

Early Evidence on the Economic Impact of COVID-19 in Boston

Prepared by the BPDA Research Division

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The impacts of COVID-19 have been felt throughout the city of Boston. Restrictions on gatherings and business operations, as well as the collective social distancing efforts of residents across the city have helped to slow the spread of this deadly virus. At the same time, this loss of economic activity has left many of the city's workers and small business owners without income they rely on to pay daily living expenses.

Negative economic impacts have been widespread. Initial unemployment claims in Massachusetts rose 1,904 percent overall, and at least 250 percent in every sector of the economy between the second and third week of March. Over the third and fourth weeks of March, over 329,000 Massachusetts workers filed initial claims.

While every corner of the economy has been impacted by COVID-19 in some way, seven sectors in Massachusetts have been particularly hard hit, and remain highly vulnerable for the duration of the crisis and recovery. The sectors identified here are

- Accommodation and Food Service
- Arts, Entertainment and Recreation
- Construction
- Health Care and Social Assistance
- Other Services, including Personal Care, Repair and Maintenance, and Household Employees
- Retail Trade
- Transportation and Warehousing

These sectors, many focused around in-person services, have seen the highest share of layoffs. In many cases the workers impacted by these layoffs were already among the most economically vulnerable, with lower household incomes and higher housing cost burdens than the city average. This document uses unemployment insurance claims data to identify the most vulnerable sectors, and compiles data on workers in these sectors using the American Community Survey.

This document is based on the most recent data available at the time of release. It is the unfortunate reality that the impact of this crisis will continue to broaden over the coming weeks. The BPDA Research Division will continue to incorporate new data as they become available to better understand the severe impact this crisis is having on all Boston residents.

Unemployment Insurance Claims

The Massachusetts Executive Office of Labor and Workforce Development (EOLWD) reported that 147,995 workers filed an initial unemployment claim during the week ending March 21st, a 1,904 percent increase over the prior week.¹ This was followed by 181,032 initial claims during the week ending March 28th.² At the national level, the 3.3 million claims the week ending March 21st were the highest weekly total in the history of the seasonally adjusted data series, more than four times the previous record set in October of 1982.³ The week ending March 28th saw 6.6 million initial claims, double the record set the prior week.⁴ The rapid onset of this crisis is unprecedented in recent history.

To understand the impact by sector, we compare the number of claims over these two weeks to the most recent comprehensive data available on the total number of workers by sector in the state. These employment data come from the Quarterly Census of Employment and Wages (QCEW), compiled by the U.S. Bureau of Labor Statistics in partnership with state workforce agencies. They are based on the number of unemployment insurance eligible employees reported by employers through unemployment insurance filings with the state. The most recent data available from the Massachusetts EOLWD is for the second quarter of 2019.

Table 1 compares the number of initial unemployment claims in the third and fourth weeks of March with employment levels from the QCEW. Across the entire state economy, we estimate roughly nine percent of workers filed an initial claim over this two week period. This is not a precise estimate, as it relies on employment data from a slightly earlier time period. It is also not intended to be a measure of the current unemployment rate, which is the share of the labor force (those employed or out of work and available and actively looking for work) that is currently unemployed. Updated estimates of the unemployment rate are not yet available. Nonetheless, this measure helps inform our understanding of the severity of the current economic crisis and allows comparison of how quickly that disruption has affected different sectors of the economy.

Based on this comparison of initial claims to total employment, we estimate that roughly the following shares of employees in the hardest-hit industries have filed initial claims in just the last 2 weeks:

- Accommodation and Food Services - 22.1%
- Other Services - 21.6%
- Construction - 17.6%
- Arts, Entertainment, and Recreation - 13.6%
- Transportation and Warehousing - 10.6%
- Retail Trade - 9.9%
- Health Care and Social Assistance – 5.9%

¹ Massachusetts Executive Office of Workforce Development, Press Release, 3/25/20. Retrieved from <https://www.mass.gov/news/massachusetts-weekly-initial-unemployment-claimant-data>

² Massachusetts Executive Office of Workforce Development, Press Release, 4/2/2020. Retrieved from <https://www.mass.gov/news/massachusetts-weekly-initial-unemployment-claimant-data-04-02-20>

³ U.S. Department of Labor, News Release, 3/26/20. Retrieved from <https://oui.doleta.gov/press/2020/032620.pdf>

⁴ U.S. Department of Labor, News Release, 4/2/20. Retrieved from <https://oui.doleta.gov/press/2020/040220.pdf>

Though smaller as a share of employment than the others, Health Care and Social Assistance, the state's largest industry, has seen the second largest number of claims, with 38,869 claims in the last 2 weeks.

Table 1: Initial Unemployment Insurance Claims and Total Employment by Sector, Massachusetts

NAICS	Description	Massachusetts Employment, 2019 Q2	Initial UI Claims, weeks ending 3/21 & 3/28	Estimated Share Filing Initial Claims
11	Agriculture, Forestry, Fishing and Hunting	9,630	682	7.1%
21	Mining, Quarrying, and Oil and Gas Extraction	982	82	8.4%
22	Utilities	15,664	171	1.1%
23	Construction	175,384	30,850	17.6%
31-33	Manufacturing	244,783	13,512	5.5%
42	Wholesale Trade	123,822	7,897	6.4%
44-45	Retail Trade	348,801	34,688	9.9%
48-49	Transportation and Warehousing	113,185	12,014	10.6%
51	Information	98,304	3,293	3.3%
52	Finance and Insurance	170,770	1,619	0.9%
53	Real Estate and Rental and Leasing	48,772	4,325	8.9%
54	Professional and Technical Services	345,719	14,028	4.1%
55	Management of Companies and Enterprises	76,256	2,865	3.8%
56	Administrative and Waste Services	190,846	13,305	7.0%
61	Educational Services	375,815	6,706	1.8%
62	Health Care and Social Assistance	659,689	38,869	5.9%
71	Arts, Entertainment, and Recreation	71,271	9,717	13.6%
72	Accommodation and Food Services	317,877	70,286	22.1%
81	Other Services, Except Public Administration	122,294	26,466	21.6%
92	Public Administration	138,952	3,592	2.6%
	Unspecified Industry		34,060	
	Total All Industries	3,648,816	329,027	9.0%

Source: Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Initial Unemployment Insurance Claims from Press Releases dated March 25th and April 2nd; Quarterly Census of Employment and Wages (QCEW), 2019 2nd Quarter; BPDA Research Division Analysis.

We expect these numbers to grow in the coming weeks as more layoffs occur and more of those laid off are able to file for unemployment insurance. Temporary expansions in eligibility passed as part of the federal CARES Act have not yet gone into effect, so many self-employed workers and others traditionally ineligible for unemployment insurance have not yet been able to file claims.

Many of the jobs in these hard-hit sectors rely on employees providing in-person services to customers. Serving food, cutting hair, and cleaning homes cannot take place when physical separation between people is required. Construction activity in the city has been shut down. Museums and other gathering places are closed. Shopkeepers cannot welcome customers into their stores unless they fall into a category deemed essential. Treatment of non-emergency medical and dental ailments have been put on hold. Fewer people require transportation around the city or beyond. While these measures are necessary to slow the spread of the virus, they have left workers in these seven sectors of the economy particularly vulnerable.

Workers in Hardest-Hit Industries

Many of those working in sectors hit hardest by the COVID-19 crisis were already among the most economically vulnerable in the city. The seven sectors combined employ just under half of the city's labor force. Taken together, 45.5 percent of workers in these industries are in families with incomes below 300 percent of the federal poverty line, compared to 35.3 percent of workers citywide. Workers in these sectors are slightly more likely to be renters than the city average, and among renters in these sectors, 37.5 percent spend more than 35 percent of household income on rent. Even before layoffs, furloughs, and reduced hours due to COVID-19, these workers' earnings were barely enough to keep up with the cost of housing and necessities. Table 2 shows how the economic circumstances of workers in these seven sectors compare to the city's resident labor force.

Workers in Accommodation and Food Services, the sector with the largest number of initial unemployment insurance claims since the beginning of the crisis, are particularly economically vulnerable. Just under two-thirds of workers in this sector have family earnings less than 300 percent of the federal poverty level. Three quarters are renters, and of that group, 44.3 percent spend more than 35 percent of household income on rent. These workers and their families have relied on income from jobs in this sector that in many cases have already been lost in the past few weeks. For 34.8 percent of workers in this sector, the wages from their job in Accommodation and Food Services make up more than 50 percent of their household's earnings.

Table 2: Economic Attributes of Workers in Boston's Hardest-Hit Industries

Sector	Boston Resident Employment in Sector	% Self-Employed	% Under 300% of Poverty	% Earning at Least 50% of Household's Income	% in Renter Households	% of Renter Households Spending over 35% of Income on Rent
Accommodation and Food Services	35,431	2.0%	65.4%	34.8%	77.3%	44.3%
Arts, Entertainment and Recreation	8,016	13.1%	43.3%	41.7%	62.3%	39.2%
Construction	13,611	18.3%	36.4%	50.1%	62.6%	32.7%
Health Care and Social Assistance	69,613	3.3%	34.4%	49.0%	59.7%	34.9%
Other Services	18,001	13.6%	49.1%	39.8%	58.2%	37.0%
Retail Trade	32,689	3.9%	52.4%	37.8%	71.5%	38.3%
Transportation and Warehousing	13,279	7.8%	43.0%	47.1%	60.0%	31.3%
Workers in 7 Sectors	190,640	5.9%	45.5%	43.3%	65.0%	37.5%
All Workers	399,907	5.3%	35.3%	48.6%	62.3%	32.2%

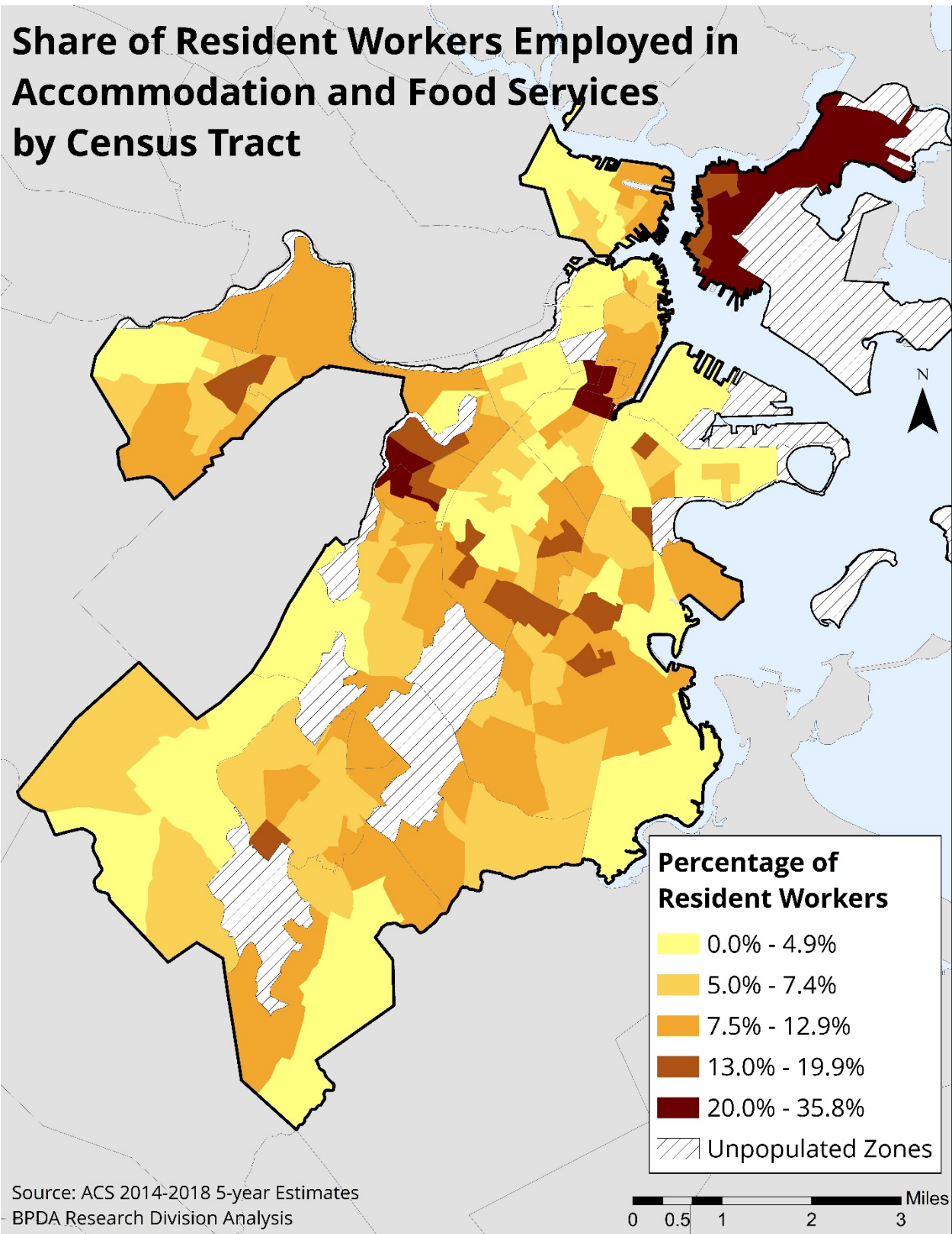
Source: U.S. Census Bureau, American Community Survey 2014-2018 5-year PUMS; BPDA Research Division Analysis
 Universe: Boston residents age 16+ who were in the labor force (employed or unemployed) at the time of the survey

Self-employed workers may face additional challenges in replacing earnings lost during the COVID-19 crisis. While the federal CARES Act specified that unemployment insurance eligibility should be expanded to include self-employed workers who have lost their livelihoods during the crisis, states were required to design program rules to accomplish this. States had not yet been able to implement these expansions as of the week ending April 3. In the meantime, self-employed workers in sectors such as Construction, Arts, Entertainment and Recreation, and Transportation and Warehousing may be without aid.

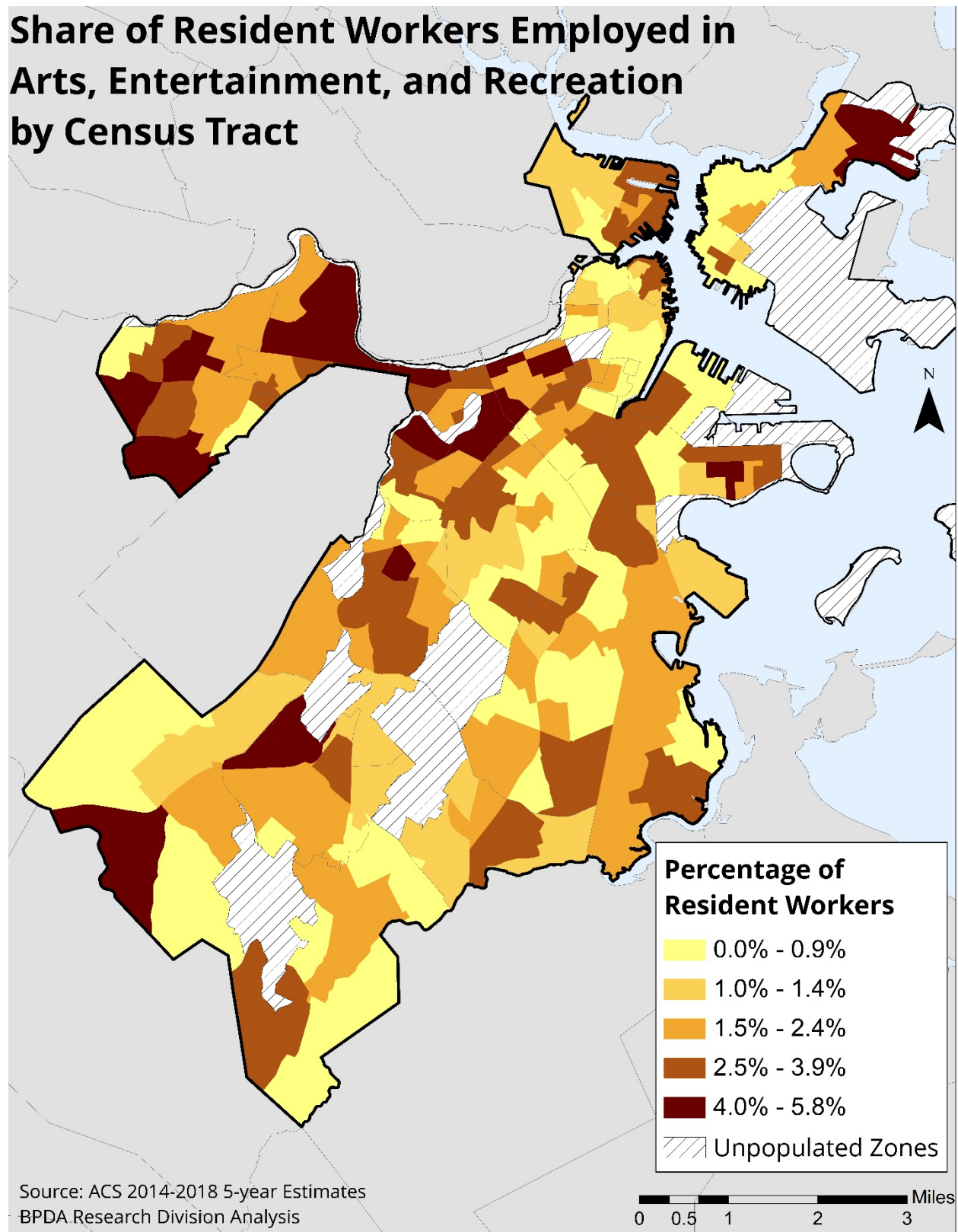
Workers in the hardest-hit sectors are often clustered geographically within the city. The following pages contain maps showing what share of workers within a census tract work in each of the seven hardest-hit sectors. These maps display stark spatial patterns: high concentrations of workers in Accommodation and Food Services, Construction, and Transportation and Warehousing in East Boston; Arts, Entertainment, and Recreation workers clustered in Allston, Brighton and Fenway; Construction workers in Dorchester and Hyde Park; large shares of residents employed in Health Care and Social Assistance, Retail Trade, and Transportation and Warehousing stretching from Roxbury through Dorchester, Mattapan and Hyde Park. These maps highlight areas that have been hit especially hard by the early economic impacts of the COVID-19 pandemic and that will remain highly vulnerable throughout the rest of the crisis.

The number of Boston residents infected with COVID-19, and those losing their lives to the virus, will continue to climb in the coming weeks, with a state advisory panel predicting a peak in new cases in Massachusetts possibly coming in mid-April. Business closures and social distancing will continue in the coming weeks and months. While necessary to minimize the tragic consequences of the virus, this economic disruption leaves many city residents vulnerable. We will continue to monitor data on those most affected by the ongoing crisis to help ensure the city's resources are made available to help those in need over the coming months.

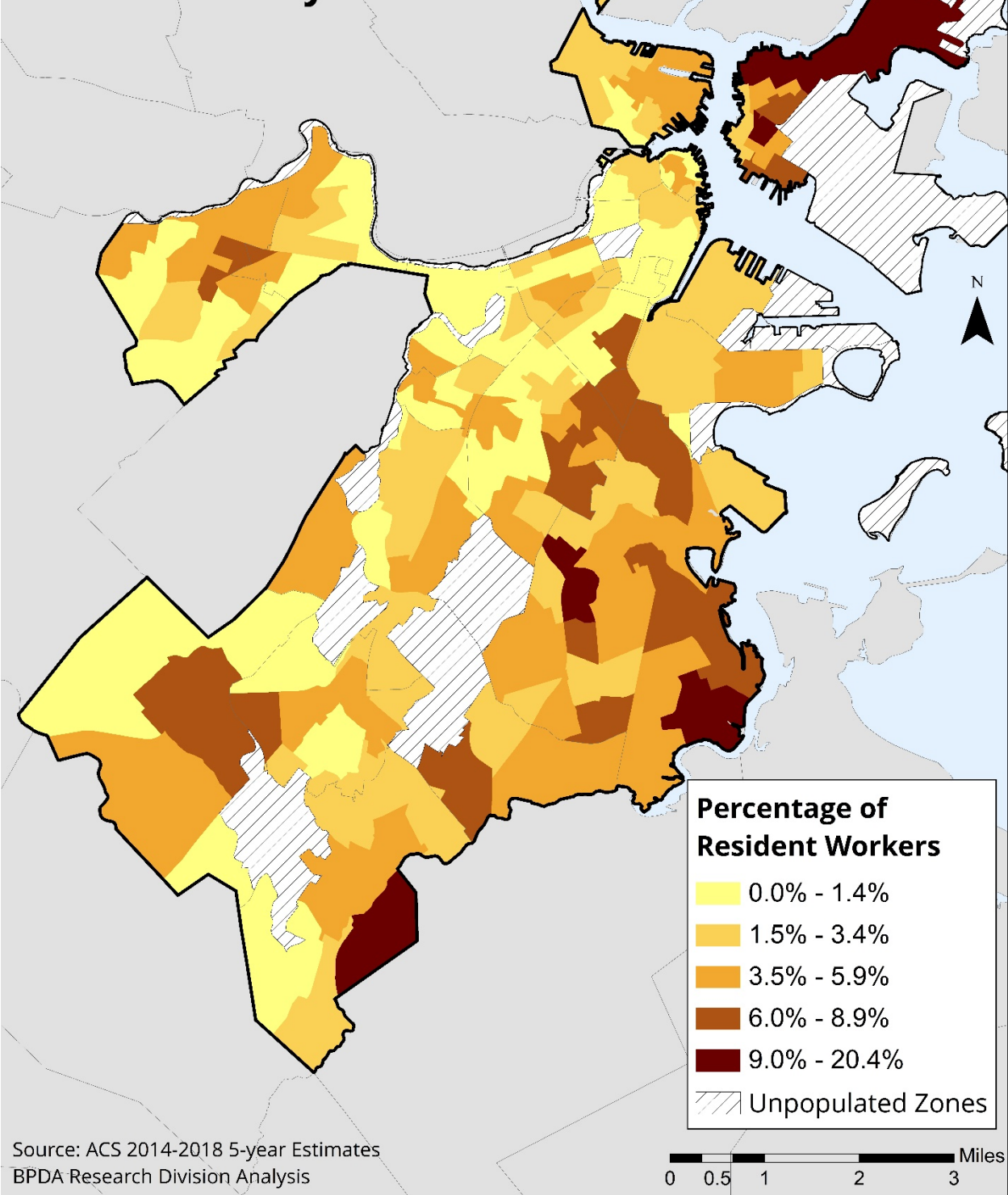
Share of Resident Workers Employed in Accommodation and Food Services by Census Tract



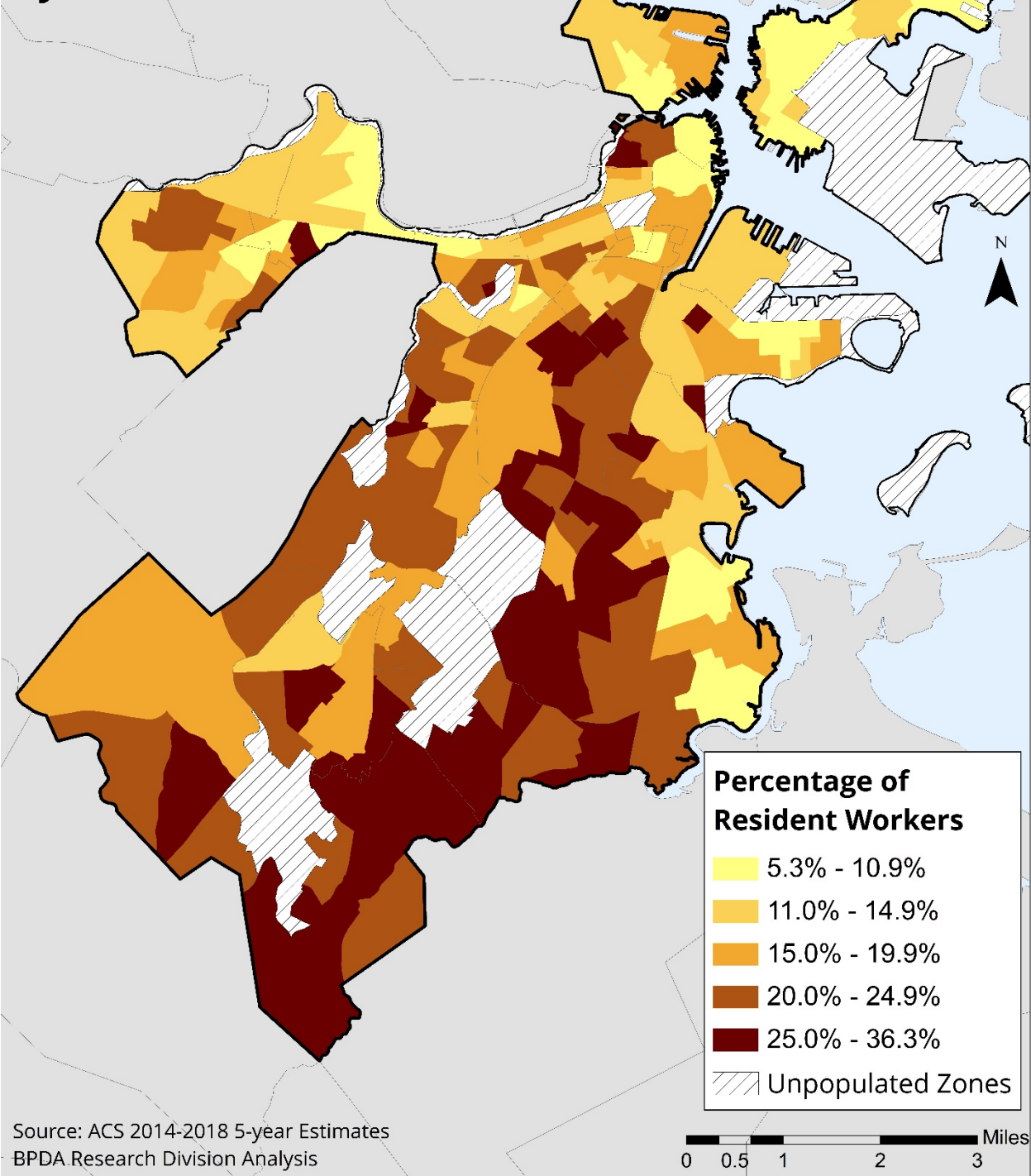
Share of Resident Workers Employed in Arts, Entertainment, and Recreation by Census Tract



Share of Resident Workers Employed in Construction by Census Tract

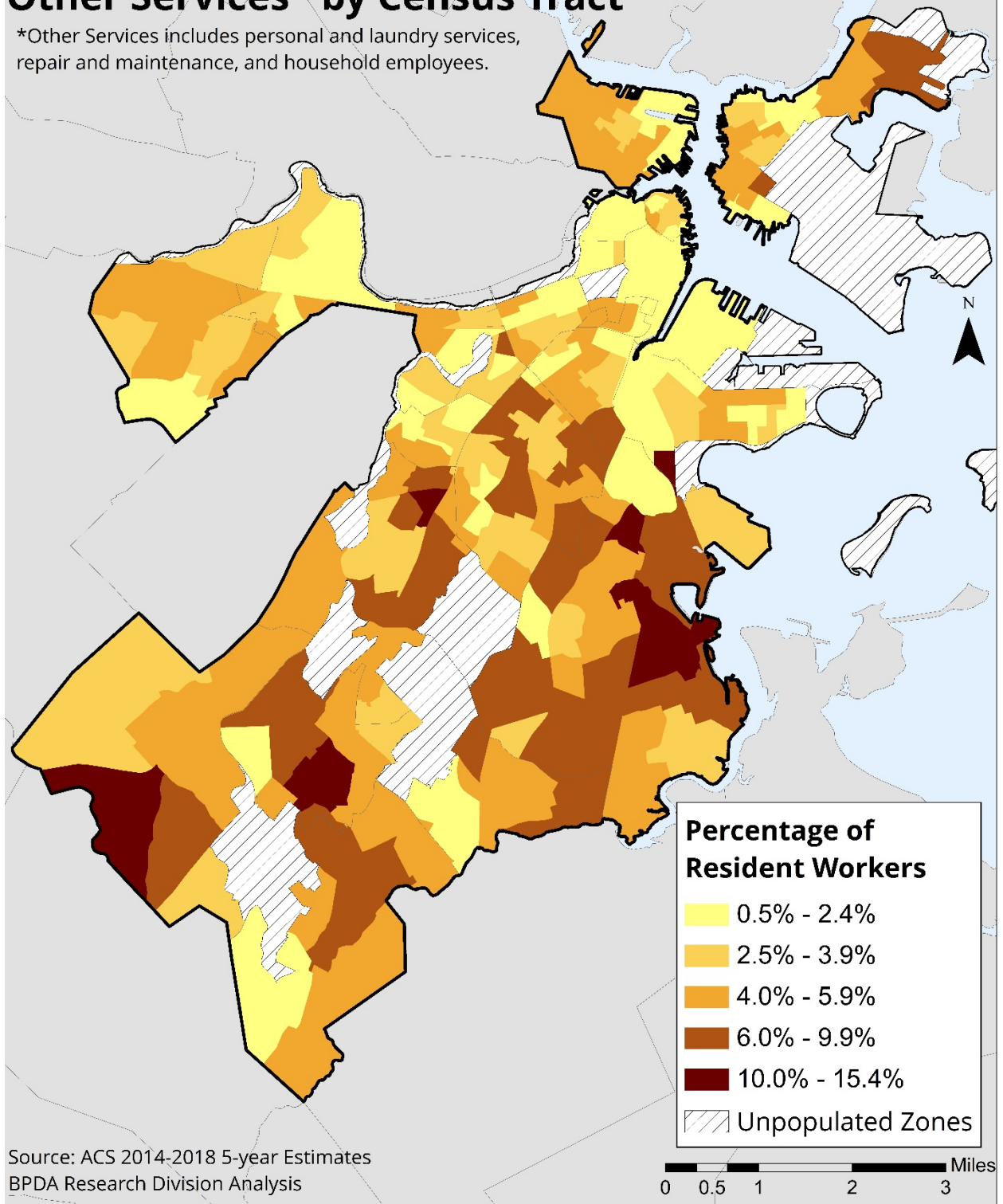


Share of Resident Workers Employed in Healthcare and Social Assistance by Census Tract



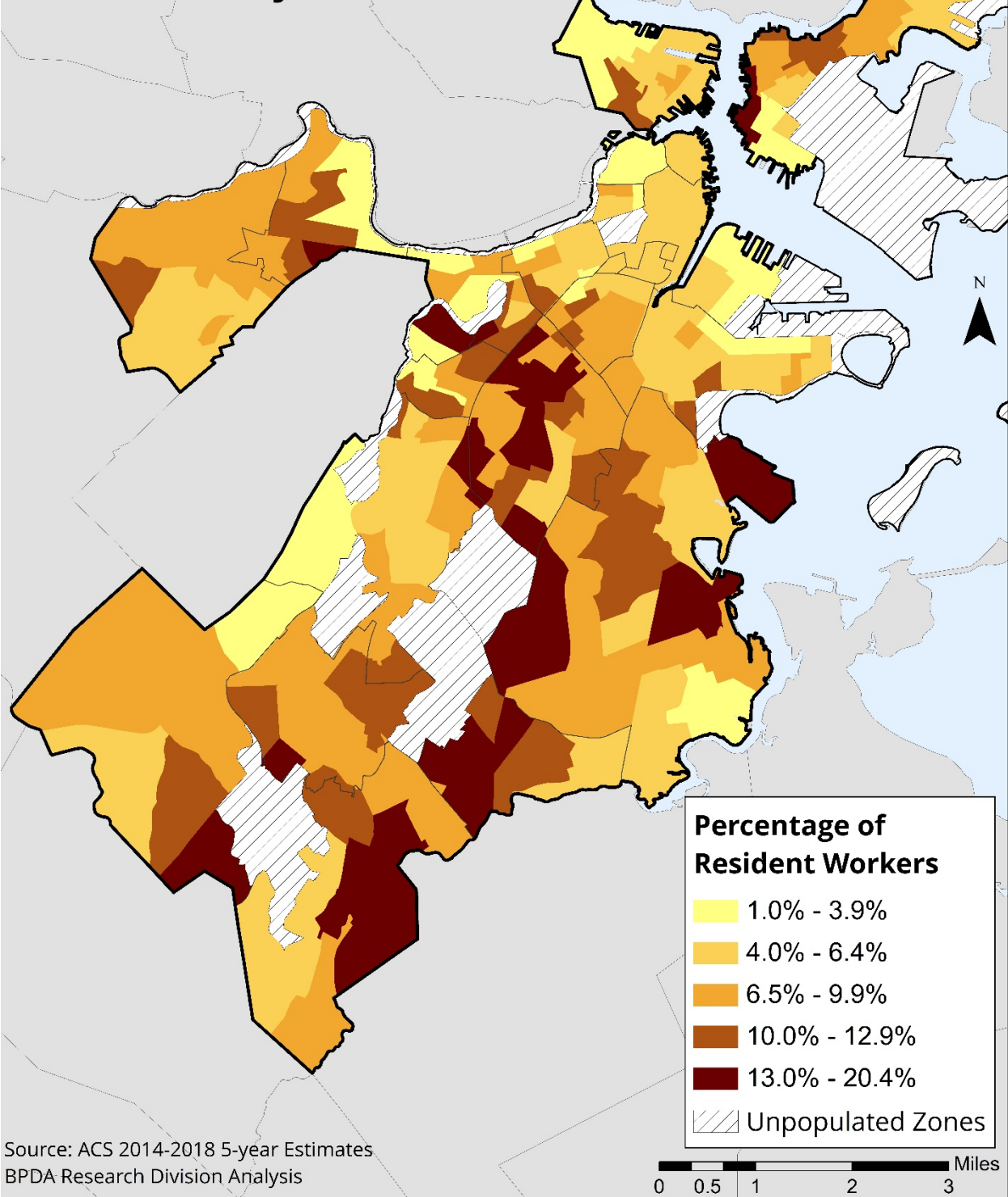
Share of Resident Workers Employed in Other Services* by Census Tract

*Other Services includes personal and laundry services, repair and maintenance, and household employees.



Source: ACS 2014-2018 5-year Estimates
BPDA Research Division Analysis

Share of Resident Workers Employed in Retail Trade by Census Tract



Source: ACS 2014-2018 5-year Estimates
BPDA Research Division Analysis

Share of Resident Workers Employed in Transportation and Warehousing by Census Tract

