



# 2022

## Greater Lowell Annual Comprehensive Economic Development Strategy Annual Report



# 2022 Greater Lowell Comprehensive Economic Development Strategy (CEDS) Annual Performance Report

<b>Grantee:</b>	<b>Northern Middlesex Council of Governments</b>
<b>Project Title:</b>	2022 Greater Lowell Comprehensive Economic Development Strategy (CEDS) Annual Performance Report
<b>Project Number:</b>	01-79-15054/115679 (CARES Act grant)
<b>CEDS Performance Year:</b>	10/19/2020 to 10/19/2022 (CARES Act grant)
<b>Reporting period end date:</b>	12/31/2021
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<b>Five-year CEDS Time Period:</b>	2020-2024

This document was prepared by the Northern Middlesex Council of Governments (NMCOG) using Federal funds under award 01-79-15054/115679 from the Economic Development Administration, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the Economic Development Administration or the U.S. Department of Commerce.

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*Niki Tsongas Bridge, Courtesy City of Lowell*  
*Pepperell Railroad Square*  
*Greater Lowell Technical High School Job Fair, Courtesy Greater Lowell Technical High School*

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# Section 1

## Introduction

## 1.1. About the Greater Lowell CEDS for 2020-2024

The Greater Lowell Comprehensive Economic Development Strategy, or "CEDS" for short, is a guide for Greater Lowell's municipalities, nonprofits, agencies, and other strategic partners to enhance regional economic resiliency, sustainability, inclusivity, and success. It contributes to effective economic development in our communities through a locally-based, regionally-driven economic development planning process. Where appropriate, it seeks to integrate or leverage other regional planning efforts, including the use of federal funds, private sector resources, and state support.

The 2020-2024 CEDS planning process was led by the Northern Middlesex Council of Governments (NMCOG). NMCOG has been designated by the Economic Development Administration (EDA) of the U.S. Department of Commerce as the regional economic development entity for the Greater Lowell region and has been developing the Greater Lowell CEDS since the *2004-2008 Greater Lowell CEDS*. The Plan was developed in accordance with EDA regulations 13 C.F.R. § 303.7 and under guidance issued on January 21, 2015.

The CEDS is a vehicle for private industry, individuals, organizations, local governments, and education providers to engage in meaningful debate to identify capacity-building efforts that would best serve economic development in the region. The CEDS planning process began in May 2019, and included significant revisions to address the evolving COVID-19 pandemic before the Plan's approval by the EDA in September 2020. The process included four meetings with the Greater Lowell CEDS Committee as well as three Strengths-Weaknesses-Opportunities-Threats (SWOT) Analysis sessions to receive input from the business community, public agencies, and the public on the future of the Greater Lowell region. The three SWOT Analyses and creation of the Summary Background were largely completed by February 2020—prior to full COVID impacts. On March 10, 2020, Governor Baker approved a state of emergency, and on March 29, 2020, President Trump approved a disaster declaration for Massachusetts. The Strategic Development and Action Plan was completed after that date and reflects the change in the public health and economic situation.

At that time, there were no available data sources to accurately reflect the serious, developing repercussions to our regional economy, small businesses, and workforce. Based upon the timeframe for the completion of the CEDS, we moved forward with data available at that time and expected to provide updated statistics with the submission of this *2022 Greater Lowell CEDS Annual Performance Report*.

## 1.2. About the 2022 Greater Lowell CEDS Annual Performance Report

This *2022 Greater Lowell CEDS Annual Performance Report* (CEDS Annual Report for short) is the first of four annual performance reports on the progress of the CEDS implementation. Our CEDS Annual Reports will track our progress in completing the actions recommended in the plan, track evaluation measures to determine whether our actions are having a positive impact, and evaluate whether changing economic conditions necessitate changes in the CEDS. This CEDS Annual Report covers the period between the EDA Acceptance of the CEDS on September 2, 2020 and December 31, 2021.

The CEDS Annual Report includes the following sections:

- 1. Introduction**
- 2. Adjustment to the Strategy:** Updated socioeconomic data; major events since the CEDS completion including impacts from the COVID-19 Pandemic; and any necessary changes to the CEDS
- 3. Report on Economic Development Activities:** A summary of the activities undertaken by the CEDS Committee or its partners to advance the CEDS and their successes since its completion
- 4. Evaluation of Progress on Action Plans and Goals:** A summary of progress toward the specific goals and objectives in the CEDS and report of the performance measures articulated in the CEDS
- 5. Next Steps:** A 2022 action plan, including challenges and mitigation and required EDA assistance

This CEDS Annual Report extensively utilized the draft *Economic Recovery and Resiliency Plan* (ERRP) Phase 1, which made use of robust data, surveys, and public agency input to identify the economic injury to the Greater Lowell region caused by COVID-19. It also made recommendations, outlining steps to take to address these issues and to prepare for potential future impacts associated with this pandemic.

The CEDS Annual Report was created by NMCOG staff under the guidance of the CEDS Committee.

## 1.3. Greater Lowell and the *Greater Lowell CEDS* Vision Statement

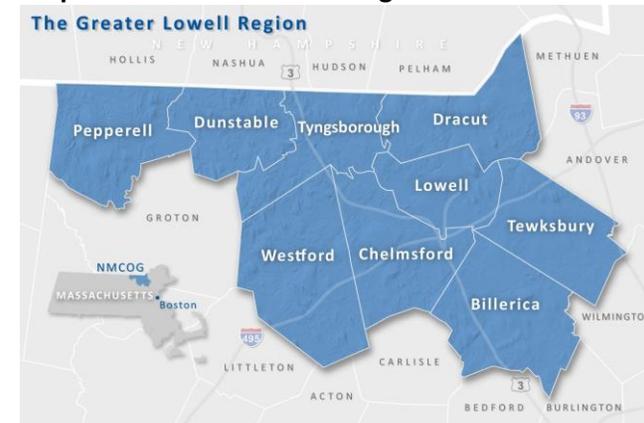
The Greater Lowell region consists of the City of Lowell and the towns of Billerica, Chelmsford, Dracut, Dunstable, Pepperell, Tewksbury, Tyngsborough, and Westford. The region is located along the Merrimack River in northeast Massachusetts and is bordered by Essex County to the east, by southern Middlesex County to the west and south, and by New Hampshire's Hillsborough County to the north. The City of Lowell is located 26 miles from Boston and is well-served by U.S. Route 3, Interstates 93 and 495, and the MBTA Commuter Rail.

The Greater Lowell region has extensive assets that include an ideal location accessible to the rest of New England through a well-organized highway network, a highly educated workforce, an established framework of banking institutions, and an integrated educational network offering pre-K to PhD instruction led by the University of Massachusetts at Lowell (UMass Lowell) and Middlesex Community College (MCC).

The vision articulated in the CEDS for the Greater Lowell region is to build upon the region's historic past and economic characteristics to develop a regional economic framework that supports:

- The creation of **high skill, well-paying jobs** that are sustainable and resilient
- **Affordable and market-rate housing** to provide housing options for the regional employment base
- An integrated **economic development, workforce development, and education system** that builds upon the industry clusters in the region and prepares students and workers for today's jobs and employment in the future, based on evolving demand for certain skills
- Private and public investment in the region's **physical infrastructure** – transportation, sewer, water, utilities, internet, etc. – and **social infrastructure** – day care, skill training, transportation services, etc. – to improve the quality of life in the region
- An **inclusive and racially diverse workforce** that encourages economic success
- An economic foundation and governmental structure that **is well-prepared to respond to evolving situations** brought about by change in market conditions, a natural disaster, public health emergency, or other unforeseen circumstances

**Map 1: The Greater Lowell Region**



*Source: MassGIS/NMCOG (town boundaries);  
MassDOT/NMCOG (roads)*

# Section 2

## Adjustment to the Strategy

The CEDS is meant to be a flexible document. It may be adjusted to respond to changing economic conditions. To this end, this section of the CEDS Annual Report will describe any changes in the region's economic conditions and whether this necessitates adjustments, including the following:

1. A snapshot of socioeconomic data and how it has changed since the last update
2. Major economic events, including but not limited to those arising from the COVID-19 Pandemic
3. Any changes to the CEDS Committee or staff since the last update
4. A summary of the above updates and whether they necessitate a change in activities, priorities, or the evaluation framework

## 2.1. Socioeconomic and Housing Data

### About the Data

The CEDS Annual Report contains a snapshot of socioeconomic and housing data for Greater Lowell and how it has changed since the CEDS was adopted. Our region can best be characterized as a large, central city (Lowell) surrounded by smaller towns. To clarify trends that may be obscured if the data were broken out by each of the nine communities, we analyzed data for the region as a whole, Lowell specifically, and the region outside Lowell. Information is also presented for the United States and the Commonwealth of Massachusetts for comparison when appropriate. The data is broken into four major categories:

1. **Demographic Data** chart the changes in population, race/ethnicity, and educational attainment in the region. This primarily uses the U.S. Census Bureau's American Community Survey (ACS) five-year data. As the most recent data is from the years 2015-19, it does not reflect impacts due to recent events or activities. Instead, this report will analyze whether any long-term trends have changed since the last CEDS Annual Report and whether that impacts the CEDS in any way.
2. **Housing Data** charts the type and affordability of housing in the region. It also uses five-year ACS data. However, number of sales and median sales price uses Warren Group data, which is collected monthly and current through 2020. This data may reflect recent developments and will be noted as such.
3. **Commerce and Industry Data** represents businesses located in our region. This primarily uses Employment and Wage (ES-202) data from the Commonwealth of Massachusetts Department of Unemployment Assistance. It is current to December 2021 and may reflect recent developments.
4. **Employment Data** represent workers over age 16 living in our region. It uses a combination of ACS and Local Area Unemployment Statistics (LAUS) data, which is current to December 2021.

Finally, while a brief summary of highlights for each socioeconomic subject are provided in this section, Appendix 1, Socioeconomic Data, contains a set of charts and tables with additional analysis.

**DATA SOURCES AND LIMITATIONS**  
Much of the demographic data comes from federal programs, including the U.S. Census Bureau's American Community Survey (ACS) Five-year Estimates, the U.S. Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) also known as the ES-202, and the Local Area Unemployment Statistics (LAUS) program.

The ACS dataset is released annually and derived from household survey responses collected over a five-year period. In other words, Five-Year ACS samples a subset of the community and essentially represents estimates of the average condition over five years. The most recent dataset was collected from 2015 through 2019, which is two years after the dataset used in the CEDS (2013 through 2017). Therefore, changes in trends can be noted but any changes due to recent impacts will not be in this dataset.

The QCEW data is published quarterly and covers private and public sector employers with Unemployment Insurance coverage. Self-employed workers, agricultural workers on small farms, and others are excluded from this data. LAUS data is published monthly and has the most up-to-date information.

## Demographics

According to the 2020 U.S. Census, the Greater Lowell region had a population of 310,009 in 2020, which represented an increase of 8.1% since 2010. This growth was not evenly distributed—Dracut had the largest proportional change at 10.7%, and Lowell grew the most in absolute terms, by 9,035 people.

As of the 2015-19, the region continues to follow trends of the population that falls in the age cohort of “19 and Below” falling as a proportion of the total population (-9.5% over eight years), and the cohort “65 and Above” is small proportionally but growing rapidly (19.2% over eight years). Notably, the population in the City of Lowell is remains significantly younger than the region, with a larger proportion of people who would be considered “Millennials” and “Generation Z”, and the City’s “19 and Below” population is not proportionately dropping as rapidly as the region.

There is a gap in both education and income between the City of Lowell and the rest of the region. However, both education and income are improving both in the City and in the region. The City’s improvement was concentrated in a growing number of people who are high school graduates or equivalent. Those over 25 years old who do not have a high school diploma or equivalent shrunk from 21% to 18% of Lowell’s total population between 2011-15 and 2015-19. This measure is roughly 10% for the entire region. Meanwhile, the proportion of those with at least a Bachelor’s degree is growing more rapidly in the region outside Lowell (40% to 45% of the region outside Lowell compared to 22% to 24% within the City of Lowell during the same period). That said, there are economic challenges and pockets of poverty in all towns in the region.

Finally, regional trends in race and ethnicity are similar to national trends, with a declining share of the population who is “white, not Hispanic or Latino/a”. The only change to this trend from the data available when the CEDS was drafted is that the share of Hispanic or Latino/a people in the City of Lowell shrunk after slowly growing for many years (from 20% in 2013-17 to 18% in 2015-19), which was reflected in the Greater Lowell numbers (from 10% in 2013-17 to 9% in 2015-19).

## Housing

The mix of housing in Greater Lowell is important, as it reflects Objective 2.5 (supporting diverse rental units) and, more broadly, represents the ability to house families with diverse preferences, incomes, and needs—important to both quality of life and the workforce.

The long-term trend of a growing number of units continued, but has accelerated in recent years (an average of 0.8% annually in the four years after 2011-15 vs. an average of 0.4% annually in the four years before 2011-15), resulting in a total of 1,603 new units since 2007-11. Notably, the growth rate of units in buildings containing 10 or more units has been higher than the overall rate. Although Greater Lowell’s proportion of attached or multifamily has grown, it still lags Massachusetts. In addition, although Greater Lowell’s renter-occupied units is still growing, as of the 2015-19 ACS, the City of Lowell’s proportion of rental units stopped growing at about 58%. No other town has more than 20% renter-occupied units.

Home sales data is current through 2020, which means that it reflects the beginning of COVID impacts. However, it appears that generally speaking, trends were unchanged. Within the region, sales volume has continued to hold mostly steady between 4,300 and 4,600 single-family and condo sales annually after its peak in 2016 (4,896). Both single family and condo median prices in every town have continued a generally upward trend (with condos being somewhat more variable). Although there appear to be more units built in the region since 2016, sales had not increased as of 2020. This may reflect both that homes aren’t turning over as often and that new units are more often rentals than prior to 2016. Permit data indicates a slowing of unit construction since its peak driven by multifamily construction in 2019.

The proportion of homeowners who are at moderately or severely burdened has been steadily declining in both the nation and the region. The change has been sharper in the City of Lowell (a 31% reduction from its 2004-09 level) than in the rest of the region (a 23% reduction from its 2004-09 level), although Lowell still has a larger proportion of burdened homeowners than the rest of the region. Greater Lowell has moved in the opposite direction for renters, from 45% to 48% burdened (peaking at 50%) between 2007-11 and 2015-19.

## Commerce and Industry

Greater Lowell's major industries by employment still include Education and Health Services, Professional and Business Services, Trade, and Manufacturing. These were among the hardest hit by the Pandemic.

Average monthly employment by firms located within the region dipped in 2020 Q2 (-13.4%) due to the lockdowns instituted because of the COVID-19. Notably, the drop in the region outside the City of Lowell was similar to MA (14.3%), which was a steeper drop than the City of Lowell (-11.4%) or U.S. (-11.1%). However, the employment per resident in the City was already relatively low and the City's recovery has been slower than the rest of the region.

Leisure and Hospitality had the greatest job losses in the region between 2019 Q2 and 2021 Q2, and it is only at 79% of its pre-pandemic number of employees as of 2021 Q2. That said, all industries stopped or reversed their 2020 drop in 2021 except for Information, which dropped 13% between 2020 and 2021. Average monthly employment has not recovered to pre-pandemic levels in all industries except Natural Resources and Mining and Professional and Business Services.

That said, the overall number of firms and average wage growth was generally steady during that time, and firms located in the region have a slightly higher weekly average wage than Massachusetts as a whole. The growth of number of establishments in Greater Lowell 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 period) compared to the rest of the region (4.0% over the same period). This was largely in micro-businesses (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.

## Employment

As observed in the CEDS, per capita income, which simply divides the total wages made in a community by the number of people, is generally above the U.S. except in Lowell. This is also true of Median Household Income. The trend as of the CEDS submission was that Lowell's incomes were generally stagnant or declining, while most other towns were rising. Notably, that trend changed as of the 2015-19 ACS, and per capita income and median household income increased in Lowell (by 13% and 17% respectively) between 2013-17 and 2015-19. The City trails the rest of the region partially because the City's occupation mix contains proportionally more production, food service, and "other" occupations, which tend to be lower-paid, while the region outside Lowell has a larger-than-average proportion in the Management and Technical occupations.

The City's residents also suffer higher unemployment than the region and the state. Notably, the City of Lowell suffered higher unemployment impacts related to COVID both in its initial unemployment rate in April 2020 (18%) and its protracted recovery (5.6% as of November 2021, 1.4 points higher than U.S. average).

Looking at the region as a whole, unemployment was 3.0% in March 2020, it shot to 15.9% in April 2020, and it still is at 4.4% as of November 2021 (a nearly 50% increase from March 2020). Unemployment Insurance claimant data for the region indicates the hardest-hit industries were some of the region's largest employment sectors, including Administrative and Support and Waste Management and Remediation Services, Manufacturing, and Health Care and Social Assistance. During that time, labor force levels followed a similar "swoosh"-shaped trajectory: the labor force lost 13,244 people in April 2020, and as of November 2021, it still had yet to reach the level it was at during the same month of 2019.

## 2.2. Major events

### COVID-19

The Greater Lowell region has suffered public health impacts and significant damage to the local and regional economy as a result of the COVID-19 pandemic. The virus has resulted in increased strains on the public health system, long-term injuries and death, increased unemployment, business closures, reduced revenues for state and local governments, and decreased consumer spending. That said, over the previous year, the state of emergency has ended, government agencies have re-opened to the public, and business restrictions have been lifted. This will help the Greater Lowell region restart its economy while monitoring spikes in COVID-19 activity.

When the CEDS was submitted to EDA in May of 2020, the COVID-19 pandemic had resulted in 4,664 cases and 247 deaths between January 1, 2020 and May 27, 2020 in the Greater Lowell region. There had also been a multi-fold increase in the regional unemployment rate from 2.6% in April 2019 to 16.3% in May 2020. Social distancing measures and temporary business closures took effect in March 2020 to isolate and drive down COVID-19 infections, resulting in a severe economic downturn.

In the following year, economic shock generated from multiple waves of quarantine, unemployment, and business closures severely impacted consumer services and reduced the capacity to produce goods. Small businesses in Massachusetts suffered serious damage due to the COVID-19 pandemic, with many reporting layoffs, temporary or permanent closures, significant drop in revenues, and changes in operating models. Each wave of COVID created different economic shocks.

TABLE 1: TIMELINE OF EVENTS AND ACTIONS DUE TO COVID-19 PANDEMIC, JUN 2020-DEC 2021

Date	Event/Action
Jun. 1, 2020	Phase 1, Step 3 of <i>Reopening Massachusetts</i>
Jun. 8, 2020	Phase 2 of <i>Reopening Massachusetts</i> began with stores, restaurants, lodging and additional personal services, within guidelines
Jun. 10, 2020	The MA Food Security Infrastructure Grant Program to fund equipment to ensure equitable and local food access.
Jun. 18, 2020	The SBA launched the COVID-19 Economic Injury Disaster Loan (EIDL) program.
Jul. 6, 2020	Phase 3, Step 1 of <i>Reopening Massachusetts</i> allowed for an increase in gathering 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 loans to employers to retain their workforce.
Oct. 5, 2020	For lower risk communities, Phase 3, Step 2 of <i>Reopening Massachusetts</i> began, which allowed for an increase in gathering sizes and indoor capacity for workplaces 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 Phase 3, Step 1.
Dec. 27, 2020	The federal Consolidated Appropriations Act of 2021 included relief for small businesses, including PPP expansion, new shuttered venues program, \$600 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.
Feb. 8, 2020	Lowell General Hospital opens the largest regional vaccination clinic, the Mass 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.)
Mar 11, 2021	Federal American Rescue Plan Act of 2021 expanded unemployment benefits, included a \$1,400 stimulus payment, expanded benefit provisions for individuals/families, created a new restaurant grant program, and expanded EIDL, PPP, and more.
May 29, 2021	Baker-Polito Administration lifts COVID-19 restrictions, which permits all industries 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
Aug. 15, 2021	City Manager Eileen Donoghue re-implements mask mandate for all city buildings due to rising cases (an average of 17.2 new cases daily per 100,000 residents), suspected to be fueled by Delta variant with the City of Lowell
Dec. 14, 2021	Massachusetts hospitalizations climb to 10-month high due to Omicron variant.

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.

That said, the COVID-19 pandemic disproportionately impacted certain segments of the population and certain industries more than others. Reductions in income, a rise in unemployment, and disruptions in the transportation, service, hospitality, and manufacturing industries were observed nationwide and locally. Short- and long-term impacts to jobs and unemployment are discussed below.

In addition, the COVID-19 crisis highlighted significant inequities in the social determinants of health. 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. Such inequities in infectious disease outcomes are largely the byproduct of policies that have systematically disadvantaged Black, Hispanic or Latino/a, and Asian communities. These demographic groups have a higher incidence of preexisting comorbidities including hypertension, diabetes, and heart disease, which increase the risk of dying from COVID-19 complications.

The recent surges in COVID-19 due to the Delta and Omicron variants have shown that outbreaks are likely to reappear in the future, requiring proactive measures to protect public health and to ensure economic recovery and resiliency in an equitable manner. COVID-19 will continue to make impacts as we improve the economy, increase housing opportunities, and address the food security issues affecting our most vulnerable citizens.

#### IMPACTS OF COVID-19 ON THE GREATER LOWELL REGION

##### [Employment and Labor Impacts](#)

ES-202 and other data makes clear the impact of COVID-19 on 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 and incomplete. In the quarter with most recent available preliminary data, 2021 Q2, 125,639 people were employed by the region's firms, about only 95% of pre-pandemic levels.

In addition, like most of the nation, the job losses were disproportionately in certain sectors: "Leisure and Hospitality" and "Other Services" lost 48% and 36% respectively of their workforce in our 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. According to the unemployment claims to date, the manufacturing sector has been one of the most severely impacted industries by the COVID-19 pandemic.

Although COVID made a large impact on number of employees and therefore unemployment, it did not seem to make as large an impact on Number of Establishments or Average Weekly Wage. Very importantly, individual establishments have experienced very large impacts and may have had to close, impacting a great many individuals, but the overall trend of a growing number of establishments in the region accelerated, especially in the City of Lowell. Existing businesses may have been protected partially due to Federal and State relief funding and the actions of CEDS Committee member organizations (Detailed in Section 3, Economic Development Activities). New small business formation may 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.<sup>1</sup>

#### ECONOMIC RECOVERY AND RESILIENCY PLAN SURVEY

Using funds from an EDA Economic Adjustment Assistance grant, 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. Survey responses were anonymous so the identities of the respondents are not known. Survey results are referenced in this section, and full results are available in the Economic Recovery and Resiliency Plan Phase 1 report.

<sup>1</sup> 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>

### Economic Development Impacts

NMCOG emailed the economic development survey link to over 35 economic development and business organizations in the region and asked for the survey to be forwarded to members or relevant contacts. There were 29 survey responses received, all from Pepperell, Lowell, or Westford. These represented a variety of industries and business sizes.

When asked what services or assistance as needed, each choice was selected by between 6 and 8 businesses. This included:

- Loans or assistance in applying for loans
- Assistance with applying for Federal assistance programs
- Communications/Marketing/Social Media
- Assistance with applying for state or local assistance programs
- Peer Support/Networking
- Tax Relief or Deferral

Nearly half of the respondents applied for the Paycheck Protection Program (PPP), with other programs seeing a smaller number of applicants and awardees among survey respondents as shown in Table 2: Economic Development Survey Results (Relief Programs).

**TABLE 2: ECONOMIC DEVELOPMENT SURVEY RESULTS (RELIEF PROGRAMS)**

Relief Program	Since February 2020, has this business requested financial assistance from any of the following sources? Select all that apply:		Since February 2020, has this business received financial assistance from any of these programs from the Federal government? Select all that apply:	
	Count	Percentage	Count	Percentage
Paycheck Protection Program (PPP)	13	44.8%	12	41.4%
Economic Injury Disaster Loans (EIDL)	6	20.7%	5	17.2%
Small Business Administration (SBA) Loan Forgiveness	4	13.8%	2	6.9%
Main Street Lending Program	1	3.4%	1	3.4%

Cancellation of events or reservations were at that time the largest impact with 17 (59%) of businesses responding. In addition, nearly half reported

decline in customers and increase in costs for cleaning, safety supplies, and/or PPE. A smaller number of businesses reported other negative impacts.

Of the 29 survey respondents, five had laid off or furloughed employees. In contrast, nine businesses, roughly a third, reported an increase in sales or customers and five of the businesses had increased the number employees in the previous three months. Availability of employees to work had affected the operating capacity of six of the businesses in the past three months. Because this survey was undertaken prior to Delta and Omicron waves, these impacts may have intensified.

### Health Care Impacts

A health care survey link was sent to over 20 recipients including hospitals, municipal boards of health, long-term care providers, and other health care organizations, and seven responses were received. 57% of the respondents reported that a High (significant) impact was made on programs, services, or general operations. At least 70% reported budgetary implications, disruptions of service, and cancellation of programs and events.

When asked what resources and information were needed, 71% indicated additional funding, and 57% indicated additional staff. When asked about training and other concerns specifically, there was no clear consensus on specific training need or concerns for carrying out their mission—given the timing of the survey, concerns regarding logistics for the new vaccination rollout was near the top, but not shared by all respondents. However, given that this survey took place before Delta and Omicron waves, it is possible that concerns would change given these variants' unique challenges.

### Housing Impacts

NMCOG emailed the housing survey link to over 35 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 respondents indicated a need for increased housing subsidies and programs from federal and state governments that address rental and foreclosure prevention and 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. Most alarmingly, three-quarters of respondents identified concern about capacity to implement operations without compromising the health of staff, volunteers, and clients.

#### Food Insecurity Impacts

Massachusetts saw an overall increase in food insecurity of 55 percent 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).<sup>2</sup> Hispanic and Black residents were disproportionately impacted in terms of food insecurity, perpetuating disparities that existed before the pandemic. During the years preceding the pandemic, food insecurity for White and Asian households in Massachusetts hovered around 5 percent. By contrast, food insecurity among Hispanic households was 24 percent. In the years leading up to the current crisis, food insecurity trended downward for Black households before rising quickly in 2020. Applications for public assistance rose dramatically early on in the COVID crisis, with a 400 percent 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).<sup>3</sup>

NMCOG sent a food security survey link to over 30 emergency food providers that serve the region. Sixteen responses were received from these organizations, with 11 (69%) reporting a significant COVID-19 impact on their programs, services, or general operations. When asked about impacts,

#### FORECLOSURES AND EVICTIONS

Massachusetts ended its COVID-19 eviction moratorium in October 2020. Since then, it has experienced more than 30,000 evictions and foreclosures. It is unknown how many are directly related to the Pandemic and how much this issue impacts Greater Lowell. However, this is a potential COVID-19 impact that NMCOG will continue to monitor along with local authorities.

11 emergency food providers (69%) noted they had or anticipated increased demand for services or support from clients and communities. In addition, half had experienced or anticipated increased staff and volunteer absences. A smaller number identified other impacts.

When asked about 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. Other responses were selected by smaller numbers. When selecting concerns, 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%). Many other concerns were identified by a smaller number of respondents.

#### FEDERAL COVID-19 RELIEF BENEFITING MASSACHUSETTS AND ITS MUNICIPALITIES

It is estimated that the federal government will provide approximately \$113 billion in aid to Massachusetts in response to the COVID-19 pandemic, with funding directed to three groups: businesses and individuals, public entities, and Commonwealth agencies.<sup>4</sup> 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,

<sup>2</sup> <https://www.gbfb.org/news/press-releases/gaps-in-food-access/>

<sup>3</sup> <https://www.mass.gov/dta-public-records>

<sup>4</sup> Source: <https://www.mass.gov/info-details/about-covid-19-federal-funds>

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 \$29 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 (\$2.6 billion), child care 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

**TABLE 3: CORONAVIRUS LOCAL FISCAL RECOVERY FUND ALLOCATION BY MUNICIPALITY**

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

Lowell Region have received Coronavirus Local Fiscal Recovery Funds allocations totaling over \$134 million, as shown in Table 3.

On June 28, 2021, Governor Baker filed legislation outlining a proposal to invest \$2.9 billion in CSFRF funding through programs that support state priorities including housing and homeownership, economic development and local downtowns, job training and workforce development, health care, and infrastructure. The remaining \$2 billion would remain in the state’s Federal COVID-19 Response Fund. To date, the legislation has not been acted upon by the legislature.

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 percent 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 percent to 100 percent, for expenses incurred between January 20, 2020 and September 30, 2021. On February 2, 2021, The President issued a second order expanding the 100 percent reimbursement

rate to all eligible emergency response costs. To date, Massachusetts has received \$637 million in FEMA PA reimbursements for the vaccine program, sheltering, PPE, food assistance, field hospitals, and COVID testing.

#### Federal Programs for Addressing Housing and Eviction Diversion

Since the start of the pandemic, 975 Lowell households received Residential Assistance for Families in Transition (RAFT) Funds, with recipients receiving an average \$5,007 per household. In addition, 467 Lowell households received Emergency Rental Assistance Program (ERAP) payments averaging \$7,348 per household.<sup>5</sup> RAFT has an income eligibility limit of 50% AMI (60% for Domestic Violence), while ERMA has an eligibility limit of 80% AMI. Renters may only receive help with rent and utilities accrued since March 13, 2020.

#### 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 percent 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 & 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 31<sup>st</sup> season of the Summer Music Series.

Under the **Shared Streets Program**, partially funded through the Coronavirus Relief Fund, the Massachusetts Department of Transportation's Shared Streets and Spaces program provided 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. A number of the Greater Lowell communities received these grants that were used to accommodate outdoor dining at local restaurants, pedestrian access, and similar improvements.

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<sup>5</sup>Source: <https://www.mass.gov/info-details/about-covid-19-federal-funds>

## "The Great Resignation"

The Great Resignation is an economic trend with higher-than-expected numbers of employees voluntarily resigning from their jobs. These employees may exit the labor force or obtain a new job. The term was coined by Anthony Klotz at Texas A&M University in May 2021. This trend is quantifiable: BLS recorded a record-high “quits” rate of 3.0% in November 2021, up from 2.4% in December 2021. The industries most driving these quit rates were Accommodation and Food Services (6.1% in December 2021) and Retail Trade (4.9%).

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 is still at a high, 2.5% in November 2021, having exceeded 2.0% only once prior to February 2021.<sup>6</sup> Local businesses in all industries, but especially those in Accommodation and Food Services industries, have reported difficulty recruiting employees. In addition, Greater Lowell’s labor force has been slow to recover—as of November 2021, it had reached 98% of its level at the same month of 2019. This indicates that Greater Lowell is likely also feeling the impacts of “the Great Resignation.”

This also reflects workforce participation rate trends at the state level. The Workforce Skills Cabinet estimated that the workforce was roughly 100,000 workers smaller than it would have been if previous trends had continued, including lagging statewide population growth and labor force drop outs. Between October 2018 to September 2019 and October 2020 to September 2021, workforce participation drops were steepest among Black people, women, and people over 55.<sup>7</sup> This illustrates that while many are quitting for other jobs, many are quitting to leave the labor force.

This economic event may have been triggered by the COVID-19 Pandemic, but it may also have many underlying causes such as dissatisfaction with jobs or wages, increasing opportunities due to an aging workforce and smaller cohorts aging into or immigrating into the workforce, or wage

increases for one member of a household allowing other members of the household to change jobs or leave the workforce.

## Supply Chain Impacts

During the first half of 2020, demand for most goods plummeted as the economy went into lockdown. Manufacturing capacity was cut, workers were displaced, and transportation and shipments slowed considerably. Temporary trade restrictions and shortages of pharmaceuticals, critical medical supplies, and other products highlighted these weaknesses.

By late 2020, cracks in the supply chain emerged, and reactivating the manufacturing machine following COVID-related shutdowns proved to be difficult. The complex system that transports raw materials and finished products requires predictability and accuracy, which was lost as a result of the pandemic. Shortages of components and surging prices of critical raw materials further impacted manufacturers. Such supply shocks stifled economic recovery across the region and the nation.

Early in the Pandemic during the Economic Recovery and Resiliency Plan Survey, businesses reported relatively few impacts related to supply chain. However, that likely changed as demand surged later in the Pandemic. Many industries that have a high concentration in Greater Lowell (a high LQ) might also be susceptible to supply chain impacts, such as Construction and Manufacturing.

## Inflation

In 2021, the economic shock of record-breaking inflation occurred throughout the United States. This was due to a combination of factors, including the previously mentioned supply chain bottlenecks, international decisions and actions related to oil and gas exports, additional spending power due to increased wages and federal stimulus, and possibly other factors.

The main impact this shock had upon Greater Lowell is that real incomes were reduced. According to the Bureau of Labor Statistics, the unadjusted

<sup>6</sup> U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS), Series JTS000000250000000QUR Seasonally adjusted

<sup>7</sup> Workforce Skills Cabinet, Update to Northeast Region on New Funding, November 10, 2021

twelve-month change in Consumer Price Index (a measure of the change in prices of goods and services purchased by urban consumers) was 7.0%, the largest 12-month increase since June 1982. However, some people were impacted more than others, because the impact was unevenly distributed over types of goods. Especially large increases (over 15%) were in energy commodities, most notably gasoline at 49.6%, natural (piped) gas at 24.1%, and used cars and trucks at 37.3%. Goods and services less food and energy rose 5.5%.<sup>8</sup>

This means that those who drove more often or for longer distances, those who needed to make a used car purchase, or those who had larger natural gas heating needs experienced a larger direct impact upon their daily budget than those who drove less often, did not need to make a vehicle purchase, or had smaller heating needs. This information suggests that, although local and regional jurisdictions do not control inflation, there may be other ways to protect against this type of economic shock. Such ways may include the promotion of energy efficiency and alternative energy programs, provision of geographic mobility that could reduce commuter distances, and provision of viable alternative transportation options. It also highlights the need for fuel assistance programs and similar programs.

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<sup>8</sup> U.S. Bureau of Labor Statistics, Consumer Price Index Summary Economic News Release, <https://www.bls.gov/news.release/cpi.nr0.htm>

## 2.3. Change to CEDS Committee or Staff

Since the completion of the CEDS, the CEDS Committee has met at least quarterly to discuss a variety of topics, including the ERRP, various grant opportunities, and the CEDS Annual Report. During this time, four people left their positions or changed roles at their agencies and one agency joined the committee, resulting in the following changes:

- Sothea Chiemruom, Executive Director, now represents CMAA
- E for All stepped back from the CEDS Committee after a staff change
- Clancy Main, Assistant Town Administrator, now represents the Town of Billerica
- Kathleen Gentile, Interim Executive Director, now represents the Greater Lowell Workforce Board
- Clare Gunther, Chief Advancement and Communications Officer, joined the committee representing Lowell Community Health center

In addition, Jay Donovan, NMCOG Assistant Director, retired. He was replaced by his successors, Justin Howard, NMCOG Assistant Director, and Christopher Glenn Hayes, NMCOG Economic Development and Housing Planner. They join Jeff Owen, NMCOG Regional Planner, in overseeing CEDS communication and implementation.

## 2.4. Summary of Regional CEDS Updates

The most prominent event in the 2021 CEDS program year has undoubtedly been the economic impacts caused by the COVID-19 pandemic. As this is a recent occurrence, there are still limited data sources at the municipal level to measure changes in the past year. However, it is clear there was a dramatic shift in labor force and employment due to the pandemic and related economic events such as “the Great Resignation.”

Greater Lowell's major industries by employment still include Education and Health Services, Professional and Business Services, Trade, and Manufacturing. These were among the hardest hit by the Pandemic. Number of workers employed in Greater Lowell firms and the unemployment rate of Greater Lowell residents both had not recovered to their pre-pandemic levels as of the most recent data release, let alone where they might be if pre-pandemic trends had continued. Unemployment for the region was 3.0% in March 2020, it shot to 15.9% in April 2020, and it still is at 4.4% as of November 2021 (a nearly 50% increase from March 2020). Unemployment Insurance claimant data for the region indicates the hardest-hit industries were some of the region's largest employment sectors, including Administrative and Support and Waste Management and Remediation Services, Manufacturing, and Health Care and Social Assistance. During that time, labor force levels followed a similar "swoosh"-shaped trajectory: the labor force lost 13,244 people in April 2020, and as of November 2021, it still had yet to reach the level it was at during the same month of 2019.

NMCOG recorded many other negative impacts on the health sector, food security, and general quality of life in the 2021 Economic Resiliency and Recovery Plan Phase 1. These impacts were not distributed evenly, and some groups have suffered disproportionately due to the ongoing COVID-19 pandemic.

That said, the overall number of firms and average wage growth was generally steady during that time, and firms located in the region have a slightly higher weekly average wage than Massachusetts as a whole. In fact, the City of Lowell had exceptional growth in number of firms in the two-year period, outpacing the region and the state. This may reflect small business creation and/or firms moving to the City.

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, and the City's residents still suffer higher unemployment than the region and the state. Notably, the City of Lowell suffered higher unemployment impacts related to COVID both in its initial unemployment rate in April 2020 (18%) and its protracted recovery (5.6% as of November 2021, 1.4 points higher than U.S. average).

The most recent data available (most recently measured in the 2015-19 ACS) on longer-term socioeconomic trends reinforce this divide between the central city (Lowell) and surrounding communities. There is a gap in both education and income. That said, there are economic challenges and pockets of poverty in all towns in the region. For example, although communities outside of Lowell have made great strides in housing affordability, trends of housing unaffordability continue in both Lowell and other communities.

Outside of quantifiable impacts, COVID-19 may have had several other difficult-to-measure impacts:

- More negative health outcomes in region, especially for vulnerable populations
- Exacerbated challenges recruiting and retaining talented workers
- The impact upon transit fares and viability as fewer people utilize transit
- The impact of telecommunication and work-from-home on the office market
- The impact to education due to learn-from-home, staff shortages, and behavior problems

To respond to the economic crisis, new programs were created at the federal, state and local level to support employers and workers. These programs ranged from loans for employers to retain workers, to equipment grants to farm and food system organizations, to forgivable loans to micro-enterprises (businesses with five or fewer employees), and expanded unemployment benefits. Many businesses and organizations had to drastically change how they operate and connect with their clients and customers. How the region tackled these challenges highlighted many possible hidden strengths of the region:

- Overall resiliency of the region to recover from a shock
- Opportunities created by walkable town centers and neighborhoods
- Newly created partnerships for COVID health outcomes
- Ability to efficiently utilize grants and other funding related to COVID recovery

- Boom in micro-business (employees five or less) creation, especially in the City of Lowell

In conclusion, as most long-term trends have not seemed to have changed, the CEDS Committee believes the Strategy and Action Plan has remained relevant. However, the economic shocks indicate certain actions should be prioritized in 2022. These will be explored in Section 5, Schedule of Goals for 2022.

# Section 3

## Economic Development Activities

### 3.1. Summary of Accomplishments

As the District Organization of Greater Lowell, NMCOG has undertaken many activities to help support the implementation of the CEDS. The following table lists these activities, along with a selection of exemplary activities by regional partners such as local jurisdictions, public agencies, and nonprofits that utilized EDA or state economic development funding. When applicable, the task as identified in EDA CARES Act funding provided to NMCOG is noted in the appropriate column. If the task was not completed with CARES Act funding, it is listed as N/A. This list is in no way exhaustive of the many economic development activities that take place which advance the goals of the CEDS. An evaluation of how these actions advanced the goals of the CEDS is in Section 4, Progress on Plan and Goals.

TABLE 4: NMCOG AND EDA/STATE ECONOMIC DEVELOPMENT AGENCY-FUNDED PARTNER ACCOMPLISHMENTS

Project	CARES Act Task	Benefits/Outcome/Impacts/Deliverables	Milestone Date	Obj.
<b>Economic Recovery and Resiliency Plan</b>	Continue the Economic Recovery and CEDS Committee meetings	CEDs Committee meetings were held on 4/29/21, 8/19/21 and 9/23/21 to review ERRP survey results and the draft ER&RP Phase I report, and to discuss the EDA ARPA NOFOs, a regional Build Back Better regional application, the EDD application, local rapid recovery plans, and the CEDS Annual Report.	4/29/2021 8/19/2021 9/23/2021	1.1
	Analyze the Economic Recovery and Resiliency survey	NMCOG staff analyzed the ERRP surveys for health care, economic development, housing and food insecurity and presented them to the CEDS Committee. The results were included in the baseline data for the Phase I report	4/29/2021	
	Develop the Economic Recovery and Resiliency Plan	Began drafting elements of the ERRP Phase I report in May 2021, incorporating the results of the survey, data from the Local Rapid Recovery Plans and input from project partners and stakeholders. Comments on the draft Phase 1 report were solicited from mid-August through mid-September. The CEDS Committee reviewed the draft Phase I report at its 9/23/21 meeting, including the comments received throughout the comment period.	9/23/2021	
<b>Build Regional Economic Development Capacity</b>	Provide technical assistance and capacity building to economic development stakeholders	Completed EDD Designation application to provide more extensive support to economic development stakeholders, and submitted the application to EDA for review.	6/4/2021	1.1

TABLE 4: NMCOG AND EDA/STATE ECONOMIC DEVELOPMENT AGENCY-FUNDED PARTNER ACCOMPLISHMENTS

Project	CARES Act Task	Benefits/Outcome/Impacts/Deliverables	Milestone Date	Obj.
	Provide technical assistance and capacity building to economic development stakeholders	Distributed information on the EDA ARPA NOFOs to economic development partners and stakeholders and reviewed the materials with the CEDS Committee.	Throughout 2021	
<b>Local Rapid Recovery Plan</b>	N/A	Worked with three towns to create Local Rapid Recovery Plans, which the Massachusetts Department of Housing and Community Development (DHCD) define as "actionable, project-based recovery plans tailored to the unique economic challenges and COVID-19 related impacts to downtowns, town centers, and commercial areas across the commonwealth."	3/29 to 10/21/2021	1.1
<b>Hamilton Canal Innovation District</b>	N/A	Lupoli Companies began permitting on the Parcel 1 project, the first of that multiple major projects within the Hamilton Canal Innovation District (HCID). This is a beneficiary of the Revere Street (now Canal Street) bridge project, which was supported by a 2011 EDA Public Works grant.	2/8/2021	4.1, 5.1
	N/A	The 201 Canal Apartments, a 125-unit mixed-income housing development by Winn Companies, reached 75% completion. They are anticipated to open in Spring 2022.	8/21/2021	
	N/A	The City of Lowell substantially completed the final portions of the Hamilton Canal Innovation District Phase 2 project, which was funded by a 2016 EDA Public Works grant. The "Signature Bridge" is anticipated to open when 201 Canal Apartments exterior work is completed in January 2022.	9/30/2021	
	N/A	Construction on the Lord Overpass project entered Phase 4 of construction, including paving, sidewalk and curbing installation, and traffic signal installation. This is a necessary mitigation for development within the Hamilton Canal Innovation District.	11/22/2021	
<b>Ayer's City Industrial Park</b>	Provide technical assistance and capacity building to economic development stakeholders	Provided technical assistance to the City of Lowell on the Tanner Street Relocation project. Conference calls were held with EDA and City of Lowell Planning Staff on 4/21/21, 4/26/21 and 8/9/21.	4/21 through 8/9/21	2.5

TABLE 4: NMCOG AND EDA/STATE ECONOMIC DEVELOPMENT AGENCY-FUNDED PARTNER ACCOMPLISHMENTS

Project	CARES Act Task	Benefits/Outcome/Impacts/Deliverables	Milestone Date	Obj.
Community Food Assessment	Provide technical assistance and capacity building to economic development stakeholders	Staff provided technical assistance to Mill City Grows, a Lowell non-profit focuses on food security and urban agriculture. The data and mapping performed for the Lowell Food Assessment project helped inform the ERRP plan. Meetings with Mill City Grows were held on 4/23/21, 4/27/21 and 4/29/21.	4/29/21	2.2
	N/A	Mill City Grows, REACH LoWELL, and Greater Lowell Health Alliance created a Community Food Assessment Survey open to all City of Lowell residents in many languages. The ultimate goal of the Community Food Assessment was to increase Lowell residents’ access to nutritious, high-quality foods that are culturally connected and affordable. The survey closed on 9/30 with hundreds of responses.	9/30/21	
M2D2 IMPACT Program	Provide technical assistance and capacity building to economic development stakeholders	NMCOG staff provided technical assistance to the UMass Lowell M2D2 IMPACT program which is preparing a proposal for the EDA STEM Talent Challenge Grant program.	9/27/2021	2.3
Build Back Better and Good Jobs Challenge	N/A	NMCOG partnered on a Build Back Better regional application with the Metropolitan Area Planning Council, the Greater Boston EDDs, other regional planning agencies, Workforce Development Boards, community colleges, degree-granting universities, vocational schools, public school districts, local governments, philanthropic foundations, community-based organizations, industry trade groups, and technical service providers. The proposed project focuses on growing the cybersecurity sector in Massachusetts.	9/28/21	2.4, 3.2
	N/A	NMCOG supported a Good Jobs Challenge grant application led by MAPC and the Office of Workforce Development at the City of Boston for enhancing partnerships in Healthcare, Clean Energy, and Childcare.	12/21	
	N/A	NMCOG supported a Good Jobs Challenge grant application led by UMass Lowell for a Bio+Health+Tech Training program expanding their history with science and technology incubation.	12/21	

TABLE 4: NMCOG AND EDA/STATE ECONOMIC DEVELOPMENT AGENCY-FUNDED PARTNER ACCOMPLISHMENTS

Project	CARES Act Task	Benefits/Outcome/Impacts/Deliverables	Milestone Date	Obj.
<b>Pepperell Food Hub</b>	N/A	The Town of Pepperell worked with a nonprofit, who received a grant from MassDevelopment to create a business plan and begin preliminary feasibility work on a food hub and commercial kitchen that would occupy the Peter Fitzpatrick School, a partially vacant building.	10/5/2021	2.5, 7.2
<b>Housing Production Plans</b>	N/A	Under a District Local Technical Assistance program grant, NMCOG worked with Town of Billerica to complete their 2021 Housing Production Plan Update.	11/4/2021	6.2
	N/A	Under a District Local Technical Assistance program grant, NMCOG worked with Town of Westford to complete the Housing Needs Assessment of their 2021 Housing Production Plan Update. The plan is anticipated to be completed in early 2022.	12/31/21	

# Section 4

## Progress on Plan and Goals

The 2020-2025 CEDS defined seven **goals**, each with several objectives based on the region's vision statement. Each of these objectives contained multiple activities to advance that objective. These activities seek public investment and are to be pursued over a five-year period by the governmental entities or non-profit organizations that are championing them. In addition, the CEDS defined an evaluation framework. This framework contains **performance measures** that were selected to allow NMCOG to analyze whether each of the seven goals and their associated objectives were being met.

This section analyzes our progress as a region toward achieving these goals in two sub-sections. **Action Plan Updates** provides updates on the actions NMCOG and regional agencies made and how they advanced the **goals** in the previous years. **Evaluation Framework Measurements** provides updates on the **performance measures**.

## 4.1. Action Plan Updates

### Goal 1: Economic Resiliency

**Incorporate long-term measures that bolster the region's ability to withstand or avoid a shock and enhance the region's capability and ability to respond to recovery needs following an incident.**

NMCOG advanced the objective to implement steady-state initiatives by utilizing EDA CARES Act funding to develop a Phase I Economic Recovery and Resiliency Plan (ERRP) with CEDS partners. Without addressing the public health impacts and needs, there's little chance of returning the Greater Lowell economy to its pre-COVID 19 pandemic state. As part of this effort, NMCOG initiated technical assistance and capacity building initiatives that will enable the region to be prepared for future natural and economic disasters. This included a survey to develop specific information on the economic injury incurred by the Greater Lowell region as a result of COVID-19 and to identify creative solutions to address these issues and prepare for future impacts. This information formed the framework of the ERRP.

As part of that work, NMCOG established the Economic Recovery and Resiliency Subcommittee, consisting of the Lowell Community Health Center, the Greater Lowell Chamber of Commerce and the MassHire Greater Lowell Workforce Board, and others to develop recommendations on establishing a baseline data set that reflects the economic injury incurred by the Greater Lowell region as a result of the COVID-19 pandemic. We collaboratively quantified and analyzed the region's needs in healthcare, economic development, food security, and housing. We then created a list of recommendations that are integrated into this CEDS Annual Report (*see Section 5, Schedule of Goals for 2022*).

In addition, NMCOG worked with the Towns of Dracut, Pepperell, and Tyngsborough on Local Rapid Recovery Plans (LRRPs) funded by the DHCD's Massachusetts Downtown Initiative Program, identifying interventions that could accelerate COVID recovery in the short term and protect from future economic shock in the long term. The City of Lowell and their consultant, Stantec, undertook a similar LRRP planning process funded by DHCD.

Outside of the LRRP, the Town of Westford Economic Development Committee collected public service information including grants, child care support, food pantry support, and other programs for distribution on the Town website.

In 2022, NMCOG staff will reach out to other partners in the region, such as Community Teamwork, Inc., the Greater Lowell Community Foundation, Coalition for a Better Acre, the Cambodian Mutual Assistance Association, Working Cities Lowell, Lowell General Hospital and the Greater Lowell Health Alliance, to develop additional data related to the COVID-19 impact upon the minority communities in the region.

Outside of COVID recovery, the City of Lowell and the Towns of Dracut and Tewksbury had local Hazard Mitigation Plans approved by FEMA in 2021. Therefore, as of December 31, 2021, six out of nine communities have FEMA-approved Hazard Mitigation Plans. The City of Lowell further utilized Municipal Vulnerability Preparedness Action Grant funding to advance the *Claypit Brook Climate Resilience Stormwater Management Capital Improvement Plan*. These efforts look to enhance the resiliency of communities to hazards such as floods, heat, extreme weather, or other environmental hazards. Pepperell received a similar grant to remove a dam and replace two failing culverts on Sucker Brook (See also Goal 4, Infrastructure); Tewksbury received a grant to develop a stormwater analysis on municipal and vacant Town-owned parcels that could be used for nature-based solutions and flood storage, while considering opportunities for affordable housing and regional benefits; and Westford received a grant for a Tree and Invasive Species Inventory and Management Plan with a Tree Planting Plan.

## Goal 2: Economic Development

**Restore the regional and local economies devastated by the COVID-19 pandemic and build economic resilience through a diversified economy that includes science, health and technology innovation, advanced manufacturing, biotech, and prosperous small businesses.**

In addition to the activities specific to COVID-19 recovery outlined above, NMCOG provided technical assistance and capacity building to economic development stakeholders in the Greater Lowell region.

Firstly, we facilitated quarterly Greater Lowell CEDS committee meetings. The committee assisted in the completion and submission of this CEDS Annual Report, along with evaluating Build Back Better regional proposals, discussing the ERRP, and other topics of regional concern. Working closely with this committee, NMCOG completed the Economic Development District (EDD) Designation application to provide more extensive support to economic development stakeholders and submitted the application to EDA for review.

We worked with the City of Lowell to support their Public Works application for the Tanner Street project within the Ayer's City Urban Renewal Area. The City continued preparatory work on that project including abutter coordination, design, and right-of-way acquisition. Over 2021, the City of Lowell completed another major Economic Development project partially funded by an EDA Public Works grant: The Hamilton Canal Innovation

District Phase II project, which included streets, utilities, and a bridge to make five development sites in an Urban Renewal area pad-ready for construction. This will supplement the progress made in the “Phase 1” area of the district, in which one private developer neared construction of over 100 units of mixed-income housing while another developer began permitting work on four parcels, including a private garage, commercial space, and housing. Both of these Urban Renewal areas offer opportunities for manufacturing industries: through 110 Canal Street (incubator/accelerator facility) owned by UML and the transformational development opportunities for the Ayer’s Industrial Park.

NMCOG provided additional technical support on a number of economic development projects with goals to bring prosperity to small business. With DLTA funding, we assisted the Town of Chelmsford with business outreach that included connecting businesses to existing programs in the region and questions tailored to designing a Chelmsford-specific business Technical Assistance program. We also completed a concept plan for Vinal Square, a walkable neighborhood center, in the Town of Chelmsford.

Individual communities also advanced regional objectives. The Town of Pepperell worked with a nonprofit, who, with a grant from MassDevelopment, created a business plan and began preliminary feasibility work on a food hub and commercial kitchen that would occupy a vacant building. The Town of Westford Economic Development Committee initiated outreach to developers, managers, owners, and brokers of key economic development properties to track and report on the real estate outlook. The Town of Chelmsford created an Action Plan to attract and market the Route 129 Industrial Park, now named "Crossroads at Route 129."

Private developers began permitting, advanced, or completed several industrial or commercial projects in many communities. For example, developers began permitting of a Riverneck Road industrial/warehouse building in Chelmsford. Axenics on 200 Business Park Drive and 161-163 Westford Road were both completed in Tyngsborough. Home Depot is completing a 775,000 square foot fulfillment center on Woburn Street that straddles the Tewksbury/Billerica line. Coordination between the two towns has been successful in this major project and it will create jobs in the region.

Finally, objective 4 within this goal includes the following action item: (Promote) the City’s Opportunity Zones program to attract private investment by utilizing Smart Growth America’s new National Opportunity Zones Marketplace resource”. The Greater Lowell region has five qualified Opportunity Zones located in the City of Lowell and comprise much of downtown Lowell, the HCID, and the Jackson/Appleton/Middlesex (JAM) Urban Renewal Area. The boundaries of the Ayer’s Industrial Park overlap with one of the Lowell Opportunity Zones, while the Opportunity Zone in Census Tract 3101 was ranked 6th by LOCUS for “Smart Growth Potential”. NMCOG has begun exploring encouraging private investment in Opportunity Zones with the City of Lowell and anticipates continuing this work in 2022.

## Goal 3: Workforce Development and Employment Support

**Ensure that workforce initiatives align with current and future employment opportunities; that training supports workforce resiliency and the ability to shift between jobs and industries; and the necessary support services - day care, transportation, language training, etc. – are in place to overcome barriers to employment.**

The project scope for the ERRP reflected the importance of the workforce development system working collaboratively with the economic development sector in order to make an effective match for unemployed and underemployed workers, as well as for businesses requiring a newly trained workforce.

In addition, NMCOG recently met with several agencies to explore how we could support regional workforce development strategies through Build Back Better regional applications. For example, NMCOG partnered on a Build Back Better regional application with the Metropolitan Area Planning Council (MAPC), the Greater Boston EDDs, other regional planning agencies, Workforce Development Boards, community colleges, degree-granting universities, vocational schools, public school districts, local governments, philanthropic foundations, community-based organizations, industry trade groups, and technical service providers. The proposed project focuses on growing the cybersecurity sector in Massachusetts. We are also working with the Northeastern University team behind the BioConnects New England, which was a bio-manufacturing proposal selected for the first round of EDA's Build Back Better Regional Challenge. We are also supporting two Good Job Challenge applications to expand technical training for bio/health/tech and to create a regional Workforce Training System with partnerships in healthcare, clean energy, and childcare, from UMass Lowell and City of Boston/MAPC respectively.

In addition, NMCOG staff provided technical assistance to the UMass Lowell M2D2 IMPACT program which is preparing a proposal for the EDA STEM Talent Challenge Grant program. UMass Lowell provides needed stimulus to the manufacturing sector through its Emerging Technologies and Innovation Center (ETIC), Innovation Hub, Medical Device Development Center (M2D2).

Finally, NMCOG continued participating in the Greater Lowell MassHire Workforce Board committee meetings. The GLWFB is one of 16 Workforce Boards throughout Massachusetts. In addition to serving as a forum to build relationships between employers, job-seekers, and training providers, they offer a wide range of services to employers, job seekers and youth. In 2021 in addition to their workforce training and business service programs (see 4.2 Evaluation Framework Measurements), they re-opened their career center as COVID-19 numbers subsided, entered into a new 2-year contract with optional 2-year extension with the career center operator, opened a new Young Adult Career Center, and completed their draft strategic plan, the goals of which have been considered as part of Section 5, Schedule of Goals for 2022.

## Goal 4: Infrastructure

**Build upon the existing sewer, water, telecommunication and public utility infrastructure to increase capacity and address gaps in the existing infrastructure so that businesses can grow in the future.**

CEDS partners have advanced many large infrastructure projects that will positively impact economic development in the region. As mentioned in the Economic Development goal's progress summary, EDA has already funded two public works projects in the Hamilton Canal Innovation District (HCID). In addition, the City of Lowell is intending to submit a Public Works and/or ARPA application for the Ayer's Industrial Park related to the reconfiguration of Tanner Street to help transform this area from its blighted state to a job producing industrial and commercial center next to downtown Lowell. All of these projects will include or included sewer, water, telecommunication, and public utility infrastructure.

Smaller projects were also advanced. NMCOG assisted the Towns of Dracut and Tyngsborough on an Environmental Notice Form (ENF) for water system improvements, and the Town of Pepperell on an ENF to replace the Heald Street Culvert and restore the Sucker Brook. Lowell was awarded the Greening the Gateway Cities grant and planted 198 trees in the first season with the intent of reducing urban heat island effect and associated energy costs.

In addition, this past year coincided with Year 3 of the Massachusetts Small MS4 General Permit. All NMCOG communities are permit holders and maintained their compliance with MS4 permit requirements, including submitting their Year 3 Annual Reports by the submission deadline on September 28, 2021. The primary focus areas in this past reporting cycle involved collecting outfall screening data and updating post construction bylaws and ordinances to address stormwater runoff from new development and redevelopment that disturb one or more acres of land. Requirements also included annual opportunities for public participation, keeping records related to the permit and making them available to the public, continuing public education and outreach related to stormwater management, developing IDDE (illicit discharge detection and elimination) programs, completing annual training for municipal employees, cleaning catch basins in accordance with catch basin cleaning procedures, completing street sweeping at least annually, and properly storing and disposing of catch basin cleanings and street sweepings.

Finally, seven of the nine communities within the region have a municipal aggregation program, in which they purchase electricity in bulk from a competitive supplier on behalf of the residents and businesses within the community. Dracut and Westford participate in the Mass CEA program, while Chelmsford, Lowell, Tewksbury, and Tyngsborough operate their own programs. During 2021, Lowell and Westford had new plans or contract extensions take effect. Lowell's renewed contract contained 45% more Class I RECs than required by the Renewable Portfolio Standard, which is the second highest default product in the state.

Looking ahead to Year 4 of the MS4 permit, the focus areas will include implementing IDDE programs and actual catchment investigation and reporting and enforcing newly developed construction and post construction codes. Outside of the MS4 permit, the ERRP identifies areas that will be improved by investment in infrastructure and the technical assistance/capacity building component will enhance the ability of economic development stakeholders in the region to compete more favorably for federal and state infrastructure grants.

## Goal 5: Transportation

**Develop the transportation infrastructure to ensure that the Transportation Network supports economic development needs and accommodates future economic growth and address evolving mobility technology, which is trending toward driverless cars, ride sharing, telecommuting and electrification.**

The Northern Middlesex Metropolitan Planning Organization was established to carry out the transportation planning process in accordance with federal and state regulations. The NMMPO is the federally-designated transportation planning and programming agency for the Greater Lowell region. In addition to the Chairperson of NMCOG serving on the board of the NMMPO, NMCOG staff serves as the transportation planning staff for the NMMPO.

The City of Lowell and partners advanced several transportation projects that were specifically noted in the CEDS. This included the reconstruction and rehabilitation of five canal bridges through the Transportation Improvements Generating Economic Recovery (TIGER) Program. Four bridges were completed by December 2021, and the fifth is anticipated to be completed in 2022. This also included the improvements at the Lord Overpass and Thorndike Street through transportation and economic development grants which serve to increase access to the Hamilton Canal Innovation District. Finally, this included the commencement of design and permitting work on the Rourke Bridge replacement project, anticipated to be constructed in 2025-2029.

In addition, through the Transportation Improvement Program (TIP) and other funding sources, NMCOG, local, and state jurisdictions advanced Objective 5.1 (Invest in the Regional Highway System to Enhance Access to Municipal and Employment Centers). This includes projects listed in Table 5.

TABLE 5: REGIONAL HIGHWAY IMPROVEMENT AND BRIDGE PROJECTS (NOT COUNTING INTERSTATE/HIGHWAY RESURFACING PROJECTS)

Town	Project	Status
Billerica	Boston Road Improvements	Under Development or Design
Billerica	Middlesex Turnpike Improvements	Anticipated Complete in 2022
<b>Billerica</b>	Intersection improvements at Boston Road/Lexington Road and Glad Valley Road	Under Development or Design
Chelmsford	Bridge Deck Replacement and Intersection Improvements at Route 4 & I-495	Completed in 2021
<b>Chelmsford</b>	Route 3A/4 Improvements from Richardson Road to Technology Drive	Under Development or Design
Chelmsford	Route 110 Corridor Improvements	Under Development or Design
<b>Chelmsford</b>	Intersection Improvements at Route 110 & I-495	Under Development or Design
Chelmsford	Intersection Improvements at Route 129 And Riverneck Road	Anticipated Complete in 2022
Dracut	Nashua Road Improvements	Anticipated Complete in 2024
<b>Dracut</b>	Lakeview Avenue Safe Routes to Schools Sidewalk Improvements	Under development or Design
Dunstable	Route 113 Improvements	Under Development or Design
Lowell	Improvements On Route 38 at Four Intersections	Completed in 2021
Lowell	VFW Highway Over Beaver Brook	Anticipated Complete in 2022
<b>Lowell</b>	VFW Highway Resurfacing	Under Development or Design
Lowell	Pawtucket Street Corridor Improvements	Under Development or Design
Tewksbury	Route 133/River Road Intersection Improvements	Under Development or Design
Tewksbury	Intersection Improvements at Main Street, Salem Road and South Street	Completed in 2021
Tewksbury	Bridge Preservation, T-03-003, Mill Street Over Shawsheen River	Completed in 2021
<b>Tewksbury</b>	Intersection Improvements at Main Street/Pleasant Street & East Street/North Street	Under Development or Design
Westford	Boston Road Corridor Improvements	Under Development or Design
<b>Westford</b>	Route 110 Improvements from Minot's Corner to Powers Road	Under Development or Design
Westford	Intersection Improvements at Groton Road (Route 40) & Dunstable Road	Completed in 2021

In addition to the highway and bridge projects listed above, partners in the region advanced many multimodal projects addressing Objectives 5.2 and 5.3 related to transit and alternative transportation. NMCOG assisted in City of Lowell in the "GoLowell" planning process, which addresses pedestrian, bicycle, and transit planning for safety, quality of life, and economic development. That plan is anticipated to be complete in early 2022. NMCOG also assisted LRTA with the following tasks, which addressed one or more objectives:

- Transit service proposals
- Interregional Transit Study
- Review of paratransit services impacted by COVID-19
- Relocation of Downtown Lowell bus stop
- LRTA/UMass Lowell services coordination activities
- Review of proposals for renovation of Gallagher Terminal access to commuter rail platform
- Assistance to Dracut on pedestrian safety strategies around the Navy Yard business district

- MassTrails Grant assistance to Tewksbury

Trail projects advanced or completed in 2021 include those listed in Table 6.

TABLE 6: REGIONAL TRAIL PROJECTS

Town	Project	Status
Billerica	Yankee Doodle Bike Path	Under Development or Design
Dracut	Route 110 Multiuse Path	Under Development or Design
Lowell	Concord River Greenway	Completed in 2021
Lowell	Merrimack Riverwalk Phase II	Anticipated Complete in 2022
Lowell	Centralville River Path	Under Development or Design
Lowell	Connector Trail (First Phase of River Meadow Brook Trail)	Anticipated Complete in 2022

Finally, many projects funded by the Shared Streets and Spaces program improved both quality of life and increased bicycle and pedestrian infrastructure. Those projects are briefly described under Goal 7.

## Goal 6: Housing

**Create more market-rate and affordable housing throughout the region to ensure that businesses can expand and relocate to the region with the assurance that their workforce will be able to own, lease or rent affordable, quality housing.**

NMCOG supported two communities drafting updated Housing Production Plans (HPPs) in 2021. Billerica completed its HPP and received DHCD approval in 2021, while Westford anticipates HPP completion in early 2022. All other communities besides Lowell and Dunstable already had current, approved HPPs. NMCOG will continue working with Lowell and Dunstable in 2022 to encourage HPP creation.

Individual residential projects were began permitting or were otherwise advanced in many communities, including, for example, permitting for 100 units at 46 Sherburne Ave in Tyngsborough, a reactivation of the 96-unit Flint's Corner mixed use project in Tyngsborough, and the 394-unit redevelopment of a former campus into Alexan Chelmsford in Chelmsford.

Many communities utilized Housing Choice Initiative grants in 2021. The Housing Choice Initiative provides incentives, rewards, technical assistance, and targeted legislative reform to encourage and empower municipalities to build diverse housing units. To receiving Housing Choice designation, communities must have either had a 5% increase in housing units or built 500 units in five years. Table 7 lists the Housing Choice status of NMCOG communities.

TABLE 7: HOUSING CHOICE COMMUNITY STATUS

Town	Last Designated	Current Status as of March 2021	Permitted Units in 5 years as of March 2021	Grant Project in 2021 (Awarded in 2020)
Billerica	2020	Housing Choice Community	802	\$200,000 - new accessible concrete sidewalks along Boston Road from Lowell Street to Alpine Street
Chelmsford	2018	Not Housing Choice Community	314	None
Dracut	2019	Housing Choice Community	525	\$200,000 - preserve an historic schoolhouse by converting it to 9 units of affordable housing with a preference for veterans.
Dunstable	Unknown	Housing Choice Community	Unknown	None
Lowell	2020	Housing Choice Community	982	\$224,000 - city-wide comprehensive parking study to address recent development, including new housing, UMass Lowell facilities and employment in downtown.
Pepperell	N/A	Not Housing Choice Community	Unknown	
Tewksbury	2020	Housing Choice Community	540	\$220,000 - construct sidewalks along Main Street from Colonial Drive to Victor Drive.
Tyngsborough	2020	Housing Choice Community	236	None
Westford	2020	Housing Choice Community	581	None

In addition to the above projects awarded in 2020 and implemented in 2021, the City of Lowell was awarded a \$250,000 Housing Choice Community grant to update its Master Plan in 2022. NMCOG will continue to support and encourage Pepperell to receive a designation and Chelmsford to regain its designation.

In addition to taking actions to increase housing stock in general, several towns have taken steps to increase their subsidized, income-restricted units. Typically, these are eligible for the DHCD Subsidized Housing Inventory (SHI). Pepperell drafted Inclusionary Zoning with intent for it to be voted upon in Town Meeting in 2022. Dracut worked with NMCOG to explore both Inclusionary Zoning and 40R districts utilizing DLTA funding. Other communities are working with nonprofits on individual affordable housing projects within their jurisdictions, including releasing Requests for Proposal for surplus town property.

The region is also addressing homelessness. Lowell is the recipient of HOME Investment Partnerships American Rescue Plan Program (HOME-ARP) funding, which aims to reduce homelessness and increase housing stability. Lowell began the public planning process with intention to identify projects in 2022. In addition, the City of Lowell advanced discussion about reducing homelessness through its Coordinating Council on Housing and Homelessness, a coalition of nonprofit partners. This includes the creation of the "Lowell Connector," a by-name (by initials unless a release is signed by an individual) list of individuals experiencing homelessness and a structure for engagement and case management.

Finally, working under the DLTA program, NMCOG brought together several towns to begin a regional housing support working group that will meet quarterly. One of the first tasks of this working group is to assess the feasibility and need for a formalized Regional Housing Support Organization.

## **Goal 7: Community and Quality of Life**

**Maintain the community character in the region by preserving and protecting the region’s natural, cultural and historic resources and by encouraging balanced growth.**

After nearly two years of cancellations, major community cultural events began returning to Greater Lowell. The Irish Festival and Greek Festivals occurred in September 2021, and the City of Lights festival occurred in November 2021. The City anticipates a return to the remainder of its rotating cultural and community events in 2022, such as Winterfest, Points of Light Lantern Celebration, the Puerto Rican Festival, the Lowell Folk Festival, the Southeast Asian Water Festival, Lowell Kinetic Sculpture Race, and many others. Smaller town festivals throughout the region are also anticipated to return.

During the pandemic, the City of Lowell adopted the Community Preservation Act (CPA) and anticipates the first CPA-funded projects will begin in 2022. Pepperell undertook a vote at Town Meeting about the CPA in 2021, which affirmatively sent the CPA to the annual spring election of 2022. All other towns in the NMCOG region had previously adopted the CPA and advanced cultural, historic, and open-space projects with this funding.

During COVID-19, new needs for outdoor, walkable space that could support social distancing measures arose. As mentioned in Section 2, Adjustment to the Strategy, 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).

Also as mentioned, the Greater Lowell Chamber of Commerce received funding through the FY21 Travel & Tourism Recovery Grant 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 31<sup>st</sup> season of the Summer Music Series.

Finally, NMCOG assisted Pepperell in the creation of updated design guidelines for its historic town center through the DLTA program, and the Greater Lowell Community Foundation advanced Mosaic Lowell, the Cultural Economy plan for the City of Lowell. This plan is anticipated to be completed in 2022.

## 4.2. Evaluation Framework Measurements

The seven CEDS Goals and Objectives were summarized in the Strategic Direction and Action Plan. Outlined below are the specific measures, indicators, and 2020 and 2021 quantities for each indicator. The timeframe each measurement represents differs from indicator to indicator depending on the data source, which is noted in the final column. The performance indicators will reflect whether the specific measures have been positive, negative or unchanged.

TABLE 8: EVALUATION FRAMEWORK

Goal	Measure	Indicator	2019 Quantity	2020 Quantity	2021 Quantity	Change between most recent periods	Note
1	Update hazard mitigation plans	Number of hazard mitigation plans or projects completed during CEDS	N/A	3	6	+3	The number represents the number of current HMPs as of December 31 each year.
2	Attract and grow small businesses	Total number of establishments	9,258	9,682		+424	This number represents the total number of private establishments of all types in Q4 of the preceding years (2019 Q4 and 2020 Q4).
2	Increase employment	Total number of Jobs	129,855	123,703		-6,152	This number represents the average monthly employment for all public and private establishments in Q4 of the preceding years (2019 Q4 and 2020 Q4)
2	Improve wages	Average wages	\$1,422	\$1,633		+\$211	This number represents the average weekly wage of all public and private establishments in Q4 of the preceding years (2019 Q4 and 2020 Q4)
2	Reduce unemployment rate	Unemployment rate	3.1%	8.9%	5.7%	-3.2 points	This number represents the region's average unemployment rate for the first ten months of the year (2020 and 2021) as reported by the Local Area Unemployment Survey <i>*Final two months of data not available at time of updates</i>
2	Expand Opportunity Zone investments	Number and amount of Opportunity Zone investments	N/A	0	0	0	This represents the number and total estimated value of major projects <u>commenced</u> in the opportunity zone each year (projects may be completed in future years) as provided by the City of Lowell
3	Increase workforce training participation	Number of residents served by GLWFB	N/A	196		N/A	This number represents the Total Enrollments of Workforce or Skills Training Programs of the MassHire Greater Lowell Workforce Board in the previous fiscal year (FY 20). Note that data prior to FY 20 was not available for comparison.

TABLE 8: EVALUATION FRAMEWORK

Goal	Measure	Indicator	2019 Quantity	2020 Quantity	2021 Quantity	Change between most recent periods	Note
3	Enhance workforce training services for businesses	Number of businesses receiving services from GLWFB	N/A	564		N/A	This number represents the Total Employers Receiving Services from the MassHire Greater Lowell Workforce Board in the previous fiscal year (FY 20). Note that data prior to FY 20 was not available for comparison.
3	Increase level of skills training certification	Number of industry-recognized certifications and credentials Issued by GLWFB	N/A	144		N/A	This number represents the Total Industry Certifications from the MassHire Workforce Board in the previous fiscal year (FY 20). Note that data prior to FY 20 was not available for comparison.
5	Increase population served by transit	Unlinked LRTA Trips	N/A	627,606	273,474	-354,132	These numbers are the sum total per calendar year. Note that transit use went to a monthly high of 111,960 trips in November 2019 prior to the COVID pandemic in the US to a low of 22,213 trips in April 2020 during COVID, and has partially recovered to 50,321 in June 2021.
5	Improve bridge conditions	Number of structurally deficient bridges	N/A	N/A	24/248 (9.7%)	N/A	This number represents the number of structurally deficient bridges and total bridges on the MassDOT Bridge Inspection Management System. Note that numbers prior to 2021 were not available for comparison.
5	Increase walking and bicycle trails	Number and miles of walking and bicycle trails	N/A	N/A	561.5	N/A	NMCOG regional trails database as of 12/29/2021. Mileage excludes shared bike lanes (sharrows). Mileage is based on the total length of trail segments in the GIS data. Note that mileage prior to 2021 was not available for comparison.
6	Increase number of housing units	Number of housing units permitted	1,008	484	309	-175	The numbers are the sum total preliminary housing unit building permits for each year reported by HUD's State of the Cities Data Systems
6	Increase affordable housing units	Number of affordable housing units	N/A	11,428	11,556	+128	These are snapshots provided by DHCD of the SHI in July 9, 2020 and June 22, 2021
7	Increase economic footprint of cultural businesses	Total wage of selected industries	\$266,953	\$213,508		-\$53,445	This is the sum total of all wages paid in Arts, Entertainment, and Recreation Industry and Accommodation and Food Services Industry in the preceding years (2019 and 2020) in thousands of dollars

# Section 5

## Schedule of Goals for 2022

## 5.1.2022 Action Plan and Next Steps

This section describes the anticipated and priority actions to be undertaken in 2022. These activities have been selected due to their importance to increase the region’s resiliency, workforce availability, equity, and flexibility in the face of constantly changing economic conditions. In addition, they follow the recommendations in Local Rapid Recovery Plans and the Economic Resilience and Recovery Plan whenever possible.

In addition to these activities or projects, communities and agencies will undertake other economic development activities, such as but not limited to continuing business support and recruitment, regular workforce development activities, and infrastructure maintenance and construction.

TABLE 9: 2022 SCHEDULE OF GOALS

Activity or Project	Task	Lead Agency or Actor	Objective(s) Advanced	Milestone Target
<b>Economic Recovery and Resiliency Plan</b>	Evaluate progress on ERRP Phase 1 actions and recommend priorities for phase 2 evaluation.	NMCOG	1.1	Jul-22
	Complete Phase 2 of the ERRP.	NMCOG	1.1	Sep-22
<b>MBTA Community Multi-Family Compliance</b>	Complete presentation to Select Boards or City Council.	Designated MBTA Communities	6.1	May-22
	Complete Action Plan toward compliance by DHCD's required date and Submit to DHCD.	Designated MBTA Communities	6.1	Dec-22
	Provide technical support through the DLTA program to identify ideal locations for zones, potential capacity for zones, and other data needs as requested by local communities. Draft zoning amendments may be included or may be developed in 2023.	NMCOG	6.1	Dec-22
<b>Revitalization of Regional Network of Village and Neighborhood Centers</b>	Evaluate the feasibility of applying for regional technical assistance through the Complete Neighborhoods Program of Mass Housing Partnership. This could potentially advance the ERRP goal of identifying, reusing, and revitalizing vacant properties and development of multifamily housing near employment centers and public transportation.	Local Communities	2.1, 5.3, 6.1	Apr-22
	Complete study investigating expanding multifamily and mixed-use zoning in Pepperell's Main Street Corridor/Railroad Square area, including the investigation of 40R through the DLTA program, and apply for funding to implement infrastructure recommendations for Main Street Corridor/Railroad Square area.	Pepperell	2.1, 6.1	Apr-22
	Prioritize and identify implementation first steps of Local Rapid Recovery Plans to enhance amenities, marketing, coordination, visual appearance, and access.	Dracut, Lowell, Pepperell, Tyngsborough	2.1, 2.5	Sep-22
	Develop improvement plans for neighborhood centers.	Lowell	2.1, 2.5	Continuous

TABLE 9: 2022 SCHEDULE OF GOALS

Activity or Project	Task	Lead Agency or Actor	Objective(s) Advanced	Milestone Target
<b>Evaluate and Improve Regional Zoning and Permitting Practices</b>	Analyze Land Use and Zoning Conflicts in Chelmsford and recommend changes that will result in a process and outcomes that will encourage and support both housing and economic development opportunities.	Chelmsford, NMCOG	2.5, 6.1, 6.2	Dec-22
	Continue work on comprehensive zoning review with the Zoning Review Committee and consultants	Tyngsborough	2.5, 6.1, 6.2	Continuous
	Update Pepperell's current subdivision regulations and site plan review process to clarify and modernize language.	Pepperell, NMCOG	2.5, 6.1, 6.2	Dec-22
	Advance Dracut rezoning study to streamline permitting and investigate Inclusionary Zoning and/or 40R districts as part of the process through the DLTA program	Dracut, NMCOG	2.5, 6.1, 6.2	Continuous
<b>Industrial and Mixed-Use Development</b>	Implement marketing, branding, and other initiatives for the Route 129 Business Park in Chelmsford	Chelmsford	2.5	Dec-22
	Continue supporting private development along Kendall and Middlesex Roads in Tyngsborough, which may include 93 Kendall Road, 54 Locust Avenue, 406 and 422 Middlesex Road, overflow lots of Pheasant Lane Mall, Westford Road, and/or other opportunities.	Tyngsborough	4.1, 5.1	Continuous
<b>Regional Partnerships for Workforce Development</b>	Convene a meeting among NMCOG and regional planning agencies of Lawrence and Nashua, NH, to discuss regional approaches to workforce and economic development.	NMCOG	2.3, 3.1	May-22
	Convene a meeting among regional workforce boards in NE MA, educational institutions, industries, and unions to discuss possible funding for a regional workforce plan. This could potentially advance the ERRP recommendation to develop a comprehensive regional workforce system.	NMCOG	1.1, 3.1	Sep-22
	Strengthen regional ties along Middlesex 3 Corridor by joining Middlesex 3 Workforce Development subcommittee.	NMCOG, Middlesex 3	2.3, 3.1, 4.4	Jul-22
	Implement other Workforce Development actions recommended by the ERRP.	MassHire GLWFB	3.1, 3.2, 3.3	Continuous
	Support Northeastern University's BioConnects New England, a cluster-based program to create leadership in bio-manufacturing that is accessible to communities and individuals that have been excluded from that industry, including its Phase 2 Build Back Better application.	University of Massachusetts Lowell, NMCOG, Partners	3.1, 3.2, 3.3	Continuous
	Support the Bio+Health+Tech Training Program that centers on technical training, student training, and start-up company training, including University of Massachusetts Lowell's Good Jobs Challenge application.	University of Massachusetts Lowell	3.1, 3.2, 3.3	Continuous

TABLE 9: 2022 SCHEDULE OF GOALS

Activity or Project	Task	Lead Agency or Actor	Objective(s) Advanced	Milestone Target
<b>Economic Development District Application</b>	Continue pursuing Economic Development District (EDD) designation with the EDA and examine opportunities available under a Revolving Loan Fund (RLF) program to be approved by EDA.	NMCOG	2.2	Continuous
<b>Preparation for the 2023 CEDS Annual Report</b>	Increase the number of CEDS committee members to enhance diversity of organizational types represented; socioeconomic, racial, and ethnic backgrounds; and industries represented.	NMCOG	2.2	May-22
	Develop and track the number of square feet constructed in major industrial and commercial projects before and after COVID to determine if patterns of industrial and commercial development have changed due to the Pandemic or other changes in the economic landscape.	NMCOG	1.2, 2.6	Dec-22
	Determine which communities have public water system PFAS testing needs or water supplies that are limited by PFAS contamination, list necessary actions and activities to test for or mitigate contamination, and encourage communities with needs to apply for MassDEP resources.	Local Communities	1.1	Dec-22
	Investigate and summarize NMCOG communities' sustainability plans, hazard mitigation plans, climate goals, or other work toward climate change mitigation and adaptation.	NMCOG	1.1, 1.2, 4.2, 4.3	Dec-22
<b>Housing Production Plans</b>	Create Housing Production Plans for the Towns of Tewksbury and Westford utilizing the DLTA program.	NMCOG, Tewksbury, and Westford	6.2	Sep-22
	Create Housing Production Plans for the Town of Dunstable and the City of Lowell utilizing the DLTA program.	NMCOG, Dunstable, and Lowell	6.2	Dec-22
<b>Local Technical Support</b>	Complete DLTA XV projects not covered above including Mapping Water/Sewer Parcels in Westford, Completing the Route 40/Groton Road Corridor Study in Chelmsford, and complete Brownfield Inventory in Westford.	NMCOG, Local Communities	4.1, 4.3, 4.4, 5.1	Dec-22
<b>Business Continuity Training Program</b>	Identify a lead agency to assist small businesses in creation of business continuity/preparedness plans that includes risk management, attraction/retention for workforce, technology adaptation, and business planning.	NMCOG, Entrepreneurship Center	2.2	Dec-22
<b>Enhance Tourism and Visitation</b>	Identify partners for a regional Marketing and Tourism Working Group.	NMCOG	7.2, 7.3	Dec-22
	Complete the Merrimack Riverwalk Phase 2, Concord River Greenway Phase 3b, and Connector Trail.	Lowell	5.3, 7.1	Sep-22
	Complete the Mosaic Lowell plan for the Creative Economy.	Mosaic Lowell	7.3	Dec-22

TABLE 9: 2022 SCHEDULE OF GOALS

Activity or Project	Task	Lead Agency or Actor	Objective(s) Advanced	Milestone Target
<b>Regional Energy Planning Assistance and Access to Regional Coordination</b>	Prepare Green Communities Annual Reports for Billerica, Dracut, Dunstable, & Tewksbury.	NMCOG	1.1, 5.2	22-Nov
	Perform community greenhouse gas (GHG) inventories for Chelmsford & Pepperell.	NMCOG	1.1, 5.2	22-Jun
	Assist Chelmsford, Pepperell, & Westford with planning for net-zero municipal operations.	NMCOG	1.1, 5.2	22-Aug
	Assist Chelmsford & Pepperell with preparation and scoping work for community net-zero plans.	NMCOG	1.1, 5.2	22-Dec
	Provide monthly training on energy efficiency and clean energy programs	NMCOG	1.1, 5.2	22-Dec
	Host two regional clean energy workshops.	NMCOG	1.1, 5.2	22-Dec
<b>Northern Middlesex Stormwater Collaborative</b>	Host annual Good Housekeeping training for municipal staff.	NMCOG	1.1, 4.1	22-May
	Host one technical training related to the requirements of the Year 4 MS4 Permit.	NMCOG	1.1, 4.1	22-Aug
	Work with communities to submit the Year 4 MS4 Permit.	NMCOG	1.1, 4.1	22-Sep

## 5.2. Challenges and Mitigation

Two continuing challenges for local governments and CEDS project champions are capacity and funding. For many communities, there is limited professional staff capacity to take on additional tasks to pursue economic development projects including grant applications requiring match. Sustained efforts by volunteers or the phasing of projects have been successful in some cases, but may not work for all efforts. Access to resources can be a challenge from early project development to implementation.

The Commonwealth’s new One Stop for Growth application portal and new economic development funding programs were created for the purpose of offering multiple funding sources to help projects advance to the next stage. These competitive funding sources present new opportunities to move projects forward. However for some projects, the cost for implementation may be higher than local or state funding sources can provide and additional resources are needed. It can be very challenging to align timelines for state and federal funding programs, creating a funding gap that prevents some projects from proceeding.

## 5.3. EDA Assistance Needed

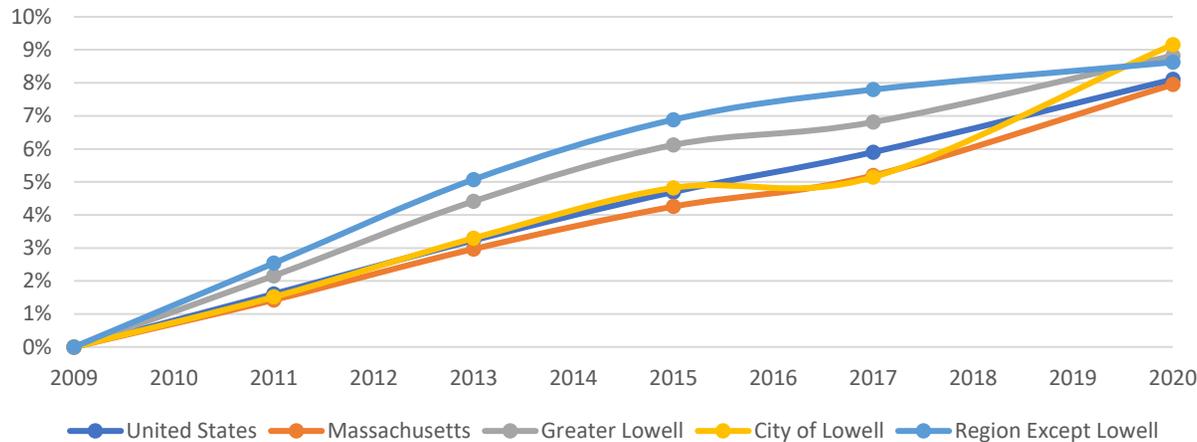
With the new American Rescue Plan Act of 2021, new federal funding has become available to state and local governments and through new federal funding opportunities, such as through the EDA. As guidance is issued, local governments and CEDS project champions will explore these funding opportunities. NMCOG staff are prepared to assist governmental and non-profit organizations in pursuing EDA assistance, as well as other federal and state funding programs, to advance CEDS projects.

# Appendix 1

## Socioeconomic Data

## Demographics: Population

FIGURE 1: POPULATION CHANGE IN % SINCE 2007-11 ACS, 2007-11 TO 2020



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B01001 and 2020 U.S. Decennial Census PL-94 Data. ACS data is visualized by middle year.

TABLE 10: POPULATION BY COMMUNITY, 2010 AND 2020 DECENNIAL CENSUS

Community	2010 Population	2020 Population	% Change Between 2010 and 2020
Billerica	40,243	42,119	4.7%
Chelmsford	33,802	36,392	7.7%
Dracut	29,457	32,617	10.7%
Dunstable	3,179	3,358	5.6%
Lowell	106,519	115,554	8.5%
Pepperell	11,497	11,604	0.9%
Tewksbury	28,961	31,342	8.2%
Tyngsborough	11,292	12,380	9.6%
Westford	21,951	24,643	12.3%
<b>Total</b>	<b>286,901</b>	<b>310,009</b>	<b>8.1%</b>

Source: U.S. Census Bureau 2010 Census and 2020 Census via Donahue Institute

TABLE 11: POPULATION IN THE REGION, STATE, AND NATION, 2007-11 TO 2020

	2007-11	2009-13	2011-15	2013-17	2015-19	2020
United States	306,603,772	311,536,594	316,515,021	321,004,407	324,697,795	331,449,281
Massachusetts	6,512,227	6,605,058	6,705,586	6,789,319	6,850,553	7,029,917
Greater Lowell	284,876	291,027	297,449	302,306	304,280	310,009
City of Lowell	105,860	107,466	109,349	110,964	111,306	115,554
Region Outside Lowell	179,016	183,561	188,100	191,342	192,974	194,455

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B01001 and 2020 U.S. Decennial Census PL-94 Data.

According to the 2020 U.S. Census, the Greater Lowell region had a population of 310,009 in 2020, which represented an increase of 8.1% since 2010 (see tables in Appendix 1). The CEDS included population projections developed by the UMass Donahue Institute for MassDOT that anticipated a total population of 299,617 in 2020, which has been exceeded by 3.5%.

The Town with the largest proportional change between the 2010 and 2020 was the Town of Dracut, which grew by 10.7%. The greatest change in absolute terms was the City of Lowell, which grew by 9,035 people.

The biggest trend change since the last update is Lowell's population growth, which had appeared to slow in the 2013-17 ACS. As of the 2020 Decennial Census, it had actually outpaced the rest of the region, the Commonwealth, and the U.S. (The City of Lowell increased 9.6% for the eight-year period compared to the U.S. increase of 8.1%).

## Demographics: Age

TABLE 12: AGE COHORTS IN THE REGION, STATE, AND NATION, 2007-11 TO 2015-19

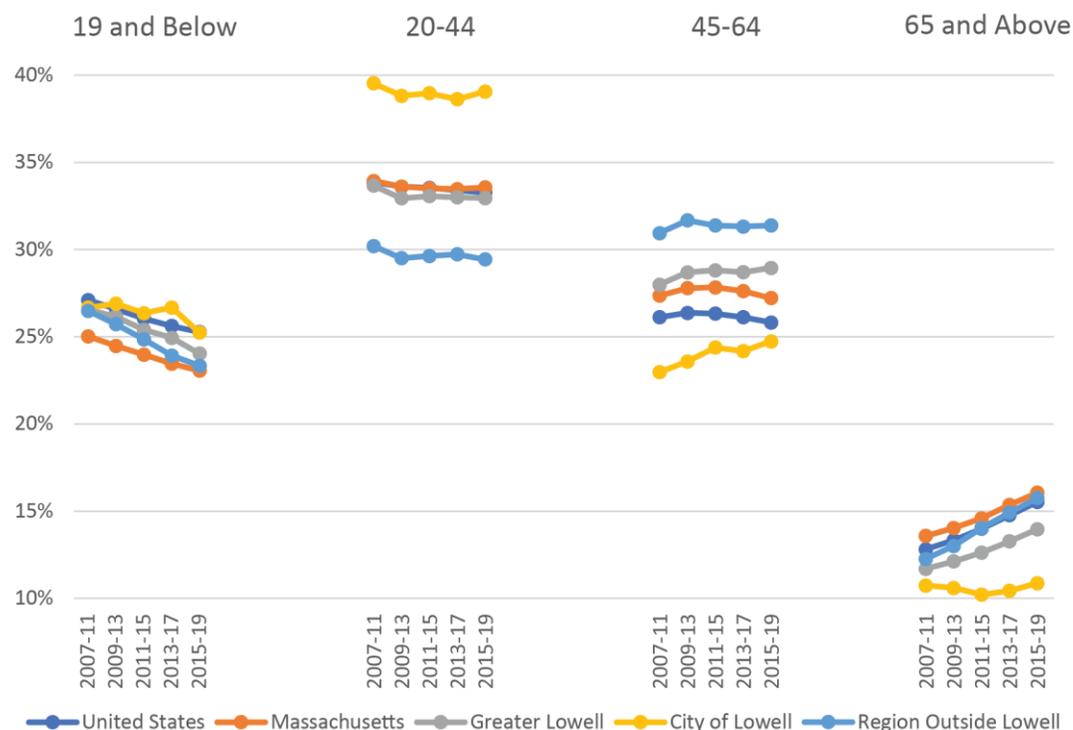
		2007-11	2009-13	2011-15	2013-17	2015-19
United States	19 and below	27%	27%	26%	26%	25%
	20-44	34%	34%	34%	33%	33%
	45-64	26%	26%	26%	26%	26%
	65 and above	13%	13%	14%	15%	16%
Mass.	19 and below	25%	24%	24%	23%	23%
	20-44	34%	34%	34%	33%	34%
	45-64	27%	28%	28%	28%	27%
	65 and above	14%	14%	15%	15%	16%
Greater Lowell	19 and below	27%	26%	25%	25%	24%
	20-44	34%	33%	33%	33%	33%
	45-64	28%	29%	29%	29%	29%
	65 and above	12%	12%	13%	13%	14%
City of Lowell	19 and below	27%	27%	26%	27%	25%
	20-44	40%	39%	39%	39%	39%
	45-64	23%	24%	24%	24%	25%
	65 and above	11%	11%	10%	11%	11%
Region Outside Lowell	19 and below	26%	26%	25%	24%	23%
	20-44	30%	30%	30%	30%	29%
	45-64	31%	32%	31%	31%	31%
	65 and above	12%	13%	14%	15%	16%

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B01001.

When measuring by age cohorts, trends observed in the CEDS continued. Greater Lowell's proportion of "19 and Below" continued to drop (-9.5% over eight years), although the decline in the City of Lowell was somewhat slower than the rest of the region.

In Greater Lowell, the proportion of the population in the middle age categories is generally holding steady. The "65 and Above" category is small proportionally but growing rapidly (19.2% over eight years), similarly to the U.S. as a whole. Conversely, the City's "45-64" category is proportionately growing (7.7% over eight years) and the "65 and Above" is holding roughly steady.

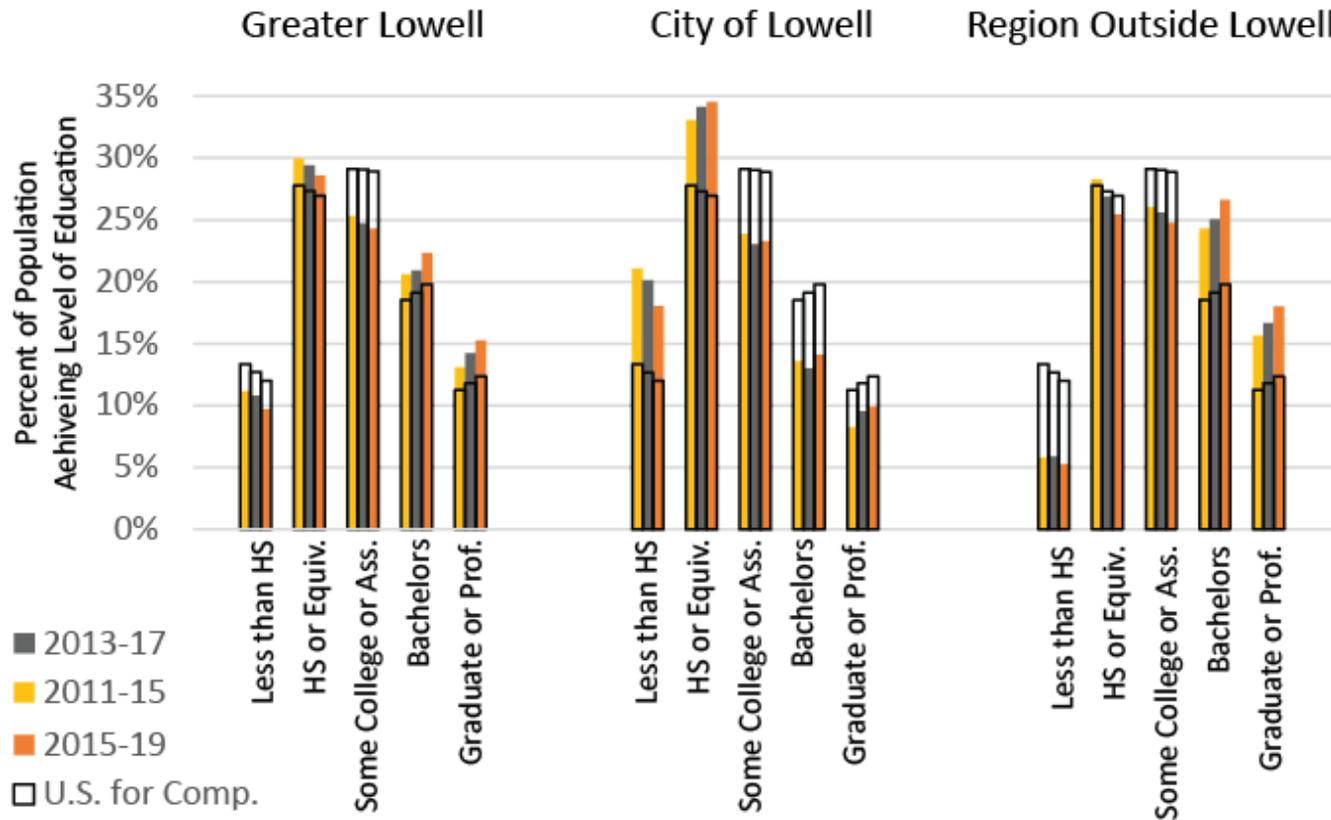
FIGURE 2: POPULATION CHANGE BY AGE CATEGORY, 2007-11 TO 2015-19



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B01001.

## Demographics: Educational Attainment

FIGURE 3: PROPORTION OF POPULATION 25 AND OVER BY EDUCATIONAL ATTAINMENT, BY REGION AND YEAR



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B06009.

The region has a higher (roughly 4 points in Bachelors or above) level of educational achievement than the U.S., and the trend of improvement observed in the last CEDS has continued. Lowell is growing in High School Graduates (4.4% over four years) and Graduate degree (19.8% over four years) holders. Outside the City, the number of Bachelors (9.4% over four years) and Graduate degree (15.1% over 6 years) holders are growing.

In the City of Lowell, all age categories except those over 65 experienced a proportional decline in "Less than high school". This represents a positive graduation rate trend (Lowell's five-year graduation rate was 74.1% in 2011 and 85.3% in 2020). This may also reflect individuals achieving GED or equivalents or moving to the City. However, it appears the growth in graduate degrees is concentrated in those who are 65+, which may indicate a need to encourage higher levels of education along with making sure all levels of attainment have tracks to quality jobs.

See Table 13: Proportion of Population 25 and over by Educational Attainment in the Region, State, and Nation, 2011-15 to 2015-19 on next page.

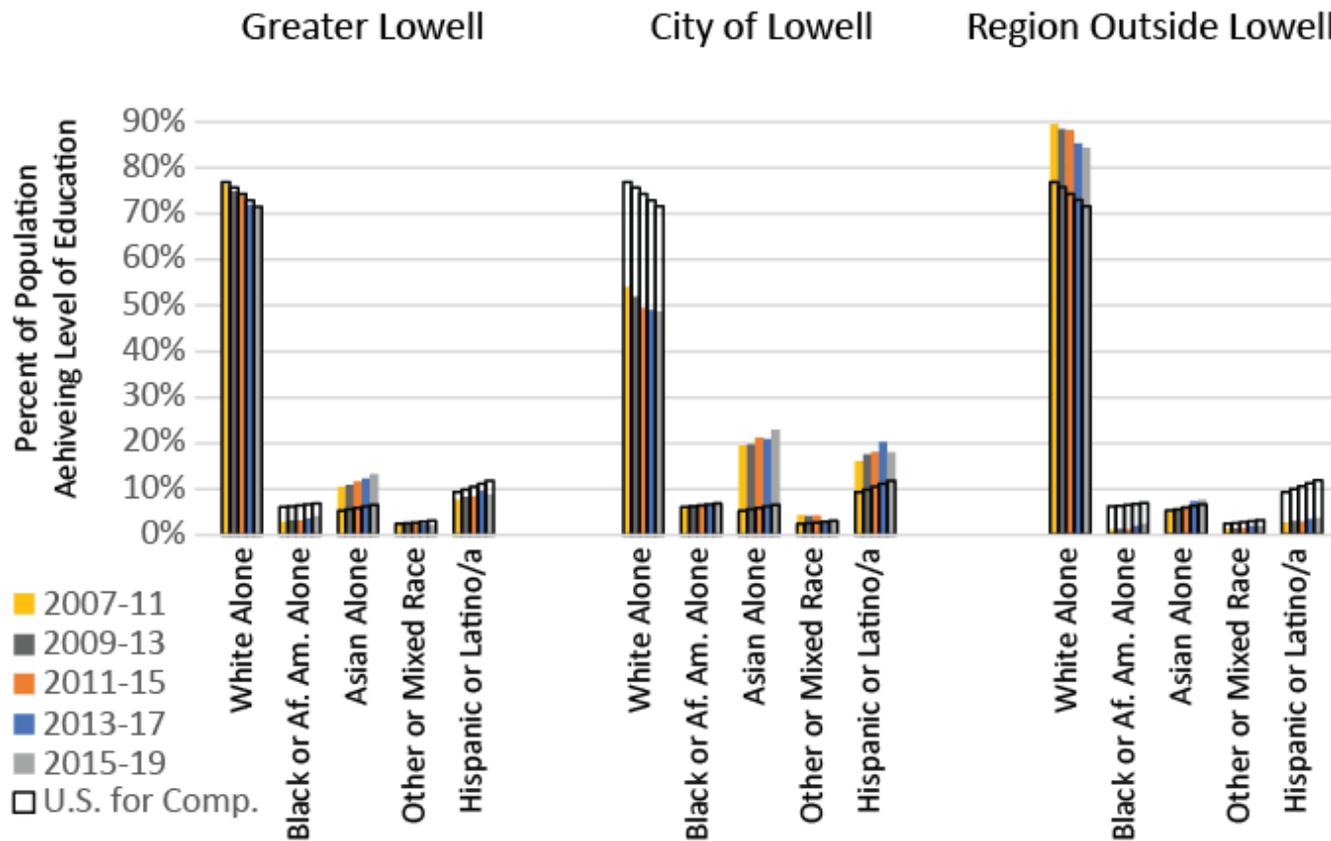
TABLE 13: PROPORTION OF POPULATION 25 AND OVER BY EDUCATIONAL ATTAINMENT IN THE REGION, STATE, AND NATION, 2011-15 TO 2015-19

		2011-15	2013-17	2015-19
United States	Less than high school graduate	13%	13%	12%
	High school graduate (includes equivalency)	28%	27%	27%
	Some college or associate's degree	29%	29%	29%
	Bachelor's degree	19%	19%	20%
	Graduate or professional degree	11%	12%	12%
Massachusetts	Less than high school graduate	10%	10%	9%
	High school graduate (includes equivalency)	25%	25%	24%
	Some college or associate's degree	24%	23%	23%
	Bachelor's degree	23%	23%	24%
	Graduate or professional degree	18%	19%	20%
Greater Lowell	Less than high school graduate	11%	11%	10%
	High school graduate (includes equivalency)	30%	29%	29%
	Some college or associate's degree	25%	25%	24%
	Bachelor's degree	21%	21%	22%
	Graduate or professional degree	13%	14%	15%
City of Lowell	Less than high school graduate	21%	20%	18%
	High school graduate (includes equivalency)	33%	34%	35%
	Some college or associate's degree	24%	23%	23%
	Bachelor's degree	14%	13%	14%
	Graduate or professional degree	8%	10%	10%
Region Outside Lowell	Less than high school graduate	6%	6%	5%
	High school graduate (includes equivalency)	28%	27%	25%
	Some college or associate's degree	26%	26%	25%
	Bachelor's degree	24%	25%	27%
	Graduate or professional degree	16%	17%	18%

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B06009.

## Demographics: Race/Ethnicity

FIGURE 4: RACE AND ETHNICITY, BY REGION AND YEAR



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B03002.

While the region remains predominately white (64.9%), the total number of white residents decreased 7.2% between 2010 and 2020, while several other races experienced population increases, including Asian, the second largest racial or ethnic group in the region, which saw a 35.5% increase, and Hispanic or Latino/a, the third largest racial or ethnic group, which saw a 48.5% increase (see Table 14 for more information).

Greater Lowell is very similar to the U.S. in general in terms of these trends, although the region has higher Asian populations and lower Black or African American and Hispanic or Latino/a levels than the U.S. Although the Hispanic or Latino/a level increased over the last ten years, it did not do so steadily, with the trend reversing in the latest ACS. Evaluation of the disparity of economic outcomes among races and ethnicities are beyond the scope of this report, however, this should be studied further to develop actions for addressing equity and inclusion in the economy.

See Table 14 and Table 15 on the next page.

**TABLE 14: GREATER LOWELL POPULATION BY RACE, 2010 AND 2020 DECENNIAL CENSUS**

Race	2010 Population	2020 Population	% Change Between 2010 and 2020	% of Total Population in 2020
White	216,755	201,156	-7.2%	64.9%
Black	8,777	15,378	75.2%	5.0%
Hispanic or Latino	22,704	33,722	48.5%	10.9%
Asian	31,843	43,143	35.5%	13.9%
American Indian & Alaskan Native	312	261	-16.3%	0.1%
Some Other Race	1,926	3,905	102.8%	1.3%
2 or more races	4,584	12,444	171.5%	4.0%

Source: U.S. Census Bureau 2010 Census and 2020 Census via Donahue Institute

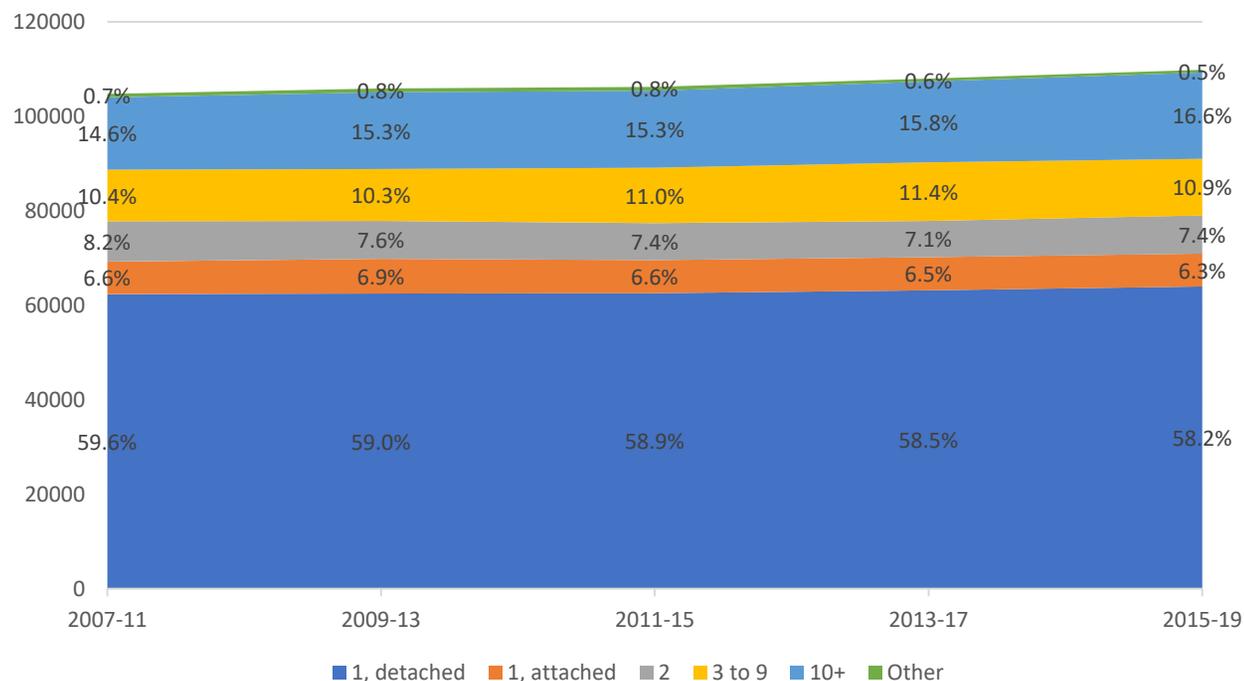
**TABLE 15: PROPORTION OF POPULATION BY RACE BY THE REGION, STATE, AND NATION, 2007-11 TO 2015-19**

		2007-11	2009-13	2011-15	2013-17	2015-19
<b>United States</b>	<b>White alone</b>	64%	63%	62%	61%	61%
	<b>Black or African American alone</b>	12%	12%	12%	12%	12%
	<b>Asian alone</b>	5%	5%	5%	5%	5%
	<b>Some other race or two or more races</b>	3%	3%	3%	3%	4%
	<b>Hispanic or Latino, any race</b>	16%	17%	17%	18%	18%
<b>Massachusetts</b>	<b>White alone</b>	77%	76%	74%	73%	72%
	<b>Black or African American alone</b>	6%	6%	6%	7%	7%
	<b>Asian alone</b>	5%	6%	6%	6%	7%
	<b>Some other race or two or more races</b>	2%	3%	3%	3%	3%
	<b>Hispanic or Latino, any race</b>	9%	10%	11%	11%	12%
<b>Greater Lowell</b>	<b>White alone</b>	76%	75%	74%	72%	71%
	<b>Black or African American alone</b>	3%	3%	3%	4%	4%
	<b>Asian alone</b>	11%	11%	12%	12%	13%
	<b>Some other race or two or more races</b>	3%	2%	3%	2%	2%
	<b>Hispanic or Latino, any race</b>	8%	8%	8%	10%	9%
<b>City of Lowell</b>	<b>White alone</b>	54%	52%	50%	49%	49%
	<b>Black or African American alone</b>	6%	7%	7%	7%	7%
	<b>Asian alone</b>	20%	20%	21%	21%	23%
	<b>Some other race or two or more races</b>	4%	4%	4%	3%	3%
	<b>Hispanic or Latino, any race</b>	16%	18%	18%	20%	18%
<b>Region Outside Lowell</b>	<b>White alone</b>	90%	88%	88%	85%	84%
	<b>Black or African American alone</b>	1%	1%	1%	2%	2%
	<b>Asian alone</b>	5%	6%	6%	7%	8%
	<b>Some other race or two or more races</b>	1%	1%	2%	2%	2%
	<b>Hispanic or Latino, any race</b>	3%	3%	3%	4%	4%

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B03002.

## Housing: Housing Units

FIGURE 5: HOUSING UNITS IN GREATER LOWELL BY # OF UNITS IN BLDG.



The mix of housing in Greater Lowell is important, as it reflects Objective 2.5 (supporting diverse rental units) and, more broadly, represents the ability to house families with diverse preferences, incomes, and needs—important to both quality of life and the workforce.

The long-term trend of a growing number of units continued, but has accelerated over the last four years (an average of 0.8% annually in the four years after 2011-15 vs. an average of 0.4% annually in the four years before 2011-15), resulting in a total of 1,603 new units since 2007-11. Notably, the growth rate of units in buildings containing 10 or more units has been higher than the overall rate (an average of 1.6% annually in the four years prior to 2011-15, and an average of 2.9% annually in the four years after).

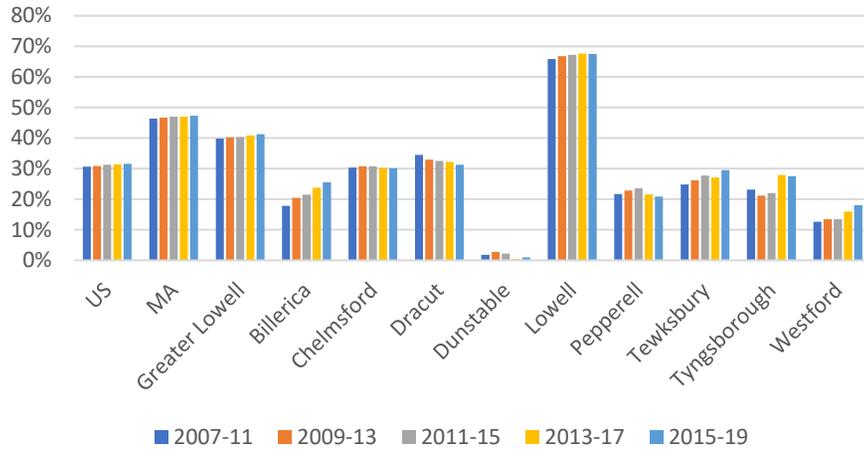
Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25032.

TABLE 16: GREATER LOWELL HOUSING UNITS, BY SIZE OF BUILDING, 2007-11 TO 2015-19

Size of Building	2007-11	2009-13	2011-15	2013-17	2015-19
1, detached	62,377	62,461	62,529	63,189	63,980
1, attached	6,878	7,355	7,007	6,971	6,963
2 unit	8,546	8,047	7,881	7,716	8,091
3 to 9 unit	10,907	10,951	11,686	12,358	11,980
10+	15,324	16,249	16,302	17,118	18,257
Other	690	831	839	669	573
<b>Total</b>	<b>104,722</b>	<b>105,894</b>	<b>106,244</b>	<b>108,021</b>	<b>109,844</b>

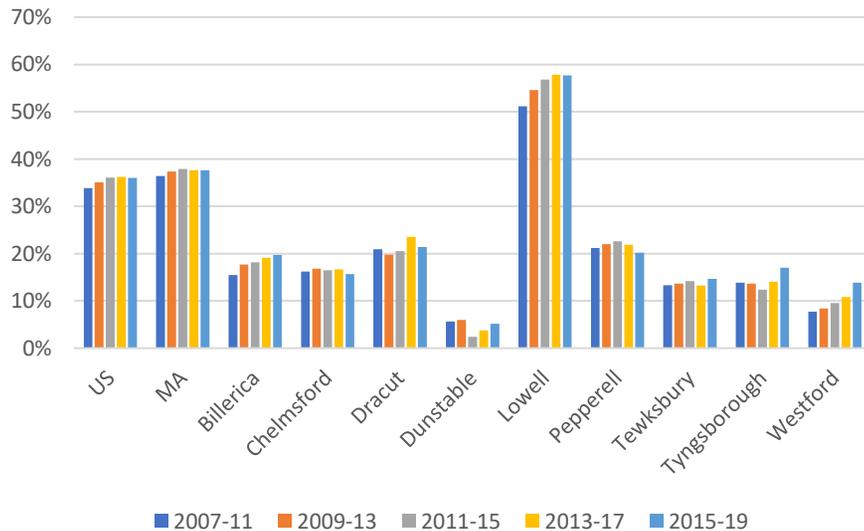
Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25032.

**FIGURE 6: HOUSING, PERCENT ATTACHED OR MULTIFAMILY (UNITS)**



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25032.

**FIGURE 7: HOUSING, PERCENT RENTAL (UNITS)**



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25003.

Although Greater Lowell’s percent attached or multifamily has grown in the recent ACS, it still lags Massachusetts. The biggest gains were in Billerica, Tewksbury, Tyngsborough, and Westford. Other towns were close to steady or lost units proportionately. When evaluating the percentage of rental, Greater Lowell also lags behind Massachusetts and the United States. The trend of Lowell’s rental units growing has stopped, and most other communities have held steady or declined. Billerica and Westford have conversely had steady rental growth, and Tyngsborough has grown recently.

The COVID-19 Pandemic may have impacted living patterns, which would not be represented by this data. More people are living outside large cities like Boston because of the ability to telecommute. This is discussed later in this section.

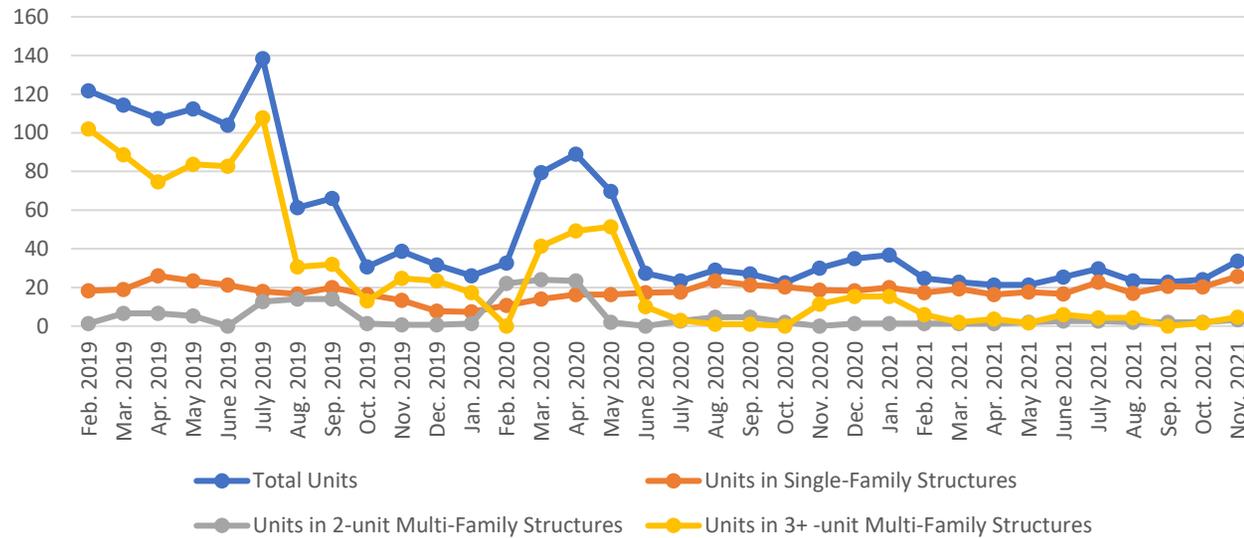
**TABLE 17: HOUSING UNITS BY COMMUNITY, STATE, AND NATION, PERCENT RENTER-OCCUPIED, 2007-11 TO 2015-19**

	2007-11	2009-13	2011-15	2013-17	2015-19
US	34%	35%	36%	36%	36%
MA	36%	37%	38%	38%	38%
Billerica	15%	18%	18%	19%	20%
Chelmsford	16%	17%	16%	17%	16%
Dracut	21%	20%	21%	24%	21%
Dunstable	6%	6%	2%	4%	5%
Lowell	51%	55%	57%	58%	58%
Pepperell	21%	22%	23%	22%	20%
Tewksbury	13%	14%	14%	13%	15%
Tyngsborough	14%	14%	12%	14%	17%
Westford	8%	8%	10%	11%	14%

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25032

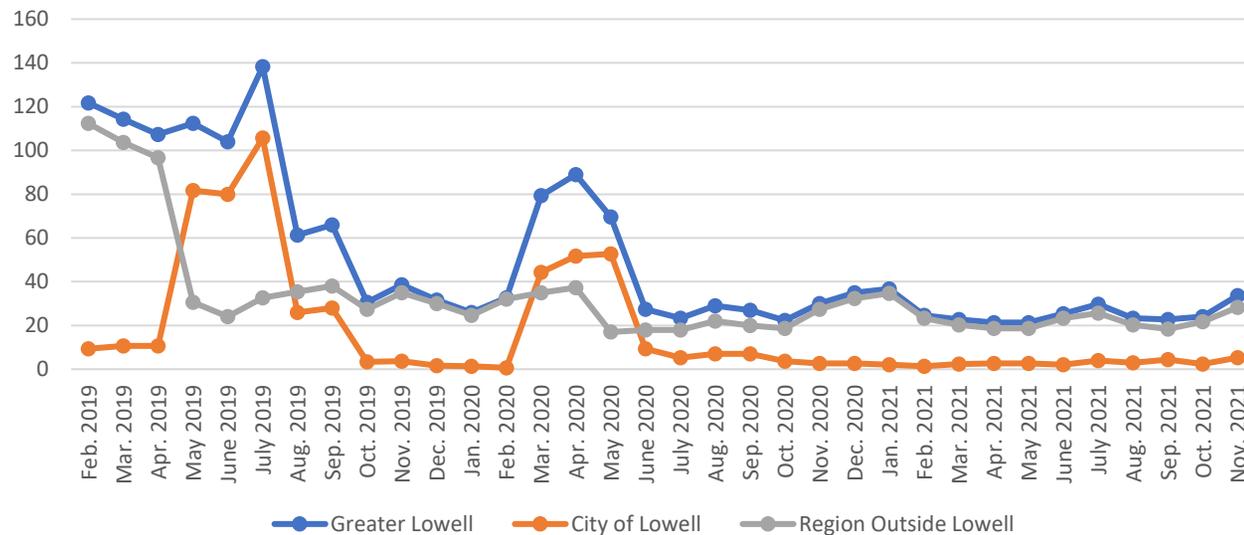
# Housing: Permits

**FIGURE 8: UNITS PERMITTED IN GREATER LOWELL BY BUILDING SIZE, 3-MONTH ROLLING AVERAGE, 2019-2021**



Housing permit data is collected in the U.S. Census Bureau's Building Permits Survey at the permit-issuing jurisdiction level. Final monthly data is published in May of the following calendar year annually. Preliminary data was used when final data was not available, for the 2021 calendar year. Because of differences in the way jurisdictions report permit data, it may not capture or classify all permits accurately. Therefore, this data should be considered as estimates only. However, it provides a much more recent estimate of housing production than the ACS data used in previous sections.

**FIGURE 9: UNITS PERMITTED BY REGION BY BUILDING SIZE, 3-MONTH ROLLING AVERAGE, 2019-2021**



In early 2019, the Towns of Chelmsford and Westford permitted a large number of multifamily units. In mid-2019 and early 2020, the City of Lowell permitted a similarly large number of multifamily units. No similar projects were permitted in 2021.

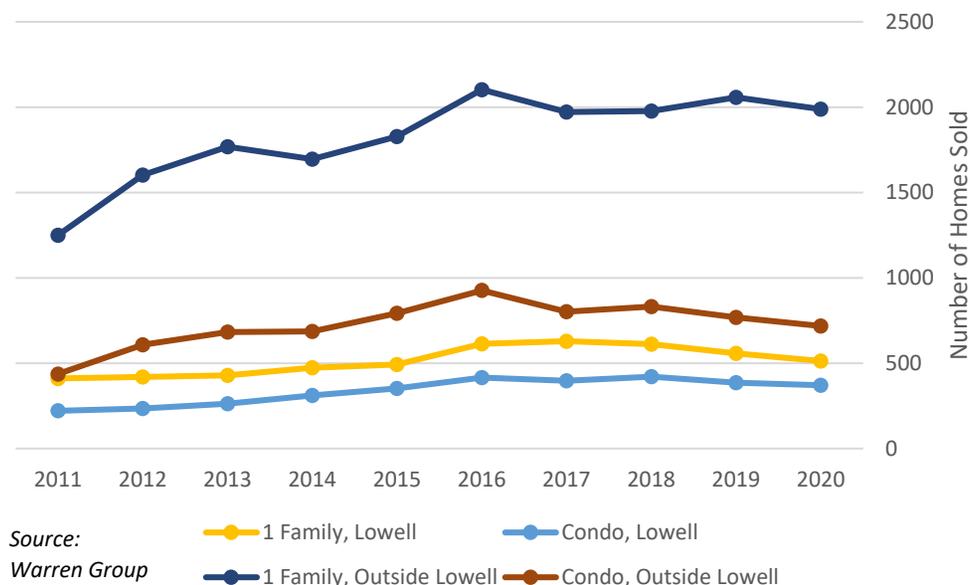
Because the number of single family units permitted in Greater Lowell were more-or-less steady through the three-year period, this creates an overall downward trend in total units permitted over the three-year period.

Source: U.S. Census Bureau, Building Permits Survey, via Department of Housing and Urban Development (HUD) State of the Cities Data Systems (SOCDS) Database. <https://socds.huduser.gov/permits/> Accessed March 18, 2022.

TABLE 18: UNITS PERMITTED BY REGION BY BUILDING SIZE, 2019-2021\*

Year	Period	Greater Lowell						City of Lowell						Region Outside Lowell					
		Total Units	Units in Single-Family	Units in All Multi-Family	Units in 2-unit Multi-Family	Units in 3- and 4-unit Multi-	Units in 5+ Unit Multi-Family	Total Units	Units in Single-Family Structures	Units in All Multi-Family Structures	Units in 2-unit Multi-Family Structures	Units in 3- and 4-unit Multi-Family	Units in 5+ Unit Multi-Family	Total Units	Units in Single-Family Structures	Units in All Multi-Family Structures	Units in 2-unit Multi-Family Structures	Units in 3- and 4-unit Multi-Family	Units in 5+ Unit Multi-Family
2019	Jan	62	19	43	0	11	32	1	1	0	0	0	0	61	18	43	0	11	32
2019	Feb	51	9	42	0	0	42	0	0	0	0	0	0	51	9	42	0	0	42
2019	Mar	252	27	225	4	0	221	27	2	25	4	0	21	225	25	200	0	0	200
2019	Apr	40	21	19	16	3	0	5	0	5	2	3	0	35	21	14	14	0	0
2019	May	30	30	0	0	0	0	0	0	0	0	0	0	30	30	0	0	0	0
2019	Jun	267	19	248	0	0	248	240	0	240	0	0	240	27	19	8	0	0	8
2019	Jul	15	15	0	0	0	0	0	0	0	0	0	0	15	15	0	0	0	0
2019	Aug	133	20	113	38	0	75	77	0	77	2	0	75	56	20	36	36	0	0
2019	Sep	36	15	21	4	0	17	1	1	0	0	0	0	35	14	21	4	0	17
2019	Oct	29	25	4	0	4	0	6	6	0	0	0	0	23	19	4	0	4	0
2019	Nov	27	9	18	0	0	18	3	3	0	0	0	0	24	6	18	0	0	18
2019	Dec	60	6	54	2	0	52	2	0	2	2	0	0	58	6	52	0	0	52
2020	Jan	8	8	0	0	0	0	0	0	0	0	0	0	8	8	0	0	0	0
2020	Feb	10	8	2	2	0	0	2	0	2	2	0	0	8	8	0	0	0	0
2020	Mar	80	16	64	64	0	0	0	0	0	0	0	0	80	16	64	64	0	0
2020	Apr	148	18	130	6	0	124	131	1	130	6	0	124	17	17	0	0	0	0
2020	May	39	15	24	0	0	24	24	0	24	0	0	24	15	15	0	0	0	0
2020	Jun	22	16	6	0	0	6	3	3	0	0	0	0	19	13	6	0	0	6
2020	Jul	21	21	0	0	0	0	1	1	0	0	0	0	20	20	0	0	0	0
2020	Aug	27	16	11	8	3	0	12	3	9	6	3	0	15	13	2	2	0	0
2020	Sep	39	33	6	6	0	0	8	2	6	6	0	0	31	31	0	0	0	0
2020	Oct	15	15	0	0	0	0	1	1	0	0	0	0	14	14	0	0	0	0
2020	Nov	13	13	0	0	0	0	2	2	0	0	0	0	11	11	0	0	0	0
2020	Dec	62	28	34	0	0	34	5	5	0	0	0	0	57	23	34	0	0	34
2021	Jan	30	14	16	4	0	12	1	1	0	0	0	0	29	13	16	4	0	12
2021	Feb	18	18	0	0	0	0	0	0	0	0	0	0	18	18	0	0	0	0
2021	Mar	26	20	6	0	0	6	3	3	0	0	0	0	23	17	6	0	0	6
2021	Apr	24	20	4	4	0	0	4	4	0	0	0	0	20	16	4	4	0	0
2021	May	14	9	5	0	0	5	1	1	0	0	0	0	13	8	5	0	0	5
2021	Jun	26	24	2	2	0	0	3	3	0	0	0	0	23	21	2	2	0	0
2021	Jul	36	17	19	6	0	13	2	2	0	0	0	0	34	15	19	6	0	13
2021	Aug	27	27	0	0	0	0	7	7	0	0	0	0	20	20	0	0	0	0
2021	Sep	7	7	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0
2021	Oct	34	28	6	6	0	0	6	0	6	6	0	0	28	28	0	0	0	0
2021	Nov	31	26	5	0	0	5	1	1	0	0	0	0	30	25	5	0	0	5
2021	Dec	36	23	13	4	0	9	9	7	2	2	0	0	27	16	11	2	0	9

FIGURE 10: NUMBER OF SALES, GREATER LOWELL



Home sales data is current through 2020, which means that it reflects the beginning of COVID impacts. However, it appears that generally speaking, trends continued through that year. Within the region, sales volume has continued to hold mostly steady between 4,300 and 4,600 single-family and condo sales annually after its peak in 2016 (4,896).

TABLE 19: HOME SALES IN THE REGION, 2011 TO 2020

Year	Period	Greater Lowell			City of Lowell			Region Outside Lowell		
		Single Family	Condo	Total	Single Family	Condo	Total	Single Family	Condo	Total
2011	Jan - Dec	1661	658	2929	411	221	939	1250	437	1990
2012	Jan - Dec	2023	842	3511	420	234	944	1603	608	2567
2013	Jan - Dec	2197	944	3815	429	262	999	1768	682	2816
2014	Jan - Dec	2170	997	3881	474	311	1103	1696	686	2778
2015	Jan - Dec	2321	1146	4201	493	353	1192	1828	793	3009
2016	Jan - Dec	2717	1341	4896	614	415	1423	2103	926	3473
2017	Jan - Dec	2600	1198	4590	629	397	1380	1971	801	3210
2018	Jan - Dec	2590	1253	4672	612	421	1389	1978	832	3283
2019	Jan - Dec	2615	1153	4566	558	385	1331	2057	768	3235
2020	Jan - Dec	2501	1088	4339	512	370	1225	1989	718	3114

Source: Warren Group

# Housing: Median Home Sales Prices

FIGURE 12: SINGLE-FAMILY HOME MEDIAN SALES PRICE BY TOWN

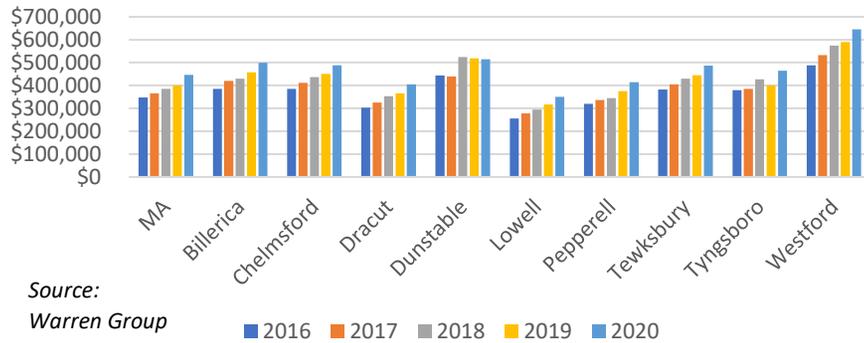
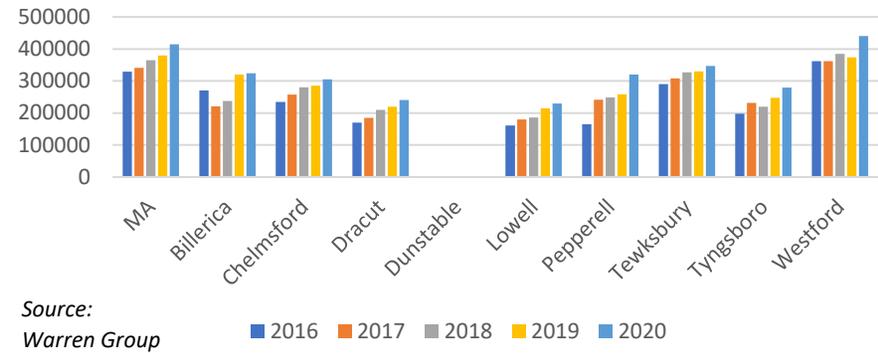


FIGURE 11: CONDO HOME MEDIAN SALES PRICE BY TOWN



Both single family and condo median prices in every town have continued a generally upward trend (with condos being somewhat more variable). The only exceptions are that Tyngsborough’s median home price rose after a dip in 2019, and Dunstable’s median price has held somewhat steady. This mirrors the trend in Massachusetts. The region’s single-family sales prices are more or less similar to Massachusetts's, with some communities above that median and some below. However, condo prices are almost universally lower than Massachusetts, with the exception of Westford.

Notably, although there appear to be more units built in the region since 2016, sales had not increased as of 2020. This may reflect both that homes aren’t turning over as often and that new units are more often rentals than prior to 2016.

TABLE 20: SINGLE FAMILY HOME MEDIAN SALES PRICE BY COMMUNITY AND STATE, 2016 TO 2020

Year	MA	Billerica	Chelmsford	Dracut	Dunstable	Lowell	Pepperell	Tewksbury	Tyngsboro	Westford
2016	\$348,000	\$385,500	\$385,000	\$302,500	\$443,000	\$255,000	\$319,900	\$382,000	\$379,900	\$488,000
2017	\$365,000	\$420,000	\$411,000	\$325,000	\$439,950	\$277,300	\$335,950	\$405,000	\$385,000	\$532,000
2018	\$385,000	\$429,500	\$436,000	\$353,326	\$525,000	\$295,000	\$344,900	\$429,900	\$427,500	\$575,000
2019	\$400,000	\$457,000	\$450,000	\$365,000	\$519,000	\$316,375	\$375,000	\$445,000	\$400,000	\$589,500
2020	\$447,000	\$499,900	\$487,500	\$405,000	\$515,000	\$350,000	\$415,000	\$486,050	\$465,000	\$646,000

Source: Warren Group

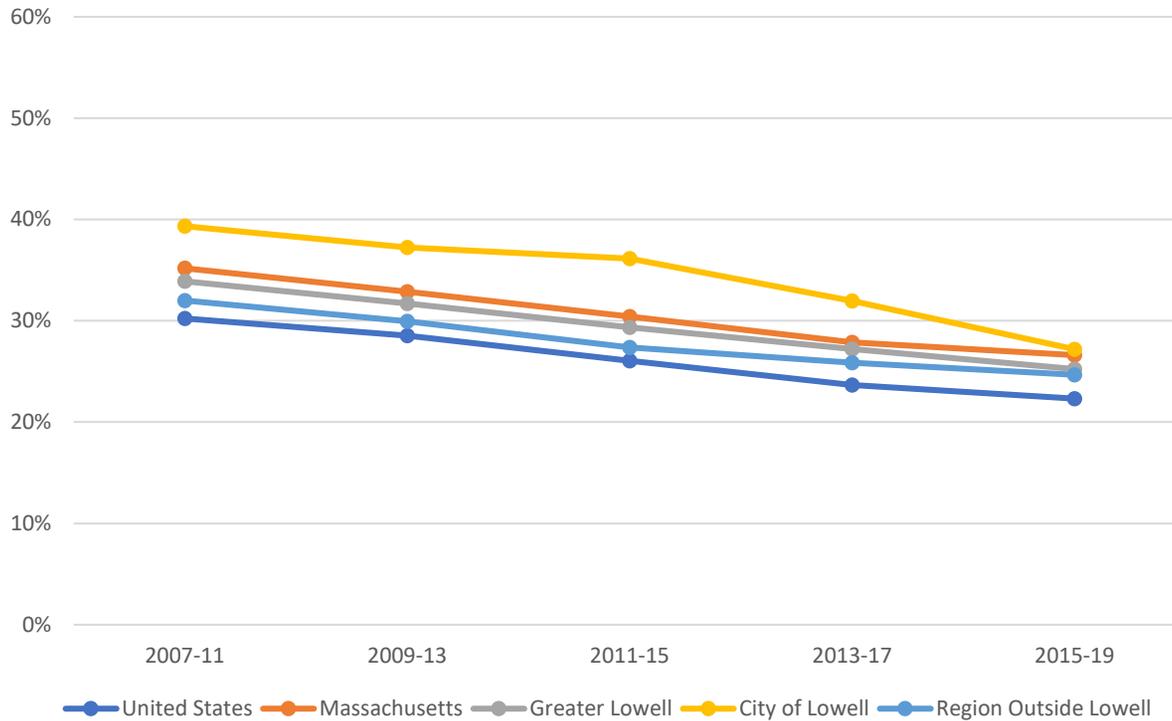
TABLE 21: CONDO HOME MEDIAN SALES PRICE, BY COMMUNITY AND STATE, 2016 TO 2020

Year	MA	Billerica	Chelmsford	Dracut	Dunstable	Lowell	Pepperell	Tewksbury	Tyngsboro	Westford
2016	\$329,500	\$270,000	\$235,000	\$169,900	\$0	\$161,000	\$165,000	\$290,000	\$197,450	\$361,500
2017	\$341,000	\$220,950	\$257,000	\$185,000	\$0	\$180,039	\$241,500	\$307,750	\$232,000	\$361,500
2018	\$364,900	\$237,450	\$280,000	\$210,000	\$0	\$186,000	\$248,750	\$327,000	\$220,000	\$385,000
2019	\$380,000	\$320,500	\$285,000	\$220,000	\$0	\$215,000	\$258,625	\$330,000	\$247,450	\$373,500
2020	\$415,000	\$323,750	\$305,250	\$241,000	\$0	\$230,000	\$320,000	\$347,000	\$279,000	\$440,000

Source: Warren Group

## Housing: Housing Affordability, Owners

FIGURE 13: PROPORTION OF HOMEOWNER HHS WHO ARE COST-BURDENED



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25091.

TABLE 22: HOMEOWNER HOUSEHOLDS WHO ARE COST BURDENED IN THE REGION, STATE, AND NATION, 2007-11 TO 2015-19

	2007-11	2009-13	2011-15	2013-17	2015-19
United States	30%	29%	26%	24%	22%
Massachusetts	35%	33%	30%	28%	27%
Greater Lowell	34%	32%	29%	27%	25%
City of Lowell	39%	37%	36%	32%	27%
Region Outside Lowell	32%	30%	27%	26%	25%

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25091.

Please note the proportion of homeowner and renter households who are cost burdened charts utilize ACS data, so they do not reflect any impacts from COVID-19 or recent actions undertaken by the region.

The proportion of homeowners who are at moderately or severely burdened has been steadily declining in both the nation and the region. The change has been sharper in the City of Lowell (a 31% reduction from its 2004-09 level) than in the rest of the region (a 23% reduction from its 2004-09 level), although Lowell still has a larger proportion of burdened homeowners than the rest of the region. This is a comparable proportion to Massachusetts and slightly above that of the U.S. Given that housing costs rose during that period, this could reflect that incomes rose faster than housing costs.

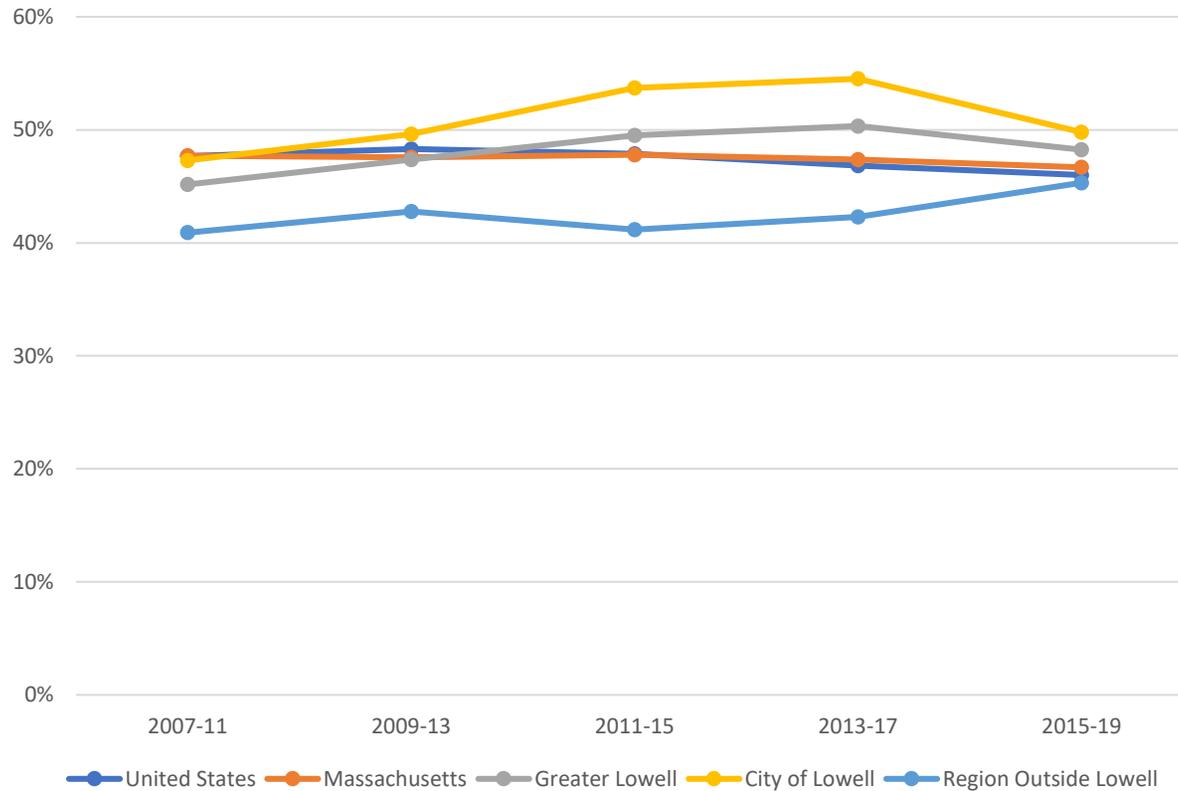
This trend among homeowners could also reflect that people with lower incomes are more often renting, which has a more mixed trend. Up until the 2012-17 ACS, the proportion of cost-burdened renters in the City of Lowell was increasing. This trend reversed in the 2014-19 ACS, but this was somewhat offset by an increase in that measure for the rest of the region. Looking over the eight-year period, Lowell increased by 5% of its 2004-09 level and the region outside Lowell increased by 11% of its 2004-09 level.

### DEFINING COST BURDENED

Public officials generally agree to a definition of affordable housing as that which costs no more than 30% of a household's total annual income. Households that spend between 30% and 50% of their annual incomes on housing and related costs (including basic utilities and fuels) are said to be "moderately" burdened while those spending more than half of their incomes are considered "severely" burdened.

## Housing: Housing Affordability, Renters

FIGURE 14: PROPORTION OF RENTER HHS WHO ARE COST-BURDENED



The proportion of renters that are burdened are comparable to the U.S., but while Massachusetts and the United States are slowly but steadily improving from 48% of households burdened to 46-47% households burdened between 2007-11 and 2015-19, Greater Lowell has moved in the opposite direction, from 45% to 48% (peaking at 50%).

Please note the proportion of homeowner and renter households who are cost burdened charts utilize ACS data, so they do not reflect any impacts from COVID-19 or recent actions undertaken by the region.

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25070.

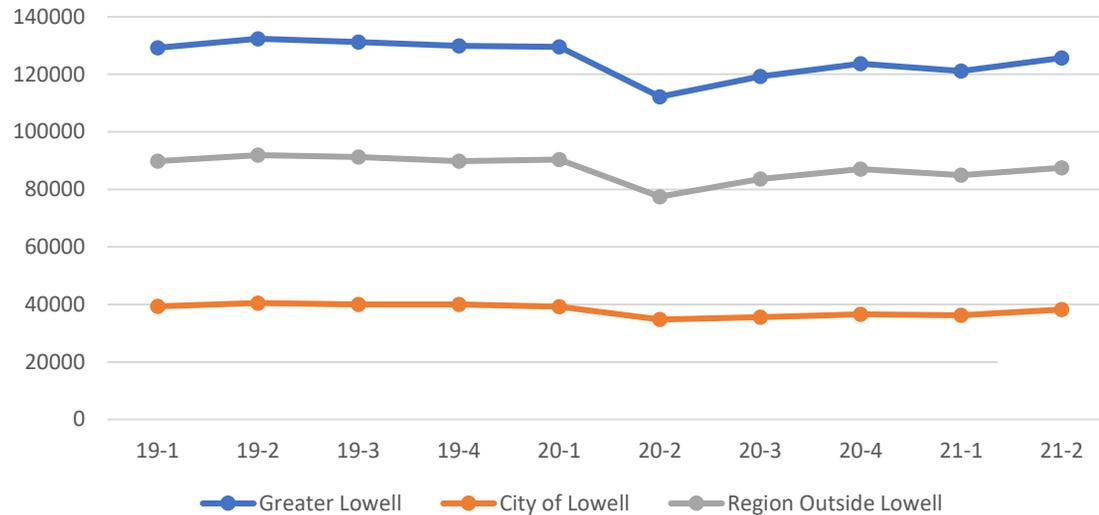
TABLE 23: RENTER HOUSEHOLDS WHO ARE COST BURDENED IN THE REGION, STATE, AND NATION, 2007-11 TO 2015-19

	2007-11	2009-13	2011-15	2013-17	2015-19
United States	48%	48%	48%	47%	46%
Massachusetts	48%	48%	48%	47%	47%
Greater Lowell	45%	47%	50%	50%	48%
City of Lowell	47%	50%	54%	55%	50%
Region Outside Lowell	41%	43%	41%	42%	45%

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B25070.

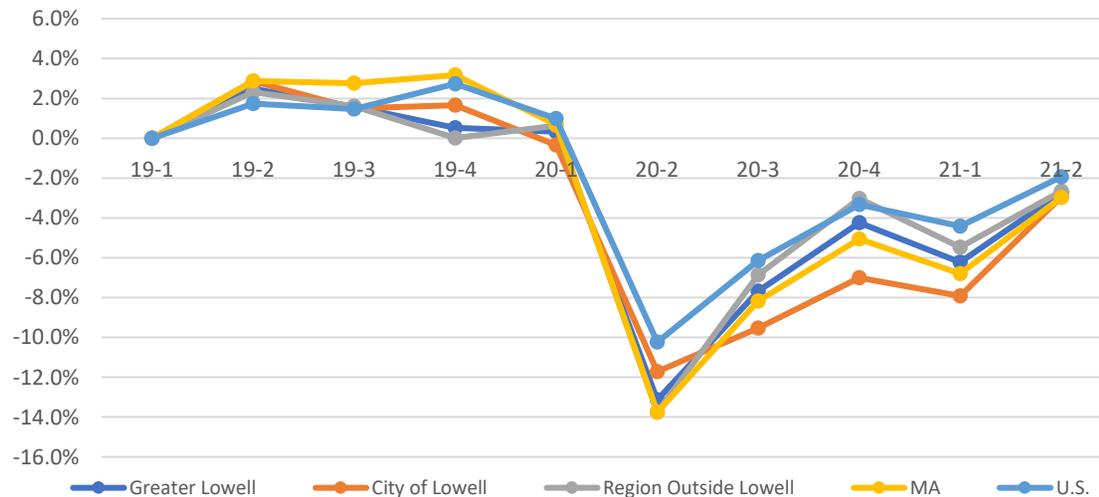
# Commerce and Industry: Employment over Time

**FIGURE 15: AVERAGE MONTHLY EMPLOYMENT, 2019 Q1 – 2021 Q2**



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

**FIGURE 16: CHANGE FROM 2019 Q1, # EMPLOYEES, 2019 Q1 - 2021 Q2**



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages. The chart above shows how each region changed as a proportion of 2019 Q1.

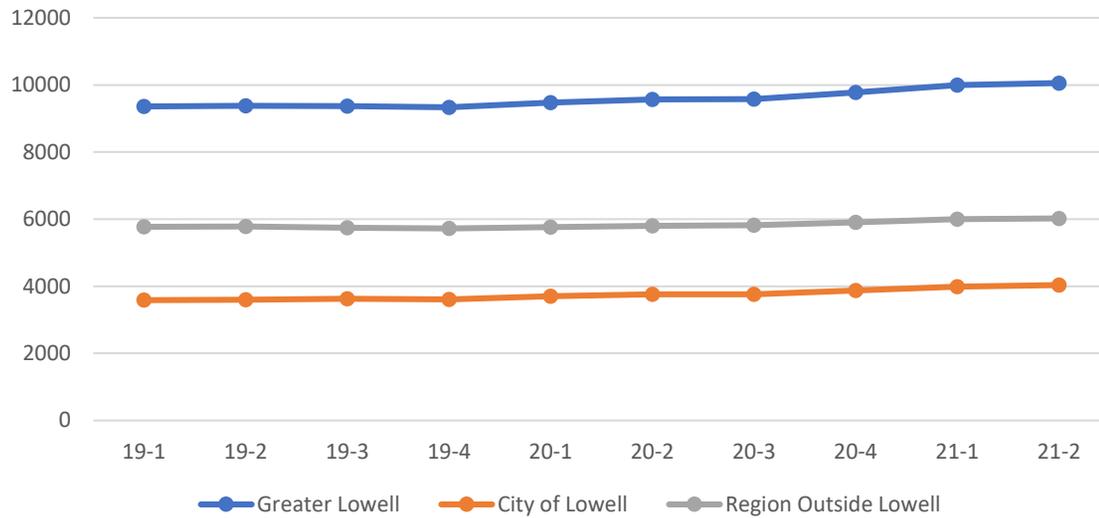
The data reflected in these charts reflects the number of establishments, employees, and weekly wages in firms located in Greater Lowell. It includes both public and private ownership. It is collected quarterly with most recent data from 2021 Q2; therefore, impacts of COVID-19 and any actions Greater Lowell took during the CEDS period may be represented.

Average monthly employment dipped in 2020 Q2 (-13.4%) due to the lockdowns instituted because of the COVID-19. Notably, the drop in the region outside the City of Lowell was similar to MA (14.3%), which was a steeper drop than the City of Lowell (-11.4%) or U.S. (-11.1%). However, the employment per resident in the City was already relatively low and the City's recovery has been slower than the rest of the region. Average monthly employment has not recovered to pre-pandemic levels.

Full tables of employment, establishments, and wages from 2019 Q1 through 2021 Q2 are on the following pages.

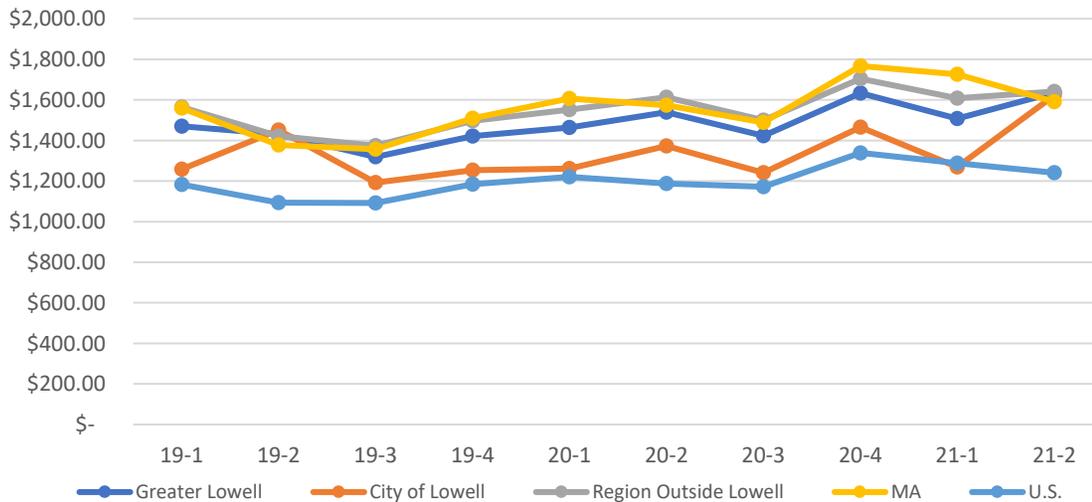
## Commerce and Industry: Establishments and Wage over Time

FIGURE 17: NUMBER OF ESTABLISHMENTS, 2019 Q1 – 2021 Q2



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

FIGURE 18: AVERAGE WEEKLY WAGES, 2019 Q1 – 2021 Q2



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

The growth of number of establishments in Greater Lowell 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 period) compared to the rest of the region (4.0% over the same period). This was largely in micro-businesses (businesses of five employees or less).

Greater Lowell's average weekly wages declined between 2019 Q1 and 2019 Q3 before trending upward. Lowell firms have consistently reported lower average weekly wages than those in the rest of the region, except for 2019 Q2 and 2021 Q2, the latest quarter reported. Wages in the Management of Companies and Enterprises industry were responsible for Lowell's high 2019 Q2 average, and may be a reporting anomaly. Massachusetts and the region's patterns are similar to the U.S. as a whole, although with a higher average weekly wage overall.

Full tables of employment, establishments, and wages from 2019 Q1 through 2021 Q2 are on the following pages.

## Commerce and Industry: Establishments and Employment by Industry

TABLE 24: ESTABLISHMENTS, EMPLOYEES, AND WEEKLY WAGE GREATER LOWELL COMPARISONS

	Number of Establishments (Q2)					Number of Employees (Q2)					Average Weekly Wage (Q2)				
	19	20	Change	21	Change	19	20	Change	21	Change	19	20	Change	21	Change
<b>Goods-Producing</b>	<b>1468</b>	<b>1474</b>	<b>0%</b>	<b>1495</b>	<b>2%</b>	<b>27207</b>	<b>25009</b>	<b>-8%</b>	<b>26955</b>	<b>8%</b>	<b>\$1,802</b>	<b>\$1,919</b>	<b>7%</b>	<b>\$2,092</b>	<b>9%</b>
Natural Resources and Mining	6	6	0%	9	133%	41	34	-17%	190	459%	\$620	\$591	-5%	\$585	-1%
Construction	1103	1099	0%	1119	3%	8627	7269	-16%	8408	16%	\$1,328	\$1,433	8%	\$1,520	6%
Manufacturing	320	325	2%	325	-1%	15341	14467	-6%	15046	4%	\$1,991	\$2,074	4%	\$2,418	17%
<b>Service-Providing</b>	<b>7913</b>	<b>8092</b>	<b>2%</b>	<b>8498</b>	<b>6%</b>	<b>105181</b>	<b>87207</b>	<b>-17%</b>	<b>98683</b>	<b>13%</b>	<b>\$1,335</b>	<b>\$1,430</b>	<b>7%</b>	<b>\$1,511</b>	<b>6%</b>
Trade, Transportation and Utilities	1279	1269	-1%	1271	0%	20678	18126	-12%	19908	10%	\$933	\$990	6%	\$1,048	6%
Information	139	145	4%	146	0%	3579	3501	-2%	3061	-13%	\$2,280	\$2,165	-5%	\$2,033	-6%
Financial Activities	436	445	2%	462	3%	3623	3383	-7%	3418	1%	\$1,434	\$1,480	3%	\$1,512	2%
Professional and Business Services	1404	1406	0%	1448	4%	23765	21960	-8%	23778	8%	\$2,479	\$2,314	-7%	\$2,790	21%
Education and Health Services	3099	3297	6%	3633	12%	33301	27439	-18%	31468	15%	\$1,035	\$1,148	11%	\$1,163	1%
Leisure and Hospitality	705	695	-1%	689	-2%	12252	6316	-48%	9636	53%	\$421	\$485	15%	\$486	0%
Other Services	714	681	-5%	713	5%	3941	2523	-36%	3445	37%	\$739	\$873	18%	\$813	-7%
Public Administration	95	93	-2%	93	1%	3194	3222	1%	3160	-2%	\$1,617	\$1,711	6%	\$1,684	-2%
<b>Total, All Industries</b>	<b>9381</b>	<b>9566</b>	<b>2%</b>	<b>9993</b>	<b>5%</b>	<b>132390</b>	<b>112218</b>	<b>-15%</b>	<b>125639</b>	<b>12%</b>	<b>\$1,431</b>	<b>\$1,539</b>	<b>8%</b>	<b>\$1,636</b>	<b>6%</b>

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

Table 24's breakdown of employees and average wages by industries reveals that changes in employment and wages aren't evenly distributed. Employment in Greater Lowell's Natural Resources and Mining, Construction, Education and Health Services, Leisure and Hospitality, and Other Services all experienced a greater than 15% dip during COVID, and none have reached pre-pandemic levels. Leisure and Hospitality had the greatest job losses in the two-year period, and it is only at 79% of its pre-pandemic number of employees as of 2021 Q2. Notably, all industries stopped or reversed their 2020 drop in 2021 except for Information, which dropped 13% between 2020 and 2021.

Wage growth between 2019 Q2 and 2020 Q2 was scattered amongst many industries, but significant wage growth since the Pandemic has been almost entirely concentrated in Professional and Business Services and Manufacturing industries. Because Professional and Business Services had a significant drop in average weekly wages between 2019 Q2 and 2020 Q2, only Manufacturing rose by more than 15% over the two-year period as a whole. Leisure and Hospitality also rose by 15% in the two-year period, but nearly all that growth was prior to 2020 Q2. As jobs in Natural Resources and Mining grew, its average wage dropped by 6% over the two-year period. Information wages also dropped, by 11% over the two-year period.

Full tables of employment, establishments, and wages from 2019 Q1 through 2021 Q2 are on the following pages.

TABLE 25: AVERAGE MONTHLY EMPLOYMENT IN THE REGION, 2019 Q1 – 2021 Q2

	19-1	19-2	19-3	19-4	20-1	20-2	20-3	20-4	21-1	21-2	
Greater Lowell	Goods-Producing	26082	27207	27598	27025	26550	25009	26615	26601	25880	26955
	Natural Resources and Mining	15	41	67	51	11	34	14	15	59	190
	Construction	7776	8627	8845	8510	7988	7269	8435	8526	7724	8408
	Manufacturing	15161	15341	15322	15220	18463	14467	14705	14625	14726	15046
	Service-Providing	103104	105181	103628	102830	103073	87207	92647	97098	95271	98683
	Trade, Transportation and Utilities	20620	20678	20509	21400	20517	18126	19070	20867	19668	19908
	Information	3598	3579	3576	3582	3693	3501	3424	3410	2956	3061
	Financial Activities	3495	3623	3741	3692	3654	3383	3522	3567	3530	3418
	Professional and Business Services	22888	23765	23902	23635	23200	21960	22479	23206	23422	23778
	Education and Health Services	32786	33301	31641	31246	33036	27439	28059	30055	30047	31468
	Leisure and Hospitality	11887	12252	12310	11761	11363	6316	8965	8544	8402	9636
	Other Services	3828	3941	3926	3870	3702	2523	3121	3373	3315	3445
	Public Administration	3163	3194	3196	2808	3236	3222	3230	3220	3163	3160
<b>Total, All Industries</b>	<b>129186</b>	<b>132390</b>	<b>131227</b>	<b>129855</b>	<b>129621</b>	<b>112218</b>	<b>119264</b>	<b>123703</b>	<b>121150</b>	<b>125639</b>	
City of Lowell	Goods-Producing	4297	4390	4344	4231	4148	3876	4040	3908	3862	3970
	Natural Resources and Mining	0	0	0	0	0	0	0	0	0	0
	Construction	957	1053	1059	989	976	928	1059	1032	917	980
	Manufacturing	3340	3337	3286	3243	3173	2922	2950	2843	2904	2941
	Service-Providing	35062	36095	35604	35782	35077	30871	31568	32694	32377	34227
	Trade, Transportation and Utilities	4190	4233	4181	4340	4182	3576	3952	4375	4187	4179
	Information	1373	1340	1302	1314	1221	1152	1031	1043	1006	1075
	Financial Activities	1420	1446	1458	1439	1414	1393	1409	1408	1393	1237
	Professional and Business Services	5806	6052	6029	6058	5907	5454	5484	5875	5932	6170
	Education and Health Services	16622	17167	16754	16873	16870	15356	15136	15462	15465	16729
	Leisure and Hospitality	3353	3514	3493	3467	3204	1906	2415	2359	2267	2669
	Other Services	969	1000	1054	967	955	717	819	849	814	862
	Public Administration	1329	1343	1332	1323	1325	1318	1323	1324	1313	1305
<b>Total, All Industries</b>	<b>39359</b>	<b>40486</b>	<b>39948</b>	<b>40014</b>	<b>39225</b>	<b>34747</b>	<b>35609</b>	<b>36602</b>	<b>36239</b>	<b>38197</b>	
Region Outside Lowell	Goods-Producing	21785	22817	23254	22794	22402	21133	22575	22693	22018	22985
	Natural Resources and Mining	15	41	67	51	11	34	14	15	59	190
	Construction	6819	7574	7786	7521	7012	6341	7376	7494	6807	7428
	Manufacturing	11821	12004	12036	11977	15290	11545	11755	11782	11822	12105
	Service-Providing	68042	69086	68024	67048	67996	56336	61079	64404	62894	64456
	Trade, Transportation and Utilities	16430	16445	16328	17060	16335	14550	15118	16492	15481	15729
	Information	2225	2239	2274	2268	2472	2349	2393	2367	1950	1986
	Financial Activities	2075	2177	2283	2253	2240	1990	2113	2159	2137	2181
	Professional and Business Services	17082	17713	17873	17577	17293	16506	16995	17331	17490	17608
	Education and Health Services	16164	16134	14887	14373	16166	12083	12923	14593	14582	14739
	Leisure and Hospitality	8534	8738	8817	8294	8159	4410	6550	6185	6135	6967
	Other Services	2859	2941	2872	2903	2747	1806	2302	2524	2501	2583
	Public Administration	1834	1851	1864	1485	1911	1904	1907	1896	1850	1855
<b>Total, All Industries</b>	<b>89827</b>	<b>91904</b>	<b>91279</b>	<b>89841</b>	<b>90396</b>	<b>77471</b>	<b>83655</b>	<b>87101</b>	<b>84911</b>	<b>87442</b>	

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

TABLE 26: NUMBER OF ESTABLISHMENTS IN THE REGION, 2019 Q1 – 2021 Q2

	19-1	19-2	19-3	19-4	20-1	20-2	20-3	20-4	21-1	21-2	
Greater Lowell	Goods-Producing	1456	1468	1458	1447	1464	1474	1462	1469	1495	1507
	Natural Resources and Mining	3	6	7	7	3	6	3	3	9	14
	Construction	1092	1103	1093	1081	1087	1099	1087	1094	1119	1135
	Manufacturing	319	320	319	320	362	325	325	325	325	321
	Service-Providing	7900	7913	7912	7887	8009	8092	8118	8307	8498	8550
	Trade, Transportation and Utilities	1274	1279	1272	1276	1282	1269	1252	1255	1271	1271
	Information	134	139	133	132	147	145	146	144	146	145
	Financial Activities	438	436	438	439	440	445	445	448	462	459
	Professional and Business Services	1388	1404	1392	1395	1375	1406	1400	1430	1448	1462
	Education and Health Services	3095	3099	3115	3100	3260	3297	3360	3492	3633	3686
	Leisure and Hospitality	719	705	709	709	700	695	685	692	689	679
	Other Services	716	714	717	716	678	681	692	696	713	712
	Public Administration	94	95	94	76	91	93	95	94	93	94
<b>Total, All Industries</b>	<b>9356</b>	<b>9381</b>	<b>9370</b>	<b>9334</b>	<b>9473</b>	<b>9566</b>	<b>9580</b>	<b>9776</b>	<b>9993</b>	<b>10057</b>	
City of Lowell	Goods-Producing	253	253	255	252	255	256	255	253	257	261
	Natural Resources and Mining	0	0	0	0	0	0	0	0	0	0
	Construction	171	171	173	168	169	173	172	171	173	176
	Manufacturing	82	82	82	84	86	82	82	81	82	83
	Service-Providing	3332	3349	3368	3359	3451	3508	3508	3619	3733	3774
	Trade, Transportation and Utilities	347	353	354	353	359	357	347	349	355	358
	Information	36	35	30	32	34	35	35	36	38	37
	Financial Activities	118	120	120	118	117	118	119	120	123	120
	Professional and Business Services	299	306	309	307	311	318	311	314	313	322
	Education and Health Services	2040	2045	2065	2061	2178	2223	2250	2356	2453	2491
	Leisure and Hospitality	241	242	240	242	236	234	226	228	227	218
	Other Services	211	207	210	209	179	182	179	176	183	187
	Public Administration	40	41	40	37	37	39	41	40	41	41
<b>Total, All Industries</b>	<b>3585</b>	<b>3602</b>	<b>3623</b>	<b>3611</b>	<b>3706</b>	<b>3764</b>	<b>3763</b>	<b>3872</b>	<b>3990</b>	<b>4035</b>	
Region Outside Lowell	Goods-Producing	1203	1215	1203	1195	1209	1218	1207	1216	1238	1246
	Natural Resources and Mining	3	6	7	7	3	6	3	3	9	14
	Construction	921	932	920	913	918	926	915	923	946	959
	Manufacturing	237	238	237	236	276	243	243	244	243	238
	Service-Providing	4568	4564	4544	4528	4558	4584	4610	4688	4765	4776
	Trade, Transportation and Utilities	927	926	918	923	923	912	905	906	916	913
	Information	98	104	103	100	113	110	111	108	108	108
	Financial Activities	320	316	318	321	323	327	326	328	339	339
	Professional and Business Services	1089	1098	1083	1088	1064	1088	1089	1116	1135	1140
	Education and Health Services	1055	1054	1050	1039	1082	1074	1110	1136	1180	1195
	Leisure and Hospitality	478	463	469	467	464	461	459	464	462	461
	Other Services	505	507	507	507	499	499	513	520	530	525
	Public Administration	54	54	54	39	54	54	54	54	52	53
<b>Total, All Industries</b>	<b>5771</b>	<b>5779</b>	<b>5747</b>	<b>5723</b>	<b>5767</b>	<b>5802</b>	<b>5817</b>	<b>5904</b>	<b>6003</b>	<b>6022</b>	

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

TABLE 27: AVERAGE WEEKLY WAGES IN THE REGION, 2019 Q1 – 2021 Q2

	19-1	19-2	19-3	19-4	20-1	20-2	20-3	20-4	21-1	21-2	
Greater Lowell	Goods-Producing	\$2,111	\$1,802	\$1,749	\$2,009	\$2,169	\$1,919	\$1,918	\$2,287	\$2,129	\$2,092
	Natural Resources and Mining	\$496	\$620	\$566	\$703	\$506	\$591	\$1,071	\$1,107	\$783	\$585
	Construction	\$1,317	\$1,328	\$1,366	\$1,561	\$1,422	\$1,433	\$1,516	\$1,736	\$1,398	\$1,520
	Manufacturing	\$2,231	\$1,991	\$1,848	\$2,246	\$2,500	\$2,074	\$1,993	\$2,511	\$2,270	\$2,418
	Service-Providing	\$1,309	\$1,335	\$1,204	\$1,268	\$1,282	\$1,430	\$1,281	\$1,454	\$1,339	\$1,511
	Trade, Transportation and Utilities	\$988	\$933	\$964	\$1,008	\$1,000	\$990	\$990	\$1,159	\$986	\$1,048
	Information	\$2,582	\$2,280	\$2,254	\$2,093	\$2,441	\$2,165	\$2,263	\$2,268	\$2,501	\$2,033
	Financial Activities	\$1,693	\$1,434	\$1,340	\$1,583	\$1,755	\$1,480	\$1,449	\$1,686	\$1,796	\$1,512
	Professional and Business Services	\$2,359	\$2,479	\$1,970	\$2,065	\$2,162	\$2,314	\$2,008	\$2,258	\$2,235	\$2,790
	Education and Health Services	\$961	\$1,035	\$964	\$1,035	\$979	\$1,148	\$1,029	\$1,217	\$993	\$1,163
	Leisure and Hospitality	\$410	\$421	\$427	\$446	\$434	\$485	\$466	\$498	\$452	\$486
	Other Services	\$752	\$739	\$750	\$796	\$750	\$873	\$844	\$906	\$766	\$813
	Public Administration	\$1,563	\$1,617	\$1,571	\$1,703	\$1,598	\$1,711	\$1,541	\$1,778	\$1,505	\$1,684
<b>Total, All Industries</b>	<b>\$1,471</b>	<b>\$1,431</b>	<b>\$1,319</b>	<b>\$1,422</b>	<b>\$1,464</b>	<b>\$1,539</b>	<b>\$1,423</b>	<b>\$1,633</b>	<b>\$1,507</b>	<b>\$1,636</b>	
City of Lowell	Goods-Producing	\$1,634	\$1,463	\$1,462	\$1,644	\$1,855	\$1,577	\$1,547	\$2,249	\$1,905	\$1,723
	Natural Resources and Mining	N/A	N/A								
	Construction	\$1,524	\$1,327	\$1,359	\$1,528	\$2,073	\$1,394	\$1,681	\$1,653	\$1,864	\$1,545
	Manufacturing	\$1,665	\$1,505	\$1,494	\$1,679	\$1,787	\$1,640	\$1,506	\$2,480	\$1,932	\$1,793
	Service-Providing	\$1,211	\$1,449	\$1,159	\$1,207	\$1,191	\$1,348	\$1,202	\$1,371	\$1,194	\$1,611
	Trade, Transportation and Utilities	\$940	\$898	\$915	\$971	\$938	\$858	\$879	\$927	\$866	\$955
	Information	\$2,923	\$2,629	\$2,483	\$2,203	\$2,519	\$1,972	\$1,858	\$2,066	\$2,235	\$1,825
	Financial Activities	\$2,068	\$1,638	\$1,473	\$1,703	\$2,070	\$1,603	\$1,582	\$1,826	\$2,046	\$1,633
	Professional and Business Services	\$1,786	\$3,418	\$1,658	\$1,776	\$1,694	\$2,440	\$1,742	\$2,136	\$1,725	\$3,921
	Education and Health Services	\$1,025	\$1,029	\$1,058	\$1,094	\$1,040	\$1,111	\$1,117	\$1,244	\$1,030	\$1,118
	Leisure and Hospitality	\$452	\$447	\$458	\$475	\$479	\$542	\$506	\$551	\$514	\$527
	Other Services	\$597	\$581	\$594	\$623	\$610	\$680	\$688	\$764	\$659	\$699
	Public Administration	\$1,571	\$1,566	\$1,600	\$1,628	\$1,650	\$1,632	\$1,583	\$1,758	\$1,571	\$1,722
<b>Total, All Industries</b>	<b>\$1,258</b>	<b>\$1,451</b>	<b>\$1,192</b>	<b>\$1,253</b>	<b>\$1,261</b>	<b>\$1,373</b>	<b>\$1,242</b>	<b>\$1,465</b>	<b>\$1,270</b>	<b>\$1,622</b>	
Region Outside Lowell	Goods-Producing	\$2,205	\$1,867	\$1,803	\$2,077	\$2,227	\$1,982	\$1,985	\$2,294	\$2,169	\$2,155
	Natural Resources and Mining	\$496	\$620	\$566	\$703	\$506	\$591	\$1,071	\$1,107	\$783	\$585
	Construction	\$1,288	\$1,328	\$1,367	\$1,566	\$1,331	\$1,439	\$1,492	\$1,748	\$1,335	\$1,516
	Manufacturing	\$2,391	\$2,127	\$1,945	\$2,399	\$2,647	\$2,184	\$2,115	\$2,518	\$2,353	\$2,569
	Service-Providing	\$1,359	\$1,275	\$1,228	\$1,300	\$1,328	\$1,475	\$1,321	\$1,497	\$1,413	\$1,459
	Trade, Transportation and Utilities	\$1,001	\$942	\$977	\$1,017	\$1,016	\$1,023	\$1,019	\$1,221	\$1,019	\$1,073
	Information	\$2,371	\$2,070	\$2,123	\$2,030	\$2,403	\$2,260	\$2,438	\$2,357	\$2,638	\$2,146
	Financial Activities	\$1,437	\$1,298	\$1,256	\$1,507	\$1,556	\$1,395	\$1,361	\$1,594	\$1,633	\$1,443
	Professional and Business Services	\$2,553	\$2,158	\$2,076	\$2,164	\$2,322	\$2,272	\$2,095	\$2,299	\$2,408	\$2,393
	Education and Health Services	\$896	\$1,040	\$859	\$965	\$916	\$1,196	\$925	\$1,190	\$954	\$1,214
	Leisure and Hospitality	\$394	\$410	\$415	\$434	\$417	\$460	\$451	\$478	\$429	\$470
	Other Services	\$805	\$792	\$807	\$854	\$799	\$949	\$900	\$954	\$801	\$851
	Public Administration	\$1,558	\$1,654	\$1,551	\$1,769	\$1,561	\$1,766	\$1,512	\$1,792	\$1,458	\$1,657
<b>Total, All Industries</b>	<b>\$1,564</b>	<b>\$1,422</b>	<b>\$1,374</b>	<b>\$1,497</b>	<b>\$1,551</b>	<b>\$1,613</b>	<b>\$1,500</b>	<b>\$1,704</b>	<b>\$1,609</b>	<b>\$1,642</b>	

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

## Employment: Income

FIGURE 20: PER CAPITA INCOME, 2007-11 TO 2015-19

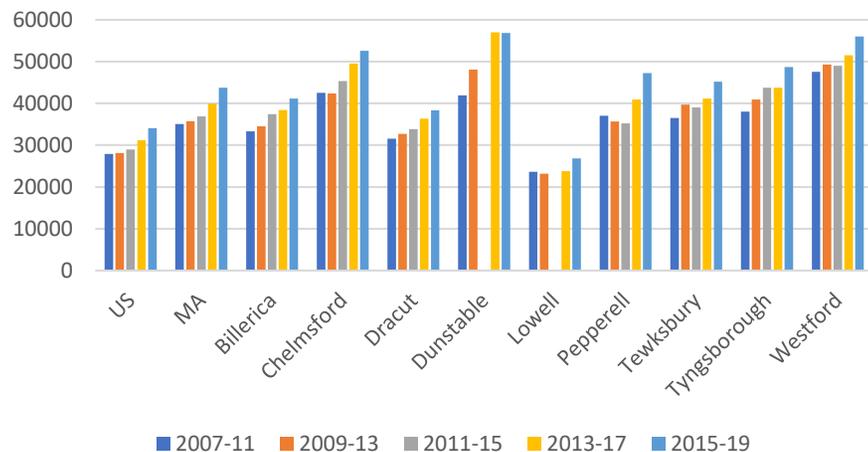
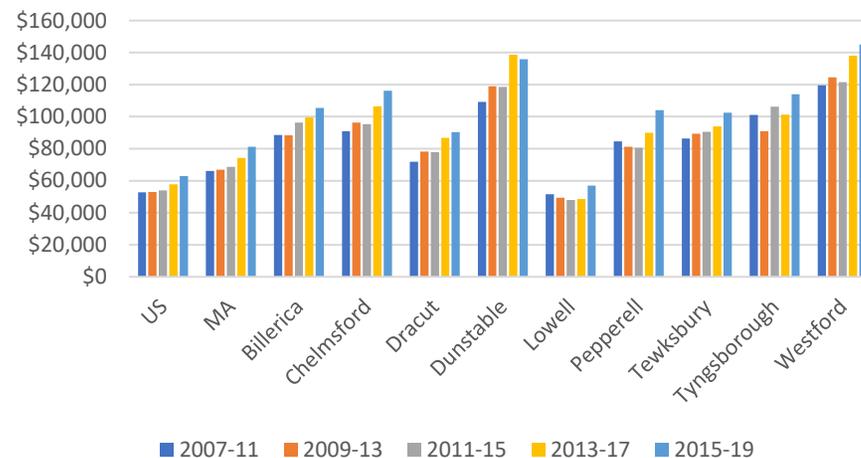


FIGURE 19: MEDIAN HOUSEHOLD INCOME, 2007-11 TO 2015-19



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B19301.

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B19013.

These charts and tables examine the income and employment of residents in Greater Lowell, unlike the previous charts which examined firms in Greater Lowell. These charts use ACS data, meaning that they do not reflect the impacts of COVID-19 or actions recently taken in the region. The per capita income, which simply divides the total wages made in a community by the number of people, is generally above the U.S. except in Lowell. This is also true of Median Household Income. As the Northeast has typically higher income levels than other regions in the nation, this is not unexpected.

TABLE 28: PER CAPITA INCOME BY COMMUNITY, STATE, AND NATION, 2007-11 TO 2015-19

	United States	Massachusetts	Billerica	Chelmsford	Dracut	Dunstable	Lowell	Pepperell	Tewksbury	Tyngsborough	Westford
<b>2007-11</b>	\$27,915	\$35,051	\$33,347	\$42,535	\$31,533	\$41,937	\$23,600	\$37,081	\$36,509	\$38,067	\$47,587
<b>2009-13</b>	\$28,155	\$35,763	\$34,545	\$42,402	\$32,690	\$48,133	\$23,136	\$35,689	\$39,675	\$40,920	\$49,341
<b>2011-15</b>	\$28,930	\$36,895	\$37,430	\$45,386	\$33,856			\$35,253	\$39,055	\$43,770	\$49,004
<b>2013-17</b>	\$31,177	\$39,913	\$38,383	\$49,564	\$36,323	\$57,005	\$23,768	\$40,919	\$41,193	\$43,787	\$51,526
<b>2015-19</b>	\$34,103	\$43,761	\$41,174	\$52,578	\$38,365	\$56,854	\$26,837	\$47,279	\$45,233	\$48,732	\$56,057

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B19301.

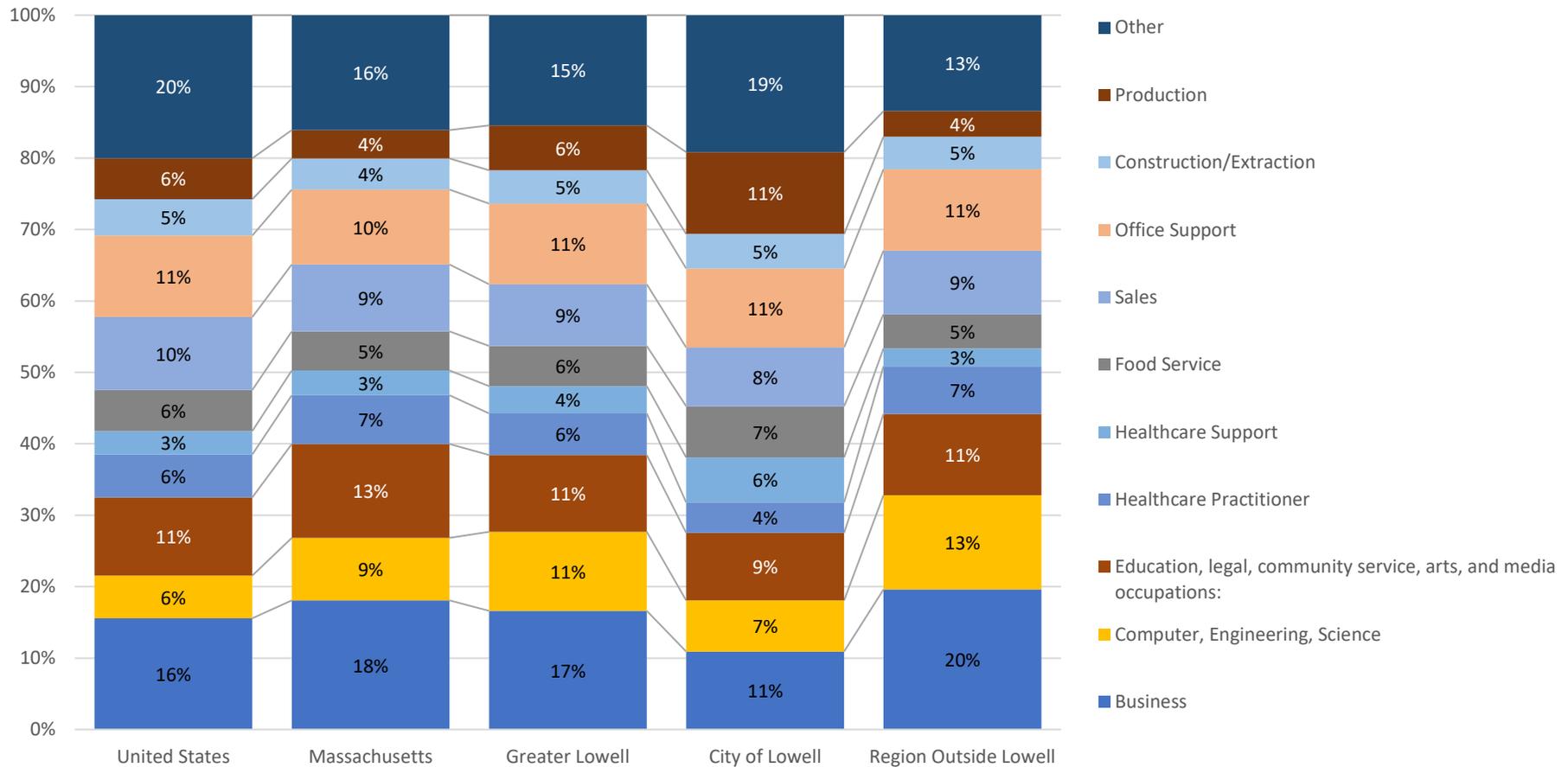
TABLE 29: MEDIAN HOUSEHOLD INCOME BY COMMUNITY, STATE, AND NATION, 2007-11 TO 2015-19

	United States	Massachusetts	Billerica	Chelmsford	Dracut	Dunstable	Lowell	Pepperell	Tewksbury	Tyngsborough	Westford
<b>2007-11</b>	\$52,762	\$65,981	\$88,531	\$90,895	\$71,824	\$109,205	\$51,471	\$84,618	\$86,378	\$101,103	\$119,511
<b>2009-13</b>	\$53,046	\$66,866	\$88,296	\$96,336	\$78,169	\$119,022	\$49,452	\$81,193	\$89,241	\$90,987	\$124,464
<b>2011-15</b>	\$53,889	\$68,563	\$96,316	\$95,290	\$77,848	\$118,523	\$48,002	\$80,524	\$90,484	\$106,290	\$121,591
<b>2013-17</b>	\$57,652	\$74,167	\$99,453	\$106,432	\$86,697	\$138,700	\$48,581	\$90,029	\$93,817	\$101,303	\$138,006
<b>2015-19</b>	\$62,843	\$81,215	\$105,343	\$116,111	\$90,273	\$135,909	\$56,878	\$104,130	\$102,500	\$114,067	\$144,917

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B19301.

# Employment: Occupation

FIGURE 21: OCCUPATIONS IN SELECTED REGIONS, 2015-19



Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B24010. Occupations are categorized by second-level classifications and occupations with less than 5% are categorized into "other"

The City trails the rest of the region partially because the City's occupation mix contains proportionally more production, food service, and "other" occupations, which tend to be lower-paid, while the region outside Lowell has a larger-than-average proportion in the Management and Technical occupations. See Table 30 on the next page. That said, after several years of dropping or stagnant income, the City has increased its per capita and household income as estimated by the 2015-19 ACS. Other towns have more consistently increased both measures over the eight-year period, with only a few exceptions.

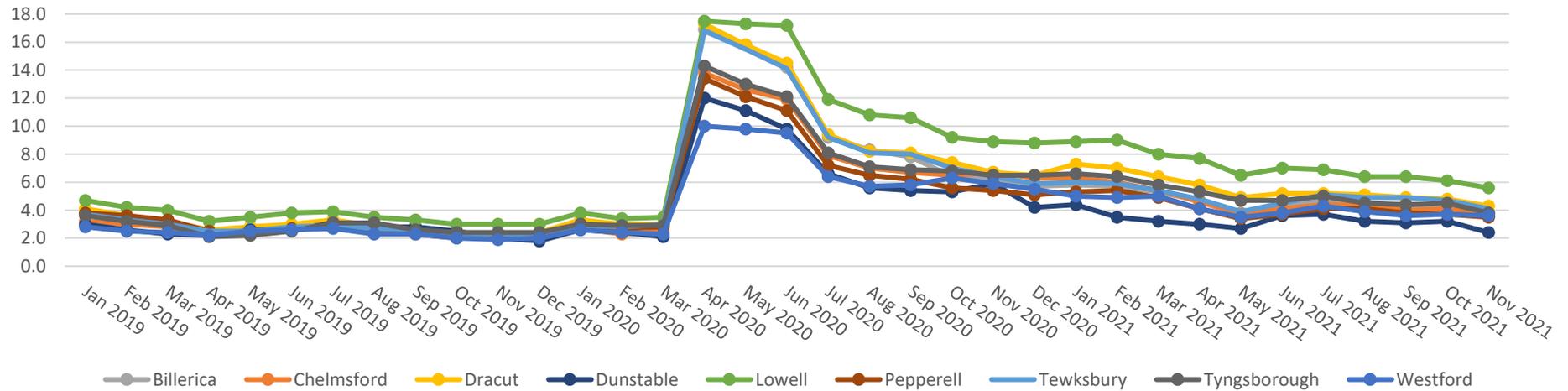
TABLE 30: OCCUPATION MIX BY COMMUNITY, STATE, AND NATION, 2015-19

	United States	Massachusetts	Billerica	Chelmsford	Dracut	Dunstable	Lowell	Pepperell	Tewksbury	Tyngsborough	Westford
<b>Management, business, and financial occupations:</b>	16%	18%	20%	21%	16%	23%	11%	19%	20%	20%	21%
<b>Computer, engineering, and science occupations:</b>	6%	9%	10%	19%	11%	14%	7%	10%	10%	13%	21%
<b>Education, legal, community service, arts, and media occupations:</b>	11%	13%	10%	13%	10%	10%	9%	10%	11%	10%	15%
<b>Healthcare practitioners and technical occupations:</b>	6%	7%	6%	7%	7%	6%	4%	8%	7%	6%	7%
<b>Healthcare support occupations</b>	3%	3%	2%	1%	5%	0%	6%	2%	2%	3%	2%
<b>Food preparation and serving related occupations</b>	6%	5%	6%	3%	7%	4%	7%	3%	6%	4%	3%
<b>Sales and related occupations</b>	10%	9%	8%	9%	7%	10%	8%	11%	9%	14%	10%
<b>Office and administrative support occupations</b>	11%	10%	13%	11%	11%	11%	11%	12%	13%	9%	8%
<b>Construction and extraction occupations</b>	5%	4%	6%	3%	5%	7%	5%	4%	5%	4%	4%
<b>Production occupations</b>	6%	4%	3%	2%	6%	2%	11%	3%	4%	4%	2%
<b>Total Civilian employed population 16 years and over</b>	<b>154,842,185</b>	<b>3,612,375</b>	<b>24,249</b>	<b>18,574</b>	<b>16,993</b>	<b>1,905</b>	<b>56,168</b>	<b>6,661</b>	<b>17,302</b>	<b>7,167</b>	<b>12,971</b>

Source: U.S. Census Bureau, American Community Survey, Five-Year data, Table B24010.

# Employment: Unemployment and Labor Force

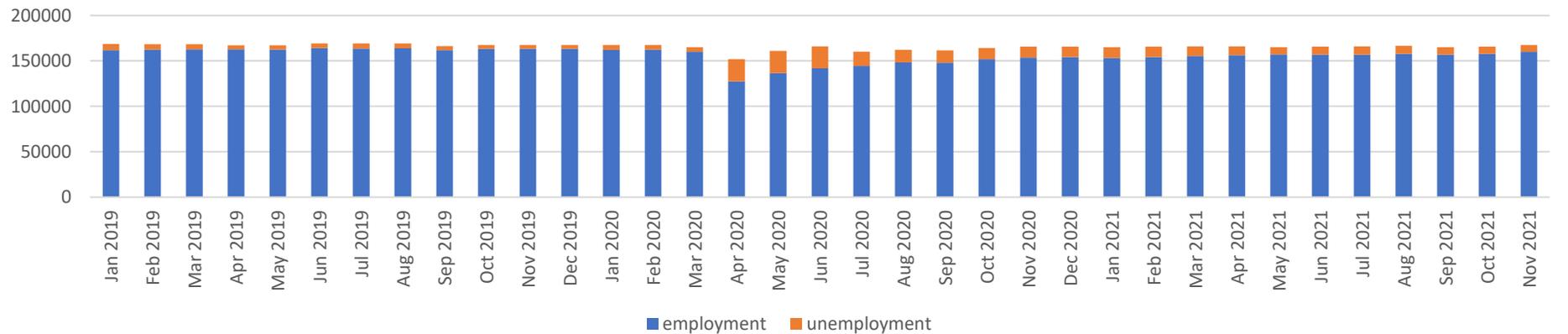
FIGURE 22: UNEMPLOYMENT RATE IN % BY TOWN



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

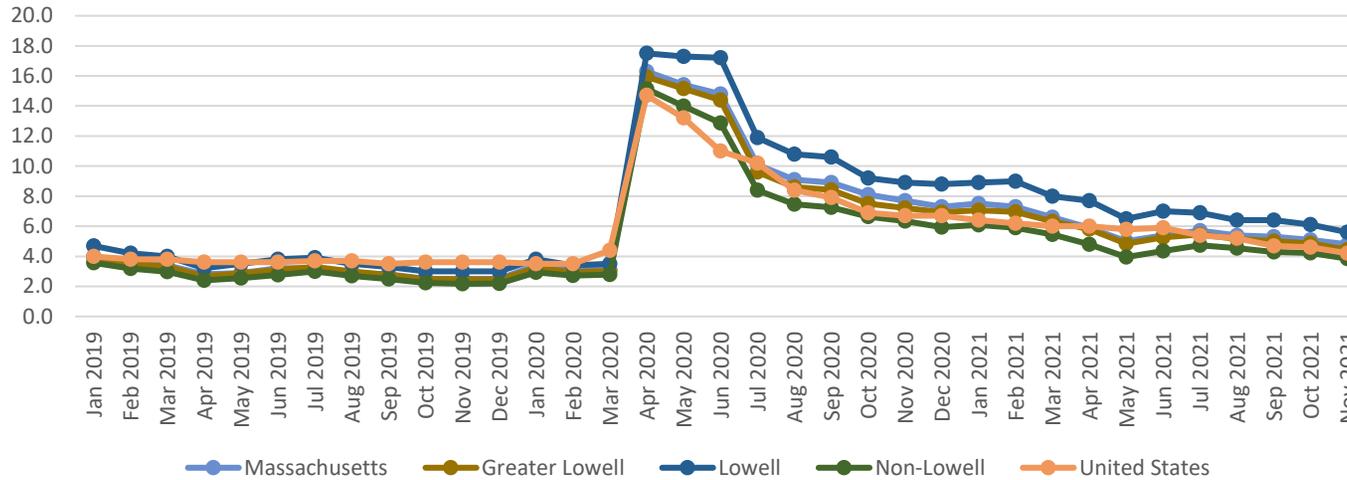
Figure 22 illustrates the unemployment rate for each NMCOC community from January 2019 to November 2021. Most NMCOC communities experienced their highest rates of unemployment in April 2020, followed by a one-point decline in May and a continual decline through 2021. Westford, the only outlier to this trend, had a 10% unemployment rate in April, May, and June 2020, the lowest peak. The NMCOC region as a whole experienced a 16% unemployment rate in April 2020, which has declined to 4.4% in November 2021. Lowell experienced the highest unemployment rate of 18% in April, followed by Billerica, Dracut, and Tewksbury each with 17%. Westford’s 10% was the lowest. FIGURE 23 illustrates the labor force in workers for Greater Lowell. After dipping to a low of 150,871 in April 2020, it rebounded to 167,302 in November 2021. This was its highest since the pandemic, but not at the two-year high of 169,125 in June 2019.

FIGURE 23: GREATER LOWELL LABOR FORCE



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

FIGURE 24: UNEMPLOYMENT RATE IN % (COMPARISON WITH U.S.)



Only the City of Lowell has had consistently higher unemployment than the U.S. (between 0.7 to 6.2 points higher). However, all communities besides Dunstable and Westford have had at least one month higher than the U.S. since April 2020, and Dracut had higher unemployment in 11 of 20 months between April 2020 and November 2021. This resulted in Greater Lowell's overall unemployment rate to often be higher than the U.S.'s rate.

See Table 32 and Table 33 on the following pages.

TABLE 31: UNEMPLOYMENT RATES BY COMMUNITY AND REGION, MAY 2017 – MAY 2021

Community	2017	2018	2019	2020	2021	% Change May 2020-2021
	May	May	May	May	May	
Billerica	3.3%	3.0%	2.6%	15.8%	3.8%	-75.9%
Chelmsford	3.2%	2.9%	2.5%	12.6%	3.7%	-70.6%
Dracut	3.4%	3.2%	2.8%	15.8%	4.9%	-69.0%
Dunstable	2.7%	2.5%	2.6%	11.1%	2.7%	-75.7%
Lowell	4.5%	3.8%	3.5%	17.3%	6.5%	-62.4%
Pepperell	3.2%	3.1%	2.4%	12.1%	3.4%	-71.9%
Tewksbury	3.5%	3.3%	2.5%	15.5%	3.9%	-74.8%
Tyngsborough	3.7%	2.8%	2.2%	13.0%	4.7%	-63.8%
Westford	3.3%	2.8%	2.5%	9.8%	3.5%	-64.3%
<b>Greater Lowell Region</b>	<b>3.7%</b>	<b>3.3%</b>	<b>2.9%</b>	<b>15.1%</b>	<b>4.8%</b>	<b>-68.1%</b>

Source: Bureau of Labor Statistics, Not Seasonally Adjusted

TABLE 32: UNEMPLOYMENT RATES FOR THE REGION, STATE, AND NATION, JANUARY 2019-NOVEMBER 2021

	United States	Massachusetts	Greater Lowell	City of Lowell	Region Outside Lowell
Jan 2019		4.0%	3.9%	4.7%	3.6%
Feb 2019		3.6%	3.5%	4.2%	3.2%
Mar 2019		3.4%	3.3%	4.0%	3.0%
Apr 2019		2.8%	2.7%	3.2%	2.4%
May 2019		2.9%	2.9%	3.5%	2.5%
Jun 2019		3.2%	3.1%	3.8%	2.8%
Jul 2019		3.2%	3.3%	3.9%	3.0%
Aug 2019		2.9%	3.0%	3.5%	2.7%
Sep 2019		2.8%	2.8%	3.3%	2.5%
Oct 2019		2.5%	2.5%	3.0%	2.2%
Nov 2019		2.5%	2.5%	3.0%	2.2%
Dec 2019		2.5%	2.5%	3.0%	2.2%
Jan 2020		3.4%	3.2%	3.8%	2.9%
Feb 2020		3.1%	3.0%	3.4%	2.7%
Mar 2020		3.1%	3.0%	3.5%	2.8%
Apr 2020		16.3%	15.9%	17.5%	15.1%
May 2020		15.4%	15.1%	17.3%	14.0%
Jun 2020		14.8%	14.4%	17.2%	12.9%
Jul 2020		10.1%	9.6%	11.9%	8.4%
Aug 2020		9.1%	8.6%	10.8%	7.5%
Sep 2020		8.9%	8.4%	10.6%	7.2%
Oct 2020		8.1%	7.5%	9.2%	6.6%
Nov 2020		7.7%	7.2%	8.9%	6.3%
Dec 2020		7.3%	6.9%	8.8%	5.9%
Jan 2021		7.5%	7.1%	8.9%	6.1%
Feb 2021		7.3%	7.0%	9.0%	5.9%
Mar 2021		6.6%	6.3%	8.0%	5.4%
Apr 2021		5.9%	5.8%	7.7%	4.8%
May 2021		5.0%	4.8%	6.5%	4.0%
Jun 2021		5.4%	5.3%	7.0%	4.3%
Jul 2021		5.7%	5.5%	6.9%	4.7%
Aug 2021		5.4%	5.2%	6.4%	4.5%
Sep 2021		5.3%	5.0%	6.4%	4.3%
Oct 2021		5.1%	4.9%	6.1%	4.2%
Nov 2021		4.8%	4.4%	5.6%	3.8%

Source: Bureau of Labor Statistics, Not Seasonally Adjusted

TABLE 33: GREATER LOWELL LABOR FORCE, JANUARY 2019 – NOVEMBER 2021

	Massachusetts	Billerica	Chelmsford	Dracut	Dunstable	Lowell	Pepperell	Tewksbury	Tyngsborough	Westford	Greater Lowell
Jan 2019	5,627,960	24,909	19,842	18,697	1,954	57,466	6,918	17,949	7,335	13,284	168,354
Feb 2019	5,628,669	24,880	19,858	18,645	1,943	57,378	6,908	17,921	7,332	13,297	168,162
Mar 2019	5,629,802	24,903	19,869	18,617	1,946	57,349	6,942	17,912	7,320	13,306	168,164
Apr 2019	5,631,202	24,702	19,748	18,475	1,933	56,837	6,904	17,789	7,255	13,268	166,911
May 2019	5,632,822	24,679	19,743	18,486	1,949	56,889	6,929	17,762	7,252	13,279	166,968
Jun 2019	5,634,880	25,010	19,997	18,722	1,963	57,670	6,976	17,999	7,349	13,439	169,125
Jul 2019	5,637,007	25,017	19,999	18,731	1,964	57,635	6,951	17,985	7,381	13,419	169,082
Aug 2019	5,639,040	24,978	19,983	18,699	1,966	57,525	6,980	17,977	7,393	13,392	168,893
Sep 2019	5,641,308	24,562	19,667	18,371	1,939	56,582	6,885	17,707	7,255	13,210	166,178
Oct 2019	5,643,397	24,738	19,817	18,518	1,950	56,964	6,945	17,841	7,310	13,298	167,381
Nov 2019	5,644,916	24,737	19,793	18,491	1,941	57,000	6,947	17,836	7,314	13,291	167,350
Dec 2019	5,646,173	24,728	19,762	18,500	1,945	56,924	6,972	17,795	7,307	13,281	167,214
Jan 2020	5,647,161	24,765	19,753	18,544	1,946	57,029	6,920	17,812	7,299	13,278	167,346
Feb 2020	5,647,178	24,774	19,710	18,516	1,942	56,870	6,925	17,806	7,298	13,270	167,111
Mar 2020	5,647,723	24,421	19,449	18,243	1,914	56,071	6,841	17,590	7,190	13,051	164,770
Apr 2020	5,648,468	22,731	17,531	17,057	1,702	52,252	5,467	16,337	6,500	11,294	150,871
May 2020	5,647,805	23,986	18,511	17,920	1,835	55,809	5,954	17,209	6,844	12,055	160,123
Jun 2020	5,647,618	24,471	19,088	18,346	1,887	57,935	6,213	17,591	7,044	12,490	165,065
Jul 2020	5,647,519	23,558	18,591	17,631	1,845	55,434	6,293	16,956	6,864	12,299	159,471
Aug 2020	5,647,588	23,913	18,891	17,853	1,872	56,157	6,454	17,199	6,961	12,528	161,828
Sep 2020	5,647,956	23,753	18,800	17,796	1,873	55,959	6,471	17,152	6,937	12,515	161,256
Oct 2020	5,648,070	23,984	19,223	18,120	1,913	56,441	6,611	17,392	7,099	12,897	163,680
Nov 2020	5,647,713	24,248	19,521	18,216	1,948	56,991	6,697	17,503	7,170	13,009	165,303
Dec 2020	5,647,094	24,211	19,509	18,238	1,927	57,160	6,746	17,461	7,198	13,008	165,458
Jan 2021	5,646,187	24,072	19,370	18,267	1,930	56,832	6,738	17,360	7,159	12,852	164,580
Feb 2021	5,644,665	24,186	19,416	18,327	1,921	57,225	6,765	17,445	7,187	12,913	165,385
Mar 2021	5,643,634	24,255	19,455	18,351	1,926	57,058	6,810	17,485	7,192	13,019	165,551
Apr 2021	5,642,830	24,259	19,409	18,345	1,914	57,241	6,775	17,496	7,203	12,985	165,627
May 2021	5,642,325	24,156	19,328	18,256	1,914	56,766	6,803	17,423	7,190	12,967	164,803
Jun 2021	5,642,222	24,236	19,387	18,303	1,914	57,041	6,737	17,512	7,180	13,003	165,313
Jul 2021	5,642,181	24,378	19,462	18,300	1,925	56,962	6,767	17,635	7,212	13,076	165,717
Aug 2021	5,642,135	24,484	19,563	18,391	1,926	57,001	6,804	17,703	7,218	13,098	166,188
Sep 2021	5,642,362	24,214	19,364	18,243	1,914	56,640	6,773	17,578	7,159	12,972	164,857
Oct 2021	5,642,355	24,339	19,492	18,328	1,922	56,775	6,796	17,638	7,208	13,053	165,551
Nov 2021	5,641,809	24,643	19,688	18,513	1,932	57,336	6,881	17,805	7,267	13,237	167,302

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics (Not seasonally adjusted)

## Employment: Unemployment by Industry

**TABLE 34: GREATER LOWELL WORKFORCE DEVELOPMENT AREA  
UNEMPLOYMENT CLAIMANTS BY INDUSTRY**

NAICS #	Claimant Count by NAICS Industry Name	May-20	May-21	Over-The-Year Change
56	Admin & Support, Waste Mgmt & Remediation Serv.	1,515	405	-73.3%
31-33	Manufacturing	1,625	328	-79.8%
62	Health Care and Social Assistance	3,849	322	-91.6%
23	Construction	2,135	291	-86.4%
44-45	Retail Trade	2,713	275	-89.9%
81	Other Services (except Public Administration)	1,835	255	-86.1%
72	Accommodation and Food Services	3,456	235	-93.2%
54	Professional, Scientific, and Technical Services	1,253	225	-82.0%
48-49	Transportation and Warehousing	1,033	135	-86.9%
4	Wholesale Trade	759	132	-82.6%
99	INA (No NAICS Code)	714	85	-88.1%
52	Finance and Insurance	182	81	-55.5%
92	Public Administration	335	75	-77.6%
61	Educational Services	537	52	-90.3%
51	Information	272	46	-83.1%
53	Real Estate and Rental Leasing	259	38	-85.3%
71	Arts, Entertainment, and Recreation	527	33	-93.7%
55	Management of Companies and Enterprises	164	20	-87.8%
22	Utilities	19	7	-63.2%
11	Agriculture, Forestry, Fishing and Hunting	23	0	-100.0%
	<b>All Industries</b>	<b>23,205</b>	<b>3,040</b>	<b>-86.9%</b>

Source: Massachusetts Department of Unemployment Assistance

Table 34 lists the number of unemployment claimants by industry in the Greater Lowell Workforce Development Area in May 2020 and May 2021. It should be noted that the Greater Lowell Workforce Development Area does not include Pepperell. The “Administrative and Support and Waste Management and Remediation Services” sector had the highest number of claimants in May 2021, though this was a 73.3% decrease from the May 2020 level of 1,515 claimants. Manufacturing had the second highest number of claimants in May 2021, well below the 1,625 claimants in May 2020. Health Care and Social Assistance had the third highest number of claimants in May 2021 with 322, a decline of 91.6% since May 2020. No industry experienced an uptick in unemployment claimants between May 2020 and May 2021. Instead, all industries had a decline of claimants that was greater than 55%, with a total decline of 86.9% for all industries.

### MEASURING ECONOMIC DISTRESS

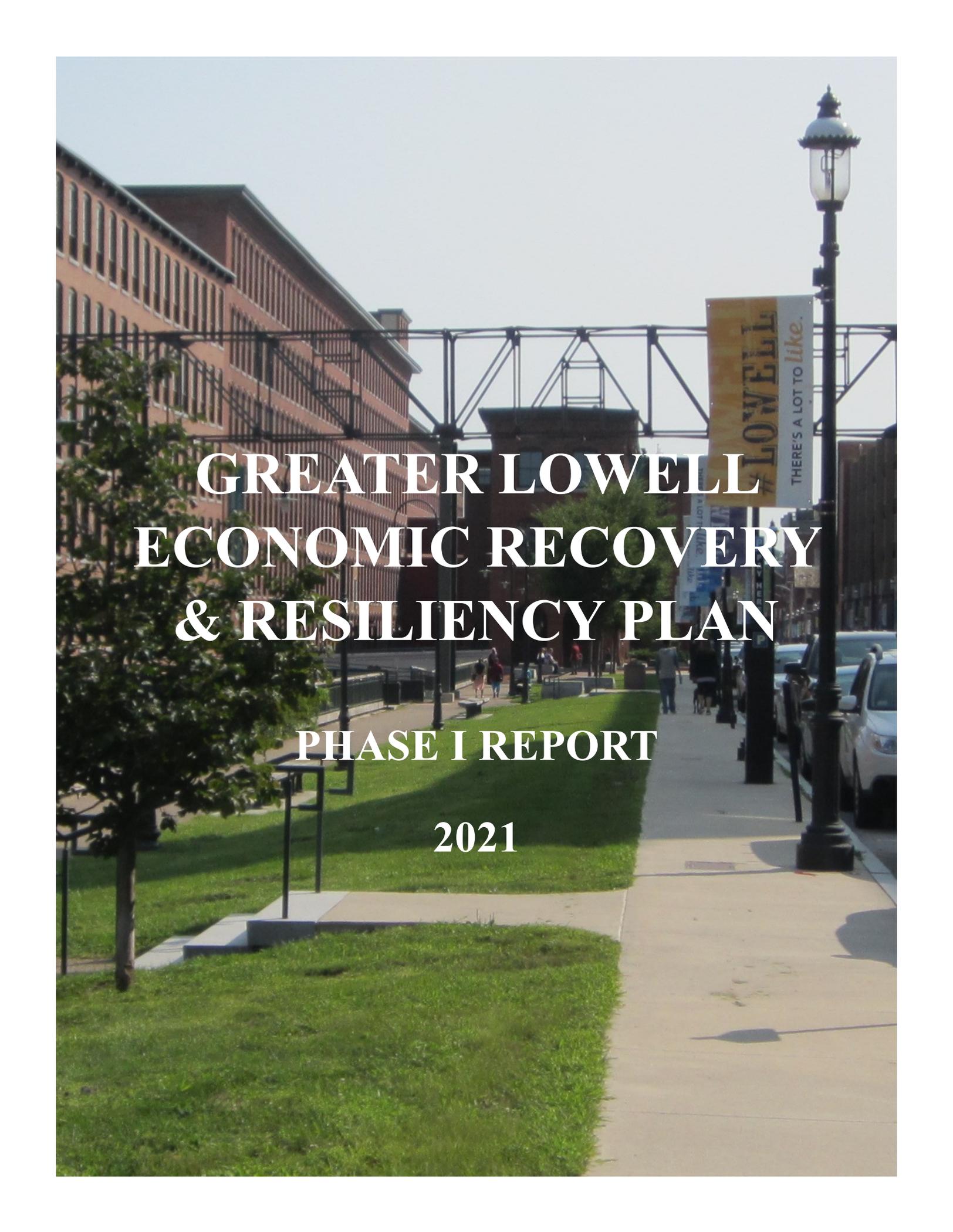
To pursue certain funding from the EDA, projects must respond to at least one of the administration’s stated investment priorities. They must also meet at least one of the established distress criteria applicable to the proposed project’s location at time of application. The specific criteria is described in the Notice of Funding Opportunity (NOFO) for the applicable grant program. The most recent NOFO had the following criteria:

- An unemployment rate for the most recent 24-month period that is 1 point above the national rate.
- Per capita income that is 80% or less of the national per capita income level.
- A “Special Need” as determined by EDA, which could include the closure of a major industry or employer, population loss, or demonstrated underemployment.

Lowell is the only community as a whole that qualifies under per capita income (79% of U.S. per 2015-19 ACS). No town as a whole currently qualifies under the unemployment categories, although Lowell soon may if trends continue. However, administrations are encouraged to work with NMCOG and EDA to explore qualification on any potential projects that may utilize EDA funding, especially as certain census tracts may qualify.

# Appendix 2

## Economic Recovery and Resiliency Plan



# GREATER LOWELL ECONOMIC RECOVERY & RESILIENCY PLAN

PHASE I REPORT

2021

# GREATER LOWELL ECONOMIC RECOVERY & RESILIENCY PLAN

## Prepared by:

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## ACKNOWLEDGMENTS

Preparation of this Economic Recovery and Resiliency Plan was funded through an Economic Adjustment Assistance grant from the Economic Development Administration (EDA) of the U.S. Department of Commerce with local matches provided by the Northern Middlesex Council of Governments (NMCOG), principally through state contracts and local assessments.

### Greater Lowell Comprehensive Economic Development Strategy Committee

Allison Lamey	Lowell Plan/Lowell Development & Financial Corporation
Ann Vandal	Town of Dracut
Arthur Ford	Sullivan Bille P.C.
Bill Lipschitz	CTI/Common Ground
Bruce Rosenberg	Westford Economic Development Committee
Danielle McFadden	Greater Lowell Chamber of Commerce
Frank Carvalho	Lowell Business Owner
Jerry Frechette	Washington Savings Bank
Lisa Marrone	Chelmsford Economic Development Commission
Patricia Coffey	University of Massachusetts, Lowell
Peter Farkas	MassHire Greater Lowell Workforce Board
Rob Anderson	Town of Billerica
Shannon Norton Calles	Lowell Career Center
Sovanna Pou	Cambodian Mutual Assistance Association
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, Department of Planning and Development

### Other Partners

Coalition for a Better Acre	Merrimack Valley Food Bank
Greater Lowell Community Foundation	Merrimack Valley Housing Partnership
Greater Lowell Health Alliance	Middlesex Community College
House of Hope	Mill Cities Grows
Lowell Community Health Center	Working Cities Lowell
Lowell General Hospital	

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# 1. Overview of COVID-19 in the Greater Lowell Region

Within the *Greater Lowell Comprehensive Economic Development Strategy (CEDS) for 2020-2024*, the number one goal 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 implementing “steady-state resiliency initiatives” and “responsive resiliency issues” that prepare a region for natural and economic disasters, as well as responding to those disasters. The Greater Lowell Economic Recovery and Resiliency Plan is designed to help the Greater Lowell region economically by addressing the economic injury caused by COVID-19. Without addressing the health care problems created by the pandemic, there would be little chance in solving the economic, housing and food security issues that were exacerbated by the pandemic. When the CARES Act grant application was submitted to EDA, the Greater Lowell region was facing the following situation:

“The COVID-19 pandemic resulted in 4,664 cases and 247 deaths between January 1, 2020 and May 27, 2020 in the region. There has 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 unemployment claims were filed in the region between March 21, 2020 and June 5, 2020. Job losses particularly impacted the Health Care and Social Assistance, Accommodation and Food Services, Retail Trade, Construction, and Manufacturing industries. The major occupations impacted by the COVID-19 pandemic in the region included Food Preparation and Service Related, Office and Administrative Support, Management, Sales and Related, Personal Care and Service, Transportation, and Material Moving and Production. These impacts continued to be felt in the region as businesses slowly reopened at reduced capacity.”

Social distancing measures and lockdowns took effect in March 2020 to isolate and drive down COVID-19 infections, resulting in a severe economic downturn. The economic shock generated from quarantine, unemployment, and business closures severely impacted consumer services and reduced the capacity to produce goods. Small businesses in Massachusetts suffered serious damage due to the COVID-19 pandemic, with many reporting layoffs, temporary or permanent closures, significant drop in revenues, and changes in operating models. Unlike previous economic downturns, the COVID-19 pandemic disproportionately impacted certain segments of the population and devastated some industries more than others, particularly those that involve direct contact with consumers. Reductions in income, a rise in unemployment, and disruptions in the transportation, service, hospitality and manufacturing industries were observed nationwide and locally.

During the first half of 2020, demand for most goods plummeted as the economy went into lockdown. Manufacturing capacity was cut, workers were displaced, and transportation and shipments slowed considerably. Temporary trade restrictions and shortages of pharmaceuticals, critical medical supplies, and other products highlighted these weaknesses. By late 2020, cracks in the supply chain emerged and reactivating the manufacturing machine following COVID-related shutdowns turned out to be difficult. The complex system that transports raw materials and finished products requires predictability and accuracy, which was lost as a result of the pandemic. Shortages of components and surging prices of critical raw materials further impacted manufacturers. Such supply shocks stifled economic recovery across the region and the nation.

The COVID-19 crisis highlighted significant inequities in the social determinants of health— income and wealth, health-care 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. Such inequities in infectious disease outcomes are largely the byproduct of policies that have systematically disadvantaged Black, Hispanic, and Asian communities. These demographic groups have a higher incidence of preexisting comorbidities including hypertension, diabetes, and heart disease, which increase the risk of dying from COVID-19 complications.

The recent surge in COVID-19 due to the Delta variant has shown that outbreaks are likely to reappear in the future, requiring proactive measures to protect public health and to ensure economic recovery and resiliency in an equitable manner. Notwithstanding the positive impacts that vaccines have had on COVID-19, many experts don't expect the United States to fully recover until the Spring of 2022. At best, we will need to continue to deal with COVID-19 as we improve the economy, increase housing opportunities and address the food security issues affecting our most vulnerable citizens.

## 2. COVID-19 Impact Data

This chapter provides data relevant to COVID-19 and healthcare, food security, housing, employment, income and small business operations. The direct impact COVID-19 is having on mortality and cost to the healthcare system is significant. While the immediate and direct impacts on healthcare can be measured, there will be delayed or indirect impacts that result from deferred or canceled treatment, longer-term and unknown health impacts of those who recover from COVID-19, the physical and behavioral health impact of sheltering in place, and the indirect health effects resulting from the economic downturn.

Massachusetts saw an overall increase in food insecurity of 55 percent from 2019 to 2020, according to a new survey conducted by The Greater Boston Food Bank (GBFB) in collaboration with the National Food Access and COVID Research Team (NFACT).<sup>1</sup> Hispanic and Black residents were disproportionately impacted in terms of food insecurity, perpetuating disparities that existed before the pandemic. During the years preceding the pandemic, food insecurity for White and Asian households in Massachusetts hovered around 5 percent. By contrast, food insecurity among Hispanic households was 24 percent. In the years leading up to the current crisis, food insecurity trended downward for Black households before rising quickly in 2020. Applications for public assistance rose dramatically early on in the Covid crisis, with a 400 percent 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).

SNAP accounted for the largest share of increased applications, suggesting that the pandemic and the economic slowdown had an almost immediate effect on access to food and demand for food assistance.<sup>2</sup>

Job losses and layoffs related to the COVID-19 pandemic have put many households in a situation where they struggle to pay their mortgage or rent, and need financial assistance to remain in their homes. Evictions and foreclosures were temporarily halted for the short term. However, these households will remain responsible for their unpaid rents and mortgages in the future. Workers employed in occupations that are determined to be nonessential, cannot be done at home, and are paid hourly wages are at the highest risk for unemployment and have 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 have been vital to assisting these workers in weathering the financial perfect storm created by the pandemic.

An assessment of the impacts of COVID-19 can be provided through the data for the period from March 2020 to March 2021. This data summarizes the negative impacts caused by COVID-19 on health care, the economy, housing and food security in the Greater Lowell region. The data has been broken down into the following sections: health care, unemployment, business, housing, and food security. This data will be updated in the Economic Recovery and Resiliency Plan Phase II for the period from March 2021 forward.

<sup>1</sup><https://www.gbfb.org/news/press-releases/gaps-in-food-access/>

<sup>2</sup><https://www.mass.gov/dta-public-records>

## a. Health Care

### Population without Health Insurance

Table 2.1 below shows the percentage of the population that lacked health insurance, according to the American Community Survey for 2015-2019 from the U.S. Census Bureau. The City of Lowell had the highest level of uninsured residents at 5.1%, while Pepperell had the highest levels of unemployed residents without insurance and Chelmsford had the highest levels of uninsured residents below the poverty threshold. The region as a whole had slightly higher rates than the Commonwealth, but was significantly lower than the national rates prior to COVID-19.

**Table 2.1: Percent of Population that is Uninsured, 2015-2019**

Community	Uninsured as a % of Total Population	Uninsured as a % of Unemployed Population	Uninsured as a % of Population Below the Poverty Threshold
Billerica	1.8	9.7	7.8
Chelmsford	1.5	9.3	8.0
Dracut	2.0	5.3	0.6
Dunstable	0.5	10.0	Not Available
Lowell	5.1	13.6	6.2
Pepperell	2.1	33.0	1.2
Tewksbury	1.3	4.6	7.1
Tyngsborough	0.8	Not Available	Not Available
Westford	0.6	Not Available	1.0
Greater Lowell Region	2.8	10.4	5.4
Massachusetts	2.7	10.1	4.9
United States	8.8	27.6	16.2

Source: US Census Bureau 2015-2019 American Community Survey

## Delays in Getting Medical Care due to COVID-19

Table 2.2 below shows the percent of respondents to the U.S. Census Bureau’s Household Pulse Surveys who delayed getting medical care due to the COVID-19 pandemic. Quarterly results of the survey, which began in April 2020, illustrate 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 2.2: 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			% of respondents who needed medical care for something unrelated to COVID-19, but did not get it		
	US	MA	Boston Metro Area	US	MA	Boston Metro Area
<b>4/23/20 - 5/5/20</b>	35	35	35	28	27	27
<b>7/16/20 - 7/21/20</b>	36	38	38	28	28	28
<b>10/14/20 - 10/26/20</b>	24	27	26	18	19	18
<b>1/20/21 - 2/1/21</b>	24	26	29	18	17	19
<b>4/14/21 - 4/26/21</b>	15	18	19	12	13	13

Source: US Census Bureau Household Pulse Surveys

## Total COVID-19 Cases in the Region

Table 2.3 below shows the total number of COVID-19 cases for each community in the Greater Lowell region as of June 26, 2021, as well as the number of new cases identified in the preceding two weeks. Lowell had the highest rate of infection at 15.2% as well as the most number of cases, while Dunstable had the lowest rate of infection at 5.5% and the fewest number of cases. As of June 26, 2021, the NMCOG region as a whole had 35,028 cases, indicating an infection rate of 11.3%.

**Table 2.3: Total COVID-19 Case Counts as of June 26, 2021**

Community	Population	Total Case Counts	Two Week Case Counts	% of Population
<b>Billerica</b>	43,673	3,913	6	9.0
<b>Chelmsford</b>	35,973	2,989	<5	8.3
<b>Dracut</b>	32,415	3,882	<5	12.0
<b>Dunstable</b>	3,330	182	0	5.5
<b>Lowell</b>	116,143	17,674	40	15.2
<b>Pepperell</b>	12,292	559	0	4.5
<b>Tewksbury</b>	30,826	3,325	8	10.8
<b>Tyngsborough</b>	11,979	1,149	0	9.6
<b>Westford</b>	23,089	1,355	5	5.9
<b>Greater Lowell Region</b>	309,720	35,028	<69	11.3

Source: <https://www.mass.gov/info-details/archive-of-covid-19-cases-in-massachusetts>

## Municipal Vaccination Rates

Table 2.4 illustrates the number of NMCOG area residents with at least one dose of COVID-19 vaccine and the number who were fully vaccinated, as of June 29, 2021. Westford had the highest rate of full vaccinations at 72.9%, while Lowell has the lowest rate at 50.2%. Similarly, Westford had the highest rate with at least one vaccine dose and Lowell had the lowest rate. Regionally, 57.1% of residents were fully vaccinated and 62.3% had received at least one dose.

**Table 2.4: Vaccination Rates as of June 29, 2021**

Community	Population	Individuals receiving at least one dose	% receiving at least one dose	Fully vaccinated individuals	% fully vaccinated
<b>Billerica</b>	43,673	27,376	62.7	25,274	57.9
<b>Chelmsford</b>	35,973	25,455	70.8	23,679	65.8
<b>Dracut</b>	32,415	19,279	59.5	18,007	55.6
<b>Dunstable</b>	3,330	2,163	65.0	2,004	60.2
<b>Lowell</b>	116,143	65,074	56.0	58,284	50.2
<b>Pepperell</b>	12,292	7,051	57.4	6,482	52.7
<b>Tewksbury</b>	30,826	20,512	66.5	19,044	61.8
<b>Tyngsborough</b>	11,979	7,803	65.1	7,331	61.2
<b>Westford</b>	23,089	18,258	79.1	16,838	72.9
<b>Greater Lowell Region</b>	309,720	192,971	62.3	176,943	57.1

Source: <https://www.mass.gov/info-details/massachusetts-covid-19-vaccination-data-and-updates#weekly-covid-19-municipality-vaccination-data>

## Available 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 the lowest levels in December 2020 and January 2021. According to figures reported by the Massachusetts Department of Public Health, from December 22, 2020 to January 6, 2021, the Northeastern Region experienced seven (7) 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 were approximately 1,225 beds in the region and a daily average of over 300 available beds.

## b. Unemployment

### Unemployment Rates by Municipality, March 2020 to March 2021

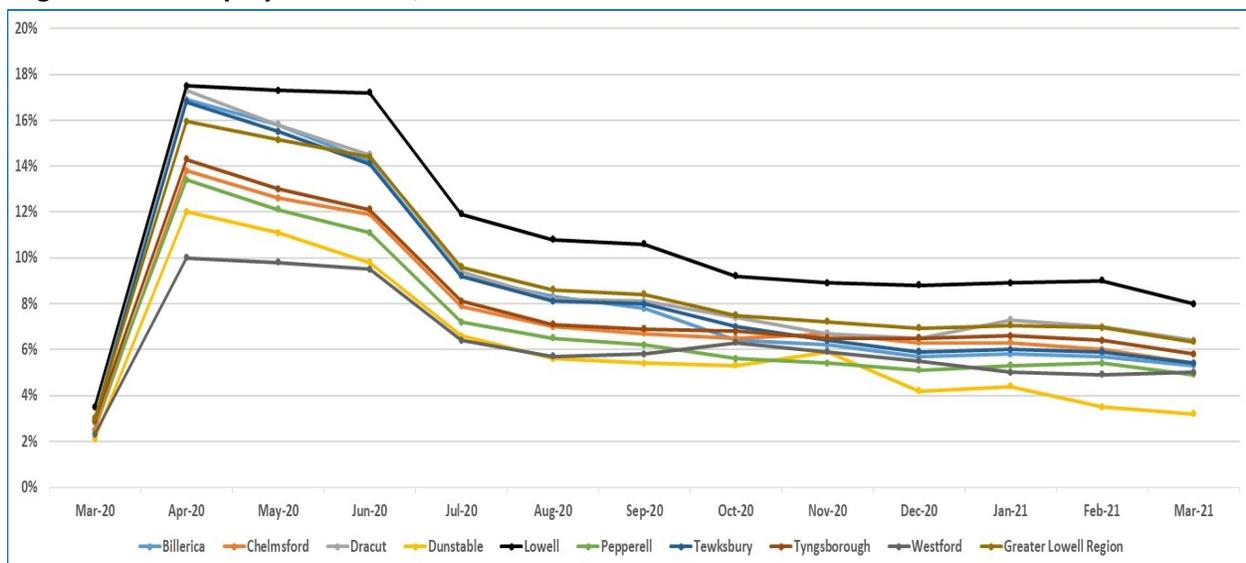
Table 2.5 and Figure 2.1 below illustrate the unemployment rate for each Greater Lowell community and the region between March 2020 to March 2021. Most communities experienced their highest rates of unemployment in April 2020, followed by a one-percent (1%) decline in May and a continual decline through 2021. Westford, the only outlier to this trend, had a 10% unemployment rate in April, May and June 2020. Lowell experienced the highest unemployment rate at 18% in April, followed by Billerica, Dracut and Tewksbury each with 17%. The region as a whole experienced a 16% unemployment rate in April 2020, which declined to 6% by March 2021.

**Table 2.5: Unemployment Rates, March 2020 to March 2021**

Community	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Billerica	3.0%	16.9%	15.8%	14.2%	9.2%	8.3%	7.8%	6.4%	6.2%	5.7%	5.8%	5.7%	5.3%
Chelmsford	2.5%	13.8%	12.6%	11.9%	7.9%	7.0%	6.7%	6.5%	6.7%	6.3%	6.3%	6.0%	5.4%
Dracut	3.0%	17.3%	15.8%	14.5%	9.4%	8.2%	8.1%	7.4%	6.7%	6.5%	7.3%	7.0%	6.4%
Dunstable	2.1%	12.0%	11.1%	9.8%	6.6%	5.6%	5.4%	5.3%	5.9%	4.2%	4.4%	3.5%	3.2%
Lowell	3.5%	17.5%	17.3%	17.2%	11.9%	10.8%	10.6%	9.2%	8.9%	8.8%	8.9%	9.0%	8.0%
Pepperell	2.8%	13.4%	12.1%	11.1%	7.2%	6.5%	6.2%	5.6%	5.4%	5.1%	5.3%	5.4%	4.9%
Tewksbury	3.0%	16.8%	15.5%	14.1%	9.2%	8.1%	8.0%	7.0%	6.4%	5.9%	6.0%	5.9%	5.4%
Tyngsborough	2.9%	14.3%	13.0%	12.1%	8.1%	7.1%	6.9%	6.8%	6.5%	6.5%	6.6%	6.4%	5.8%
Westford	2.3%	10.0%	9.8%	9.5%	6.4%	5.7%	5.8%	6.3%	5.9%	5.5%	5.0%	4.9%	5.0%
Greater Lowell Region	3.0%	15.9%	15.1%	14.4%	9.6%	8.6%	8.4%	7.5%	7.2%	6.9%	7.1%	7.0%	6.3%
Massachusetts	3.1%	16.3%	15.4%	14.8%	10.1%	9.1%	8.9%	8.1%	7.7%	7.3%	7.5%	7.3%	6.6%

Source: Bureau of Labor Statistics, Not Seasonally Adjusted

**Figure 2.1: Unemployment Rates, March 2020 to March 2021**



Source: Bureau of Labor Statistics, Not Seasonally Adjusted

## Expected Loss of Employment Income

Table 2.6 below shows the percent of respondents to the U.S. Census Bureau’s Household Pulse Surveys who expected a loss of income in the next four weeks for themselves or another household member. These expectations likely influenced spending habits for a large number of households. In late April 2020 to early May 2020, approximately four in ten respondents expected someone in their household to lose employment income across the U.S., Massachusetts and the Boston Metropolitan Area. Although expectations improved, as late as January 2021 to February 2021, approximately one in four respondents still expected a member of their household to lose employment income.

**Table 2.6: Expected Loss of Employment Income**

Household Pulse Survey Period	% of respondents who expected loss of employment income in next 4-weeks (for self or household member)		
	US	MA	Boston Metro Area
4/23/20 - 5/5/20	39%	42%	42%
7/16/20 - 7/21/20	35%	29%	30%
10/14/20 - 10/26/20	24%	26%	24%
1/20/21 - 2/1/21	25%	24%	24%
4/14/21 - 4/26/21	15%	13%	11%

Source: US Census Bureau Household Pulse Surveys



## Unemployment Claimants by Industry, March 2020 and March 2021

Table 2.7 below lists the number of unemployment claimants by industry in the Greater Lowell Workforce Development Area 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, a number of industries that experienced significant numbers of unemployment claimants in March 2020 had even more 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 2.7: Greater Lowell Workforce Development Area Unemployment 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%
	<b>All Industries</b>	<b>3,988</b>	<b>4,834</b>	<b>21%</b>

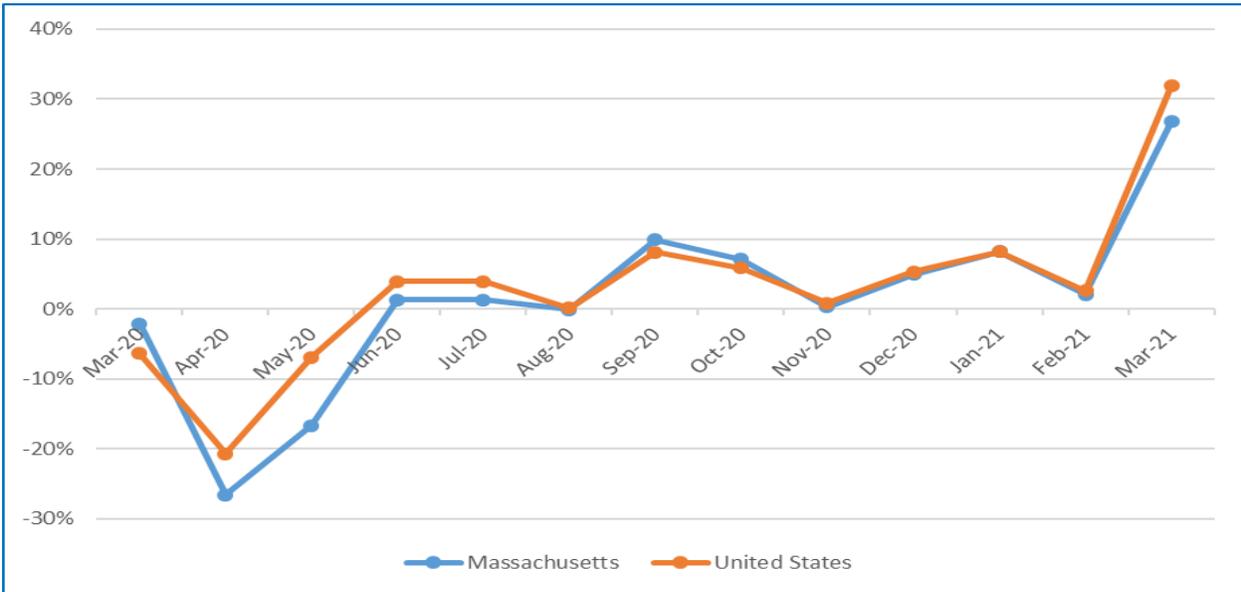
Source: Massachusetts Department of Unemployment Assistance

## c. Business Data

### Massachusetts Retail Sales, March 2020 to March 2021

Figure 2.2 and Table 2.8 illustrate the change in total Massachusetts retail sales compared to the same month in 2020. 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. (21%). Massachusetts experienced an additional 17% year-on-year decline in retail sales in May 2020, while the U.S. experienced a 7% decline that month. Year-on-year ratios improved the following month, generally staying in the single digits, but jumped to 27% for Massachusetts and 32% for the U.S. in March 2021.

**Figure 2.2: Year-on-Year Change in Total Massachusetts Retail Sales, March 2020 to March 2021**



Source: US Census Bureau Monthly State Retail Sales

**Table 2.8: Year-on-Year Change in Total Retail Sales**

Month	MA Year-on-Year Change in Total Retail Sales	US Year-on-Year Change in Total Retail Sales
Mar-20	-2%	-6%
Apr-20	-27%	-21%
May-20	-17%	-7%
Jun-20	1%	4%
Jul-20	1%	4%
Aug-20	0%	0%
Sep-20	10%	8%
Oct-20	7%	6%
Nov-20	0%	1%
Dec-20	5%	5%
Jan-21	8%	8%
Feb-21	2%	3%
Mar-21	27%	32%

Source: US Census Bureau Monthly State Retail Sales

## Small Business Operating Revenues, Sales and Receipts

Table 2.9 below includes responses from Boston Metropolitan Area small businesses to the U.S. Census Bureau's Small Business Pulse Surveys. The table shows that 77% of businesses experienced a decrease in operating revenues, sales or receipts in the week preceding the April 26, 2020 survey. Operating revenues for businesses that responded to the survey improved over the following year, but by February 2021 more than one in four businesses had experienced a decline. Figure 2.3 illustrates the percentage of businesses that saw changes in operating revenues as well as those with no change in operating revenues during the time period.

**Table 2.9: Small Business Operating Revenues, Sales and Receipts**

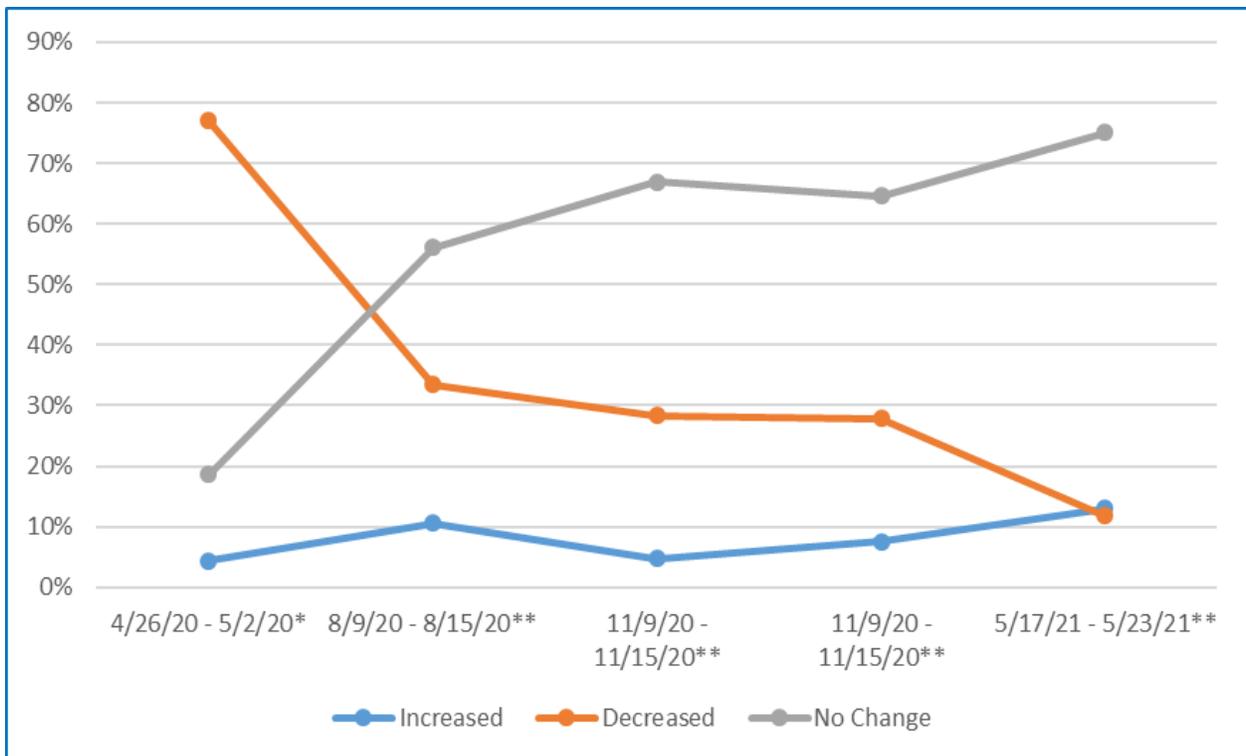
Indicator	4/26/20 - 5/2/20	8/9/20 - 8/15/20	11/9/20 - 11/15/20	2/15/21 - 2/21/21	5/17/21 - 5/23/21
Businesses that experienced a decrease in operating revenues/sales/receipts during the past week	77%*	33%**	28%**	28%**	12%**
Businesses that experienced an increase in operating revenues/sales/receipts during the past week	4%*	11%**	5%**	8%**	13%**
Businesses with no change in operating revenues/sales/receipts during the past week	19%*	56%**	67%**	65%**	75%**

\*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.

Source: US Census Bureau Small Business Pulse Surveys

**Figure 2.3: Changes in Operating Revenues/Sales/Receipts in the Last Week, Boston Metro Area**



\*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.

Source: US Census Bureau Small Business Pulse Surveys

## Paid Employees and Total Hours Worked

More than one in four small businesses responding to the Small Business Pulse Survey experienced a decrease in the number of paid employees in the week preceding the April 26, 2020 Survey, while 49% experienced a decrease in the total number of hours worked by paid employees, as shown in Table 2.10. The declines in employment and hours worked eased significantly by May 2021 when only 7% of respondents had a decrease in the number of paid employees or total hours worked.

**Table 2.10: Small Business Employees and Hours Worked**

Indicator	4/26/20 - 5/2/20	8/9/20 - 8/15/20	11/9/20 - 11/15/20	2/15/21 - 2/21/21	5/17/21 - 5/23/21
Decrease in the number of paid employees in the last week	27%	10%	11%	9%	7%
No change in the number of paid employees in the last week	69%	83%	83%	84%	81%
Decrease in the total number of hours worked by paid employees in the last week	49%	14%	16%	15%	7%
No change in the total number of hours worked by paid employees in the last week	46%	77%	78%	80%	81%

Source: US Census Bureau Small Business Pulse Surveys

## Availability of Employees and Anticipated Hiring

Small Business Pulse Survey respondents increasingly noted that the availability of employees to work impacted operating capacity, with twice the number of businesses identifying this issue between November 2020 (12%) and May 2021 (23%). Similarly, the number of respondents that anticipated hiring new employees in the next six (6) months grew from 28% in November 2020 to 42% in May 2021.

**Table 2.11: Availability of Employees and Anticipated Hiring**

Indicator	4/26/20 - 5/2/20	8/9/20 - 8/15/20	11/9/20 - 11/15/20	2/15/21 - 2/21/21	5/17/21 - 5/23/21
In the last week, the business's operating capacity was affected by the availability of employees to work	NA*	13%	12%	15%	23%
In the next 6 months, respondent believes the business will need to identify and hire new employees	NA*	27%	28%	32%	42%

\*Question was not included in the survey during this period.

Source: US Census Bureau Small Business Pulse Surveys

## Missed Loan Payments

Early versions of the Small Business Pulse Survey included the question "Since March 13, 2020, has this business missed any loan payments?", which was later revised to include the following language: "Loan payments that have been forgiven or postponed should not be considered to be missed." From April 26, 2020 to May 2, 2020, 13% of small businesses in the Boston Metropolitan Area had missed a loan payment. By the August 9, 2020 to August 15, 2020 survey, that number had fallen to less than 2%.

## Telework

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%.

**Table 2.12: Telework in the Boston Metropolitan Area**

Household Pulse Survey	An adult in household substituted some or all of their typical in-person work for telework because of the coronavirus pandemic (Boston Metropolitan Area)			
	Survey Period	All Respondents	Households with incomes less than \$50,000	Households with incomes \$50,000 and above
	<b>8/19/20 - 8/31/20*</b>	52%	24%	63%
	<b>10/14/20 - 10/26/20</b>	52%	23%	66%
	<b>1/20/21 - 2/1/21</b>	52%	25%	64%
	<b>4/14/21 - 4/26/21**</b>	46%	26%	55%

\*First time period with this question included in the Household Pulse Survey.

\*\*Survey question modified to specify that telework was in the last 7 days.

Source: US Census Bureau Household Pulse Surveys

## d. Housing

Table 2.13 below shows the number of Household Pulse Survey respondents who were behind on their last month's rent payment or mortgage payment. For most quarters, Boston Metropolitan Area respondents were more likely or nearly as likely to be up-to-date on payments as Massachusetts residents overall. In addition, for most quarters, Massachusetts respondents were more likely than U.S. respondents to be current on payments. Despite fluctuations during this period of time, the April 2021 quarter had lower rates of payment arrears than most other quarters.

**Table 2.13: Percent of Households Behind on Rent or Mortgage Payments**

Survey Period	Household is currently behind on rent payments			Household is currently behind on mortgage payments		
	US	MA	Boston Metro Area	US	MA	Boston Metro Area
4/23/20 - 5/5/20	14.3%	13.3%	14.1%	5.2%	3.8%	3.2%
7/16/20 - 7/21/20	18.3%	12.0%	12.1%	5.5%	2.3%	2.8%
10/14/20 - 10/26/20	14.8%	13.4%	12.0%	6.5%	8.1%	5.9%
1/20/21 - 2/1/21	17.0%	12.7%	12.3%	6.7%	4.9%	5.0%
4/14/21 - 4/26/21	13.8%	13.0%	9.7%	4.8%	2.9%	2.8%

Source: US Census Bureau Household Pulse Surveys

As shown in Table 2.14 below, households in the Boston Metropolitan Area with children present reported falling behind on rent payments at higher rates than the total renting population. Households with children present reported rent arrears at significantly higher rates during the July 2020 and October 2020 survey periods in particular. Similarly, households with incomes less than \$50,000 reported higher rates of arrears than the total renting population.

**Table 2.14: Select Boston Metropolitan Area Households Behind on Rent Payments**

Survey Period	Households with Children Present	Households with incomes less than \$50,000	All Boston Metro Area Households
4/23/20 - 5/5/20	15.9%	17.7%	14.1%
7/16/20 - 7/21/20	20.3%	19.3%	12.1%
10/14/20 - 10/26/20	19.2%	16.4%	12.0%
1/20/21 - 2/1/21	16.4%	20.1%	12.3%
4/14/21 - 4/26/21	11.9%	15.7%	9.7%

Source: US Census Bureau Household Pulse Surveys

## Evictions

The Commonwealth of Massachusetts' official website describes the legal situation for eviction of residential renters for non-payment in the following way:

*“The state's pause on evictions expired on October 17, 2020. When the state moratorium expired, a federal moratorium established by the Centers for Disease Prevention and Control (CDC) became effective in Massachusetts. Through July 31, 2021, the CDC moratorium will prevent residential evictions for non-payment for qualified tenants who submit a written declaration to their landlord. Courts will accept filings and process cases, and may enter judgments but will not issue an order of execution (the court order that allows a landlord to evict a tenant) until after the expiration of the CDC order. Protection is limited to households who meet certain income and vulnerability criteria.”<sup>3</sup>*

As the above quote notes, households that do not meet specific income and vulnerability criteria are 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. For comparison, the Housing Court approved 918 evictions for non-payment in Middlesex County between October 18, 2019 and July 3, 2020. Approved evictions for Greater Lowell communities are listed in Table 2.15 below. The City of Lowell accounted for 75.9% of approved evictions in the region during this time period, while Tewksbury had, the second highest number, accounting for 7.1% of total evictions in the region.

**Table 2.15: Housing Court Approval of Evictions for Non-Payment of Rent, October 18, 2020 to July 3, 2021**

Community	Evictions
Billerica	3
Chelmsford	8
Dracut	9
Dunstable	0
Lowell	107
Pepperell	1
Tyngsborough	0
Tewksbury	10
Westford	3
<b>Greater Lowell Region</b>	<b>141</b>
<b>Middlesex County</b>	<b>380</b>

\*Source: Massachusetts Trial Court, [https://public.tableau.com/app/profile/drap4687/viz/MassachusettsTrialCourtSummaryProcessExecutionsIssued/ExecutionsIssd\\_byWeekMonth](https://public.tableau.com/app/profile/drap4687/viz/MassachusettsTrialCourtSummaryProcessExecutionsIssued/ExecutionsIssd_byWeekMonth)

<sup>3</sup>Source: <https://www.mass.gov/info-details/covid-19-eviction-information>

## e. Food Security

Widespread loss of employment income caused by the COVID-19 pandemic threatened food security for families across the region and nation. 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).”<sup>4</sup>*

In many cases, emergency food providers increased capacity to address growing demand. For example, Lowell’s Mill City Grows donated over 5,000 pounds of food to the Merrimack Valley Food Bank in 2020.<sup>5</sup> In addition to COVID exacerbating the local need for emergency food, some people who had qualified for food aid prior to COVID-19 but were not aware that they qualified, have since learned that they are eligible and now know how to access assistance.

Table 2.16 below shows the number of households, including households with children, that received Supplemental Nutrition Assistance Program (SNAP) assistance in 2015-2019. This baseline was before the economic impacts of COVID-19 were felt in the region. SNAP eligibility is tied to federal standards that are not consistent with high costs in Massachusetts, and anecdotal evidence suggests that setting up for SNAP acceptance can be difficult for smaller businesses and farms that sell produce at farm stands and farmers’ markets.

**Table 2.16: Households Receiving Food Stamps/Supplemental Nutrition Assistance Program (SNAP)**

	Households receiving food stamps/ SNAP	Households with children under 18 years receiving food stamps/SNAP
<b>Billerica</b>	3.4%	4.7%
<b>Chelmsford</b>	4.0%	2.3%
<b>Dracut</b>	8.6%	10.7%
<b>Dunstable</b>	0.9%	1.5%
<b>Lowell</b>	21.7%	28.7%
<b>Pepperell</b>	6.9%	4.7%
<b>Tewksbury</b>	3.3%	3.7%
<b>Tyngsborough</b>	7.1%	5.3%
<b>Westford</b>	2.8%	1.5%
<b>Greater Lowell Region</b>	10.8%	12.9%
<b>Massachusetts</b>	11.7%	15.9%
<b>United States</b>	11.7%	19.0%

Source: US Census Bureau 2015-2019 American Community Survey

<sup>4</sup>Source: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/measurement.aspx#security>

<sup>5</sup>Source: <https://www.lowellsun.com/2021/06/30/sen-elizabeth-warren-lowell-community-health-center-even-more-extraordinary-place-today/>

Table 2.17 illustrates that the number of respondents to the Census Household Pulse Survey in the Boston Metropolitan Area, who either sometimes or often did not have enough to eat, stayed near or below pre-March 2020 levels during the periods analyzed. However, the number who had enough to eat, but not always the types wanted, spiked to 29.8% in April 2020 and remained above 20% until at least October 2020.

**Table 2.17: Food Sufficiency in the last 7 days for Households in the Boston Metropolitan Area**

Survey Period	Sometimes not enough to eat	Often not enough to eat	Sometimes or often not enough to eat	Enough food, but not always the types wanted
Food sufficiency prior to March 13, 2020*	5.1%	1.3%	6.4%	17.0%
4/23/20 - 5/5/20	5.2%	1.1%	6.3%	29.8%
7/16/20 - 7/21/20	5.3%	0.4%	5.8%	27.0%
10/14/20 - 10/26/20	4.7%	1.1%	5.8%	21.1%
1/20/21 - 2/1/21	4.3%	1.5%	5.8%	17.6%
4/14/21 - 4/26/21	3.3%	0.7%	4.0%	13.4%

\*Answers from 4/23/20 survey period.

Source: US Census Bureau Household Pulse Surveys

## Food Sufficiency for Children

Households with children in the Boston Metropolitan Area fared worse than the general population with respect to food security in each of the surveys examined, as shown in Table 2.18 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.

**Table 2.18: 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

### 3. Survey Results

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 full results of the survey along with the complete list of questions are included in the Appendix. Survey responses were anonymous so the identities of the respondents are not known.

#### a. Health Care Provider Survey Results

A brief email with the health care survey link 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. Table 4.1 below shows that more than half (57%) of respondents estimated that COVID-19 had a high or significant impact on their organization, and an additional 29% responded that there were moderate or minor disruptions from COVID-19. Only one (14%) of the organizations had experienced little or no impact.

**Table 3.1: Survey Question - 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)	4	57.1%
Moderate (minor disruptions)	2	28.6%
Low (little or no impact)	1	14.3%

## COVID-19 Impacts for Health Care Providers

Table 3.2 lists the type of impact that organizations experienced or expected to experience. Every respondent organization had experienced or expected to experience cancellation of programs or events, six (86%) identified a disruption of services, and five (71%) identified budgetary implications. Notably, only one (14%) respondent identified “Increased demand for services/support from patients, clients and communities” and “Disruption of supplies or services provided by partners” as impacts.

**Table 3.2: Survey Question - 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	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%
Disruption of supplies or services provided by partners	1	14.3%
Increased demand for services/support from patients, clients and communities	1	14.3%
Other (please specify): limited all but emergency admissions to facility	1	14.3%

## Resources and Information Needed

Table 3.3 below shows the resources and information identified as needed by two (29%) or more organizations. Additional funding and additional staff were the most common responses, with 71% and 57% respectively. Interestingly, “Information on available resources” and “Release from restrictions on current restricted funds” were each identified by only one respondent (see Appendix for complete survey responses).

**Table 3.3: Survey Question - What resources and information are needed? Select all that apply.**

Answer Choices	Responses	
Additional funding	5	71.4%
Additional staff (nurses, respiratory therapists, etc.)	4	57.1%
Relaxation of standards for delivery of remote services, including telehealth	2	28.6%

## Training Needs

Table 3.4 shows that few organizations were seeking additional training at the time of the survey. Training on available technical tools was identified by two organizations, and only one organization replied to the open ended portion of the question.

**Table 3.4: Survey Question - What training is needed? Select all that apply.**

Answer Choices	Responses	
Available technical tools and how to choose the right ones	2	28.6%
Effective electronic communications with patients, including social media training such as Facebook, Twitter, and Instagram	1	14.3%
Keeping donors engaged virtually	1	14.3%
Remote and virtual service delivery	1	14.3%
Serving populations without broadband	1	14.3%
Working remotely	1	14.3%
Managing staff remotely	1	14.3%
General fundraising	0	0.0%
Hosting virtual fundraisers	0	0.0%
Compliance issues for remote service provision, including HIPAA	0	0.0%
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): access to vaccine administration to new employees of nursing home and any new admissions	1	14.3%

## Concerns for Carrying out Mission

As shown in Table 3.5 below, the largest immediate concern for respondents was the capacity to administer COVID-19 vaccines (57%), followed by day-to-day operations compromising the health of staff, board members, volunteers and patients.

**Table 3.5: 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	Responses	
Capacity to administer COVID vaccines	4	57.1%
Capacity to orchestrate day-to-day operations without compromising the health of staff, board members, volunteers, and patients	2	28.6%
Effective communication strategy to overcome patients' reluctance to receive the vaccine	1	14.3%
Dealing with disruptions in service provision, especially adequate housing, food, healthcare, and mental health services	1	14.3%

## b. Economic Development Survey Results

NMCOG emailed a cover letter with a link for the economic development survey link to over 35 economic development and business organizations in the region. In addition, NMCOG requested that its economic development partners forward the survey link to their members and relevant contacts. There were 29 survey responses received, with 12 responses from Pepperell followed by nine from Lowell and eight from Westford, as shown in Table 3.6 below.

**Table 3.6: Survey Question - Where is your business located? Select all that apply.**

Community	Number of Responses
Billerica	1
Chelmsford	3
Dracut	1
Dunstable	0
Lowell	9
Pepperell	12
Tewksbury	2
Tyngsborough	1
Westford	8
<b>Total</b>	<b>29</b>

The highest number of survey responses came from three industries that submitted five responses each, comprising 17% of the total responses. These businesses were in the Finance, Insurance and Real Estate; Professional, Scientific and Technical Services; and Government, Social Assistance and Non-Profits sectors. Three responses came from businesses in the Restaurants, Catering, and Food/Beverage Service industry, and only one response came from a Retail establishment.

**Table 3.7: Survey Question - Which of the following best describes the principal industry of your business?**

Industry	Responses	
Finance, Insurance and Real Estate	5	17.2%
Professional, Scientific and Technical Services (including architects, engineers and life sciences)	5	17.2%
Government, Social Assistance and Non-Profits	5	17.2%
Restaurants, Catering, and Food/Beverage Service	3	10.3%
Manufacturing	2	6.9%
Other Services (including auto repair, beauty salons and funeral homes)	2	6.9%
Recreation (including fitness)	2	6.9%
Educational Services	2	6.9%
Construction (including plumbing and heating)	2	6.9%
Retail (non-food related)	1	3.4%

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, as shown in Table 3.8 below.

**Table 3.8: Survey Question - How many employees does your business have?**

Number of Employees	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%

### Helpful Services and Assistance

Table 3.9 below lists the services or assistance that would be helpful in the next six months as identified by more than 20% of 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”.

**Table 3.9: Survey Question - What services or assistance would be helpful to your business in the next 6 months? Select all that apply.**

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

Table 3.10 below lists the types of financial assistance that have been requested since February 2020 and the types of financial assistance that have been received by survey respondents in the same time period. Thirteen respondents, or 45% of all respondents, applied to the Paycheck Protection Program (PPP) and 12 (41%) 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. One business received funding from the Main Street Lending Program.

**Table 3.10: Financial Assistance Requested and Received**

Relief Program	Since February 2020, has this business requested financial assistance from any of the following sources? Select all that apply:		Since February 2020, has this business received financial assistance from any of these programs from the Federal government? Select all that apply:	
	Responses		Responses	
Paycheck Protection Program (PPP)	13	44.8%	12	41.4%
Economic Injury Disaster Loans (EIDL)	6	20.7%	5	17.2%
Small Business Administration (SBA) Loan Forgiveness	4	13.8%	2	6.9%
Main Street Lending Program	1	3.4%	1	3.4%

## Business Impacts

As shown in Table 3.11 on the following page, 59% of responding businesses have canceled or postponed events or reservations due to COVID-19; 48% have experienced a decline in customers or clients; 45% have had increased costs for cleaning, safety supplies and/or personnel protective equipment; and 31% have experienced a decline in sales. In contrast, 31% of respondents experienced an increase in sales or customers.

While Table 3.11 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 in six months. Twelve of the businesses, or 43%, had decreased operating capacity relative to one year ago. 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.

**Table 3.11: Survey Question - How has your business been impacted by the COVID-19 outbreak (since February 2020)? Select all that apply.**

Answer Choices	Responses	
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%

### Forecasts for the Next 6 Months

As Table 3.12 below shows, 38% of 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.

**Table 3.12: Survey Question - In the next 6 months, do you think this business will need to do any of the following? Select all that apply:**

Answer Choices	Responses	
Increase marketing or sales	11	37.9%
Obtain financial assistance or additional capital	10	34.5%
Identify and hire new employees	8	27.6%
Learn how to better provide for the safety of customers and employees	5	17.2%
Develop online sales or websites	2	6.9%
Identify new supply chain options	1	3.4%
Permanently close this business	1	3.4%

### Employment Changes

Of the 29 survey respondents, five had laid off or furloughed employees, of which three expected to recall their furloughed employees within six months. In contrast, five of the businesses had increased the number employees in the previous three months. Availability of employees to work had affected the operating capacity of six of the businesses in the past three months.

## c. Housing Survey Results

NMCOG emailed the housing survey link to over 35 organizations in the region. Responses were received from 20 organizations, with nine respondents (45%) indicating that COVID-19 had a high or significant impact on their programs, services or general operations; eight respondents indicating moderate or minor disruptions due to COVID- 19; and three (15%) indicating little or no impact. Table 3.13 indicates an expectation for small improvements within the next three months, with five organizations anticipating little or no impact compared to three currently experiencing little or no impact.

**Table 3.13: Survey Question - Level of impact on programs, services, or general operations**

Level of Impact	Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization.		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.	
	Responses		Responses	
High (significant impact)	9	45.0%	8	40.0%
Moderate (minor disruptions)	8	40.0%	7	35.0%
Low (little or no impact)	3	15.0%	5	25.0%

Nearly two-thirds (65%) of housing organizations responding to the survey have cancelled or anticipated cancelling programs or events, and 60% have experienced or anticipated disruption of services to clients and communities, as illustrated in Table 3.14 below. Nine organizations (45%) have experienced or anticipated an increased demand for services or support, while eight (40%) have experienced or anticipated budgetary implications from strains on the economy, and declining grant and funding opportunities.

**Table 3.14: Survey Question - 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%
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%
Disruption of supplies or services provided by partners	7	35.0%
Increased and sustained staff and volunteer absences	7	35.0%

### Resources and Information

Table 3.15 lists the resources and information needs identified by the housing organizations. Increased housing subsidies and programs that address rental and foreclosure prevention, as well as centralized information on local services to enable effective client referrals were identified by 11 (55%) of the organizations. Information on additional funding and available resources, emergency housing resources, and technology to support remote work and service provision were identified by nine (45%) of the organizations. Release from current-restrictions on certain funds was identified by six (30%) of the housing organizations. One in four organizations identified “Legal assistance for tenants facing eviction and for homeowners facing foreclosure” and “Additional temporary emergency housing for recently evicted and foreclosed upon residents” as needed.

**Table 3.15: Survey Question - What resources and information are needed? Select all that apply.**

Answer Choices	Responses	
Additional support from the federal and state governments in the form of increased housing subsidies and programs that address rental and foreclosure prevention	11	55.0%
Centralized information on other local services and support to enable effective client referrals	11	55.0%
Additional funding	9	45.0%
Information on available resources	9	45.0%
More emergency housing resources for homeless individuals and families	9	45.0%
Technology (hardware and software) to support remote work and service provision for both employees and clients	9	45.0%
Release from restrictions on current restricted funds	6	30.0%
Legal assistance for tenants facing eviction and for homeowners facing foreclosure	5	25.0%
Additional temporary emergency housing for recently evicted and foreclosed upon residents	5	25.0%
Cleaning supplies	4	20.0%
Personal protective equipment	4	20.0%
Food	3	15.0%

### Training Needs for Housing Organizations

Training on techniques for identifying and communicating with clients during the pandemic was identified by 11 respondents (55%), followed by training on available technical tools (identified by half of all respondents), while serving populations without broadband was selected by nine, or 45% of all respondents. Notably, training on hosting virtual fundraisers was identified by five organizations, while general fundraising was identified by two organizations.

**Table 3.16: Survey Question - What training is needed? Select all that apply.**

Answer Choices	Responses	
Techniques for identifying and communicating with clients in need during the pandemic	11	55.0%
Available technical tools and how to choose the right ones	10	50.0%
Serving populations without broadband	9	45.0%
Working remotely	8	40.0%
Managing staff remotely	8	40.0%
Remote and virtual service delivery	6	30.0%
Hosting virtual fundraisers	5	25.0%
Keeping donors engaged virtually	3	15.0%
Managing remote teams	3	15.0%
Unemployment Insurance options for nonprofits that self-insure	3	15.0%
General fundraising	2	10.0%
Handling layoffs and furloughs	2	10.0%

## Concerns for Carrying Out Mission

Table 3.17 illustrates the concerns identified by housing organizations for carrying out their mission. Three-quarters of respondents identified capacity to implement operations without compromising the health of staff, board members, volunteers and clients, followed by 60% who identified dealing with disruptions in service provision. Forty-five percent are concerned about having technical resources and support for workers providing in-person services, while thirty percent have concerns about the financial stability of staff and their families.

**Table 3.17: 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	Responses	
Capacity to orchestrate day-to-day operations without compromising the health of staff, board members, volunteers, and clients	15	75.0%
Dealing with disruptions in service provision, especially adequate housing, food, healthcare, and mental health services	12	60.0%
Provision of technical resources and support for workers who primarily provide in-person services or programming	9	45.0%
Financial sustainability for staff and their families	6	30.0%

## d. Food Insecurity Survey

NMCOG emailed a cover letter with a link to the food security survey link to over 30 emergency food providers that serve the region. Sixteen responses were received from these organizations. As illustrated in Table 3.18 below, eleven organizations (69%) replied that COVID-19 is having a significant impact on their programs, services, or general operations. An additional four (25%) estimate it is having a moderate impact, while only one (6%) estimated it is having little or no impact. Looking forward, nine organizations (56%) estimated COVID would continue to have a significant impact over the next three months, with six (38%) anticipating minor disruptions.

**Table 3.18: 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.		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.	
	Responses		Responses	
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 emergency food providers, or 69% of respondents, have experienced or anticipate experiencing increased demand for services or support from clients and communities. In addition, half have experienced or anticipated increased staff and volunteer absences, and 38% have experienced or anticipated disruptions of services, while an additional 31% have experienced or anticipated cancellations of programs or events.

**Table 3.19: Survey Question - Which of the following impacts has your organization experienced or do you anticipate experiencing? Select all that apply.**

Answer Choices	Responses	
	Increased demand for services/support from clients and communities	11
Increased and sustained staff and volunteer absences	8	50.0%
Disruption of services to clients and communities	6	37.5%
Cancellation of programs or events	5	31.3%
Disruption of supplies or services provided by partners	5	31.3%
Budgetary implications related to strains on the economy	5	31.3%

## 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 3.20 below. Answers selected by fewer than 20% of organizations are not included in the table, but “Personal protective equipment” was selected by only 19% of respondents and “Cleaning supplies” was selected by 12%. The complete survey results and tabulations are shown in the Appendix.

**Table 3.20: Survey Question - What resources and information are needed? Select all that apply.**

Answer Choices	Responses	
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 3.21 below lists the training needs that were identified by at least three emergency food providers. 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 3.21: Survey Question - What training is needed? Select all that apply.**

Answer Choices	Responses	
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 3.22 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. 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.

**Table 3.22: 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	Responses	
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%

## Lessons or Strategies to Continue into the Future

Question 7 of the food insecurity 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.

## 4. Federal COVID-19 Relief Benefiting Massachusetts and its Municipalities

It is estimated that the federal government will provide approximately \$113 billion in aid to Massachusetts in response to the COVID-19 pandemic, with funding directed to three groups: businesses and individuals, public entities, and Commonwealth agencies.<sup>6</sup> 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 \$29 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 (\$2.6 billion), child care 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 Northern Greater Lowell Region have received Coronavirus Local Fiscal Recovery Funds allocations totaling over \$134 million, as shown in Table 4.1 below.

**Table 4.1: 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
<b>Total</b>	<b>134,126,751</b>

<sup>6</sup>Source: <https://www.mass.gov/info-details/about-covid-19-federal-funds>

On June 28, 2021, Governor Baker filed legislation outlining a proposal to invest \$2.9 billion in CSFRF funding through programs that support state priorities including housing and homeownership, economic development and local downtowns, job training and workforce development, health care, and infrastructure. The remaining \$2 billion would remain in the state's Federal COVID-19 Response Fund. To date, the legislation has not been acted upon by the legislature.

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 percent 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 percent to 100 percent, for expenses incurred between January 20, 2020 and September 30, 2021. On February 2, 2021, The President issued a second order expanding the 100 percent reimbursement rate to all eligible emergency response costs. To date, Massachusetts has received \$637 million in FEMA PA reimbursements for the vaccine program, sheltering, PPE, food assistance, field hospitals, and COVID testing.

## **Federal Programs for Addressing Housing and Eviction Diversion**

Since the start of the pandemic, 975 Lowell households received Residential Assistance for Families in Transition (RAFT) Funds, with recipients receiving an average \$5,007 per household. In addition, 467 Lowell households received Emergency Rental Assistance Program (ERAP) payments averaging \$7,348 per household.<sup>7</sup> RAFT has an income eligibility limit of 50% AMI (60% for Domestic Violence), while ERMA has an eligibility limit of 80% AMI. Renters may only receive help with rent and utilities accrued since March 13, 2020.

## **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 percent of funding to address learning loss.

<sup>7</sup>Source: <https://www.mass.gov/info-details/about-covid-19-federal-funds>

## **Federal Funding for Education (continued)**

**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 & 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 31<sup>st</sup> season of the Summer Music Series.

Under the **Shared Streets Program**, partially funded through the Coronavirus Relief Fund, the Massachusetts Department of Transportation's Shared Streets and Spaces program provided 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. A number of the Greater Lowell communities received these grants that were used to accommodate outdoor dining at local restaurants.

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

## 5. Strategies to Address COVID-19 Going Forward

A great deal has changed since COVID-19 first impacted the nation, state, region and local communities. Policy makers at the federal and state levels have had to address numerous aspects of the economic injury caused by the pandemic. The federal government has passed major pieces of legislation to ensure that the resources are available at the state and local levels to assist small businesses, the unemployed, the health care industry and individual taxpayers. The Economic Development Administration (EDA) has made available \$3 billion to address short-term, medium-term and long-term economic development issues through six Notices of Funding Opportunities (NOFOs) that will invest more resources into the regional economies. The Biden Administration is advancing two public works bills at the federal level that will address the traditional and human public works needs of this country over the next ten years. Booster vaccine shots are now being made available to help address the Delta variant in tandem with increased vaccinations of the non-vaccinated. The Supreme Court has decided to lift the ban on housing evictions, jeopardizing many tenants and homeowners with eviction. As of September 4, 2021, 12,257 unemployed in the Greater Lowell region are losing their unemployment benefits under the Pandemic Emergency Unemployment Compensation (PEUC) and Pandemic Unemployment Assistance (PUA) legislation. The initial optimism felt with the availability of the COVID-19 vaccines has been replaced with uncertainty about the future and continuing initiatives to address the changing landscape.

COVID-19 has magnified and exasperated many of the weaknesses and challenges that existed prior to the pandemic, particularly for the

economically disadvantaged, underrepresented populations, the elderly and people of color. Increasing opportunities and improving outcomes for all residents – in an equitable fashion – will be critical to ensuring that the region is more resilient to future economic shocks and downturns. There are still parts of the regional economy that are struggling – the hospitality industry, restaurants, entertainment/performing arts and brick and mortar retail. These businesses have also had great difficulty recruiting workers for their available positions. Female workers, in particular, have had difficulty accessing affordable day care services. The region's jobs with the lowest wage and skill requirements are disproportionately held by minority workers and were hit the hardest resulting in higher rates of unemployment and underemployment. There continues to be a reluctance to return to low wage, public interactive jobs at high risk for contracting COVID-19.

For those workers and students that could access online services, such as Zoom, the daily work or school routines totally changed, which further impacted traffic counts and business revenues. This situation further divided the workforce into those who could more readily avoid the virus and those who became increasingly exposed to it. The need for technology and online internet access has been amplified during the pandemic by remote work and school, online job fairs/applications/job interviews and telehealth medical services. Access to the health care system for regular health care procedures and operations became difficult with the large number of COVID patients and resulted in the general population putting off these procedures.

The Commonwealth of Massachusetts received \$10 million in CARES Act funding and decided to establish the Local Rapid Recovery Program (LRRP), which was designed to assist small businesses impacted by COVID-19. The Department of Housing and Community Development (DHCD) solicited applications from local communities to participate in this program and selected 124 communities. In addition, DHCD selected Plan Facilitators (PFs) and Subject Matter Experts (SMEs) to assist the local communities in developing their LRRP Plans. Within the Greater Lowell region, the City of Lowell and the Towns of Dracut, Pepperell and Tyngsborough participated in the LRRP program, while NMCOG served as the Plan Facilitator for the three towns. The goal of this program was to develop “actionable, project-based recovery plans tailored to the unique economic challenges and COVID-19 related impacts to downtowns”. The study areas for the four communities included downtown Lowell, the Dracut Navy Yard, Railroad Square and Main Street in Pepperell and Middlesex Road in Tyngsborough. The number of businesses in the study areas ranged from 666 businesses in Lowell to 107 businesses in Tyngsborough to 70 businesses in Dracut to 67 businesses in Pepperell. The Plan Facilitators, working with the local business communities, completed the Phase 1 diagnostic portion of the LRRP project, which also included the responses to the business survey. Phase 1 was a collection of primary data to measure COVID-19 impacts at the local level. Once the Phase 1 data was presented to the communities, there was an effort to identify specific projects for each community, as well as the SME assistance needs. The City of Lowell identified several SME needs – BID Feasibility, Pop Up Stores, Spatial Flexibility and Optimization, Engaging Landlords, Operational Capacity, and Technical and Financial Support and Assistance. Dracut (Branding and Marketing, Public Spaces, Transportation Improvements, Zoning and Storefront Facades), Tyngsborough (Branding and Marketing and Wayfinding), and Pepperell (Branding and

Marketing and Wayfinding) had more limited requests. The Plan Facilitators and local communities met with the SMEs to discuss these topics and the technical material was to be submitted by the SMEs. The final plans are due to be submitted no later than October 8<sup>th</sup>.

The Economic Development Administration (EDA) has issued six Notices of Funding Opportunities (NOFOs) that are designed to address the short-term, intermediate and long-term economic development needs of regions. The **Jobs for Today** are being addressed through the Travel, Tourism & Outdoor Recreation and Good Jobs Challenge NOFOs, while **Communities Built for All** is being addressed through the Economic Adjustment Assistance and Indigenous Communities NOFOs. The **Regions for the Future** are being addressed through the Build Back Regional Challenge and Statewide Planning, Research & Networks NOFOs. The \$3 billion allocated through these six NOFOs will have a direct impact upon the economic recovery of the nation, states and regions. In addition, Congress is considering two separate public works initiatives that could provide an additional \$4 trillion in funding to repair the nation’s infrastructure, address the COVID-19 impacts and tackle climate change. These funds will be made available through the States, which will then provide funding to the Greater Lowell region and its individual communities.

In analyzing the data provided in Chapter 2, it has been determined that COVID-19 has impacted communities of color and low income residents more than the population as a whole. Workers with blue collar jobs, particularly those who interact with the public, have been more greatly affected by the pandemic. Jobs in the hospitality and restaurant industries have been more directly impacted and have had the hardest time recovering. Therefore, there needs to be an equitable approach to addressing the impacts of COVID-19 going forward. Equity is the principal Investment Priority for EDA and should be the focus of NMCOG in its economic recovery and resiliency efforts.

## 6. Recommendations

Within the *Greater Lowell Comprehensive Economic Development Strategy for 2020-2024*, there are two principal goals that form the basis for the Economic Recovery and Resiliency Plan. Goal 1 addresses **Economic Resiliency**: Incorporate long-term measures that bolster the region’s ability to withstand or avoid a shock and enhance the region’s capability and ability to respond to recovery needs following an incident. Goal 2 addresses **Economic Development**: Restore the regional and local economies devastated by the COVID-19 pandemic and build economic resilience through a diversified economy that includes science, health and technology innovation, advanced manufacturing, biotech and prosperous small business. The Economic Recovery and Resiliency Plan has summarized the impacts of COVID-19 on the Greater Lowell business community and residents and identified the funding resources that have been made available to the region. The previous section has provided an overview of the strategies to be considered in developing a resilient economic recovery. Outlined within this section are the specific recommendations, generally categorized under health care, economy, housing and food security. In responding to the COVID-19 pandemic, the region has established some “best practices” that should be replicated in the future.

### Health Care

- Encourage the collaboration and partnering of healthcare providers across the region in providing training and recruitment programs in order to increase the talent pipeline of clinical and non-clinical healthcare professionals;
- Build a rapid-response health care workforce (i.e. contact tracers, community health workers and educators) and connect them to higher education and certification opportunities for permanent careers in healthcare;
- Continue to provide telehealth services to mitigate the unmet growing demand for mental and behavioral health care services brought on by the pandemic; and
- Encourage creation of spaces that allow the co-location of public-private research teams, including community hospitals, established research institutions, corporate research and development (R&D), and/or entrepreneurs.

## Economy

### *Businesses*

- Assist start-ups and small businesses in adapting to the “new normal” and in leveraging the capital and human resources needed to succeed and grow;
- Provide technical assistance for businesses looking to reopen and adapt to the impacts of coronavirus;
- Create a “Buy Local” campaign to encourage residents and companies to support local businesses;
- Promote business continuity/preparedness and encourage businesses to understand their vulnerabilities. Provide training to businesses in the following areas:
  - Risk management to “pandemic proof” businesses and limit financial losses due to COVID;
  - Attraction and retention strategies for current and future workforce;
  - Technology adaptations, such as platforms for online services and sales; and
  - Business planning to address cash flow, finance and business succession models.
- Monitor the impacts of remote work on the demand for housing, office space and transportation;
- 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; and
- Municipalities should consider zoning revisions that reflect the shift in consumer behavior and market demand resulting from the pandemic, including the need for increased distribution facilities and delivery services, pop-up retail and ghost kitchens.

### *Workforce Development*

- Retain, support and attract businesses from emerging industry sectors and align workforce development efforts to match industry needs;
- Engage institutions of higher education and non-profit organizations that can support higher education for low-income, disadvantaged residents;
- Provide training targeting low-income and minority residents so that they may access job opportunities in those sectors with good paying jobs;
- Continue to create a regional workforce strategy for the future through the MassHire workforce boards in northeast Massachusetts. Partner with stakeholders, including educational institutions (e.g. community colleges, four-year colleges/universities, technical schools), industries, and unions to develop a comprehensive regional workforce system;
- Connect laid-off and unemployed workers with training and access to occupations that are not considered high risk due to COVID-19;
- Link low-income workers to supportive services for transportation, child care and other needs in order to reduce barriers to employment; and
- Support in-school and out-of-school youth through paid work experience and training in high demand career fields.

### *Infrastructure*

- Ensure reliable access to broadband with reasonable and adequate bandwidth for all; and
- 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.

## Housing

- Incentivize the creation and preservation of affordable housing and help low- and moderate-income residents generate wealth through homeownership by expanding first-time homebuyer programs and down-payment assistance;
- Provide housing rehabilitation programs in areas with a concentration of substandard housing;
- Assist low-income residents with remaining in their homes through foreclosure and eviction prevention programs and rental assistance/subsidies; and
- Support the development of multifamily housing near employment centers and public transportation. Recent zoning legislation enacted within the Economic Development Bond Bill requires municipalities to create multifamily zoning districts by right near transit stations and facilities.

## Food Security

- Increase local food production and become self-reliant to mitigate future shortages and supply chain issues, in anticipation of future system stresses caused by a public health emergency or other disaster;
- Encourage agriculture as a career path for young workers, and facilitate land buys/leases, and start-ups for food/agricultural enterprises;
- Plan for climate change and its impacts on the future of sustainable food and agriculture;
- Form a regional food council to address issues related to food insecurity, identify areas where services are lacking, and provide targeted assistance to areas of concern through food pantries, food banks, and faith-based organizations; and
- Create a digital marketplace platform to connect local food buyers (grocers, restaurants, markets) to local farmers.

# Appendix A: Survey Results

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

<b>Q1. Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization.</b>		
Answer Choices	Responses	
High (significant impact)	4	57.1%
Moderate (minor disruptions)	2	28.6%
Low (little or no impact)	1	14.3%
<b>Answered</b>	<b>7</b>	
<b>Skipped</b>	<b>0</b>	

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

<b>Q3. Which of the following impacts has your organization experienced or do you anticipate experiencing? Select all that apply.</b>		
Answer Choices	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%
<b>Answered</b>	<b>7</b>	
<b>Skipped</b>	<b>0</b>	
Q3: Other		
limited all but emergency admissions to facility --		

<b>Q4. What resources and information are needed? Select all that apply.</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>7</b>	
<b>Skipped</b>	<b>0</b>	
Q4: Other		
Permanent staff for the facility		

<b>Q5. What training is needed? Select all that apply.</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>2</b>	
<b>Skipped</b>	<b>5</b>	

<b>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.</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>7</b>	
<b>Skipped</b>	<b>0</b>	
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

<b>Q1. Where is your business located? Select all that apply.</b>		
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	
Q1: Other		
Devens		
Methuen, Lawrence, Acton, Fitchburg, Leominster, Andover, N Andover and Lexington. Also in Nashua, Pelham, Salem, Windham, Hudson and Derry, NH		

<b>Q2. Which of the following best describes the principal industry of your business?</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	
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		

<b>Q3. How many employees does your business have?</b>		
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	

<b>Q4. How long has your business been Massachusetts?</b>		
<b>Answer Choices</b>	<b>Responses</b>	
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%
<b>Answered</b>	<b>28</b>	
<b>Skipped</b>	<b>1</b>	

<b>Q5. What services or assistance would be helpful to your business in the next 6 months? Select all that apply.</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>26</b>	
<b>Skipped</b>	<b>3</b>	
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.		

<b>Q6. Prior to the COVID-19 outbreak, which best describes your workplace?</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	
Q6: Other		
office building		
Both office and off-site - residential real estate		
Office Space / Studio		
Sales/delivery		
in Town Hall Office		

<b>Q7. How has your business been impacted by the COVID-19 outbreak (since February 2020)? Select all that apply.</b>		
Answer Choices	Responses	
Decline in customers/clients	14	48.3%
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%
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	
Q7: Other		
Closed Since March 2020		
Switched to a primarily remote workforce		
Low housing inventory is creating a real dilemma for buyers.		
Increased use on online channels and workforce split between the office and home.		

<b>Q8. If your business is temporarily closed, when do you anticipate reopening?</b>		
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%
<b>Answered</b>	<b>23</b>	
<b>Skipped</b>	<b>6</b>	

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

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%
<b>Answered</b>	<b>28</b>	
<b>Skipped</b>	<b>1</b>	

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%
<b>Answered</b>	<b>28</b>	
<b>Skipped</b>	<b>1</b>	

**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	Responses	
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	

**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%
<b>Answered</b>	<b>28</b>	
<b>Skipped</b>	<b>1</b>	

**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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	

**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%
<b>Answered</b>	<b>28</b>	
<b>Skipped</b>	<b>1</b>	

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

Answer Choices	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%
<b>Answered</b>	<b>14</b>	
<b>Skipped</b>	<b>15</b>	

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

Answer Choices	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%
<b>Answered</b>	<b>13</b>	
<b>Skipped</b>	<b>16</b>	

<b>Q18. In the next 6 months, do you think this business will need to do any of the following? Select all that apply:</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	

<b>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?</b>		
Answer Choices	Responses	
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%
<b>Answered</b>	<b>29</b>	
<b>Skipped</b>	<b>0</b>	

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

<b>Q1. Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization.</b>		
Answer Choices	Responses	
High (significant impact)	9	45.0%
Moderate (minor disruptions)	8	40.0%
Low (little or no impact)	3	15.0%
<b>Answered</b>	<b>20</b>	
<b>Skipped</b>	<b>0</b>	

<b>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.</b>		
Answer Choices	Responses	
High (significant impact)	8	40.0%
Moderate (minor disruptions)	7	35.0%
Low (little or no impact)	5	25.0%
<b>Answered</b>	<b>20</b>	
<b>Skipped</b>	<b>0</b>	

<b>Q3. Which of the following impacts has your organization experienced or do you anticipate experiencing? Select all that apply.</b>		
<b>Answer Choices</b>	<b>Responses</b>	
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%
<b>Answered</b>	<b>20</b>	
<b>Skipped</b>	<b>0</b>	
<b>Q3: Other</b>		
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.		

<b>Q4. What resources and information are needed? Select all that apply.</b>		
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%
<b>Answered</b>	<b>18</b>	
<b>Skipped</b>	<b>2</b>	
Q4: Other		
Better technology and resources for professional licensing acquisition and renewal.		

<b>Q5. What training is needed? Select all that apply.</b>		
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%
<b>Answered</b>	<b>18</b>	
<b>Skipped</b>	<b>2</b>	
<b>Q5: Other</b>		
The impact on residents has been minimal.		
Resources on how to interview and hire while working remotely for temporarily remote positions.		

<b>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.</b>		
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%
<b>Answered</b>	<b>18</b>	
<b>Skipped</b>	<b>2</b>	

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

<b>Q1. Please estimate the level of impact COVID-19 is having currently on the programs, services, or general operations of your organization.</b>		
Answer Choices	Responses	
High (significant impact)	11	68.8%
Moderate (minor disruptions)	4	25.0%
Low (little or no impact)	1	6.3%
<b>Answered</b>	<b>16</b>	
<b>Skipped</b>	<b>0</b>	

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

<b>Q3. Which of the following impacts has your organization experienced or do you anticipate experiencing? Select all that apply.</b>		
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%
<b>Answered</b>	<b>16</b>	
<b>Skipped</b>	<b>0</b>	
<b>Q3: Other</b>		
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.		

<b>Q4. What resources and information are needed? Select all that apply.</b>		
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	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%
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%
<b>Answered</b>	<b>16</b>	
<b>Skipped</b>	<b>0</b>	
<b>Q4: Other</b>		
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.		

<b>Q5. What training is needed? Select all that apply.</b>		
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%
<b>Answered</b>	<b>14</b>	
<b>Skipped</b>	<b>2</b>	
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	Responses	
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%
<b>Answered</b>	<b>14</b>	
<b>Skipped</b>	<b>2</b>	
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.		

<p><b>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?</b></p>
<p>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.</p>
<p>Keep doing takeout service till cdc says we can open doors up for indoor seating for the homeless and less fortunate</p>
<p>We have pivoted to serve our clients on a grab n go basis.</p>
<p>Our organizations adaptability to changing our system of handing out food.</p> <p>Establishing an improved form of communication</p> <p>We are now part of a town wide group so as to broaden our reach especially those without technology</p>
<p>Full remote capabilities, adaptive schedules, collaborative administrative management, online store, home deliveries, Auto-SNAP CSA model, School Food Pantry and Grab &amp; Go support, School Garden CSA program, deeper reliance on community partnerships.</p>
<p>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.</p>
<p>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 home-delivered 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.</p>
<p>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]</p>
<p>Home delivery, consultation meetings via Zoom</p>
<p>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.</p>

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

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program  
*Recipient:* 41 total businesses  
*Amount:* \$1,550,000 (average grant was \$37,805)  
*Date:* Various, up until April 1, 2021  
*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.
- Greater Lowell Community Foundation (GLCF) COVID-19 Emergency Response Fund  
*Recipient:* Billerica Community Pantry Inc.  
*Amount:* \$10,000  
*Date:* June 2021  
*Details:* GLCF deployed a round of grants in June 2021 to multiple area nonprofits addressing youth food insecurity needs.
- Small Business Association (SBA) Restaurant Revitalization Fund  
*Recipients:* Rebecca's Café, Jade Pacific Restaurant, Emerald Rose, Stelios Corp, Dawn DeGennaro, RJR Pubs, Triple Sushi, VK & KS Corp, Lina & Mina Inc., Smooth LLC  
*Amount:* \$13,015,987 (average grant was \$1,301,599)  
*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. The first round of recipients was announced in July.

### Chelmsford

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program  
*Recipient:* 62 total businesses  
*Amount:* \$2,925,000 (average grant was \$47,177)  
*Date:* Various, up until April 1, 2021  
*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.

- Small Business Association (SBA) Restaurant Revitalization Fund  
*Recipients:* Matthew Maries LLC, Oodles of Noodles, The Java Room, Pengfa Development, The Yu Restaurant Group Corp, DGC Restaurant Inc.  
*Amount:* \$1,341,566 (average grant was \$223,594)  
*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. The first round of recipients was announced in July.
- Small Business Association (SBA) Shuttered Venues Operators Grant  
*Recipients:* Wilson Stevens Productions Inc.  
*Amount:* \$997,637  
*Date:* August 2021  
*Details:* This grant provides emergency assistance for eligible venues affected by COVID-19. A first round of recipients was announced in August.

#### Dracut

- Greater Lowell Community Foundation (GLCF) COVID-19 Emergency Response Fund  
*Recipient:* Catie's Closet Inc.  
*Amount:* \$3,000, \$10,000  
*Date:* February 2021, June 2021  
*Details:* GLCF deployed a round of grants in February 2021 to multiple area nonprofits that address mobile pantry and food delivery needs and again in June 2021 to nonprofits addressing youth food insecurity needs.
- Massachusetts Food Security Infrastructure Grant  
*Recipients:* Brox Farm, Farmer Dave  
*Amount:* \$333,381 total  
*Details:* The goal of the program is to ensure that individuals and families throughout the Commonwealth have equitable access to food, especially local food. Eligible recipients include farmers, food producers, food distributors, community and food organizations, school meal programs, non-profits, and organizations that provide business planning, technical assistance and information technology services.
- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program  
*Recipient:* 52 total businesses  
*Amount:* \$2,190,000 (average grant was \$42,115)  
*Date:* Various, up until April 1, 2021  
*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.
- Small Business Association (SBA) Restaurant Revitalization Fund  
*Recipients:* Cook Enterprises, TTL Food Services Corp, Frobie's LLC, Sugar Coated Bakery, MBES Corp, Bobola's Family Restaurant, Zheng's AJ Inc., Coyle's Roadhouse Tavern, Manolis Inc., Lenzi Catering Co. Inc.

*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. The first round of recipients was announced in July.

## Dunstable

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program

*Recipient:* 2 total businesses

*Amount:* \$125,000 (average grant was \$62,500)

*Date:* Various, up until April 1, 2021

*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.

## Lowell

- Community Development Block Grant

*Recipient:* Lowell Food Pantry, Middlesex Community College

*Amount:* \$20,000

*Date:* December 2020

*Details:* The City of Lowell awarded Middlesex Community College (MCC) \$20,000 in direct response to the food insecurity MCC students were experiencing due to COVID-19. The funding expanded options in the Lowell pantry, including a large chest freezer with more than 3,000 free and prepackaged meals for students to access throughout the year.

- Greater Lowell Community Foundation (GLCF) COVID-19 Emergency Response Fund

*Recipients:* Merrimack Valley Food Bank Inc., Boys & Girls Club of Greater Lowell, Coalition for a Better Acre, Community Teamwork Inc., Dwelling House of Hope, Girls Inc. of Greater Lowell, Greater Lowell Family YMCA, Middlesex Community College, Mill City Grows, UTEC Inc., YWCA of Lowell.

*Amount:* \$146,000 (average grant was \$11,000)

*Date:* February 2021, June 2021

*Details:* GLCF deployed a round of grants in February 2021 to multiple area nonprofits that address mobile pantry and food delivery needs and again in June 2021 to nonprofits addressing youth food insecurity needs.

- Massachusetts Food Security Infrastructure Grant

*Recipients:* Merrimack Valley Food Bank, Mill City Grows, UTEC, Lowell Public Schools

*Amount:* \$362,566 total

*Details:* The goal of the program is to ensure that individuals and families throughout the Commonwealth have equitable access to food, especially local food. Eligible recipients include farmers, food producers, food distributors, community and food organizations, school meal programs, non-profits, and organizations that provide business planning, technical assistance and information technology services.

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program

*Recipient:* 183 total businesses

*Amount:* \$8,020,000 (average grant was \$43,825)

*Date:* Various, up until April 1, 2021

*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.

- Small Business Association (SBA) Restaurant Revitalization Fund

*Recipients:* Nupur Patel, The Bodega Group LLC, Viet Thai Restaurant, Kalamata Enterprises Inc., Medoz Corp, Jo-Ann Perry, John Carlos Inc., Mango Beach-E BOS Corp., Boa Sisters LLC., Fernando m Anil, Lao'De Café, Simply Khmer Food Corp, Catcher's Mitt Pub, 2By2003 Inc., Sunnyda Restaurant Inc., Changli Inc., G & AA LLC, Heng Lay Restaurant, Mill City Cheesemongers, Cathay Wok, Makutano Inc., Roland Mainville, The Worthen House Café, Warp & Weft LLC, Sompao Meas Hall Inc., Gonell Enterrise, Tremonte Restaurant Group LLC, Four Sisters Owl Diner, Kandon Inc.

*Amount:* \$3,581,484 (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. The first round of recipients was announced in July.

- Small Business Association (SBA) Shuttered Venues Operators Grant

*Recipients:* Coco Luna LLC, Merrimack Repertory Theatre Inc., and the Lowell Festival Foundation

*Amount:* \$1,169,214 (average grant was \$389,738)

*Date:* August 2021

*Details:* This grant provides emergency assistance for eligible venues affected by COVID-19. A first round of recipients was announced in August.

## Pepperell

- Massachusetts Food Security Infrastructure Grant

*Recipients:* PACH Outreach

*Amount:* \$5,000

*Details:* The goal of the program is to ensure that individuals and families throughout the Commonwealth have equitable access to food, especially local food. Eligible recipients include farmers, food producers, food distributors, community and food organizations, school meal programs, non-profits, and organizations that provide business planning, technical assistance and information technology services.

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program

*Recipient:* 9 total businesses

*Amount:* \$295,000 (average grant was \$32,778)

*Date:* Various, up until April 1, 2021

*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.

- Small Business Association (SBA) Restaurant Revitalization Fund  
*Recipients:* Mariano's Italian LLC, Albert Faye Corp  
*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. The first round of recipients was announced in July.

#### Tewksbury

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program  
*Recipient:* 53 total businesses  
*Amount:* \$2,580,000 (average grant was \$48,679)  
*Date:* Various, up until April 1, 2021  
*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.
- Small Business Association (SBA) Restaurant Revitalization Fund  
*Recipients:* TonyG Inc, The Push Cart II, Saffron Indian Grill, SDA Restaurants Inc., Cara Ryan Corp, BJMB Inc., Lee and Juan Inc., Kyoto of Tewksbury, Apollonia Enterprises LLC  
*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. The first round of recipients was announced in July.

#### Tyngsborough

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program  
*Recipient:* 23 total businesses  
*Amount:* \$1,285,000 (average grant was \$55,870)  
*Date:* Various, up until April 1, 2021  
*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.
- Small Business Association (SBA) Restaurant Revitalization Fund  
*Recipients:* Dracut Food Service Corp, Tremonte Pizzeria, Kanjabi 17 LLC, Dream Diner, Maxamillians, S Levesque Corp  
*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. The first round of recipients was announced in July.

#### Westford

- Greater Lowell Community Foundation (GLCF) COVID-19 Emergency Response Fund

*Recipient:* Westford Council on Aging / Cameron Senior Center

*Amount:* \$3,000

*Date:* February 2021

*Details:* GLCF deployed a round of grants in February 2021 to multiple area nonprofits that address mobile pantry and food delivery needs.

- Massachusetts Growth Capital Corporation (MGCC) Small Business Grant Program  
*Recipient:* 49 total businesses  
*Amount:* \$2,165,000 (average grant was \$44,184)  
*Date:* Various, up until April 1, 2021  
*Details:* The Baker-Polito administration has awarded more than \$600 million in grants to over 14,000 Massachusetts small businesses in 12 funding rounds.
- Small Business Association (SBA) Restaurant Revitalization Fund  
*Recipients:* Pure Foods and Drinks LLC, Bhagat Inc., Khushi LLC, GPJ LLC, Feng You Inc.  
*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. The first round of recipients was announced in July.

## B. Municipal Assistance

### Billerica

- American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund  
*Amount:* \$12,962,693  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)  
*Amount:* \$1,120,000  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).
- 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 Billerica received \$20,000 to upgrade signage and crosswalks around all eight schools – elementary, middle and high schools – in Billerica. 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  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)  
*Amount:* \$1,267,000  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).

## Dracut

- American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund  
*Amount:* \$9,455,619  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)  
*Amount:* \$1,301,128  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).

- **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:* \$290,000  
*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. Dracut received funds 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.

#### Dunstable

- **American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund**  
*Amount:* \$1,017,180  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)**  
*Amount:* \$229,133  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).

#### Lowell

- **Emergency Services Grant (ESG) COVID (CARES) Act Funding**  
*Amount:* \$2,771,448 over two rounds  
*Date:* Various  
*Details:* Federal CARES Act funds provided multiple COVID-19 related grants to the City of Lowell and its local non-profit partners to address the impact of the pandemic on its residents. Over

\$2.7 million of ESG funding was directly supporting the needs of those residents at-risk or experiencing homelessness, including expanding shelter capacity and youth services.

- Community Development Block Grant (CDBG) COVID (CARES) Act Funding  
*Amount:* \$2,039,006 over two rounds  
*Date:* Various  
*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”.
- American Rescue Plan Act (ARPA) Coronavirus Local Fiscal Recovery Fund  
*Amount:* \$76,009,996  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)  
*Amount:* \$9,845,688  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).
- MassDOT Shared Streets and Spaces Program  
*Amount:* \$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  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)  
*Amount:* \$233,566  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).
- 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  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)  
*Amount:* \$203,356  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).
- 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  
*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)  
*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)  
*Amount:* \$513,605  
*Date:* March-December 2020  
*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).
- 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

*Date:* May 2021 (1<sup>st</sup> half), May 2022 (2<sup>nd</sup> half)

*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)

*Amount:* \$744,450

*Date:* March-December 2020

*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 M in CvRF funds to Massachusetts cities and towns through the Coronavirus Relief Fund Municipal Program (CvRF-MP).

### C. Regional Assistance

- Greater Lowell Community Foundation (GLCF) COVID-19 Emergency Response Fund  
*Recipient:* More than 263 area nonprofits (many are located outside of the NMCOG region as GLCF serves 20 total communities)  
*Amount:* Over \$3.3 million (as of March 24, 2021)  
*Date:* Multiple rounds since March 2020  
*Details:* Over 263 grants have been awarded to regional agencies and nonprofits focused on the distinct needs of their constituents and communities. Individual examples by municipality are listed in Section A, Business Assistance. GLCF received 70 total grants from the Massachusetts COVID-19 Relief Fund to help support these relief efforts.

*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.
- Various federal, state, federal CARES Act funding, foundations, and private philanthropy.  
*Recipient:* Community Teamwork Inc. (CTI)  
*Amount:* \$20 million  
*Date:* Various  
*Details:* Resources to support the provision of services by CTI were obtained through a variety of COVID response funding streams, helping to support residents of Greater Lowell in a number of areas, including PPE, sanitization and hazard pay to support and keep Community Teamwork staff members safe; food, both direct food delivery (prepared meals and bags of food) and grocery gift cards; rental assistance and housing funds to support families at risk of eviction and losing their homes (both rental and mortgage assistance); basic needs; technology support, remote learning support, and more.
- American Rescue Plan Act  
*Recipient:* Middlesex Community College  
*Amount:* \$13.6 million  
*Date:* August 2021  
*Details:* The American Rescue Plan Act has been used to assist students directly and improve school operations. Funds have been used to erase college-held debt, improve digital technology, and provide strategic student support.

#### D. Other Statewide or Federal Resources Available

- Massachusetts COVID-19 Eviction Diversion Initiative  
*Recipients:* 975 Lowell households have received RAFT Funds (average \$5,007 per household), 467 Lowell households have received ERAP payments (averaged \$7,348 per household)  
*Amount:* \$8.3 million  
*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.

- Pandemic Unemployment Assistance (PUA)  
*Recipients:* Eligible self-employed workers  
*Details:* The federally funded PUA program offered eligible self-employed workers to claim unemployment through the Commonwealth's MassHire career centers.

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. A first round of recipients was announced in July; the businesses in the NMCOG region are listed by town in Section A.
- 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 221,061 businesses that received Paycheck Protection Program (PPP) loans from the Small Business Administration. 3400 PPP loans were given to businesses in the NMCOG region. The average loan size was \$13,650.
- 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. Several venues in the NMCOG region have received this grant and are listed by town in Section A.