Constraints on New Hampshire's Workforce Recovery

Impacts from COVID-19, Child Care and Benefit Program Design on Household Labor Market Decisions

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FINAL REPORT

ECONSULT SOLUTIONS INC.

National Center for Children in Poverty
Bank Street Graduate School of Education

About Econsult Solutions, Inc. (ESI)

Econsult Solutions, Inc. (ESI) provides businesses and public policy makers with consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process and extensive consulting experience. Based in Philadelphia, ESI support clients nationwide.

ESI's government and public policy practice combines rigorous analytical capabilities with a depth of experience to help evaluate and design effective public policies and benchmark and recommend sound governance practices. ESI has assisted policy makers at multiple levels of government to design and evaluate programs that help citizens increase their economic security.

Ethan Conner-Ross, Rebecca DeJoseph, and Alix Sullivan were the primary ESI researchers on this study.

About the National Center for Children in Poverty (NCCP)

The National Center for Children in Poverty (NCCP), founded within Columbia University and beginning in July 2019 located at Bank Street Graduate School of Education, is a nonpartisan public policy research center dedicated to promoting the economic security, health, and well-being of America's low-income families and children. NCCP uses research to inform policy and practice with the goal of ensuring positive outcomes for the next generation. It conducts research and policy analysis and uses existing evidence to identify effective, innovative strategies that can improve the lives of children and families experiencing economic hardship. The center provides accessible information and recommendations about research-informed policies and initiatives that can help families and communities support children's success from infancy through young adulthood.

NCCP reaches a large audience with its reports, online data tools, policy resources, technical assistance, and partnerships. This audience includes state and local policymakers, advocates, community leaders, researchers, and administrators in government agencies that use NCCP's research and analyses to make informed decisions about policies and programs that promote secure, nurturing families and thriving children. NCCP often partners with government officials, advocates, and other stakeholders to plan and carry out policy research and analysis—an approach that fully engages decision-makers and helps ensure that results will be used to strengthen policies and programs.

Key areas of the center's work include safety net policies, immigrant families, paid family leave, disability policies, early childhood mental health, early intervention, early care and education policies, and two-generation approaches. NCCP's online resources include the Family Resource Simulator, the Young Child Risk Calculator, the 50-State Policy Tracker, the 50-State Demographic Data Generator, Early Childhood State Policy Profiles, and the Basic Needs Budget Calculator.

Seth Hartig and Suma Setty were the primary NCCP researchers on this study.

2. Labor Market Impacts from COVID-19

New Hampshire entered 2020 with a tight labor market, one of the lowest unemployment rates in the nation, and concerns about whether the state's demographics would support the growing workforce needs of its businesses. These circumstances changed abruptly with the onset of the COVID-19 pandemic and its aftereffects.

The initial wave of business shutdowns and unemployment from COVID hit workers across all sectors and regions of the state and created newly vulnerable households and communities. Relief through the CARES Act helped to mitigate the effect on household budgets and to keep spending circulating within the economy. Unemployment rates have gradually declined, with new claims falling to pre-COVID levels following the expiration of enhanced federal unemployment benefits in August.

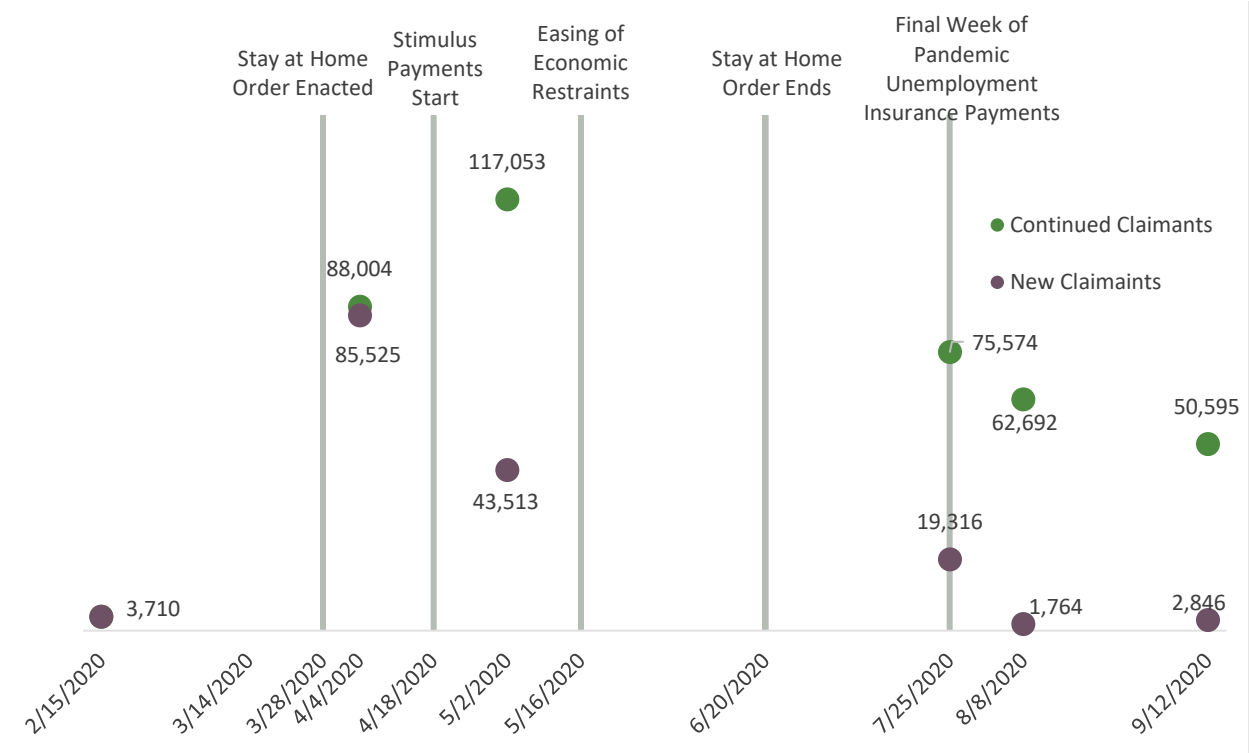
While the initial surge of unemployment was broadly shared across industries, communities, and populations, differential patterns began to emerge as the initial recovery began. Today, with the state's unemployment rate for December 2020 at four percent, significant disparities exist in the recovery between industries, workers, and communities.

Analysis in this section draws on a rich dataset, provided by New Hampshire Employment Security (NHES) of administrative and labor force information for approximately 160,000 individuals across six representative weeks of unemployment for roughly 400,000 observations,[26] in addition to traditional measures of unemployment and data on job postings. These sources are analyzed to understand the evolution of the labor market over the course of the pandemic and to yield insights into the current equilibrium of labor supply and demand.

Figure 2.1 below illustrates the number of claimants in the unemployment insurance system within each of the representative weeks analyzed. Additionally, it shows the number of claimants that are new to the analysis each week. It is important to note that these "new" claimants are new to this analysis but did not necessarily enter the system during that week. For example, in week ended April 4th, there were roughly 88,000 claimants, of which 85,000 were considered "new." These 85,000 claimants did not all enter the system during the week ended April 4th but between weeks ended February 22nd and weeks ended April 4th. While this distinction is important, these "new" claimants afford valuable insights to the changing nature of pandemic-related unemployment.

[26] Data for six representative weeks: February 15, April 4, May 2, July 25, August 8, and September 12 were utilized for this study.

Figure 2.1: Unemployment by Week, February through September 2020



Source: NHES (2020)

The analysis will detail the "Where?" (locations), "What?" (sectors), and "Who?" (individuals) of unemployment impacts from the pandemic. In addition, due to the richness of expanded data collection during the pandemic, the analysis will shed light on the vital question of "Why?" through an analysis of the self-reported reasons for unemployment. This granularity allows for an understanding of which constraints on employment remain the most salient and important barriers to New Hampshire's recovery.

The analysis proceeds in the following sequence:

- **Section 2.1: Labor Market Conditions Pre-COVID** details the low unemployment environment and economic conditions in New Hampshire at the start of 2020;
- **Section 2.2: Peak Unemployment During COVID** details the immediate shock of unemployment at the peak of economic effects from the pandemic in April / May 2020;
- **Section 2.3: The Path of Unemployment During COVID** tracks the evolution of conditions in New Hampshire from Spring to Fall 2020 to understand the changing sectors, wages, locations, and reasons for unemployment as the initial recovery period began; and
- **Section 2.4: Fall 2020 Labor Market Conditions** details unemployment conditions and supply and demand dynamics as of Fall 2020, to lend insight into which areas, sectors and populations continue to face the greatest challenges at this stage of recovery.

- **Section 2.5: Unemployment Analysis by Town Typology** details pre-pandemic, peak, and fall unemployment trends for similar towns grouped by geography, density, income, industry concentration, and social vulnerability.

2.1. Labor Market Conditions Pre-COVID

Prior to the pandemic, New Hampshire had one of the lowest unemployment rates in the nation, shrinking from a high of 6.2 percent in 2009 to just 2.4 percent in March 2020.[27] Demographic trends in the state dictated that economic growth and the demand for employment over this period outpaced growth in the working age population, creating a tightening of the labor market.

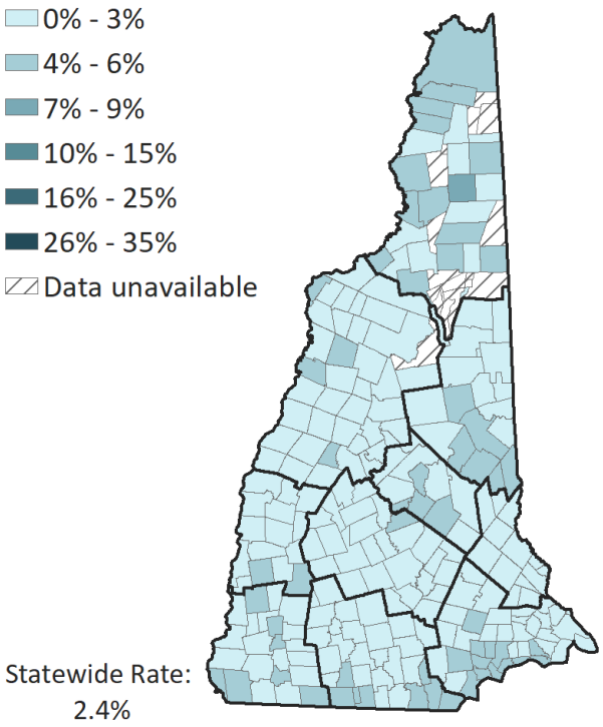
New Hampshire's population growth has been modest in recent years, growing by about 40,000 residents (a 3 percent increase) between 2010 and 2018.[28] The composition of the population has also changed, as the disproportionately large baby boomer generation approaches retirement age, with New Hampshire's median age of 43 ranking it the second-oldest state in the nation.[29] Disparities also exist across different areas of the state, with population growth concentrated in the southeast portion of the state, and a substantially larger portion of the population 65 and older in the northern and central portions.[30]

These economic and demographic conditions–low unemployment and an aging population–led to shortages in the current and prospective workforce. In the short-term, New Hampshire businesses responded to a labor market in which demand exceeded supply through a willingness to increase wages and benefits, increase part-time workers' hours, and engage with traditionally harder to reach populations like formerly incarcerated residents. Over the longer-term, the state faced–and still faces –a significant challenge in developing a future workforce to match the demand for employment.

Recognizing these structural challenges, DHHS published a policy paper in 2019, *Helping Business Thrive and Families Prosper*, that examined workforce shortages that contributed to business demand for labor.[31] This analysis identified Health Care, Manufacturing, Finance and Insurance, and Transportation and Warehousing as industries that were hiring at a faster rate than other industries in the region and were facing labor shortages.

[27] U.S. Bureau of Labor Statistics (BLS) (2020)
[28] Kenneth M. Johnson. (2019). New Hampshire Demographic Trends in an Era of Economic Turbulence. Carsey Research. https://scholars.unh.edu/cgi/viewcontent.cgi?article=1381&context=carsey
[29] U.S. Census Bureau (2019).
[30] Kenneth M. Johnson. (2019). New Hampshire Demographic Trends in an Era of Economic Turbulence. Carsey Research. https://scholars.unh.edu/cgi/viewcontent.cgi?article=1381&context=carsey
[31] New Hampshire Department of Health and Human Services. (2019). Helping Business Thrive and Families Prosper. https://www.dhhs.nh.gov/ocom/documents/closing-cliff-effect.pdf.

Figure 2.2: Unemployment by Town in New Hampshire, March 2020



Source: BLS (2020)

In June 2020, NHES released 2018 to 2028 employment projections for the state (based on pre-COVID data and analysis), projecting that total employment in New Hampshire will grow by 5.3 percent, a gain of more than 37,000 jobs.[32] The industries with the highest projected employment gains were Health Care and Social Assistance (+12,900 jobs), Professional, Scientific, and Technical Services (+6,900 jobs and the fastest growing in percentage terms, at +18 percent), and Accommodation and Food Services (+4,800 jobs).

Unemployment Characteristics (Pre-COVID)

In March 2020, the 2.4 percent unemployment rate in New Hampshire was at a twenty-year low.[33] Only Coos County (3.6 percent) had an unemployment rate higher than 3 percent, with consistently low levels of unemployment in towns across the state (see Figure 2.2).

Prior to the pandemic, in February 2020, there were roughly 3,700 individuals receiving unemployment benefits.[34] A large percentage of this unemployment was due to the seasonal nature of the Construction industry (18 percent of claims). Unemployment was also relatively high in the Office and Administrative Support sector (representing 17 percent of claims). Sixty-five percent of claimants prior to the pandemic were male, consistent with the composition of the industries exhibiting the highest share of claims.

Figure 2.3 below shows the February 2020 share of employment by sector and unemployment rate by county, as well as comparative "z-scores" of unemployment rates by industry and county based on continuing unemployment claims as of February 15.[35] A z-score describes the position of a measure in terms of its distance from the overall population mean when measured in standard deviations and is

[32] State of New Hampshire. (2020). New Hampshire Employment Projections by Industry and Occupation. https://www.nhes.nh.gov/elmi/products/documents/2018-2028-emp-proj-pub.pdf.
[33] The last time New Hampshire's unemployment rate reached 2.4 percent was in July 1988. The Bureau of Labor Statistics uses the 12th of the month as its benchmark for unemployment. Due to the timing of the pandemic closures (March 16th), any unemployment due to the pandemic would not be recorded for March.
[34] According to BLS Local Area Unemployment Statistics (LAUS), the overall number of unemployed individuals in the state in February 2020 was approximately 24,000. LAUS unemployment numbers are much higher than the number of individuals receiving unemployment benefits, as it is a survey-based metric that includes a broader measure of unemployment, such as "new entrants" to the workforce or self-employed individuals who are not collecting and/or not eligible for benefits.
[35] To calculate this z-score, the number of continuing claims by county of residence and sector for the week ending February 15, 2020 was divided by the number of jobs by county of residence and sector from the 2017 U.S. Census Bureau LEHD Origin-Destination Employment Statistics Resident Area Characteristics (LODES RAC). This data provides job numbers by sector for geographic levels as targeted as census blocks. This dataset provides insight into the employment distribution of each county by sector, which is unavailable from LAUS data.

particularly helpful when normalizing data and identifying outliers. A negative z-score reveals the raw score is lower than the average while a positive z-score reveals the raw score is higher than average. In the case of unemployment rates shown below and through this section, sector-locations with a positive z-score (purple values) indicate a higher concentration of unemployment (i.e., worse labor market conditions), while sector-locations with a negative z-score (green values) indicate a lower concentration of unemployment (i.e., better labor market conditions). By definition, a z-score that is greater than two indicates a statistically significant difference from the overall average.[36]

As seen in the Figure 2.3, there are significant variations in the z-scores when evaluated by sector:

- The Construction sector exhibits an above average unemployment rate in all counties.
- The Agriculture, Mining, and Administrative sectors exhibit above average rates in a few locations.

Variations by county are modest, with sectoral and overall rates relatively evenly distributed.

Figure 2.3: Unemployment Z-Scores by County by Sector, Feb 2020

Negative values = lower unemployment *Positive values = higher unemployment*	Share of Emp Jan 2020 (%)	Belknap	Carroll	Cheshire	Coos	Grafton	Hillsborough	Merrimack	Rockingham	Strafford	Sullivan
62: Health Care & Social Asst	15.1	(1.0)	(0.5)	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
44-45: Retail Trade	14.5	(0.5)	(0.5)	0.0	(0.5)	0.0	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
31-33: Manufacturing	10.7	(0.5)	(0.5)	0.0	0.5	0.5	(0.5)	0.0	(0.5)	0.0	0.0
61: Educational Services	9.7	(0.5)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
72: Accomm & Food Serv	8.6	(0.5)	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(1.0)	(0.5)
54: Professional Services	6.1	(0.5)	(0.5)	(0.5)	0.0	(0.5)	(0.5)	(0.5)	0.0	(0.5)	(0.5)
56: Admin & Support	5.2	0.5	0.5	2.0	3.0	2.5	1.0	1.5	1.5	1.5	2.5
92: Public Admin	4.7	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	(1.0)	(1.0)	(0.5)	(1.0)	(1.0)
23: Construction	4.2	4.0	1.0	4.0	5.5	4.5	1.0	3.0	1.5	1.5	2.5
42: Wholesale Trade	4.2	(0.5)	(0.5)	0.5	(1.0)	1.0	(0.5)	(0.5)	0.0	0.0	(0.5)
52: Finance & Insurance	4.0	(1.0)	(1.0)	(0.5)	(1.0)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)	(1.0)
81: Other Services	3.3	0.0	(0.5)	0.0	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
48-49: Transport & Warehouse	2.9	0.0	(0.5)	0.0	1.0	1.0	(0.5)	0.0	0.0	0.0	(0.5)
51: Information	1.9	(1.0)	0.0	0.0	(1.0)	0.0	(0.5)	(0.5)	0.0	(0.5)	(1.0)
71: Arts & Entertainment	1.8	0.5	0.5	0.5	0.0	(0.5)	0.0	0.0	0.0	0.0	(1.0)
55: Mgmt. of Companies	1.4	(1.0)	(1.0)	(0.5)	(1.0)	(1.0)	(1.0)	(0.5)	(1.0)	(1.0)	(1.0)
53: Real Estate	1.0	0.5	0.0	(1.0)	(1.0)	0.0	0.0	0.0	(0.5)	0.5	(1.0)
22: Utilities	0.3	(1.0)	0.0	(1.0)	0.5	(1.0)	(0.5)	(1.0)	(1.0)	(1.0)	6.5
11: Agriculture	0.3	3.5	3.5	(1.0)	(0.5)	(1.0)	0.0	2.5	2.0	0.0	0.0
21: Mining	0.1	(1.0)	2.5	(1.0)	(1.0)	(1.0)	6.5	0.5	1.5	4.0	(1.0)
Unemp Rate Feb 2020 (%)	3.1	3.2	3.2	3.1	4.2	2.5	3.2	2.6	3.3	2.8	2.7

Source: NHES (Continuing Claims, Week of Feb 15, 2020), U.S. Census Bureau (2017)

[36] A z-score greater than two indicates the value is roughly two standard deviations away from the mean, or statistically significant at the 95 percent confidence level. A z-score greater than three indicates the value is roughly three standard deviations away from the mean, or statistically significant at the 99.7 percent confidence level.

2.2. Peak Unemployment During COVID

Circumstances changed in Spring 2020 with the unprecedented health conditions ushered in by the COVID-19 pandemic. Nationally, as states responded to the spreading pandemic by limiting gatherings and closing non-essential businesses, unemployment surged from 4.4 percent in March to 14.7 percent in April 2020,[37] while national Gross Domestic Product (GDP) decreased by 31.4 percent from the first quarter to the second quarter of 2020.[38]

In New Hampshire, Governor Sununu signed the first of many pandemic-related emergency orders on March 13, 2020. By March 27, an emergency order was implemented urging all New Hampshire residents to stay at home and ordering all businesses "that do not provide essential services" to close their doors and cease all in-person operations until at least May 4, 2020.

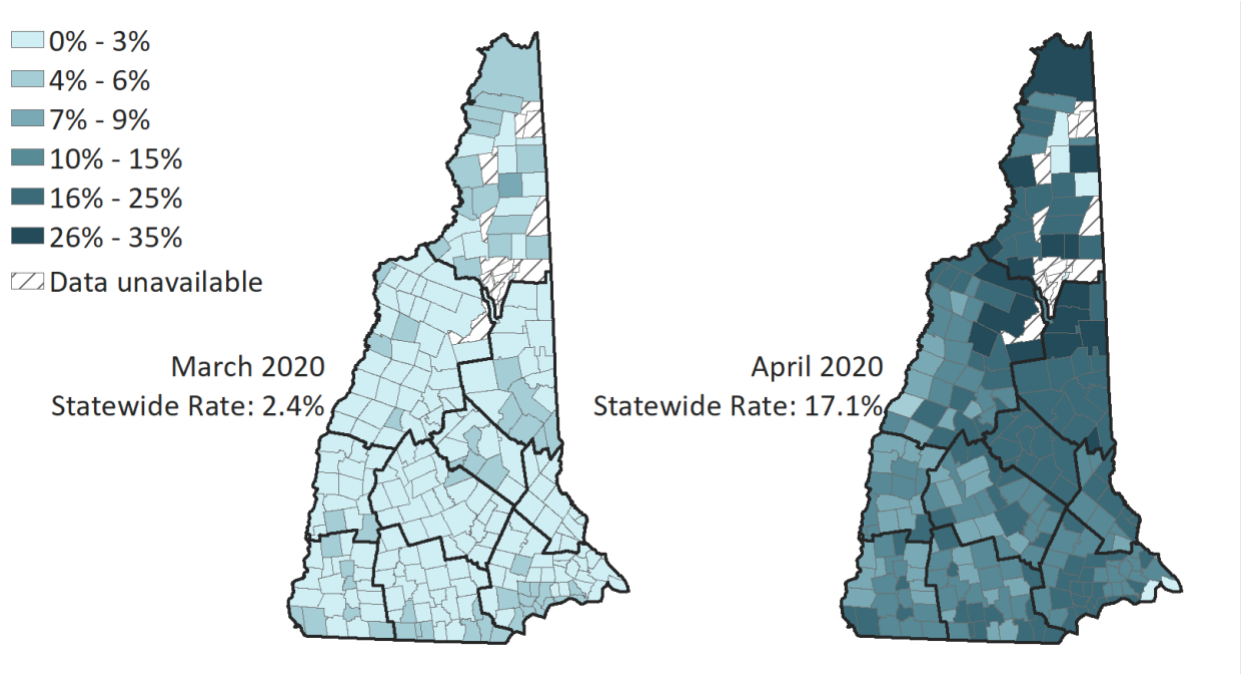
These conditions created significant economic strains on businesses, workers, and families. While impacting non-essential businesses to a greater degree, this recession based on "non-economic" reasons hit every location and industry within New Hampshire. The analysis below reviews New Hampshire's unemployment at the peak of job losses from the pandemic.[39]

[37] Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey (last updated November 6, 2020)
[38] Bureau of Economic Analysis GDP Release (2020)
[39] Peak published unemployment, according to BLS, was in April 2020 for New Hampshire. Because of this, we analyze April 2020 for town unemployment rates. For microdata analysis, the reference week of May 2 had the highest number of continuing claimants. Therefore, for analyzing "peak" microdata the May 2 benchmark is used to represent "peak unemployment."

Peak Unemployment by Town

In April 2020, the unemployment rate reached its all-time high of 17.2 percent, reaching double digits for the first time in New Hampshire (since the start of the data series in 1976). By town, unemployment rates ranged between 4.7 and 34.9 percent (see Figure 2.4).

Figure 2.4: Unemployment Rates by Town, March and April 2020



Source: BLS (2020)

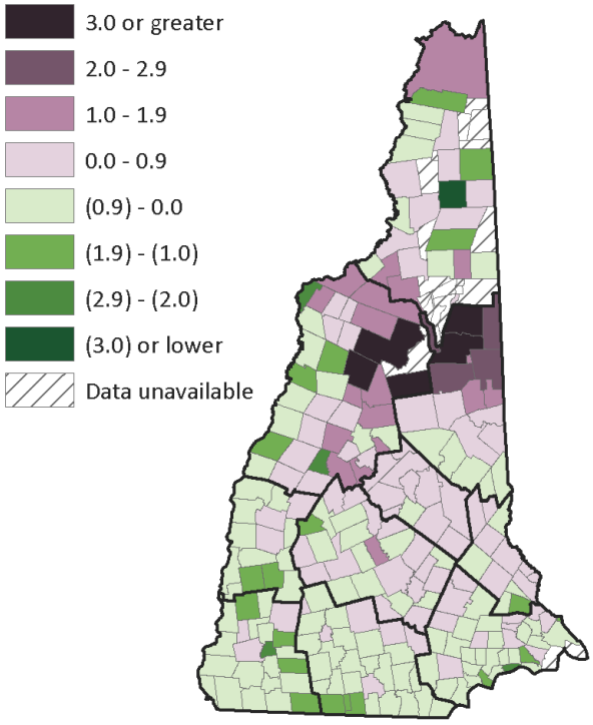
While the impacts were felt everywhere, certain locations were hit particularly hard, based primarily on the pre-pandemic composition of their economies. Figure 2.5 depicts the towns with the largest change in their unemployment "z-score" between March and April 2020. This approach isolates the change of COVID's impact on unemployment rates in relative terms, controlling for "pre-pandemic" unemployment levels.[40]

[40] Notably, towns with higher absolute levels of peak unemployment can still be reflected in this approach as showing a lower-than-average impact (negative z-score). For instance, the Town of Conway in Carroll County had a z-score change of +2.37 over the time period, increasing from a relatively average unemployment rate of 2.9 percent in February (-0.05 z-score) to a significantly high rate of 31.6 percent in April (2.70 z-score). On the other hand, Berlin City in Coos County had a high comparative unemployment rate (5.3 percent) in February and did not realize as high of an increase (22.2 percent) in April compared to other towns. For this reason, Berlin City's z-score decreased from 2.37 to 1.01 over the time period, indicating a less severe impact relative to the average town in New Hampshire (-1.36 change).

Towns in Grafton and Carroll Counties had the greatest change in relative unemployment rate from March to April 2020 (shown as positive z-score values in Figure 2.5). This is likely due to the high concentration of Accommodation and Food Services in these counties, as a relatively high proportion of New Hampshire's tourism activity occurs in this portion of the state.

Areas where unemployment increased to a lesser degree than average (shown as negative z-score values in Figure 2.5) are primarily concentrated near the southern and western borders of the state.

Figure 2.5: Change in Unemployment Rate by Town (Z-Score), March-April 2020



Source: BLS (2020)

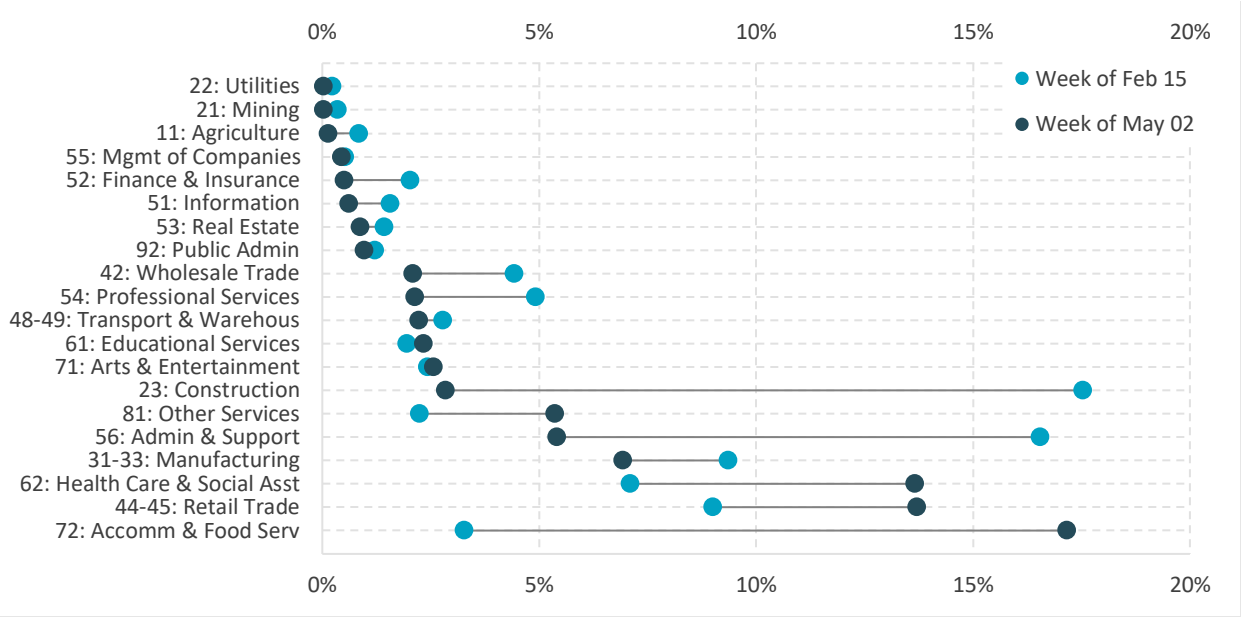
Peak Unemployment by Sector

Industry composition is crucial to understanding the spike leading to peak unemployment. Figure 2.6 below compares the share of continuing unemployment claims by sector pre-COVID (based on 3,700 claimants as of February 15) and at peak unemployment (based on 117,000 claimants as of May 2).[41]

- Accommodation and Food Services had the largest share increase, growing from 3 percent of claims in February to 17 percent in April (net +14 percent), followed by Health Care and Social Assistance (net +7 percent) and Retail Trade (net +5 percent).
- Construction, which had 18 percent of the total share of claims in February, accounted for only 3 percent of claims in May (net -15 percent), decreasing to only 650 claimants during the peak, with a similar decline in the relative share for Administration and Support (net -12 percent).

[41] Note that twenty percent of claimants were unclassified, meaning that sectoral shares do not sum to 100 percent.

Figure 2.6: Share of Continuing Unemployment Claims by Sector, Pre COVID and Peak



Source: NHES (Week of Feb 15, 2020 and May 2, 2020)

Figure 2.7 below shows further detail on peak unemployment conditions (using May 2 claims) with analysis of relative unemployment by county and sector through comparative z-scores.

- Concentrations of unemployment (shown as positive z-score values in Figure 2.7) are highest in the service sectors, led by Accommodation and Food Services; Arts, Entertainment, and Recreation; Administration and Support; and Other Services.
- Lower than average (though still significant) impacts were generally concentrated in "white collar" sectors such as Professional Services, Finance and Insurance, Educational Services, and Public Administration.
- New Hampshire's largest sectors, Health Care and Social Assistance and Retail Trade, which collectively represented about 30 percent of pre-pandemic employment, each saw somewhat higher than average unemployment impacts. At peak unemployment, there were approximately 16,000 claimants in each of these sectors, trailing only Accommodation and Food Services (which had approximately 20,000 claimants).

Figure 2.7: Z-Scores by County per Sector – Continuing Claims Week of May 2, 2020

Negative values = lower unemployment *Positive values = higher unemployment*	Share of Emp Jan 2020 (%)	Belknap	Carroll	Cheshire	Coos	Grafton	Hillsborough	Merrimack	Rockingham	Strafford	Sullivan
62: Health Care & Social Asst	15.1	0.5	0.0	0.0	0.0	(0.5)	0.5	0.5	0.5	0.5	(0.5)
44-45: Retail Trade	14.5	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.5
31-33: Manufacturing	10.7	0.0	0.0	0.0	0.0	0.0	(0.5)	0.0	0.0	0.5	0.0
61: Educational Services	9.7	(0.5)	(0.5)	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
72: Accomm & Food Serv	8.6	2.0	2.5	1.5	2.0	2.5	1.5	2.0	2.0	2.0	2.0
54: Professional Services	6.1	(0.5)	(0.5)	0.5	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
56: Admin & Support	5.2	1.0	1.0	0.5	0.5	1.0	0.5	0.5	0.5	0.5	0.5
92: Public Admin	4.7	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)
23: Construction	4.2	0.0	(0.5)	0.0	(0.5)	0.0	0.0	0.0	0.0	0.0	0.5
42: Wholesale Trade	4.2	(0.5)	0.0	(0.5)	0.0	(0.5)	(0.5)	(0.5)	(0.5)	0.0	(0.5)
52: Finance & Insurance	4.0	(0.5)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
81: Other Services	3.3	1.0	0.5	1.5	0.5	0.5	2.0	1.0	1.5	1.5	0.5
48-49: Transport & Warehous	2.9	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0
51: Information	1.9	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	0.0
71: Arts & Entertainment	1.8	1.5	1.5	1.0	1.0	2.0	1.5	1.0	1.5	0.5	1.0
55: Mgmt. of Companies	1.4	(0.5)	(0.5)	(1.0)	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	0.0	(0.5)
53: Real Estate	1.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.0
22: Utilities	0.3	(1.0)	(0.5)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(0.5)
11: Agriculture	0.3	(0.5)	(0.5)	(0.5)	0.0	(0.5)	(0.5)	0.0	(0.5)	(0.5)	(1.0)
21: Mining	0.1	(0.5)	(0.5)	(0.5)	2.0	(1.0)	(0.5)	(1.0)	(1.0)	(0.5)	(0.5)
Unemp Rate May 2020 (%)	15.3	17.7	20.7	12.9	18.7	14.0	15.7	13.9	15.6	15.0	11.3

Source: NHES (2020), U.S. Census Bureau (2017)

While all counties in New Hampshire saw unemployment rates rise into double digits, some variation can be seen geographically in Figure 2.7 above:

- The highest rates were observed in Carroll (21 percent), Coos (19 percent) and Belknap (18 percent) Counties in the northern and central portions of the state. These counties did not necessarily disproportionately change within individual sectors relative to other counties (with z-scores by sector typically aligned with state norms); rather, the composition of employment by sector (particularly the concentration of employment in the Accommodation and Food Services industry driven by the hospitality industry) drove higher overall unemployment rates.
- The lowest rates were observed in Sullivan (11 percent) and Cheshire (13 percent) Counties in the southwestern portion of the state. New Hampshire's two largest counties, Hillsborough and Rockingham, which collectively represent more than half of the state's workforce, each had unemployment rates near the state average at 16 percent.

2.3. The Path of Unemployment During COVID

Since the initial unemployment peak, businesses and consumers have slowly adapted to changing health and economic conditions, and the economy and workforce have begun an initial recovery towards prior levels. It is well-understood, however, that the future post-COVID economy should be understood as a "new normal," rather than a return to the exact pre-COVID conditions. Analysis of the path of unemployment across this initial recovery can help to shed light on which populations may be at greater risk for sustained unemployment as the economic recovery proceeds.

This analysis will detail how the unemployment population (156,673 individual claimants) altered from February to September 2020 using weekly claims from six representative weeks (397,628 total claims). While the previous sections focused primarily on the macro levels of unemployment by sector and location, this section will focus on the trends and disparities of unemployment by reason, gender, sector, location, and length of unemployment throughout the course of the pandemic.

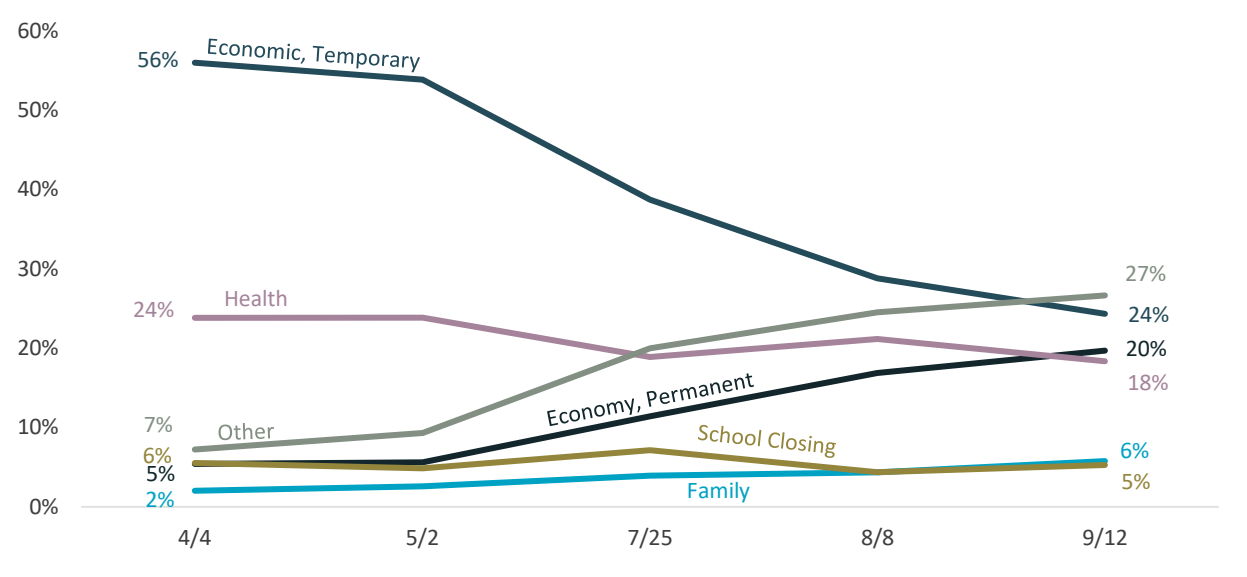
Reason for Unemployment

Unemployment claimants self-report broad and detailed reasons for separation; however, as the pandemic continued to spread, NHES added fields to claim forms, asking claimants whether their unemployment was due to the COVID-19 pandemic and, if so, what the specific reasons were for separation from employment. Figure 2.8 below shows the initial reason for unemployment reported by each claimant on the first week they entered the dataset to shed light on changes in the reasons for unemployment over the course of the pandemic and initial recovery.[42]

- Initially, claims were dominated by "temporary economic layoff or employer shutdown," which represented 56 percent of the roughly 85,000 newly unemployed on the week ending April 4 and 54 percent in the week ending May 2. This reason for initial unemployment has declined steadily and represented only 24 percent of new claimants in the week ending September 12.
- Permanent unemployment has increased in share of reason for new unemployment over the course of the pandemic, from 5 percent in April (1,435 claimants) to 20 percent in September (560 claimants).
- Unemployment for health reasons has been relatively stable (from 24 percent of the share in April to 18 percent in September), as have family and school closing reasons.
- Unemployment for "other" reasons has seen the largest percent increase in share over the six months analyzed as the economy started to stabilize. Reasons included in "other" are generally performance- or pay-related and not directly attributable to the pandemic.

[42] This figure displays only the reasons for each new claimant by week. For example, among the 117,053 total claims in week ended May 2, this graph depicts the reasons for unemployment for the 43,513 individuals that appeared in the dataset for the first time that week.

Figure 2.8: Initial Reason for Unemployment, by Week, April-September 2020

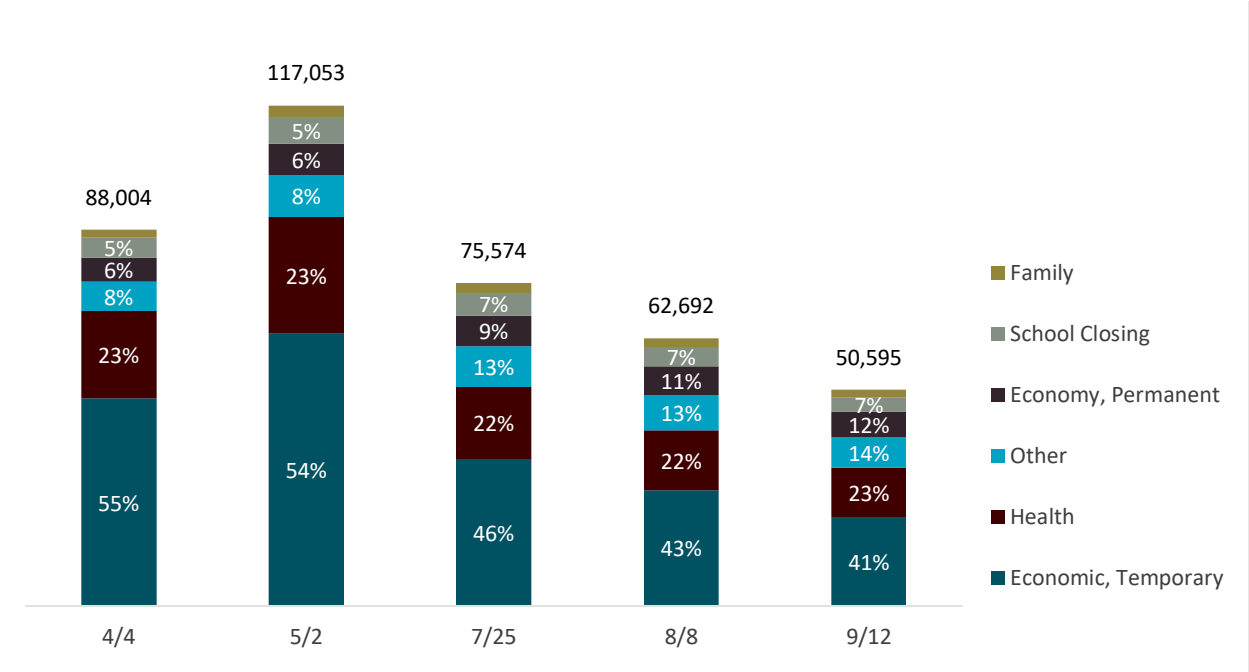


Source: NHES (2020)

Patterns among continuing unemployment claimants differ somewhat from the initial claimants, reflecting differences in the duration of unemployment by cause. Figure 2.9 below shows the reason for unemployment among continuing claimants in each of the analyzed weeks.

- The share of permanently unemployed doubled from April to September as those unemployed for a more permanent reason were less likely to return to the labor force compared to those caring for a family member or unemployed for health reasons.
- "Temporary" economic circumstances represent a larger share of the reasons for unemployment in continuing claims compared to initial claims, suggesting that for these claimants, conditions that were initially viewed as temporary have been continuing longer than anticipated.
- The share of unemployed due to school closings increased despite a slight decline in new claims related to school closings, indicating that those receiving unemployment due to school closures experienced more sustained unemployment compared to individuals unemployed for other reasons.

Figure 2.9: Reason for Unemployment for Continuing Claimants, April-September 2020



Source: NHES (2020)

Duration of unemployment is important to gain a deeper understanding of the location, sectors, demographics, and reasons of those individuals that may be more vulnerable going forward with sustained unemployment. Since this study is analyzing six representative weeks of unemployment and not the entire dataset, in order to arrive at an expected value of number of weeks, an imputation was made for each individual based on the number of weeks appearing in the dataset.[43]

Individuals unemployed due to school closings averaged the highest number of weeks unemployed (16.4 weeks) followed by those permanently laid off for economic reasons (15.9 weeks) and those out of work due to family reasons (15.4 weeks). The number of weeks unemployed averaged 14.8 weeks across the 31-week dataset.

The health and safety concerns associated with the pandemic, coupled with school closings and other familial considerations, are additional deterrents to quickly returning to the workforce. It is also important to note that previous research has shown that extended benefits like those provided by the CARES Act tend to slow recovery as these additional benefits add disincentives to rejoining the labor force.[44] Nevertheless, differences in the average number of weeks provide insight into those individuals that may be more permanently affected by the pandemic recession.

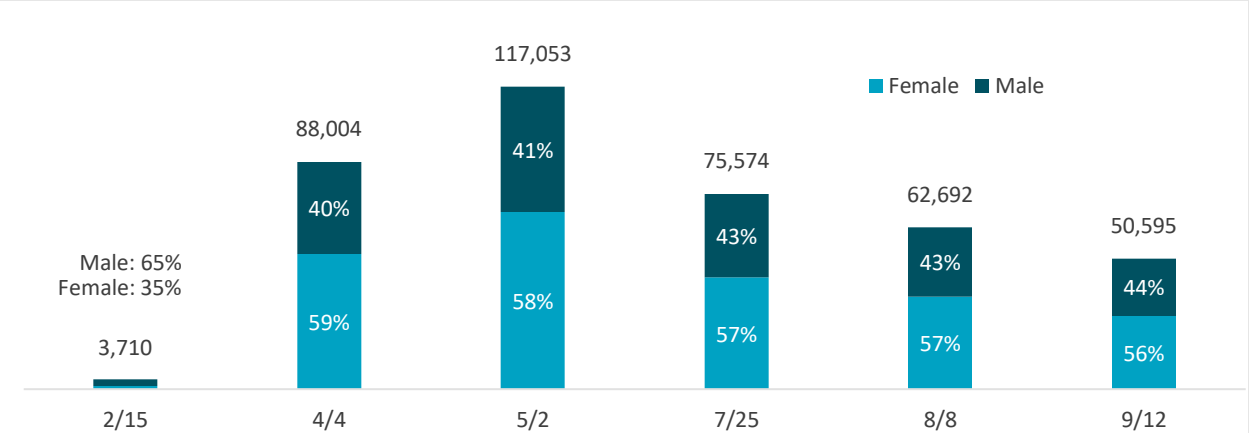
[43] For example, if a claimant was included in the week ended July 25th dataset but not present in the week ended May 2nd and week ended August 8th pulls, the expected value (average) of the total number of weeks (13 weeks) exclusive of May 2nd and August 8th is divided by two for an expected value of 6.5 weeks unemployment.

[44] Laura Belsie. (2012). Extended Unemployment Benefits and Unemployment Spells. NBER. https://www.nber.org/digest/oct13/extended-unemployment-benefits-and-unemployment-spells

Unemployment by Gender

Both the sectoral composition of unemployment associated with the pandemic and the reasons for unemployment have contributed to disparities in unemployment by gender. Figure 2.10 below shows that the majority of continuing unemployment claims across each week over the course of the pandemic had been filed by women, who represented 56 percent of continuing claims as of September.

Figure 2.10: Weekly Unemployment, by Gender, February through September 2020



Source: NHES (2020)

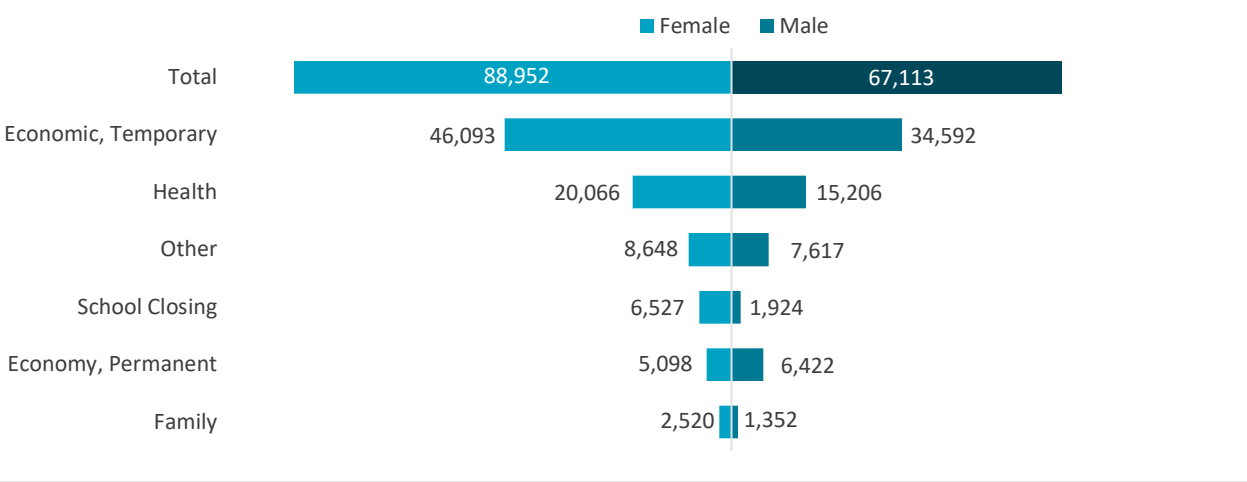
This pattern represents a contrast to the pre-COVID composition of unemployment claims, in which women made up only 35 percent of the unemployed. This is also a stark contrast to unemployment patterns in the Great Recession, during which up to three-quarters of the unemployed were men.[45]

These differentials are due, in part, to the composition of impacted sectors. Claims in February 2020 were disproportionately concentrated in male-dominated sectors like Construction, a sector that along with Manufacturing was heavily impacted during the Great Recession. By contrast, the pandemic has heavily hit service professions like hospitality, retail, and health care services that are comprised of a larger share of female workers.

In addition to sectoral effects, disparities in household responsibilities have been significant contributors to gender differentials. Figure 2.11 below shows reported reasons for unemployment by gender, which show that in addition to economic reasons, women have higher concentrations of unemployment for family, school closing, or health-related reasons. Caring for family members and school closings had two of the longest durations among reasons for unemployment, exacerbating gender disparities, since 77 percent of those unemployed because of school closings and 65 percent of those due to care for family members were women. Section 3 of this report analyzes in greater depth the constraint of child care on New Hampshire's workforce recovery.

[45] Erica Mende. (2012). Men hit harder during the recession but are recovering faster than women. Urban Wire: Income and Wealth. Urban Institute. https://www.urban.org/urban-wire/men-hit-harder-during-recession-are-recovering-jobs-faster-women

Figure 2.11: Reason for Unemployment, by Gender, April through September 2020



Source: NHES (2020)

As the pandemic has progressed, the gender gap has begun to converge slightly, with men making up 44 percent of claimants in September (up from 40 percent in April). Men also make up a majority of those workers who report being permanently laid off, and therefore those that may have a more difficult path to re-employment.

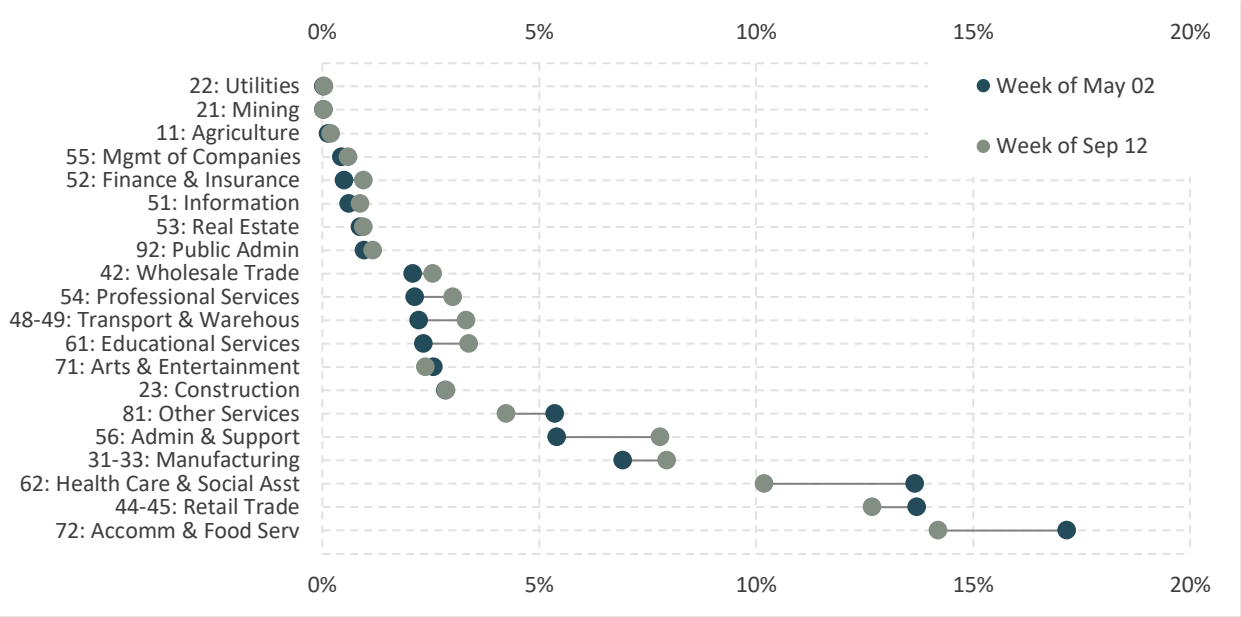
Unemployment by Sector

Substantial changes were seen in the composition of unemployment as stay-at-home orders closed many non-essential businesses and sectors that required in-person meetings, such as restaurants, retail stores, and child care centers, were unable to entirely convert their businesses to a digital or a socially-distanced structure. As the recovery began, some of the initially-impacted sectors have been more successful than others in initiating a recovery.

Figure 2.12 below compares the share of continuing unemployment claims by sector at the peak (117,000 claims on May 2) to the share as of September 12 (around 50,000 claims).

- The three largest sectors remain Accommodation and Food Services, Retail Trade, and Health Care and Social Assistance. Each shows a decline in the share of total claims, though the decline for Retail is very modest.
- Several sectors, led by Manufacturing and Administration and Support Services have increased somewhat as a share of claims, though claims are down in these sectors in absolute terms.

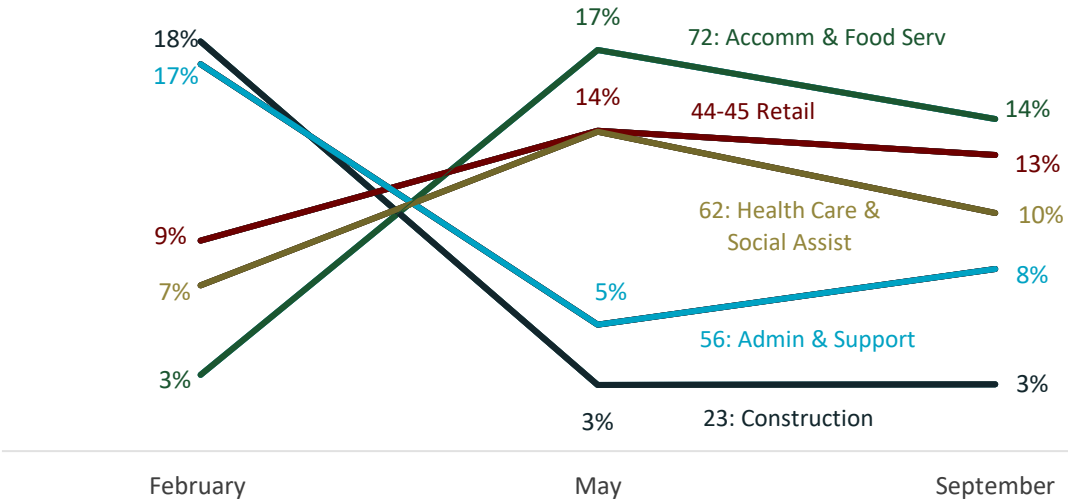
Figure 2.12: Share of Claims by Sector, Week of May 2, 2020 vs. Week of September 12, 2020



Source: NHES (2020)

Figure 2.13 below shows the progression in the share of continuing unemployment claims in selected sectors from February (pre-COVID) to May (peak unemployment) to September 2020. Conditions in the sectors most impacted initially abated slightly, with claims in Accommodation and Food Services, Retail Trade, and Health Care and Social Assistance falling from a collective 45 percent of claims during the May peak to 37 percent of claims in September. Still, this is nearly double their pre-COVID share of 19 percent.

Figure 2.13: Share of Unemployment Claims, by Select Sectors, February through September 2020



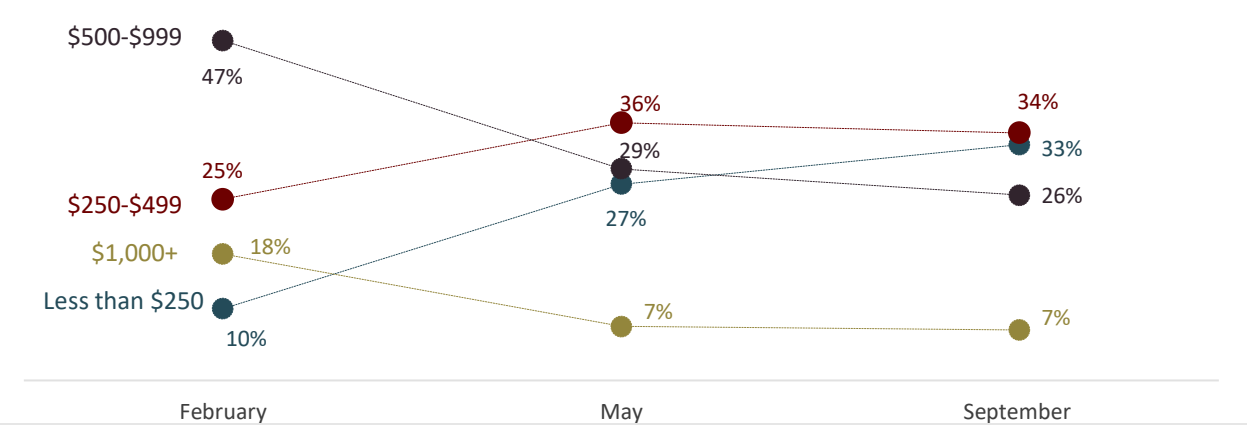
Source: NHES (2020)

Earnings

Differences over time in the composition of unemployment can also be seen in the average weekly wage of those unemployed (see Figure 2.14).

- In February, the average weekly wage of unemployed claimants was roughly $729, likely driven by high unemployment in the Construction sector, where workers typically earn an average weekly wage of $1,183 according to the Bureau of Labor Statistics. This concentration of unemployment in a high-earning sector resulted in 18 percent of the unemployed earning over $1,000 per week in their previous employment with only 35 percent of claimants earning less than $500.
- By May, as the pandemic caused unemployment to shift towards service-oriented sectors, the average weekly wage of claimants decreased to $471. These earnings are consistent with industry averages by sector: Accommodation and Food Services ($432), Retail Trade ($648), and Health Care and Social Assistance ($1,149).[46]
- By September, the trend continued with only 7 percent of the claimants with average weekly wages over $1,000 per week and 67 percent of claimants with average weekly wages less than $500.

Figure 2.14: Average Usual Weekly Wage of Claimants, February-May-September 2020



Source: NHES (2020)

2.4. Fall 2020 Labor Market Conditions

As reviewed throughout this section, the initial wave of unemployment associated with the pandemic had disproportionate effects on service sectors, on women, and on counties in the northern and central portions of the state. As the employment and health situation have evolved and the initial recovery has begun, these differentials have begun to revert somewhat, with movement toward an unemployed population more "typical" of New Hampshire's pre-COVID economy.

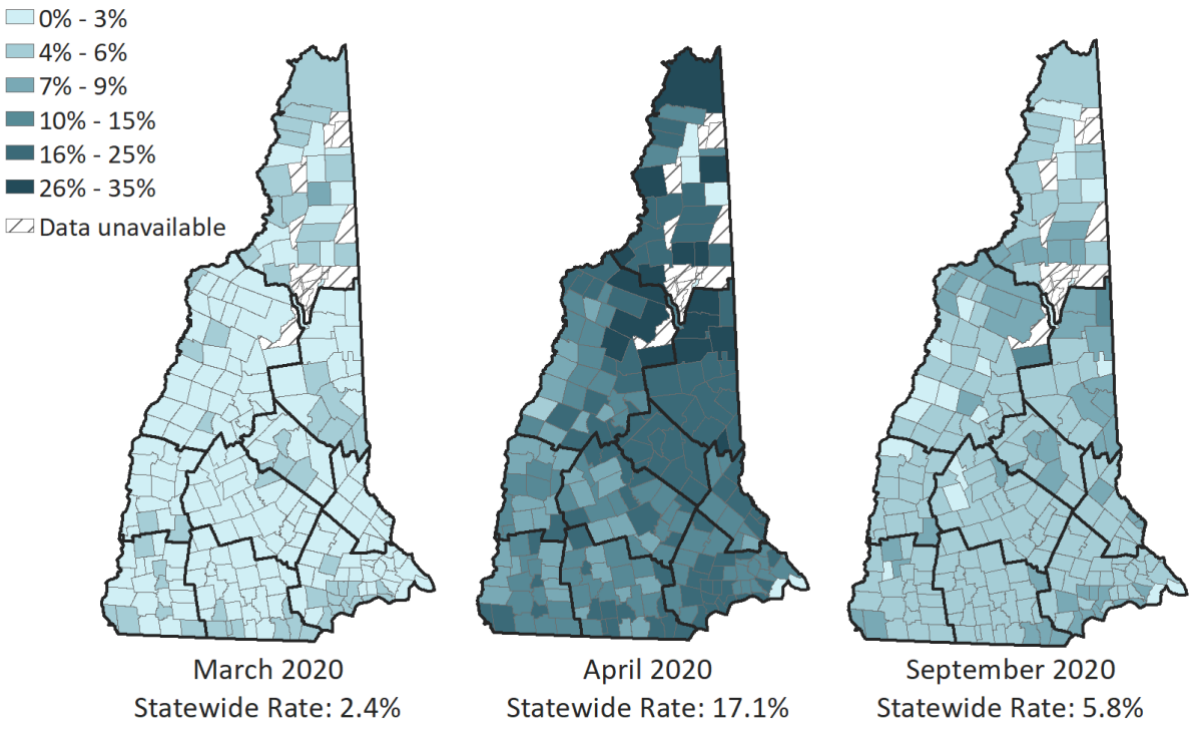
[46] It is important to note that the Health Care and Social Assistance sector includes establishments with typically high wages such as Hospitals and Physicians' Offices as well as lower wage establishments such as Child Care Centers, Nursing Homes, and Individual and Family Services.

Disparities remain, however, and may persist in a new labor market equilibrium after the resolution of the current health challenges. This section reviews overarching trends of New Hampshire's labor market as of Fall 2020, to provide guidance as to the sectors, populations, and geographies that have experienced the strongest recoveries and those that face the greatest remaining challenges going forward.

Recovery by Town

By September 2020, New Hampshire's unemployment rate declined from its 17.2 percent peak to 6.0 percent, the 14th lowest rate in the nation at this time.[47] While only a handful of towns had lower unemployment in September than in March, all towns, with the exception of Waterville Valley, had recovered to single-digit unemployment rates (see Figure 2.15).

Figure 2.15: Unemployment Rates by Town, March, April, September 2020



Source: BLS (2020)

In order to pinpoint those areas that may be recovering at a slower pace, a comparative "z-score" was calculated for the change in unemployment from March to April and March to September for every town (see Figure 2.16).

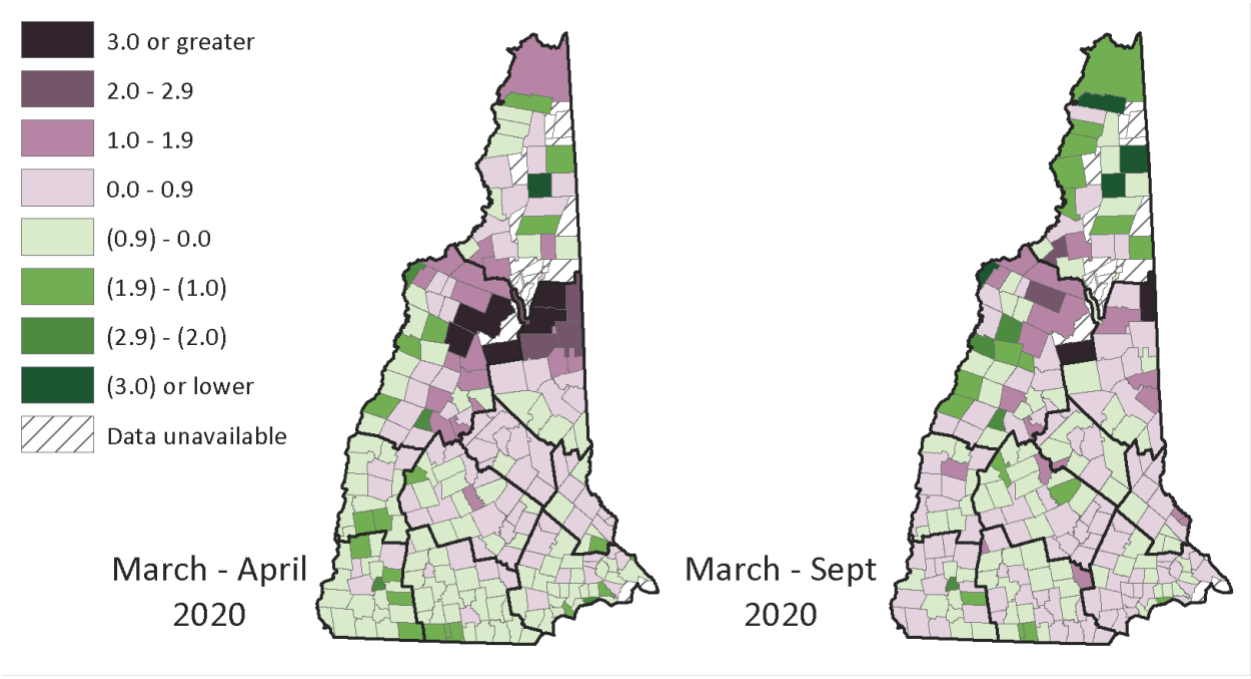
Unsurprisingly, many of the towns that saw the greatest impacts from the initial surge of unemployment remain those with the greatest relative increases in September unemployment relative to the pre-COVID peak. For example, towns in Grafton and Carroll Counties that saw the largest initial surges remain the

[47] In February 2020, New Hampshire had the 8th lowest unemployment rate in the country.

locations seeing some of the greatest negative impacts on unemployment (expressed as positive z-scores in Figure 2.16).

Noteworthy differentials have emerged elsewhere in the state, however. Towns at the southern edge of the state in Rockingham and Hillsborough Counties, which fared well in relative terms in the initial surge, now see a more mixed picture in terms of their recovery relative to their baseline pre-COVID levels. By contrast towns in Coos County, the northernmost part of the state, have seen a stronger relative recovery against these baseline levels (expressed as negative z-scores in parentheses) when compared to the statewide change.

Figure 2.16: Changes in Unemployment Rate Z-Score by Town, March – September 2020



Source: BLS (2020)

Recovery by Sector

Figure 2.17 below shows September conditions with analysis of relative unemployment by county and sector through comparative z-scores.

- Relative to peak unemployment, scores have "normalized" considerably, with unemployment in hard hit sectors like Accommodation and Food Services now less than two standard deviations from average in all counties.
- Transportation and Warehousing, as well as Administrative and Support Services, are trending towards larger concentrations in unemployment compared to average.
- The state's largest sector, Health Care and Social Assistance, has recovered relatively well, and is now showing average or below average unemployment rates in most counties, while Retail Trade unemployment rates remain above average in most locations.

Figure 2.17: Z-Scores by County per Sector – Continuing Claims Week of September 12, 2020

Negative values = lower unemployment *Positive values = higher unemployment*	Share of Emp Jan 2020 (%)	Belknap	Carroll	Cheshire	Coos	Grafton	Hillsborough	Merrimack	Rockingham	Strafford	Sullivan
62: Health Care & Social Asst	15.1	0.0	0.0	(0.5)	0.0	(0.5)	0.0	0.0	0.0	0.0	(0.5)
44-45: Retail Trade	14.5	0.0	0.5	0.5	0.0	0.0	0.5	0.0	0.5	0.0	0.5
31-33: Manufacturing	10.7	0.0	0.0	0.5	0.0	0.0	0.0	0.0	(0.5)	0.5	0.0
61: Educational Services	9.7	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
72: Accomm & Food Serv	8.6	0.5	1.5	0.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5
54: Professional Services	6.1	0.0	(0.5)	0.5	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
56: Admin & Support	5.2	1.5	1.0	1.0	0.5	1.5	1.0	1.0	1.0	1.0	1.0
92: Public Admin	4.7	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)
23: Construction	4.2	0.0	(0.5)	(0.5)	(0.5)	(0.5)	0.0	0.0	(0.5)	(0.5)	0.0
42: Wholesale Trade	4.2	0.0	0.0	(0.5)	(0.5)	0.0	0.0	0.0	0.0	0.0	0.0
52: Finance & Insurance	4.0	(0.5)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
81: Other Services	3.3	0.5	0.0	0.5	0.5	0.0	1.0	0.5	1.0	0.5	0.0
48-49: Transport & Warehous	2.9	0.5	1.0	1.0	(0.5)	0.5	1.0	0.5	1.0	1.0	0.5
51: Information	1.9	0.0	(0.5)	(0.5)	0.0	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	0.0
71: Arts & Entertainment	1.8	1.5	1.0	1.0	1.5	1.5	1.0	1.0	1.5	0.5	1.5
55: Mgmt of Companies	1.4	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	0.0	(0.5)
53: Real Estate	1.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.0
22: Utilities	0.3	(1.0)	(0.5)	(1.0)	(0.5)	(0.5)	(1.0)	(1.0)	(1.0)	(1.0)	(0.5)
11: Agriculture	0.3	(0.5)	0.0	(1.0)	0.0	(0.5)	(0.5)	0.5	(0.5)	0.0	(0.5)
21: Mining	0.1	(0.5)	(0.5)	(1.0)	0.5	0.0	(0.5)	(0.5)	(1.0)	(0.5)	(1.0)
Unemp Rate Sep 2020 (%)	5.5	5.9	6.2	5.3	5.8	4.5	5.9	4.8	6.0	5.3	4.8

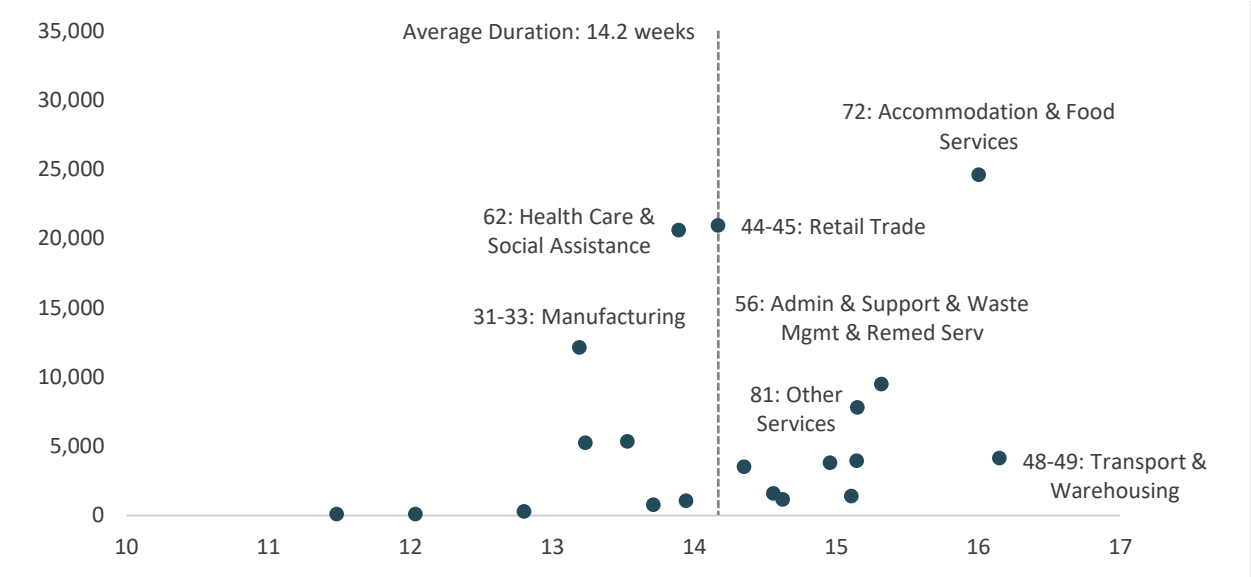
Source: NHES (2020), U.S. Census Bureau (2017)

Duration of Unemployment

The length of unemployment provides an important indicator of the potential permanency of unemployment in different sectors. Figure 2.18 below shows the volume of claims by sector along with the average duration of claims in those sectors, which combine to show potential constraints on the economy going forward.

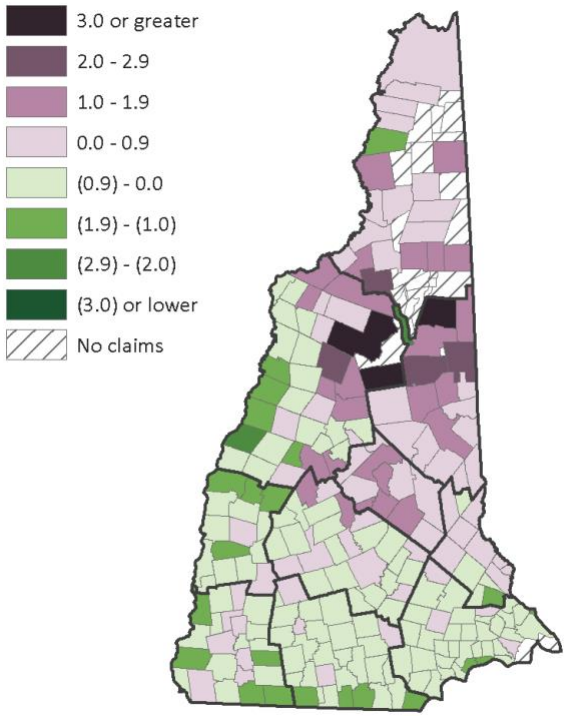
- Accommodation and Food Services faces the greatest continuing challenges, with both a high level of unemployment, and among the longest durations (top right quadrant of the chart).
- Health Care and Social Assistance has high volumes of claims, but is close to average in terms of duration, indicating some potential recovery in those sectors.
- Transportation and Warehousing and Administration and Support Services are among those sectors with higher-than-average durations, indicating potential recovery challenges.

Figure 2.18: Unemployment Claims by Sector and Average Duration



Source: NHES (2020)

Figure 2.19: Z-Score of Weeks Unemployed × Unemployment Rate by Town



Source: NHES (2020)

The level and length of unemployment can also be viewed on a geographic basis. This analysis again returns to z-scores, with Figure 2.19 depicting the comparative impacts by town based on the town's average length of unemployment multiplied by the town's unemployment rate.[48]

Interestingly, this measure of sustained unemployment provides a different picture of towns facing the greatest impacts than the comparison of relative changes in unemployment rates shown in Figure 2.16 above. Towns in central New Hampshire, particularly in Carroll and Belknap Counties, remain those most impacted by any of the measures developed in this analysis. However, towns in Coos County, which fared relatively better in a comparison of changes in unemployment rate in part due to a higher pre-COVID baseline, have suffered greater than average prolonged unemployment by this measure.

[48] The unemployment rate for each town was based on the number unemployed in the NHES microdata divided by the labor force in the town as of January 2020.

In contrast, towns along the southern border in Hillsborough and Rockingham Counties have not suffered from sustained unemployment to the degree that would be suggested by their overall change in unemployment rate. Towns along the western border of the state in Cheshire, Sullivan, and Grafton Counties have been the least impacted by this measure, consistent with the lower-than-average increases in unemployment in these counties throughout the course of the pandemic.

Supply and Demand

While New Hampshire's labor market has recovered significantly from the initial unemployment peak, 51,000 workers remained unemployed as of September 2020. The path ahead remains uncertain, as health and broader economic conditions continue to change. This represents substantially different conditions than the historically tight labor market that preceded the pandemic.

While there are 51,000 individuals currently unemployed, roughly 17,000 are unemployed due to school closings, family reasons, and health concerns. Given these reasons, it is not clear that these individuals are actively looking to re-enter the labor market at this time. Furthermore, 21,000 individuals indicate they are currently unemployed because of a temporary layoff or employer shutdown. Assuming that their employers will be able to reopen once it is safe to do so, these individuals may have the opportunity to return to their previous places of employment. Removing these groups isolates approximately 13,000 individuals currently "permanently" unemployed due to a business closing, permanent layoff, or other "non-pandemic"-related reason and potentially seeking employment now.

By sector, five industries comprise 56 percent of total unemployed workers potentially looking to be rehired in the state. Figure 2.20 below compares the supply and demand within these sectors based on job postings in Burning Glass by sector and county. [49] The number of workers per available job posting is calculated, with values greater than one indicating that multiple unemployed workers are in potential competition for each available job.

- The Administrative sector shows a high level of workers (4.0) for each available job, indicating a shortage of employment opportunities in this sector.
- Ratios are more balanced between supply and demand in the Manufacturing, Accommodation and Food Services, and Retail Trade sectors, though county-level measures indicate potential mismatches between supply and demand.
- Health Care and Social Assistance appears to be suffering from a significant workforce shortage with twice as many job postings as available workers.

[49] Since these individuals were unemployed during the week ended September 12, Burning Glass job postings were pulled for the following four weeks, from September 13 through October 10. To arrive at the overall measure of workers per job posting, the total number of postings by county were divided by the number of unemployed persons reasonably assumed to be looking for work.

Figure 2.20: Workers per Job Posting by County in Selected Sectors, September 2020

County	Administrative / Waste Management	Manufacturing	Accommodation and Food Services	Retail Trade	Health Care and Social Assistance[50]
Belknap	53.0	10.1	2.7	1.1	1.4
Carroll	12.0	3.9	0.8	0.9	0.5
Cheshire	2.2	4.4	1.4	1.5	0.7
Coos	-	17.0	0.3	4.2	0.5
Grafton	1.4	0.8	3.3	1.0	0.2
Hillsborough	4.0	1.4	2.0	0.8	0.5
Merrimack	4.9	2.7	2.6	1.0	0.4
Rockingham	2.8	0.8	2.0	0.6	0.5
Strafford	9.9	3.0	6.9	1.3	0.6
Sullivan	33.0	3.9	2.1	3.5	0.8
Total	4.0	1.7	1.7	0.9	0.5

Source: NHES (2020), Burning Glass (2020)

2.5. Unemployment Analysis by Town Typology

As described over the course of this section, the pandemic led to increases in unemployment across all community types in New Hampshire, but the severity of those impacts varied by location and sector. Analysis of unemployment trends by town typology helps to illustrate the types of communities that saw the greatest impact.

Figure 2.21 below shows unemployment rates by typology type in March 2020 (calculated prior to the pandemic), at peak unemployment in April 2020, and in September 2020, as well as the percentage change from March to September. As previously stated, New Hampshire's unemployment rate was near record low levels in March 2020, and this tight labor market created an environment in which towns of all types faced similar unemployment rates (around 3 percent) regardless of the town's median income, social vulnerability, industry concentration, or density.[51]

With unemployment skyrocketing to 17 percent statewide in April, differences by typology began to emerge:

- Towns with high social vulnerability, low density, lower income households, employment concentrated in Leisure and Hospitality, or located in Coos and Belknap Counties averaged unemployment rates greater than 20 percent in April 2020.

[50] It is important to note that occupations greatly vary across sectors and may be a greater determinant of labor supply and demand in certain situations. For instance, an unemployed accountant would not necessarily need to fit into any particular sector while an unemployed steamfitter would most likely seek employment in the Construction sector. For the Health Care and Social Assistance sector, these distinctions are especially important as there may still be a substantial mismatch in openings and unemployed based on level of education and credentials.
[51] 88 percent of towns had an unemployment rate of 3 percent or less in March 2020.

As recovery began, New Hampshire's unemployment rate in September (5.8 percent) remained more than double the pre-COVID rate from March (2.4 percent).[52] However, increases in unemployment from March to September varied across communities, and were greater than 100 percent for certain typologies:

- Towns with high social vulnerability, lower incomes, and economies dependent on Leisure and Hospitality continued to see higher than average unemployment increases;
- Towns located in Hillsborough and Rockingham Counties had higher average unemployment rates in September 2020 compared to towns in other counties; and
- The largest percentage increases by county occurred in Strafford and Hillsborough Counties, while absolute unemployment levels were highest in rural Carroll and Coos Counties, along with Rockingham County.

[52] Note that statewide rates from the BLS LAUS are seasonally adjusted, while town by town data is only available on an unadjusted basis. As a result of this differential, and the lack of data availability for the smallest communities, the statewide figures shown in Figure 2.22 below differ slightly from the sum of town-by-town data.

Figure 2.21: Unemployment Rates, by Typology, 2020

	March	April	September	% Chg (Mar-Sep)
New Hampshire	**2.4%**	**17.1%**	**5.8%**	**100%**
County				
Belknap	3%	21%	5%	83%
Carroll	3%	24%	6%	101%
Cheshire	3%	15%	5%	84%
Coos	4%	22%	6%	63%
Grafton	2%	16%	4%	94%
Hillsborough	3%	17%	6%	108%
Merrimack	2%	16%	5%	93%
Rockingham	3%	18%	6%	98%
Strafford	2%	16%	5%	113%
Sullivan	2%	14%	5%	88%
Density				
Low	3%	20%	5%	94%
Mid-Low	3%	17%	5%	81%
Mid-High	3%	17%	5%	88%
High	3%	17%	6%	105%
Income				
Low	3%	20%	6%	120%
Mid-Low	3%	18%	5%	100%
Mid-High	3%	17%	6%	97%
High	3%	15%	5%	85%
Social Vulnerability Index				
Low	3%	16%	5%	93%
Mid-Low	3%	15%	5%	87%
Mid-High	3%	18%	6%	104%
High	3%	21%	6%	125%
Industry Concentration				
Education & Health Services	3%	17%	5%	105%
Goods-producing	3%	16%	5%	90%
Leisure & Hospitality	3%	20%	6%	104%
Trade, Transportation & Utilities	3%	18%	6%	99%
Other	3%	16%	5%	90%

Source: ESI (2020), NH DHHS (2019), NHES (2020), BLS (2020)

Analysis of the individual towns facing the highest unemployment rates in April 2020 and September 2020 is illustrated by typology. Figure 2.22 shows towns with unemployment rates above 25 percent at the peak of unemployment in April 2020. Each of these towns had multiple indicators associated with higher unemployment peaks, such as low population density, low median income, high social

vulnerability scores, and employment concentrations in Leisure and Hospitality. The majority of these towns were located in Carroll and Coos Counties, with the remainder in Grafton County.

Figure 2.22: Highest Town Unemployment Rates with Typology Detail, April 2020

Town	County	Pop Density	Income	Social Vulnerability	Employment Composition	Mar	Apr	Sep
Jackson	**Carroll**	**Low**	Mid-Low	Mid-High	**Leisure & Hospitality**	3%	35%	7%
Waterville Valley	Grafton	**Low**	High	Mid-High	**Leisure & Hospitality**	1%	34%	10%
Lincoln	Grafton	**Low**	**Low**	**High**	**Leisure & Hospitality**	3%	34%	8%
Bartlett	**Carroll**	Mid-Low	**Low**	Mid-High	**Leisure & Hospitality**	2%	33%	7%
Conway	**Carroll**	Mid-High	**Low**	**High**	Trade, Transport & Utilities	3%	32%	6%
Woodstock	Grafton	**Low**	**Low**	**High**	**Leisure & Hospitality**	2%	30%	6%
Errol	**Coos**	**Low**	**Low**	Mid-Low	Trade, Transport & Utilities	6%	30%	4%
Albany	**Carroll**	**Low**	**Low**	**High**	Goods-producing	3%	29%	6%
Stratford	**Coos**	**Low**	**Low**	**High**	Goods-producing	4%	29%	7%
Pittsburg	**Coos**	**Low**	**Low**	**High**	**Leisure & Hospitality**	4%	29%	4%
Gorham	**Coos**	Mid-High	Mid-Low	**High**	Trade, Transport & Utilities	3%	27%	6%
Carroll	**Coos**	**Low**	**Low**	**High**	**Leisure & Hospitality**	3%	26%	6%
Randolph	**Coos**	**Low**	Mid-High	**High**	**Leisure & Hospitality**	4%	26%	6%
Dalton	**Coos**	**Low**	**Low**	**High**	Education & Health Services	5%	26%	8%
Brookfield	**Carroll**	**Low**	Mid-High	Mid-Low	Other	4%	26%	6%

Source: ESI (2020), NH DHHS (2019), NHES (2020), BLS (2020)

Figure 2.23 shows towns with an unemployment rate higher than 7 percent as of September 2020. These towns encompass a mix of characteristics, illustrating that continuing unemployment challenges are not limited to a distinct cause or community type.

Broad patterns in elevated unemployment align with the indicators suggested by the typology analysis above, with the majority exhibiting multiple characteristics associated with higher unemployment:

- With geographic location and density highly correlated, 22 towns (71 percent) were located in either rural locations (mainly Coos, Carroll, and Grafton Counties) with low density or urban areas (Rockingham and Hillsborough Counties) with high density; and
- Sixty-five percent of towns had average household incomes below the median, while 68 percent had an above-average SVI score.

Figure 2.23: Highest Town Unemployment Rates with Typology Detail, September 2020

Town	County	Pop Density	Income	Social Vulnerability	Employment Composition	March	April	Sept	% Chg (Mar-Sep)
Waterville Valley	Grafton	Low	High	**Mid-High**	**Leisure & Hospitality**	1%	34%	10%	560%
Chatham	Carroll	Low	**Mid-Low**	**Mid-High**	Other	2%	24%	9%	357%
Seabrook	Rockingham	**High**	**Mid-Low**	Mid-Low	Trade, Transport & Utilities	4%	23%	9%	102%
Dalton	Coos	**Low**	**Low**	**High**	**Education & Health Services**	5%	26%	8%	64%
Plaistow	Rockingham	**High**	Mid-High	Low	Trade, Transport & Utilities	5%	21%	8%	70%
Lincoln	Grafton	**Low**	**Low**	**High**	**Leisure & Hospitality**	3%	34%	8%	202%
Freedom	Carroll	Mid-Low	**Mid-Low**	**High**	**Leisure & Hospitality**	3%	20%	8%	167%
Salem	Rockingham	**High**	Mid-High	Low	Trade, Transport & Utilities	4%	20%	8%	108%
Danville	Rockingham	**High**	High	Low	Goods-producing	3%	20%	8%	116%
Whitefield	Coos	Mid-Low	**Low**	**High**	**Education & Health Services**	2%	22%	7%	235%
Atkinson	Rockingham	**High**	High	Low	**Education & Health Services**	4%	19%	7%	102%
Stratford	Coos	Low	**Low**	**High**	Goods-producing	4%	29%	7%	67%
Ossipee	Carroll	Mid-Low	**Low**	**Mid-High**	Trade, Transport & Utilities	4%	25%	7%	100%
Bartlett	Carroll	Mid-Low	**Low**	**Mid-High**	**Leisure & Hospitality**	2%	33%	7%	216%
Jefferson	Coos	Low	**Low**	**High**	**Leisure & Hospitality**	3%	19%	7%	141%
Lyman	Grafton	Low	**Low**	**High**	Other	2%	20%	7%	247%
Pelham	Hillsborough	**High**	High	Low	Goods-producing	4%	19%	7%	93%
Hinsdale	Cheshire	Mid-High	**Mid-Low**	**High**	Goods-producing	4%	18%	7%	92%
Jackson	Carroll	Low	**Mid-Low**	**Mid-High**	**Leisure & Hospitality**	3%	35%	7%	149%
Kingston	Rockingham	**High**	High	Low	**Education & Health Services**	4%	19%	7%	88%
Nashua	Hillsborough	**High**	Mid-High	**Mid-High**	Trade, Transport & Utilities	3%	18%	7%	108%
Effingham	Carroll	Mid-Low	**Low**	**High**	Goods-producing	3%	21%	7%	136%
Hampton	Rockingham	**High**	Mid-High	Low	**Leisure & Hospitality**	3%	21%	7%	128%
Tilton	Belknap	**High**	**Low**	**High**	Trade, Transport & Utilities	3%	24%	7%	124%
Winchester	Cheshire	Mid-High	**Low**	**Mid-High**	Goods-producing	4%	20%	7%	91%
Littleton	Grafton	Mid-High	**Low**	**High**	Trade, Transport & Utilities	3%	24%	7%	167%
Manchester	Hillsborough	**High**	**Low**	**High**	**Education & Health Services**	3%	20%	7%	151%
Franconia	Grafton	Low	Mid-High	**Mid-High**	Trade, Transport & Utilities	2%	19%	7%	334%
Derry	Rockingham	**High**	**Mid-Low**	Low	**Education & Health Services**	3%	20%	7%	115%
Washington	Sullivan	Low	Mid-High	Mid-Low	Other	3%	17%	7%	106%
Berlin	Coos	Mid-High	**Low**	**High**	**Education & Health Services**	5%	22%	7%	44%

Source: ESI (2020), NH DHHS (2019), NHES (2020), BLS (2020)

Of the 259 towns located in New Hampshire, unemployment data is available for 240 towns. The Interactive Appendix provides unemployment data by town, and benchmarks unemployment data relative to other similar towns.

The Effect of Federal Pandemic Unemployment Compensation

The Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law on March 27, 2020. The program made three significant amendments to the unemployment insurance system:

1) It extended eligibility to individuals not typically able to collect unemployment benefits, including self-employed individuals and those with insufficient earnings;
2) It extended the length of time that individuals may receive benefits by 13 weeks; and
3) It created the Federal Pandemic Unemployment Compensation (FPUC) program, which provided a flat payment of $600 per week to all recipients, which expired on August 1, 2020. This payment has since been extended by the Continuing Assistance Act (CAA) enacted on December 27, 2020 but the amount has been reduced to $300/week. It is currently scheduled to expire March 13, 2021.

Most states' unemployment insurance programs aim to replace approximately 40 percent of recipients' earnings prior to becoming unemployed; as such, the FPUC program aimed to fill the gap and achieve a replacement rate of 100 percent of wages, calculating the $600 weekly payment based on 60 percent of the weekly earnings of the median worker in the US. However, because pandemic-related unemployment disproportionately affected lower-income workers, the FPUC payment as implemented replaced more than 60 percent of wages for many recipients, with approximately 80 percent of unemployed individuals receiving more than 100 percent of their prior wages. In practice, workers in the bottom quarter of earnings experienced wage growth of 20 percentage points or more, and workers in the bottom third of earnings received about one-half of all UI payments during the length of the FPUC program. [i]

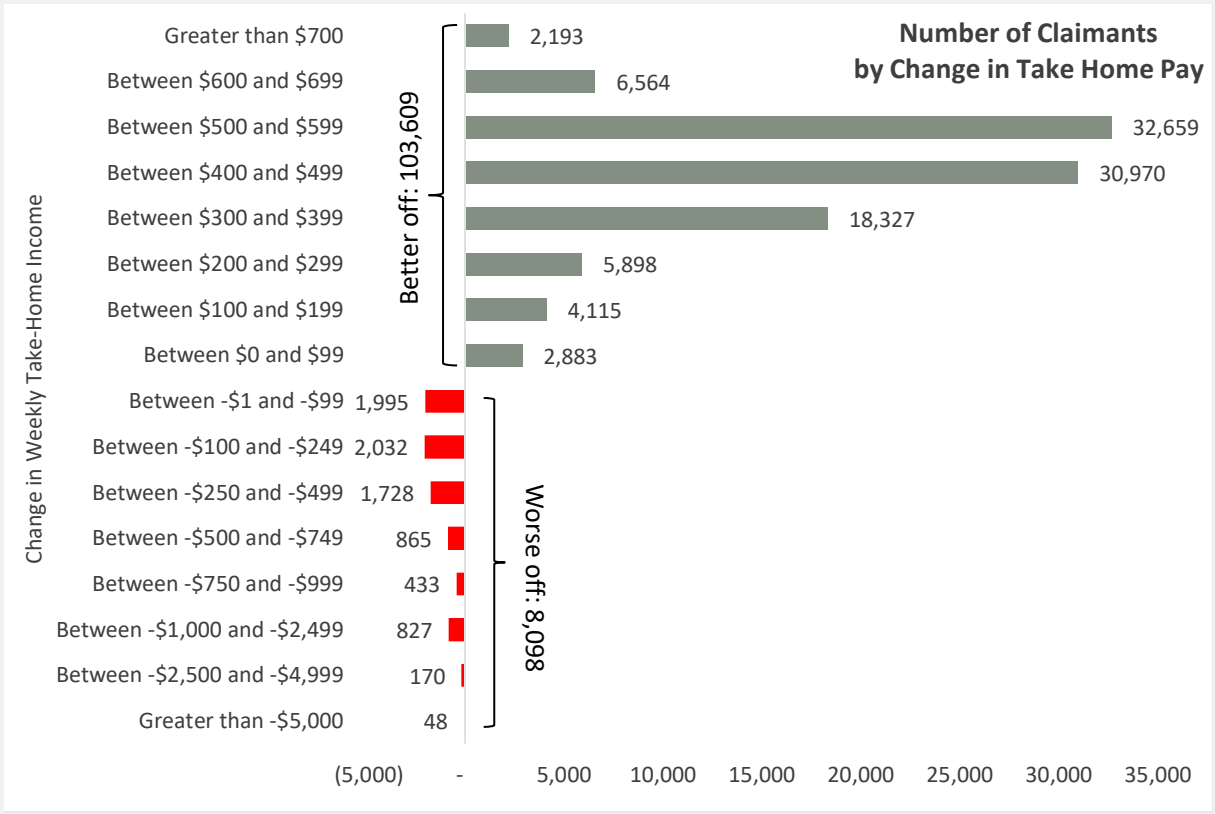
Prior to the CARES Act, New Hampshire had a statutory replacement rate of 48 percent, ranking 41st out of all states. Similarly, it ranked 43rd with the FPUC program increasing the statutory replacement rate to 139 percent. [ii] New Hampshire's unemployment claims peaked the week ended May 2, 2020 with over 117,000 individuals collecting benefits. Salary and unemployment benefit data was available for roughly 112,000 claimants. In order to understand how the pandemic unemployment insurance payments affected the unemployment population, their weekly UI benefit, including the additional $600 benefit, was compared to their average weekly wage.

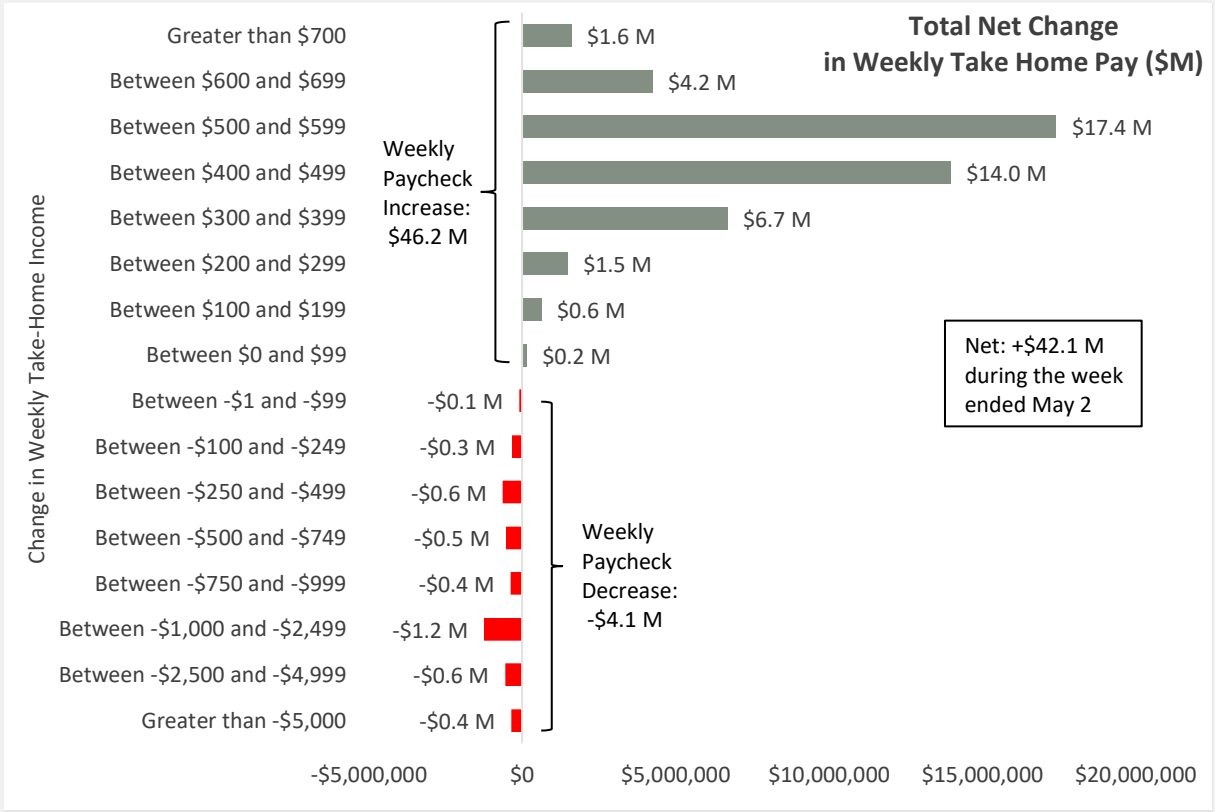
The figures below show the distribution of claimants on May 2 based on their take home income through the enhanced unemployment relative to their typical income, and the total additional earnings across all claimants in that week relative to their typical earnings.

- 93 percent of claimants were earning more than their usual weekly pay by an average of $446 per week, while only 7 percent of claimants were worse off even with the additional benefit, losing on average $507 per week.
- In sum, these individuals took home a net $42.1 million in additional income compared to their usual earnings.

This unusual dynamic resulted in significant support to households across New Hampshire, enabling them to maintain their spending and some degree of economic security. It also created unusual conditions in the labor market, which likely dissipated with the expiration of this enhanced support.

[i] Matias Cortes and Eliza Forsythe. (2020). Did the CARES Act Help Counter Pandemic-Fueled Growth in Inequality? Econofact. https://econofact.org/did-the-cares-act-help-counter-pandemic-fueled-growth-in-inequality
[ii] Peter Ganong, Pascal Noel, and Joseph Vavra. (2020). US Unemployment Insurance Replacement Rates During the Pandemic. NBER. https://www.nber.org/system/files/working_papers/w27216/w27216.pdf





Source: NHES (May 2, 2020 claims data)