

Prepared By
The Northern Middlesex Council of Governments
40 Church Street, Suite 200
Lowell, MA 01852



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Greater Lowell Comprehensive Economic Development Strategy Committee

Allison Carter* City of Lowell
Alison Manugian* Town of Dracut

Allison Lamey* Lowell Plan/Lowell Development & Financial Corporation

Ann Vandal* Town of Dracut
Arthur Ford* Sullivan Bille P.C.
Bill Lipschitz* CTI/Common Ground
Bobby Tugbiyele* The Leap Network, LLC

Bruce Rosenberg* Westford Economic Development Committee

Clancy Main* Town of Billerica

Clare Gunther* Lowell Community Health Center

Dan Phelps* Town of Dracut

Danielle McFadden* Greater Lowell Chamber of Commerce

Eric Salerno* Town of Tyngsborough

Frank Carvalho* Mill Cities Communities Investment/Lowell Business Owner

Jay Linnehan* Greater Lowell Community Foundation

Jennifer Gingras* Town of Pepperell
Jerry Frechette* Washington Savings Bank

Kevin Coughlin* MassHire Greater Lowell Workforce Board

Lianna Kushi EforAll Lowell-Lawrence
Lisa Marrone* Town of Chelmsford

Patricia Coffey* University of Massachusetts, Lowell

Peter Farkas MassHire Greater Lowell Workforce Board

Rob Anderson Town of Billerica Shannon Norton Calles* Lowell Career Center

Sothea Chiemruom* Cambodian Mutual Assistance Association Sovanna Pouv Cambodian Mutual Assistance Association

Stacie Hargis Middlesex Community College

Stephanie Cronin* Middlesex 3 Coalition

Stephen Themelis* Pepperell Economic Development Committee

Steve Joncas* Jeanne D'Arc Credit Union
Steve Sadwick* Town of Tewksbury
Yovani Baez-Rose City of Lowell

Yun-Ju Choi* Coalition for a Better Acre

*Current members.

Other Partners

Greater Lowell Health Alliance Merrimack Valley Food Bank

House of Hope Merrimack Valley Housing Partnership

Lowell Community Health Center Mill Cities Grows
Lowell General Hospital Working Cities Lowell

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1. OVERVIEW OF COVID-19 IN THE GREATER LOWELL REGION

Like other regions across the country, the Greater Lowell region suffered severe public health impacts and significant damage to the local and regional economy as a result of the COVID-19 pandemic. The virus resulted in strains on the public health system, death and long-term health impacts, spikes in unemployment, business closures, reduced revenues for state and local governments, and decreased consumer spending.

By August 11, 2022, the COVID-19 pandemic had resulted in approximately 86,561 cases in the Greater Lowell region and 4,205 confirmed or probable COVID-19 deaths in Middlesex County.¹ There had been a multi-fold increase in the regional unemployment rate from 2.6% in April 2019 to 16.3% in May 2020. Nearly 40,000 first-time

WHAT IS GREATER LOWELL?

For the purposes of this report, Greater Lowell is the nine-community region served by the Northern Middlesex Council of Governments (NMCOG) including the Towns of Billerica, Chelmsford, Dracut, Dunstable, Pepperell, Tewksbury, Tyngsborough, and Westford, and the City of Lowell.

unemployment claims were filed in the region between March 21, 2020 and June 5, 2020.

Social distancing measures and temporary business closures took effect in March 2020 to slow the spread of COVID-19, resulting in a severe economic downturn. Job losses particularly impacted the Health Care and Social Assistance, Accommodation and Food Services, Retail Trade, Construction, and Manufacturing industries. These impacts continued to be felt in the region as businesses slowly reopened at reduced capacity. Throughout the following two years, economic shocks generated from multiple spikes in COVID-19 cases, unemployment followed by staffing shortages, business closures, supply chain disruptions, and inflation severely impacted the regional economy.

In addition, COVID-19 impacted certain segments of the population more than others, including Black, Latino/Latina, and Asian communities, and highlighted significant inequities in the social determinants of health. Disparities in income and wealth, healthcare access and utilization, food security, education, occupation, discrimination, and housing affordability put some racial and ethnic minority groups at increased risk of contracting and dying from COVID-19.

In 2021, the Baker Administration ended the State of Emergency, many government agencies re-opened to the public, and business restrictions were lifted. This helped the Greater Lowell region's economy to start recovery despite periodic spikes in COVID-19 cases and its variants.

¹ Department of Public Health, Commonwealth of Massachusetts, "COVID-19 Interactive Data Dashboard", https://www.mass.gov/info-details/covid-19-response-reporting#covid-19-interactive-data-dashboard-

The Economic Recovery and Resiliency Plan

The first goal listed in the *Greater Lowell Comprehensive Economic Development Strategy (CEDS) for 2020-2024* developed by the Northern Middlesex Council of Governments (NMCOG)² was to "Incorporate long-term measures that bolster the region's ability to withstand or avoid a shock and enhance the region's capacity and ability to respond to recovery needs following an incident". This goal included the objectives of implementing "steady state resiliency initiatives" and "responsive resiliency issues" that prepare the region for natural and economic disasters, as well as responding to those disasters. The Greater Lowell Economic Recovery and Resiliency Plan (ERRP) is designed to help the Greater Lowell region economically by addressing the economic injury caused by COVID-19 and to help the region be prepared for future disasters. Not only are outbreaks likely to reappear in the future, but the likelihood of other pandemics and similar health emergencies in an interconnected world require proactive measures to protect public health and to ensure economic recovery and resiliency in an equitable manner.

The ERRP is a two-phase plan. Phase I of the ERRP concentrated on documenting the impacts of the COVID-19 pandemic and made recommendations to recover from those specific impacts. This phase assessed the impacts of COVID-19 for the period from March 2020 to March 2021. These data summarized the negative impacts caused by COVID-19 on health care, the economy, housing, and food security in the Greater Lowell region. Phase I further detailed economic resiliency issues relative to unemployment and business.

Phase II of the ERRP focuses on resiliency and preparation for future public health crises and their impacts on the economy, housing and food security, particularly on initiatives that address priorities identified by businesses and providers of housing, health care, and food assistance as identified in Phase I of the ERRP. Each chapter of Phase II begins with a description of the major challenges identified in that focus through surveys, research, and/or stakeholder interviews. The chapter then lists recommended strategies that were developed in coordination with stakeholders to either recover from or build resiliency against those challenges. The plan ends with a summary of federal and state programs offering assistance and support for COVID-19 recovery and an Implementation Plan summarizing all strategies, including their rough timeline and participating agencies.

It should be noted that the order of the issues addressed within both the Phase I and Phase II plans (health care, economic development, housing, and food security) does not indicate a ranking of the perceived importance of each issue.

² NMCOG serves as the economic development partner of the Economic Development Administration of the U.S. Department of Commerce for the Greater Lowell region. Through this partnership, NMCOG develops the Five-Year Update and Annual Performance Reports of the CEDS and provides staff support for the Greater Lowell CEDS Committee.

Table 1: Timeline of Events and Actions Due to COVID-19, March 2020-December 2021

Date	Event/Action
Mar. 10, 2020	Gov. Baker declared a state of emergency
Jun. 1, 2020	Phase 1, Step 3 of Reopening Massachusetts
lun 8 2020	Phase 2 of Reopening Massachusetts began with stores, restaurants, lodging and
Jun. 8, 2020	additional personal services, within guidelines
Jun. 10, 2020	The MA Food Security Infrastructure Grant Program to fund equipment to ensure
Juli. 10, 2020	equitable and local food access.
Jun. 18, 2020	The SBA launched the COVID-19 Economic Injury Disaster Loan (EIDL) program.
	Phase 3, Step 1 of <i>Reopening Massachusetts</i> allowed for an increase in gathering
Jul. 6, 2020	sizes and indoor workplace capacity, and allowed for select industries to reopen,
	such as movie theaters and fitness centers.
Aug. 8, 2020	The SBA closed the Paycheck Protection Program (PPP) that provided forgivable
Aug. 0, 2020	loans to employers to retain their workforce.
	For lower risk communities, Phase 3, Step 2 of Reopening Massachusetts began,
Oct. 5, 2020	which allowed for an increase in gathering sizes and indoor capacity for workplaces
001. 3, 2020	and select industries, within guidelines. The City of Lowell was not "lower risk" at
	that time.
Dec. 13, 2020	Due to an increase in new COVID-19 infections, the Commonwealth rolled back to
200: 20, 2020	Phase 3, Step 1.
	The federal Consolidated Appropriations Act of 2021 included relief for small
Dec. 27, 2020	businesses, including PPP expansion, new shuttered venues program, \$600
200. 27, 2020	stimulus payment for individuals and families, child care block grant program, and
	more.
Dec. 31, 2020	The Mass. Growth Capital Corporation opened the Sector-Specific Relief Grant
	Program for businesses, as funded by the state.
	Lowell General Hospital opens the largest regional vaccination clinic, the Mass
Feb. 8, 2020	Vaccination Program, at the Cross River Center. It will administer 140,000 doses of
	the vaccine before closing June 15, 2021. (Smaller sites continued operation.)
	Federal American Rescue Plan Act of 2021 expanded unemployment benefits,
Mar 11, 2021	included a \$1,400 stimulus payment, expanded benefit provisions for
,	individuals/families, created a new restaurant grant program, and expanded EIDL,
	PPP, and more.
	Baker-Polito Administration lifts COVID-19 restrictions, which permits all industries
May 29, 2021	to open and rescinds the current face covering order and will issue a new face
	covering advisory consistent with CDC guidelines.
Jun. 15, 2021	Gov. Baker ends State of Emergency

Sources: MA Office of Governor Baker and Lt. Governor Polito, https://www.mass.gov/info-details/covid-19-state-of-emergency. U.S. Government Publishing Office, https://www.govinfo.gov/features/coronavirus. USAGov, https://www.usa.gov/coronavirus. Lowell Sun.

2. COMMUNITY ENGAGEMENT AND PARTICIPATION

NMCOG utilized a range of approaches to engage the community and provide pathways to participation in the development of this plan. There were restrictions on gathering sizes during much of the development of the Economic Recovery and Resiliency Plan (ERRP) which meant that all public meetings were conducted remotely. The agency used the following methods to gather input, feedback, and agreement:

- Administered four surveys;
- Facilitated eight Comprehensive Economic Development Strategy (CEDS) Committee meetings;
- Conducted one-on-one stakeholder interviews;
- Conducted group discussions with local development organizations;
- Developed Local Rapid Recovery Plans; and
- Facilitated discussions with the NMCOG Council.³

The CEDS Committee held seven meetings between November 2020 and June 2022 to guide the development of the ERRP, as well as an additional meeting to provide comments on the final draft in September 2022. The CEDS Economic Recovery and Resiliency Subcommittee, which consisted of representatives of the Greater Lowell Chamber of Commerce, MassHire Greater Lowell Workforce Board, Middlesex 3 Coalition, local banks and a local business association, met in December 2020 to outline steps for development of the ERRP, reviewed draft surveys, and provided input on trends in their respective fields.

In early 2021, NMCOG developed four surveys to gauge the impact of COVID-19 on health care, economic development, housing, and food insecurity in the Greater Lowell Region. The surveys were made available online via Survey Monkey from February 25, 2021 to April 15, 2021. NMCOG emailed letters to potential respondents with links to the respective surveys. A survey was distributed to over 120 health care providers, economic development organizations, business associations, housing organizations, and emergency food providers that serve the region. In addition, NMCOG requested that partner organizations forward the survey links to their contacts. The

WHAT IS THE CEDS AND THE CEDS COMMITTEE?

The Greater Lowell Comprehensive
Economic Development Strategy (CEDS) is
the region's economic development plan.
It is a guide for Greater Lowell's
municipalities, nonprofits, agencies, and
other strategic partners to enhance
regional economic resiliency,
sustainability, inclusivity, and success.

The CEDS Committee is facilitated by NMCOG and composed of stakeholders and representatives from local development organizations, area business associations and municipal economic development committees, lending institutions, municipal staff, institutions of higher education, and non-profit organizations. They guide development of the CEDS and other economic activities such as the ERRP.

³ NMCOG is governed by a policy board of local elected and appointed officials from its member municipalities of Billerica, Chelmsford, Dracut, Dunstable, Lowell, Pepperell, Tewksbury, Tyngsborough and Westford. Each community is represented on the <u>Council</u> by a chief elected official (Selectman or City Councilor) and a Planning Board member, and each community also has the option of appointing one alternate.

results of the surveys are explored in depth in the ERRP Phase 1 Plan and referenced in this Plan when appropriate.

Additional public and stakeholder input was collected through the spring, summer, and fall 2021 during the Local Rapid Recovery Plan (LRRP) planning process. Funded by the Department of Housing and Community Development's (DHCD's) Massachusetts Downtown Initiative Program, the LRRPs identified interventions that could accelerate COVID recovery in the short term and protect from future economic shock in the long term. NMCOG staff gathered insights into local pandemic impacts through work with the Towns of Dracut, Pepperell, and Tyngsborough. Public outreach for the LRRPs involved soliciting input from businesses, residents, and commercial property owners to identify COVID's impacts on the local economy, as well as other issues facing local businesses in each town's commercial district. NMCOG worked with each community to conduct a survey of businesses in their community's study area and presented the survey results to the public, businesses, and stakeholders via Zoom, followed by questions and feedback from meeting participants. A second public meeting was held in each community via Zoom to present, discuss, and gather input about proposed recommendations. In addition to the three towns to which NMCOG provided services, the City of Lowell participated in the LRRP planning process with another consultant following a similar methodology.

The draft Phase I ERRP was made available on the NMCOG website for public comment, though no comments were received. At their December 9, 2021 meeting, the CEDS Committee voted unanimously to recommend that the NMCOG Council approve the Phase I ERRP. The NMCOG Council voted unanimously to approve the ERRP and submit it to the EDA at its December 15, 2021 meeting. NMCOG Council meetings are public meetings advertised and posted pursuant to the Massachusetts Open Meeting Law. Phase I of the ERRP was submitted to EDA on January 21, 2022.

Throughout the months of May, June, July, and August 2022, NMCOG staff held discussions with individual ERRP Subcommittee members focused on their areas of work. NMCOG also interviewed stakeholders from other organizations working on the ERRP focus areas of health care, economic development, housing, and food security. These meetings included representatives of the Lowell Community Health Care Center, the Greater Lowell Chamber of Commerce, the MassHire Greater Lowell Workforce Board, Mill City Grows, the Middlesex 3 Coalition, and the Merrimack Valley Planning Commission. At their September 1, 2022, meeting, the CEDS Committee provided comments and voted unanimously to recommend endorsement of the plan by the NMCOG Council after the Committee's comments are addressed.

3. HEALTH CARE

HEALTH CARE SURVEYS

In early 2021, a link to an online health care provider survey was sent to over 20 recipients including hospitals, municipal boards of health, long-term care providers, and other health care organizations in the region, and seven responses were received. The survey was available online from late February to mid-April 2021.

POSTPONEMENTS OF MEDICAL CARE & BUDGETARY IMPACTS

Throughout 2020 and into 2021, a substantial portion of Americans needing medical care postponed treatment due to the COVID-19 pandemic. Table 2 below shows the percent of respondents to the U.S. Census Bureau's Household Pulse Surveys who delayed getting medical care due to the pandemic. Quarterly results of the survey, which began in April 2020, show that in the April and July of 2020 more than one in three people delayed getting medical care across the United States, Massachusetts and the Boston Metropolitan Area, which includes the Greater Lowell region. During that same time period, more than one in four people did not get needed medical care for a condition unrelated to COVID-19. Although fewer people delayed medical treatment as the year progressed, by April 2021 more than 10% of the respondents were still delaying or not getting needed or routine medical treatment.

Table 2: Delays in Getting Medical Care due to COVID-19

Household Pulse Survey Period	% of respondents who delayed getting medical care because of the COVID-19 pandemic			care for so		needed medical elated to COVID- t get it
Survey Period	US	MA	Boston Metro Area	US	MA	Boston Metro Area
4/23/20 - 5/5/20	35%	35%	35%	28%	27%	27%
7/16/20 - 7/21/20	36%	38%	38%	28%	28%	28%
10/14/20 - 10/26/20	24%	27%	26%	18%	19%	18%
1/20/21 - 2/1/21	24%	26%	29%	18%	17%	19%
4/14/21 - 4/26/21	15%	18%	19%	12%	13%	13%

Source: US Census Bureau Household Pulse Surveys

These widespread delays and cancellations of medical procedures reduced revenues for health care providers and resulted in budget shortfalls, eventually leading to reductions in staff hours, furloughs and layoffs at many facilities. Table 3 below lists the type of impact that organizations responding to the NMCOG health care survey had experienced or expected to experience. All respondents had experienced or expected to experience cancelation of programs or events, six (86%) identified a disruption of services, and five (71%) identified budgetary implications.

Table 3: Survey Question - "Which of the following impacts has your organization experienced or do you anticipate experiencing? Select all that apply." [7 total responses; answers with 1 or no responses were removed]

Answer Choices		Responses
Cancellation of programs or events	7	100.0%
Disruption of services to patients, clients and communities	6	85.7%
Budgetary implications related to strains on the economy	5	71.4%
Reductions in patients/clients postponing treatment for non-COVID health issues	3	42.9%
Increased and sustained staff and volunteer absences	2	28.6%

Community Teamwork's (CTI) 2021 Community Needs Assessment notes that in April of 2020, the Lowell Sun reported that Lowell General Hospital had "lost approximately 40% of its monthly revenue, due to the cancellation of elective procedures and appointments." This resulted in furloughs of nearly 21% of staff at the hospital and across the affiliated Circle Health system. Similarly, Lowell Community Health Care (LCHC) experienced an approximate reduction of 50% in patient revenues.

STAFFING NEEDS

Despite early layoffs and furloughs at many health care facilities due to revenue losses related to postponements of treatment, staffing shortages later became a primary issue. Initially, patients choosing to postpone treatment for non-COVID health issues contributed to significant decreases in revenues for health care providers. Decreased revenues in turn led to furloughs and layoffs by many health care providers. ARPA funding helped to make up for these shortfalls, though many older staff chose to retire and some furloughed staff switched to other career fields. To cope with this decreased labor pool, health care providers are now offering higher salaries to attract staff, resulting in personnel moving between facilities and making staff retention difficult.

In response to the NMCOG survey question "What resources and information are needed", four health care respondents (57%) answered "Additional staff (nurses, respiratory therapists, etc.)". At the time of the NMCOG survey in early 2021, only two health care providers (29%) responded that staff and volunteer absences were impacts that their organizations had experienced or expected to experience. However, more recently, the highly contagious COVID-19 variants have led to periodic spikes in staff absences. For example, in January 2022 the Circle Health system had 300 staff members out one week and 211 out the next week, compared to a peak of 55 staff out the previous winter.⁶

AVAILABILITY OF HOSPITAL BEDS

A shortage of hospital beds became a crisis in many parts of the United States during the COVID-19 pandemic. In the Massachusetts Department of Public Health's Northeastern Region, which includes all the hospitals in the Greater Lowell region, available hospital beds were at their lowest levels in

⁴ Community Teamwork, Inc., "Community Needs Assessment", 2021, https://www.commteam.org/wpcontent/uploads/2021/05/CNA-Digital-FINAL.pdf.

⁵ Ibid.

⁶ "Lowell General, Circle Health in all-out war vs. the virus", *Lowell Sun*, January 15, 2022, https://www.lowellsun.com/2022/01/14/lowell-general-hospital-circle-health-facing-coronavirus-related-strains/.

December 2020 and January 2021. From December 22, 2020 to January 6, 2021, the Northeastern Region experienced seven days with fewer than 100 available hospital beds (ICU, medical/surgical, and alternate medical site beds). For comparison, during the period from April 13, 2020 to June 28, 2021, there was a daily average of over 300 available beds.

MENTAL HEALTH

Job losses, business closures, other financial worries, separation from social networks, long-term isolation, and stress, illness, and death directly stemming from COVID-19 all contributed to a rise in mental health issues in the region and across the country. Unfortunately, mental health was already a priority issue in the region even before the pandemic. Mental health issues were a priority identified in the 2019 *Greater Lowell Community Health Needs Assessment*, and while the 2022 *Greater Lowell Community Health Needs Assessment* is still in the development phase, mental health continues be a primary concern.

Mental health issues were widely reported as a growing concern during the COVID-19 pandemic. Though the NMCOG survey only touched on the topic, the US Census Bureau's Household Pulse Survey found that between October 2020 and February 2021, 27% of individuals surveyed across the US reported either moderate or severe symptoms of anxiety or depression. Similarly, when a University of Massachusetts Amherst School of Public Policy (UMass SPP) survey asked households what policies or resources would be most helpful in coping with the COVID-19 crisis, greater mental health support was the second most common selection with 14.9%, which was less than 1% behind the most common selection of receiving a one-time stimulus payment.

TELEHEALTH

Telehealth has shown many promising benefits for the provision of health care during the pandemic, including for mental health treatment. Telehealth became reimbursable under Medicaid during the COVID-19 pandemic, allowing remote treatment for a broader number of patients in the region. Language barriers remain an issue for some patients and providers, but offsite interpreters can be more easily scheduled with telehealth.

HEALTH CARE RECOMMENDATIONS

Goal 1.1: Maintain sufficient level of qualified health care staff and ensure the services are accessible in the region.

- 1.1.1 Work with Greater Lowell healthcare providers and workforce training providers to ensure training is available to increase the talent pipeline of clinical and non-clinical healthcare professionals.
- 1.1.2 Build a rapid-response health care workforce (i.e. contact tracers, community health workers and educators).

⁷ University of Massachusetts Amherst, School of Public Policy, "Impacts of COVID-19: A survey of Massachusetts Households: a Survey Analysis", 2022, https://www.umass.edu/spp/research-action/projects/impacts-covid-19-survey-massachusetts-households.

⁸ Ibid.

- 1.1.3 Provide resources to ensure public information is translated and accessible to English Language Learners and in multiple languages and that interpreters are provided to break down barriers to further access.
- 1.1.4 Collaborate with workforce training providers and language skills providers to ensure availability of appropriate programs for medical translators and other medical professionals.
- 1.1.5 Work with and identify resources for training providers to offer training for community-based organization staff to identify people who may be experiencing mental health issues and provide appropriate mental health support, referrals and services.
- 1.1.6 Coordinate with transit and paratransit providers in the region to ensure access to health care service for individuals without access to automobiles.

Goal 1.2: Maintain adequate space for future medical needs.

- 1.2.1 Identify locations for emergency spillover testing and vaccination sites in case of future need, including benefits and deficiencies of the sites such as accessibility for people without automobiles. This may also include identification and evaluation of sites for distribution of supplies such as home tests, personal protective equipment such as effective face masks, or cleaning supplies as appropriate.
- 1.2.2 Investigate, document, and strengthen strategies that address hospital bed shortages during health crises.

Goal 1.3: Ensure medical services and up to date information about public health crisis reach all members of the community.

- 1.3.1 Expand telehealth services to meet demand for remote health care including mental and behavioral health care services.
- 1.3.2 Increase telehealth options for people experiencing homelessness, people with lower incomes, and people with limited internet access, and the English-limited population.
- 1.3.3 Identify best practices for dissemination of vaccination and health emergency information to the region's diverse communities and strengthen the communication channels to those communities.
- 1.3.4 Investigate approaches for expanding mental and behavioral health care provision.

4. ECONOMIC DEVELOPMENT

BUSINESS SURVEYS

As discussed above, in early 2021 a link to an online business survey was sent to over 35 economic development and business organizations in the region requesting that they forward the survey link to their members and relevant contacts. The survey received 29 responses, with the most being from Pepperell, Lowell, and Westford. The survey was available online from late February to mid-April 2021. The highest number of survey responses came from three industries that submitted five responses each, each comprising 17% of the total responses. These businesses were in the Finance, Insurance and Real Estate sector; the Professional, Scientific and Technical Services sector; and the Government, Social Assistance and Non-Profits sector. Businesses with a wide range of employment sizes responded to the survey, including twelve microenterprises with one to four employees and five businesses with more than 200 employees.

Survey Results - Early COVID-19 Impacts on Business

As shown in Table 4 below, 59% of responding businesses had canceled or postponed events or reservations due to COVID-19; 48% experienced a decline in customers or clients; 45% had increased costs for cleaning, safety supplies and/or personnel protective equipment; and 31% experienced a decline in sales. In contrast, 31% of respondents experienced an increase in sales or customers.

While Table 4 includes only those impacts that were selected by more than 20% of respondents, five respondents indicated that their business had closed temporarily, and one responded that their business had closed permanently. Two businesses that were temporarily closed expected to re-open within six months. Twelve of the businesses, or 43%, had decreased operating capacity relative to one year before. Seven of the respondents, or 24%, identified "Availability of other supplies or inputs used to provide good or services" as impacting their operating capacity in the past three months, an apparent early indicator of broader supply chain problems that impacting the national economy.

Table 4: Survey Question - "How has your business been impacted by the COVID-19 outbreak (since February 2020)? Select all that apply."

Answer Choices	Resp	onses
Canceled or postponed events/reservations	17	58.6%
Decline in customers/clients	14	48.3%
Increased costs for cleaning/safety supplies/PPE	13	44.8%
Increased use of social media	12	41.4%
Decline in sales	9	31.0%
Increase in sales or customers	9	31.0%
Staff/employees have either contracted COVID or have been exposed and needed to quarantine	8	27.6%
Supplier delays	6	20.7%
Change in types of products or services offered	6	20.7%

Survey Support for Services and Assistance

Table 5 below lists the services or assistance that would be helpful in the next six months as identified by more than 20% of survey respondents. Top choices included "Loans or assistance in applying for loans" and "Assistance with applying for Federal assistance programs", both identified by 31% of respondents. Assistance with "Communications/Marketing/Social Media" was identified by 27% of respondents, as was "Assistance with applying for Federal assistance programs" and "Assistance with applying for state or local assistance programs". Interestingly, despite 27% of respondents being interested in "Communications/Marketing/Social Media", none were interested in "Setting up or expanding online sales". Possibly those businesses who were interested in online sales had already set up a system they found at least satisfactory.

Table 5: Survey Question - "What services or assistance would be helpful to your business in the next 6 months? Select all that apply." (29 Respondents)

Answer Choices	Responses		
Loans or assistance in applying for loans	8	30.8%	
Assistance with applying for Federal assistance programs	8	30.8%	
Communications/Marketing/Social Media	7	26.9%	
Assistance with applying for state or local assistance programs	7	26.9%	
Peer Support/Networking	7	26.9%	
Tax Relief or Deferral	6	23.1%	

Financial Assistance Sought by Businesses

When asked about the types of financial assistance that have been requested since February 2020 and the types of financial assistance that have been received, 13 respondents (45%), had applied to the Paycheck Protection Program (PPP) and 12 (41%) had received PPP assistance. Six businesses applied for Economic Injury Disaster Loans and five received them, while four businesses applied for SBA Loan Forgiveness and two received it.

Survey Forecasts for the Next 6 Months

Thirty-eight percent of survey respondents believed that they would need to increase marketing or sales in the next six months, while more than one-in-three (35%) believed they would need to obtain financial assistance or additional capital, and more than one-in-four (28%) believed they would need to identify and hire new employees. In addition, in answering a different survey question, twelve respondents (41%) believed that it would be more than 6 months until the business returned to its normal level of operations relative to one year ago.

LOCAL RAPID RECOVERY PLANNING

In addition to gathering region-wide input on the impacts of COVID-19, NMCOG staff gathered additional insights through work with the Towns of Dracut, Pepperell, and Tyngsborough on Local Rapid Recovery Plans (LRRPs) funded by the DHCD's Massachusetts Downtown Initiative Program. The LRRP development process involved soliciting input from businesses, residents and commercial property owners to identify COVID's impacts on the local economy, as well as other issues facing local businesses in each town's commercial district. The LRRPs then identified interventions that could accelerate COVID recovery in the short term and protect from future economic shock in the long term.

BUSINESS OPERATIONS ISSUES

EARLY PANDEMIC IMPACT ON BUSINESS OPERATIONS

Early Pandemic Massachusetts Retail Sales (March 2020 to March 2021)

Figure 1 below illustrates changes in total Massachusetts retail sales during the early pandemic compared to the same month in the previous year. Data for total U.S. retail sales is included for comparison. April 2020 saw a steeper decline in year-on-year retail sales in the Massachusetts (27%) than in the U.S. as a whole (21%). Massachusetts experienced an additional 17% year-on-year decline in May 2020, while the U.S. experienced a 7% decline that month. Year-on-year sales improved the following months, generally staying in the single digits, and jumped to 27% for Massachusetts and 32% for the U.S. in March 2021.

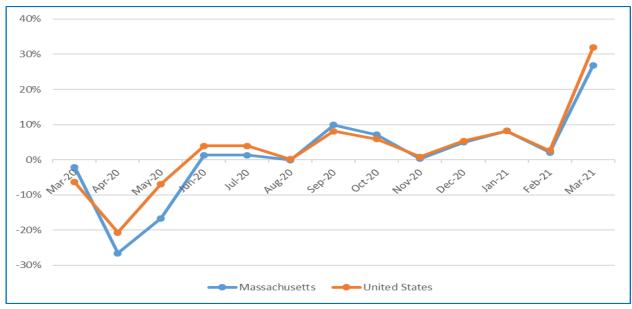


Figure 1: Year-on-Year Change in Total Massachusetts Retail Sales, March 2020 to March 2021

Source: US Census Bureau Monthly State Retail Sales

Early Pandemic Small Business Operating Revenues, Sales and Receipts

Figure 2 below shows responses from Boston Metropolitan Area small businesses to the U.S. Census Bureau's Small Business Pulse Surveys. In the week preceding the April 26, 2020 survey, 77% of responding businesses experienced a decrease in operating revenues, sales, or receipts. Operating revenues for businesses that responded to the survey improved over the following year, but in February 2021 more than one in four businesses (28%) were still experiencing a decline. By May 2021, businesses experiencing a decrease had fallen to 12%, while 75% had no change.

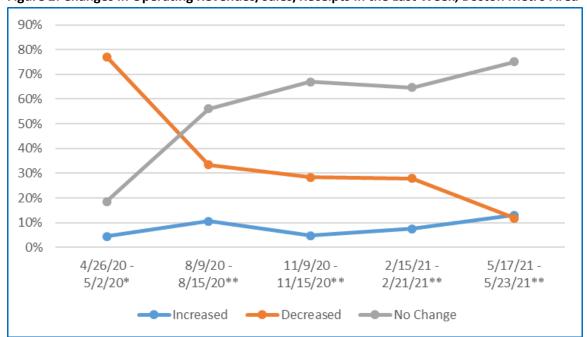


Figure 2: Changes in Operating Revenues/Sales/Receipts in the Last Week, Boston Metro Area

Source: US Census Bureau Small Business Pulse Surveys

LONG TERM IMPACTS ON BUSINESS OPERATIONS

Supply Chain Problems

During the first half of 2020, demand for most goods plummeted as layoffs occurred, businesses were shuttered, and emergency measures required social distancing and work from home where possible. Manufacturing capacity was cut, workers were displaced, and transportation and shipments slowed. Shortages of pharmaceuticals, critical medical supplies including personal protection equipment, and other products highlighted these disruptions.

By late 2020, additional supply chain problems became apparent. Manufacturing and construction industries, both of which have high concentrations in Greater Lowell (high Location Quotients), were

^{*}The survey asked, "In the last week, did this business experience a change in operating revenues?" during this period.

^{**}The survey asked, "In the last week, did this business have a change in operating revenues/sales/receipts, not including any financial assistance or loans?" during this period.

heavily impacted by these supply chain issues. ⁹ The complex system that transports raw materials and finished products lost its predictability, and shortages of components and surging prices of raw materials further impacted manufacturers, builders, and businesses in other industries. Such supply shocks stifled economic recovery across the region and the nation.

Inflation

Following the economy's reopening, renewed demand for a range of goods and services exacerbated supply chain problems. Coupled with other factors, this led to substantial growth in inflation in 2021 and 2022. According to the Bureau of Labor Statistics, by December 2021 the Consumer Price Index had reached 7.0%, the highest rate since June 1982. Inflation continued to rise even before the Russian invasion of Ukraine and subsequent trade restrictions, which drove additional price increases in oil, gasoline, and natural gas, and therefore transportation and shipping. The most immediate impact this shock had upon Greater Lowell is that real incomes were reduced.

Although local and regional jurisdictions have few tools to address inflation, there are long-term approaches to mitigate aspects of these types of shocks in the future. Strategies include the promotion and investment in energy efficiency and alternative energy programs; provision of viable alternative transportation options; and shoring up emergency food, fuel, and housing assistance programs.

Growth in the Number of Businesses

Despite many business closures and layoffs during COVID, the number of establishments in the region grew, particularly in the City of Lowell. The growth in the number of establishments in the region accelerated during COVID-19 from 1.3% between 2019 Q1 and 2020 Q1 to 5.5% between 2020 Q1 and 2021 Q1. This was especially pronounced in Lowell (11.3% over the two-year 2019 Q1 to 2021 Q1 period) compared to the rest of the region (4.0% over the same period). This was largely in microbusinesses (businesses of five employees or less). Although the City of Lowell is leading the region in growth of establishments, those firms still tend to pay less than in the rest of the region. ¹⁰ New small business formation appears to be part of a larger national trend: new business applications hit an all-time peak in July 2020 and continued growing through April 2021, a more than 20% increase between 2019 and 2020.¹¹

Many new businesses require different technical assistance than established businesses (e.g. writing business plans, permitting assistance, and business taxes), in addition to the assistance that established businesses seek (e.g. marketing, financing, and staffing).

⁹ An industry's Location Quotient (LQ) is a ratio that compares how large a proportion of the regional economy it is to how large a proportion of the national economy it is. If the number is more than 1, that means the industry is more concentrated in Greater Lowell than the national average. This report uses LQs comparing by number of jobs.

¹⁰ U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2022.

¹¹ National Bureau of Economic Research, "Business Formation Surged during Pandemic and Remains Strong", September 2021, https://www.nber.org/digest-202109/business-formation-surged-during-pandemic-and-remains-strong.

Table 6: Number of Establishments by Industry

	2019	2020	2019-2020 Change	2021	2020-2021 Change
Goods-Producing	1468	1474	0%	1495	2%
Natural Resources and Mining	6	6	0%	9	133%
Construction	1103	1099	0%	1119	3%
Manufacturing	320	325	2%	325	-1%
Service-Providing	7913	8092	2%	8498	6%
Trade, Transportation and Utilities	1279	1269	-1%	1271	0%
Information	139	145	4%	146	0%
Financial Activities	436	445	2%	462	3%
Professional and Business Services	1404	1406	0%	1448	4%
Education and Health Services	3099	3297	6%	3633	12%
Leisure and Hospitality	705	695	-1%	689	-2%
Other Services	714	681	-5%	713	5%
Public Administration	95	93	-2%	93	1%
Total, All Industries	9381	9566	2%	9993	5%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages via Massachusetts Department of Unemployment Assistance

BUSINESS OPERATIONS RECOMMENDATIONS

Goal 2.1: Increase visitors to and sales at retail and food service businesses.

- 2.1.1 Develop and maintain a CEDS Committee Marketing and Tourism Working Group (MTWG) to develop and coordinate regional strategies to reach visitor and sales goals, identify lead agencies to implement those strategies, share successes, and create and share tools for businesses to measure visitors and sales. Expand Shop Local programs to promote local businesses and attract visitors to the region.
- 2.1.2 Provide technical assistance and support to local organizations or municipalities to establish, develop, or sustain marketing, branding, and promotional programs.

Goal 2.2: Improve technical assistance to businesses.

- 2.2.1 Assist small businesses in creation of business continuity/preparedness plans that includes risk management, attraction/retention of the workforce, technology adaptation, and business planning and ensure lead agency coordinates preparedness opportunities with other regional entities and local organizations.
- 2.2.2 Provide and promote up-to-date information about available resources for small businesses through municipal and regional websites.
- 2.2.3 Identify resources for and connect businesses with financing options to implement façade and signage improvements and updates for accessibility, marketability, and branding.

Goal 2.3: Improve local government capacity and regulatory environment.

- 2.3.1 Educate local boards and streamline local business permitting processes to more readily create new business opportunities, job availability, redevelopment, and local revenue.
- 2.3.2 Amend local zoning bylaws to provide flexible and adaptive commercial and industrial uses, including distribution facilities and delivery services, pop-up retail and "ghost" kitchens.
- 2.3.3 Identify, reuse and revitalize the growing inventory of vacant properties resulting from the pandemic. Many of these properties are well-suited for housing, commercial uses, manufacturing and cultural uses.
- 2.3.4 Amend local bylaws, rules and regulations to allow pop-up retail, art and entertainment in vacant spaces to maintain community vibrancy.
- 2.3.5 Monitor the impacts of remote work on the demand for housing, office space, transportation, and parking, and share this information regionally.

WORKFORCE ISSUES

EARLY PANDEMIC LAYOFFS AND UNEMPLOYMENT

Early Pandemic Unemployment Rates by Municipality

Most communities experienced their highest rates of unemployment in April 2020, followed by slight decline in May and June 2020, and a continual decline through March 2021. Lowell experienced the highest unemployment rate at 18% in April, followed by Billerica, Dracut and Tewksbury each with 17%. The Greater Lowell region as a whole experienced a 16% unemployment rate in April 2020, which declined to 6% by March 2021.

The Bureau of Labor Statistics' *Quarterly Census of Employment and Wages* (also known as ES-202) and other data makes clear the impact of COVID-19 on the number of employees. In 2019 Q2, Greater Lowell firms employed 132,390 people. By 2020 Q2, after the start of the pandemic's impact, that measure dropped to 112,218 people, a 15% drop. Firms began rehiring almost immediately, but the recovery has been slow.

Early Pandemic Unemployment Claimants by Industry

Despite widespread layoffs in many industries throughout the pandemic, some businesses had problems hiring or keeping enough staff. Small Business Pulse Survey respondents in the Boston Metropolitan area increasingly noted that the availability of employees to work impacted operating capacity, with nearly twice the number of businesses identifying this issue in May 2021 (23%) versus November 2020 (12%). Similarly, six businesses (20.7%) responding to the NMCOG survey in early 2021 indicated that availability of employees affected their operating capacity.

Table 7 below lists the number of unemployment claimants by industry in the Greater Lowell Workforce Development Area¹² in March 2020 and March 2021. It should be noted that the Greater Lowell Workforce Development Area does not include Pepperell. The Construction industry had the largest number of claimants in both March 2020 and March 2021, with over 700 in each month.

Accommodations and Food Services had the second highest number of claimants in March 2020, but partly rebounded and had only 359 claims in March 2021, a 49% decline. However, several industries that experienced significant numbers of unemployment claimants in March 2020 had an increased claimants in March 2021, including Administrative and Support and Waste Management and Remediation Services (36% increase); Health Care and Social Assistance (53% increase); Professional, Scientific, and Technical Services (24% increase); Other Services (38% increase); and Retail Trade (75% increase). Manufacturing in the Greater Lowell Workforce Development Area had a 124% increase in unemployment claimants. Overall, the Greater Lowell Workforce Development Area experienced a 24% increase in claimants from March 2020 to March 2021 for all industry categories.

Table 7: Greater Lowell Workforce Development Area Unemployment Claimants by Industry

Table 7.	Table 7: Greater Lowell Workforce Development Area Onemployment Claimants by Industry					
NAICS #	Claimant Count by NAICS Industry Name	March 2020	March 2021	Over-The-Year Change		
23	Construction	766	707	-8%		
72	Accommodation & Food Services	703	359	-49%		
56	Administrative & Support & Waste Management & Remediation Services	439	599	36%		
62	Health Care & Social Assistance	288	441	53%		
54	Professional, Scientific, and Technical Services	272	337	24%		
81	Other Services (except Public Administration)	264	365	38%		
31-33	Manufacturing	224	502	124%		
44-45	Retail Trade	208	364	75%		
48-49	Transportation & Warehousing	150	191	27%		
42	Wholesale Trade	125	181	45%		
71	Arts, Entertainment, & Recreation	111	93	-16%		
51	Information	62	66	6%		
52	Finance & Insurance	55	115	109%		
53	Real Estate, Rental, & Leasing	54	57	6%		
92	Public Administration	49	137	180%		
61	Educational Services	43	84	95%		
55	Management of Companies & Enterprises	33	25	-24%		
22	Utilities	4	12	200%		
	Information Not Available	123	181	47%		
	All Industries	3,988	4,834	21%		

Source: Massachusetts Department of Unemployment Assistance

¹² The Greater Lowell Workforce Development Area are the Towns of Billerica, Chelmsford, Dracut, Dunstable, Tewksbury, Tyngsborough, Westford, and the City of Lowell. It does not include the Town of Pepperell.

Early Impacts on the Region's Largest Industries

Greater Lowell's largest industries by employment are Education and Health Services; Professional and Business Services; Trade, Transportation and Utilities; Manufacturing; and Leisure and Hospitality. As illustrated in Table 8 below, these were among the hardest hit by the pandemic. Like most of the nation, job losses were disproportionately high in certain sectors: Leisure and Hospitality and Other Services lost 48% and 36% respectively of their workforce in the region between Q2 2019 and Q2 2020, and neither recovered to their 2019 level by Q2 2021. On the other hand, most other sectors that lost workers had nearly, but not completely, reached their Q2 2019 level by Q2 2021.

Table 8: Impact on Employment in Region's Largest Industries

	2019 Employees	2020 Employees	2019-2020 Change	2021 Employees	2020-2021 Change
Education and Health Services	33,301	27,439	-18%	31,468	15%
Professional and Business Services	23,765	21,960	-8%	23,778	8%
Trade, Transportation and Utilities	20,678	18,126	-12%	19,908	10%
Manufacturing	15,341	14,467	-6%	15,046	4%
Leisure and Hospitality	12,252	6,316	-48%	9,636	53%
Construction	8,627	7,269	-16%	8,408	16%
Other Services	3,941	2,523	-36%	3,445	37%
Financial Activities	3,623	3,383	-7%	3,418	1%
Information	3,579	3,501	-2%	3,061	-13%
Public Administration	3,194	3,222	1%	3,160	-2%
Natural Resources and Mining	41	34	-17%	190	459%
Total, All Industries	132,390	112,218	-15%	125,639	12%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages via Massachusetts Department of Unemployment Assistance

LONG TERM WORKFORCE ISSUES AND THE "GREAT RESIGNATION"

During the initial reopening and return to work, anecdotal evidence suggested a general reluctance to return to low wage, public interactive jobs at high risk for contracting COVID-19. This later become apparent in a broader range of employment and pay levels and was accompanied by increased voluntary resignations. This "Great Resignation", a term coined by Anthony Klotz at Texas A&M University in May 2021, is quantifiable: Bureau of Labor Statistics (BLS) recorded a national record-high "quits" rate of 3.0% in November and December 2021, which was still a high 2.9% in March 2022. The industries with the highest national quit rates in March 2022 were Accommodation and Food Services (6.0%) and Retail Trade (4.4%).¹³

¹³ U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS), Series JTS000000250000000QUR Seasonally adjusted.

The smallest geographic unit at which BLS releases this data is at the state level. Massachusetts has had fewer quits than some regions, but the overall quits level was still at a high 2.5% in November 2021 and 2.0% in March 2022. For comparison, the quits rate had exceeded 2.0% only once prior to February 2021. Local businesses in all industries, but especially those in Accommodation and Food Services industries, have reported difficulty recruiting employees.

Figure 3 below illustrates changes in the Greater Lowell labor force from January 2019 to April 2022. As the figure shows, the labor force shrank significantly during the initial months of the pandemic, reaching a low of 150,871 in April 2020, a decline of 16,475, or 9.9%, from January 2020. Recovery from this low took almost two years, with the labor force only reaching its January 2020 level again in December 2021. Despite the return or near return of pre-pandemic labor force participation, unemployment rates dropped to exceptionally low levels and many employers are having difficulty filling positions.



Figure 3: Greater Lowell Labor Force, January 2019 - April 2022

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, Not Seasonally Adjusted

Unemployment Rate

Following the lifting of mandatory COVID-19 restrictions and the re-opening of businesses, the unemployment rate in the Greater Lowell region and its municipalities have fallen to near or below their March 2020 levels. The region's April 2022 rate of 3.1% is slightly above the 3.0% in March 2020, as is Lowell's April 2022 rate of 3.8% versus 3.5% in March 2020. However, the communities of Billerica, Chelmsford, Dracut, Pepperell, and Tewksbury all have April 2022 rates equal to or lower than March 2020, and all are 3% or lower.

¹⁴ U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS), Series JTS000000250000000QUR Seasonally adjusted.

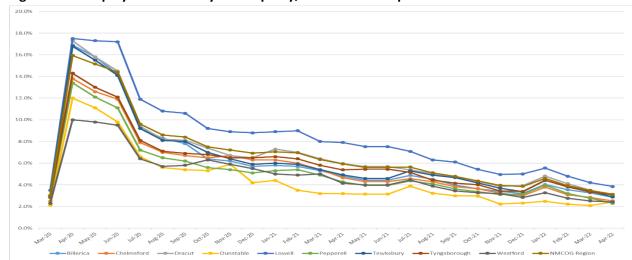


Figure 4: Unemployment Rates by Municipality, March 2020 - April 2022

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, Not Seasonally Adjusted

Workforce Training Programs

Despite the availability of skills training programs in the region, many of which are directly tied to commonly open positions, the demand is low for many of these programs. This is likely linked to the very low unemployment rate and limited number of job seekers, but may possibly involve other factors such as transportation to training or to jobs, language barriers, childcare availability and affordability, mismatch between potential jobs and the interest of job-seekers, mismatch between possible wages and housing affordability, or other factors. Additional outreach may be necessary to inform and attract trainees for workforce programs, as well improved communications with trainees and employers to tailor programs that are both desirable to potential trainees and fill employers' needs.

Childcare Needs

School and childcare facility closures during COVID-19 exacerbated the lack of affordable childcare for many of the region's residents. Even before the pandemic, many families struggled with the cost of childcare as well as finding childcare outside of traditional business hours, which poses a particular problem for parents and guardians who do not work traditional hours. Pandemic-related closures worsened this situation as many working parents who had relied on childcare and school had to leave the workforce to care for their children. Though many men were also forced to leave the workforce, working mothers were particularly likely to leave, and the loss of income impacted these families.

According to the US Census Bureau, in January 2021 approximately 1.4 million more US mothers living with school-age children were not working than in January 2020. The Census Bureau states that "Working mothers are either willingly leaving jobs or are being forced out in extraordinary numbers.

Mothers' V-shaped employment patterns are becoming prolonged and more severe in this global crisis."¹⁵

In its April 2022 study, "The Untold Cost of Inadequate Child Care", the Massachusetts Taxpayers Foundation estimates that Massachusetts loses roughly \$2.7 billion each year "in lost earnings for employees, additional costs and lower productivity for employers, and fewer tax revenues for the state." This estimate incorporates information from both before and during COVID-19. Most of this burden (\$1.7 billion) is shouldered by individuals and families who lose wages from missing work or reducing their hours. Furthermore, the study estimates that in 2019, there were not enough slots in facilities for roughly one-third of childcare age children in Massachusetts. Furthermore, the average cost for infant care in Massachusetts is higher than every other state at \$21,000 annually, while childcare for toddlers is \$15,095.

The impact of childcare costs has been recorded regionally and locally. According to Community Teamwork Inc.'s (CTI) 2021 *Community Needs Assessment*, "Lowell families earning the median household income spend between 30-50% of their income on childcare." The 2020-2021 UMass School of Public Policy's "Impacts of COVID-19" survey asked households what policies or resources would be most helpful in coping with the COVID-19 crisis. More support with childcare was the third most common response to this question with 13.4%, just 1.6% less than the most common selection of a one-time stimulus payment. Childcare was particularly important for respondents aged 35-54, with 20% of that age group selecting more support with childcare and education as being the most helpful. The survey report continues by noting that "72% of respondents with children who experienced changes in their professional life attributed them to COVID-19 disruptions in education and childcare." 19

However, low pay and limited benefits in the childcare industry discourage expansion of the childcare workforce, while new health and safety requirements add to higher operating costs in hindering success of childcare facilities.

WORKFORCE RECOMMENDATIONS

Goal 2.4: Align workforce development programs with industry needs.

2.4.1 Continue developing, updating, and seeking funding for a regional workforce strategy through coordination with MassHire Workforce Boards in northeast Massachusetts and

¹⁵ Misty L. Heggeness, Jason Fields, Yazmin A. García Trejo And Anthony Schulzetenberg, "Tracking Job Losses for Mothers of School-Age Children During a Health Crisis", March 3, 2021, https://www.census.gov/library/stories/2021/03/moms-work-and-the-pandemic.html.

¹⁶ Massachusetts Taxpayers Foundation, *The Untold Cost of Inadequate Child Care*, April 2022, https://www.masstaxpayers.org/untold-cost-inadequate-child-care.
¹⁷ Ibid.

¹⁸ Community Teamwork, Inc., "Community Needs Assessment", 2021, https://www.commteam.org/wp-content/uploads/2021/05/CNA-Digital-FINAL.pdf.

¹⁹ University of Massachusetts Amherst, School of Public Policy, "Impacts of COVID-19: A survey of Massachusetts Households: a Survey Analysis", 2022, https://www.umass.edu/spp/research-action/projects/impacts-covid-19-survey-massachusetts-households.

- in partnership with stakeholders, including educational institutions, comprehensive high schools, technical schools, industry-specific associations, and unions.
- 2.4.2 Increase paid work experiences and training opportunities in high-demand career fields to support in-school and out-of-school youth ages 16 to 24.
- 2.4.3 Reduce barriers for workers who make a lower income by providing employees and employers with information about local and regional organizations that provide supportive services for transportation, childcare and housing.
- 2.4.4 Address first-mile, last-mile connections through the Regional Transportation Plan process and in collaboration with private companies and other regional partners.

Goal 2.5: Ensure quality, affordable childcare is available throughout the region.

- 2.5.1 Streamline local permitting processes to support new and existing childcare providers and to remove barriers to opening additional facilities.
- 2.5.2 Ensure zoning bylaws are compliant with as-of-right childcare uses and provide reasonable regulatory reviews under MGL Chapter 40A Section 3, the Dover Amendment. Address barriers to home-based, family childcare providers operating in rental housing, including through outreach and potential incentives for landlords.
- 2.5.3 Work with the business community to identify and promote employer best practices for supporting childcare options for employees.

PUBLIC REALM, INFRASTRUCTURE AND PERMITTING ISSUES

Increased Need for Broadband Access

The need for internet access has been amplified during the pandemic by remote work and school, online job fairs and job interviews, and telehealth medical services. The Census Bureau's Household Pulse Survey began asking about telework in the September 19, 2020, survey. At that time, 52% of all respondents in the Boston Metropolitan Area had at least one adult in their household substituting telework for some or all of their typical in person work. This included 24% of households with incomes less than \$50,000 and 63% of households with incomes of \$50,000 or more. By the April 4, 2021 survey, the percentage of all respondents fell to 46%, but for households with incomes less than \$50,000 the percentage increased to 26%.

Nearly all K-12 students and many if not most college students in the region were required to attend school remotely at times during the pandemic. While some school systems in Massachusetts were able to provide students with tablets or other technology to participate in remote learning, tablets generally require broadband connections for optimal remote streaming and interaction.

As discussed in the Health Care section above, telehealth demonstrated many promising benefits for the provision of health care during the pandemic, including for mental health treatment. However, as with telework and remote learning, access broadband is often required for optimal streaming and interaction between health care providers and patients.

Increased Need for Public Open Spaces for Outdoor Recreation

Due to closures of most indoor recreation and exercise opportunities during COVID-19, demand for outdoor recreation space experienced a spike, including pedestrian and bicycle amenities. New needs for outdoor, walkable space that could support social distancing measures arose. Several communities utilized the MassDOT Shared Streets and Spaces grant program to create outdoor restaurant seating or pedestrian/transit improvements such as Billerica (outdoor dining tents), Dracut (pedestrian improvements), Lowell (temporary side paths and improvements for outdoor dining), Tewksbury (bus shelters), Tyngsborough (conversion of unused space to parkland), and Westford (pedestrian improvements).

Similarly, Local Rapid Recovery Plans developed by NMCOG recommended implementing improvements to public spaces that create locations for public gatherings in addition to installing pedestrian and bicycle amenities. In addition to creating assets for outdoor recreation spaces, public spaces and improved pedestrian and bicycle amenities in downtowns can serve attract additional foot traffic to commercial areas.

Private Use of Public Sidewalks, Alleys, and Parking Areas for Outdoor Dining and Commerce

As pandemic social distancing requirements severely reduced indoor capacity at retail and dining establishments, many businesses adapted by moving operations outdoors. In addition to dealing with New England weather, these businesses also had to contend with municipal regulations, restrictions on use of public sidewalks and parking areas, implementing measures to protect customers from nearby traffic, and ensuring that pedestrians could still use sidewalks and drivers could still find parking.

Municipalities in the region were generally very responsive to the needs of businesses and worked to accommodate the demand for outdoor commerce. Several communities worked to quickly revise permitting requirements and issue permits, including for the sale of alcohol for outdoor on-premises consumption. Municipalities also worked to ensure continued availability of sidewalks for pedestrian use and ADA compliance, and to provide adequate parking. Some of these temporary adaptations are well-suited to become permanent.

PUBLIC REALM, INFRASTRUCTURE AND PERMITTING RECOMMENDATIONS

Goal 2.6: Ensure municipalities are ready to adapt to disaster-related emergencies.

- 2.6.1 Amend zoning bylaws to allow flexible seating and year-round outdoor dining options, including relaxing parking and other special zoning requirements and making interior circulation improvements.
- 2.6.2 Amend local regulations governed by Select Boards and Councils to allow streamlined permitting processes for flexible seating and year-round outdoor dining options, including coordinated permitting reviews and approvals with public works, ADA coordinator, economic development, police, inspectional services/ building, and public health departments.

- 2.6.3 Identify and assist in accessing funding to make public realm capital improvements.
- 2.6.4 Coordinate with arts and culture communities for improved design, coordination, and local branding/ identity.

Goal 2.7: Support communities' efforts to build vibrant public spaces, cultural amenities, parks and recreation opportunities, and transportation solutions to connect people to these assets.

- 2.7.1 Work with municipalities to design sidewalks, alleys, parking areas, and urban streets that can be adapted to accommodate dining and commerce while maintaining pedestrian circulation and ADA accessibility.
- 2.7.2 Design and construct improvements to the sidewalk networks, bicycle lanes, and cross walks to support walkability and safety.
- 2.7.3 Install improvements to public spaces that provide aesthetic enhancements and create locations for public gatherings.
- 2.7.4 Capitalize on opportunities for joint marketing of outdoor recreation assets and area businesses.
- 2.7.5 Advocate for increased funding and assist in applying for funding for transportation improvements, including coordinated transportation and roadway improvements throughout the region.
- 2.7.6 Build upon NMCOG's previous work to identify opportunities to improve public (Lowell Regional Transportation Authority and MBTA) and private (employers, medical and educational institutions) transit options, especially for students, job seekers, and workers.

Goal 2.8: Ensure reliable access to broadband with reasonable and adequate bandwidth for all.

- 2.8.1 Provide data and studies to support broadband connectivity.
- 2.8.2 Collaborate with local and regional entities to pursue funding opportunities and support network buildout.
- 2.8.3 Support the installation of 5G infrastructure and renovation of existing cell phone towers across the region to move technology infrastructure forward and allow for innovation.
- 2.8.4 Collaborate with local and regional organizations to support installation of wi-fi in public spaces and low-income multifamily housing.
- 2.8.5 Investigate the needs of the people who have barriers to broadband internet and support initiatives to fill those needs, allowing equitable access to essential internet services. The population facing barriers may include seniors, people with low incomes, English Language Learners, unhoused people, and other communities. Initiatives may include providing education toward computer and internet literacy, appropriate equipment such as computers or routers, financial assistance to pay for access at appropriate speeds, education and enforcement addressing security and privacy risks, or other initiatives as appropriate.

Goal 2.9: Ensure emergency preparedness planning is embedded in all future community plans.

- 2.9.1 Identify and review local emergency preparedness plans.
- 2.9.2 Review and recommend amendments to community master plans, sustainability and climate action plans, hazard mitigation plans, housing plans, economic development plans, and others as available that incorporate elements of local emergency preparedness plans.

5. HOUSING

Layoffs, furloughs and business closures related to the COVID-19 pandemic put many households in a situation where they struggled to pay their mortgage or rent. Evictions and foreclosures were temporarily halted in the short term for homeowners and renters meeting certain criteria. However, these households remained responsible for their unpaid rents and mortgages in the future. Workers employed in industries that were considered to be nonessential, could not be done at home, or were paid hourly wages were at the highest risk for unemployment during the early stages of the pandemic, and had been the most likely to struggle with paying for housing and other essential expenses such as food. Expanded unemployment benefits and direct payments provided through the CARES Act were vital to assisting these workers in weathering the financial storm created by the pandemic.

HOUSING SURVEYS

In February 2021, NMCOG emailed the housing survey link to over 35 housing organizations in the region. Responses were received from 20 organizations, with 17 indicating that COVID-19 had a high or moderate impact on their programs, services, or general operations. Nearly two-thirds of housing organizations responding to the survey had cancelled or anticipated cancelling programs or events, and 60% had experienced or anticipated disruption of services to clients and communities. Nine organizations (45%) had experienced or anticipated an increased demand for services or support, while eight (40%) had experienced or anticipated budgetary implications from strains on the economy and declining grant opportunities.

More than half of survey respondents indicated a need for increased housing subsidies and programs from federal and state governments that address rental and foreclosure prevention, as well as centralized information on other local services and support to enable effective client referrals. Other resources such as funding, pandemic-specific training, remote work technology, and emergency housing resources for homeless individuals and families were requested by a number of respondents. Three-quarters of respondents identified concern about capacity to implement operations without compromising the health of staff, volunteers, and clients.

HOUSING AFFORDABILITY

Housing affordability was a significant issue in the region prior to COVID-19, and the job losses, reduction in hours, and business closures resulting from the pandemic worsened affordability issues for many of the region's residents. Though statistics are not yet available for the years during COVID-19, 48% of Greater Lowell renter households were cost burdened according to the 2015-2019 American Community Survey, compared with 46% nationwide, while 25% of Greater Lowell homeowners were cost burdened compared to 22% nationwide during the same period. Cost burdened is defined here as selected housing costs being more than 30% of a household's total income.

US Census Pulse surveys, which are more current, found high rates of Boston metropolitan area renters falling behind on rent payments during the pandemic. A Census Pulse survey covering April 23 to May 4 of 2020 showed 14.1% of Boston Metropolitan area renters were behind on payments. Later Pulse

survey showed a decline, with surveys in July 2020, October 2020, and January 2021 each showing between 12% and 12.3% of renters behind on rent payments, and the April 2021 survey found 9.7% of renters behind on rent. Households with children present and those with incomes less than \$50,000 reported rent arrears at consistently higher rates than the total renting population. Boston Metropolitan renters were two to four times as likely as owners to be behind on payments, with variation occurring between the survey periods.

EVICTIONS

Following the October 17, 2020, expiration of the State's moratorium on evictions, the federal moratorium established by the Centers for Disease Prevention and Control (CDC) became effective in Massachusetts until August 26, 2021. Under the CDC's moratorium, households that do not meet specific income and vulnerability criteria were not protected from eviction. As such, between October 18, 2020, and July 3, 2021, the Housing Court approved 380 evictions for non-payment of rent in Middlesex County, 141 of which were in the NMCOG region, with 107 of those being in the City of Lowell. For comparison, the Housing Court approved 918 evictions for non-payment in Middlesex County between October 18, 2019 and July 3, 2020.²⁰

Following the expiration of the State's moratorium, communities of color were particularly vulnerable to eviction filings. According to a report by Homes For All Massachusetts, between October 2020 and October 2021, renters in majority nonwhite neighborhoods were nearly twice as likely to face eviction as renters in majority white neighborhoods.²¹

HOMELESSNESS AND SHELTER CAPACITY

Homelessness was a growing issue for the region even before the COVID-19 crisis hit. According to a study cited in the Lowell Community Food Assessment, between 2009 and 2018, the number of people experiencing homelessness increased by more than 150%.²²

The pandemic created additional burdens for those experiencing homelessness and organizations working to address it. In addition to housing pressures exacerbated by job losses and rapid growth in residential housing prices, social distancing requirements at homeless shelters effectively reduced shelters' capacity. To address this reduced shelter capacity, local hotels were used to temporarily house individuals experiencing homelessness. Additional strategies included the City of Lowell using the Stoklosa Middle School gymnasium as an emergency shelter for homeless individuals who have been exposed to people with COVID-19, but remain asymptomatic themselves. During the height of COVID-19

²⁰ Massachusetts Court System, "COVID-19 eviction information", https://www.mass.gov/info-details/covid-19-eviction-information

²¹ Lowell Sun, "Report: Nonwhite residents hit harder by post-moratorium evictions", March 22, 2022, https://www.lowellsun.com/2022/03/22/report-nonwhite-residents-hit-harder-by-post-moratorium-evictions/.

²² Ali Jacobs, Francey Slater and Emily Labombard, "Lowell Community Food Assessment", 2022, https://www.millcitygrows.org/lowellcfa-2022/.

in April, 2020, Aloft Hotels in Lexington was the location closest facility to the NMCOG region providing space for homeless individuals who tested positive but were not in need of hospitalization.²³

HOUSING RECOMMENDATIONS

Goal 3.1: Develop financial and other one-stop shop resources aimed at developers and local government entities.

- 3.1.1 Identify and implement strategies to showcase best practices in creating and preserving housing choice and opportunities.
- 3.1.2 Provide zoning and other guidance to Greater Lowell municipalities to advance solutions to make it easier to build affordable homes, such as minimizing parking requirements, permitting accessory dwelling units by right, or relaxing setbacks to allow for greater lot coverage.
- 3.1.3 Promote and support first-time homebuyer education and loan/grant programs.
- 3.1.4 Promote and support local and regional nonprofit organizations that create and preserve homes that are affordable and provide resources to people who make lower incomes to access housing opportunities.
- 3.1.5 Promote and support funding options for the creation, preservation, and rehabilitation of housing for investors and owner-occupants.
- 3.1.6 Promote and support the provision of resources and assistance for both people experiencing housing instability and to public and private property owners during periods of reduced rental income.

Goal 3.2: Help local municipalities highlight housing issues through data/storytelling via planning and housing studies.

- 3.2.1 Prepare Regional Fair Housing, Equity, and Production Strategy.
- 3.2.2 Educate the public and elected officials on local and regional housing needs and demand to encourage and advance policy change and innovation.

Goal 3.3: Enhance regional communication, coordination, and problem solving related to the affordability and availability of housing.

- 3.3.1 Lead and participate in regional housing discussions, including providing research, sharing best practices, and proactively seeking resolve.
- 3.3.2 Maintain adequate emergency capacity for individuals and families experiencing homelessness, particularly in cases of spikes in demand, through coordination across local and regional providers and other strategies.
- 3.3.3 Pursue funding options to help identify, reuse, and revitalize vacant properties and develop multifamily housing near employment centers and public transportation.

²³ "Lowell opens emergency shelter for homeless", Lowell Sun, April 13, 2020, https://www.lowellsun.com/2020/04/13/lowell-opens-emergency-shelter-for-homeless/.

Goal 3.4: Support the development of multifamily housing near employment centers and public transportation.

- 3.4.1 Amend zoning bylaws in Greater Lowell's MBTA Communities (Billerica, Chelmsford, Dracut, Lowell, Tewksbury, Tyngsborough, and Westford) to comply with MGL Chapter 40A Section 3A.
- 3.4.2 Ensure development opportunities are realized by connecting municipalities with developers and builders to move forward with as-of-right multifamily development.
- 3.4.3 Pursue funding and other options to ensure development opportunities are realized by connecting municipalities, developers, or builders with state and other funding resources.
- 3.4.4 Raise awareness of new housing opportunities for lower-income people as they become available.

6. FOOD SECURITY

The US Department of Agriculture (USDA) uses the following definition for food security:

"Food security for a household means access by all members at all times to enough food for an active, healthy life. Food security includes at a minimum:

- The ready availability of nutritionally adequate and safe foods.
- Assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies)."²⁴

Widespread loss of employment income caused by the COVID-19 pandemic threatened food security for families across the region and nation. Massachusetts experienced an overall increase in food insecurity of 55% from 2019 to 2020, according to a survey conducted by the Greater Boston Food Bank (GBFB) in collaboration with the National Food Access and COVID Research Team (NFACT). Hispanic and Black residents were disproportionately impacted in terms of food insecurity, perpetuating disparities that existed before the pandemic. During the 12 months preceding the pandemic, food insecurity among White adults in Massachusetts hovered around 15%, growing to 24% during the pandemic. By contrast, food insecurity among Hispanic and Black adults was 44% and 31% respectively during the 12 months prior to the pandemic, and 58% and 45% respectively during the pandemic. Food insecurity among households with children stood at 27% during the 12 months prior to COVID and grew to 42% during COVID. ²⁵ Applications for public assistance rose dramatically early in the COVID crisis, with a 400% increase in weekly applications for Supplemental Nutrition Assistance Program (SNAP), Transitional Aid to Families with Dependent Children (TAFDC) and Emergency Aid to the Elderly, Disabled and Children (EAEDC).²⁶

Emergency food providers adapted to address the increased need in multiple ways. The 2022 Lowell Community Food Assessment (LCFA) described the response by Lowell's emergency food suppliers this way: "During the early days of the COVID-19 Pandemic, many programs transitioned to delivery models, offering both grocery items (food boxes) as well as prepared meals. [...] Other organizations responded to Pandemic-induced food insecurity by offering new meal programs. Lowell Public Schools launched 10 daily Grab N Go sites, offering prepared meals to students and families. The Lowell Senior Center also launched Grab N Go meal pick up for Lowell seniors. UTEC operated a meal delivery program."²⁷

²⁴ https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/measurement/#security

²⁵ https://www.gbfb.org/news/press-releases/gaps-in-food-access/

²⁶ https://www.mass.gov/dta-public-records

²⁷ "Lowell Community Food Assessment", 2022, Ali Jacobs, Francey Slater and Emily Labombard, https://www.millcitygrows.org/lowellcfa-2022/.

Changes to the Supplemental Nutrition Assistance Program (SNAP) and the Massachusetts Healthy Incentives Program (HIP)

The 2022 Lowell Community Food Assessment includes this synopsis of changes to SNAP to address the pandemic:

"SNAP, one of the most important food assistance programs in the country, significantly increased benefits offered to enrolled participants, and provided "Pandemic EBT" (P-EBT) cards to families with children who receive free lunch at schools, which is all Lowell Public Schools (LPS) students in Lowell. SNAP and other benefits programs also allowed online or over the phone applications, interviews, and other administrative upkeep for the first time in the program's history. Also, for the first time since its inception, HIP onboarded new vendors, rolled out new technology access programs, and included new vendors in the AUTOSNAP CSA program. A new online SNAP point of sale was introduced in 2020 at major retailers such as Walmart and Amazon, allowing delivered groceries using SNAP benefits for the first time in Massachusetts. That program continues to expand with more vendors being onboarded throughout 2021."²⁸

However, SNAP eligibility is tied to federal standards that are not consistent with high costs in Massachusetts. Furthermore, making changes in order to accept SNAP can be difficult for smaller businesses and farms that sell produce at farm stands and farmers' markets.

The Massachusetts' Healthy Incentives Program (HIP) provides households that are SNAP beneficiaries with between \$40 and \$80 per month to purchase produce from participating farmers markets, Community Supported Agriculture (CSAs), and farm stands. Although HIP is very under-utilized with only 6% of available benefit dollars being used, most Lowell HIP beneficiaries use all of the available benefits, suggesting that "HIP suffers from an outreach and vendor access problem, not a desirability problem."²⁹

Food Sufficiency for Households with Children

Households with children in the Boston Metropolitan Area fared worse than the general population with respect to food security in each of the Pulse surveys examined, as shown in Table 8 below. This may be due in part to the loss of access to free and reduced cost meals following school closures, although some school districts in the region continued to provide meals during the school closures.

As noted above, food insecurity among Massachusetts households with children stood at 27% during the 12 months prior to COVID and grew to 42% during COVID. By comparison food insecurity among households without children was 14% during the 12 months prior to the pandemic and 22% during the pandemic. ³⁰

²⁸ "Lowell Community Food Assessment", 2022, Ali Jacobs, Francey Slater and Emily Labombard, https://www.millcitygrows.org/lowellcfa-2022/.

²⁹ Ibid.

³⁰ https://www.gbfb.org/news/press-releases/gaps-in-food-access/

Table 8: Food Sufficiency in the last 7 days for Households with Children Under 18, Boston Metro Area

Survey Period	Households with children, sometimes or often without enough to eat	All households, sometimes or often without enough to eat
4/23/20 - 5/5/20	6.9%	6.3%
7/16/20 - 7/21/20	7.0%	5.8%
10/14/20 - 10/26/20	7.8%	5.8%
1/20/21 - 2/1/21	6.5%	5.8%
4/14/21 - 4/26/21	4.1%	4.0%

Source: US Census Bureau Household Pulse Surveys

Lack of Transportation

Transportation for grocery shopping for households without automobiles, a problem that existed for many residents prior to COVID, took on the additional concern of social distancing on public transportation. Common alternatives like neighborhood markets and convenience stores are "often limited in size and inventory and therefore shoppers must visit multiple retailers to find everything they are looking for". Empty store shelves and shortages of staple products during COVID and its aftermath would be particularly difficult for residents with limited transportation opportunities.

Communications about Emergency Food Availability

Merrimack Valley Food Bank maintains a list of emergency food providers on its website. The list includes their locations and contact information, their websites if available, and schedules for certain locations. However, maintaining up-to-date schedules is a challenge due to frequent schedule changes, and many individuals requiring food assistance do not know about the resource or lack internet access. Furthermore, the list focuses on emergency food providers, so it does not include information about locations that accept SNAP, WIC, HIP, and similar programs. Despite efforts to provide information about local emergency food availability through websites, flyers, and other efforts, the information often must be relayed through word of mouth.

Food Insecurity and Mental Health

A statewide survey by the UMass School of Public Policy found significant linkages between food insecurity and moderate to severe anxiety or depression during the pandemic. Respondents with low food security were more than twice as likely as the general survey population to report severe anxiety and depression, while respondents with very low food security were more than three times as likely.³² Additional discussion of mental health and COVID-19 can be found in the Health Care section above.

³¹ "Ali Jacobs, Francey Slater and Emily Labombard, Lowell Community Food Assessment", 2022, https://www.millcitygrows.org/lowellcfa-2022/.

³² University of Massachusetts Amherst, School of Public Policy, "Impacts of COVID-19: A survey of Massachusetts Households: a Survey Analysis", 2022, https://www.umass.edu/spp/research-action/projects/impacts-covid-19-survey-massachusetts-households.

FOOD SECURITY SURVEY

In February 2021, NMCOG emailed a cover letter with a link to a food security survey to over 30 emergency food providers that serve the region. Sixteen responses were received from these organizations. As illustrated in Table 9 below, eleven organizations (69%) replied that COVID-19 had a significant impact on their programs, services, or general operations. An additional four (25%) estimated it was having a moderate impact, while only one (6%) estimated it was having little or no impact.

Table 9: Current and Anticipated COVID-19 Impacts on Emergency Food Providers

Answer Choices	Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization. Responses		Please estimate the level of impact COVID-19 is anticipated to have on the programs, services, or general operations of your organization in the next 3 months.	
			Re	esponses
High (significant impact)	11	68.8%	9	56.3%
Moderate (minor disruptions)	4	25.0%	6	37.5%
Low (little or no impact)	1	6.3%	1	6.3%

COVID-19 Impacts on Emergency Food Providers

Eleven respondents to the emergency food provider surveys experienced or anticipated experiencing increased demand for services or support from clients and communities. Furthermore, half experienced or anticipated increased staff and volunteer absences, 38% experienced or anticipated disruptions of services, and an additional 31% experienced or anticipated cancellations of programs or events.

Needed Resources and Information

Seven organizations, or 44% of all respondents, identified technology to support remote work and service provision as needed, while 38% identified additional funding, assistance with home food delivery, and assistance in directing those in need to additional resources as areas of need, as shown in Table 10 below. Answers selected by fewer than 25% of organizations are not included in the table below, but only 19% of respondents selected "Personal protective equipment" and only 12% selected "Cleaning supplies". The complete survey results and tabulations are shown in the Appendix.

Table 10: Survey Question - What resources and information are needed? Select all that apply.

Answer Choices	Respo	onses
Technology (hardware and software) to support remote work and service provision for both employees and clients	7	43.8%
Additional funding	6	37.5%
Assistance with home food delivery for vulnerable seniors, disabled clients, clients homebound due to childcare needs, and clients who are in quarantine	6	37.5%
Assistance in directing those in need to additional resources such as SNAP, WIC or the Commodity Supplemental Food Program (CSFP)	6	37.5%
Increased food donations	5	31.3%
Assistance with food distribution at additional locations	5	31.3%
Information on available resources	4	25.0%

Needed Training

Table 11 below lists the training needs that were identified by at least three respondents. Techniques to identify and reach out to those in need was identified by seven (44%) of the organizations, while hosting virtual fundraisers and serving populations without broadband, technical skills, and/or English language skills were selected by six organizations.

Table 11: Survey Question - What training is needed? Select all that apply.

Answer Choices	Respor	ises
Techniques to identifying and reaching out to those in need	7	43.8%
Hosting virtual fundraisers	6	37.5%
Serving populations without broadband, without technical skills, and/or non- English speaking clients	6	37.5%
General fundraising	4	25.0%
Keeping donors engaged virtually	3	18.8%
Techniques for recruiting volunteers	3	18.8%

Concerns for Carrying Out Mission

Table 12 below lists concerns identified by emergency food providers for carrying out their organizations' mission. Continuing day-to-day operations without compromising the health of staff, board members, volunteers and clients was the most common concern and was identified by nine respondents (56%). This was followed by a lack of volunteers and financial sustainability for staff and their families.

Table 12: Survey Question - As the spread of COVID-19 intensifies, what are your immediate concerns for carrying out your mission/caring for the people you serve? Select all that apply.

Answer Choices	Respo	onses
Capacity to orchestrate day-to-day operations without compromising the health of staff, board members, volunteers, and clients	9	56.3%
Lack of volunteers	6	37.5%
Financial sustainability for staff and their families	5	31.3%
Provision of technical resources and support for workers who primarily provide in- person services or programming	4	25.0%
Dealing with disruptions in service provision, especially due to inadequate food supplies that keep pace with increasing demand	4	25.0%

Open-ended responses included getting staff and volunteers vaccinated due to their high levels of exposure and adapting their organization's space for social distancing. Similarly, the Lowell Community Food Assessment noted persistent obstacles and barriers including "Navigating the application process for benefits and subsidy programs is difficult and confusing", "Programs that are limited to serving specific populations (i.e. elders, families with young children)", "Programs have limited hours and are hard to navigate (i.e., if you cannot go when it's open, you might never get assistance)", and "General lack of knowledge among the community at large as well as professionals within social service agencies about all the different food program offerings available". ³³

Lessons and Strategies to Continue into the Future

NMCOG's food security survey asked, "What lessons or strategies has your operation adopted due to COVID that you think you should continue to utilize in the future?" and "What resources, infrastructure, partnerships or other support would your organization need to make these temporary adjustments more permanent?" The complete list of responses is included in the Appendix, with multiple responses discussing the switch to grab-and-go food pickup (often provided outside), though some organizations saw this as temporary rather than something that would be continued in the future. Improvements in communications, including the use of Zoom and other remote technologies, as well as outreach to people who lack access to online technologies, were also reported by several organizations. In addition, multiple organizations mentioned increases in food delivery.

³³ "Lowell Community Food Assessment", 2022, Ali Jacobs, Francey Slater and Emily Labombard, https://www.millcitygrows.org/lowellcfa-2022/.

FOOD SECURITY RECOMMENDATIONS

Goal 4.1: Ensure community members requiring assistance have access to food resources and assistance.

- 4.1.1 Support contingency planning by and coordination of emergency food organizations, councils on aging, faith-based organizations, and other providers to prepare for and handle spikes in demand for groceries, meals and food delivery.
- 4.1.2 Identify and disseminate best practices for complying with pandemic requirements at emergency food locations such as grab-and-go food pickup, food delivery, and reorganizing spaces for social distancing.
- 4.1.3 Identify a single community-based or regional organization to lead the dissemination of information about locations and hours of operation of emergency food providers and places where WIC, SNAP and HIP are accepted. Information should be up to date, available in multiple languages and in multiple media formats including online and flyers for distribution or posting in targeted locations.
- 4.1.4 Seek funding to increase the communications capacity of organizations engaged in emergency food, including trainings on the use of remote technologies for improved dissemination of information and food resources.

Goal 4.2: Expand resources and programs available to address basic costs for individuals and families who make lower-incomes.

- 4.2.1 Expand food security programs and subsidies by working with the private and non-profit sectors.
- 4.2.2 Work with partners to increase the number of places where Supplemental Nutrition Assistance Program (SNAP) and the Healthy Incentives Program (HIP) are accepted, particularly at small businesses, farmers markets, and farm stands.
- 4.2.3 Work with municipalities and community-based organizations to provide outreach and administrative assistance to small businesses, farmers market vendors and farm stands to complete the application process and utilize technology required for accepting these programs. Develop a plan to prioritize assistance where it would be most beneficial.

Goal 4.3: Sustain or expand local food production to support access to fresh produce and mitigate supply chain issues.

- 4.3.1 Increase space available for urban agriculture and community gardens.
- 4.3.2 Amend local zoning bylaws to ensure options for local agricultural uses and community gardens.
- 4.3.3 Ensure food safety and public health of local agricultural uses and community gardens through soil and environmental testing and community education.
- 4.3.4 Support funding for programs assisting new farmers to purchase or lease land, access greenhouse space and equipment, and receive skills training.
- 4.3.5 Plan for climate change and its impacts on the future of sustainable food and agriculture.

4.3.6 Investigate feasibility of programs to match young people and newcomers interested in agriculture with opportunities to work at, lease, or purchase small-scale farms or other food enterprises.

Goal 4.4: Promote support of local agriculture and community farms and agricultural resources.

- 4.4.1 Expand Shop Local programs such as the #Shop978 campaign and amplify the marketing of venues that sell local foods.
- 4.4.2 Identify locations and support funding for regional food hubs and food aggregators that can sell local produce regularly and provide a wholesale link between local farms, local businesses and institutional buyers.
- 4.4.3 Study the feasibility of a digital marketplace platform to connect local food buyers (grocers, restaurants, and institutions) to local farmers or a food hub/food aggregator.
- 4.4.4 Investigate and disseminate best practices for establishing and maintaining and ensuring access to farmers markets. Address marketing, prime days and hours while avoiding competition with neighboring farmers markets, parking, and vendor access.

Goal 4.5: Provide emergency food assistance that is culturally-appropriate in order to maximize utilization and minimize waste.

4.5.1 Perform outreach to emergency food providers to identify culturally appropriate foods for their clients and to inform their clients about preparation of unfamiliar ingredients.

7. FEDERAL AND STATE COVID-19 RELIEF BENEFITING MASSACHUSETTS AND ITS MUNICIPALITIES

It is estimated that the federal government will provide approximately \$115 billion in aid to Massachusetts in response to the COVID-19 pandemic.³⁴ Since March 2020, at least six federal bills have been enacted in response to COVID-19. Most notable was the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"). This \$2.2 trillion package encompassed numerous initiatives, including the Paycheck Protection Program (PPP), economic impact payments (\$1,200 payments to qualified individuals), Economic Injury Disaster Loans (EIDL), Provider Relief Funds for health care providers, the Coronavirus Relief Fund (CvRF) for state and local governments, and an array of other new and expanded programs. The Commonwealth made available approximately \$500 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). The Consolidated Appropriations Act of 2021 was enacted on December 27, 2020. This legislation authorized \$900 billion in additional COVID-related assistance.

Massachusetts workers and residents have benefited from the \$28 billion for COVID-related Unemployment Insurance benefits and administrative funding provided in the CARES Act and extended via the December 2020 stimulus package and the American Rescue Plan Act. Other key funding streams included the Elementary and Secondary School Emergency Relief Funds (\$2.9 billion), childcare stabilization funding (\$314 million), and the Homeowner Assistance Fund (\$179 million).

The Emergency Solutions Grants assist homeless households and households at risk of homelessness by supporting the services necessary to help them quickly regain stable housing after experiencing a housing crisis. The Commonwealth and eligible municipalities received additional ESG funding to support homelessness services in response to the COVID-19 pandemic.

The American Rescue Plan Act of 2021 ("ARPA") was signed into law on March 11, 2021, and provides \$1.9 trillion for continued COVID-19 response and recovery, including \$350 billion for the Coronavirus State and Local Fiscal Recovery Funds. ARPA provided approximately \$8.7 billion to Massachusetts through the new Coronavirus State and Local Fiscal Recovery Funds. The Commonwealth received \$5.3 billion from the Coronavirus State Fiscal Recovery Fund (CSFRF), while municipalities received \$3.4 billion. These funds can be used to respond to the public health emergency or its negative economic impacts, for premium pay for employees providing essential services during the public health emergency, to address government's reductions in revenue due to COVID-19, and for investments in water, sewer or broadband infrastructure. Municipalities in the Greater Lowell Region have received Coronavirus Local Fiscal Recovery Funds allocations totaling over \$134 million, as shown in Table 13 below.

Greater Lowell Economic Recovery & Resiliency Plan

³⁴ https://www.mass.gov/info-details/total-federal-awards

Table 13: Coronavirus Local Fiscal Recovery Fund Allocation by Municipality

Municipality	Coronavirus Local Fiscal Recovery Funds Allocation (\$)
Billerica	12,962,693
Chelmsford	10,578,612
Dracut	9,455,619
Dunstable	1,017,180
Lowell	76,009,996
Pepperell	3,620,957
Tewksbury	9,319,317
Tyngsborough	3,744,406
Westford	7,417,971
Total	134,126,751

Source: https://www.mass.gov/info-details/covid-19-related-federal-funds-to-municipalities

The Federal Emergency Management Agency (FEMA) provides funding for the Public Assistance (PA) Grant Program which reimburses state and local governments, as well as certain types of private non-profit organizations, for eligible costs incurred during a declared federal disaster. The COVID-19 pandemic was declared a federal major disaster in Massachusetts on March 27, 2020, with an incident period starting January 20, 2020 (DR-4496-MA). FEMA PA typically provides reimbursements at a cost share of 75% of total eligible costs, with the applicant responsible for the remaining 25% (non-federal cost share). On January 21, 2021, President Biden instructed FEMA to increase the reimbursement rate for certain eligible COVID-19 costs from 75% to 100% for expenses incurred between January 20, 2020, and September 30, 2021. On February 2, 2021, the President issued a second order expanding the 100% reimbursement rate to all eligible emergency response costs, and on November 10, 2021, the President announced FEMA funding to support all eligible COVID-19 work will continue at 100% through April 1, 2022. As of June 27, 2022, Massachusetts State Agencies have been received more than \$805 million of FEMA PA awards.

FEDERAL AND STATE PROGRAMS FOR ADDRESSING HOUSING AND EVICTION DIVERSION

DHCD's Residential Assistance for Families in Transition (RAFT) program provides up to \$10,000 to households to help keep them in stable housing when facing eviction, loss or utilities, or other housing emergencies. The Federally-funded Emergency Rental Assistance Program (ERAP) and Subsidized Housing Emergency Rental Assistance (SHERA) programs stopped taking new applications on April 15, 2022.

FEDERAL FUNDING FOR EDUCATION

The Elementary and Secondary School Emergency Relief I Fund (ESSER) authorized under the CARES Act provides school districts with emergency relief funds to address the impact of COVID-19 on elementary and secondary schools. Districts must provide equitable services to students and teachers in non-public schools as required under the CARES Act.

The Coronavirus Response and Relief Supplemental Appropriations (CRRSA) Act provides supplemental funding through the ESSER II Fund. This funding is intended to help school districts safely reopen schools, and measure and effectively address significant learning loss. The American Rescue Plan Act (ARPA) provides a third round of funding for ESSER (ESSER III). ESSER III requires that districts spend 20% of funding to address learning loss.

The Coronavirus Relief Fund (CvRF) School Reopening Grants provides eligible school districts and charter schools with funding to support school reopening. This funding of \$225 per student based on FY2021 foundation enrollment is intended to supplement other resources that the State is providing to cities and towns for COVID-19 response efforts, as well as funds made available ESSER grants and the Remote Learning Technology Essentials (RLTE) grants.

STATE PROGRAMS DIRECTED AT BUSINESS RECOVERY

The Regional Pilot Project Grant Program was funded through the State's FY 21 Operating Budget and was established to support recovery solutions based on the specific needs of individual regions of the Commonwealth. The program was structured to address very specific local concerns by working with applicants to resolve a major issue focused on the economic recovery. Projects funded in the Greater Lowell region focused on marketing the City of Lowell through social media and placemaking, the creation of business-to-business videos for those communities covered by the Middlesex 3 Coalition, and childcare assistance subsidies for low- and moderate-income residents in Westford.

The FY21 Travel and Tourism Recovery Grant was funded through the Tourism Trust Fund and dedicated to marketing projects that support the My Local MA campaign, enhance tourism recovery, and have the potential to increase non-resident visitation. The program's goal was to strengthen the Massachusetts economy through the development and enhancement of the tourism industry. The Greater Lowell Chamber of Commerce received funding through the program to build the My Local Greater Lowell map game and website, and to conduct social media advertising and develop marketing materials. The Lowell Summer Music Summers received a grant for marketing and advertising the reopening of the 31st season of the Summer Music Series. The FY22 Travel and Tourism Recovery Grant supported marketing campaigns and initiatives to increase consumer spending, support local businesses, increase tourism, and advance community recovery efforts. The Greater Lowell Chamber of Commerce received funding to expand the #Shop978 campaign, and the Lowell Festival Foundation and Lowell Summer Music Series received funding to market the Summer Music Series.³⁵

Under the **Shared Streets and Spaces Grant Program,** partially funded through the Coronavirus Relief Fund, the Massachusetts Department of Transportation's Shared Streets and Spaces program provides grants as small as \$5,000 and as large as \$300,000 for cities and towns to quickly implement or expand improvements to sidewalks, curbs, streets, on-street parking spaces, and off-street parking lots in support of public health, safe mobility, and renewed commerce in their communities. Several Greater Lowell municipalities received these grants that were used to accommodate outdoor dining at local restaurants, pedestrian access, and similar improvements.

The specific grants provided to the Greater Lowell region are outlined in Appendix B.

³⁵ https://www.mass.gov/info-details/travel-and-tourism-recovery-ttr-grant-program-grant-awardees#fy22-grant-awards-

8. IMPLEMENTATION PLAN

The Implementation Plan below includes all of the Goals and Actions identified in each chapter of the ERRP. The list of Principal Implementation Partners for each action is not exhaustive, but instead identifies organizations anticipated to be primary partners. Several of these actions will require the identification of a lead organization to coordinate and direct implementation. However, identification of a lead organization will be a first step of implementation for each action, and a lead organization has not been identified below. NCMOG will work to coordinate implementation among partners, regardless of whether or not NMCOG is identified as a Principal Implementation Partner below.

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
1. Health Care		
Health Care Goal 1.1: Maintain sufficient level of qualified health care st	aff and ensure the services are acce	essible in the region.
1.1.1 Work with Greater Lowell healthcare providers and workforce training providers to ensure training is available to increase the talent pipeline of clinical and non-clinical healthcare professionals.	Greater Lowell Health Alliance (GLHA); MassHire Greater Lowell Workforce Board (GLWB); Health care providers (HCPs)	Short Term
1.1.2 Build a rapid-response health care workforce (i.e. contact tracers, community health workers and educators).	GLHA; GLWB; Community Based Organizations (CBOs)	Medium Term
1.1.3 Provide resources to ensure public information is translated and accessible to English Language Learners and in multiple languages and that interpreters are provided to break down barriers to further access.	GLHA; HCPs; CBOs; interpreter/translation companies and certification providers	Ongoing
1.1.4 Collaborate with workforce training providers and language skills providers to ensure availability of appropriate programs for medical translators and other medical professionals.	GLWB; GLHA; HCPs; CBOs; interpreter/translation companies and certification providers	Short Term

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
1.1.5 Work with and identify resources for training providers to offer training for community-based organization staff to identify people who may be experiencing mental health issues and provide appropriate mental health support, referrals and services.	GLWB; GLHA; HCPs; CBOs	Medium Term
1.1.6 Coordinate with transit and paratransit providers in the region to ensure access to health care service for individuals without access to automobiles.	NMCOG; LRTA; GLHA; HCPs; CBOs	Short Term
Health Care Goal 1.2: Maintain adequate space for future medical needs		
1.2.1 Identify locations for emergency spillover testing and vaccination sites in case of future need, including benefits and deficiencies of the sites such as accessibility for people without automobiles. This may also include identification and evaluation of sites for distribution of supplies such as home tests, personal protective equipment such as effective face masks, or cleaning supplies as appropriate.	NMCOG; GLHA; HCPs; Municipalities	Short Term
1.2.2 Investigate, document, and strengthen strategies that address hospital bed shortages during health crises.	GLHA; HCPs	Short Term
Health Care Goal 1.3: Ensure medical services and up to date information	n about public health crisis reach al	members of the community.
1.3.1 Expand telehealth services to meet demand for remote health care including mental and behavioral health care services.	GLHA; HCPs; CBOs	Short Term
1.3.2 Increase telehealth options for people experiencing homelessness, people with lower incomes, people with limited internet access, and the English-limited population.	GLHA; HCPs; CBOs; interpreter/translation companies and certification providers	Short Term
1.3.3 Identify best practices for dissemination of vaccination and health emergency information to the region's diverse communities and strengthen the communication channels to those communities.	GLHA; HCPs; CBOs; interpreter/translation companies and certification providers	Medium Term

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
1.3.4 Investigate approaches for expanding mental and behavioral health care provision.	NMCOG; GLHA; HCPs; CBOs	Medium Term
2. Economic Development		
Business Operations		
Business Operations Goal 2.1: Increase visitors to and sales at retail and food service businesses.		
2.1.1 Develop and maintain a CEDS Committee Marketing and Tourism Working Group (MTWG) to develop and coordinate regional strategies to reach visitor and sales goals, identify lead agencies to implement those strategies, share successes, and create and share tools for businesses to measure visitors and sales.	NMCOG; Greater Lowell Chamber of Commerce (GLCC); Nashoba Valley Chamber of Commerce (NVCC); Middlesex West Chamber of Commerce (MWCC); Local Development Organizations; Municipalities	Short Term
2.1.2 Expand Shop Local programs to promote local businesses and attract visitors to the region.	NMCOG; GLCC; NVCC; MWCC; Local Development Organizations; Municipalities; MTWG	Short Term
2.1.3 Provide technical assistance and support to local organizations or municipalities to establish, develop, or sustain marketing, branding, and promotional programs.	NMCOG; GLCC; NVCC; MWCC; Business Assistance Providers; Municipalities; Local Development Organizations; MTWG	Short Term

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
2.2.1 Assist small businesses in creation of business continuity/preparedness plans that includes risk management, attraction/retention of the workforce, technology adaptation, and business planning and ensure lead agency coordinates preparedness opportunities with other regional entities and local organizations.	NMCOG; Business Assistance Providers; Local Development Providers	Short Term
2.2.2 Provide and promote up-to-date information about available resources for small businesses through municipal and regional websites.	NMCOG; Municipalities	Short Term
2.2.3 Identify resources for and connect businesses with financing options to implement façade and signage improvements and updates for accessibility, marketability, and branding.	NMCOG; Local Development Organizations; Business Assistance Providers; Municipalities	Medium Term
Business Operations Goal 2.3: Improve local government capacity and re	gulatory environment.	
2.3.1 Educate local boards and streamline local business permitting processes to more readily create new business opportunities, job availability, redevelopment, and local revenue.	NMCOG; Municipalities	Medium Term
2.3.2 Amend local zoning bylaws to provide flexible and adaptive commercial and industrial uses, including distribution facilities and delivery services, pop-up retail and "ghost" kitchens.	NMCOG; Municipalities	Medium Term
2.3.3 Identify, reuse and revitalize the growing inventory of vacant properties resulting from the pandemic. Many of these properties are well-suited for housing, commercial uses, manufacturing and cultural uses.	NMCOG; Municipalities	Medium Term
2.3.4 Amend local bylaws, rules and regulations to allow pop-up retail, art and entertainment in vacant spaces to maintain community vibrancy.	NMCOG; Municipalities	Medium Term
2.3.5 Monitor the impacts of remote work on the demand for housing, office space, transportation, and parking, and share this information regionally.	NMCOG	Ongoing

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
Workforce		
Workforce Goal 2.4: Align workforce development programs with indust 2.4.1 Continue developing, updating, and seeking funding for a regional workforce strategy through coordination with MassHire Workforce Boards in northeast Massachusetts and in partnership with stakeholders, including educational institutions, comprehensive high schools, technical schools, industry-specific associations, and unions.	NMCOG; MassHire Workforce Boards	Short Term
2.4.2 Increase paid work experiences and training opportunities in high-demand career fields to support in-school and out-of-school youth ages 16 to 24.	GLWB	Medium Term
2.4.3 Reduce barriers for workers who make a lower income by providing employees and employers with information about local and regional organizations that provide supportive services for transportation, childcare and housing.	NMCOG; GLWB; CBOs; Municipalities	Medium Term
2.4.4 Address first-mile, last-mile connections through the Regional Transportation Plan process and in collaboration with private companies and other regional partners.	NMCOG; LRTA; Middlesex 3 Coalition	Short Term
Workforce Goal 2.5: Ensure quality, affordable childcare is available thro	ughout the region.	
2.5.1 Streamline local permitting processes to support new and existing childcare providers and to remove barriers to opening additional facilities.	NMCOG; Municipalities	Medium Term
2.5.2 Ensure zoning bylaws are compliant with as-of-right childcare uses and provide reasonable regulatory reviews under MGL Chapter 40A Section 3, the Dover Amendment.	NMCOG; Municipalities	Short Term
2.5.3 Address barriers to home-based, family childcare providers operating in rental housing, including through outreach and potential incentives for landlords.	NMCOG; Municipalities; CBOs	Medium Term

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)		
2.5.4 Work with the business community to identify and promote employer best practices for supporting childcare options for employees.	NMCOG; CBOs; Local Development Organizations	Medium Term		
Public Realm, Infrastructure and Permitting				
Public Realm, Infrastructure and Permitting Goal 2.6: Ensure municipaliti	es are ready to adapt to disaster-re	elated emergencies.		
2.6.1 Amend zoning bylaws to allow flexible seating and year-round outdoor dining options, including relaxing parking and other special zoning requirements and making interior circulation improvements.	NMCOG; Municipalities	Medium Term		
2.6.2 Amend local regulations governed by Select Boards and Councils to allow streamlined permitting processes for flexible seating and year-round outdoor dining options, including coordinated permitting reviews and approvals with public works, ADA coordinator, economic development, police, inspectional services/ building, and public health departments.	NMCOG; Municipalities	Medium Term		
2.6.3 Identify and assist in accessing funding to make public realm capital improvements.	NMCOG; Municipalities	Medium Term		
2.6.4 Coordinate with arts and culture communities for improved design, coordination, and local branding/ identity.	NMCOG; Municipalities, Local Development Organizations; Business Assistance Providers	Short Term		
	Public Realm, Infrastructure and Permitting Goal 2.7: Support communities' efforts to build vibrant public spaces, cultural amenities, parks			
and recreation opportunities, and transportation solutions to connect people to these assets.				
2.7.1 Work with municipalities to design sidewalks, alleys, parking areas, and urban streets that can be adapted to accommodate dining and commerce while maintaining pedestrian circulation and ADA accessibility.	NMCOG; Municipalities	Medium Term		

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
2.7.2 Design and construct improvements to the sidewalk networks, bicycle lanes, and cross walks to support walkability and safety.	NMCOG; Municipalities	Long Term
2.7.3 Install improvements to public spaces that provide aesthetic enhancements and create locations for public gatherings.	NMCOG; Municipalities	Long Term
2.7.4 Capitalize on opportunities for joint marketing of outdoor recreation assets and area businesses.	NMCOG; GLCC; NVCC; MWCC; Local Development Organizations; Municipalities	Medium Term
2.7.5 Advocate for increased funding and assist in applying for funding for transportation improvements, including coordinated transportation and roadway improvements throughout the region.	NMCOG; Municipalities	Long Term
2.7.6 Build upon NMCOG's previous work to identify opportunities to improve public (Lowell Regional Transportation Authority and MBTA) and private (employers, medical and educational institutions) transit options, especially for students, job seekers, and workers.	NMCOG; LRTA; Middlesex 3 Coalition	Medium Term
Public Realm, Infrastructure and Permitting Goal 2.8: Ensure reliable acc	ess to broadband with reasonable a	nd adequate bandwidth for all.
2.8.1 Provide data and studies to support broadband connectivity.	NMCOG	Medium Term
2.8.2 Collaborate with local and regional entities to pursue funding opportunities and support network buildout.	NMCOG; Municipalities	Medium Term
2.8.3 Support the installation of 5G infrastructure and renovation of existing cell phone towers across the region to move technology infrastructure forward and allow for innovation.	NMCOG; Municipalities	Medium Term
2.8.4 Collaborate with local and regional organizations to support installation of wi-fi in public spaces and low-income multifamily housing.	NMCOG; Municipalities; Local Housing Organizations	Medium Term

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
2.8.5 Investigate the needs of the people who have barriers to broadband internet and support initiatives to fill those needs, allowing equitable access to essential internet services. The population facing barriers may include seniors, people with low incomes, English Language Learners, unhoused people, and other communities. Initiatives may include providing education toward computer and internet literacy, appropriate equipment such as computers or routers, financial assistance to pay for access at appropriate speeds, education and enforcement addressing security and privacy risks, or other initiatives as appropriate.	NMCOG; Municipalities; CBOs; Local Housing Organizations	Short Term
Public Realm, Infrastructure and Permitting Goal 2.9: Ensure emergency	preparedness planning is embedde	d in all future community plans.
2.9.1 Identify and review local emergency preparedness plans.	NMCOG	Medium Term
2.9.2 Review and recommend amendments to community master plans, sustainability and climate action plans, hazard mitigation plans, housing plans, economic development plans, and others as available that incorporate elements of local emergency preparedness plans.	NMCOG	Medium Term
3. Housing		
Housing Goal 3.1: Develop financial and other one-stop shop resources a	imed at developers and local gover	nment entities.
3.1.1 Identify and implement strategies to showcase best practices in creating and preserving housing choice and opportunities.	NMCOG; Local Housing Organizations	Medium Term
3.1.2 Provide zoning and other guidance to Greater Lowell municipalities to advance solutions to make it easier to build affordable homes, such as minimizing parking requirements, permitting accessory dwelling units by right, or relaxing setbacks to allow for greater lot coverage.	NMCOG	Short Term
3.1.3 Promote and support first-time homebuyer education and loan/grant programs.	NMCOG; Local Housing Organizations	Ongoing

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)			
3.1.4 Promote and support local and regional nonprofit organizations that create and preserve homes that are affordable and provide resources to people who make lower incomes to access housing opportunities.	NMCOG; Local Housing Organizations	Ongoing			
3.1.5 Promote and support funding options for the creation, preservation, and rehabilitation of housing for investors and owner-occupants.	NMCOG; Local Housing Organizations	Ongoing			
3.1.6 Promote and support the provision of resources and assistance for both people experiencing housing instability and to public and private property owners during periods of reduced rental income.	NMCOG; Local Housing Organizations	Ongoing			
Housing Goal 3.2: Help local municipalities highlight housing issues through	ousing Goal 3.2: Help local municipalities highlight housing issues through data/storytelling via planning and housing studies.				
3.2.1 Prepare Regional Fair Housing, Equity, and Production Strategy.	NMCOG	Short Term			
3.2.2 Educate the public and elected officials on local and regional housing needs and demand to encourage and advance policy change and innovation.	NMCOG; Local Housing Organizations	Ongoing			
Housing Goal 3.3: Enhance regional communication, coordination, and p housing.	roblem solving related to the afford	dability and availability of			
3.3.1 Lead and participate in regional housing discussions, including providing research, sharing best practices, and proactively seeking resolve.	NMCOG	Ongoing			
3.3.2 Maintain adequate emergency capacity for individuals and families experiencing homelessness, particularly in cases of spikes in demand, through coordination across local and regional providers and other strategies.	NMCOG; Local Housing Organizations	Ongoing			
3.3.3 Pursue funding options to help identify, reuse, and revitalize vacant properties and develop multifamily housing near employment centers and public transportation.	NMCOG; Local Housing Organizations; Municipalities	Ongoing			
Housing Goal 3.4: Support the development of multifamily housing near	employment centers and public tra	insportation.			

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
3.4.1 Amend zoning bylaws in Greater Lowell's MBTA Communities (Billerica, Chelmsford, Dracut, Lowell, Tewksbury, Tyngsborough, and Westford) to comply with MGL Chapter 40A Section 3A.	NMCOG; Municipalities	Short Term
3.4.2 Ensure development opportunities are realized by connecting municipalities with developers and builders to move forward with as-of-right multifamily development.	NMCOG; Local Housing Organizations; Municipalities	Ongoing
3.4.3 Pursue funding and other options to ensure development opportunities are realized by connecting municipalities, developers, or builders with state and other funding resources.	NMCOG; Local Housing Organizations; Municipalities	Ongoing
3.4.4 Raise awareness of new housing opportunities for lower-income people as they become available.	NMCOG; Local Housing Organizations; Municipalities	Ongoing
4. Food Security		
Food Security Goal 4.1: Ensure community members requiring assistance	have access to food resources and	assistance.
4.1.1 Support contingency planning by and coordination of emergency food organizations, councils on aging, faith-based organizations, and other providers to prepare for and handle spikes in demand for groceries, meals and food delivery.	NMCOG; CBOs	Short Term
4.1.2 Identify and disseminate best practices for complying with pandemic requirements at emergency food locations such as grab-andgo food pickup, food delivery, and reorganizing spaces for social distancing.	NMCOG; CBOs	Medium Term
4.1.3 Identify a single community-based or regional organization to lead the dissemination of information about locations and hours of operation of emergency food providers and places where WIC, SNAP and HIP are accepted. Information should be up to date, available in multiple languages and in multiple media formats including online and flyers for distribution or posting in targeted locations.	CBOs	Short Term

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
4.1.4 Seek funding to increase the communications capacity of organizations engaged in emergency food, including trainings on the use of remote technologies for improved dissemination of information and food resources.	NMCOG; CBOs	Short Term
Food Security Goal 4.2: Expand resources and programs available to add	ress basic costs for individuals and	families who make lower-
4.2.1 Expand food security programs and subsidies by working with the private and non-profit sectors.	NMCOG; CBOs	Short Term
4.2.2 Work with partners to increase the number of places where Supplemental Nutrition Assistance Program (SNAP) and the Healthy Incentives Program (HIP) are accepted, particularly at small businesses, farmers markets, and farm stands.	NMCOG; CBOs; Business Assistance Providers	Short Term
4.2.3 Work with municipalities and community-based organizations to provide outreach and administrative assistance to small businesses, farmers market vendors and farm stands to complete the application process and utilize technology required for accepting these programs. Develop a plan to prioritize assistance where it would be most beneficial.	NMCOG; CBOs; Business Assistance Providers	Medium Term
Food Security Goal 4.3: Sustain or expand local food production to support	ort access to fresh produce and mit	igate supply chain issues.
4.3.1 Increase space available for urban agriculture and community gardens.	CBOs; Municipalities	Ongoing
4.3.2 Amend local zoning bylaws to ensure options for local agricultural uses and community gardens.	NMCOG; Municipalities	Medium Term
4.3.3 Ensure food safety and public health of local agricultural uses and community gardens through soil and environmental testing and community education.	CBOs; Municipalities	Ongoing

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)			
4.3.4 Support funding for programs assisting new farmers to purchase or lease land, access greenhouse space and equipment, and receive skills training.	NMCOG; CBOs	Ongoing			
4.3.5 Plan for climate change and its impacts on the future of sustainable food and agriculture.	NMCOG; CBOs; Municipalities	Medium Term			
4.3.6 Investigate feasibility of programs to match young people and newcomers interested in agriculture with opportunities to work at, lease, or purchase small-scale farms or other food enterprises.	NMCOG; CBOs	Medium Term			
Food Security Goal 4.4: Promote support of local agriculture and community farms and agricultural resources.					
4.4.1 Expand Shop Local programs such as the #Shop978 campaign and amplify the marketing of venues that sell local foods.	NMCOG; GLCC; NVCC; MWCC; Local Development Organizations	Ongoing			
4.4.2 Identify locations and support funding for regional food hubs and food aggregators that can sell local produce regularly and provide a wholesale link between local farms, local businesses and institutional buyers.	NMCOG; CBOs, Municipalities	Medium Term			
4.4.3 Study the feasibility of a digital marketplace platform to connect local food buyers (grocers, restaurants, and institutions) to local farmers or a food hub/food aggregator.	NMCOG; CBOs; Local Development Organizations	Medium Term			
4.4.4 Investigate and disseminate best practices for establishing and maintaining and ensuring access to farmers markets. Address marketing, prime days and hours while avoiding competition with neighboring farmers markets, parking, and vendor access.	NMCOG; CBOs; Local Development Organizations; Business Assistance Providers	Medium Term			
Food Security Goal 4.5: Provide emergency food assistance that is culture waste.	ally-appropriate in order to maximi	ze utilization and minimize			

Recommended Actions	Principal Implementation Partners	Timeline (Short Term = 0 to 12 months; Medium Term = 12 to 36 months; Long Term = 36 or more months)
4.5.1 Perform outreach to emergency food providers to identify culturally appropriate foods for their clients and to inform their clients about preparation of unfamiliar ingredients.	CBOs	Short Term

Appendix A: Survey Results

COVID-19 Impact on Health Care in the Greater Lowell Area Survey Final Results, 4-15-21

Q1. Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization.

Answer Choices	R	Responses
High (significant impact)	4	57.1%
Moderate (minor disruptions)	2	28.6%
Low (little or no impact)	1	14.3%
Answered	7	
Skipped	0	

Q2. Please estimate the level of impact COVID-19 is anticipated to have on the programs, services, or general operations of your organization in the next 3 months.

Answer Choices	R	Responses
High (significant impact)	3	42.9%
Moderate (minor disruptions)	3	42.9%
Low (little or no impact)	1	14.3%
Answered	7	
Skipped	0	

Q3. Which of the following impacts has your organization experienced or do you anticipate experiencing? Select all that apply.

experiencing: Select all that apply.		
Answer Choices	R	Responses
Cancellation of programs or events	7	100.0%
Disruption of services to patients, clients and communities	6	85.7%
Disruption of supplies or services provided by partners	1	14.3%
Increased and sustained staff and volunteer absences	2	28.6%
Increased demand for services/support from patients, clients and communities	1	14.3%
Budgetary implications related to strains on the economy	5	71.4%
Reductions in patients/clients postponing treatment for non-COVID health issues	3	42.9%
Other (please specify)	1	14.3%
Answered	7	
Skipped	0	
Q3: Other		
limited all but emergency admissions to facility		

Q4. What resources and information are needed? Select all that apply.		
Answer Choices	Res	ponses
Additional funding	5	71.4%
Release from restrictions on current restricted funds	1	14.3%
Information on available resources	1	14.3%
Cleaning supplies/infection control equipment	0	0.0%
Release of funds now that were scheduled for later	0	0.0%
Personal protective equipment	0	0.0%
Food	0	0.0%
Technology (hardware and software) to support remote work and service provision for both employees and clients	1	14.3%
Relaxation of standards for delivery of remote services, including telehealth	2	28.6%
Clarity on & streamlining of billing practices for telehealth services with both Medicaid and private insurers	1	14.3%
Centralized information on other local services and support to enable effective client referrals	0	0.0%
Additional testing capacity/more laboratory services for processing tests	1	14.3%
Better access to isolation and quarantine facilities	1	14.3%
Respirators and other specialized equipment	0	0.0%
Additional staff (nurses, respiratory therapists, etc.)	4	57.1%
Additional field hospital capacity for surge	0	0.0%
Assistance with contact tracing	1	14.3%
Other (please specify)	1	14.3%
Answered	7	
Skipped	0	
Q4: Other		
Permanent staff for the facility		

Q5. What training is needed? Select all that apply.		
Answer Choices	Res	ponses
General fundraising	0	0.0%
Effective electronic communications with patients, including social media training such as		
Facebook, Twitter, and Instagram	1	50.0%
Keeping donors engaged virtually	1	50.0%
Hosting virtual fundraisers	0	0.0%
Remote and virtual service delivery	1	50.0%
Compliance issues for remote service provision, including HIPAA	0	0.0%
Serving populations without broadband	1	50.0%
Working remotely	1	50.0%
Managing staff remotely	1	50.0%
Available technical tools and how to choose the right ones	2	100.0%
Managing remote teams	0	0.0%
Unemployment Insurance options for nonprofits that self-insure	0	0.0%
Handling layoffs and furloughs	0	0.0%
Other (please specify)	0	0.0%
Answered	2	
Skipped	5	

Q6. As the spread of COVID-19 intensifies, what are your immediate concerns for carrying out your mission/caring for the people you serve? Select all that apply.		
Answer Choices	Res	ponses
Capacity to orchestrate day-to-day operations without compromising the health of staff,		
board members, volunteers, and patients	2	28.6%
Capacity to administer COVID vaccines	4	57.1%
Effective communication strategy to overcome patients' reluctance to receive the vaccine	1	14.3%
Provision of technical resources and support for workers who primarily provide in-person		
services or programming	0	0.0%
Dealing with disruptions in service provision, especially adequate housing, food, healthcare,		
and mental health services	1	14.3%
Financial sustainability for staff and their families	0	0.0%
Other (please specify)	1	14.3%
Answered	7	
Skipped	0	
Q6: Other		
access to vaccine administration to new employees of nursing home and any new admissions		

COVID-19 Impact on Economic Development in the Greater Lowell Area Final Results, 4/15/21

Q1. Where is your business located? Select all that apply.			
Answer Choices		Responses	
Billerica	1	3.5%	
Chelmsford	3	10.3%	
Dracut	1	3.5%	
Dunstable	0	0.0%	
Lowell	9	31.0%	
Pepperell	12	41.4%	
Tewksbury	2	6.9%	
Tyngsborough	1	3.5%	
Westford	8	27.6%	
Other (please specify)	2	6.9%	
Answered	29		
Skipped	0		
Q1: Other			
Devens			
Methuen Lawrence Acton Fitchhurg Leominster Andov	ver N Andover and I	evington Also in	

Methuen, Lawrence, Acton, Fitchburg, Leominster, Andover, N Andover and Lexington. Also in Nashua, Pelham, Salem, Windham, Hudson and Derry, NH

Q2. Which of the following best describes the principal industry of your business?		
Answer Choices	Res	ponses
Retail (non-food related)	1	3.5%
Accommodations (hotel, motel, short-term rental)	0	0.0%
Restaurants, Catering, and Food/Beverage Service	1	3.5%
Professional, Scientific and Technical Services (including architects, engineers and		
life sciences)	3	10.3%
Arts, Entertainment and Culture	0	0.0%
Finance, Insurance and Real Estate	4	13.8%
Manufacturing	2	6.9%
Other Services (including auto repair, beauty salons and funeral homes)	0	0.0%
Recreation (including fitness)	2	6.9%
Educational Services	1	3.5%
Government, Social Assistance and Non-Profits	4	13.8%
Construction (including plumbing and heating)	2	6.9%
Other (please specify)	9	31.0%
Answered	29	
Skipped	0	
Q2: Other		
Canteen/Bar VFW Post 3291		
Land clearing and stump grinding		
Daycare		
Non profit - affordable housing		
Corporate Event and Meetings		
Restaurant, Hotel, Retail, office, car wash, conference center, R&D		
Residential Real Estate		
Graphic Design, Web Design, Animation		
Marketing/Writing services		

Q3. How many employees does your business have?			
Answer Choices	Responses		
1 – 4 employees	12	41.4%	
5 – 9 employees	2	6.9%	
10 – 49 employees	8	27.6%	
50 – 200 employees	2	6.9%	
201+ employees	5	17.2%	
Prefer Not to Answer	0	0.0%	
Answered	29		
Skipped	0		

Q4. How long has your business been Massachusetts?			
Answer Choices	Responses		
0 - 2 years	3	10.7%	
3 – 5 years	1	3.6%	
6 – 10 years	3	10.7%	
11 – 20 years	1	3.6%	
20+ years	20	71.4%	
Answered	28		
Skipped	1		

Q5. What services or assistance would be helpful to your business in the next 6 months? Select
all that apply.

Answer Choices	Res	ponses
Loans or assistance in applying for loans	8	30.8%
Assistance with applying for Federal assistance programs	8	30.8%
Assistance with applying for state or local assistance programs	7	26.9%
Information on outdoor dining regulations	0	0.0%
Permitting/zoning/local ordinance assistance	2	7.7%
Information on participating in a business association or business improvement district	3	11.5%
Communications/Marketing/Social Media	7	26.9%
Setting up or expanding online sales	0	0.0%
Peer Support/Networking	7	26.9%
Business Continuity Planning	2	7.7%
Legal assistance	2	7.7%
Business Counseling/Technical Assistance	2	7.7%
Health and Safety Supplies and Training	0	0.0%
Tax Relief or Deferral	6	23.1%
Assistance with converting sidewalks and parking areas for outdoor dining, outdoor vending, or curbside pickup/takeout	2	7.7%
Technical assistance with adapting to winter	1	3.9%
Translation/language assistance	1	3.9%
Other (please specify)	7	26.9%
Answered	26	
Skipped	3	

Q5: Other

Grants

provide affordable homeownership and critical home repairs to lower income families

Lift the over reaching restrictions that don't have anything to do with peoples health. Have the government actual tell everyone we are open and get back to work. Open schools and stop extra unemployment perks.

More housing and affordable housing.

Since we were only open for six weeks in 2019, we do not qualify for any additional PPP.

N/a

Access to vaccines for all employees that want to be vaccinated.

Q6. Prior to the COVID-19 outbreak, which best describes your workplace?		
Answer Choices	R	esponses
Brick and Mortar	16	55.2%
Home Office	6	20.7%
Online/E-Commerce	0	0.0%
Mobile (such as at job sites or events)	1	3.5%
Shared Office Space	1	3.5%
Other (please specify)	5	17.2%
Answered	29	
Skipped	0	
Q6: Other		
office building		
Both office and off-site - residential real estate		
Office Space / Studio		
Sales/delivery		
in Town Hall Office		

Select all that apply. Answer Choices	Doo	noncoc
	14	ponses 48.3%
Decline in customers/clients		
Decline in sales	9	31.0%
Increase in sales or customers	9	31.0%
Closed temporarily	5	17.2%
Closed permanently	1	3.5%
Reduced hours of operation	5	17.2%
Increased costs for cleaning/safety supplies/PPE	13	44.8%
Canceled or postponed events/reservations	17	58.6%
Supplier delays	6	20.7%
Increased use of social media	12	41.4%
Moved operations entirely online	4	13.8%
To active and a stroller date or a state of the late of the state of t		6.00/
Transitioned entirely to delivery or takeout (including temporarily)	2	6.9%
Change in types of products or services offered	6	20.7%
Need to hire more employees	4	13.8%
Need to reduce employees (temporarily or permanently)	4	13.8%
Staff/employees have either contracted COVID or have been exposed and needed to quarantine	8	27.6%
Other (please specify)	4	13.8%
Answered	29	10.070
Skipped	0	
Q7: Other		l.
Closed Since March 2020		
Switched to a primarily remote workforce		
Low housing inventory is creating a real dilemna for buyers.		

Q8. If your business is temporarily closed, when do you anticipate reopening?			
Answer Choices	Answer Choices Responses		
Not currently closed	21	91.3%	
Not sure	0	0.0%	
0-2 months	1	4.4%	
2-6 months	1	4.4%	
6 or more months	0	0.0%	
Answered	23		
Skipped	6		

Q9. If your employees were laid off or furloughed, do you anticipate recalling them in the next 6 months?			
Answer Choices	R	esponses	
Yes	3	11.1%	
No	2	7.4%	
No employees currently furloughed	22	81.5%	
Answered	27		
Skipped	2		

Q10. In the last 3 months, did this business have a change in the number of paid employees?		
Answer Choices	Responses	
Yes, increased	5	17.9%
Yes, decreased	3	10.7%
No change	20	71.4%
Answered	28	
Skipped	1	

Q11. In the last 3 months, did this business have a change in the total number of hours worked by paid employees?			
Answer Choices Responses			
Yes, increased	3	10.7%	
Yes, decreased	2	7.1%	
No change	23	82.1%	
Answered	28		
Skipped	1		

Q12. In the last 3 months, was this business's operating capacity affected by any of the following? Note: Operating capacity is the maximum amount of activity this business could conduct under realistic operating conditions. Select all that apply:

Answer Choices	Res	ponses
Availability of employees to work	6	20.7%
Physical distancing of employees	4	13.8%
Physical distancing of customers or clients and/or limits on the number of concurrent customers or clients allowed under the state or local rollback		
requirements	15	51.7%
Availability of Personal Protective Equipment (PPE) and/or related equipment or		
supplies	1	3.5%
Availability of other supplies or inputs used to provide good or services	7	24.1%
None of the above	9	31.0%
Answered	29	
Skipped	0	

Q13. How would you describe this business's current operating capacity relative to one year ago? Note: Operating capacity is the maximum amount of activity this business could conduct under realistic operating conditions.

Answer Choices	Responses	
Operating capacity has increased 50% or more	0	0.0%
Operating capacity has increased less than 50%	6	21.4%
No change in operating capacity	10	35.7%
Operating capacity has decreased less than 50%	6	21.4%
Operating capacity has decreased 50% or more	6	21.4%
Answered	28	
Skipped	1	

Q14. How would you describe the current availability of cash on hand for this business, including any financial assistance or loans? Currently, cash on hand will cover:

Answer Choices	Responses	
1-7 days of business operations	3	10.3%
1-2 weeks of business operations	1	3.5%
3-4 weeks of business operations	1	3.5%
1-2 months of business operations	4	13.8%
3 or more months of business operations	9	31.0%
No cash available for business operations	1	3.5%
Don't know	10	34.5%
Answered	29	
Skipped	0	

Q15. Since February 2020, has this business missed any loan payments or other scheduled payments? Examples of other scheduled payments include rent, utilities, and payroll. Payments that have been forgiven or postponed should not be considered to be missed.

Answer Choices		Responses
Yes	1	3.6%
No	27	96.4%
Answered	28	
Skipped	1	

Q16. Since February 2020, has this business requested financial assistance from any of the following sources? Select all that apply:

Answer Choices	Re	Responses	
Paycheck Protection Program (PPP)	13	92.9%	
Economic Injury Disaster Loans (EIDL)	5	35.7%	
Small Business Administration (SBA) Loan Forgiveness	4	28.6%	
SBA Economic Injury Disaster Loan	1	7.1%	
Main Street Lending Program	1	7.1%	
Answered	14		
Skipped	15		

Q17. Since February 2020, has this business received financial assistance from any of these programs from the Federal government? Select all that apply:

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Answer Choices	R	Responses	
Paycheck Protection Program (PPP)	12	92.3%	
Economic Injury Disaster Loans (EIDL)	4	30.8%	
SBA Loan Forgiveness	2	15.4%	
SBA Economic Injury Disaster Loan	0	0.0%	
Main Street Lending Program	1	7.7%	
Answered	13		
Skipped	16		

Q18. In the next 6 months, do you think this business will need to do any of the following? Select all that apply:

Answer Choices	Res	ponses
Obtain financial assistance or additional capital	10	34.5%
Identify new supply chain options	1	3.5%
Develop online sales or websites	2	6.9%
Increase marketing or sales	11	37.9%
Learn how to better provide for the safety of customers and employees	5	17.2%
Identify and hire new employees	8	27.6%
Permanently close this business	1	3.5%
None of the above	7	24.1%
Answered	29	
Skipped	0	

Q19. In your opinion, how much time do you think will pass before this business returns to its normal level of operations relative to one year ago?

normal level of operations relative to one year ago?		
Answer Choices	Res	ponses
1 month or less	0	0.0%
2-3 months	1	3.5%
4-6 months	7	24.1%
More than 6 months	12	41.4%
I do not believe this business will return to its normal level of operations.	2	6.9%
This business has permanently closed.	0	0.0%
There has been little or no effect on this business's normal level of operations.	4	13.8%
This business has returned to its normal level of operations.	3	10.3%
Answered	29	
Skipped	0	

COVID-19 Impact on Housing in the Greater Lowell Area Survey Final Results, 4/15/21

Q1. Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization.

Answer Choices
Responses
High (significant impact)
9 45.0%
Moderate (minor disruptions)
8 40.0%

High (significant impact)	9	45.0%
Moderate (minor disruptions)	8	40.0%
Low (little or no impact)	3	15.0%
Answered	20	
Skipped	0	

Q2. Please estimate the level of impact COVID-19 is anticipated to have on the programs, services, or general operations of your organization in the next 3 months. **Answer Choices** Responses High (significant impact) 8 40.0% 7 Moderate (minor disruptions) 35.0% Low (little or no impact) 5 25.0% Answered 20 Skipped 0

Q3. Which of the following impacts has your organization experienced or do you
anticipate experiencing? Select all that apply.

Answer Choices	Responses	
Cancellation of programs or events	13	65.0%
Disruption of services to clients and communities	12	60.0%
Disruption of supplies or services provided by partners	7	35.0%
Increased and sustained staff and volunteer absences	7	35.0%
Increased demand for services/support from clients and		
communities	9	45.0%
Budgetary implications related to strains on the economy,		
declining grant and foundation funding opportunities	8	40.0%
Other (please specify)	4	20.0%
Answered	20	
Skipped	0	

Q3: Other

The Dracut Housing Authority has not been tremendously impacted by Covid.

Changes in meeting venues. (Zoom)

some impact on collections due to tenant workouts or inability to evict.

Transition from in-person to virtual programs, particularly classes.

Q4. What resources and information are needed? Select all that apply.		
Answer Choices	Responses	
Additional funding	9	50.0%
Release from restrictions on current restricted funds	6	33.3%
Information on available resources	9	50.0%
Cleaning supplies	4	22.2%
Release of funds now that were scheduled for later	2	11.1%
Personal protective equipment	4	22.2%
Food	3	16.7%
Additional support from the federal and state governments in the		
form of increased housing subsidies and programs that address		
rental and foreclosure prevention	11	61.1%
Legal assistance for tenants facing eviction and for homeowners		
facing foreclosure	5	27.8%
Additional temporary emergency housing for recently evicted and		
foreclosed upon residents	5	27.8%
More emergency housing resources for homeless individuals and		
families	9	50.0%
Technology (hardware and software) to support remote work and		
service provision for both employees and clients	9	50.0%
Centralized information on other local services and support to		
enable effective client referrals	11	61.1%
Other (please specify)	1	5.6%
Answered	18	
Skipped	2	
Q4: Other		
Better technology and resources for professional licensing acquisition	n and rer	newal.

Q5. What training is needed? Select all that apply.		
Answer Choices	Responses	
General fundraising	2	11.1%
Keeping donors engaged virtually	3	16.7%
Hosting virtual fundraisers	5	27.8%
Remote and virtual service delivery	6	33.3%
Serving populations without broadband	9	50.0%
Working remotely	8	44.4%
Managing staff remotely	8	44.4%
Available technical tools and how to choose the right ones	10	55.6%
Managing remote teams	3	16.7%
Unemployment Insurance options for nonprofits that self-insure	3	16.7%
Handling layoffs and furloughs	2	11.1%
Techniques for identifying and communicating with clients in need during the pandemic	11	61.1%
Other (please specify)	2	11.1%
Answered	18	
Skipped	2	
Q5: Other		
The impact on residents has been minimal.		
Resources on how to interview and hire while working remotely for temporarily remote		

Q6. As the spread of COVID-19 intensifies, what are your immediate concerns for carrying out your mission/caring for the people you serve? Select all that apply.		
Answer Choices	Responses	
Capacity to orchestrate day-to-day operations without		
compromising the health of staff, board members, volunteers, and		
clients	15	83.3%
Provision of technical resources and support for workers who		
primarily provide in-person services or programming	9	50.0%
Dealing with disruptions in service provision, especially adequate		
housing, food, healthcare, and mental health services	12	66.7%
Financial sustainability for staff and their families	6	33.3%
Other (please specify)	0	0.0%
Answered	18	
Skipped	2	

positions.

COVID-19 Impact on Food Security in the Greater Lowell Area Survey Final Results, 4/15/21

Q1. Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization.

Answer Choices	Responses	
High (significant impact)	11	68.8%
Moderate (minor disruptions)	4	25.0%
Low (little or no impact)	1	6.3%
Answered	16	
Skipped	0	

Q2. Please estimate the level of impact COVID-19 is anticipated to have on the programs, services, or general operations of your organization in the next 3 months.

Answer Choices	Responses	
High (significant impact)	9	56.3%
Moderate (minor disruptions)	6	37.5%
Low (little or no impact)	1	6.3%
Answered	16	
Skipped	0	

Q3. Which of the following impacts has your organization experienced or do you anticipate experiencing? Select all that apply.

Answer Choices	Responses	
Cancellation of programs or events	5	31.3%
Disruption of services to clients and communities	6	37.5%
Disruption of supplies or services provided by partners	5	31.3%
Increased and sustained staff and volunteer absences	8	50.0%
Increased demand for services/support from clients and communities	11	68.8%
Budgetary implications related to strains on the economy	5	31.3%
Other (please specify)	3	18.8%
Answered	16	
Skipped	0	

Q3: Other

we have established COVID protocols for our customers

Stress management and doubled programming expectations as Pre-COVID programming comes back online and COVID-specific programming continues.

we are a vaccine site and other activities are suspended while we focus on this greatest need.

Q4. What resources and information are needed? Select all that apply.		
Answer Choices	Responses	
Additional funding	6	37.5%
Release from restrictions on current restricted funds	1	6.3%
Information on available resources	4	25.0%
Cleaning supplies	2	12.5%
Release of funds now that were scheduled for later	2	12.5%
Personal protective equipment	3	18.8%
Increased food donations	5	31.3%
Additional volunteers	2	12.5%
Assistance with food distribution at additional locations	5	31.3%
Assistance with home food delivery for vulnerable seniors, disabled clients, clients homebound due to childcare needs, and clients who are in quarantine Assistance in directing those in need to additional resources such as SNAP, WIC	6	37.5%
or the Commodity Supplemental Food Program (CSFP)	6	37.5%
Establishment or increase school-based pantries and meal sites	0	0.0%
Technology (hardware and software) to support remote work and service provision for both employees and clients	7	43.8%
Centralized information on other local services and support to enable effective		
client referrals	2	12.5%
Other (please specify)	4	25.0%
Answered	16	
Skipped	0	

Q4: Other

Some people need delivery for lack of ability to come or because of fear.

The support we have received have been very generous. We just need everyone vaccinated so our volunteers with issues can return. We could use a new office computer since it doesn't support video meetings but we have been able to make do with personal equipment.

Pathways for vaccine referrals through places of worship, and within language communities other than English

People were very generous during 2020, but food insecurity has been a long term issue and I am concerned that this generosity needs to continue. This also includes funding of the food banks that support us, in particular through MEFAP funding.

Q5. What training is needed? Select all that apply.		
Answer Choices	Responses	
General fundraising	4	28.6%
Keeping donors engaged virtually	3	21.4%
Techniques for recruiting volunteers	3	21.4%
Hosting virtual fundraisers	6	42.9%
Serving populations without broadband, without technical skills, and/or non-		
English speaking clients	6	42.9%
Working remotely	0	0.0%
Techniques to identifying and reaching out to those in need	7	50.0%
Managing staff remotely	0	0.0%
Available technical tools and how to choose the right ones	2	14.3%
Managing remote teams	1	7.1%
Unemployment Insurance options for nonprofits that self-insure	1	7.1%
Handling layoffs and furloughs	0	0.0%
Other (please specify)	3	21.4%
Answered	14	
Skipped	2	

Q5: Other

Diversity, Equity and Inclusion training that is trauma-informed to do outreach to disproportionately BIPOC communities affected by the pandemic. How to get a vaccine for my staff.

none - we have been able to retool processes and procedures to accommodate the changing requirements.

one on one phone support for seniors using technology. We will fund and lend it.

Q6. As the spread of COVID-19 intensifies, what are your immediate concerns for carrying out your mission/caring for the people you serve? Select all that apply.

Answer Choices	Res	ponses
Capacity to orchestrate day-to-day operations without compromising the health of staff, board members, volunteers, and clients	9	64.3%
Provision of technical resources and support for workers who primarily provide in-		
person services or programming	4	28.6%
Dealing with disruptions in service provision, especially due to inadequate food		
supplies that keep pace with increasing demand	4	28.6%
Lack of volunteers	6	42.9%
Financial sustainability for staff and their families	5	35.7%
Other (please specify)	4	28.6%
Answered	14	
Skipped	2	

Q6: Other

Because of the school at the beginning the food was packed and put in car so the kids were not exposed.

It's much easier now.

Getting my essential workers vaccinated before they're asked to do even higher risk activities, such as in-person school activities.

adapting our space for newly increased staff and traffic with social distancing as we host clinics.

VACCINATING Food Bank, Meals and Food Pantry provider staff and volunteers ASAP. They have been working in person since the pandemic began, and are at most risk of exposure and infection, along with grocery store and food service workers. We are delivering life saving food to COVID positive families, and although we are taking steps to avoid contact, are risking our health and safety, our co-workers' and families' This should be a priority group to be vaccinated NOW.

Q7. What lessons or strategies has your operation adopted due to COVID that you think you should continue to utilize in the future? For example, HR related practices such as remote work; delivery of services to community members (i.e. online interface, door-to-door delivery); or prioritization of community needs, etc. What resources, infrastructure, partnerships or other support would your organization need to make these temporary adjustments more permanent?

Basically, we have devised strategies to keep staff and food recipients safe, new strategy for distribution. We will need more funding for food purchases, more food donations, Food or gift cards for food recipients, etc.

Keep doing takeout service till cdc says we can open doors up for indoor seating for the homeless and less fortunate

We have pivoted to serve our clients on a grab n go basis.

Our organizations adaptability to changing our system of handing out food.

Establishing an improved form of communication

We are now part of a town wide group so as to broaden our reach especially those without technology

Full remote capabilities, adaptive schedules, collaborative administrative management, online store, home deliveries, Auto-SNAP CSA model, School Food Pantry and Grab & Go support, School Garden CSA program, deeper reliance on community partnerships.

We have adopted an outside and contact-free drive-thru distribution process. This process will continue until our Directors agree that they feel safe having clients back in our facility for distributions.

We have pivoted to virtual office for all staff, although our offices are open to staff and accessible. While we are providing in-person services to consumers as needed and continuing our daily homedelivered and grab and go meal services, we also provide supports and services by telephone or through virtual platforms (Teams, ZOOM). Although this was an adjustment and our preference is for in-person programming, we have been able to connect with our consumers more frequently via phone or online and will continue to offer virtual programming post-pandemic, including medicare counseling; support groups; trainings, workshops and conferences, etc. We anticipate doing a combination of virtual and in-person work.

We have learned to use Zoom so we can continue planning meetings via Zoom. We have contracted for an extra phone to manage client contact from the parking lot and will use it to restrict the flow of clients into the building when we reopen. The phone is cheap and has static noise but we hope not to need it when this is over [whenever that is]

Home delivery, consultation meetings via Zoom

Increased use of google drive to coordinate across organizations and remote work teams. Higher priority to food and housing security issues, less to recreation given health priorities during pandemic. It will be hard to scale back on these social service time investments, even as we now need to reopen for recreation and fitness.

We at the Merrimack Valley Food Bank began a pilot in 2019 for Pre-picking orders for around 15 member food pantries and meal programs. In March 2020 all member agencies that continued food distribution were switched to this method, and we just implemented an on line ordering system, which will remain as we planned to take place in 2-5 years.

The work that is currently done remotely will continue. Some changes in how we do deliveries that were made for safety for safety will remain. Before covid, there were capacity concerns lurking, and they will again.

FYI, there is a food assessment underway for Lowell by Mill City Grows.

Appendix B: Resources Invested in the Region

Overview

Resources invested in the region are listed by community and organized below in four sections:

- A. Business Assistance,
- B. Municipal Assistance,
- C. Regional Assistance, and
- D. Other Statewide or Federal Resources Available.

Additional State or Federal resources may have been invested in the region but have not been identified as of the date of this publication.

A. Business Assistance

Billerica

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 4

Amount: \$1,559,653 (average grant was \$389,913)

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business and no more than \$5 million per physical location.

Chelmsford

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 5

Amount: \$1,112,573 (average grant was \$222,514)

Date: July 2021

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business and no more than \$5 million per physical location.

Dracut

Massachusetts Food Security Infrastructure Grant**

Number of Recipients: 2

Amount: \$333,381

Details: The goal of the Food Security Infrastructure Grant Program is to ensure that individuals and families throughout the Commonwealth have equitable access to food, especially local food. The program also seeks to ensure that farmers, fishermen, and other local food producers are better connected to a strong, resilient food system to help mitigate future food supply and distribution disruption.

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 10

Amount: \$2,529,048 (average grant was \$252,905)

Date: July 2021

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business, and no more than \$5 million per physical location.

Lowell

Massachusetts Food Security Infrastructure Grant**

Number of Recipients: 4 Amount: \$362,566 total

Details: The goal of the Food Security Infrastructure Grant Program is to ensure that individuals and families throughout the Commonwealth have equitable access to food, especially local food. The program also seeks to ensure that farmers, fishermen, and other local food producers are better connected to a strong, resilient food system to help mitigate future food supply and distribution disruption.

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 29

Amount: \$3,581,490 (average grant was \$123,499)

Date: July 2021

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business and no more than \$5 million per physical location.

Pepperell

Massachusetts Food Security Infrastructure Grant**

Number of Recipients: 1

Amount: \$5,000

Details: The goal of the Food Security Infrastructure Grant Program is to ensure that individuals and families throughout the Commonwealth have equitable access to food, especially local food. The program also seeks to ensure that farmers, fishermen, and other local food producers are better connected to a strong, resilient food system to help mitigate future food supply and distribution disruption.

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 2

Amount: \$264,678 (average grant was \$132,339)

Date: July 2021

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business and no more than \$5 million per physical location.

Tewksbury

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 9

Amount: \$3,651,551 (average grant was \$405,728)

Date: July 2021

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business and no more than \$5 million per physical location.

Tyngsborough

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 6

Amount: \$1,713,487 (average grant was \$285,581)

Date: July 2021

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business and no more than \$5 million per physical location.

Westford

Small Business Association (SBA) Restaurant Revitalization Fund*

Number of Recipients: 5

Amount: \$946,484 (average grant was \$189,297)

Date: July 2021

Details: The program provides restaurants with funding equal to their pandemic-related revenue

loss up to \$10 million per business and no more than \$5 million per physical location.

B. Municipal Assistance

Billerica

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***

Amount: \$12,962,693

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP) ***

Total Eligible Amount: \$ 3,860,335

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

MassDOT Shared Streets and Spaces Program***

Amount and Date: \$7,000 (July 2020), \$20,000 (September 2020) and \$79,600 (December 2020) Details: The Shared Streets and Spaces Program provides technical and funding assistance to help municipalities design and implement changes to streets, sidewalks, and parking areas in support of public health, safe mobility, and renewed commerce. In July 2020, Billerica received \$7,000 to purchase four large tents for outdoor dining. The tents will be placed in parking lots

and on sidewalks and will be loaned by the Town to local restaurants. The tents will help to separate the public space from dining space and will protect customers from inclement weather. Over the long term, the tents will be used by the Billerica Library, Council on Aging, and local schools. In September 2020, Billerica received \$20,000 to upgrade signage and crosswalks around all eight schools in Billerica, including elementary, middle and high schools. The grant will fund the purchase of supplies such as signs, posts, and paint. In December 2020, Billerica received \$79,600 to improve pedestrian safety through the installation of solar-powered pedestrian safety beacons in locations that have been chosen due to their proximity to transportation access points, retail/outdoor dining, elder/disabled housing, and public recreational facilities.

Chelmsford

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***

Amount: \$10,578,612

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP) ***

Total Eligible Amount: \$3,113,466

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

Dracut

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***

Amount: \$9.455.619

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP)***

Total Eligible Amount: \$2,799,060

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

Local Rapid Recovery Planning Program⁺
 Details: The Department of Housing and Community Development (DHCD) provided plan
 facilitators and subject matter experts to communities to develop "actionable, project-based
 recovery plans tailored to the unique economic challenges and COVID-19 related impacts to
 downtowns".

MassDOT Shared Streets and Spaces Program***

Amount: \$316,000

Date: December 2020 (\$290,000), August 2022 (\$26,000)

Details: The Shared Streets and Spaces Program provides technical and funding assistance to help municipalities design and implement changes to streets, sidewalks, and parking areas in support of public health, safe mobility, and renewed commerce. In December 2020, Dracut received \$290,000 to install new six-foot-wide sidewalks, to include ADA-compliant ramps and asphalt sidewalks, for general pedestrian safety, and to provide safer walking conditions to a local school. In August 2022, Dracut received \$26,000 for pedestrian-activated warning devices and crossing signals.

Dunstable

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***

Amount: \$1,017,180

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP)***

Total Eligible Amount: \$300,123

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

Lowell

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***

Amount: \$76,009,996

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Emergency Solutions Grant (ESG) COVID (CARES) Act Funding***

Amount: \$3,243,252

Details: The Emergency Solutions Grant assists homeless households and households at risk of homelessness by supporting the services necessary to help them quickly regain stable housing

after experiencing a housing crisis. Massachusetts and eligible municipalities received additional ESG funding to support homelessness services in response to the COVID-19 pandemic.

Community Development Block Grant (CDBG) COVID (CARES) Act Funding***

Amount: \$2,557,039

Details: Federal CARES Act funds provided multiple COVID-19 related CDBG grants to the City of Lowell and its local non-profit partners to address the impact of the pandemic on its residents.

Local Rapid Recovery Planning Program⁺

Details: The Department of Housing and Community Development (DHCD) provided plan facilitators and subject matter experts to communities to develop "actionable, project-based recovery plans tailored to the unique economic challenges and COVID-19 related impacts to downtowns".

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP)***

Total Eligible Amount: \$9,845,688

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

MassDOT Shared Streets and Spaces Program***

Amount: \$235,855

Date: \$70,100 (October 2020) and \$165,755 (July 2021)

Details: The Shared Streets and Spaces Program provides technical and funding assistance to help municipalities design and implement changes to streets, sidewalks, and parking areas in support of public health, safe mobility, and renewed commerce. Lowell was awarded \$70,100 in October 2020 to support an existing outdoor dining program of 20 restaurants by deploying propane heaters, landscaping, and temporary light installations prepared by local artists, while also reclaiming a downtown street for winter markets. Lowell was awarded \$165,755 in July 2021 to implement three projects for socially distanced travel and recreation as the city reopens.

Pepperell

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***

Amount: \$3,620,957

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP)***
 Total Eligible Amount: \$1,072,208

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

Local Rapid Recovery Planning Program⁺
 Details: The Department of Housing and Community Development (DHCD) provided plan facilitators and subject matter experts to communities to develop "actionable, project-based recovery plans tailored to the unique economic challenges and COVID-19 related impacts to downtowns".

Tewksbury

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***
 Amount: \$9,319,317

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

• Federal Coronavirus Relief Fund Municipal Program (CvRF-MP)***

Total Eligible Amount: \$2,767,408

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

MassDOT Shared Streets and Spaces Program***

Amount: \$15,000 Date: December 2020

Details: The Shared Streets and Spaces Program provides technical and funding assistance to help municipalities design and implement changes to streets, sidewalks, and parking areas in support of public health, safe mobility, and renewed commerce. Tewksbury received funding to install two new bus shelters along a Lowell Regional Transit Authority bus route. The shelters will be installed at the East Street and Chandler Street intersection, which is the location of the Tewksbury Senior Center and Tewksbury State Hospital.

Tyngsborough

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***
 Amount: \$3,744,406

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP)***

Total Eligible Amount: \$1,094,867

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

Local Rapid Recovery Planning Program⁺

Details: The Department of Housing and Community Development (DHCD) provided plan facilitators and subject matter experts to communities to develop "actionable, project-based recovery plans tailored to the unique economic challenges and COVID-19 related impacts to downtowns".

MassDOT Shared Streets and Spaces Program***

Amount: \$135,173 Date: February 2021

Details: The Shared Streets and Spaces Program provides technical and funding assistance to help municipalities design and implement changes to streets, sidewalks, and parking areas in support of public health, safe mobility, and renewed commerce. Tyngsborough received funds to convert unused municipally-owned land into an ADA-accessible park for outdoor activities and winter community programming. The revitalized space will include seating areas, accessible walkways, and expanded room for safe outdoor programming. The project will also connect the historic Littlefield Library with the Old Town Hall, First Parish Meeting House, and two restaurants.

Westford

American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund***
 Amount: \$7,417,971

Details: After the American Rescue Plan Act was signed into law by President Biden on March 11, 2021, it guaranteed direct relief to cities, towns, and villages in the United States (Sec. 9901: Coronavirus State and Local Fiscal Recovery Funds).

Federal Coronavirus Relief Fund Municipal Program (CvRF-MP)***

Total Eligible Amount: \$2,142,123

Details: The federal Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") provided Massachusetts with a total of approximately \$2.5 billion through the new Coronavirus Relief Fund (CvRF) to use for expenditures related to the COVID-19 public health emergency. The Commonwealth has made available up to approximately \$502 million in CvRF funds to

Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP). Some municipalities may not request their Total Eligible Amount of funding because they do not have enough eligible expenses.

MassDOT Shared Streets and Spaces Program***

Amount: \$105,000 Date: July 2020

Details: The Shared Streets and Spaces Program provides technical and funding assistance to help municipalities design and implement changes to streets, sidewalks, and parking areas in support of public health, safe mobility, and renewed commerce. Westford received funds to improve and increase pedestrian access to the Abbot Elementary School, including ADA-compliant wheelchair ramps, new striping, and pedestrian-safety signage.

C. Regional Assistance

Greater Lowell Community Foundation (GLCF) COVID-19 Emergency Response Fund**
 Recipient: More than 135 area nonprofits (many are located outside of the NMCOG region as GLCF serves 20 total communities)

Amount: Over \$5.1 million (as of April 16, 2022)

Date: Multiple rounds since March 2020

Details: GLCF established the COVID-19 Emergency Response Fund to assist area nonprofits

serving vulnerable populations during the coronavirus pandemic.

MA COVID-19 Relief Fund***:

Recipient: 560 nonprofits across state, including Greater Lowell Community Foundation

Amount: \$32.2 million

Details: The MA COVID-19 Relief Fund supported those across the state most impacted by the COVID-19 health crisis, focusing on essential frontline workers and vulnerable populations including the homeless, immigrant populations, people with disabilities, and those facing food insecurity. Launched in April 2020, the MA COVID-19 Relief Fund raised and distributed \$32.2 million to support 560 nonprofits across the state in serving their communities. GLCF was one of thirteen community foundations that received funding.

 Regional Pilot Project Grant Program, Executive Office of Housing and Economic Development****

Recipients: Metro West and Merrimack Valley Regions, including City of Lowell, Chelmsford,

Billerica, Tewksbury, Tyngsborough, and Westford

Amount: \$400,000 over three grants

Date: April 2021

Details: This program was established to support recovery solutions based on the specific economic needs of individual regions of the Commonwealth and was designed to fund projects that uniquely address local concerns. Applicants were asked to define a major issue associated with the economic recovery of a particular region and propose a solution. Funded through the state's FY 21 operating budget.

 Travel and Tourism Recovery Grant Pilot Program, Executive Office of Housing and Economic Development*+

Recipients: Greater Lowell Chamber of Commerce, Lowell Festival Foundation

Amount: \$72,249 over two grants

Date: April 2021

Details: Dedicated to marketing projects that support the My Local MA campaign, enhance tourism recovery, and have the potential to increase non-resident visitation. The program's goal is to strengthen the Massachusetts economy through the development and enhancement of the state's tourism industry. Funded through the Tourism Trust Fund.

D. Other Statewide or Federal Resources Available

Massachusetts COVID-19 Eviction Diversion Initiative***

Recipients: 1,695 Lowell households have received RAFT Funds (average \$4,071 per household), 2,283 Lowell households have received ERAP payments (averaged \$9,768 per household)

Amount: \$29,200,000

Date: Various, since the start of the pandemic

Details: The Eviction Diversion Initiative tracks both RAFT (Residential Assistance for Families in Transition) funds and ERAP (Emergency Rental Assistance Program) which help income-eligible renters.

U.S. Small Business Administration (SBA) Resources:

• SBA Restaurant Revitalization Fund*

Eligible Recipients: Restaurants, bars, and other qualifying businesses

Details: This program provides restaurants with funding equal to their pandemic-related revenue loss up to \$10 million per business and no more than \$5 million per physical location.

SBA Paycheck Protection Program****

Eligible Recipients: Most businesses

Details: An SBA-backed loan that helps businesses keep their workforce employed during the COVID-19 crisis. Massachusetts has a total of 217,267 businesses that received Paycheck Protection Program (PPP) loans from the Small Business Administration. 3,399 PPP loans were given to businesses in the NMCOG region. The average loan size was \$136,482.

SBA Economic Injury Disaster Loan (EIDL)***

Eligible Recipients: Small businesses and nonprofits

Details: This loan provides economic relief to small businesses and nonprofit organizations that are currently experiencing a temporary loss of revenue. The program provides low-interest loans, which provide working capital funds to small businesses, nonprofits and agricultural businesses aimed at meeting shortfalls created by the pandemic.

SBA Shuttered Venues Operators Grant****

Eligible Recipients: Live venue operators, including performing arts, museums, and motion picture theaters.

Details: This grant provides emergency assistance for eligible venues affected by COVID-19.

Sources

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