tourism and economic development by assisting local artisans with marketing, entrepreneurial training, and cross promotion could add additional tourism opportunities to the Southern Tier.

Specific policies NYS could consider to address challenges/needs

State, county, and local governments should

continue data collection on local impacts, like business closures and new vacancies, to inform future policy changes. The following policies changes are meant to highlight both short and long-term polices changes to address the economic recovery of the Southern Tier and New York State.

Broadband Specific Policy Changes

- Broadband shall be determined and treated as basic infrastructure like roads, sewer, and all other utilities. NYS should provide necessary subsidies for individuals who cannot afford internet.
- Review current Broadband policy to ensure that regulations around broadband access are balanced to protect consumers and property owners while reducing barriers to providers

Childcare Specific Policy Changes

- Explore alternate funding mechanisms and policies for deploying aid to families in need, such as:
- Providing childcare subsidies on a sliding scale for family income.
- Paying childcare subsidies directly to a day care center for a child's slot, not based on qualified attendance.

Workforce Specific Policy Changes

- Explore new models to allow for high school students to enter skills training programs or pursue vocational training/apprenticeships so students will graduate from high school and be fully ready to enter the workforce after primary school with a High School degree and completed vocational training. Review policies to allow for increased access to these programs.
- Explore new models to connect traditional high school students with opportunities for work in high-demand industries in the region after graduation from either high school or college
- Design and incentivize programs that embed training with GED curriculum for students who have left high school without graduating.
- Allow training for recently incarcerated individuals to count as work so people in approved training programs can access much needed benefits.

Business Specific Policy Changes

- Streamline process of certifying as an M/WBE.
 Improvements to policies and procedures at the state level that help us to utilize local minority and women owned businesses
- Incentivize the production of products that are now in essential services (grocery equipment, healthcare, etc.) to be sourced in NYS.
- Consider policies that separate adult beverage manufacturers from restaurantsWorkforce Specific Policy Changes

Healthcare Specific Policy Changes

- Continue strict public health policies and enforcement to keep COVID-19 pandemic under control.
- Provide additional flexibility with current programming and policy to allow for direct investment into COVID 19 related impacts.

Food and Agriculture specific policy changes:

- Support programs that invest in research and targets regional production and distribution.
- Review agriculture wage policies in order to attract a stronger workforce.
- Review NYS regulations surrounding the sale of wine in grocery stores to allow for increased market growth for NYS grown products and expanded retail sales
- Accelerate programs and guidance for businesses engaged in sustainable agriculture
- Consider continuation of the multi-regional Grow-NY Program.

Branding and marketing specific policy changes:

- Consider having NYS increase the weight of bonus points for TPAs that create 4-day itineraries that include attractions in adjoining counties.
- Develop a policy to allow for regional branding and marketing that builds upon the Southern Tier Soaring concept.





Tourism specific policy changes:

- Explore opportunities to incentivize group travel and tours in New York State.
- Continued support and funding for marketing that does not fall into the traditional use of I Love New York funds, such as a program to develop itineraries for NYS daytrips for individuals.
- Consider funding to conduct a feasibility study for passenger rail from NYC to Buffalo via the Southern Tier.
- Explore alternative funding mechanisms for tourism-related business development
- Explore relief mechanisms for hospitality-related businesses until they are fully operational.

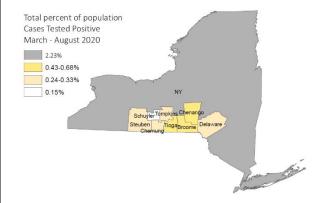
Additional Challenges

his Economic Recovery Strategy is a written as a

snapshot in time. As time goes on, this recovery plan will grow and change. As more data is collected and analyzed the Southern Tier region will remain agile to respond to the needs of the region and make data-driven decisions. The biggest challenge in determining needs for the region is accurate and current data on the economic impact of COVID-19 pandemic and the resulting shutdown has been on the region's economy. Much of the strategy stated in this document is based on preliminary data and experiences of the Southern Tier REDC members and workgroup contributors. Continuing engagement with the data will greatly assist recovery efforts to ensure that resources and attention is placed accordingly.

The final challenge is simple: the future is unknown. New York has shown tremendous success in flattening the curve in diligent use of PPE and strict adherence to social distancing guidelines, but regional leaders share a concern that residents of the Southern Tier and New York State may become complacent. New York State leaders need to continue to message about the important steps that we all must continue to take every day and provide accurate messaging from health officials on the timeline of potential vaccine availability and expectations for how long the pandemic may continue.

Total percent of population Cases Tested Positive March-August 2020



Additionally, ensuring that all individuals have easy access to testing facilities and are supplied with quick results will serve the region's recovery. While a vaccination appears to still be months away, New York State and the region must recognize and address potential bottlenecks to a streamlined vaccine deployment plan and develop consistent messaging to increase public confidence in and alleviate potential fear of a new vaccine.



Work Groups

WORKGROUP: ADVANCED MANUFACTURING Participants

Chair - Stacey Duncan
Executive Director, The Agency

Executive Director, The Agen

Daniel Bonsick

HR Director, BAE Systems, Inc.

Jennifer De Souza

Director of Corporate Procurement, Raymond Corporation

Kerri Green

President & CEO, Commerce Chenango

Janet Hertzog

Director of Continuing Education and Workforce Development, SUNY Broome

Heather McDaniel

Vice President & Director of Economic Development Services, Tompkins County Area Development

Joshua Michal

Human Resources Manager, CAF USA

Carol Miller

Executive Director, Alliance for Manufacturing and technology

Glenn Nealis

Director of Economic Development, Delaware County

Joseph Roman

Executive Director, Chemung County IDA

LeeAnn Tinney

Director of Economic Development, Tioga County

Dr. Per Stromhaug

Assistant Vice President for Innovation and Economic Development & Office of Entrepreneurship and Innovation Partnerships, Binghamton University

WORKGROUP: FOOD & AGRICULTURE

Participants

Co-Chair - Jamie Johnson

Executive Director Steuben County IDA

Co-Chair - Jan Nyrop

Professor & Senior Associate Dean, Cornell University

Staff - Hector M. Gonzalez

State Agency Resource Team NYS Dept of Agriculture & Markets

Amy Dulgos

Director, Steuben County Planning Department

Vicki Giarratano

State Extension Specialist for Food Systems, Cornell University Cooperative Extension

Megan Griffiths

Agricultural Development Specialist, Tioga County Economic Development & Planning

Marianne Kiraly

Resource Educator, Cornell Cooperative Extension

Donna Lupardo

Assembly member, NYS Assembly

Sheila Marshman

Farmer, Dairy

Tony Marzolino

Board Member, Hay, Produce & Economic Development

Brian McKenzie

Founder, Finger Lakes Distilling

Bob Nichols

Steuben County Legislature

Amina Omari

Director, Food Processing Business Incubation Program

Monika Roth

Agriculture Issue Leader, Tompkins County Cornell Cooperative Extension

Rob Salamida

Tangent Development, LLC.

Ken Smith

Executive Director, Chenango County Cornell Cooperative Extension

Mark Watts

Chair, Chemung County Soil and Water Conservation District

Judi Whittaker

Whittaker Farms

WORKGROUP: GREATER BINGHAMTON INNOVATION ECOSYSTEM

Participants

Co-Chair – Darcy M. Fauci

Chief of Staff/Government Relations, President's Office Binghamton University

Co-Chair – Jason Garnar

County Executive, Broome County Government

Staff - Sarah Glose

Senior Project Manager, ESD Southern Tier Regional Office

Diane Brown

Executive Director, Community Foundation for South Central New York

Candace Chapman

Director of RS Communication, Rosanne Sall Advertising

Stacey Duncan

Executive Director, The Agency

Michael Grasso

Executive Director, Roberson Museum and Science Center

Ty Muse

President/CEO visions Federal Credit Union

Anthony Paniccia

President/CEO, Delta Engineers

Jesan Sorrells

CEO and Founder, Human Services Consulting and Training

WORKGROUP: INNOVATIVE CULTURE

Participants

Co-Chairs – Judy McKinney-Cherry Executive Director, SCOPED

Co-Chairs- Tom Schryver

Executive Director for the Center of Regional economic Advancement, Cornell University

Staff - Shakira Wallmar

Project Associate, ESD Southern Tier Regional Office

Christine Mehta

Research & Development Manager, Center for Regional Economic Advancement, Cornell University

Rachael Mozdy

Director Commercial Operations, Auto Glass Solutions

Olga Petrova

Office of Entrepreneurship and Innovation, Binghamton University

Caitlin Schickel

Program Coordinator, Cornell University

WORKGROUP: TOURISM BUSINESS DEVELOPMENT

Participants

Co-Chair – Peg Ellsworth Executive Director MARK Project

Co-Chair – Michael Printup

President, Watkins Glen International

Dawn Burlew

Director of Government Affairs and Business Development, Corning, Inc.

John Carbone

Owner, The Main Place

Kevin Costello

President & CEO, Steuben County conference & Visitors Bureau

Kerri Green

President & CEO, Commerce Chenango

Jen Gregory

Executive Director, Southern Tier 8

Michael Hardy

Executive Director, Watkins Glen Area

Chamber of Commerce

Judi Hess

Director, Sr. Vice President, Visit Binghamton, Greater Binghamton Chamber of Commerce

Kamala Keeley

President & Chief Executive Officer,

Chemung County Chamber of Commerce

Becca Maffei

Director, Tioga County Tourism Leigh Melander

Founder Fomenter/Partner, Spilian Ray Pucci

President, Delaware County Chamber of Commerce

Jennifer Tavares

President & CEO, Tompkins County

Chamber of Commerce

Laury Ward
President, Finger Lakes Wine Country
Tourism Marketing Association

Todd Pascarella

Co-Owner, Union Grove Distillery

WORKGROUP: WORKFORCE DEVELOPMENT

Participants

Co-Chair – Jeanne Eschbach

Workforce Education & Academic Pathways, Corning Community College

Co-Chair - Jennifer Lesko

CEO, Broome County Urban League

Natalie Abbadessa

Business Development Coordinator, The Agency

Jason Andrews

Superintendent, Windsor Central School District

Tim Driscoll

Administrator of Adult Services, GST BOCES

39 2020 Economic Recovery Strategy 40

Stacey Duncan

Director of Community & Economic Development, The Agency

Darcy M. Fauci

Chief of Staff/Government Relations, President's Office Binghamton University

Greg Galvin

President & CEO, Rheonix

Vicki Giarratano

State Extension Specialist for Food Systems, Cornell University Cooperative Extension

Kerri Green

President & CEO, Commerce Chenango

Ernie Hartman

International Representative, 3rd District, IBEW Local 139

Jan Hertzog

Director Continuing Education and Workforce Development, SUNY Broome

John Hillis, Superintendent, Oxford Academy Central School District

Jeff Huffcut, Southern Tier Sheet Metal Contractors Association/NYS Apprenticeship & Training Council

Jamie Johnson

Executive Director, Steuben County IDA

Andy Matt

Senior Director of DC Operations, Dick's Clothing and Sporting Goods, Conklin Warehouse

Carol Miller

Executive Director, Alliance for Manufacturing and technology, AM&T

Jim Mullins

Assistant Superintendent for Instruction, Broome-Tioga BOCES

Glen Nealis

Director, Delaware County Economic Development

Steve Palmatier

Workforce & Industrial Development Liaison, Commerce Chenango

Dan Porter

Executive Director, Chemung-Schuyler-Steuben Workforce Development Board

Kathleen Quaranta

Chenango Fork Central School District, Business education Teacher/Work Based Learning Coordinator for STEAM

Joe Roman

Executive Director, Chemung County IDA

Jack Salo

Executive Director, Rural Health Network

Alice Savino

Executive Director, Chenango-Delaware-Otsego Workforce Development Board

Christine G. Sharkey

President Community Engagement & Corning Enterprises, Corning Incorporated

Jake Sheehan

Director of Administration, Elmira City School District

Kenneth Smith

State Agency Resource Team NYS Dept of

Labor Michele Snyder

Associate Vice President and Dean of STEM, SUNY Broome

Jill Staats

Business and Community Development Specialist, Steuben County IDA

LeeAnn Tinney

Director, Tioga County Economic Development and Planning

Brittany Woodburn

Economic Development Specialist, Tioga County Economic Development and Planning

Heather D. McDaniel

President, Tompkins County Area Development (TCAD)

Natalie Branosky

Executive Director, Tompkins Workforce Development Board

Carrie Coates Whitmore

Tompkins Cortland Community College, Director of Corporate and Community Partnerships

SOUTHERN TIER ECONOMIC RECOVERY STRATEGY REPORT CONTRIBUTORS

Writing Committee

Co-Chair - Chelsea Robertson
Executive Director, Southern Tier Central Regional
Planning & Development Board

Co-Chair - Kristin VanHorn

Director, Schuyler County Planning Department

Kerri Green

President & CEO, Commerce Chenango

Jen Gregory

Executive Director, Southern Tier 8 Regional Board

Christian Harris

Associate Economist, NYS Department of Labor

Tom Schryver

Executive Director for the Center of Regional Economic Advancement, Cornell University

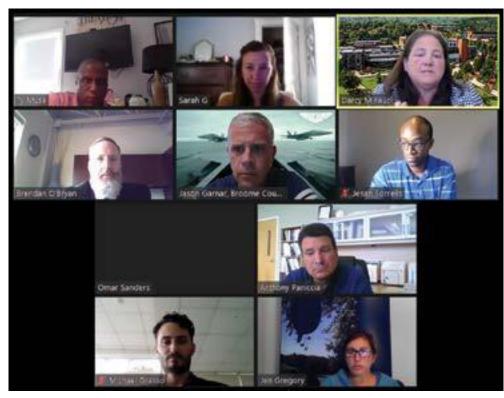
Public Outreach and Engagement

In person meetings, related public outreach and communication within the Regional Council and workgroups presented challenges beginning in March. Using Zoom, the Southern Tier's REDC members participated in a full virtual council meeting on August 18th. At this meeting, the Council was introduced to the addition of a dedicated writing committee that would assist in the creation of this Economic Recovery Strategy. A virtual meeting of the writing committee and workgroup co-chairs occurred on August 19th. During this meeting, discussion ensued regarding the variety of public input strategies each workgroup would employ as well as other strategies they could use to gather information. As expected, the Southern Tier process participants were creative and agile. Each workgroup developed a unique way to gather public

input based on their membership's technological and timing needs. All meetings and surveys were distributed via various email listservs, social media outlets and Southern Tier REDC website.

On August 28th, the Southern Tier REDC held a virtual public meeting using Zoom to gather public input. A total of 98 Individuals signed on the 1.5-hour meeting and more than 30 individuals spoke and gave com-ment during the discussion led by the council cochairs Dr. Kevin Drumm and Judy McKinney-Cherry, CEcD.

The region's ability to rely on virtual meeting software and have flexible and creative ways to "meet" and "discuss" important topics will be integral to the success of the region moving forward as we prepare for future potential disasters.



WORKGROUP: ADVANCED MANUFACTURING

Led by the REDC, with the input from the Advanced Manufacturing Work Group, the Southern Tier will be recognized as a destination for manufacturing business development, distinguished by its concentration of multinational anchor companies, advanced infrastructure to support innovation and technology, rich education and research resources, specialized skilled workforce and vibrant communities.

Public Participation Included:

- Survey distributed on August 24th and was open through August 31st. A total of 58 responses were received.
- Virtual work group meeting August 21st
- Virtual work group meeting September 2nd

WORKGROUP: FOOD & AGRICULTURE

Led by the REDC, with the guidance and implantation efforts of the Food and Agriculture Work Group, the Southern Tier will be a world-recognized leader in agriculture technology and serve as a key food supplier for the East Coast of the United States. Leveraging the global reach and strengths of Cornell University's College of Agriculture and Life Sciences, together with the region's natural assets and strong private-sector investment, a strategic mix of projects will transform and grow agriculture and food production, processing and distribution across the region, while also strengthening links to growing tourism and manufacturing industries.

Public Participation Included:

- Survey of work group membership August 24th-September 4th.
- Industry specific interviews.

WORKGROUP: GREATER BINGHAMTON INNOVATION ECOSYSTEM

Led by the REDC, with the guidance and implementation efforts of the Greater Binghamton Work Group, Greater Binghamton will be a destination for talent, new business development and partnerships for commercialization of emerging technologies. Revitalized urban centers in Binghamton, Johnson City and Endicott will maintain the area's legacy and position it as a major gateway, with strengths in advanced manufacturing, healthcare, culture, and high technology development.

Public Participation Included:

- Questionnaire distributed via LinkedIn (789 views; 8 responses) and stakeholders in the City of Binghamton, Town of Union and Village of Johnson City, Interviews held with CEO & business owners
- · Virtual work group meeting August 28th.
- · Virtual work group meeting September 3rd.
- Virtual work group meeting September 8th

WORKGROUP: INNOVATIVE CULTURE

Led by the REDC, with the guidance and implementation efforts of the Innovative Culture Work Group, the Southern tier will be a well-recognized and highly desirable place to learn, visit, live and grow a business. The region's district combination of educational strength, culture, innovation, leisure-related industries and natural resources creates a lifestyle that couples the convenience of larger cities and opportunities to lead a healthy lifestyle surrounded by natural beauty.

Public Participation Included:

- Work group co-chairs conducted informal inter-views of key partners and distributed draft working documents through email. Hosting work sessions via email between August 26th – September 4th.
- Formal outreach to outside constituents also was conducted to complete draft document.

WORKGROUP: TOURISM BUSINESS DEVELOPMENT

Led by the STREDC, the newly established Tourism Business Development Work Group takes a comprehensive approach to support all businesses in the Southern Tier that directly improves the financial stability and resiliency of the businesses within the Southern Tier Tourism Cluster including, and not limited to, downtowns, events, casinos, attractions, accommodations, eateries, travel services, airports, marketing and promotion firms.

Public Participation Included:

- Virtual work group meeting August 20th.
- · Virtual work group meeting August 24th.
- Virtual work group meeting August 26th.
- Virtual work group meeting August 31st
- Virtual work group meeting September 2nd.
- Survey distributed on Friday August 28th through Tuesday September 1st. Survey was distributed through multiple professional networks, chamber of commerce and live on social media. A total of 234 survey responses were received.

WORKGROUP: WORKFORCE DEVELOPMENT

Led by the REDC, with the guidance and implementation efforts of the Workforce Development Work Group, the Southern Tier will be destination for employers looking for top talent and a region that provides opportunities for all workers through alignment of local education, training entities and supporting resources.

The Southern Tier REDC Workforce Development Advisory Council also develops the region's project pipeline in support of the state's various workforce development programs and advises the region's Workforce Development Initiative (WDI) Work Group on the Southern Tier's overall strategy.

Public Participation Included:

- · Virtual work group on September 1st.
- Collaborated with and utilized survey responses from Advanced Manufacturing.



